Environmental Assessment

Wieland Solar Project Quinlan, Hunt County, Texas



U.S. Department of Agriculture Rural Utilities Service (RUS)

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LIST OF ACRONYMS

ACS ANSI ASTM BGEPA BMP CAA CBRA CBRA CBRS CWA CZMA dBA EA ECS EJSCREEN EMF EMI E.O. EPC ESA FAA FEC FEMA FIRM FM FPPA IA IPaC LESA MTBA MW NAAQS NEPA NHPA NOAA NPS NRCS NRI NWI O&M OSHA	American Community Survey American National Standards Institute American Society for Testing and Materials Bald and Golden Eagle Protection Act Best Management Practice Clean Air Act Coastal Barrier Resources Act Coastal Barrier Resources System Clean Water Act Coastal Zone Management Act Decibels Environmental Assessment ECS Southwest, LLP Environmental Justice Screening and Mapping Tool Electromagnetic Fields Electromagnetic Interference Executive Order Engineering, procurement and construction Endangered Species Act Federal Aviation Administration Farmers Electric Cooperative Federal Emergency Management Agency Flood Insurance Rate Map Farm-to-Market Road Farmland Protection Policy Act Interconnection Agreement Information, Planning and Conservation Land Evaluation Site Assessment Migratory Bird Treaty Act Megawatt National Ambient Air Quality Standards National Environmental Policy Act National Environmental Policy Act National Ambient Air Quality Standards National Environmental Policy Act National Environmental Policy Act National Ambient Air Quality Standards National Environmental Policy Act National Environmental Policy Act National Ambient Air Quality Standards National Environmental Policy Act National Environmental Policy Act National Resource Conservation Service National Netrance National Resource Conservation Service National Resource Onservation Service National Resource Onservation Service National Resource of Historic Places National Resource of Historic Places National Wetlands Inventory Operations and Maintenance Occupational Safety and Health Administration
OSHA PPA	Occupational Safety and Health Administration Power purchase agreement

LIST OF ACRONYMS (CONTINUED)

PV	Photovoltaic		
RD	Rural Development		
REAP	Renewable Energy of American Program		
REC	Recognized environmental conditions		
RUS	Rural Utilities Service		
SFHA	Special Flood Hazard Area		
SHPO	State Historic Preservation Office		
SPCC	Spill Control and Countermeasures Plan		
SSA	Sole source aquifer		
THPO	Tribal Historic Preservation Officer		
TPWD	Texas Parks and Wildlife Department		
TxDOT	Texas Department of Transportation		
USACE	United States Army Corps. Of Engineers		
USDA	United States Department of Agriculture		
USEPA United States Environmental Protection			
USFWS	United States Fish and Wildlife Service		
WOUS	Waters of the United States		

1.0 INTRODUCTION / BACKGROUND

The Wieland Solar Project will be a small-scale community solar energy generating facility on approximately 12 acres (Proposed Project Area) of a larger, 20-acre parcel (APN 21536), owned by the same landowner. The Proposed Project will be located in Hunt County, south of the community of Wieland, Texas. The Proposed Project Area (32.989556, -96.059139) would be bound to the north by County Road (CR) 3520, to the east by CR-3521, to the south by CR-3517 and to the west by Farm-to-Market Road (FM) 2102. The Proposed Project Area is currently cleared, agricultural land.

The Proposed Project will consist of the installation of a ground-mounted photovoltaic (PV) system which will generate 2 megawatts (MW) of emission free, clean, renewable power. The Proposed Project would utilize solar modules, mounted on a steel racking system which will be anchored into the ground using driven steel piles, to convert the sun's energy to usable power. The estimated duration of construction is 8 months, and it is anticipated that the Proposed Project will operate for a minimum of 40 years. The total cost of the Proposed Project will be \$4,693,463.

The Proposed Project would be accessed via an existing gravel road off of FM-2101 and will be secured by a security fence with standard gates for emergency and maintenance vehicles. Local operating staff would visit the Proposed Project Area occasionally to perform preventative (such as panel washing), and reactive maintenance, as needed.

The Proposed Project will interconnect to Farmers Electric Cooperative (FEC) pre-existing electrical distribution system along FM 2101. The power generated from the facility will be sold to FEC through a long-term Power Purchase Agreement (PPA). The Applicant (Wieland Solar, LLC) will contract with an engineering, procurement, and construction (EPC) contractor to build the facility, which would include erecting the security fence, driving the pier foundations, and racking system before installing the solar modules and inverters. An electrical contractor would wire the installed electrical components and work with the local utility to complete the final facility commissioning. An operations and maintenance (O&M) contractor would maintain the facility. FEC would construct all necessary distribution system upgrades to interconnect the facility to their electrical system at a delivery point on the Proposed Project Area.

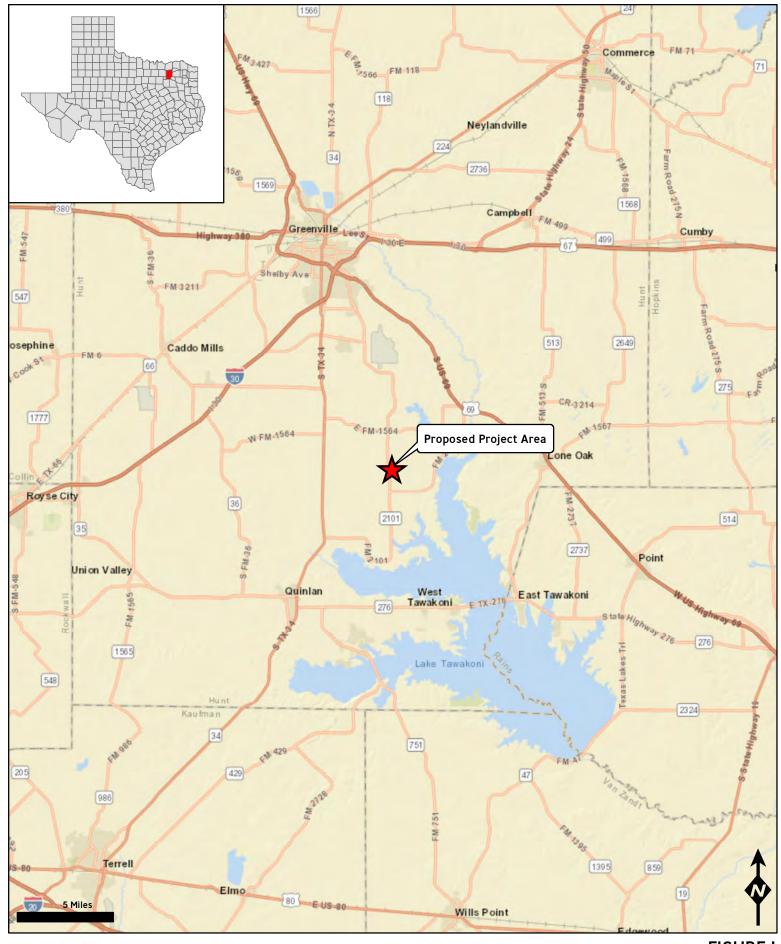
1.1 Purpose and Need

United States Department of Agriculture (USDA) Rural Development (RD) is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service and Rural Utilities Service. The agencies have more than 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives. The Applicant plans to seek financial assistance under the Rural Utilities Service (RUS); however, no application has been submitted at this time. RUS programs are administered based on regulations within RD 4280 Subpart A.

The purpose of the Proposed Project is to provide clean renewable energy to the existing electrical grid and subsequently to residents in the community. Texas residents have expressed interest in procuring clean power from a solar farm; however, rooftop solar is cost prohibitive for most families due to the high upfront cost. The Proposed Project solves this dilemma by providing solar power from a solar farm located within the community at competitive rates. The Applicant is responding to a regional need for an affordable and reliable supply of electric power at competitive rates.

The Proposed Project will also have a positive economic impact on the area and would assist FEC in meeting the demands of its customers. The Proposed Project will also help meet national and state goals to expand the use of renewable energy. Furthermore, the Proposed Project provides the opportunity to lessen consumer consumption of non-renewable energy and improve the environment by reducing impacts of fossil fuel emissions.

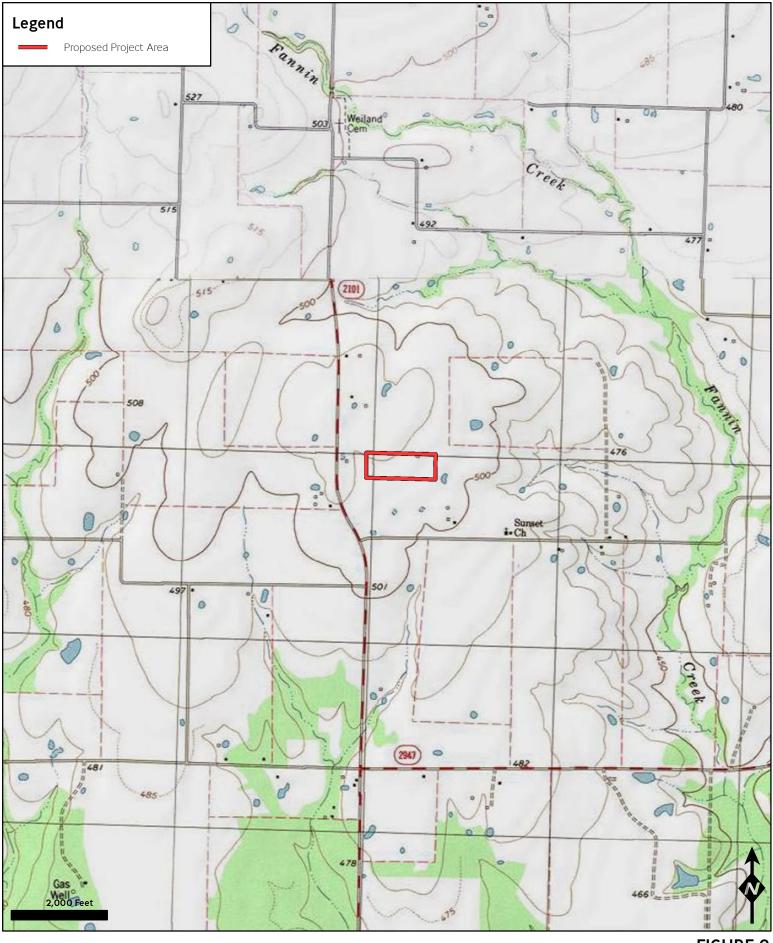
Pursuant to the National Environmental Policy Act of 1969, National Historic Preservation Act of 1966 as amended and 7 CFR 1970 Rural Development Policy and Procedures, an Environmental Assessment (EA) has been prepared to evaluate the environmental impacts of the construction and operation of a solar facility for the review of USDA Rural Development Rural Utilities Service (RUS).



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FIGURE I Regional Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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FIGURE 2 Topographic Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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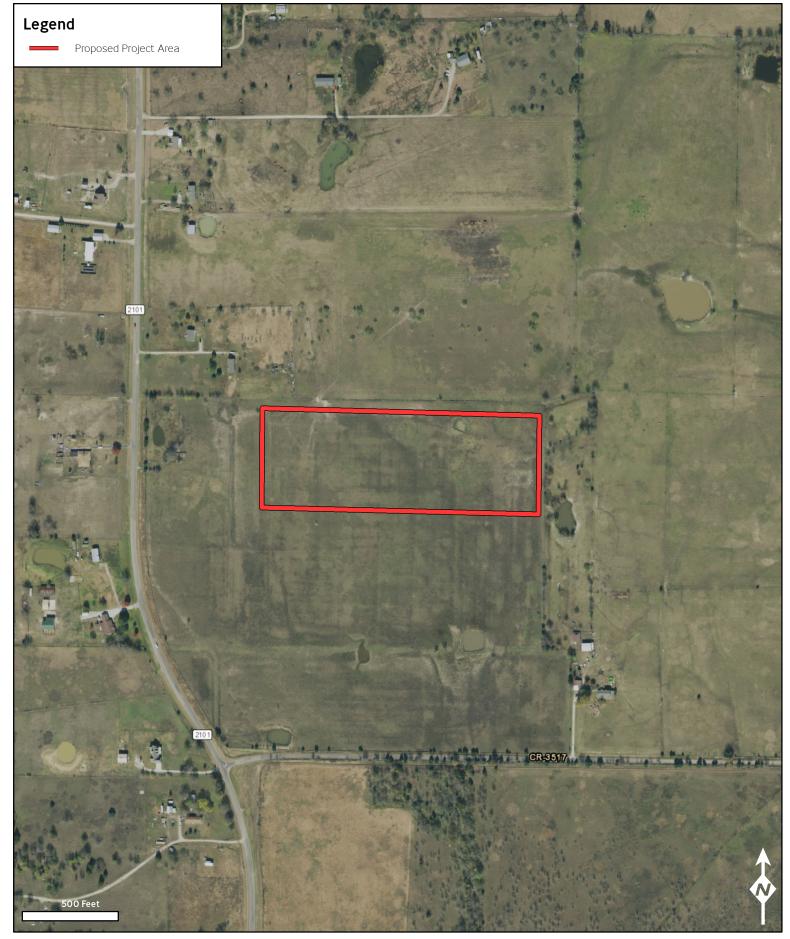


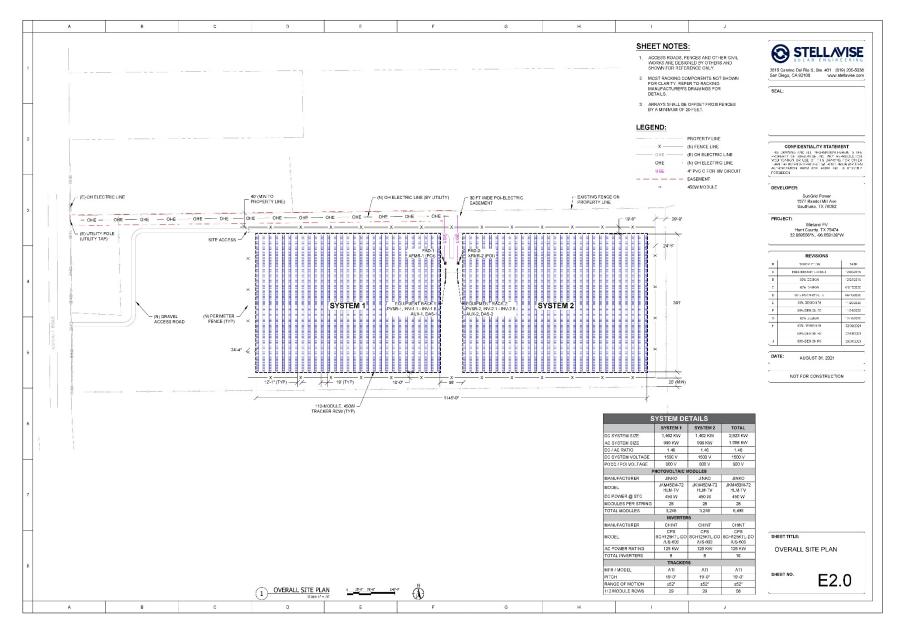


FIGURE 3 Area Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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Proposed Wieland Solar Project Environmental Assessment

Figure 4. Proposed Project Layout



2.0 ALTERNATIVES EVALUATED INCLUDING THE PROPOSED ACTION AND NO ACTION

2.1 Introduction

The National Environmental Policy Act (NEPA) requires that Federal agencies describe alternatives, including the "No Action" and "Proposed Action" alternatives, in their environmental documents (see Sections 102(2)(C)(iii) and 102(2)(E) of NEPA and 40 CFR § 1502.14). For proposals that are less complicated, single-site actions and in accordance with 7 CFR § 1970.13(a), Applicants are only required to consider and document the analysis of the "No Action" alternatives in the EA as long as there are no potential adverse effects to environmental resources. The Proposed Project only needs to be evaluated with a "No Action" alternative since the Applicant is proposing to only complete a project at one specific site and no adverse environmental impact is anticipated.

2.2 **Proposed Action Alternative**

Under the Proposed Action Alternative, RUS would consider providing financial assistance to the Applicant to construct a 12-acre solar farm on portion of a larger, 20-acre property. The Proposed Project will be constructed in approximately 4-6 months and will consist of the installation of a ground-mounted PV system which will generate 2-MW of renewable power.

The Proposed Project would utilize solar modules, mounted on a steel racking system which will be anchored into the ground using driven steel piles, which will minimize the need for extensive ground disturbance. The Proposed Project would be accessed via an existing gravel road east of FM-2101 and the arrays will be secured by a perimeter fence. The Proposed Project's proximity to the existing utility infrastructure will allow for a simple interconnection consisting of an overhead line running parallel to the access road and arrays to the overhead electrical line alongside FM-2101. It should be noted that interconnection to the grid is not part of the Proposed Action Alternative and will be completed by the local utility. The Proposed Project involves no vegetation clearing and has been designed to avoid floodplains, streams, and wetlands; however, necessary stormwater and erosion controls will be utilized during construction to minimize the potential for runoff and siltation. It is anticipated that the Proposed Project will operate for a minimum of 40 years.

2.3 No Action Alternative

Under the No Action Alternative, RUS would not provide financial assistance to the Applicant, and the Proposed Project may not be constructed. In this analysis, the No Action Alternative serves as the baseline environmental condition to evaluate the impacts of the Proposed Project and as discussed in the remainder of this report, no significant adverse impacts are anticipated as a result of the Proposed Project.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment and environmental consequences of the Proposed Project and alternatives are discussed in this section. Also outlined in this section are mitigation measures necessary to compensate for unavoidable impacts to specific environmental resources.

3.1 Land Ownership and Land Use

This section describes an overview of the existing land use at and surrounding the Proposed Project Area and the potential impacts to those resources associated with the Proposed Project.

3.1.1 General Land Use

Land use is defined as the way people use and develop land, including agricultural, residential and industrial development. Many municipalities develop zoning ordinances and planning documents to control the direction of development and to keep similar land uses together.

3.1.1.1 <u>Affected Environment</u>

The Proposed Project would be located in south central Hunt County. According to the County Assessor, the Proposed Project Area is privately owned and will be leased by the Applicant for the operational life of the facility. The Proposed Project Area is bound by agricultural land on all sides.

3.1.1.2 <u>Environmental Consequences</u>

Under the Proposed Action, land use would change from agricultural land to a renewable energy facility.

3.1.1.3 <u>Mitigation</u>

No mitigation measures are proposed as the land use conversion from agriculture to renewable energy would result in no significant adverse impacts.

3.1.2 Important Farmland

The Farmland Protection Policy Act of 1981 (FPPA) was established in order to minimize the extent of unnecessary and irreversible conversion of farmland to nonagricultural uses contributed by Federal programs. The regulation's ultimate goal was to reduce the rate and amount of adaptation of that nation's farmlands, forest lands and range lands which impairs the ability to produce sufficient domestic needs and export markets.

3.1.2.1 Affected Environment

The NRCS defines prime farmland soils in the FPPA as soils with an adequate and dependable source for water, favorable temperatures and growing season, acceptable

acidity/alkalinity level, few or no rocks, sufficient permeability for water and air, and slopes averaging zero to six percent. Upon review of the Proposed Project Area's Farmland Classification obtained through the Web Soil Survey (Table 1), it was determined that 100%, or 12 acres, of the Proposed Project Area are identified as Farmland of Statewide Importance, as shown in Figure 5.

Table 1. Farmland Classification

Map Unit Name	Map Unit	Approximate	Farmland
	Symbol	Acreage	Classification
Crockett loam 1 to 3 percent slopes	6	12	Farmland of Statewide Importance

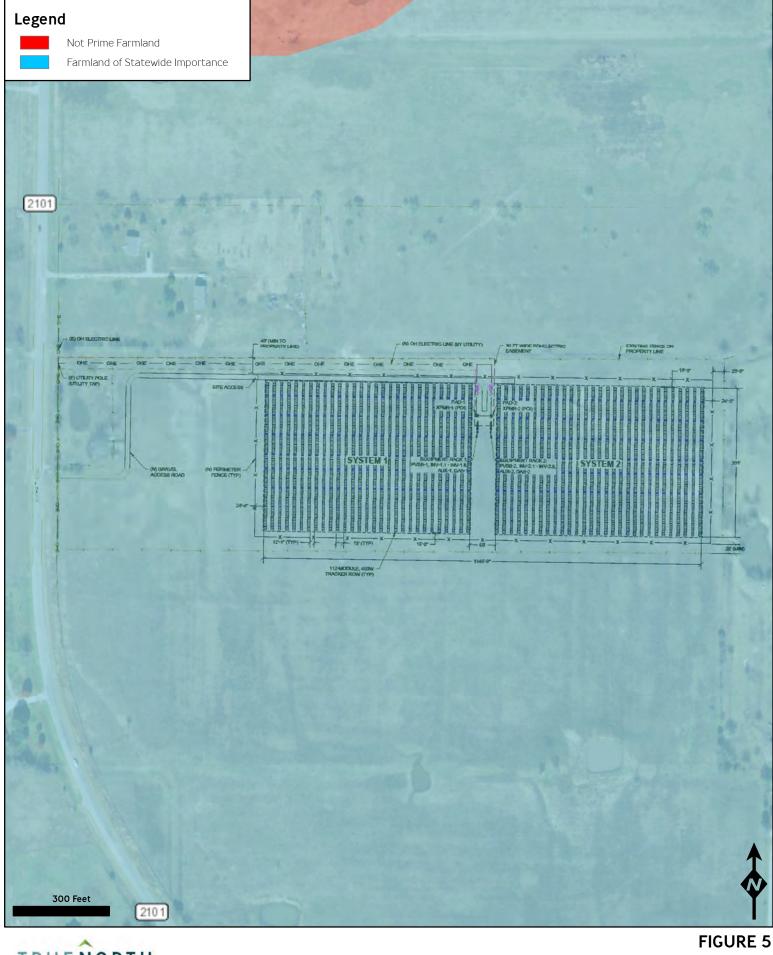
3.1.2.2 Environmental Consequences

Under the Proposed Action, approximately 12 acres of Farmland of Statewide Importance will be converted to non-agricultural use. Form AD-1006, Farmland Conversion Impact Rating, is used to determine whether a site is farmland subject to the Farmland Protection Policy Act of 1981 (FPPA).

Assistance from the NRCS was requested on January 10, 2022, to complete the AD-1006 and on January 12, 2022, the NRCS determined the total points for the Proposed Project Area to be 67. Pursuant 7 CFR § 658.4 (C)(2), sites that receive a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated – reference Appendix IV.

3.1.2.3 Mitigation

No mitigation measures are proposed as there are no impacts to this resource.



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FIGURE 5 Farmland Classification Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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3.1.3 Formally Classified Lands

Formally classified lands are properties that are administered either by Federal, State, or local agencies, or have been given special protection through formal legislative designation. Formally classified lands include National Parks, National Forests/Grasslands, Monuments, Historic Landmarks, Battlefields, Military Parks, Heritage Areas, Historic Sites, Historical Parks, Natural Landmarks, Wildlife Refuges, Seashores, Lake Shores, Trails, Wilderness Area, State Parks, State Fish and Wildlife Management Areas, Bureau of Land Management administered lands, Native American owned lands and leases, or Wild, Scenic and Recreational Rivers, all of which are managed by several Agencies. Other Formally Classified Lands are discussed in other sections of this assessment including Coastal Resources, Biological Resources, and Cultural Resources and Historic Properties.

3.1.3.1 Affected Environment

A review of United States Geological Survey (USGS) Protected Lands Map, the Wild & Scenic Rivers map, and the National Rivers Inventory (NRI) did not identify any formally classified lands in or adjacent to the Proposed Project Area – reference Appendix IV.

3.1.3.2 Environmental Consequences

Under the Proposed Action, the Proposed Project will not occur within or adjacent to any listed categories defined as Formally Classified Lands therefore resulting in no impacts.

3.1.3.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resources.

3.2 Floodplains

This section describes an overview of the existing floodplain resources at the Proposed Project Area and the potential impacts to those resources that would be associated with the Proposed Project.

A floodplain is any land area susceptible to being inundated by floodwaters from any source. Floodplains are essential to clean water, recharge of water supplies, reduction of flood risks and protection of property, human safety, health and welfare and fish and wildlife habitat. Proper floodplain management will reduce flood losses and ensure the protection of the natural resources and functions of floodplains. The relevant floodplain area to be evaluated is an area that has either a one-percent probability of flood occurrence in a given year (100-year flood) or a 0.2-percent probability of flooding in a given year (500-year flood).

E.O. 11988, *Floodplain Management*, requires federal agencies to avoid actions, to the extent possible, where there are long and short-term adverse impacts associated with the occupancy or modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practical alternative. Facilities located in a floodplain may be

damaged or destroyed by a flood or may change the flood-handling capability of the natural floodplain or the pattern or magnitude of flood flows.

3.2.1 Affected Environment

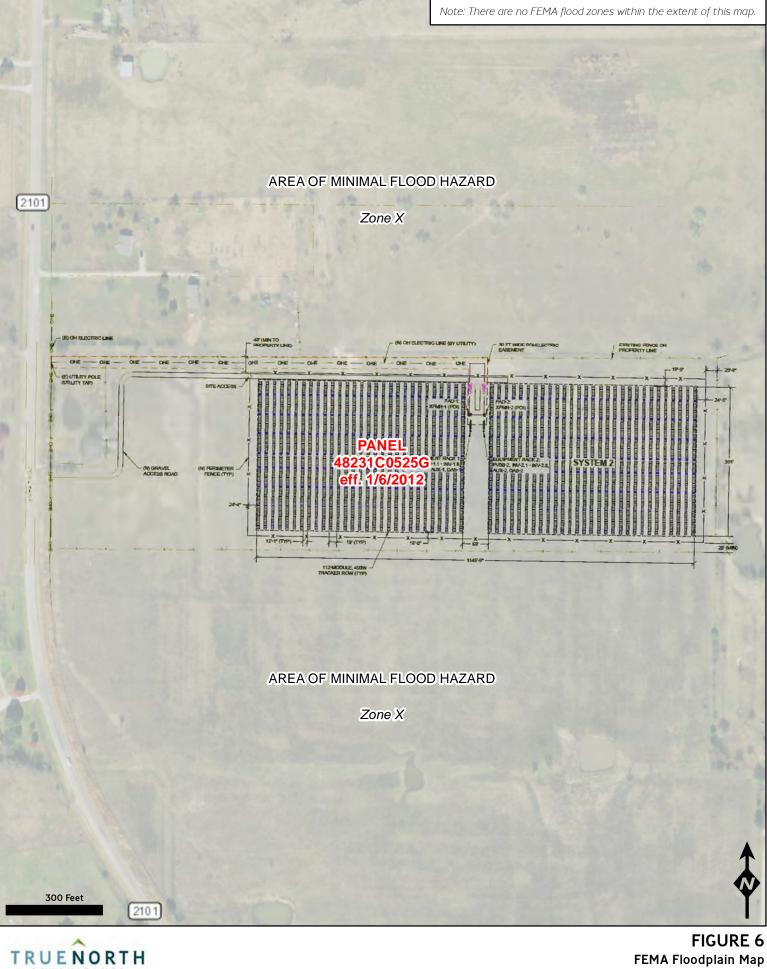
According to Federal Emergency Management Agency (FEMA)'s Flood Insurance Rate Maps (FIRM) Numbers 48231C0525G (effective 1/6/2012) (reference Appendix V), the majority of the Proposed Project Area (to be disturbed/constructed) is located outside the Special Flood Hazard Area (SFHA) and 100-year and 500-year floodplain zones. The FIRM boundaries in relation to the Proposed Project Area are located in Figure 6.

3.2.2 Environmental Consequences

Under the Proposed Action, there would be no impacts to floodplains as they are absent from the Proposed Project Area and the Proposed Project will not be located in a SFHA. Additionally, the Proposed Project will not result in impacts that would result in any increases to the 100-year or 500-year flood elevation or present barriers to floodway passage within the vicinity of the Proposed Project Area.

3.2.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.



FEMA Floodplain Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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3.3 Wetlands

This section describes an overview of the existing wetland resources at the Proposed Project Area and the potential impacts to those resources that could result with the implementation of the Proposed Project.

Wetlands are considered those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The U.S. Army Corps of Engineers (USACE) uses three characteristics when making wetland determinations: vegetation, soil and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during some portion of the growing season for an area to be considered a wetland.

E.O. 11990, *Protection of Wetlands*, states that it is federal policy to avoid, to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands, wherever practical. Additionally, federal agencies are required to take actions to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. Regulatory oversight of wetlands falls under Section 404 of the Clean Water Act (CWA) and permits are administered by the USACE with oversight by the U.S. Environmental Protection Agency (USEPA).

The USACE regulate wetlands and waterbodies. Section 404 of the CWA regulates the discharge of dredge and fill materials into Waters of the United States (WOUS). WOUS include territorial seas, navigable coastal and inland lakes, river and streams, intermittent streams and wetlands. Section 401 of the CWA grants each state the authority to approve, deny or condition any Federal permits that could result in a discharge to State waters.

The USACE has jurisdiction of WOUS under Section 404 of the Clean Water Act (CWA) (40 Code of Federal Regulations [CFR] 230) (CFR, 2010). Jurisdictional features include wetlands, open waters, ponds, lakes and perennial/intermittent streams. Permits may be required prior to impacting jurisdictional features depending on the type, location and amount of impact.

3.3.1 Affected Environment

On November 17, 2020, Horizon Environmental Services, Inc. (Horizon), conducted a wetland and stream delineation of the 12-acre Proposed Project Area in support of the Proposed Project. A Wetland Report formalizing the results of the field work was subsequently prepared in November of 2020 as part of a Jurisdictional Wetland Determination and Threatened or Endangered Species Habitat Assessment (reference Appendix VI). According to the National Wetland Inventory (NWI) Map there are no wetlands within the Proposed Project Area (Figure 7) and the Hunt County soil survey depicts no hydric

soils (Figure 8). Horizon identified no jurisdictional wetlands or WOUS within the Proposed Project Area during their field reconnaissance.

3.3.2 Environmental Consequences

Under the Proposed Action, impacts to wetlands are not anticipated as they are absent from the Proposed Project Area.

3.3.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to this resource.



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FIGURE 7 National Wetland Inventory (NWI) Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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3.4 Water Resources

This section provides an overview of water resources at the Proposed Project Area and addresses water quantity and quality issues related to discharges to or appropriations from surface or ground water, ground water protection programs (e.g., sole source aquifers and recharge areas) and water quality degradation from temporary construction activities. Water quality and quantity changes can impact other environmental resources including but not limited to groundwater and drinking water supplies, threatened and endangered species, other fish and wildlife species and wetlands. Impacts to surface and/or ground water will be the Applicant's responsibility and permitting requirements, typically through state agencies, must be adhered to.

3.4.1 Affected Environment

The Proposed Project will be located within the Hickory Cove watershed (Hydrological Unit Code: 120100010403). The USEPA's sole source aquifer (SSA) map does not depict the Proposed Project Area within or near an SSA (reference Appendix VII).

3.4.2 Environmental Consequences

Under the Proposed Action, impacts to water resources will be minimal. Short-term, minor water quality impacts may occur during the construction of the Proposed Project. These impacts would be associated with soils from disturbed areas being washed by storm water into adjacent waters during rainstorm events; however, these impacts would be temporary and would not significantly alter water quality conditions.

There are no anticipated impacts to groundwater aquifers associated with the Proposed Project. Wastewater will not be generated, and process water will not be required for construction or operation of the Proposed Project. The Proposed Project is also not located within an SSA. The Proposed Project will only add minor amounts of impervious surfaces to the Proposed Project Area and vegetation will be maintained wherever possible throughout the operational life of the facility to reduce the potential for erosion impacts.

3.4.2 Mitigation

Depending on local requirements, a Stormwater Management (SWM) plan may be required. SWM requirements should be requested from the appropriate County/Town office. Additionally, Best Management Practices (BMPs) such as soil erosion and sediment control measures will be utilized during construction to minimize the potential for increased runoff, and siltation.

3.5 Biological Resources

This section describes an overview of the existing biological resources at the Proposed Project Area and the potential impacts to those resources that would be associated with the Proposed

Project.

Biological resources refer to the flora (plants) and fauna (invertebrates, fish, birds, amphibians, reptiles, birds and mammals) that may be found or have historically been found at the Proposed Project Area. Biological resources can also include rivers, lakes, wetlands, upland communities and other habitat types necessary to support local flora and fauna. Vegetation is a key habitat component and acts to stabilize soils and prevent erosion; additionally, information on vegetation can be used in evaluating potential impacts to species and habitats. Potential impacts to biological resources can be direct (project-related mortality) or indirect (displacement, degradation or loss of habitat). Effects of the proposed action on Federal and State-listed species, as well as other species of concern, and critical habitat must be addressed.

3.5.1 General Fish, Wildlife and Vegetation

3.5.1.1 <u>Affect Environment</u>

The Proposed Project Area lies within Texas's Eastern Central Texas Plains Level III Ecoregion and the Northern Post Oak Savanna Level IV sub-ecoregion. The landscapes of the ecoregion are generally level and gently rolling. In deciduous forest or woodland portions of the ecoregion, vegetation is composed mostly of post oak (*Quercus stellata*), blackjack oak (*Quercus marilandica*), eastern redcedar (*Juniperus virginiana*), and black hickory (*Carya texana*), while vegetation in prairie openings contain little bluestem (*Schizachyrium scoparium*) and other grasses and forbs. Land cover currently has more improved pasture and less post oak woods than nearby ecoregions. The Proposed Project Area itself is entirely agricultural land.

Wildlife around the Proposed Project Area includes species that adapt well to disturbance, the presence of humans, and that are typically found in rural, agricultural areas in Texas. Examples of typical mammals found in rural Texas include white-tailed deer (*Odocoileus virginianus*), eastern wild turkey (*Meleagris gallopavo silvestris*), northern bobwhite (*Colinus virginianus*), eastern fox squirrel (*Sciurus niger*), and eastern gray squirrel (*Sciurus carolinensis*).

3.5.1.2 Environmental Consequences

Under the Proposed Action, impacts to fish, wildlife, and vegetation are expected to be negligible. This is due to minimal impervious surfaces being created, as well as a lack of clearing of vegetation for the Proposed Project Area and limited use of water.

3.5.1.3 <u>Mitigation</u>

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.5.2 Listed Threatened and Endangered Species

The Endangered Species Act (ESA) is enforced by the USFWS and provides the protection

and recovery of species threatened with extinction and ensures federal agencies use their authorities to further the purpose of the ESA to protect and conserve endangered and threatened species. The ESA defines a federally endangered species as any species which is in danger of extinction throughout all or a significant portion of its range. The ESA also identifies habitats critical to listed species and potential mitigation strategies within these habitats. Section 7 of the ESA requires that all federal agencies consult with the USFWS regarding potential impacts that their federal actions could have to listed species.

3.5.2.1 Affected Environment

An official species list obtained from the USFWS Information, Planning and Conservation (IPaC) System identified four federally listed species (Table 2) in Hunt County with potential to occur within the Proposed Project Area (reference Appendix VIII).

Species	Critical Habitat	Federal Status	Notes	ESA Determination
Alligator Snapping Turtle	None	Proposed	No suitable	No Effect
Macrochelys temminckii	None	Threatened	habitat present	NO Ellect
Monarch Butterfly	None	Candidate	No suitable	No Effect
Danaus plexippus	None	Candidate	habitat present	NO Ellect
Piping Plover	Final	Threatened	No suitable	No Effect
Myotis septentrionalis	Гша	Inreateneu	habitat present	NO Ellect
Red Knot	Proposed	Threatened	No suitable	No Effect
Canutus rufa	Floposed	Inreateneu	habitat present	NO Ellect
Whooping Crane	Final	Endangered	No suitable	No Effect
Grus americana	Filld	Endangered	habitat present	

Table 2. Federally Listed Species with Potential to Occur

Alligator Snapping Turtle (Macrochelys temminckii)

The Alligator Snapping Turtle is the largest freshwater turtle in North America and are found in large rivers and major tributaries; however, they also can be found in small streams, bayous, canals, swamps, lakes, reservoirs, and ponds. This turtle prefers waters with mud bottoms and some aquatic vegetation and will occasionally enter brackish water. The Proposed Project Area does not encompass any water features that would support this species; therefore, the Proposed Project will not have an impact on this species.

Monarch Butterfly (Danaus plexippus)

The North American populations of the Monarch Butterfly are strongly migratory, resulting in vastly different seasonal ranges. Overwintering areas are limited to only coastal California and in the mountains of Mexico; however, Texas's robust population of milkweed provide essential breeding habitat for this species. The Proposed Project Area does not offer overwintering habitat for the Monarch Butterfly and lacks the necessary breeding habitat; therefore, the Proposed Project will not have an impact on the species.

Piping Plover (Myotis septentrionalis)

The Piping Plover is a long-distance migratory shorebird. The species is most commonly

found in the Gulf Coast during the winter migratory season, and subsequently resides on ocean beaches or on sand or algal flats in protected bays. The species also prefers areas with high habitat heterogeneity, such as expansive sandflats, sandy mudflats, and sandy beaches. According to the USFWS IPaC report (January 11, 2022), this species only needs to be considered for wind generation projects.

Red Knot (Calidris canutus rufa)

The Red Knot occurs in North America across the continental U.S. and Canada. The species primarily resides on seacoasts of tidal flats and beaches, as well as marshes and flooded fields. When appropriate habitat is not available, the species will also nest on ground in barren or stony tundra, or on sandy or pebbly beaches. Breeding primarily takes place in the northern United States, especially along the Atlantic Coast. This species feeds mainly on mollusks, eggs of crabs, insects, some seeds, and small fishes. According to the USFWS IPaC report (January 11, 2022), this species only needs to be considered for wind generation projects.

Whooping Crane (Grus americana)

The Whooping Crane is a long distant migratory bird through Great Plains, southern Canada, the Dakotas, and arrives in Texas around mid-October, residing in the state until mid-April. Habitat during migration and winter primarily consists of marshes, shallow lakes, lagoons, salt flats, grain and stubble fields, and barrier islands. The Proposed Project Area is located within the path of migration for the whooping cranes during their 2600-mile flight each spring (late March to late April) and fall (mid-October to late November) (reference Appendix VIII); however, no suitable habitat is located within the Proposed Project Area or the immediately adjacent properties.

State Listed Species

As part of Horizon's Threatened or Endangered Species Habitat Assessment prepared in November of 2020, Horizon reviewed the Texas Parks and Wildlife Department (TPWD) Natural Diversity Database. Examination of the database indicated no documented occurrences of state listed species on or within a 0.5-mile radius of the Proposed Project Area. Additionally, Horizon's site reconnaissance yielded no evidence of habitat for any state listed threatened or endangered species, nor were any species observed within the Proposed Project Area – a copy of the full report can be found in Appendix VI.

3.5.2.2 Environmental Consequences

Under the Proposed Action, listed threatened or endangered species will not be affected by the Proposed Project based on the lack of suitable habitat and protected species' requirements. No designated critical habitat for federally listed species occurs within the Proposed Project Area nor will any be affected by the Proposed Project. When listed species or critical habitat are not known to occur or potentially occur in the Proposed Project Area, or if there is no mechanism to affect the listed species or critical habitat, as is the case for the Proposed Project, a "no effect" determination can be reached and consultation with the USFWS is not required under the ESA.

3.5.2.3 <u>Mitigation</u>

The construction and operation of the Proposed Project will comply with the ESA, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the contractor, the contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the USFWS.

3.5.3 Migratory Birds

The Migratory Bird Treaty Act (MBTA) is enforced by the USFWS and makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter any migratory bird or the parts, nests, eggs of such bird except under the terms of a valid permit issued.

3.5.3.1 Affected Environment

The USFWS IPaC Report lists no migratory bird species that are of conservation concern and may be potentially affected by activities within the Proposed Project Area. Special attention should be made to avoid and minimize impacts to migratory birds within the Proposed Project Area.

3.5.3.2 Environmental Consequences

Under the Proposed Action, impacts to migratory birds are expected to be negligible based on the lack of migratory birds expected to utilize or otherwise visit the Proposed Project Area, as well as the lack of suitable nesting and foraging habitat. Ground mounted solar arrays also pose little to no risk to migratory birds. Additionally, the solar panels proposed for use at this facility are designed to absorb the sunlight (photovoltaic panels) versus reflect the light; therefore, a reflective glare and the "lake effect" phenomenon is not a concern for this facility.

3.5.3.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.5.4 Bald and Golden Eagles

The Bald and Golden Eagle Protection Act (BGEPA) is enforced by the USFWS and makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter any bald or golden eagle or the parts, nests, eggs of such bird except under the terms of a valid permit issued. The BGEPA also prohibits any activity that could cause injury to the species, nest abandonment or a decrease in productivity.

3.5.4.1 <u>Affected Environment</u>

The Proposed Project Area primarily consists of cleared, agricultural land. While Bald and Golden Eagles may be visitors to the area surrounding the Proposed Project Area, suitable

nesting habitat, which includes tall, large diameter trees and preferred foraging areas including large, open expanses of water, are not present within the Proposed Project Area.

3.5.4.2 Environmental Consequences

Under the Proposed Action, impacts to bald and golden eagles are not anticipated as the Proposed Project Area and surrounding lack suitable habitat to support the species.

3.5.4.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.5.5 Invasive Species

E.O. 13112, *Invasive Species*, directs federal agencies to not authorize, fund or carry out actions believed to cause or promote the introduction or spread of invasive species unless the Agency determines that the benefits of such actions outweigh the potential harm caused by invasive species.

3.5.5.1 Affected Environment

The majority of vegetation within the Proposed Project Area consists of rangeland species including johnsongrass (*Sorghum halepense*), bermudagrass (*Cynodon dactylon*), honey mesquite (*Prosopis glandulosa*), and other native grasses.

3.5.5.2 <u>Environmental Consequences</u>

Under the Proposed Action, the potential increase of invasive species is not anticipated. Vegetation must be maintained under the panel surface in order to prevent shading which will be the responsibility of the facility owner and will be performed on an as-needed basis. Given that only minor earthwork is required for the construction of the Proposed Project and no fill material is being imported, the potential for the establishment of invasive species is insignificant.

3.5.5.3 <u>Mitigation</u>

The Proposed Project will comply with the requirements of the E.O. by maintaining all possible existing ground cover and by seeding any disturbed area with a mixture of native herbaceous vegetation after construction which will discourage the establishment of non-native species and promote the restoration of native species.

3.6 Cultural Resources and Historic Properties

This section describes an overview of the existing cultural and historic resources at the Proposed Project Area and the potential impacts to those resources that would be associated with the Proposed Project.

The National Historic Preservation Act (NHPA) is intended to protect and preserve historical and archeological sites within the United States; Section 106 of the NHPA requires all Federal

agencies to consider the effects of the actions and the actions they fund, permit and/or license on historic properties. The NHPA defines historic properties as any prehistoric or historic district, site, building, structure, or object included in, or eligible for listing in, the National Register of Historic Places (NRHP).

3.6.1 Affected Environment

According to the NRHP, the list of National Historic Landmarks, and the Texas Historical Commission's list of historical sites, there are no known historic resources within Hunt County. Pursuant Section 106 of the NHPA, True North submitted the Proposed Project to the Texas Historical Commission (THC) via their eTRAC website on July 22, 2021. In an email dated August 19, 2021, the THC stated that no historic properties, archaeological sites, or other cultural resources are present or would be affected; however, if historic properties or cultural resources are encountered during project activities, work should cease in the immediate area and THC should be contacted.

A copy of all THC correspondence is presented in Appendix IX.

Tribal Consultation

Upon review of U.S. Department of Housing and Urban Development's (HUD) Tribal Directory Assessment Tool, it was determined that the Apache Tribe of Oklahoma, Caddo Nation of Oklahoma, Comanche Nation, Oklahoma, Coushatta Tribe of Louisiana, Muscogee (Creek) Nation, Tonkawa Tribe of Indians of Oklahoma, and Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma are listed as the federally recognized tribes with interest in the area.

True North Consultants (True North) sent a letter to each Tribal Historic Preservation Office (THPO) on July 23, 2021, providing notification of intent to initiate the Section 106 review process. True North sent a follow up email to the each THPO on August 13, 2021. On November 18, 2021, the Tonkawa Tribe of Oklahoma responded which stated that they have no specifically designated historical, religious and/or cultural significance in the Proposed Project Area; however, if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tribe would be interested in proper disposition thereof. As of the date of this EA, no responses have been received from any other federally recognized tribes. A copy of all THPO correspondence is presented in Appendix IX.

At the time of coordination, the intent was for the Proposed Project to request funding from the Rural Business Cooperative Service (RBS) under the Renewable Energy for America Program (REAP); however, the Applicant subsequently chose to seek financial assistance from the RUS. Coordination with the THC and Tribes was not initiated again as both Agencies are under RD and the scope and nature of the undertaking remained the same.

3.6.2 Environmental Consequences

Under the Proposed Action, no known historic properties and/or archaeological sites will be affected, as concluded by consultation with the THC.

3.6.3 Mitigation

In the event of inadvertent discovery, conditions outlined in the Unanticipated Discovery Plan, presented in Appendix IX, will be adhered to. The RUS will be notified and will issue further directions after coordination with THC, interested Tribes and the Advisory Council on Historic Preservation (ACHP).

3.7 Air Quality

This section describes an overview of the existing air quality at the Proposed Project Area and the potential impacts that would be associated with the Proposed Project.

Air quality management and protection responsibilities exist at the federal, state and local levels; however, the primary statutes that establish ambient air quality standards and establish regulatory authorities to enforce regulations designed to attain those standards are codified by the federal Clean Air Act (CAA).

The CAA and its amendments mandate requirements for managing air quality across the nation by establishing primary and secondary air quality standards. Primary air quality standards protect the public heath, including the health of sensitive populations including people with asthma, children, and older adults. Secondary air quality standards protect public welfare by promoting ecosystem health, damage to crops and buildings and preventing decreased visibility. Potential air quality effects can be short-term (construction-related) or long-term (facility emissions and increased traffic).

3.7.1 Affected Environment

Under the CAA, the USEPA has established and continues to update the National Ambient Air Quality Standards (NAAQS) for "criteria" pollutants including ozone (O_3), particulate matter ($PM_{2.5}$ and PM_{10}), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and lead (Pb). The NAAQS for these pollutants are listed in Table 4 and represent the levels of air quality deemed necessary by the USEPA to protect the public health and welfare with an adequate margin of safety.

Pollutant	Averaging Time	Level	Form
Carbon Monoxide	8 hours	9 ppm	Not to be exceeded more than once per
(CO)	1 hour	35 ppm	year
Lead (Pb)	Rolling 3-month average	0.15 µg/m3	Not to be exceeded

Table 3. National Ambient Air Quality Standards

Pollutant		Averaging Time	Level	Form
Nitrogen Dioxide (NO2)		1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		1 year	53 ppb	Annual Mean
Ozone (O3)		8 hours	0.070 ppm	Annual fourth-highest daily maximum 8- hour concentration, averaged over 3 years
		1 year	12.0 µg/m³	annual mean, averaged over 3 years
Particle	PM _{2.5}	1 year	15.0 µg/m³	annual mean, averaged over 3 years
Pollution (PM)		24 hours	35 µg/m³	98th percentile, averaged over 3 years
((* 141)	PM10	24 hours	150 µg/m³	Not to be exceeded more than once per year on average over 3 years
Sulfur D		1 hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
(SC	<i>,</i> 2)	3 hours	0.5 ppm	Not to be exceeded more than once per year

The USEPA Green Book provides detailed information about area NAAQS designations, classifications, and nonattainment status. Established under the CAA, the General Conformity Rule plays an important role in helping states improve air quality in those areas that do not meet the NAAQS. These regulations require that projects in federal nonattainment areas that could be built with funding from a federal agency such as the RUS must demonstrate conformity with the applicable state or local attainment plan. Hunt County is not currently listed as a nonattainment or maintenance area (see Appendix X); therefore, is in conformance with the State Implementation Plan for air quality.

3.7.2 Environmental Consequences

Under the Proposed Action, the Proposed Project would not generate air emissions from a stationary source. The given nature of a solar farm during operation would not contribute to air pollution and would not result in a conflict or obstruction of an air quality plan. Short-term, potential air quality impacts may result from the minor earthmoving and construction activities during the construction phase. Earthwork and construction emissions would have a temporary effect; consisting of mainly dust generated during movement of soils and other construction activities, and exhaust emissions from construction-related equipment and vehicles.

The Proposed Project would produce electricity with no direct air emissions of greenhouse gases or other air pollutants, and very low life-cycle emissions relative to traditional fossil fuels. In the long-term, there will be a reduction in harmful greenhouse gas emissions by reducing the energy demand from traditional fossil fuel sources in the area which would improve air quality in the region.

3.7.3 Mitigation

Dust suppression techniques (e.g., covering or spraying bare soils with water) will be used to control dust resulting from construction activities. Post-construction, disturbed soils will be seeded with native herbaceous species.

3.8 Socioeconomics and Environmental Justice

E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, require that federal agencies, whenever feasible, maintain information of populations by race, national origin or income and will use this information to determine whether their actions have disproportionately high and adverse human health or environmental effects on minority or low-income populations.

Additionally, the socioeconomic conditions of the Proposed Project Area are analyzed for any potential impacts associated with the construction and operation of the Proposed Project. Factors considered in this analysis include population, employment and income.

3.8.1 Affected Environment

The USEPA's Environmental Justice Screening and Mapping Tool (EJSCREEN) and data from the U.S. Census Bureau were utilized to determine the possible socio-economic impacts and environmental justice impacts of minority and low-income populations for the Proposed Project Area and surroundings - reference Appendix XI.

According to the EJSCREEN American Community Survey (ACS) Summary Report, the total population of the Proposed Project Area and 10-mile radius is 39,159. The area's race makeup is predominantly White (approximately 77%), Hispanic (approximately 14%), and Black (approximately 5%). The area's population is distributed with 5% under the age of 4, 19% from 4 to 17, 58% from 18 to 64 and 18% over the age of 65.

According to the U.S. Census Bureau, the median household income for Hunt County is \$54,959 with 14.8% of individuals below poverty level.

3.8.2 Environmental Consequences

Under the Proposed Action, impacts related to socioeconomic and environmental justice are not anticipated. As the Proposed Project does not include the addition of new homes or businesses, implementation of the Proposed Project would not directly stimulate unplanned population growth in the Proposed Project Area. Local residents would not notice a change in shifts in population movement and growth, or impact on public service demands. The Proposed Project will not adversely or significantly affect low income or minority populations but will provide positive economic impacts by expanding the tax base in the county.

3.8.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.9 Coastal Resources

This section describes an overview of the existing coastal resources at the Proposed Project Area and the potential impacts that would be associated with the Proposed Project.

Coastal areas and barrier systems provide diverse and unique habitats as well as protect inland areas from hurricanes, other storms and storm surges. Heavy pressure from residential, recreational, and industrial development urged Congress to enact two major laws for their protection: The Coastal Zone Management Act (CZMA) of 1972 and the Coastal Barrier Resources Act (CBRA) of 1982. The CZMA requires federal actions that are reasonably likely to affect any land or water use or natural resource in a coastal zone be consistent with the enforceable policies while the CBRA prohibits federal activities in CBRA units (undeveloped coastal barrier lands along the Atlantic, Gulf and Great Lakes coasts).

"Coastal State" means a State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. According to the National Oceanic and Atmospheric Administration (NOAA), the Texas coastal zone is generally the area seaward of the Texas coastal facility designation line, up to three marine leagues into the Gulf of Mexico.

3.9.1 Affected Environment

According to the USFWS's Coastal Barrier Resource System (CBRS) mapper, NOAA's CZMA map, and Texas's Coastal Zone Map, the Proposed Project Area is not located within or adjacent to protected coastal areas. The coastal boundaries in relation to the Proposed Project Area are depicted in Figure 9.

3.9.2 Environmental Consequences

Under the Proposed Action, there would be no impacts to coastal resources as they are absent from the Proposed Project Area and surrounding area.

3.9.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

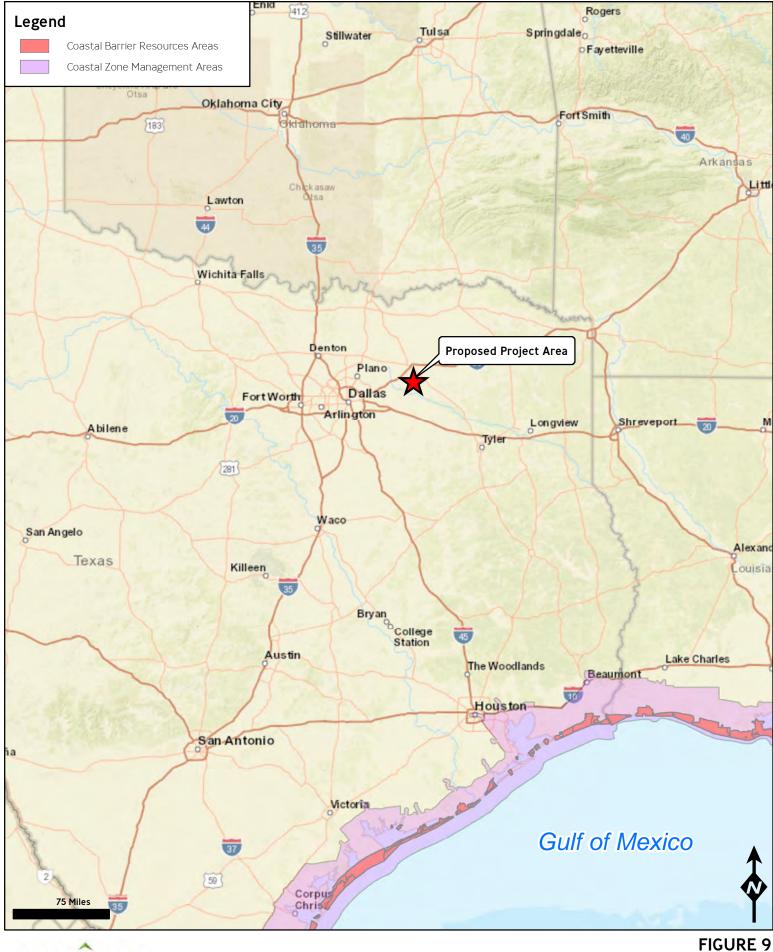


FIGURE 9 Coastal Resources Map Proposed Wieland Solar Project Wieland, Hunt County, Texas



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3.10 Noise

This section describes an overview of the existing ambient sound environment at the Proposed Project Area and the potential impacts that would be associated with the Proposed Project.

The construction and operation of the Proposed Project could create noise impacts. Certain activities inherently produce sound levels or characteristics that have the potential to create noise. There are two main categories of noise – community noise and job-related noise. Job-related noise is regulated by the Occupational Safety and Health Administration (OSHA). The other category, community noise, refers to the combination of multiple sources of noise which may result in an overall unacceptable level for those living, working or recreating in the area especially in noise-sensitive areas including residences, schools, hospitals, churches, parks, wildlife refuges, etc.

3.10.1 Affected Environment

The Proposed Project Ara is located in southern Hunt County, approximately 11 miles south of the city of Greenville. Ambient noise at the Proposed Project Area consists predominantly of rural or natural sounds, as well as manmade noise from vehicle traffic traveling on local roads and highways. The Proposed Project will be located in a rural area and noise-sensitive areas, including residences, are not located within 150 feet of the Proposed Project Area.

3.10.2 Environmental Consequences

Under the Proposed Action, there will be a direct, short-term increase in noise related to construction activities. According to the American National Standards Institute (ANSI), average construction sound levels range between 80-90 decibels (dBA) – this singular impact will be temporary, occurring only during daytime hours within the 4 to 6-month period. Post-construction, the ambient sound environment would be expected to return to existing levels. Noise from equipment (i.e., the inverter) will only be audible during the daylight hours when the panels are producing power and will likely only be heard by individuals within the perimeter fence. Consequently, the Proposed Project would only cause temporary noise impacts and will not result in a long-term increase to the ambient noise levels of the area.

3.10.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.11 Traffic and Transportation

This section provides an overview of the existing traffic and transportation resources at the Proposed Project Area and describes the potential impacts the Proposed Project could have on these resources.

Transportation impacts include increases and decreases in traffic and transportation that might

be causes or exacerbated by development of the Proposed Project. Other impacts considered are the transportation of materials to or from the facility either during construction or during operation. Any possible changes in transportation patterns or intensity are also evaluated.

3.11.1 Affected Environment

The Proposed Project will be located near the intersection of FM 2101 and County Road 3517. FM 2101 is a two-lane highway that connects to State Highway 34 to the south and FM 1570 to the north. Texas' Department of Transportation (TxDOT) average daily traffic counts for FM 2101 in 2020 is 1,155 vehicles. The nearest railroad line is located approximately 12.3 miles northwest of the Proposed Project Area and the nearest airport is the Rockin' M Airport located approximately 4 miles southwest of the Proposed Project Area.

3.11.2 Environmental Consequences

Under the Proposed Action, significant impacts to traffic and transportation would not result due to the Proposed Project, given the short duration of the construction phase and the limited number of workers and equipment required for operation and maintenance. The majority of the traffic burden as a result of the Proposed Project will occur during the construction phases – both build-out and end-of-life tear down. During these short duration phases, it is anticipated that traffic will increase slightly to account for construction personnel and equipment. A significant increase in traffic for any maintenance or inspection activities is not anticipated.

3.11.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.12 Aesthetics

This section describes an overview of the existing visual resources at the Proposed Project Area and the potential impacts to those resources associated with the Proposed Project. Visual resources are the visual character of a place, both manmade and natural, that give a particular landscape its character and aesthetic quality.

As development in rural areas increases in scope and complexity, aesthetics or visual impacts may be a concern. The visual quality of an area may be affected by the introduction of new buildings or structures. Where visual impacts are identified, and avoidance of the impacted area is not feasible, efforts should be made to design, construct and operate in such a way that would minimize aesthetic impacts.

3.12.1 Affected Environment

The Proposed Project Area is located in rural Hunt County, approximately 11 miles south of the city of Greenville. The Proposed Project Area is currently agricultural land surrounded by agricultural properties and scattered residences.

3.12.2 Environmental Consequences

Under the Proposed Action, a change in the visual character of the Proposed Project Area would occur. Once the facility becomes operational, visual impacts would include the addition of solar modules mounted on a steel racking system, surrounded by a chain-link security fence; however, visual impacts would be insignificant given the estimate height of the array and lack of public view.

3.12.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to the resource.

3.13 Human Health and Safety

This section describes public health and safety associated with the construction and operation of the Proposed Project and the potential impacts. There is an importance in evaluating the Proposed Project's impact on public health and safety per 40 CFR Part 1508.27. The Proposed Project would require all personnel and visitors to follow the OSHA guidelines during construction and operation.

Electromagnetic Fields and Interference

Electromagnetic Fields (EMF) are associated with any electric device. Power-frequency EMFs are associated with the generation, transmission and use of electric power. Electromagnetic Interference (EMI) is the disruption to the standard operation of an electronic device created by electromagnetic fields in its vicinity. This interference can be continuous or intermittent and can vary based on the distance and field levels that are produced by the source. Effects from high-voltage electric transmission lines and substations may include interference to radio and television reception in the immediate vicinity. Linkages between EMFs and human health have been made; however, are generally considered weak.

Environmental Risk Management

Environmental risk management informs Agency staff on the proper procedures for environmental due diligence relating to hazardous substances, hazardous wastes, and petroleum waste products. If properly conducted, environmental risk management proactively recognizes potential hazards and legal and financial vulnerabilities associated with the major hazardous materials, federal and state laws, as well as possible hazards to the human environment in compliance with NEPA.

Reflectivity, Glare or Dazzle

Reflectivity refers to light that is reflected off surfaces. The potential impacts of reflectivity are glint, glare or dazzle which can cause a brief loss of vision. According to the Federal Aviation Authority (FAA), solar energy projects introduce new visual surfaces to the airport setting, where reflectivity could result in glare that cause flash blindness episodes for pilots and air traffic controllers.

3.13.1 Affected Environment

Environmental due diligence is the process of inquiring into the environmental condition of real property to determine the potential for contamination and was conducted by the completion of a Phase I Environmental Site Assessment by ECS Southwest, LLP (ECS) in November of 2020. The report was performed in accordance with the procedures included in American Society for Testing and Materials (ASTM) E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This report is presented in Appendix XII.

ECS's assessment revealed no evidence of recognized environmental conditions (RECs) inside or immediately surrounding the Proposed Project Area and does not recommend any further environmental evaluation or due diligence associated with the Proposed Project Area.

True North has relied on the November 2020 Phase I Environmental Site Assessment to complete this EA as conditions within the Proposed Project Area and immediately surrounding did not change; however, an updated Phase I Environmental Site Assessment will be provided to the Agency within 180 days of property acquisition.

3.13.2 Environmental Consequences

Under the Proposed Action, significant impacts to human health and safety are not anticipated. There are no foreseeable health and safety risks from induced currents, electric shock, effects on cardiac pacemakers and nuisance factors, such as audible noise, potential interference with radio and television broadcast reception and electronic equipment. During the construction phase, hazardous materials such as diesel, maintenance fluids and paints would be stored and used onsite; however, the operation of the solar facility would not the use, release, or generate hazardous materials.

PV systems do not emit any material during their operation; however, they do generate EMF, sometimes referred to as radiation. The EMF produced by electricity is non-ionizing radiation, meaning the radiation has enough energy to move atoms in a molecule around (experienced as heat), but not enough energy to remove electrons from an atom or molecule (ionize) or to damage DNA. Modern humans are all exposed to EMF throughout our daily lives without negative health impact. An individual outside of the fenced perimeter of a solar facility is not exposed to significant EMF; therefore, there is no negative health impact from the EMF produced in a solar farm.

The amount of reflectivity varies among solar technologies. The Project will reduce reflectivity by utilizing photovoltaic panels which are primarily absorptive compared to concentrated solar power technologies. Lastly, the Project does not include lighting; therefore, the Project would not result in light exposure or result in light pollution or glare. Additionally, the FAA issues a Determination of No Hazard to Air Navigation for the Proposed Project on December 7, 2020 (reference Appendix XII).

3.13.3 Mitigation

Waste generation will be managed in accordance with Federal, State and local regulations. Proposed Project Area safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and Spill Control and Countermeasures (SPCC) plans designed to protect workers and the public from further exposure to hazards.

4.0 SUMMARY OF IMPACTS

Under the Proposed Action, the Project would have both short-term (temporary) and long-term direct effects – these effects are expected to be minor, insignificant, and unlikely to contribute to cumulative effects.

The mitigation measures discussed in Section 5.0 of this EA will be implemented to avoid or minimize the Project's cumulative impacts to the environment.

Resource	Impact Analysis
General Land Use	Land use would change from agricultural land to a renewable energy facility; however, the land use conversion would result in no significant adverse impacts.
Important Farmland	Approximately 12 acres of Farmland of Statewide Importance will be converted to non-agricultural use; however, consultation with the NRCS concluded the Proposed Project falls within the exemption status resulting in no adverse impacts.
Formally Classified Lands	The Proposed Project will not occur within or adjacent to any listed categories defined as Formally Classified Lands therefore resulting in no impacts.
Floodplains	The Proposed Project will not be located in a SFHA and will not result in impacts that would result in any increases to the 100-year or 500-year flood elevation or present barriers to floodway passage.
Wetlands	Wetlands are not present within the Proposed Project Area therefore resulting in no impacts.
Water Resources	The Proposed Project will not result in significant adverse impacts; however, necessary stormwater and erosion controls will be utilized during construction to minimize the potential for runoff and siltation.
Biological Resources - General Fish, Wildlife and Vegetation	The Proposed Project will not result in significant adverse impacts due to minimal impervious surfaces being created, lack of clearing of vegetation and limited use of water.
Biological Resources - Listed Threatened and Endangered Species	The Proposed Project will not result in adverse impacts to listed threatened or endangered species based on the lack of suitable habitat and protected species' requirements. Additionally, no designated critical habitat for listed species occurs within the Proposed Project Area nor will any be affected by the Proposed Project.
Biological Resources - Migratory Birds	The Proposed Project will not result in significant adverse impacts based on the lack of migratory birds expected to utilize or otherwise visit the Proposed Project Area, as well as the lack of suitable nesting and foraging habitat.
Biological Resources - Bald and Golden Eagles	The Proposed Project will not result in significant adverse impacts based on the lack of suitable habitat for the species.
Biological Resources - Invasive Species	The Proposed Project will not result in significant adverse impacts due to maintenance and lack of opportunity for establishment of invasive species.

 Table 4. Summary of Impacts

Resource	Impact Analysis
Cultural Resources and Historic Properties	The Proposed Project will not result in significant adverse impacts as concluded by consultation with the THC.
Air Quality	The Proposed Project would result in temporary impacts during construction but would result in no significant adverse impacts.
Socioeconomics and Environmental Justice	The Proposed Project will not result in significant adverse impacts to low income or minority populations.
Coastal Resources	Coastal resources are not present within the Proposed Project Area therefore resulting in no impacts.
Noise	The Proposed Project would result in temporary impacts during construction but would result in no significant adverse impacts.
Traffic and Transportation	The Proposed Project would result in temporary impacts during construction but would result in no significant adverse impacts.
Aesthetics	A change in the visual character of the Proposed Project Area would occur; however, the change would not result in a significant adverse impact given the estimated height of the array and lack of public view.
Human Health and Safety	The Proposed Project will not result in significant adverse impacts to human health and safety.

5.0 SUMMARY OF MITIGATION

Mitigation and monitoring actions will be performed to reduce any impacts to the environmental resources associated with the Proposed Project. These actions are as follows:

- The Applicant shall obtain and comply with all required County, State and Federal permits.
- A SWM plan will be prepared, if required by the County/Town office.
- BMPs such as soil erosion and sediment control measures will be utilized during construction to minimize the potential for increased runoff, and siltation.
- The construction and operation of the Proposed Project will comply with the ESA, which
 provides for the protection of endangered and/or threatened species and critical habitat.
 Should any evidence of the presence of endangered and/or threatened species or their
 critical habitat be brought to the attention of the contractor, the contractor will immediately
 report this evidence to Owner and a representative of Agency. Construction shall be
 temporarily halted pending the notification process and further directions issued by Agency
 after consultation with the USFWS.
- All possible existing ground cover will be maintained, and any disturbed area will be seeded with a mixture of native herbaceous vegetation after construction which will discourage the establishment of non-native species and promote the restoration of native species.
- In the event of inadvertent discovery, conditions outlined in the Unanticipated Discovery Plan, presented in Appendix IX, will be adhered to. The RUS will be notified and will issue further directions after coordination with THC, interested Tribes and the Advisory Council on Historic Preservation (ACHP).
- Dust suppression techniques (e.g., covering or spraying bare soils with water) will be used to control dust resulting from construction activities. Post-construction, disturbed soils will be seeded with native herbaceous species.
- Waste generation will be managed in accordance with Federal, State and local regulations.
- Site safety will be managed by strict adherence to OSHA requirements. Procedures included in an emergency response plan will include management efforts, a Hazardous Operations Manual, and SPCC plans designed to protect workers and the public from further exposure to hazards.

6.0 COORDINATION, CONSULTATION AND CORRESPONDENCE

The preparation of this EA resulted in consultation with the following Agencies or Agency websites:

- Hunt County property assessor
- NRCS Web Soil Survey and local office
- USGS Protected Lands Map
- National Wild and Scenic Rivers Map
- NPS NRI Map
- FEMA Floodplain Map
- USFWS NWI Map
- EPA NEPAssist
- EPA SSA Map
- EPA Ecoregions
- USFWS IPaC
- NRHP
- NHL
- THC
- HUD TDAT and following Tribes:
 - Apache Tribe of Oklahoma
 - Caddo Nation of Oklahoma
 - o Comanche Nation, Oklahoma
 - Coushatta Tribe of Louisiana
 - Muscogee (Creek) Nation
 - o Tonkawa Tribe of Indians of Oklahoma
 - o Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma
- EPA Green Book
- EJSCREEN
- US Census Bureau data
- CZMA Map
- CBRS Map
- Texas coastal map
- TxDOT average daily traffic counts
- FAA

7.0 LIST OF PREPARERS

SunGrid Power:

• Trevor Hand, President & CEO

True North Consultants, Inc.:

- Lily Kielp, Project Consultant
- Brian Mihelich, Executive Vice President
- Leslie Schroeder, Staff Consultant

8.0 **REFERENCES**

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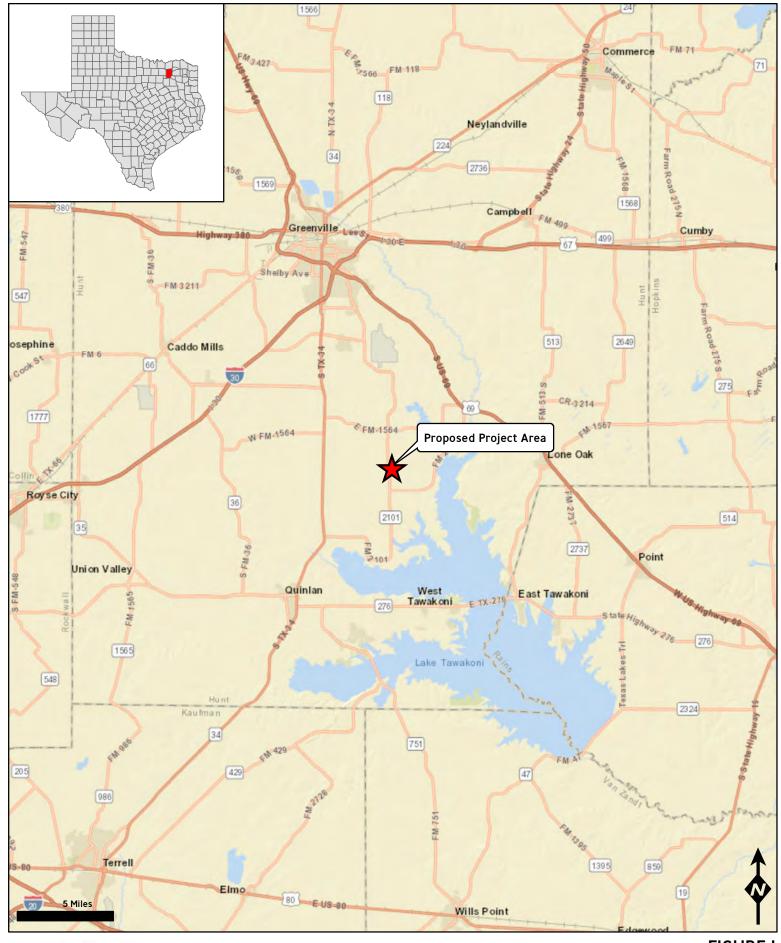
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APPENDIX I

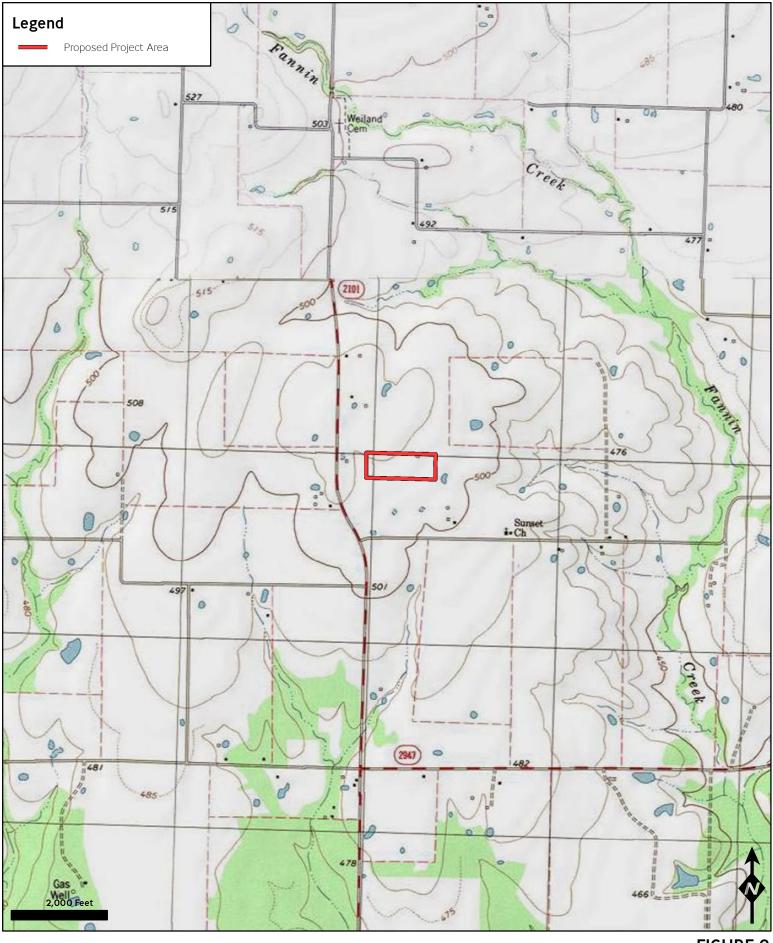
Maps



TRUENORTH

FIGURE I Regional Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

Trusted Partner, Leading Environmental Solutions.



TRUENORTH

FIGURE 2 Topographic Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

Trusted Partner. Leading Environmental Solutions.

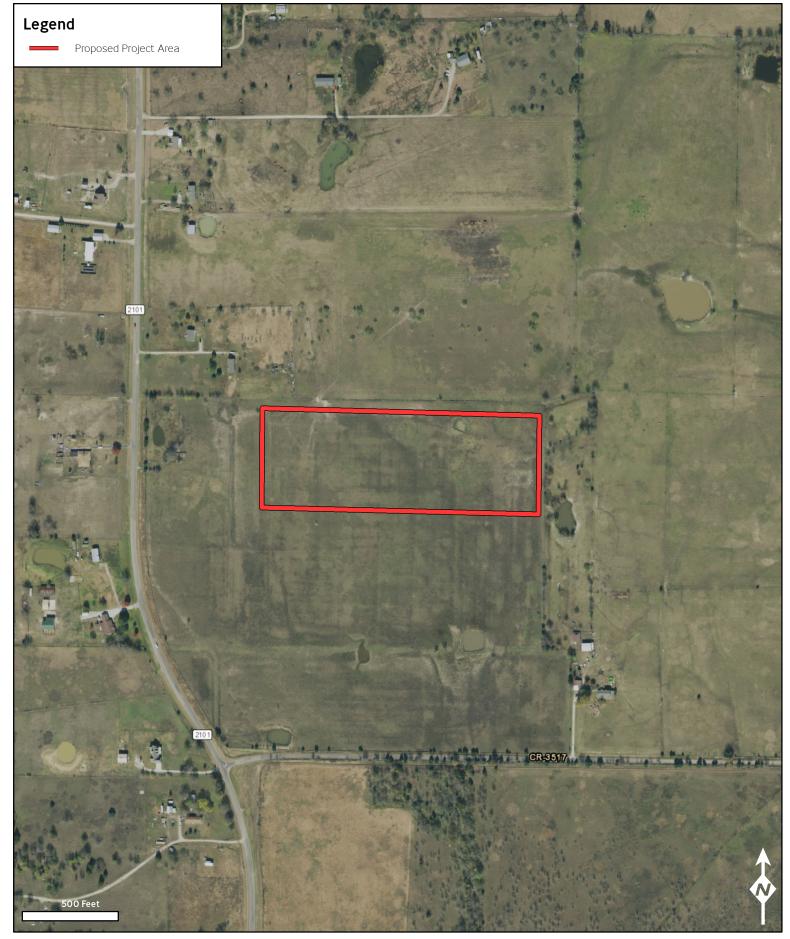




FIGURE 3 Area Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

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APPENDIX II

Drawings

SOLAR PV ELECTRICAL SYSTEM INSTALLATION DRAWINGS WIELAND SOLAR PV HUNT COUNTY, TX 75474

GENERAL NOTES:

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SCOPE OF WORK:

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THE INSTALLATION OF A SOLAR PHOTOVOLTAIC (PV) PLANT INCLUDING PV MODULES, GRID-INTERACTIVE INVERTERS AND SINGLE-AXIS TRACKERS TO SUPPLY POWER DIRECTLY TO THE LOCAL ELECTRIC UTILITY GRID.

PROJECT LOCATION: HUNT COUNTY, TX 75474

32.989556°N, -96.059139°W

INTERCONNECTION:

THE PV SYSTEM WILL OPERATE IN PARALLEL WITH THE ELECTRIC UTILITY SERVICE PROVIDER. THE INVERTERS PROVIDE ANTI-ISLANDING PROTECTION AS WELL AS HARMONIC LIMITS THAT COMPLY WITH UL 1741, IEEE 1547 AND IEEE 519.

OPERATION:

PERMISSION TO OPERATE THE PV SYSTEM IS NOT AUTHORIZED UNTIL FINAL INSPECTIONS AND APPROVALS ARE OBTAINED FROM THE AUTHORITY HAVING JURISDICTION AND THE ELECTRIC UTILITY SERVICE PROVIDER.

CODE ENFORCED: NATIONAL ELECTRICAL CODE, 2020 EDITION

AUTHORITY HAVING JURISDICTION: HUNT COUNTY, TX

SATELLITE VIEW:



PROJECT TEAM:

D

ELECTRICAL ENGINEER: STELLAVISE INC. BRICE CASEBEER, PE - LICENSE #030193 2615 CAMINO DEL RIO S, SUITE 401 SAN DIEGO, CA 92108 (619) 205-5038

CIVIL ENGINEER: MERIDIEM ENGINEERING LLC SARAH SMEDLEY, P.E. 3855 N BUSINESS CENTER DR TUCSON, AZ 85705

RACKING MANUFACTURER: ARRAY TECHNOLOGIES, INC. 3901 MIDWAY PLACE NE ALBUQUERQUE, NM 87109 PHONE: 505-881-7567

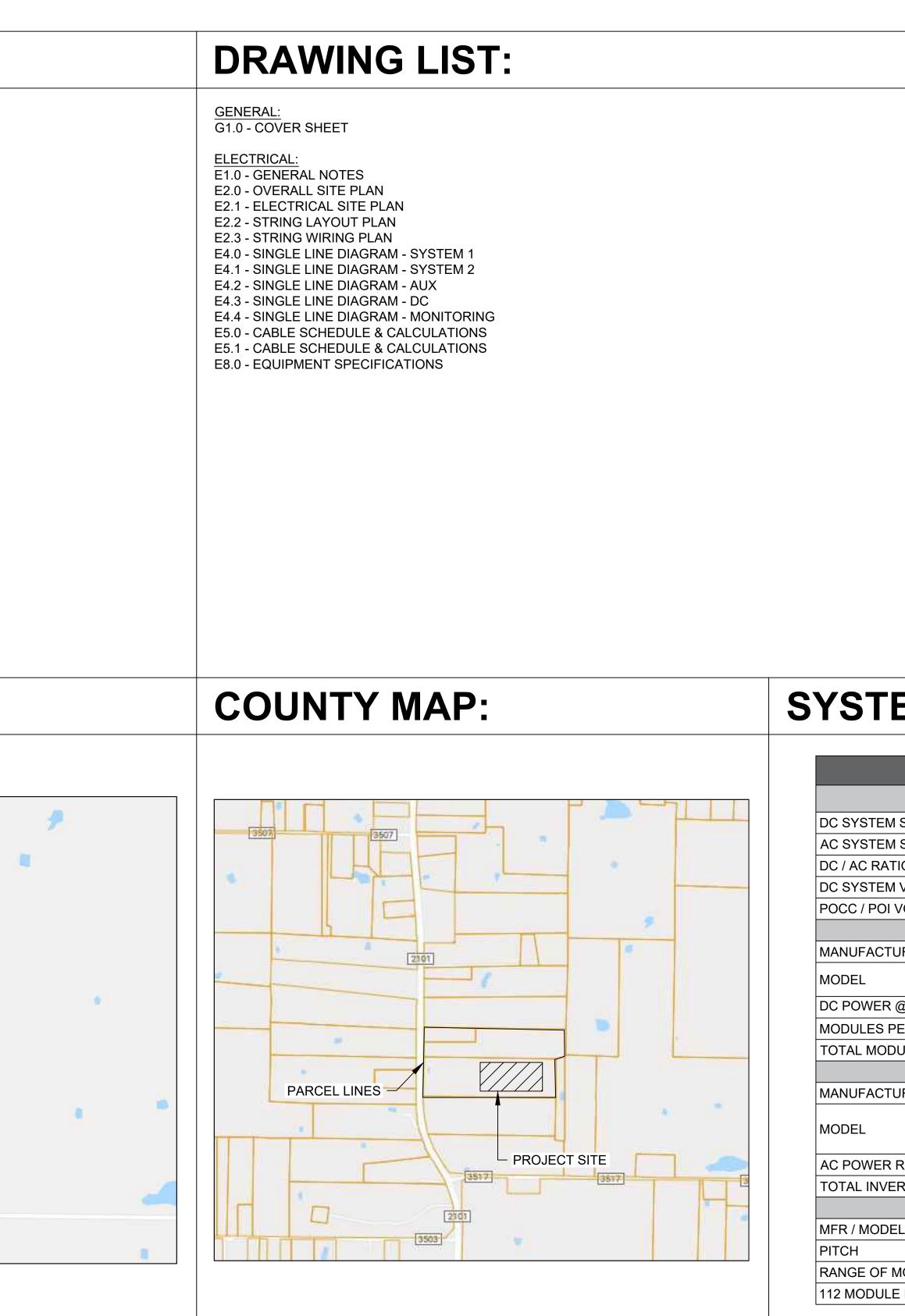
ELECTRIC UTILITY SERVICE PROVIDER: FARMERS' ELECTRIC COOPERATIVE (FEC)

SOLAR SYSTEM OWNER: SUNGRID POWER **1577 RANDOL MILL AVENUE** SOUTHLAKE, TX 76092

MAP VIEW:



32.989556°N, -96.059139°W



G

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н



2615 Camino Del Rio S, Ste. 401 (619) 205-5038 San Diego, CA 92108 www.stellavise.com

SEAL:

CONFIDENTIALITY STATEMENT

THIS DRAWING AND ALL INFORMATION HEREIN IS THE PROPERTY OF STELLAVISE INC. ANY REPRODUCTION, MODIFICATION OR USE OF THIS DRAWING FOR OTHER THAN THE INTENDED PROJECT WITHOUT PRIOR WRITTEN AUTHORIZATION FROM STELLAVISE INC. IS STRICTLY FORBIDDEN.

DEVELOPER:

SunGrid Power 1577 Randol Mill Ave Southlake, TX 76092

PROJECT:

Wieland PV Hunt County, TX 75474 32.989556°N, -96.059139°W

REVISIONS

#	DESCRIPTION	DATE
A	PRELIMINARY LAYOUT	12/06/2019
В	30% DESIGN	12/23/2019
С	60% DESIGN	01/17/2020
D	SITE PLAN W/ ALTA	06/10/2020
E	30% DESIGN R1	11/20/2020
F	30% DESIGN R2	11/24/2020
G	60% DESIGN	12/16/2020
н	60% DESIGN R1	02/09/2021
I	60% DESIGN R2	02/18/2021
J	60% DESIGN R3	08/31/2021

DATE:

AUGUST 31, 2021

NOT FOR CONSTRUCTION

SYSTEM SUMMARY:

YSTEM DE	TAILS			
SYSTEM 1	SYSTEM 2	TOTAL		
1,462 KW	1,462 KW	2,923 KW		
999 KW	999 KW	1,998 KW		
1.46	1.46	1.46		
1500 V	1500 V	1500 V		
600 V	600 V	600 V		
	IODULES			
JINKO	JINKO	JINKO		
JKM450M-72 HLM-TV	JKM450M-72 HLM-TV	JKM450M-72 HLM-TV		
450 W	450 W	450 W		
28	28	28		
3,248	3,248	6,496		
INVERTER	S			
CHINT	CHINT	CHINT		
CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600		
125 KW	125 KW	125 KW		
8	8	16		
TRACKERS				
ATI	ATI	ATI		
19'-0"	19'-0"	19'-0"		
±52°	±52°	±52°		
29	29	58		
	1,462 KW 999 KW 1.46 1500 V 600 V HOTOVOLTAIC M JINKO JKM450M-72 HLM-TV 450 W 28 3,248 INVERTER CHINT CPS SCH125KTL-DO /US-600 125 KW 8 TRACKER ATI 19'-0" ±52°	1,462 KW 1,462 KW 999 KW 999 KW 1.46 1.46 1500 V 1500 V 600 V 600 V 600 V 600 V HLM-TV JINKO JINKO JKM450M-72 JKM450M-72 HLM-TV JKM450W 450 W 450 W 28 28 3,248 3,248 3,248 3,248 3,248 3,248 SCH125KTL-DO CPS /US-600 /US-600 125 KW 125 KW 8 8 TRACKERS ATI ATI ATI 19'-0" 19'-0" ±52° ±52°		



COVER SHEET

G1.0

ABBREVIATIONS:

1

2

3

4

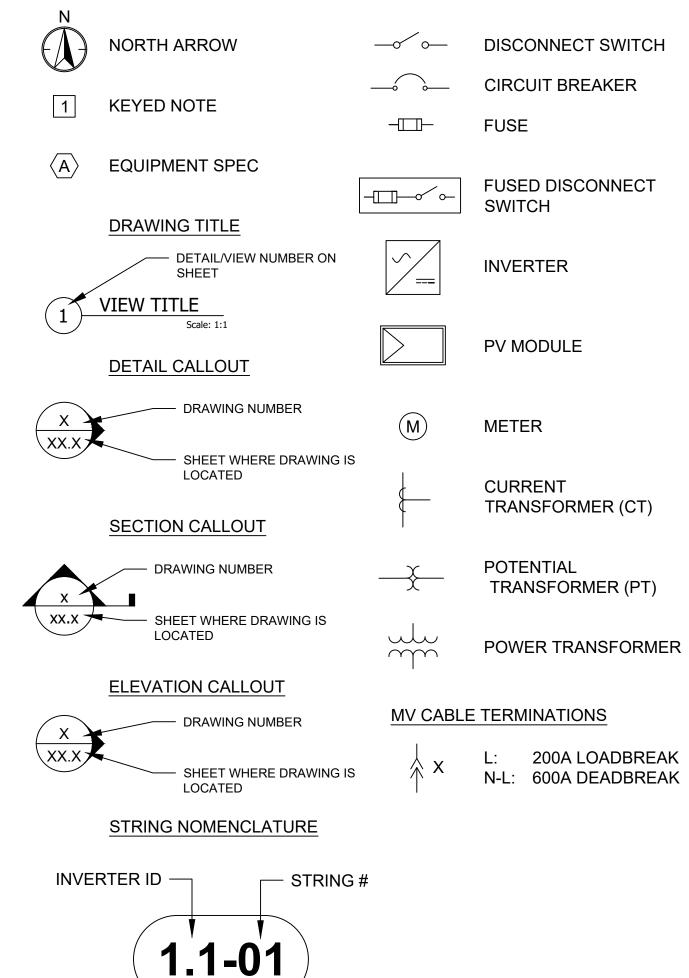
5

6

8

		KW	KILOWATT
	ALTERNATING CURRENT		
AFCI	ARC FAULT CIRCUIT	LTG	
	INTERRUPTER	LV	LOW VOLTAGE
AIC	AMPS INTERRUPTING		
	CAPACITY	MCB	
AL	ALUMINUM	MIN	
ANSI	AMERICAN NATIONAL	MLO	
	STANDARDS INSTITUTE	MPPT	
	AUXILIARY		TRACKER
AWG		MTR	METER
BKR		(N)	NEW
BLDG	BUILDING	NA	NOT APPLICABLE
С	CONDUIT	NC	NORMALLY CLOSED
CB	CIRCUIT BREAKER	NO	NORMALLY OPEN
CL	CENTERLINE	NTS	NOT TO SCALE
CTR	CENTER	OAE	OR APPROVED EQUAL
CU	COPPER	PF	POWER FACTOR
DC	DIRECT CURRENT	PH,φ	PHASE
DEMO	DEMOLITION	PNL	
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
DISC	DISCONNECT	PVDS	
DS	DISCONNECT SWITCH	PVP	INVERTER DISTRIBUTION
DTL	DETAIL		PANEL
DWG	DRAWING	QTY	QUANTITY
EA	EACH	REF	
ELEV	ELEVATION	RMC.RGS	S GALVANIZED RIGID STEEL
ELEC	ELECTRICAL	-, -	CONDUIT
EMT	ELECTRICAL METALLIC	SPD	SURGE PROTECTIVE DEVICE
	TUBING	SPEC	SPECIFICATION
ENGR	ENGINEER	SQ FT	SQUARE FEET
EOR	ENGINEER OF RECORD	SWBD	SWITCHBOARD
EQ	EQUAL	SYS	SYSTEM
EQUIP		TVSS	TRANSIENT VOLTAGE SURGE
EST	ESTIMATE	1,000	SUPPRESSOR
(E)	EXISTING	TYP	TYPICAL
(Ľ) FT	FOOT/FEET	UG	UNDERGROUND
GFCI	GROUND FAULT CIRCUIT	UON	UNLESS OTHERWISE NOTED
	INTERRUPTER	UPS	UNINTERRUPTIBLE POWER
HZ	HERTZ	UF3	SUPPLY
IMC	INTERMEDIATE METAL	V	
			VOLT
INT	CONDUIT	VA	
		W	WATT
INV		WP	WEATHERPROOF
	JUNCTION BOX	XFMR	TRANSFORMER
JB			
KV	KILOVOLT		
SB KV KVA KVAR	KILOVOLT KILOVOLT AMPERE KILOVOLT AMPERE REACTI		

SYMBOL LEGEND:



GENERAL NOTES:

- G1. CONTRACTOR SHALL PROVIDE A COMPLE ELECTRICAL INSTALLATION WITH ALL EQU IN PROPER OPERATING CONDITION. DOC UNDERTAKE TO SHOW OR LIST EVERY IT WHEN AN ITEM NOT SHOWN OR LISTED IS NECESSARY FOR PROPER OPERATION O OR LISTED. PROVIDE THE ITEM WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY.
- CODE COMPLIANCE: COMPLY WITH ALL RELEVANT CODES. G2. LAWS, RULES, REGULATIONS, AND STANDARDS OF APPLICABLE CODE-ENFORCING AUTHORITIES.
- G3. REFERENCES AND STANDARDS: ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE STANDARDS LISTED BELOW. NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO APPLICABLE LAWS. ORDINANCES, RULES, OR REGULATIONS. IT IS NOT THE INTENT OF DRAWINGS OR SPECIFICATIONS TO REPEAT REQUIREMENTS OF CODES EXCEPT WHERE NECESSARY FOR COMPLETENESS OR CLARITY.
 - A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
 - B. INSULATED CABLE ENGINEERS ASSOCIATION (ICEA). C. INSTITUTE OF ELECTRICAL AND ELECTRONICS
 - ENGINEERS (IEEE). D. NATIONAL ELECTRICAL CODE (NEC) (NFPA 70).
 - NATIONAL MANUFACTURER'S ASSOCIATION (NEMA).
 - F. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
 - G. INTERNATIONAL FIRE CODE (IFC).
 - H. INTERNATIONAL BUILDING CODE (IBC).
 - UNDERWRITERS LABORATORIES, INC. (UL).
 - LOW-VOLTAGE ELECTRICAL SAFETY ORDERS (OSHA)
 - K. HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS (OSHA).

IF ANY OF THE REQUIREMENTS OF THE ABOVE STANDARDS ARE IN CONFLICT WITH ONE ANOTHER, OR WITH THE REQUIREMENTS OF THESE DRAWINGS OR SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL GOVERN.

- G4. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY MEASURES AND OSHA REQUIREMENTS ON SITE.
- G5. ALL DIMENSIONS OF EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING OF EQUIPMENT DURING INSTALLATION.
- G7. ALL CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL PRIOR TO MAKING ANY CHANGES.
- G8. THE CONTRACTOR IS RESPONSIBLE FOR PROPER INSTALLATION OF ALL EQUIPMENT AND SHALL FOLLOW ALL MANUFACTURER INSTRUCTIONS AND RECOMMENDATIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN MANUFACTURER **RECOMMENDATIONS AND THE INSTRUCTIONS INDICATED IN** THIS DRAWING SET.
- G9. EXACT LOCATION AND MOUNTING OF ALL EQUIPMENT SHALL BE VERIFIED IN THE FIELD.
- G10. CONTRACTOR SHALL READ AND UNDERSTAND ALL DRAWINGS AND EQUIPMENT MANUALS PRIOR TO INSTALLATION OR OPERATION OF EQUIPMENT.
- G11. ALL EQUIPMENT AND COMPONENTS SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (UL. ETL. ETC.).
- G12. ALL OUTDOOR EQUIPMENT ENCLOSURES SHALL BE RATED NEMA 3R MINIMUM.
- G13. ALL RELEVANT COMPONENTS OF THE PHOTOVOLTAIC SYSTEM SHALL BE CLEARLY MARKED AND LABELED IN ACCORDANCE WITH NEC ARTICLE 690.
- G14. UNISTRUT OR SIMILAR MOUNTING SYSTEM SHALL BE USED TO MOUNT ALL ENCLOSURES, PULL BOXES, AND OTHER EQUIPMENT TO ROOFTOPS AND WALLS TO PREVENT WATER BUILD-UP. WEEP HOLES SHALL BE PROVIDED IN ENCLOSURES WHERE CONDENSATION OR WATER BUILD-UP MAY OCCUR.
- G15. ALL WORK SHALL BE PERFORMED IN A SAFE, EFFICIENT, AND WORKMANLIKE MANNER. CONTRACTOR SHALL USE GOOD TRADE PRACTICES AS REQUIRED BY SECTION 110.12 OF THE NEC.
- G16. CONTRACTOR SHALL CLEAN ANY METAL SHAVINGS WITHIN ENCLOSURES, ON TOP OF ENCLOSURES, AT GROUND LEVEL, AND ANY ADDITIONAL AREAS WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS. OR OTHER DAMAGE

ETE WORKING	
UIPMENT CALLED FOR	
UMENTS DO NOT	
EM TO BE PROVIDED.	
S CLEARLY	
F EQUIPMENT SHOWN	

ELECTRICAL NOTES: E1. THE PHOTOVOLTAIC SYSTEM SHALL BE INSTALLED IN

ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. ANY LOCAL CODE WHICH MAY SUPERSEDE THE NEC SHALL GOVERN.

G

- THE GROUNDING OF THE PHOTOVOLTAIC SYSTEM SHALL E2. COMPLY WITH NEC 690 PART V. GROUNDING.
- E3. THE PHOTOVOLTAIC SYSTEM'S UTILITY INTERCONNECTION POINT SHALL BE INSTALLED PER NEC ARTICLE 705.12.
- E4. ALL CONDUIT OPENINGS SHALL BE SEALED
- ALL METALLIC ENCLOSURES SHALL BE GROUNDED PER NEC E5. ARTICLE 250.
- E6. IN EVERY PULL BOX, TERMINAL BOX, GUTTER AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER, POLARITY OR PHASE.
- E7. CONDUIT AND CABLE TRAY ROUTING SHOWN ON PLANS IS DIAGRAMMATIC. CONTRACTOR SHALL ROUTE AND LOCATE RACEWAYS TO SUIT SITE CONDITIONS. CONTRACTOR SHALL COORDINATE ALL WIRING AND RACEWAY ROUTING WITH THE ENGINEER.
- WHERE CONDUCTOR AND RACEWAY ROUTING IS NOT SHOWN, E8. AND DESTINATION ONLY IS INDICATED. CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED. A SHOP DRAWING OF PROPOSED INSTALLATION SHALL BE SUPPLIED TO ENGINEER PRIOR TO INSTALLATION.
- BENDS IN RACEWAY SHALL NOT DAMAGE RACEWAY OR E9. SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER.
- E10. THE INTERRUPTING RATINGS OF MAIN OCPD DEVICES, BRANCH OCPD DEVICES, AND BUS WITHSTAND CAPABILITY SHALL EACH MEET OR EXCEED THE MINIMUM AMPERE INTERRUPTING CAPACITY (AIC) RATING INDICATED (FULLY RATED EQUIPMENT).
- E11. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT.
- E12. PROVIDE ALL GROUNDING AND BONDING OF ELECTRICAL EQUIPMENT AND SYSTEMS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, ARTICLE 250.
- E13. MINIMUM CONDUIT SIZE SHALL BE 3/4", UON.
- E14. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN NEC 300.19.
- E15. SUPPORT CONDUIT USING STEEL PIPE STRAPS OAE. LAY-IN ADJUSTABLE HANGERS. CLEVIS HANGERS OR SPLIT-HANGERS SPACING OF CONDUIT SUPPORTS SHALL BE INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED. USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.
- E16. PROVIDE PULL, JUNCTION, OR CHRISTY BOXES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE SHOWN ON THE DRAWINGS. BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.
- E17. WHEN FIELD CUTTING IS REQUIRED, THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
- E18. CONDUIT SIZES NOT SPECIFIED SHALL BE SIZED IN ACCORDANCE WITH NEC REQUIREMENTS WITH A MAXIMUM 40% FILL RATIO.
- E19. THE MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG.
- E20. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED BEFORE WIRE IS PULLED.
- E21. ELECTRICAL CONTRACTOR SHALL PROVIDE SIGNAGE TO ALL ELECTRICAL BOXES, JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC DISCONNECTS, SUB PANELS, MAIN SERVICES AND ANY OTHER EQUIPMENT THAT **REQUIRES MARKING PER NEC ARTICLE 690 AND THE** CALIFORNIA STATE FIRE MARSHAL'S SOLAR PHOTOVOLTAIC INSTALLATION GUIDELINE AS ADOPTED BY IFC.
- E22. PER NEC 300.7(B), RACEWAY EXPANSION FITTINGS SHALL BE INSTALLED TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION WHERE NECESSARY, REFER TO CALCULATIONS SHEETS.
- E23. ALL SWITCHES AND CIRCUIT BREAKERS USED AS SWITCHES SHALL BE LOCATED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE, WHEN IN ITS HIGHEST POSITION, IS NOT MORE THAN 2.0 M (6 FT 7 IN.) ABOVE THE FLOOR OR WORKING PLATFORM. COORDINATE EQUIPMENT CONFIGURATIONS WITH THE REQUIRED HEIGHT OF CONCRETE PADS, IF ANY, TO ENSURE THAT DEVICE HANDLES DO NOT EXCEED HEIGHT LIMITATIONS.

- E24. CONDUIT AND RACEWAY SYSTEMS SHALL BE WORKED INTO COMPLETE, INTEGRATED ARRANGEMENT WITH LIKE ELEMENTS TO MAKE WORK NEAT APPEARING AND FINISHED.
- E25. CONTRACTOR SHALL RUN RACEWAYS PARALLEL WITH WALLS OR STRUCTURAL ELEMENTS; VERTICAL RUNS PLUMB; HORIZONTAL RUNS LEVEL OR PARALLEL WITH STRUCTURE AS APPROPRIATE: GROUPS RACKED TOGETHER NEATLY WITH STRAIGHT RUNS AND BENDS BOTH PARALLEL AND UNIFORMLY SPACED.
- E26. CLEARANCE: DO NOT INSTALL ANY EQUIPMENT SUCH THAT IT **OBSTRUCTS SPACES REQUIRED BY CODE IN FRONT OF** ELECTRICAL EQUIPMENT. ACCESS DOORS, ETC.
- E27. ALL PENETRATIONS THROUGH DAMP-PROOFED/WATER-PROOFED SURFACES SHALL BE MADE DAMP-PROOF/WATERPROOF BY APPROPRIATE MEANS TO MAINTAIN INTEGRITY OF SYSTEM PENETRATED
- E28. TEST ALL AC AND DC CONDUCTORS FOR LINE-TO-GROUND AND LINE-TO-LINE RESISTANCE WITH AN INSULATION **RESISTANCE METER. SCHEDULE ALL FEEDERS AND INDICATE** LINE-TO-GROUND AND LINE-TO-LINE RESISTANCES.
- E29. GROUNDING SYSTEM TEST: CONTRACTOR SHALL INCLUDE GROUND IMPEDANCE TEST BY 2 OR 3 POINT FALL-OF-POTENTIAL METHOD. GROUNDING SYSTEM **RESISTANCE SHALL BE 5 OHMS OR LESS.**
- E30. CONDUCTOR MARKING: INSULATION TYPE, VOLTAGE RATING, SIZE AND LISTING LABEL SHALL BE PRINTED WITH PERMANENT WHITE MARKINGS REPEATING ALONG ENTIRE LENGTH OF CONDUCTOR.
- E31. PROVIDE ALL NEW WIRE AND CABLE, MANUFACTURED WITHIN 12 MONTHS OF DELIVERY TO SITE AND CONTINUOUSLY STORED IN A CLEAN, DRY, VENTILATED SPACE FREE FROM TEMPERATURE EXTREMES AND WEATHER.

WIRE COLOR CODING: DC CONDUCTORS			
POSITIVE CONDUCTOR (+)	RED		
NEGATIVE CONDUCTOR (-)	BLACK		
WIRE COLOR CODING: AC CONDUCTORS			
	<34,500V	277/480V	120/208V
PHASE A	BLACK	BROWN	BLACK
PHASE B	RED	ORANGE	RED
PHASE C	BLUE	YELLOW	BLUE
GROUNDED CONDUCTOR (NEUTRAL)	WHITE	WHITE	WHITE
GROUNDING CONDUCTOR (EGC)	GREEN OR BARE	GREEN OR BARE	GREEN OR BARE

NOTE: FOR WIRE SIZES NO. 8 AWG AND LARGER, COLOR BANDING TAPE, MINIMUM 2 INCHES WIDE, MAY BE USED AT ALL ACCESSIBLE LOCATIONS IN LIEU OF COLORED INSULATION.



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DEVELOPER

SunGrid Power 1577 Randol Mill Ave Southlake, TX 76092

PROJECT:

Wieland PV Hunt County, TX 75474 32.989556°N, -96.059139°W

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н	60% DESIGN R1	02/09/2021
I	60% DESIGN R2	02/18/2021
J	60% DESIGN R3	08/31/2021

DATE:

AUGUST 31, 2021

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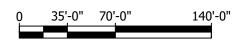
SHEET TITLE: GENERAL NOTES

E1.0



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- EXISTING FENCE ON – (N) OH ELECTRIC LINE (BY UTILITY) ┌─ 30 FT WIDE POI-ELECTRIC PROPERTY LINE EASEMENT PAD-2: PAD-1: XFMR-1 (POI) XFMR-2 (POI) LEQUIPMENT RACK 2: EQUIPMENT RACK 1: SYSTEM 1 SYSTEM 2 PVSB-2, INV-2.1 - INV-2.8, PVSB-1, INV-1.1 - INV-1.8, AUX-1, DAS-1 AUX-2, DAS-2 19' (TYP) 16'-0" — - 1145'-9"

G

н

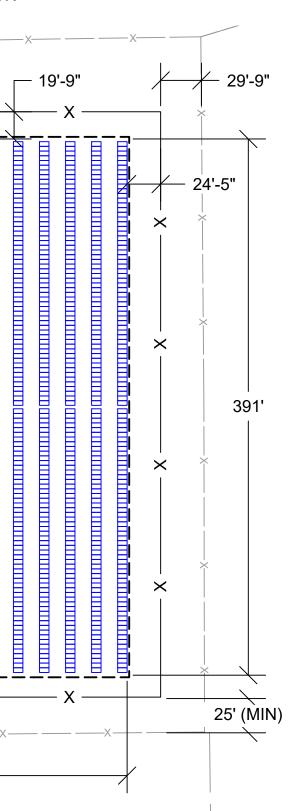
SHEET NOTES:

- 1. ACCESS ROADS, FENCES AND OTHER CIVIL WORKS ARE DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY.
- 2. MOST RACKING COMPONENTS NOT SHOWN FOR CLARITY. REFER TO RACKING MANUFACTURER'S DRAWINGS FOR DETAILS.
- 3. ARRAYS SHALL BE OFFSET FROM FENCES BY A MINIMUM OF 20 FEET.

LEGEND:

	PR
X	(N)
OHE	(E)
OHE	(N)
UGE	4" I
	EA
	450

ROPERTY LINE) FENCE LINE) OH ELECTRIC LINE) OH ELECTRIC LINE PVC C FOR MV CIRCUIT ASEMENT 50W MODULE



SYSTEM DETAILS			
	SYSTEM 1	SYSTEM 2	TOTAL
DC SYSTEM SIZE	1,462 KW	1,462 KW	2,923 KW
AC SYSTEM SIZE	999 KW	999 KW	1,998 KW
DC / AC RATIO	1.46	1.46	1.46
DC SYSTEM VOLTAGE	1500 V	1500 V	1500 V
POCC / POI VOLTAGE	600 V	600 V	600 V
Р	HOTOVOLTAIC N	ODULES	
MANUFACTURER	JINKO	JINKO	JINKO
MODEL	JKM450M-72 HLM-TV	JKM450M-72 HLM-TV	JKM450M-72 HLM-TV
DC POWER @ STC	450 W	450 W	450 W
MODULES PER STRING	28	28	28
TOTAL MODULES	3,248	3,248	6,496
	INVERTER	S	
MANUFACTURER	CHINT	CHINT	CHINT
MODEL	CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600
AC POWER RATING	125 KW	125 KW	125 KW
TOTAL INVERTERS	8	8	16
TRACKERS			
MFR / MODEL	ATI	ATI	ATI
PITCH	19'-0"	19'-0"	19'-0"
RANGE OF MOTION	±52°	±52°	±52°
112 MODULE ROWS	29	29	58



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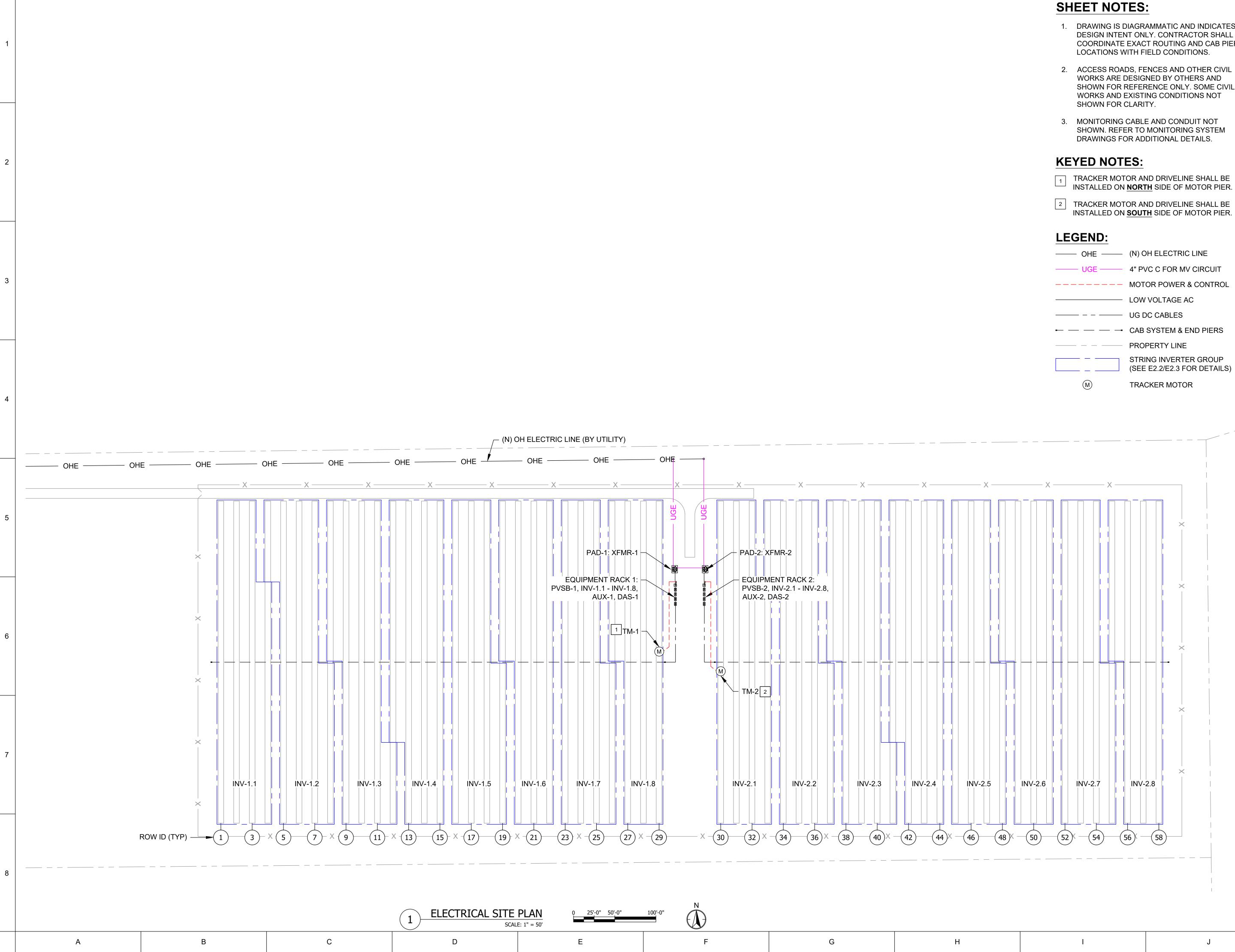
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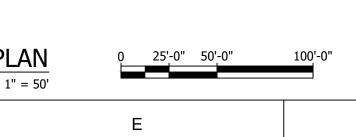
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SHEET TITLE: **OVERALL SITE PLAN**









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1. DRAWING IS DIAGRAMMATIC AND INDICATES DESIGN INTENT ONLY. CONTRACTOR SHALL COORDINATE EXACT ROUTING AND CAB PIER

J

- 2. ACCESS ROADS, FENCES AND OTHER CIVIL WORKS ARE DESIGNED BY OTHERS AND SHOWN FOR REFERENCE ONLY. SOME CIVIL WORKS AND EXISTING CONDITIONS NOT
- 3. MONITORING CABLE AND CONDUIT NOT SHOWN. REFER TO MONITORING SYSTEM DRAWINGS FOR ADDITIONAL DETAILS.

- INSTALLED ON NORTH SIDE OF MOTOR PIER.
- 2 TRACKER MOTOR AND DRIVELINE SHALL BE INSTALLED ON **SOUTH** SIDE OF MOTOR PIER.

—— OHE ——	(N) OH ELECTRIC LINE
UGE	4" PVC C FOR MV CIRCUIT
	MOTOR POWER & CONTROL
	LOW VOLTAGE AC
	UG DC CABLES
• •	CAB SYSTEM & END PIERS
	PROPERTY LINE
	STRING INVERTER GROUP (SEE E2.2/E2.3 FOR DETAILS)
M	TRACKER MOTOR



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DATE:

AUGUST 31, 2021

NOT FOR CONSTRUCTION

SHEET TITLE: ELECTRICAL SITE PLAN



A	В	С	D	E	F		G	Н
	INVERTER	GROUPING (TYP)						
	X.X-04 X.X-08 X.X-12	X.X.05	X.X-13 X.X-02 X.X-06	X.X-10 X.X-03	X.X-17 X.X-15 X.X-15	X.X.	X X 08	X.X06 X.X06 X.X14
	X.X-08 X.X-04 X.X-04 X.X-04 X.X-08 X.X-08 X.X-08 X.X-08 X.X-08 X.X-08 X.X-08 X.X-08 X.X-08 X.X-04 X.X-08 X.X-04 X.X-08 X.X-04 X.X-08 X.	X.X.09 X.X.05	X.X-06 X.X-02		X.X-15 X.X-11 X.X-07	X	X X.08	XX-06 XX-10 XX-14
						•		
	X.X-07 X.X-11	X-15 X-04	X.X-12 X.X-01	X-09	X.X-16 X.X-14	X-03	X-07	X.X05 X.X09 X.X13
			X.X-12 X.X-01					
								X.X05 X.X06
	X.X-06 X.X-10	(.X-14 (.X-03)	(.X-15 (.X-15	X.X-08 X.X-12 X.X-11	X.X-05 X.X-09 X.X-13	(.X-02	(.X-06 (.X-10	XX-04 XX-12 XX-12
			X.X-15 X.X-04					X X-04
							7	
	X.X.05	X.X-06 X.X-02	X.X-10 X.X-14 X.X-03	X.X-15 X.X-07 X.X-07	X.X08 X.X08 X.X12	X.X.	X X -09 X X -09	X.X-07 X.X-11 X.X-11
	INV-1.1, INV-2.1	[[]	1.2, INV-2.2	INV-1.3, INV-2.3	INV-1.4, INV-2.4		INV-1.5, INV-1.7, INV-2.5, INV-2.7	INV-1.6, INV-1.8, INV-2.6, INV-2.8
			1 TYPICAL STR		0 10' 20' 40'	N		
				SCALE: 1" = 20'				I
А	В	С	D	E	F		G	н

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SHEET NOTES:

1. SEE SHEET E2.3 FOR WIRE MANAGEMENT DETAILS.

J

INVERTER ID -____ STRING # STRING ID: 1.1-01



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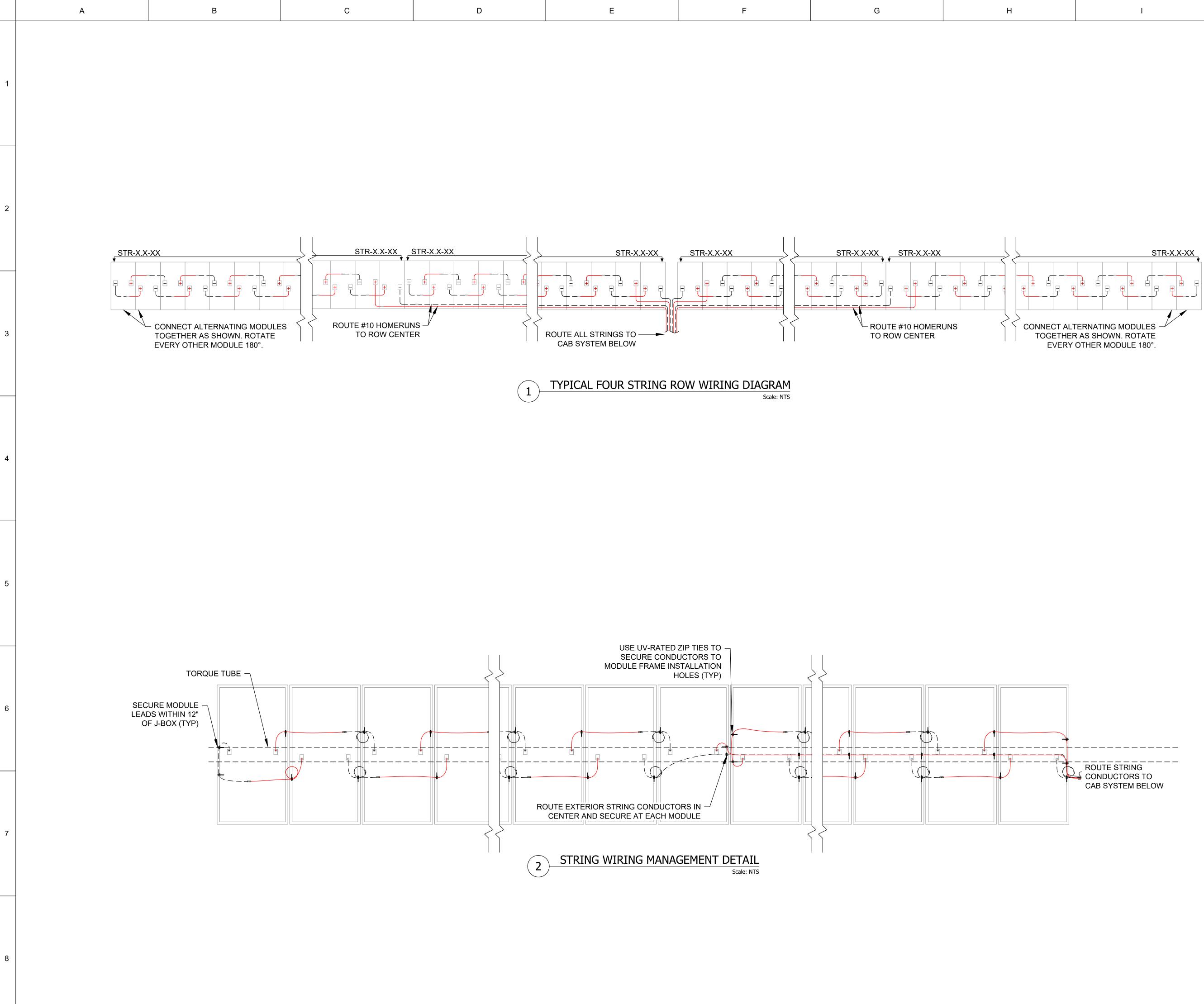
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SHEET TITLE: STRING LAYOUT PLAN

SHEET NO.

J

E2.2



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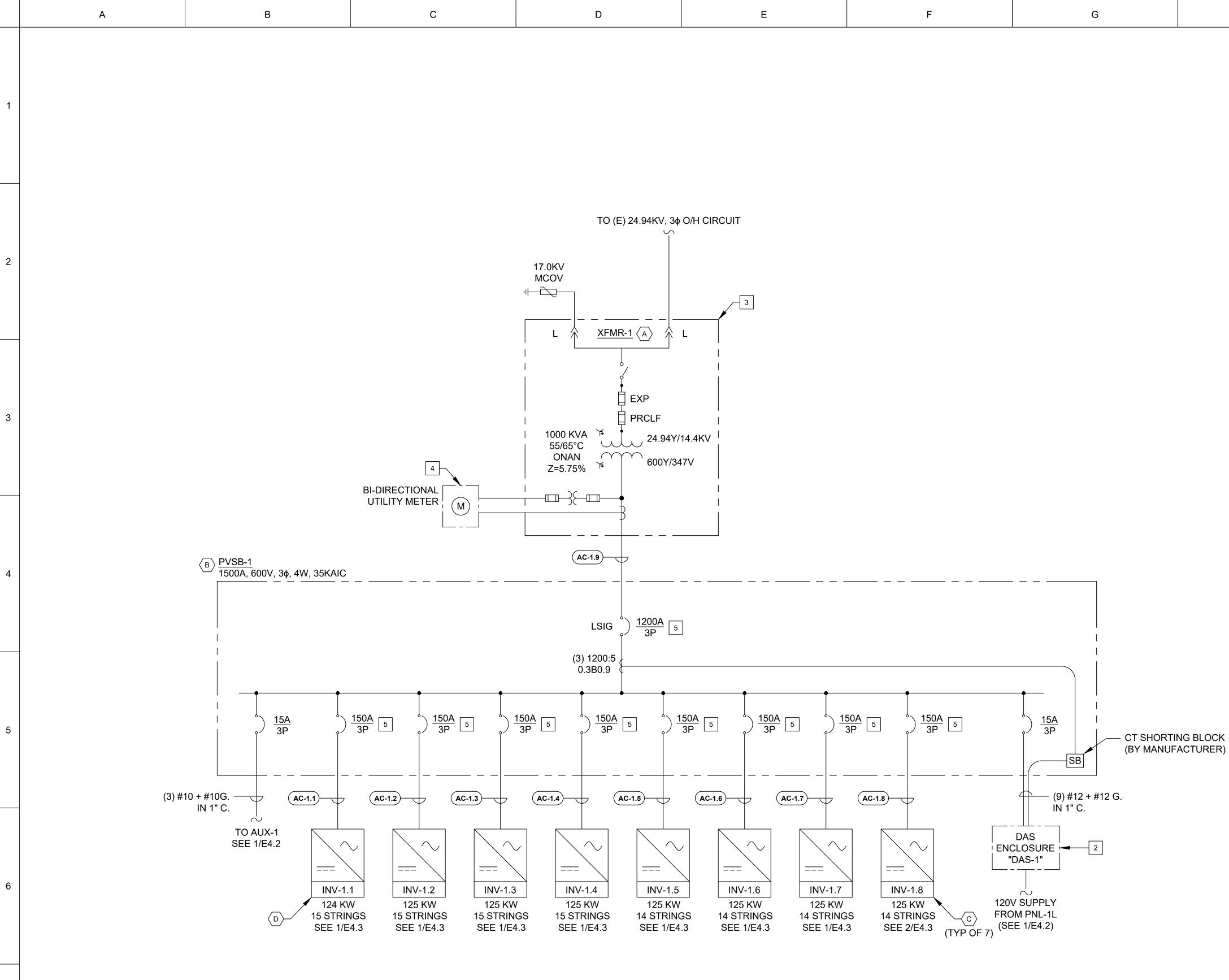
AUGUST 31, 2021

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SHEET TITLE:

STRING WIRING PLAN

E2.3



SINGLE LINE DIAGRAM - SYSTEM 1

D

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Scale: NTS

Н

SHEET NOTES:

Н

- 1. UTILITY INTERCONNECTION INFORMATION:
 - SOLAR AC CURRENT: 1017.6 A @ 600 V SOLAR 36 FAULT CURRENT: 1628.2 A @ 600 V
- 2. ALL PVC CONDUIT EXPOSED TO PHYSICAL DAMAGE SHALL BE SCHEDULE 80.
- 3. LOW VOLTAGE AC WIRING SHALL BE COPPER, XHHW-2 UNLESS OTHERWISE NOTED.

KEYED NOTES:

- PER UTILITY INTERCONNECTION GUIDELINES, PROVIDE MANUAL DISCONNECT DEVICE WITH VISIBLE DISCONNECT TO ISOLATE GENERATING FACILITY FROM UTILITY'S DISTRIBUTION SYSTEM. THE DEVICE MUST BE ACCESSIBLE TO UTILITY PERSONNEL AND BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- MONITORING BOX WITH REVENUE GRADE METER. MONITORING SHALL BE SUPPLIED BY ALSO ENERGY OR APPROVED EQUAL.
- 3 CONTRACTOR TO INSTALL XFMR. UTILITY TO INSTALL MV CABLE AND TERMINATIONS.
- 4 CTS, PTS AND METER BY UTILITY.
- 5 BREAKER SHALL BE 100% RATED.

EQUIPMENT SPECS:

- A 24.94KV 600V PAD MOUNTED STEP-UP TRANSFORMER WITH 5-LEGGED CORE AND ISOLATED NEUTRAL. POWER RATING AS INDICATED. TRANSFORMER SHALL BE LOOP FEED TYPE WITH 200A LOAD BREAK TERMINATIONS.
- $\langle B \rangle$ 1500A, 600V, 3¢, 4W SURFACE MOUNTED SWITCHBOARD IN NEMA 3R WEATHERPROOF ENCLOSURE, EPEC SOLUTIONS, OAE. EQUIPMENT RATINGS SHALL BE AS INDICATED. DEVICE SHALL BE SUITABLE FOR SERVICE ENTRANCE. ALL CIRCUIT BREAKERS SHALL BE FULLY RATED AND **BI-DIRECTIONAL**.
- 125 KW, 132 KVA, 600V, 3¢, 3W STRING INVERTER, $\langle c \rangle$ CHINT MODEL SCH125KTL-DO/US-600, STANDARD WIRE-BOX TYPE. INVERTER SHALL HAVE POWER FACTOR SET TO 0.99.
- $\langle D \rangle$ 125 KW, 132 KVA, 600V, 3ø, 3W STRING INVERTER, CHINT MODEL SCH125KTL-DO/US-600, STANDARD WIRE-BOX TYPE. INVERTER SHALL HAVE REAL POWER OUTPUT LIMITED TO 124 KW AND POWER FACTOR SET TO 0.99.

SYSTEM DETAILS								
	SYSTEM 1	SYSTEM 2	TOTAL					
DC SYSTEM SIZE	1,462 KW	1,462 KW	2,923 KW					
AC SYSTEM SIZE	999 KW	999 KW	1,998 KW					
DC / AC RATIO	1.46	1.46	1.46					
DC SYSTEM VOLTAGE	1500 V	1500 V	1500 V					
POCC / POI VOLTAGE	600 V	600 V	600 V					
P	HOTOVOLTAIC N	ODULES						
MANUFACTURER	JINKO	JINKO	JINKO					
MODEL	JKM450M-72 HLM-TV	JKM450M-72 HLM-TV	JKM450M-72 HLM-TV					
DC POWER @ STC	450 W	450 W	450 W					
MODULES PER STRING	28	28	28					
TOTAL MODULES	3,248	3,248	6,496					
	INVERTER	S						
MANUFACTURER	CHINT	CHINT	CHINT					
MODEL	CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600	CPS SCH125KTL-DO /US-600					
AC POWER RATING	125 KW	125 KW	125 KW					
TOTAL INVERTERS	8	8	16					
	TRACKER	S						
MFR / MODEL	ATI	ATI	ATI					
PITCH	19'-0"	19'-0"	19'-0"					
RANGE OF MOTION	±52°	±52°	±52°					
112 MODULE ROWS	29	29	58					



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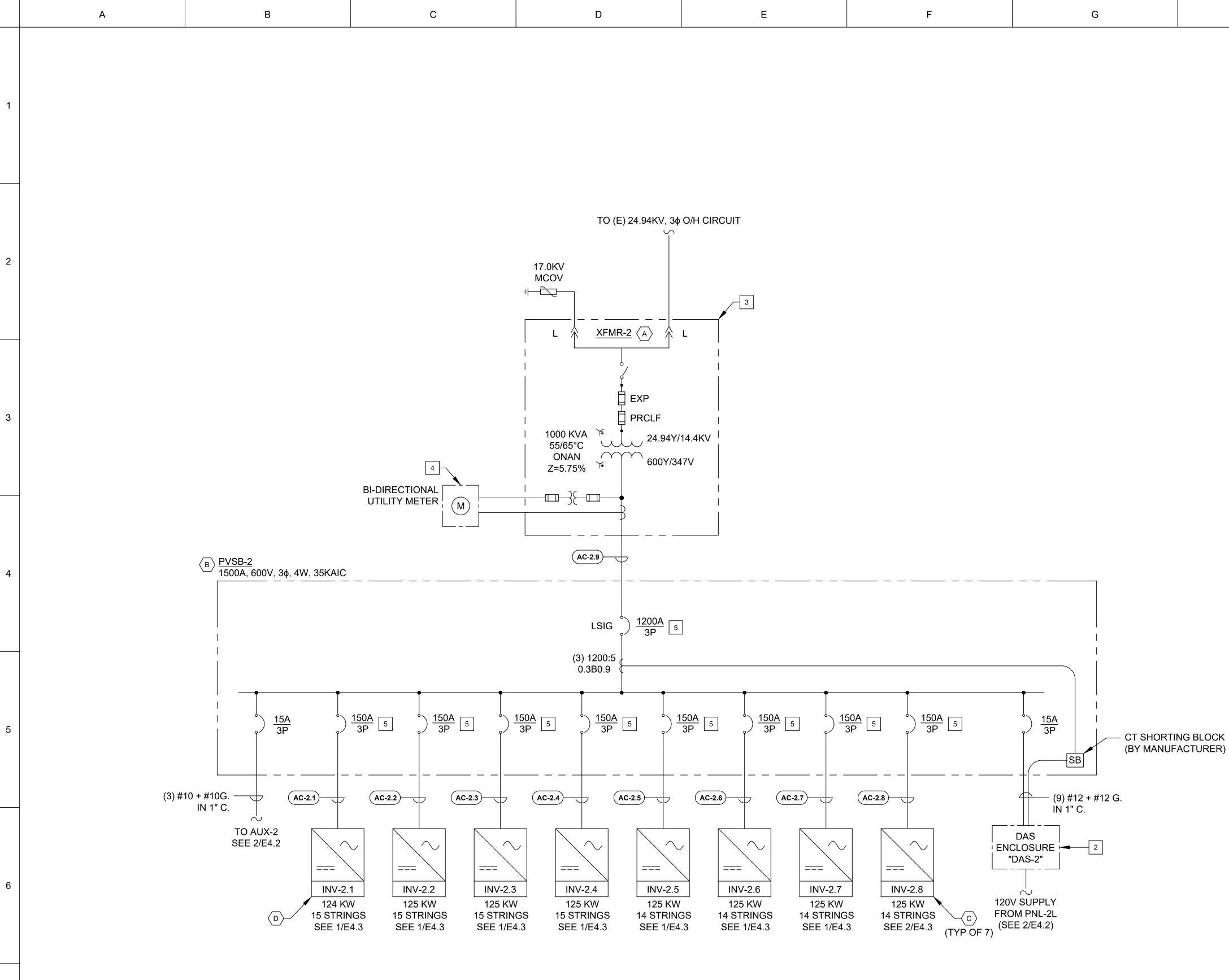
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SHEET TITLE:

SINGLE LINE DIAGRAM -SYSTEM 1





SINGLE LINE DIAGRAM - SYSTEM 2

D

1

B

7

8

Α

С

Scale: NTS

G

Н

SHEET NOTES:

Н

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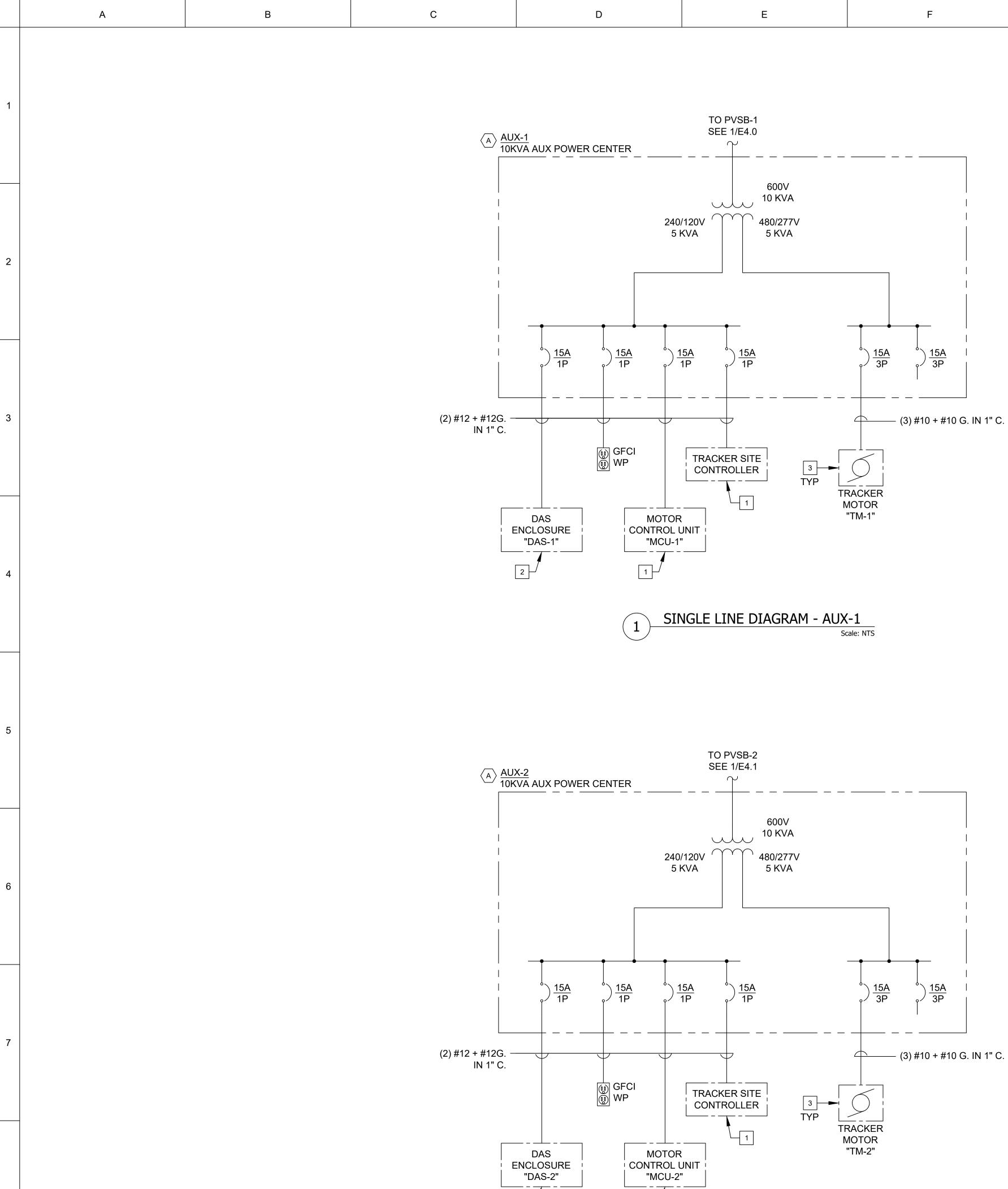
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SHEET TITLE:

SINGLE LINE DIAGRAM -SYSTEM 2







Α

В

8

1 2 2

D

SINGLE LINE DIAGRAM - AUX-2 Scale: NTS

E	

G

Н

Н

SHEET NOTES:

1. LOW VOLTAGE AC WIRING SHALL BE COPPER, XHHW-2 UNLESS OTHERWISE NOTED.

J

KEYED NOTES:

- EQUIPMENT PROVIDED BY TRACKER 1 MANUFACTURER. REFER TO TRACKER SYSTEM DRAWINGS FOR ADDITIONAL DETAILS.
- DAS MONITORING EQUIPMENT. REFER TO DAS 2 SYSTEM DRAWINGS BY OTHERS FOR ADDITIONAL DETAILS.
- 2 HP, 480V, 3¢ TRACKER MOTOR PROVIDED BY 3 TRACKER MANUFACTURER. REFER TO TRACKER SYSTEM DRAWINGS FOR ADDITIONAL DETAILS.

EQUIPMENT SPECS:

AUXILIARY POWER CENTER IN RACK MOUNTED $\langle A \rangle$ NEMA 3R ENCLOSURE, EPEC SOLUTIONS, OAE. POWER CENTER SHALL INCLUDE THREE WINDING TRANSFORMER AND BRANCH CIRCUIT BREAKERS WITH RATINGS AS INDICATED.



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DEVELOPER:

SunGrid Power 1577 Randol Mill Ave Southlake, TX 76092

PROJECT:

Wieland PV Hunt County, TX 75474 32.989556°N, -96.059139°W

REVISIONS

#	DESCRIPTION	DATE
<i><i>^π</i></i>		DATE
A	PRELIMINARY LAYOUT	12/06/2019
В	30% DESIGN	12/23/2019
С	60% DESIGN	01/17/2020
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J	60% DESIGN R3	08/31/2021

DATE:

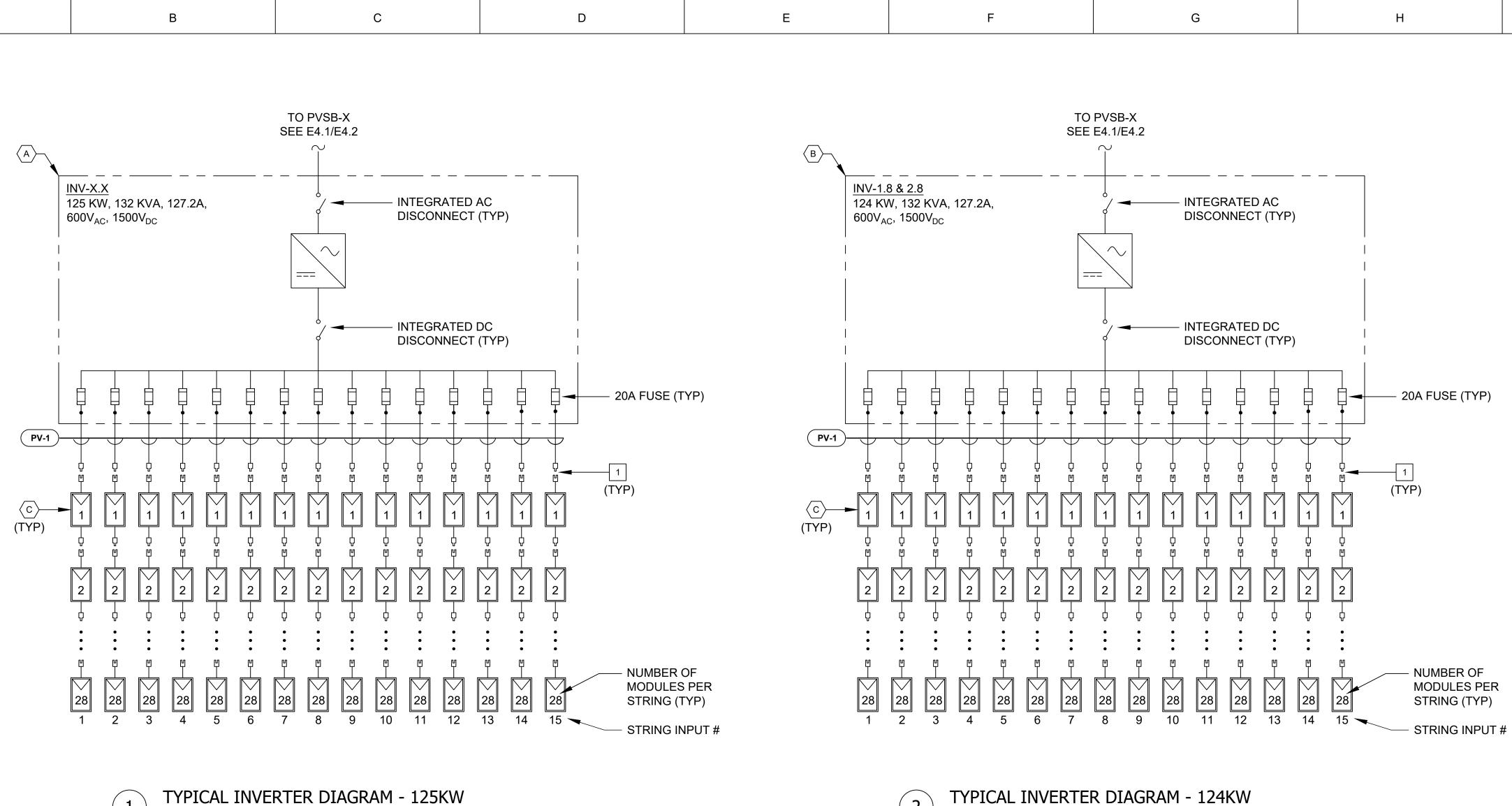
AUGUST 31, 2021

NOT FOR CONSTRUCTION

SHEET TITLE:

SINGLE LINE DIAGRAM -AUX

E4.2



											INV	ERTER S	CHEDUL	E											
	1000	MODULES PER STRING 4														450W	TOTAL	DC SIZE	AC SIZE	LOADIN					
NVERTER ID	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT7	INPUT 8	INPUT 9	INPUT 10	INPUT 11	INPUT 12	INPUT 13	INPUT 14	INPUT 15	INPUT 16	INPUT 17	INPUT 18	INPUT 19	INPUT 20	NODULE	STRING	(KW)	(KW)	RATIO
1.1	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		1.20			12223	420	15	189.0	124	1.52
1.2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		() — ()			1	420	15	189.0	125	1.51
1.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		1				420	15	189.0	125	1.51
1.4	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28)	1				420	15	189.0	125	1.51
1.5	28	28	28	28	28	28	28	28	28	28	28	28	28	28	11.50		1				392	14	176.4	125	1.41
1.6	28	28	28	28	28	28	28	28	28	28	28	28	28	28	· · · · · · · · · · · · · · · · · · ·		1			·	392	14	176.4	125	1.41
1.7	28	28	28	28	28	28	28	28	28	28	28	28	28	28							392	14	176.4	125	1.41
1.8	28	28	28	28	28	28	28	28	28	28	28	28	28	28	1		1	·		1	392	14	176.4	125	1.41
																	-		S	SYSTEM 1	3,248	116	1,462	999	1.46
2.1	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		1.1				420	15	189.0	124	1.52
2.2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28)				1	420	15	189.0	125	1.51
2.3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	i					420	15	189.0	125	1.51
2.4	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28		11				420	15	189.0	125	1.51
2.5	28	28	28	28	28	28	28	28	28	28	28	28	28	28			1		A		392	14	176.4	125	1.41
2.6	28	28	28	28	28	28	28	28	28	28	28	28	28	28		0	1				392	14	176.4	125	1.41
2.7	28	28	28	28	28	28	28	28	28	28	28	28	28	28	2	·:				1:= ===================================	392	14	176.4	125	1.41
2.8	28	28	28	28	28	28	28	28	28	28	28	28	28	28)	1			1.11.1.1	392	14	176.4	125	1.41
																			S	SYSTEM 2	3,248	116	1,462	999	1.46

(3)

В

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1

2

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Α

С

Scale: NTS

D



INVERTER SCHEDULE

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G

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KEYED NOTES:

1 MODULE CONNECTORS MATED TOGETHER SHALL BE OF THE SAME TYPE AND FROM THE SAME MANUFACTURER.

J

EQUIPMENT SPECS:

- A 125 KW, 132 KVA, 600V, 3¢, 3W STRING INVERTER, CHINT MODEL SCH125KTL-DO/US-600, STANDARD WIRE-BOX TYPE. INVERTER SHALL HAVE POWER FACTOR SET TO 0.99.
- 125 KW, 132 KVA, 600V, 3¢, 3W STRING INVERTER, $\langle B \rangle$ CHINT MODEL SCH125KTL-DO/US-600, STANDARD WIRE-BOX TYPE. INVERTER SHALL HAVE REAL POWER OUTPUT LIMITED TO 124 KW AND POWER FACTOR SET TO 0.99.
- 450W, 1500V_{DC} SOLAR PV MODULE, JINKO SOLAR MODEL JKM450M-72HLM-TV. $\langle c \rangle$



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DATE:

AUGUST 31, 2021

NOT FOR CONSTRUCTION

SHEET TITLE:

SINGLE LINE DIAGRAM - DC

E4.3

	E	D	С	В	A	
						1
CAT5	CTS/PTS FROM PVSB-1 (REF: 1/E4.0) 1 DAS-1 MONITORING ENCLOSURE CAT5	$\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	INV-1.5 INV-1.4			2
CAT5 – TEM 1 Scale: NTS	MONITORING DIAGRAM - SYST					4
CAT5 ——	CTS/PTS FROM PVSB-2 (REF: 1/E4.1)					5
5 24V	DAS-2 MONITORING ENCLOSURE 24V					6
TEM 2	MONITORING DIAGRAM - SYST	/-2.6 INV-2.7 INV-2.8	INV-2.5			7

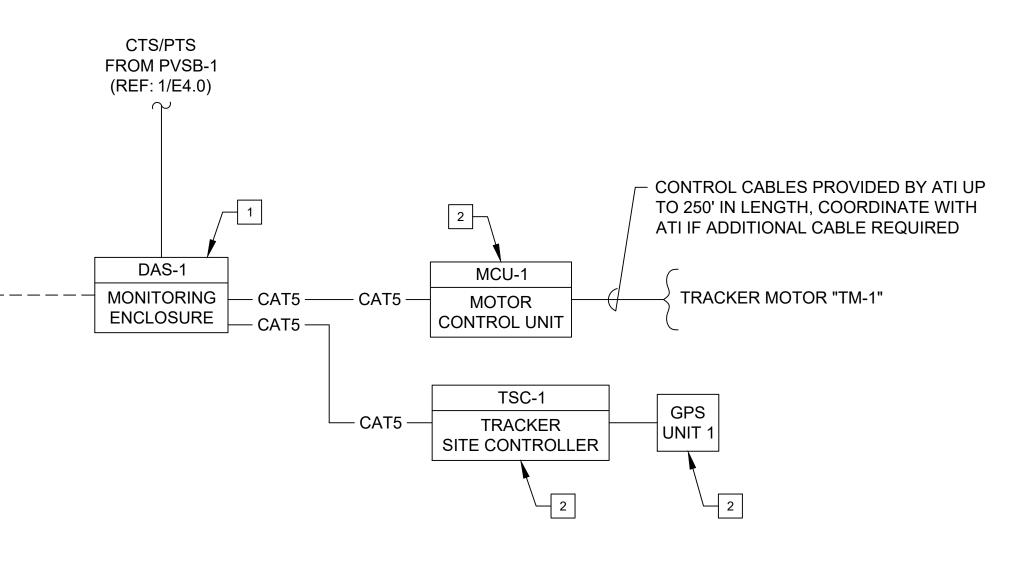
2

D

В

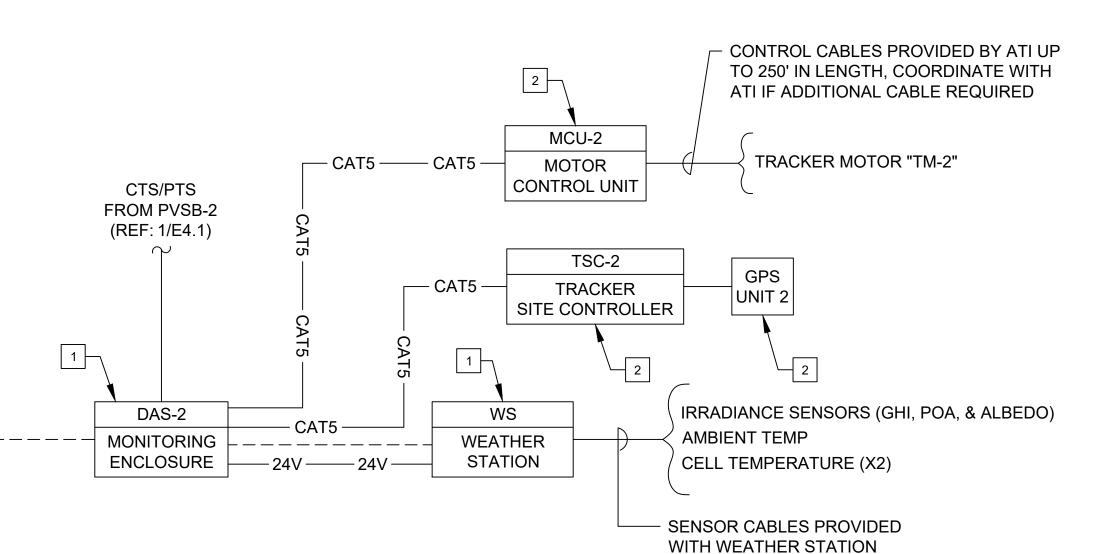
8

Α



G

Η



MONITORING DIAGRAM - SYSTEM 2

Scale: NTS

Ε

1 J

KEYED NOTES:

- DAS MONITORING EQUIPMENT SUPPLIED BY
 ALSOENERGY. REFER TO ALSOENERGY DESIGN DRAWINGS FOR ADDITIONAL DETAILS.
- 2 EQUIPMENT PROVIDED BY TRACKER MANUFACTURER. REFER TO TRACKER SYSTEM DRAWINGS FOR ADDITIONAL DETAILS.

LEGEND:

-----RS-485 CABLE - 1" C

- ------ 24V ------- (2) #12 AWG CU CABLE 1" C
- ------ CAT5 ------ SHIELDED CAT6 CABLE 1" C



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(

DATE:

AUGUST 31, 2021

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SINGLE LINE DIAGRAM -MONITORING

E4.4

А		

1

2

3

5

6

R

С

D

	MODULE CHARACTERIS	STICS
М	ANUFACTURER	JINKO SOLAR
	MODEL	JKM450M-72HLM-TV
MAXIMU	M POWER @ STC (W)	450
MAXIMUM P	OWER VOLTAGE, Vmp (V)	41.4
MAXIMUM P	OWER CURRENT, Imp (A)	10.87
OPEN-CIR	CUIT VOLTAGE, Voc (V)	49.56
SHORT-CI	RCUIT CURRENT, Isc (A)	11.56
MAXIMUM SY	STEM VOLTAGE, Vmax (V)	1500
MAXIMUM S	SERIES FUSE RATING (A)	25
TIEDMAL	Pmax COEFFICIENT (γ)	-0.350%
THERMAL	Voc COEFFICIENT (β)	-0.290%
	lsc COEFFICIENT (α)	0.048%

INVERTER CHAR	RACTERISTICS
MANUFACTURER	CHINT
MODEL	CPS SCH100-125KTL-DO-US-600
MIN. MPPT VOLTAGE (V)	870
MAX. MPPT VOLTAGE (V)	1,300
MAX. DC INPUT VOLTAGE (V)	1,500
AC OUTPUT VOLTAGE (V)	600
AC OUTPUT CURRENT (A)	127.2
MAX AC OUTPUT POWER (KVA)	132.2

DC STRING CABLE SCH

	GENERAL								P		1		AMPACI	TY CALCUL	ATIONS		VOLTAGE CALCULATIONS				VOLTAGE DROP					
	ORIGINATING EQUIPMENT		Module Rating (W)	CONDUCTOR TYPE	QTY	CONDUCTOR SIZE	CU EGC SIZE	RACEWAY	NEC 690.8 (A)(1)(1)	NEC 690.9 (B)	SELECTED RATING (A)	75℃ AMPACITY (A)	90°C AMPACITY (A)	TEMP DERATE	FILL DERATE	ADJUSTED AMPACITY (A)	MODULES PER STRING	STC Voc (V)	LOW TEMP ADJUSTED Voc (V)	HIGH TEMP ADJUSTED Vmp (V)	AVG. ONE- WAY CABLE LENGTH (FT)	MAX ONE- WAY CABLE LENGTH (FT)	CURRENT	OPERATING VOLTAGE (Vmp @ STC)	avg. Voltage Drop (%)	Max Voltage Drop (%
PV-1	STR-1.1-XX	INV-1.1	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	771	850	10.9	1159.2	1.79%	1.98%
PV-1	STR-1.2-XX	INV-1.2	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	701	790	10.9	1159.2	1.63%	1.84%
PV-1	STR-1.3-XX	INV-1.3	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	625	705	10.9	1159.2	1.45%	1.64%
PV-1	STR-1.4-XX	INV-1.4	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	541	625	10.9	1159.2	1.26%	1.45%
PV-1	STR-1.5-XX	INV-1.5	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	476	550	10.9	1159.2	1.11%	1.28%
PV-1	STR-1.6-XX	INV-1.6	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	424	500	10.9	1159.2	0.99%	1.16%
PV-1	STR-1.7-XX	INV-1.7	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	355	430	10.9	1159.2	0.83%	1.00%
PV-1	STR-1.8-XX	INV-1.8	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	289	360	10.9	1159.2	0.67%	0.84%
					1000				1								-					<u>.</u>	SYSTEM	1 1 - AVERAGE	DC VD	1.22%
																							SYSTEM	1 - MAXIMUM	DC VD	1.98%

DC STRING CABLE SCHEDULE AND CALCULATIONS

	GENERAL												AMPACI	TY CALCUL	ATIONS			VOLTAGE (CALCULATIONS	5			VOLTAGE DROP			-
CABLE ID	ORIGINATING EQUIPMENT	TERMINATING EQUIPMENT	Module Rating (W)	CONDUCTOR TYPE	QTY	CONDUCTOR SIZE	CU EGC SIZE	RACEWAY	NEC 690.8 (A)(1)(1)	NEC 690.9 (B)	SELECTED RATING (A)	75℃ AMPACITY (A)	90°C AMPACITY (A)	TEMP DERATE	FILL DERATE	ADJUSTED AMPACITY (A)	MODULES PER STRING	STC Voc (V)	LOW TEMP ADJUSTED Voc (V)	HIGH TEMP ADJUSTED Vmp (V)	AVG. ONE- WAY CABLE LENGTH (FT)	MAX ONE- WAY CABLE LENGTH (FT)	OPERATING CURRENT (Imp @ STC)	OPERATING VOLTAGE (Vmp @ STC)	AVG. VOLTAGE DROP (%)	MAX VOLTAGE DROP (%)
PV-1	STR-2.1-XX	INV-2.1	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	292	375	10.9	1159.2	0.68%	0.87%
PV-1	STR-2.2-XX	INV-2.2	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	365	445	10.9	1159.2	0.85%	1.03%
PV-1	STR-2.3-XX	INV-2.3	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	430	515	10.9	1159.2	1.00%	1.20%
PV-1	STR-2.4-XX	INV-2.4	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	489	570	10.9	1159.2	1.14%	1.33%
PV-1	STR-2.5-XX	INV-2.5	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	564	645	10.9	1159.2	1.31%	1.50%
PV-1	STR-2.6-XX	INV-2.6	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	634	710	10.9	1159.2	1.48%	1.65%
PV-1	STR-2.7-XX	INV-2.7	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	709	790	10.9	1159.2	1.65%	1.84%
PV-1	STR-2.8-XX	INV-2.8	450	CU-PV WIRE (2000V)	2	#10 AWG	NOTE 4	CAB	13.7	17.1	20	35	40	0.95	0.5	19.0	28	1387.7	1473.7	1013.5	779	855	10.9	1159.2	1.81%	1.99%
																							SYSTEM	12 - AVERAGE	DC VD	1.24%
																							SYSTEM	2 - MAXIMUM	DC VD	1.99%

MAXIMUM CURRENT

PER 2017 NEC 690.8(A)(1)(2), THE CALCULATED MAXIMUM CURRENT OF THE PV SYSTEM WAS DETERMINED USING STANDARD SAND 2004-3535 PHOTOVOLTAIC ARRAY PERFORMANCE MODEL. THE ANALYSIS INCLUDED SOFTWARE SIMULATIONS USING SITE SPECIFIC SATELLITE WEATHER DATA FOR THE PAST 22 YEARS [1998-2019] TO DETERMINE THE MAXIMUM 3-HOUR AVERAGE SHORT-CIRCUIT CURRENT. BOTH FRONT AND REAR-SIDE IRRADIANCE WERE CONSIDERED. BELOW IS A SUMMARY OF THE RESULTS:

JINKO 450W:

- MAX TOTAL IRRADIANCE: 1113.0 W/m²
- MAX SHORT-CIRCUIT CURRENT: 13.05 A 5% 13.71 A
- SAFETY FACTOR: DESIGN MAX CURRENT:

MAXIMUM VOLTAGE

PER 2017 NEC 690.7(A)(3)(1), THE CALCULATED MAXIMUM VOLTAGE OF THE PV SYSTEM WAS DETERMINED USING STANDARD SAND 2004-3535 PHOTOVOLTAIC ARRAY PERFORMANCE MODEL. THE ANALYSIS INCLUDED SOFTWARE SIMULATIONS USING SITE SPECIFIC SATELLITE WEATHER DATA FOR THE PAST 22 YEARS [1998-2019] TO DETERMINE THE MAXIMUM SYSTEM VOLTAGE EXPECTED OVER THE PROJECT'S LIFETIME. BELOW IS A SUMMARY OF THE RESULTS:

JINKO 450W:

- STRING LENGTH:
- MAX OPEN-CIRCUIT ' • SAFETY FACTOR:
- DESIGN MAX VOLTAG

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В

E		F

G

LVAC SYSTEM VD

TOTAL VD

Н

ASHRAE HANDBO	OK (2017)
WEATHER STATION	MAJORS AP, TX
2% AVERAGE HIGH TEMP	35.9
EXTREME LOW TEMP	-8.5

OUTDOOR	THERMAL EXPANSION
CONDUIT	EXPANSION JOINT REQ'D ON SPANS OVER 'X' FT
STEEL	29
ALUMINUM	15
PVC	7
HDPE	3

	11 VOLTAGE SUMMARY	
TYPE	AVERAGE	MAX
DC SYSTEM VD	1.22%	1.98%
LVAC SYSTEM VD	0.24%	0.31%
TOTAL VD	1.46%	2.29%
	2 VOLTAGE SUMMARY	
DC SYSTEM VD	1.24%	1,99%
DOOTOTEMIVD	1.2470	1.0070

0.19%

0.25%

1.43% 2.23%

ł	E	D	ι	IL	E	A	ND	C	AL	_C	U	LA	١T	10	N	S

	28
VOLTAGE:	1430.7 V
	3%
GE:	1473.7 V

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SHEET NOTES:

1. CONDUCTOR LENGTHS INDICATED ARE APPROXIMATIONS. CONTRACTOR SHALL VERIFY ACTUAL LENGTHS ON SITE.

J

- 2. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC. ALL UNDERGROUND ELBOWS AND STUB-UPS SHALL BE SCHEDULE 80 PVC.
- 3. CONDUITS SHALL BE RIGID WHERE SUBJECT TO PHYSICAL DAMAGE.
- 4. WITHIN CAB SYSTEM, UL-LISTED CAB MESSENGER WIRE SHALL BE USED AS COMMON DC EGC. MINIMUM (1) #6 AWG CU EGC SHALL BE INSTALLED PER CONDUIT STUB-UP. A #6 AWG CU EGC SHALL BE INSTALLED PER COMMON DC TRENCH.
- 5. CONDUIT SIZES SHOWN IN LVAC TABLE ARE FOR STUB UPS ONLY. DESIGN INTENT IS FOR INVERTER AC OUTPUT CIRCUITS TO BE DIRECT BURIED.



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CABLE SCHEDULE & CALCULATIONS

E5.0

A	
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В

MANUFACTURER

MODEL

MIN. MPPT VOLTAGE (V)

MAX. MPPT VOLTAGE (V)

MAX. DC INPUT VOLTAGE (V)

AC OUTPUT VOLTAGE (V) AC OUTPUT CURRENT (A)

MAX AC OUTPUT POWER (KVA)

С

INVERTER CHARACTERISTICS

CHINT

CPS SCH100-125KTL-DO-US-600

870

1,300

1,500

600

127.2

132.2

D

WEATHER
2% AVERAGE
EXTREME L

	MODULE CHARACTERIS	TICS
М	ANUFACTURER	JINKO SOLAR
	MODEL	JKM450M-72HLM-TV
MAXIMU	M POWER @ STC (W)	450
MAXIMUM P	OWER VOLTAGE, Vmp (V)	41.4
MAXIMUM P	OWER CURRENT, Imp (A)	10.87
OPEN-CIR	CUIT VOLTAGE, Voc (V)	49.56
SHORT-CI	RCUIT CURRENT, Isc (A)	11.56
MAXIMUM SY	STEM VOLTAGE, Vmax (V)	1500
MAXIMUM S	SERIES FUSE RATING (A)	25
TUEDMAL	Pmax COEFFICIENT (y)	-0.350%
THERMAL	Voc COEFFICIENT (β)	-0.290%
	Isc COEFFICIENT (α)	0.048%

LVAC CIRCUIT CABLE SCHEDULE AND CAI

	GENERAL				CONDU	UCTOR DETAILS		1	RACI	EWAY DETAILS		OCPE	SIZING	1	AMPACIT	Y CALCULA	TIONS			VO	TAGE DROP		
Cable ID	ORIGINATING EQUIPMENT	TERMINATING EQUIPMENT	MATERIAL	TYPE	QTY	SIZE	COPPER EGC SIZE (per raceway)	QTY	SIZE	TYPE	FILL (%)	NEC 690.9(B)	SELECTED RATING (A)		90°C AMPACITY (A)	TEMP DERATE	FILL DERATE		ONE-WAY CABLE LENGTH (FT)	OPERATING CURRENT (A)	OPERATING VOLTAGE (V)	VOLTAGE DROP (V)	VOLTAGE DROP (%)
AC-1.1	INV-1.1	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	10	127.2	600	0.4	0.06%
AC-1.2	INV-1.2	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	15	127.2	600	0.5	0.09%
AC-1.3	INV-1.3	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	20	127.2	600	0.7	0.12%
AC-1.4	INV-1.4	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	30	127.2	600	1.1	0.18%
AC-1.5	INV-1.5	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	10	127.2	600	0.4	0.06%
AC-1.6	INV-1.6	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	15	127.2	600	0.5	0.09%
AC-1.7	INV-1.7	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	20	127.2	600	0.7	0.12%
AC-1.8	INV-1.8	PVSB-1	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.4	30	127.2	600	1.1	0.18%
AC-1.9	PVSB-1	XFMR-1	Aluminum	RHW_2	4	(4) Sets of 500 kcmil	N/A	4	3-1/2"	PVC_40	31%	1017.6	1200	1240	1400	0.95	1.0	1329.4	40	1017.6	600	0.8	0.13%
																				AVG.	LVAC SYSTEM 1	VD	0.24%
																				MAX. IN	VERTER SYSTEM	1 VD	0.31%

			-					L	VAC CI	RCUIT CABL	E SCHE	DULE ANI	CALCULA	TIONS - SYS	STEM 2								
	GENERAL				COND	UCTOR DETAILS			RACE	EWAY DETAILS		OCPE	SIZING	1	AMPACIT	Y CALCULA	ATIONS			VOL	LTAGE DROP		3
CABLE ID	ORIGINATING EQUIPMENT	TERMINATING EQUIPMENT	MATERIAL	TYPE	QTY	SIZE	COPPER EGC SIZE (per raceway)	QTY	SIZE	TYPE	FILL (%)	NEC 690.9(B)	SELECTED RATING (A)	75℃ AMPACITY (A)	90°C AMPACITY (A)	TEMP DERATE	FILL DERATE	ADJUSTED AMPACITY (A)	ONE-WAY CABLE LENGTH (FT)	OPERATING CURRENT (A)	OPERATING VOLTAGE (V)	VOLTAGE DROP (V)	Voltage Drop (%
AC-2.1	INV-2.1	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	5	127.2	600	0.2	0.03%
AC-2.2	INV-2.2	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	10	127.2	600	0.4	0.06%
AC-2.3	INV-2.3	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	15	127.2	600	0.5	0.09%
AC-2.4	INV-2.4	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	20	127.2	600	0.7	0.12%
AC-2.5	INV-2.5	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	10	127.2	600	0.4	0.06%
AC-2.6	INV-2.6	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	15	127.2	600	0.5	0.09%
AC-2.7	INV-2.7	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	20	127.2	600	0.7	0.12%
AC-2.8	INV-2.8	PVSB-2	Aluminum	RHW_2	3	#2/0 AWG	#6 AWG	1	2"	PVC_40	34%	127.2	150	135	150	0.95	1.0	142.5	25	127.2	600	0.9	0.15%
AC-2.9	PVSB-2	XFMR-2	Aluminum	RHW_2	4	(4) Sets of 500 kcmil	N/A	4	3-1/2"	PVC_40	31%	1017.6	1200	1240	1400	0.95	1.0	1330.0	30	1017.6	600	0.6	0.10%
								· · · · ·			1.22									AVG.	LVAC SYSTEM 2	VD	0.19%
																				MAX. IN	VERTER SYSTEM	2 V D	0.25%

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TOTAL VD

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HRAE HANDBO	OK (2017)	OUTE
R STATION	MAJORS AP, TX	CONE
E HIGH TEMP	35.9	CONL
LOW TEMP	-8.5	STE
		ALUMI

OUTDOOR	THERMAL EXPANSION
CONDUIT	EXPANSION JOINT REQ'D ON SPANS OVER 'X' FT
STEEL	29
ALUMINUM	15
PVC	7
HDPE	3

	1 VOLTAGE SUMMARY	
TYPE	AVERAGE	MAX
DC SYSTEM VD	1.22%	1.98%
LVAC SYSTEM VD	0.24%	0.31%
TOTAL VD	1.46%	2.29%
	2 VOLTAGE SUMMARY	
		1.99%

1.43% 2.23%

ALCU	LATIO	NS -	SYS	TEM	1
10				_	

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SHEET NOTES:

1. CONDUCTOR LENGTHS INDICATED ARE APPROXIMATIONS. CONTRACTOR SHALL VERIFY ACTUAL LENGTHS ON SITE.

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- 2. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC. ALL UNDERGROUND ELBOWS AND STUB-UPS SHALL BE SCHEDULE 80 PVC.
- 3. CONDUITS SHALL BE RIGID WHERE SUBJECT TO PHYSICAL DAMAGE.
- 4. WITHIN CAB SYSTEM, UL-LISTED CAB MESSENGER WIRE SHALL BE USED AS COMMON DC EGC. MINIMUM (1) #6 AWG CU EGC SHALL BE INSTALLED PER CONDUIT STUB-UP. A #6 AWG CU EGC SHALL BE INSTALLED PER COMMON DC TRENCH.
- 5. CONDUIT SIZES SHOWN IN LVAC TABLE ARE FOR STUB UPS ONLY. DESIGN INTENT IS FOR INVERTER AC OUTPUT CIRCUITS TO BE DIRECT BURIED.



2615 Camino Del Rio S, Ste. 401 (619) 205-5038 San Diego, CA 92108 www.stellavise.com

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DEVELOPER:

SunGrid Power 1577 Randol Mill Ave Southlake, TX 76092

PROJECT:

Wieland PV Hunt County, TX 75474 32.989556°N, -96.059139°W

REVISIONS

#	DESCRIPTION	DATE
A	PRELIMINARY LAYOUT	12/06/2019
В	30% DESIGN	12/23/2019
С	60% DESIGN	01/17/2020
D	SITE PLAN W/ ALTA	06/10/2020
E	30% DESIGN R1	11/20/2020
F	30% DESIGN R2	11/24/2020
G	60% DESIGN	12/16/2020
н	60% DESIGN R1	02/09/2021
I	60% DESIGN R2	02/18/2021
J	60% DESIGN R3	08/31/2021

DATE:

AUGUST 31, 2021

NOT FOR CONSTRUCTION



CABLE SCHEDULE & CALCULATIONS

E5.1

1

2

3

4

5

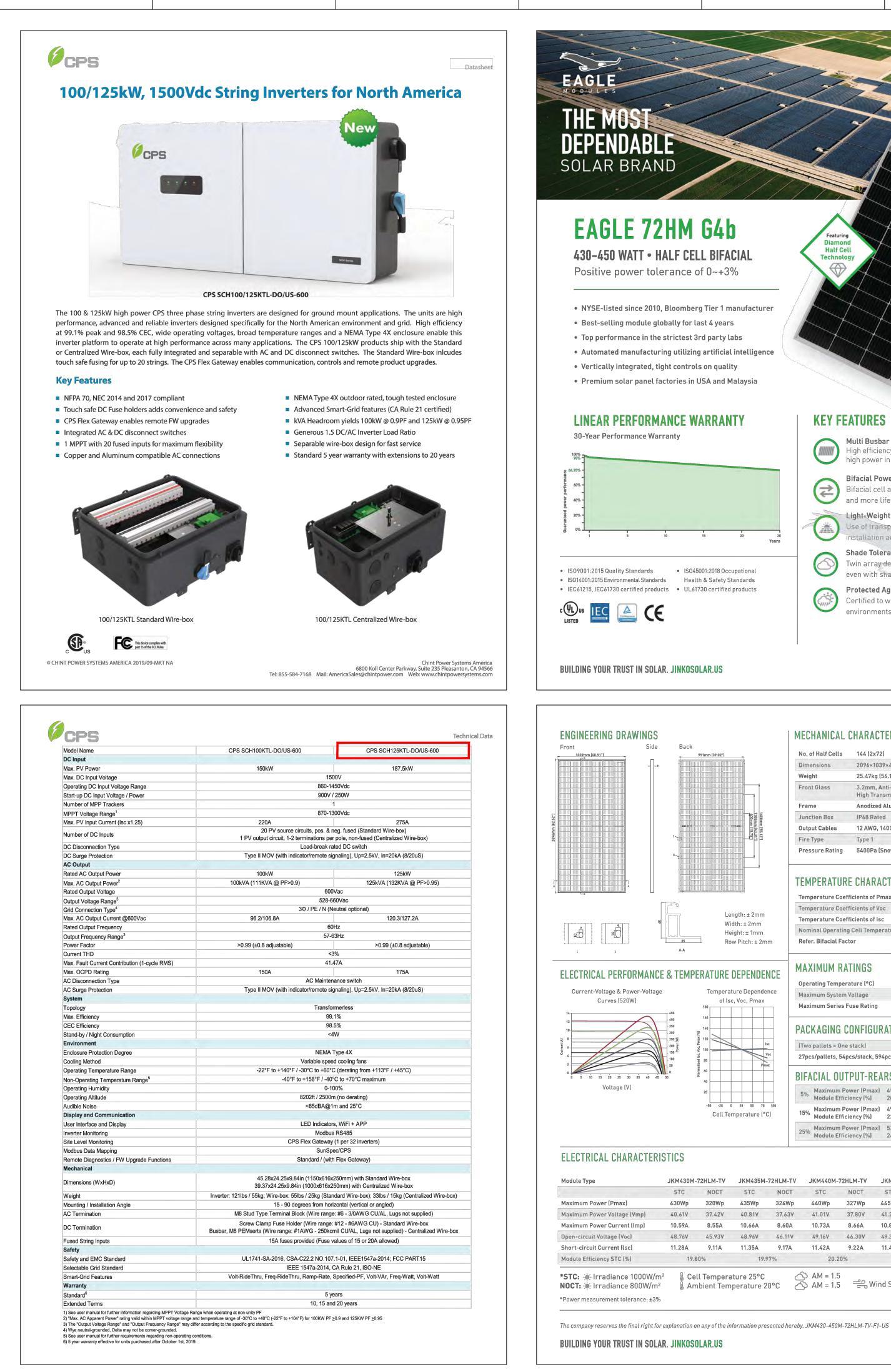
6

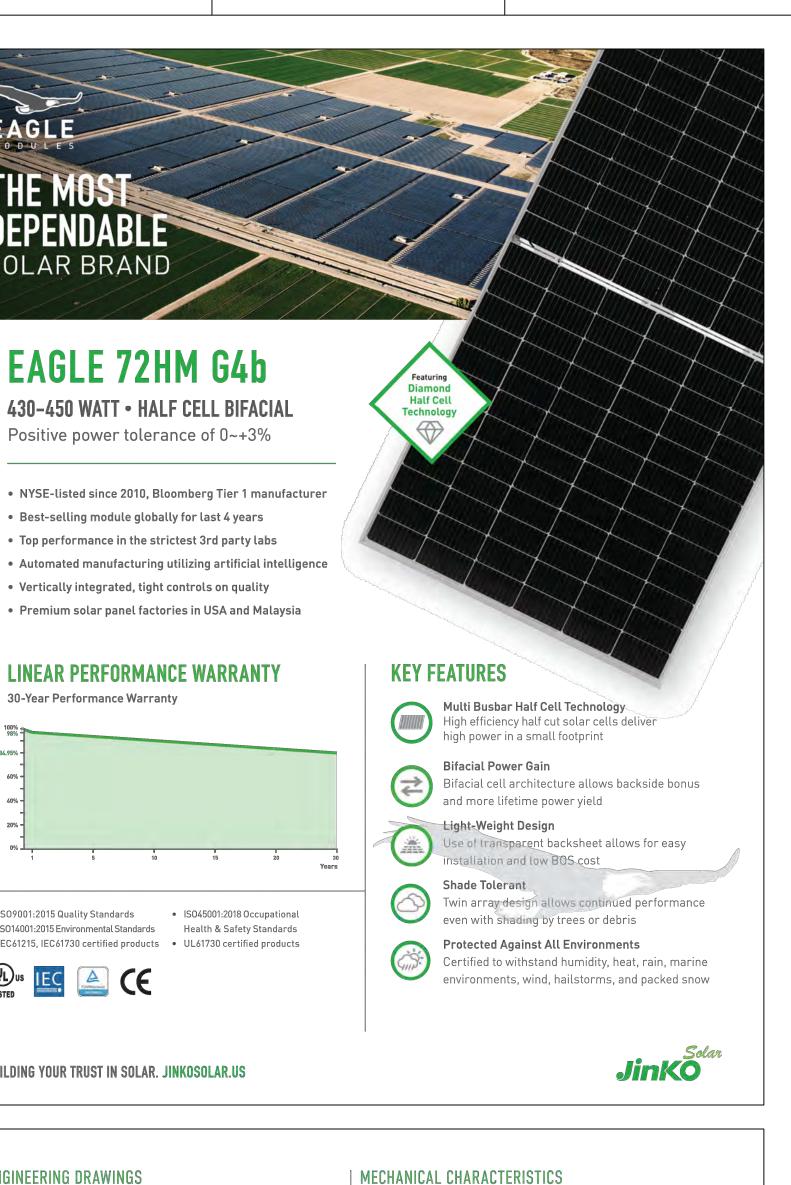
7

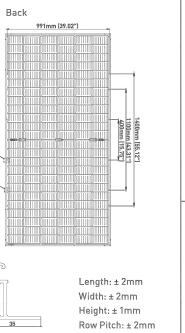
8











Temperature Dependence

of Isc, Voc, Pmax

20

-50 -25 0 25 50 75 100

Cell Temperature (°C)

TEMI	PERATURI	E CHARA	CTERIS	TICS				
Temperature Coefficients of Pmax					-0.35%/°C			
Temperature Coefficients of Voc					-0.29%/°C			
Temp	erature Coeff	icients of Iso			0.	048%/°C		
Nomi	nal Operating	Cell Tempe	rature (NO	ICT]	-	45±2°C		
Refer	. Bifacial Fact	or				70±5%		
	num System \ num Series F					25A		
Maxir PAC	num Series F	use Rating	ATION			25A		
Maxir PACP	num Series F (AGING C pallets = One	use Rating ONFIGUR stack)	-			25A		
Maxir PACP	num Series F	use Rating ONFIGUR stack)	-	Q Containe	r	25A		
Maxir PACP (Two) 27pcs	num Series F (AGING C pallets = One	use Rating ONFIGUR stack) cs/stack, 59/	4pcs/40 H0			25A		
Maxir PACM (Two) 27pcs BIFA	Num Series F AGING C pallets = One s/pallets, 54pc	use Rating ONFIGUR stack) cs/stack, 59/ PUT-REA wer (Pmax)	4pcs/40 H0			25A 467Wp 21.44%	473Wp 21.72%	
Maxir PACK (Two) 27pcs BIFA 5%	Num Series F (AGING C pallets = One s/pallets, 54pe CIAL OUT Maximum Por	use Rating ONFIGUR stack) cs/stack, 59/ PUT-REA wer (Pmax) ency (%) wer (Pmax)	4pcs/40 Ho RSIDE 452Wp	POWER 457Wp	GAIN 462Wp	467Wp		

2096×1039×40mm (82.52×40.91×1.57in)

High Transmission, Low Iron, Tempered Glass

12 AWG, 1400mm (55.12in) or Customized Length

3.2mm, Anti-Reflection Coating

25.47kg (56.15 lbs)

IP68 Rated

Anodized Aluminum Alloy

No. of Half Cells 144 (2x72)

Dimensions

Weight

Frame

Front Glass

Junction Box

Output Cables

IKM430M-	72HLM-TV	JKM435M	-72HLM-TV	JKM440M-	72HLM-TV	JKM445M	-72HLM-TV	JKM450M	-72HLM-TV
STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
430Wp	320Wp	435Wp	324Wp	440Wp	327Wp	445Wp	331Wp	450Wp	335Wp
40.61V	37.42V	40.81V	37.63V	41.01V	37.80V	41.21V	38.01V	41.40V	38.22V
10.59A	8.55A	10.66A	8.60A	10.73A	8.66A	10.80A	8.71A	10.87A	8.76A
48.76V	45.93V	48.96V	46.11V	49.16V	46.30V	49.36V	46.49V	49.56V	46.68V
1.28A	9.11A	11.35A	9.17A	11.42A	9.22A	11.49A	9.28A	11.56A	9.34A
19.8	0%	19.1	77%	20.2	20%	20.	43%	20.	66%

Solar JinKO

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REVISIONS

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н	60% DESIGN R1	02/09/2021
I	60% DESIGN R2	02/18/2021
J	60% DESIGN R3	08/31/2021

DATE:

AUGUST 31, 2021

NOT FOR CONSTRUCTION

SHEET TITLE:

EQUIPMENT SPECIFICATIONS

E8.0

APPENDIX III

Site Photographs













APPENDIX IV

Land Use

Leslie Schroeder

From:	Palmer, Mark - FPAC-NRCS, Temple, TX <mark.palmer@usda.gov></mark.palmer@usda.gov>
Sent:	Wednesday, January 12, 2022 9:30 AM
То:	Leslie Schroeder
Cc:	Stahnke, Alan - NRCS, Temple, TX
Subject:	RE: [External Email]AD-1006: Wieland Solar Project
Attachments:	Wieland_AD-1006.pdf

Good morning,

Please see the attached AD1006.

From: Leslie Schroeder <lschroeder@consulttruenorth.com>
Sent: Tuesday, January 11, 2022 8:58 AM
To: Stahnke, Alan - NRCS, Temple, TX <alan.stahnke@usda.gov>; Palmer, Mark - FPAC-NRCS, Temple, TX <Mark.Palmer@usda.gov>
Subject: [External Email]AD-1006: Wieland Solar Project

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic;** Use caution before clicking links or opening attachments. Please send any concerns or suspicious messages to: <u>Spam.Abuse@usda.gov</u>

Good Morning Alan and Mark,

Please see the attached partially completed AD-1006 – I have completed Parts I and III with the assistance of the Applicant. who will be seeking financial assistance form the Rural Utilities Service (RUS). A Farmland Classification Map and shapefile for the Proposed Project Area have been attached for your convenience.

If you require any more information, please let me know.

Thank you,



Trusted Partner. Leading Environmental Solutions.

Leslie Schroeder

Senior Consultant

1000 East Warrenville Road I Suite 140 I Naperville, IL 60563 o 630.717.2880 x109 I m 630.303.3006 I f 630.689.5881

COVID-19 Services

ConsultTrueNorth.com

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F	U.S. Departme	5		TING				
PART I (To be completed by Federal Agen	cy)	Date O	f Land Evaluation	Request				
Name of Project			Federal Agency Involved					
			and State					
			equest Received	uest Received By Person Completing Form:				
Does the site contain Prime, Unique, Statew (If no, the FPPA does not apply - do not con	•	?	YES NO	Acres Irrigated Average Farr		Farm Size		
Major Crop(s)	Farmable Land In Govt.	Jurisdictio	on	Amount of Farmland As Defined in FPPA Acres: %				
Name of Land Evaluation System Used	Name of State or Local S	Site Asse	ssment System	Date Land	Evaluation R	eturned by NF	RCS	
PART III (To be completed by Federal Age	ncy)			Cito A	Alternative Site B	Site Rating	Site D	
A. Total Acres To Be Converted Directly				Site A	Site B	Site C	Site D	
B. Total Acres To Be Converted Indirectly							-	
C. Total Acres In Site								
PART IV (To be completed by NRCS) Lan	d Evaluation Information							
A. Total Acres Prime And Unique Farmland								
B. Total Acres Statewide Important or Local	Important Farmland							
C. Percentage Of Farmland in County Or Lo	ocal Govt. Unit To Be Converted							
D. Percentage Of Farmland in Govt. Jurisdi	ction With Same Or Higher Relati	ive Value	!					
PART V (To be completed by NRCS) Land Relative Value of Farmland To Be C		s)						
PART VI (To be completed by Federal Age (Criteria are explained in 7 CFR 658.5 b. For		CPA-106	(15) Maximum	Site A	Site B	Site C	Site D	
1. Area In Non-urban Use			(10)					
2. Perimeter In Non-urban Use			(10)					
3. Percent Of Site Being Farmed	O au carra ma ca t		(20)					
4. Protection Provided By State and Local	Government		(15)					
5. Distance From Urban Built-up Area			(15)					
6. Distance To Urban Support Services 7. Size Of Present Farm Unit Compared To			(10)					
8. Creation Of Non-farmable Farmland	Average		(10)					
9. Availability Of Farm Support Services			(5)					
10. On-Farm Investments			(20)				-	
11. Effects Of Conversion On Farm Suppor	t Services		(10)					
12. Compatibility With Existing Agricultural			(10)					
TOTAL SITE ASSESSMENT POINTS			160					
PART VII (To be completed by Federal A	(gency)							
Relative Value Of Farmland (From Part V)	geneyy		100				-	
Total Site Assessment (From Part VI above or local site assessment)			160					
TOTAL POINTS (Total of above 2 lines)	,		260					
Site Selected:	Date Of Selection				al Site Asses	sment Used?	-1	
Reason For Selection:								

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.
- Step 2 Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM (For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

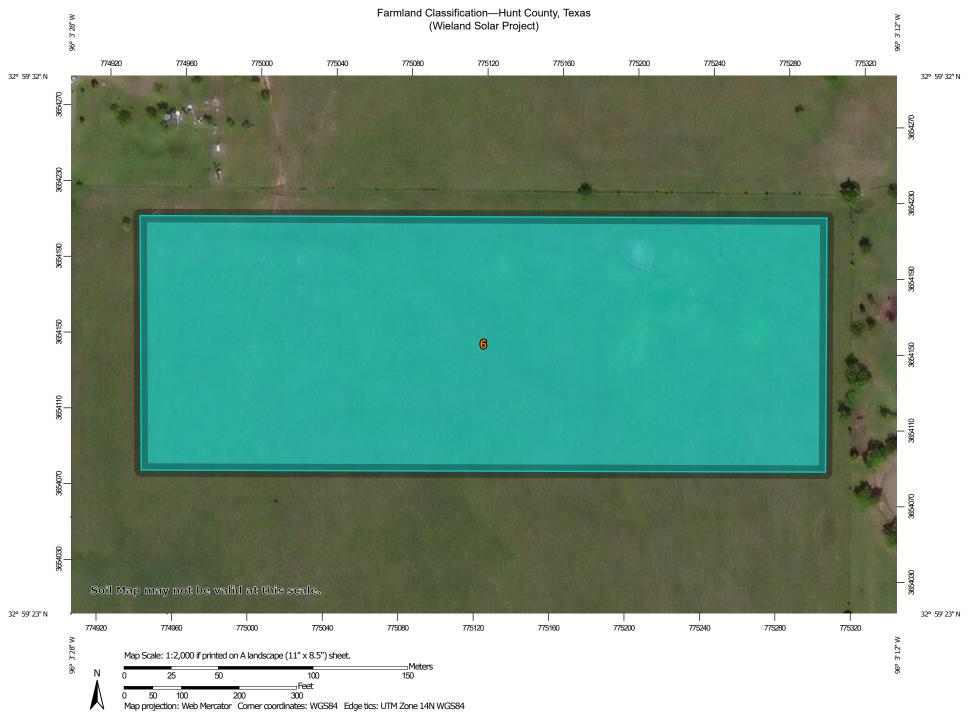
- 1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
- 2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.
- Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).
- 1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
- 2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

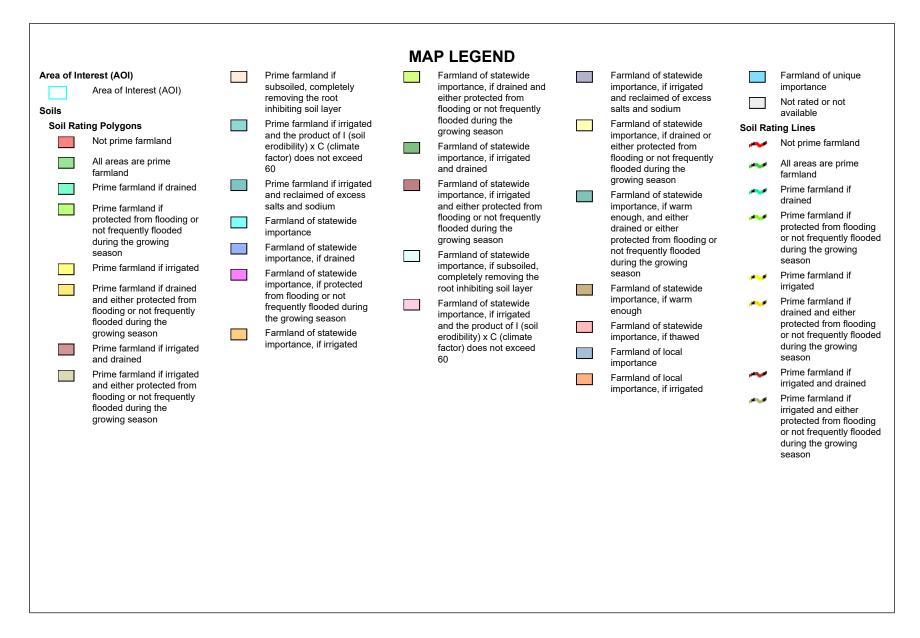
 $\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.



USDA Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 1/11/2022 Page 1 of 5



Farmland Classification—Hunt County, Texas (Wieland Solar Project)

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the
- growing season Farmland of statewide importance, if irrigated and drained

1990 B

- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
 Farmland of statewide importance, if subsoiled.
- completely removing the root inhibiting soil layer Farmland of statewide importance. if irrigated

and the product of I (soil erodibility) x C (climate factor) does not exceed 60

- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated

importance Not rated or not available Soil Rating Points

Farmland of unique

Not prime farmland

- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated



Farmland Classification—Hunt County, Texas (Wieland Solar Project)

	Farmland of statewide importance, if drained and either protected from flooding or not frequently		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance Not rated or not available	The soil surveys that comprise your AOI were mapped at 1:24,000.
	flooded during the growing season Farmland of statewide		Farmland of statewide importance, if drained or either protected from	Water Fea	tures Streams and Canals	Warning: Soil Map may not be valid at this scale.Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil
	importance, if irrigated and drained		flooding or not frequently flooded during the	Transport	ation Rails	line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed
	Farmland of statewide importance, if irrigated and either protected from		growing season Farmland of statewide importance, if warm	~	Interstate Highways	scale.
	flooding or not frequently flooded during the growing season		enough, and either drained or either protected from flooding or	~	US Routes Major Roads	Please rely on the bar scale on each map sheet for map measurements.
	Farmland of statewide importance, if subsoiled,		not frequently flooded during the growing	~	Local Roads	Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
_	completely removing the root inhibiting soil layer		season Farmland of statewide importance, if warm	Backgrou	nd Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercato
	Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60	ince, if irrigated enough product of I (soil T Farmland of statew				projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more
			importance			accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
			importance, if irrigated			Soil Survey Area: Hunt County, Texas Survey Area Data: Version 21, Sep 8, 2021
						Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
						Date(s) aerial images were photographed: Feb 13, 2014—No 18, 2017
						The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor



Farmland Classification

Map unit symbol Map unit name		Rating	Acres in AOI	Percent of AOI	
6	Crockett loam, 1 to 3 percent slopes	Farmland of statewide importance	12.1	100.0%	
Totals for Area of Intere	st		12.1	100.0%	

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

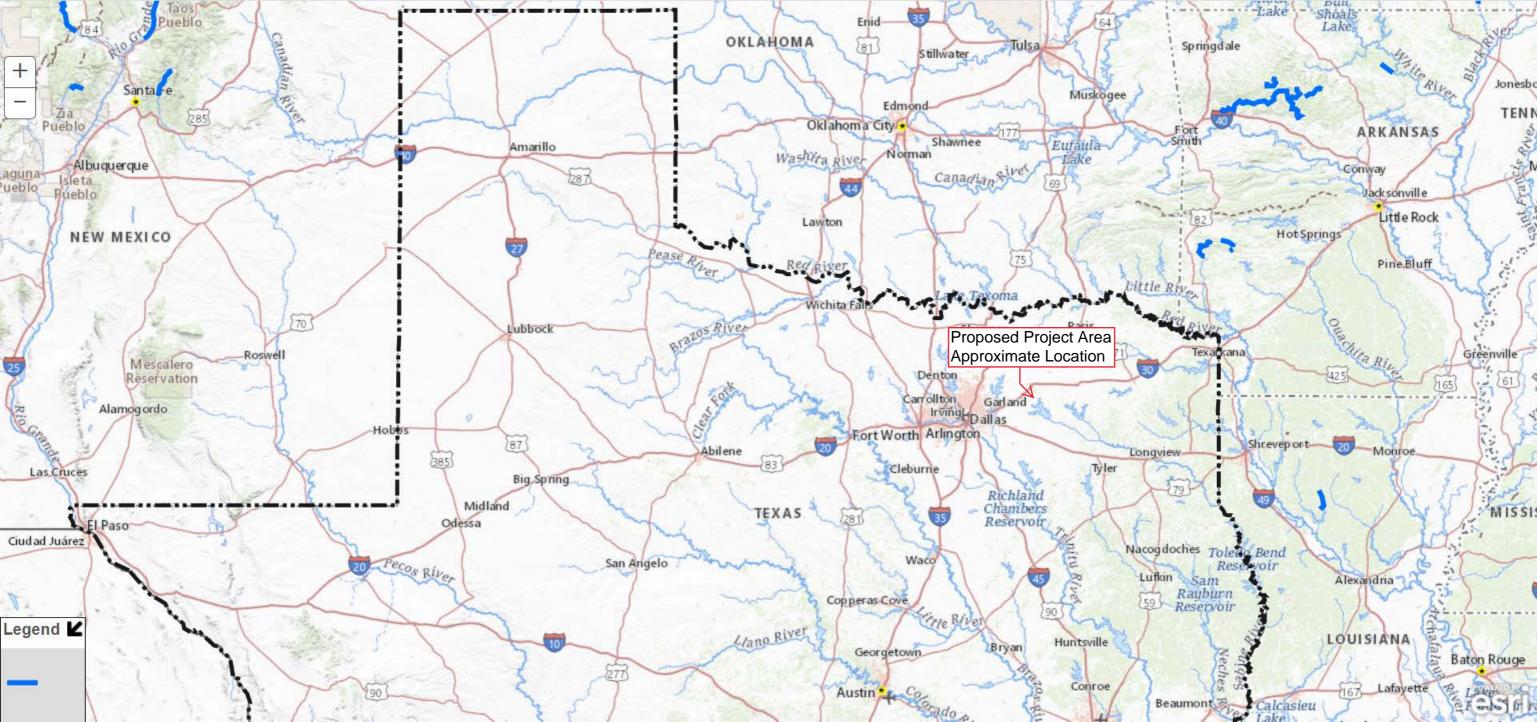
Tie-break Rule: Lower

ProtectedLands.net

Map Data Uses Vision Data Stewards News Help About

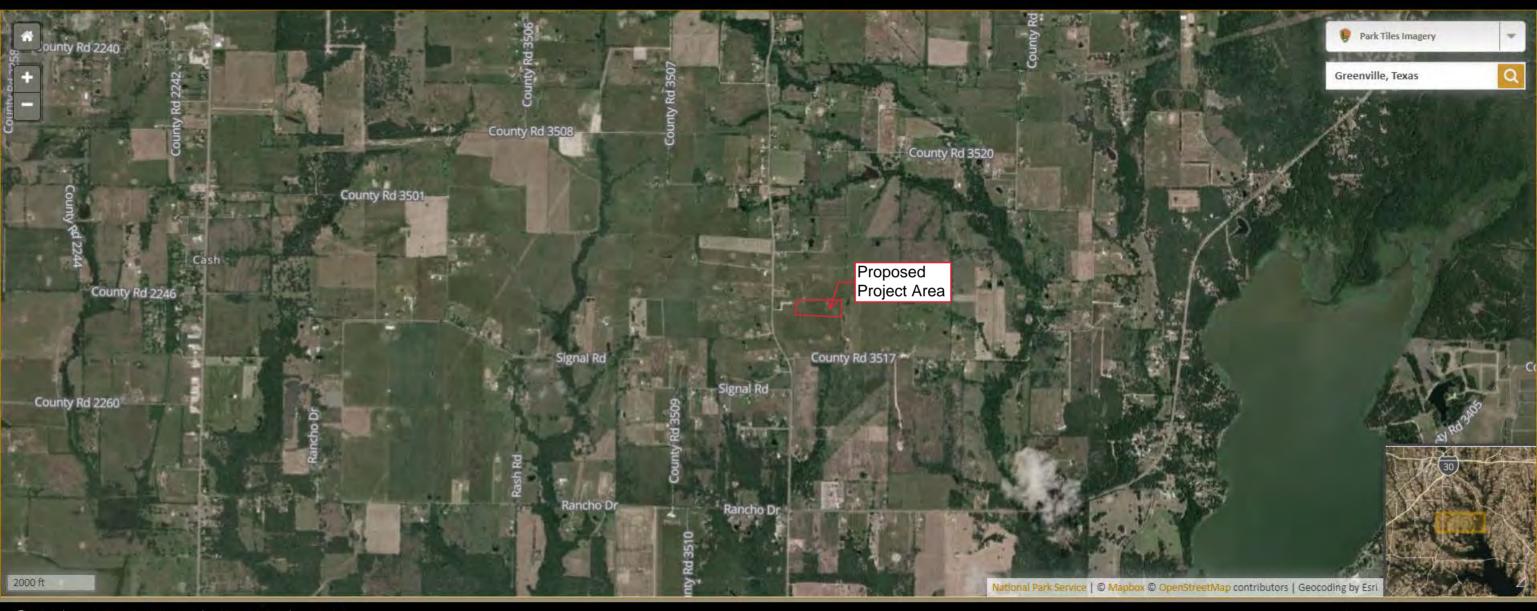
A Resource for the Protected Areas Database of the United States (PAD-US)





Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.



National Park Service U.S. Department of the Interior



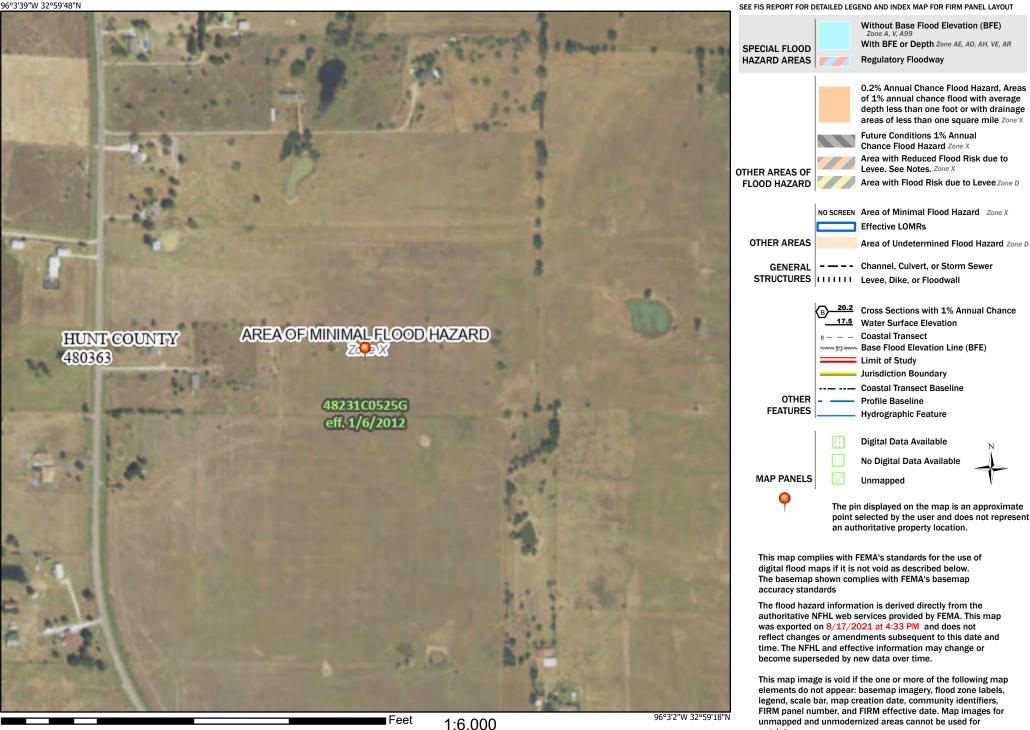
APPENDIX V

Floodplains

National Flood Hazard Layer FIRMette



Legend



250

500

1,000

1,500

2.000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

regulatory purposes.

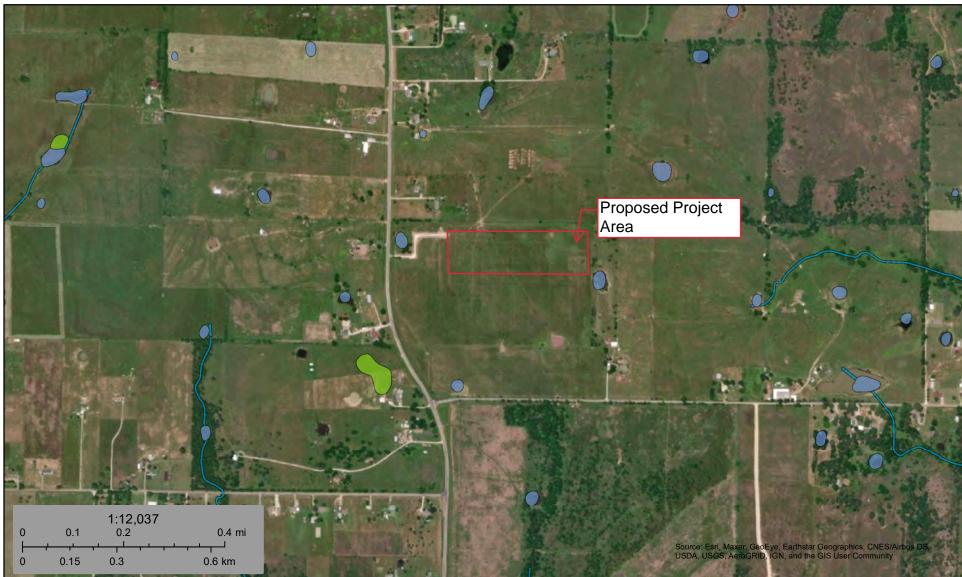
APPENDIX VI

Wetlands



U.S. Fish and Wildlife Service National Wetlands Inventory

Proposed Wieland Solar



August 18, 2021

Wetlands

Estuarine and Marine Wetland

Estuarine and Marine Deepwater

Freshwater Pond

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

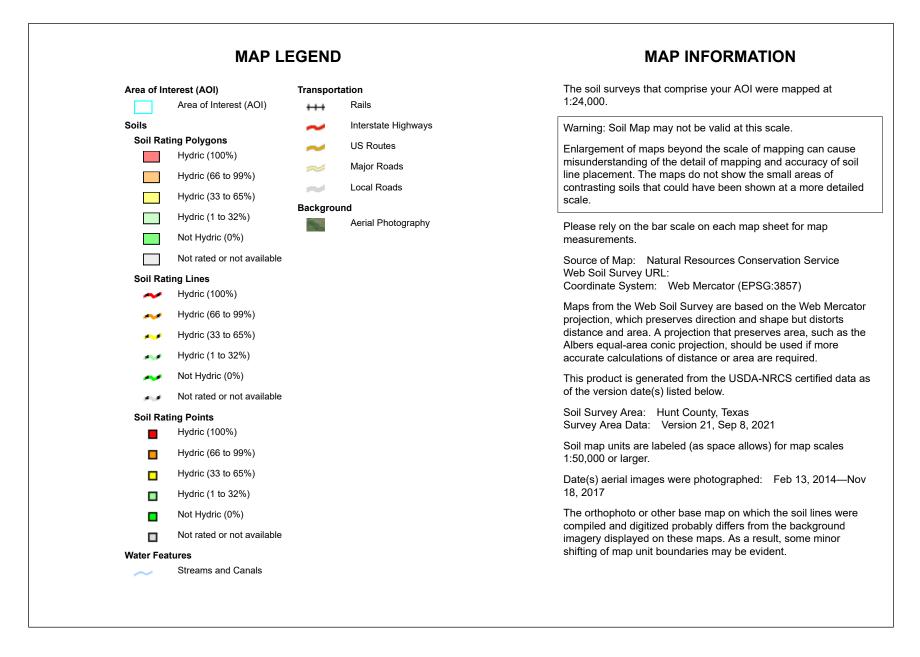
Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



USDA Natural Resources

Conservation Service

Web Soil Survey National Cooperative Soil Survey 1/13/2022 Page 1 of 5



USDA

Hydric Rating by Map Unit

Map unit symbol Map unit name		Rating	Acres in AOI	Percent of AOI	
6	Crockett loam, 1 to 3 percent slopes	0	12.1	100.0%	
Totals for Area of Intere	st	12.1	100.0%		

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. September 18, 2002. Hydric soils of the United States. Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present Component Percent Cutoff: None Specified Tie-break Rule: Lower



Environmental Services, Inc.

JURISDICTIONAL DETERMINATION AND THREATENED OR ENDANGERED SPECIES HABITAT ASSESSMENT WIELAND SOLAR PROJECT HUNT COUNTY, TEXAS HJN 200270.002EA

PREPARED FOR:

WIELAND SOLAR, LLC 1577 RANDOL MILL AVENUE SOUTHLAKE, TEXAS 76092

PREPARED BY:

HORIZON ENVIRONMENTAL SERVICES, INC.

17 NOVEMBER 2020



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APPENDICES

APPENDIX

A SITE PHOTOGRAPHS



1.0 INTRODUCTION

This report, along with the attached maps and photographs, provides the results of a Section 404 jurisdictional determination and an assessment for federally and state-listed threatened or endangered species habitat in the area of potential effect for the proposed Wieland Solar Project located near the towns of Wieland and Quinlan in Hunt County, Texas (Project Site). This report has been prepared by Horizon Environmental Services, Inc. (Horizon) on behalf of our client:

Wieland Solar, LLC 1577 Randol Mill Avenue Southlake, TX 76092 Contact: Trevor Hand Phone: (972) 800-2143

The purpose of this report is to provide a regulatory information base to facilitate Project planning and permitting.

2.0 SITE AND PROJECT DESCRIPTION

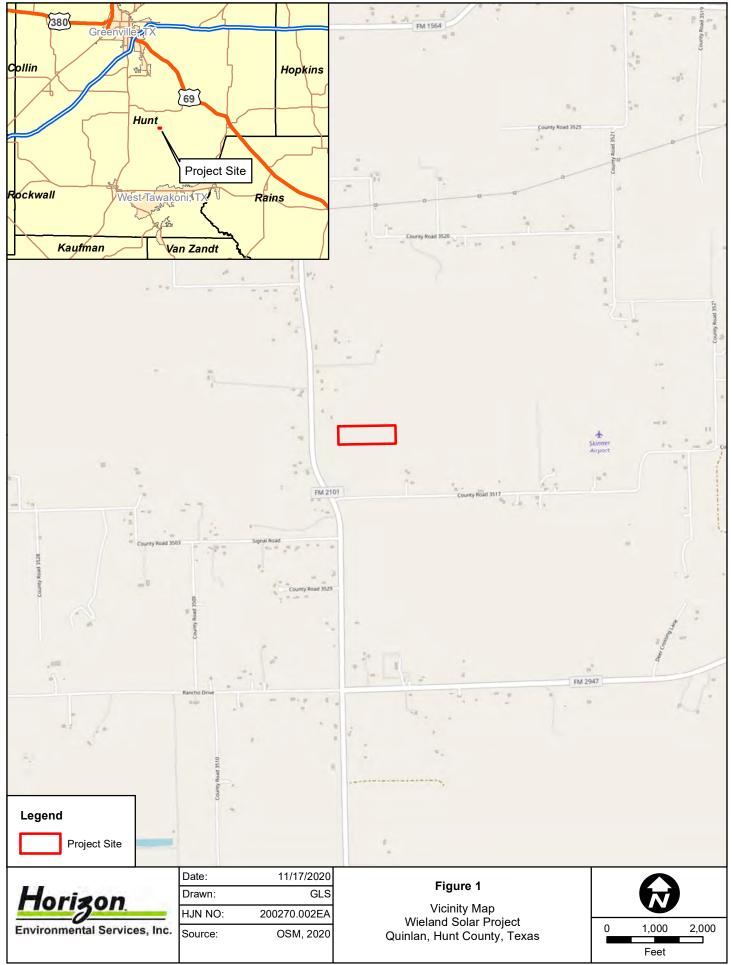
2.1 PROJECT DESCRIPTION

The proposed Project will include the construction of an approximately 12-acre solar array site.

2.2 SITE DESCRIPTION

The proposed Project Site is located off Farm-to-Market Road (FM) 2101 near Wieland, Hunt County, Texas (Figure 1). The adjacent land use surrounding the Project Site includes rangeland.

On-site vegetation within the Project Site is characterized as rangeland dominated by grassland species. Vegetation included johnsongrass (*Sorghum halepense*), bermudagrass (*Cynodon dactylon*), honey mesquite (*Prosopis glandulosa*), and other native grasses. Photographs are provided in Appendix A.



200270 - Caddo Mills Solar LLC, Wieland Solar LLC, Lone Oak Solar LLC\002 - Wieland\Graphics\200270-002EA_01A_VicMap.mxd



3.0 LITERATURE REVIEW

The literature evaluation included a review of a topographic map of the Project Site, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map, US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey information, and aerial photography dated 2019.

The literature evaluation indicated no potential wetlands or other water features within the Project Site.

3.1 TOPOGRAPHY

Elevations at the Project Site range from approximately 505 feet above mean sea level (AMSL) to approximately 512 feet AMSL (Esri, 2020) (Figure 2). Surface water within the Project Site drains via overland sheet flow from northwest to southeast. The Project Site is located within the Little Creek watershed (EPA, 2020).

3.2 FLOODPLAINS

None of the Project Site lies within the Federal Emergency Management Agency (FEMA) 100-year floodplain boundaries (FEMA, 2012).

3.3 SOILS

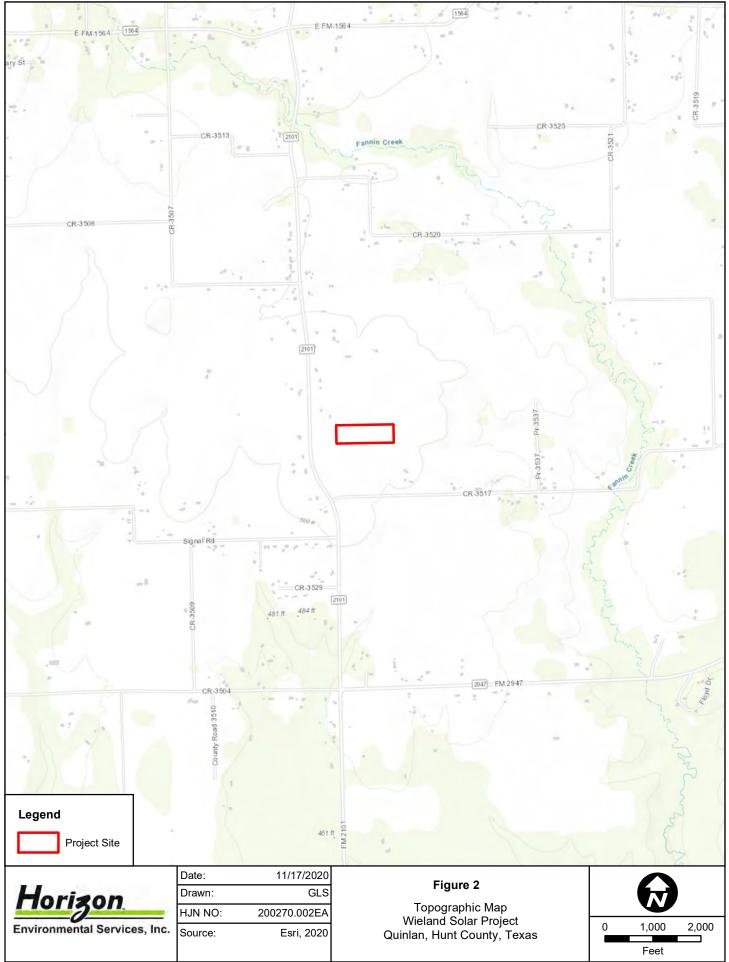
According to the Hunt County soil survey, the Project Site and surrounding vicinity are dominated by Crockett Ioam (6) soil (NRCS, 2020) (Figure 3). Crockett Ioam, 1 to 3% slopes (6), consists of soils that are deep to weathered shale of Cretaceous age. It is moderately well-drained and very slowly permeable. This soil is located in croplands. The NRCS does not list this soil as hydric.

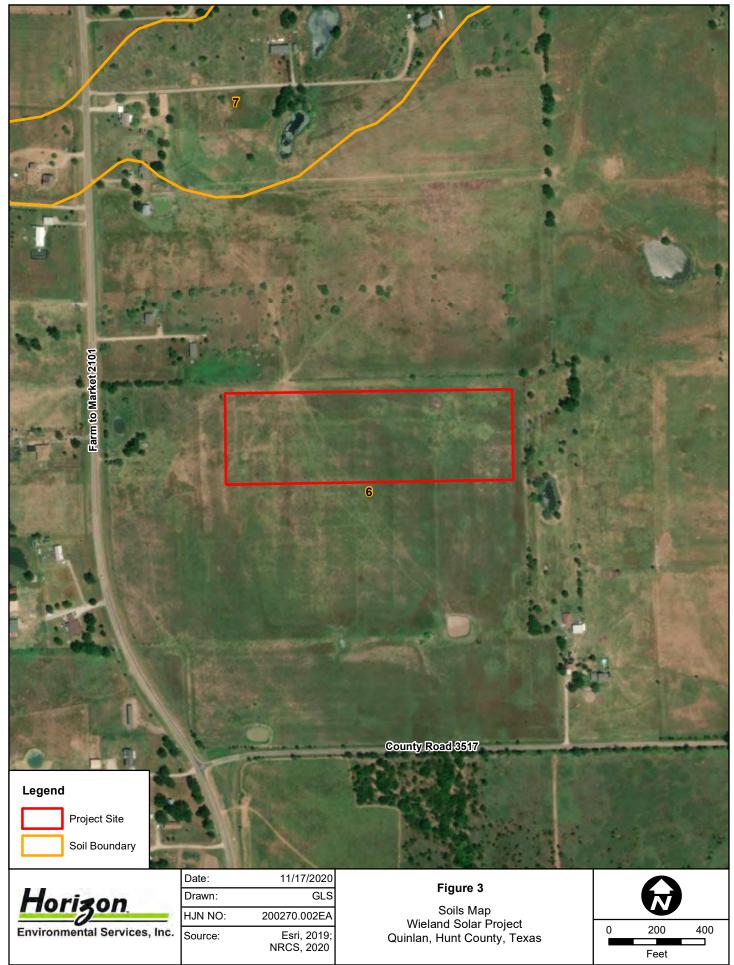
3.4 NATIONAL WETLANDS INVENTORY

The review of the USFWS NWI map revealed no aquatic features within the Project Site (USFWS, 2020a).

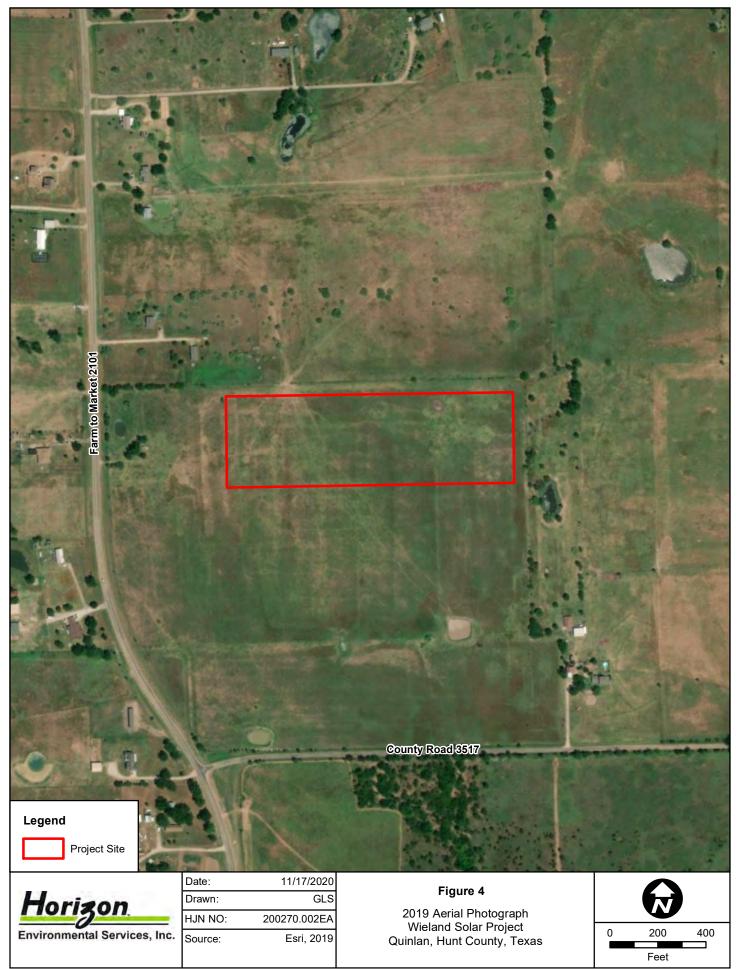
3.5 AERIAL PHOTOGRAPHY

A review of 2019 aerial photography revealed that the Project Site consists of an opencanopy grassland (Figure 4). No indications of wetlands or other water features were noted in the aerial photograph.





200270 - Caddo Mills Solar LLC, Wieland Solar LLC, Lone Oak Solar LLC/003 - Lone Oak/Graphics/200270-002EA_03A_SoilsMap.mxd



200270 - Caddo Mills Solar LLC, Wieland Solar LLC, Lone Oak Solar LLC\002 - Wieland\Graphics\200270-002EA_04A_AerialPhotograph.mxd



4.0 USACE JURISDICTIONAL DETERMINATION

The determination process consisted of a pre-field literature review and a site assessment conducted according to the general methodologies prescribed by the 1987 US Army Corps of Engineers (USACE) *Wetlands Delineation Manual* and Regional Supplement: *Great Plains Region (Version 2.0) (March 2010);* USACE Regulatory Guidance Letter (RGL) No. 05-05 (7 December 2005); and 2020 Clean Water Act (CWA) Navigable Waters Protection Rule (NWPR).

The US Environmental Protection Agency (EPA) and USACE jointly signed a new rule defining Section 404 jurisdiction on 23 January 2020. The new rule, termed "The Navigable Waters Protection Rule: Definition of Waters of the United States" (NWPR), became effective 22 June 2020.

The term "waters of the US (WOTUS)" means:

- 1. Territorial seas and Traditional Navigable Waters (TNWs);
- 2. Perennial and intermittent tributaries;
- 3. Certain lakes, ponds, and impoundments of jurisdictional waters; and
- 4. Wetlands adjacent to other jurisdictional waters.

The following are not WOTUS:

- 1. Waters or water features not previously identified as WOTUS;
- 2. Groundwater, including groundwater drained through subsurface drainage systems;
- 3. Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools, where ephemeral is defined as surface water flowing or pooling only in direct response to precipitation;
- 4. Diffuse stormwater runoff and directional sheet flow over upland;
- 5. Ditches that are not territorial seas, traditional navigable waters, or perennial or intermittent tributaries, or that are not constructed in adjacent wetlands. Ditches are defined as constructed or excavated channels used to convey water;
- 6. Prior converted cropland, where prior converted cropland means any area that, prior to 23 December 1985, was drained or otherwise manipulated for the purpose of, or having the effect of, or making production of an agricultural product possible, as long as the area has not been abandoned and returned to a wetland condition, which can occur in five years;
- 7. Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should irrigation of that area cease;
- Artificial lakes and ponds—including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds—constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of WOTUS;



- 9. Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
- 10. Stormwater control features constructed or excavated in upland or in nonjurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
- 11. Groundwater recharge, water reuse, and wastewater recycling structures including detention, retention, and infiltration basins and ponds—constructed or excavated in upland or in non-jurisdictional waters; and
- 12. Waste treatment systems.

"Wetlands" are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support (and that under normal circumstances do support) a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (EPA, 40 CFR §230.3). Some wetlands and other water bodies may not meet the above criteria to be classified as WOTUS subject to jurisdiction under Section 404 of the Clean Water Act.

4.1 FIELD RECONNAISSANCE

Horizon personnel conducted a field reconnaissance on 16 November 2020 to verify the absence of potential water features, including wetlands, identified during the pre-field evaluation.

Based on the field investigation and current USACE guidance, Horizon personnel identified no wetland areas or other water features within the Project Site.

4.2 "WATERS OF THE US" SUMMARY

The determination process revealed that the Project Site does not contain areas subject to jurisdiction under Section 404 of the Clean Water Act and associated guidance.

This determination of jurisdiction is based on the 2020 NWPR and remains our opinion until the EPA and USACE issue implementing guidance for the new rule in the coming months. It should also be noted that numerous federal lawsuits have already been filed against this new rule by states and environmental groups that will likely result in judicial stays or injunctions that prevent or stop implementation regionally or nationwide. Horizon believes there may be an uncertain window of time that the new rule will be in effect. As always, our findings are based on our professional experience and opinions and do not represent official government findings. Only the USACE and/or EPA can render an official finding of Section 404 jurisdiction.

5.0 THREATENED OR ENDANGERED SPECIES HABITAT ASSESSMENT

Literature and agency file searches were conducted to identify the potential occurrence of any federally and state-listed threatened or endangered (T/E) species in the vicinity



of the Project Site. The search included information from the USFWS and the Texas Parks and Wildlife Department (TPWD) Natural Diversity Database.

Federally and state-listed T/E species for Hunt County that would potentially be affected by activities within the Project Site are presented in the following table:

TABLE 1 T/E SPECIES LISTED FOR HUNT COUNTY

Common Name	Scientific Name	Federal Status	State Status	Findings/Notes
Birds				
Interior least tern	Sterna antillarum athalassos	Endangered	Endangered	No habitat/species observed
Piping plover	Charadrius melodus	Threatened	Threatened	No habitat/species observed
Red knot	Calidris canutus rufa	Threatened	N/A	No habitat/species observed
Whooping crane	Grus americana	Endangered	Endangered	No habitat/species observed

Source: USFWS, 2020b

5.1 BIRDS

5.1.1 Least Tern

Least terns are found breeding on sandbars on the Canadian, Red, and Rio Grande river systems. Least terns prefer less disturbed and more natural river segments. Nesting habitats include bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats associated with rivers and reservoirs, typically at higher elevations. Least terns avoid thick vegetation and narrow beaches and prefer open areas. Shallow water with an abundance of small fish is necessary for feeding (NatureServe, 2020). No streams, shorelines, or adequate water sources were observed within the Project Site. Therefore, it is Horizon's opinion that the Project Site does not provide habitat for this species.

5.1.2 Piping Plover

The piping plover is indicated by the USFWS as a potential transitory migrant species for most of Texas, including Hunt County. The piping plover winters on the Texas coast, occupying beaches and tidal mud flats. Its migratory path from its breeding grounds in the northern plains, Great Lakes, and northern Atlantic coast to the Texas coast carries it primarily through the eastern third of Texas, where it may occasionally stop over during migration. It occasions lake shores and marshes along its migratory path (NatureServe, 2020). No suitable habitat for the piping plover (lake shores or marshes) was observed within the Project Site. Therefore, it is Horizon's opinion that the Project Site does not provide habitat for this species.



5.1.3 Red Knot

The red knot is a migratory shorebird which nests in the Arctic and winters mainly in southern South America. Red knots are commonly found along sandy, gravel, or cobble beaches, tidal mudflats, salt marshes, shallow coastal impoundments and lagoons, and peat banks. Red knots forage on beaches, oyster reefs, and exposed bay bottoms and roost on high sand flats, reefs, and other sites protected from high tides (NatureServe, 2020). No shorelines or adequate water sources were observed within the Project Site. Therefore, it is Horizon's opinion that the Project Site does not provide habitat for this species.

5.1.4 <u>Whooping Crane</u>

The whooping crane is a migratory bird species listed as potentially occurring in many or all Texas counties. Whooping cranes nest in dense emergent vegetation in shallow water bodies and migratory stopover points include large expanses of wetlands and rural agricultural fields. In Texas, whooping cranes winter at Aransas National Wildlife Refuge and Matagorda and St. Joseph's islands in Aransas, Calhoun, and Matagorda counties. Habitat for loafing and foraging includes flooded tidal flats and mud or sand in shallow bays and channels (NatureServe, 2020). The Project Site is located within the path of migration for the whooping cranes during their 2600-mile flight each spring (late March to late April) and fall (mid-October to late November) (Oberholser, 1974); however, no suitable habitat was observed by Horizon within the Project Site or the immediately adjacent properties. Therefore, it is Horizon's opinion that the Project Site does not provide habitat for this species.

5.2 ADDITIONAL RESOURCES REVIEWED

The USFWS's Critical Habitat Mapper did not indicate critical habitat for a listed species on or within a 0.5-mile radius of the Project Site (USFWS, 2020c).

Examination of the TPWD Natural Diversity Database indicated no documented occurrences of listed species on or within a 0.5-mile radius of the Project Site (TPWD, 2020).

5.3 T/E SPECIES SUMMARY AND RECOMMENDATIONS

Horizon did not observe potentially suitable habitat within the Project Site for any of the federally or state-listed T/E species of Hunt County.



6.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

If you have any questions or require additional information, please feel free to contact me at (512) 328-2430 or greg_sherrod@horizon-esi.com.

Sincerely,

For Horizon Environmental Services, Inc.

Greg Sherrod Ecological Project Manager, EP1

17 November 2020 Date

¹ Qualified Environmental Professional under ASTM Practice E1527-13



7.0 LITERATURE CITED

- (EPA) US Environmental Protection Agency. Watershed Assessment, Tracking & Environmental Results System (WATERS) GeoViewer, https://epa.maps.arcgis.com/apps/ webappviewer/index.html?id=ada349b90c26496ea52aab66a092593b>. Accessed 17 November 2020.
- (Esri) Environmental Systems Research Institute. World Imagery, <https://www.arcgis.com/ home/item.html?id=10df2279f9684e4a9f6a7f08febac2a9>. Imagery date 19 November 2019. Accessed 17 November 2020.
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- Oberholser, H.C. *The Bird Life of Texas*. Volumes I and II. University of Texas Press, Austin. 1974.
- (OSM) OpenStreetMap contributors. OpenStreetMap, <http://www.openstreetmap .org>. Available under the Open Database License (www.opendatacommons.org/ licenses/odbl). Accessed 17 November 2020.
- (TPWD) Texas Parks and Wildlife Department. Natural Diversity Database, T/E and Rare Species Elemental Occurrences. Wildlife Division, Habitat Assessment Program, Austin, Texas. Published 19 August 2020.
- (USFWS) US Department of the Interior, Fish and Wildlife Service. 2020a. National Wetlands Inventory Wetlands Mapper, http://www.fws.gov/wetlands/Data/Mapper.html. Accessed 17 November 2020.
 - _____. 2020b. IPaC Information, Planning, and Conservation System, http://ecos.fws.gov/ipac/. Accessed 17 November 2020.
- . 2020c. Critical Habitat for Threatened and Endangered Species, https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbf b77>. Accessed 17 November 2020.



APPENDIX A

SITE PHOTOGRAPHS





PHOTO 1 General Project Site photo, facing north

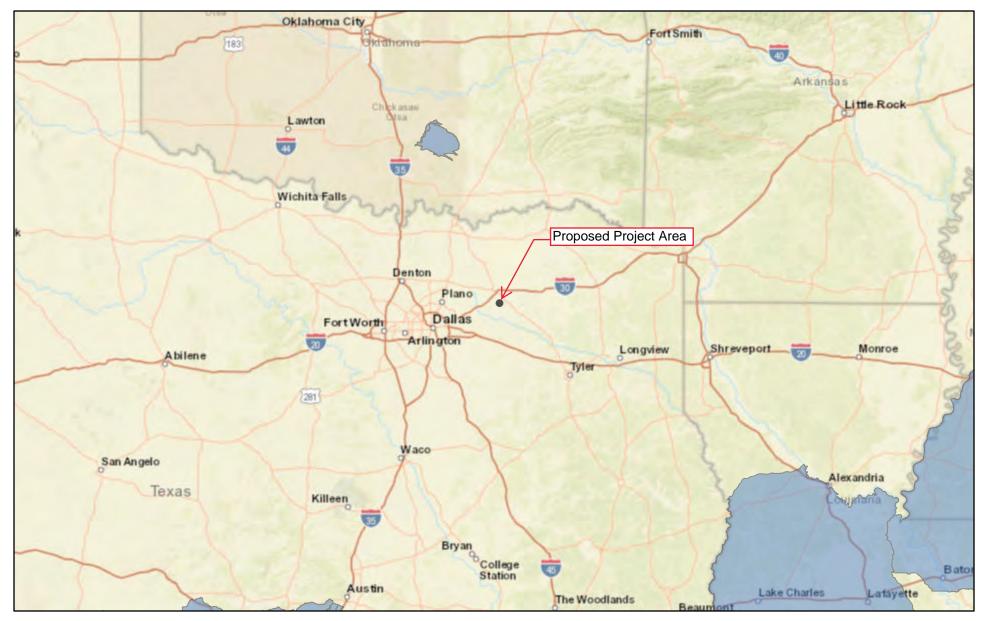


PHOTO 2 General Project Site photo, facing east

APPENDIX VII

Water Resources

Proposed Wieland Solar Sole Source Aquifer Map



9/8/2021, 10:27:06 AM

Sole_Source_Aquifers

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),

APPENDIX VIII

Biological Resources



United States Department of the Interior

FISH AND WILDLIFE SERVICE Arlington Ecological Services Field Office 2005 Ne Green Oaks Blvd Suite 140 Arlington, TX 76006-6247



Phone: (817) 277-1100 Fax: (817) 277-1129 http://www.fws.gov/southwest/es/arlingtontexas/ http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

January 11, 2022

In Reply Refer To: Consultation Code: 02ETAR00-2022-SLI-0863 Event Code: 02ETAR00-2022-E-02019 Project Name: Wieland Solar Project

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

Official Species List

Official Species List

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

This species list is provided by:

Arlington Ecological Services Field Office

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

Project Summary

Consultation Code:	02ETAR00-2022-SLI-0863
Event Code:	Some(02ETAR00-2022-E-02019)
Project Name:	Wieland Solar Project
Project Type:	POWER GENERATION
Project Description:	The Wieland Solar Project will be a small-scale community solar energy
	generating facility on approximately 12 acres.

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@32.991083700000004,-96.05569769345003,14z</u>



Counties: Hunt County, Texas

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA 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. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

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

Reptiles

NAME

Alligator Snapping Turtle *Macrochelys temminckii* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/4658</u>

Insects

NAME

STATUS

STATUS

Proposed

Threatened

Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>

Critical habitats

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

Candidate

IPaC

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information	~
NAME	
Wieland Solar Project	
LOCATION	
Hunt County, Texas	
514M	
ALL AND A	
FMT2107	
[201]	

DESCRIPTION

Some(The Wieland Solar Project will be a small-scale community solar energy generating facility on approximately 12 acres.)

Local office

Arlington Ecological Services Field Office

IPaC: Explore Location resources

NOTFORCONSULTATION

€ (817) 277-1100
№ (817) 277-1129

2005 Ne Green Oaks Blvd Suite 140 Arlington, TX 76006-6247

<u>http://www.fws.gov/southwest/es/arlingtontexas/</u> <u>http://www.fws.gov/southwest/es/EndangeredSpecies/lists/</u>

https://ecos.fws.gov/ipac/project/MWPKGO6BE5BVPEGZCHCSQMJC3Y/resources

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Log in to IPaC.
- 2. Go to your My Projects list.
- 3. Click PROJECT HOME for this project.
- 4. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

1/22, 4:34 PM IPa0	C: Explore Location resources
 Piping Plover Charadrius melodus This species only needs to be considered if the following applies: Wind Energy Projects 	Threatened ing condition
There is final critical habitat for this species. The locat critical habitat is not available. <u>https://ecos.fws.gov/ecp/species/6039</u>	ion of the
Red Knot Calidris canutus rufa Wherever found This species only needs to be considered if the follow applies: • Wind Energy Projects	Threatened
There is proposed critical habitat for this species. The critical habitat is not available. <u>https://ecos.fws.gov/ecp/species/1864</u>	location of the
Whooping Crane Grus americana There is final critical habitat for this species. The locat critical habitat is not available. <u>https://ecos.fws.gov/ecp/species/758</u>	Endangered tion of the
Reptiles NAME	STATUS
Alligator Snapping Turtle Macrochelys temminckii Wherever found No critical habitat has been designated for this specie https://ecos.fws.gov/ecp/species/4658	Proposed Threatened
NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this specie <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate s.

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

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

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

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

<u>Nationwide Conservation Measures</u> 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. <u>Additional measures</u> or <u>permits</u> 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 <u>Birds of Conservation Concern (BCC)</u> 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 <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>AKN Phenology Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen</u> <u>science datasets</u>.

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: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds</u> <u>guide</u>. 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA</u> <u>NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam</u> <u>Loring</u>.

What if I have eagles on my list?

IPaC: Explore Location resources

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. NSUL

Facilities

National Wildlife Refuge lands

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 AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> 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.**

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

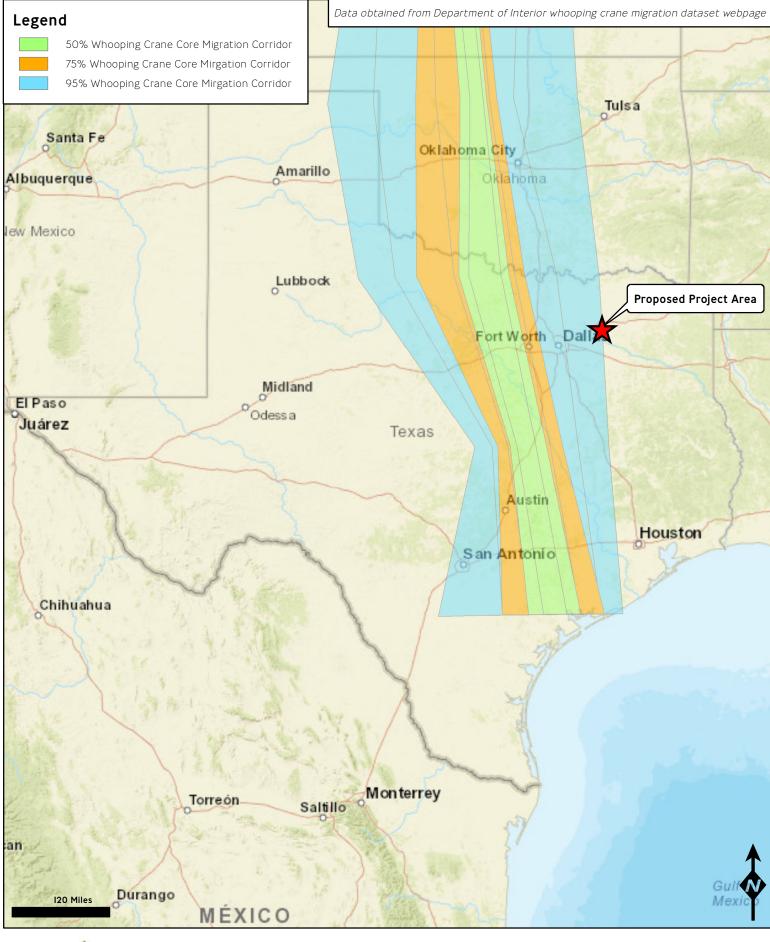
Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.





Whooping Crane Migratory Flyway Map Proposed Wieland Solar Project Wieland, Hunt County, Texas

Trusted Partner. Leading Environmental Solutions.

APPENDIX IX

Cultural Resources and Historic Properties

Leslie Schroeder

From:noreply@thc.state.tx.usSent:Thursday, August 19, 2021 10:33 AMTo:Leslie Schroeder; reviews@thc.state.tx.usSubject:Section 106 Submission



Re: Project Review under Section 106 of the National Historic Preservation Act THC Tracking #202113945 Date: 08/19/2021 Wieland Solar Project 5889 FM-2101 Quinlan,TX 75474

Description: Construction and operation of a 2-megawatt, ground-mounted photovoltaic solar facility on approximately 12 acres.

Dear Leslie Schroeder:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act.

The review staff, led by Maggie Moore, Caitlin Brashear, has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

• No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

• No identified historic properties, archeological sites, or other cultural resources are present or affected. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review

staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: Maggie.Moore@thc.texas.gov, caitlin.brashear@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <u>http://thc.texas.gov/etrac-system</u>.

Sincerely,

Maggie Moore

for Mark Wolfe, State Historic Preservation Officer Executive Director, Texas Historical Commission

Please do not respond to this email.



TONKAWA TRIBE OF OKLAHOMA NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA)

1 RUSH BUFFALO ROAD - PHONE (580) 628-2561 - FAX (580) 628-2279 TONKAWA, OKLAHOMA 74653 www.tonkawatribe.com

November 18, 2021

TRUE NORTH CONSULTANTS Attn: Ms. Leslie Schroeder, staff Consultant 1000 East Warrenville Road, Suite 140 Naperville, IL 60563

Re: Section 106 Request for Consultation: USDA-RBS Wieland Solar Project, Quinlan, Hunt County, Texas

Dear Ms. Schroeder:

On behalf of President Russell L. Martin and the Tonkawa Tribe of Oklahoma (TTO) in regards to the Section 106 Request for Consultation of the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS) of Weiland Solar Project; constructing for operation a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility on an approximately 12-acre portion of a larger parcel off County Road 2101 in Quinlan, Texas. Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing; estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for forty (40) years. Area of Potential Effect (APE) is limited to the immediate project area, although the APE is a new ground disturbance location the area is previously agriculture; research and review of the National Register of Historic Places (NRHP) and the Texas Historical Commission (THC) determine that no adverse effects arise to any/all historical places/sites from this project; Quinlan, Hunt County, Texas; the Tonkawa Tribe of Oklahoma submits the following:

The Tonkawa Tribe has no specifically designated historical, religious and/or cultural significance in the Proposed Project Area; *however* if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tonkawa Tribe would certainly be interested in proper disposition thereof.

We appreciate the notification received from your office. The Tonkawa Tribe is willing to work with you and your representatives in any manner to uphold the provisions of NAGPRA to the extent of our capabilities as well as yours. *Great success on this project and for those it will serve.*

Respectfully, your nmah lun

Lauren J. Norman-Brown, NAGPRA & TCNS Coordinator/Consultant & Cultural Clerk

lbrown@tonkawatribe.com



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Bobby Komardley Apache Tribe of Oklahoma PO Box 1330 Anadarko, Oklahoma 73005

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Mr. Komardley:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

If RBS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RBS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Wieland Solar, LLC is initiating Section 106 review on behalf of RBS. In delegating this authority, RBS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or another Tribal cultural representative. RBS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

Wieland Solar, LLC proposes that the area of potential effects (APE) for the referenced project is limited to the area of new ground disturbance, as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RBS pursuant to 36 CFR § 800.4(a)(1).

Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Apache Tribe of Oklahoma in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Salii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Tamara Francis Fourkiller Caddo Nation of Oklahoma PO Box 487 Binger, Oklahoma 73009

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Ms. Fourkiller:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

If RBS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RBS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Wieland Solar, LLC is initiating Section 106 review on behalf of RBS. In delegating this authority, RBS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or another Tribal cultural representative. RBS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

Wieland Solar, LLC proposes that the area of potential effects (APE) for the referenced project is limited to the area of new ground disturbance, as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RBS pursuant to 36 CFR § 800.4(a)(1).

Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Caddo Nation of Oklahoma in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Aulii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Martina Minthorn Comanche Nation, Oklahoma 6 SW D Avenue Lawton, Oklahoma 73502

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Ms. Minthorn:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

If RBS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RBS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Wieland Solar, LLC is initiating Section 106 review on behalf of RBS. In delegating this authority, RBS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or another Tribal cultural representative. RBS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

Wieland Solar, LLC proposes that the area of potential effects (APE) for the referenced project is limited to the area of new ground disturbance, as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RBS pursuant to 36 CFR § 800.4(a)(1).

Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Comanche Nation, Oklahoma in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Salii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Linda Langley Coushatta Tribe of Louisiana PO Box 10 Elton, Louisiana 70532

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Ms. Langley:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

If RBS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RBS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Wieland Solar, LLC is initiating Section 106 review on behalf of RBS. In delegating this authority, RBS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or another Tribal cultural representative. RBS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

Wieland Solar, LLC proposes that the area of potential effects (APE) for the referenced project is limited to the area of new ground disturbance, as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RBS pursuant to 36 CFR § 800.4(a)(1).

Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Coushatta Tribe of Louisiana in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Salii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Corain Lowe-Zepeda Muscogee (Creek) Nation PO Box 580 Okmulgee, Oklahoma 74447

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Ms. Lowe-Zepeda:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

If RBS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800. Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RBS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Wieland Solar, LLC is initiating Section 106 review on behalf of RBS. In delegating this authority, RBS is advocating for the direct interaction between its borrowers and the Tribal Historic Preservation Office (THPO) or another Tribal cultural representative. RBS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties earlier in project planning.

Wieland Solar, LLC proposes that the area of potential effects (APE) for the referenced project is limited to the area of new ground disturbance, as shown on the enclosed map. The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x). The geographic scope of the APE will not be final until a determination is made by RBS pursuant to 36 CFR § 800.4(a)(1).

Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Muscogee (Creek) Nation in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Salii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Lauren Norman-Brown Tonkawa Tribe of Indians of Oklahoma 1 Rush Buffalo Road Tonkawa, Oklahoma 74653

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Ms. Norman-Brown:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

The Proposed Project will be situated on an approximate 12-acre portion of a larger parcel identified as 21536 by the Hunt County assessor. The Proposed Project Area currently is, and historically has been since 1913, agricultural land. A vacant, agricultural field run along the north, south, and east boundaries of the Proposed Project Area, while a vacant, agricultural field with an unpaved road connecting to County Road 2101 runs along the western boundary. There are no structures within the Proposed Project Area and the National Register of Historic Places (NRHP) public database indicates no listed NRHP structures or properties in or near the Proposed Project Area.

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Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Tonkawa Tribe of Indians of Oklahoma in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with the USDA-Rural Development as the agency responsible for conducting Section 106 review, or to request that USDA-Rural Development participate directly in Section 106 review, please notify me at once; however, you may also contact the Agency directly. If you wish to do so, please submit your request to Terry Czerwien, USDA-Rural Development, 101 South Main Street, Suite 102, Temple, Texas 76501, or <u>terry.czerwien@usda.gov</u>.

Please submit your recommendations within thirty (30) days of your receipt of this request to Leslie Schroeder. If no timely response is received, the USDA will be notified so the federal agency may determine how to proceed with Section 106 review in accordance with 36 CFR § 800.3(b)(4). Should you have any questions, please contact me at 630-303-3006 or lschroeder@consultruenorth.com.

Regards, True North Consultants, Inc.

Salii Shroder.

Leslie Schroeder Staff Consultant

cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
- 2. Project Plan
- 3. Site Photographs



0: 630.717.2880 F: 630.689.5881

ConsultTrueNorth.com

July 23, 2021

Gary McAdams Wichita and Affiliated Tribes (Wichita, Keechi, Waco, & Tawakonie), Oklahoma PO Box 729 Anadarko, Oklahoma 73005

RE: Notification of Intent to Initiate Section 106 Review Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Dear Mr. McAdams:

Wieland Solar, LLC (Applicant) is requesting financial assistance from the United States Department of Agriculture (USDA) under its Rural Business-Cooperative Service (RBS), Rural Energy for America Program (REAP) for the proposed Wieland Solar project, as shown on the enclosed maps.

The Proposed Project will consist of the construction and operation of a 2-megawatt (MW), ground-mounted photovoltaic (PV) solar facility off County Road 2101 in Quinlan, Hunt County, Texas. The Proposed Project's infrastructure would include installing PV panels placed on a single-axis racking system; inverters (to allow for the transmission to the utility grid); connections to the existing powerlines and necessary safety features including access roads, perimeter roads and fencing. The estimated duration of construction is approximately 4-6 months, and it is anticipated that the facility will operate for 40 years.

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Wieland Solar, LLC is notifying you about the referenced project because of the possible interest of the Wichita and Affiliated Tribe (Wichita, Keechi, Waco & Twawkonie), Oklahoma in Hunt County, Texas.

Please review the attached project information, APE and enclosed maps. After completing your review, please provide Wieland Solar, LLC with your recommendation about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Wieland Solar, LLC will respect the confidentiality of the information which you provide to the fullest extent possible.

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Regards, True North Consultants, Inc.

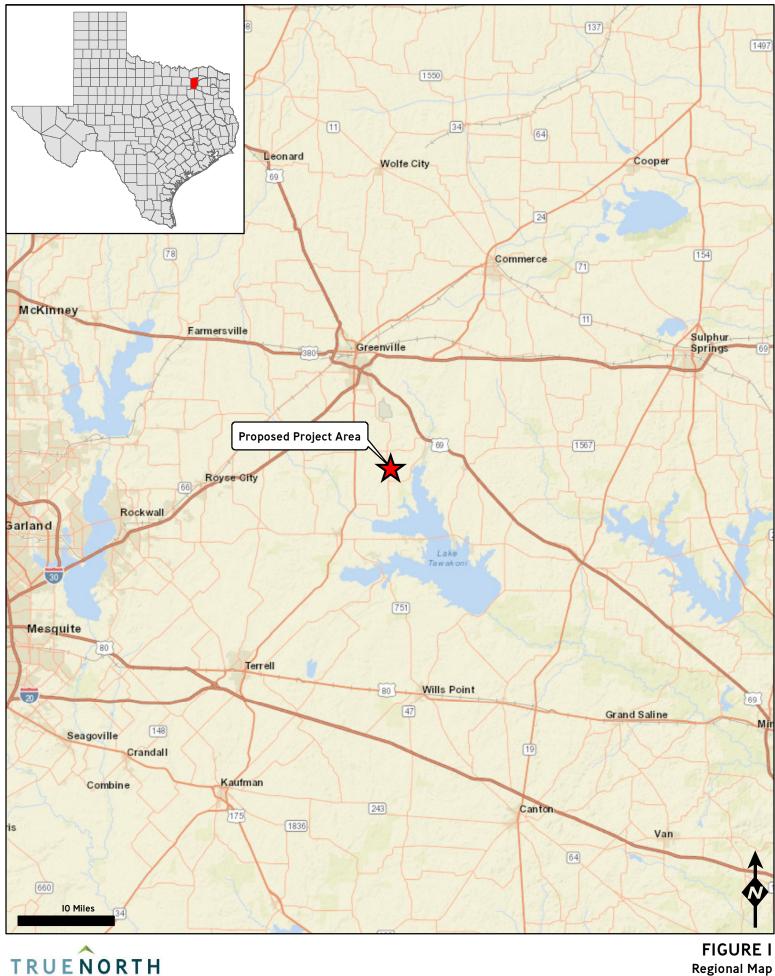
Salii Shroder.

Leslie Schroeder Staff Consultant

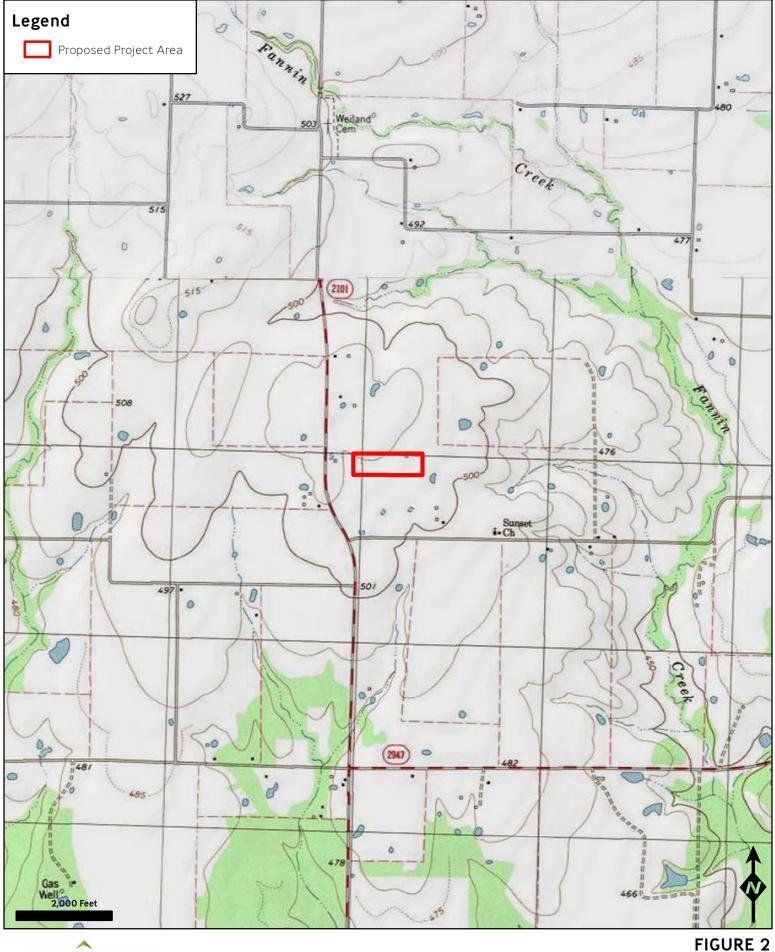
cc: Terry Czerwien (via email) Environmental Coordinator USDA - Rural Development terry.czerwien@usda.gov

Enclosures:

- 1. Project Maps
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CONSULTANTS Trusted Partner. Leading Environmental Solutions. Proposed Wieland Solar Project Quinlan, Hunt County, Texas



TRUENORTH CONSULTANTS FIGURE 2 Topographic Map Proposed Wieland Solar Project Quinlan, Hunt County, Texas

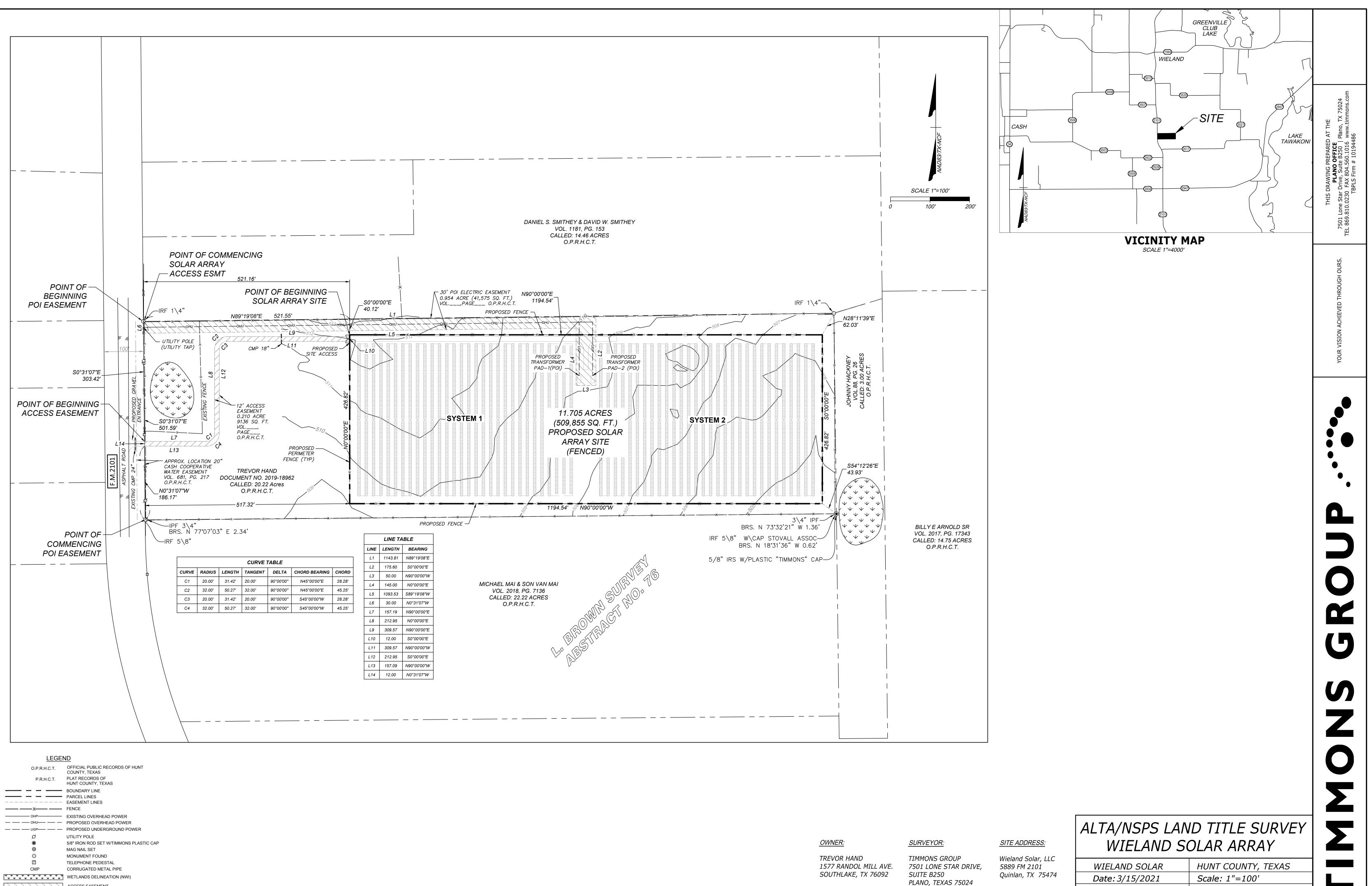
Trusted Partner. Leading Environmental Solutions.





FIGURE 3 Area Map Proposed Wieland Solar Project Quinlan, Hunt County, Texas

Trusted Partner. Leading Environmental Solutions.



ACCESS EASEMENT

(469) 810-0230 *TBPLS Firm # 10194486*

J.N.:45956.003 Sheet:1 of 2

Checked by:DAM

Drawn by: JEG/RCG

Revised:

POI-ELECTRIC EASEMENT













PLAN AND PROCEDURES FOR DEALING WITH THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES (INCLUDING HUMAN REMAINS)

PROJECT: Wieland Solar Project Hunt County, Texas

INTRODUCTION

Wieland Solar, LLC (Wieland) is proposing to construct the Wieland Solar Project in Hunt County, Texas. The project would consist of a small-scale community solar energy generating facility on approximately 12 acres. The Rural Utilities Service (RUS) is considering providing financial assistance and would serve as the lead federal agency for the project. This document describes the procedures for dealing with unanticipated discoveries of cultural resources and/or human remains during the course of project implementation. It is intended to:

- Comply with applicable federal and state laws and regulations, particularly 36 CFR 800 of the regulations that implement Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.
- Describe to regulatory and review agencies the plan and procedure(s) to prepare for and deal with unanticipated discoveries.
- Provide direction and guidance to project personnel as to the proper procedure to be followed should an unanticipated discovery occur.

PROCEDURES FOR DISCOVERY OF CULTURAL RESOURCES

In the event that any member of the construction work force believes that a cultural resources discovery is encountered, the following steps should be implemented:

- All work within 100.0 feet of the discovery will immediately stop and the foreman/environmental inspector (EI) will be notified. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the materials. A cultural resource can be of prehistoric or historic age and could consist of, but not be limited to:
 - Stone tools, arrowheads, or dense concentrations of stone artifacts.
 - An area of charcoal or very dark soil with artifacts.
 - An accumulation of animal bone, burned rocks, or other subsistence-related materials.
 - A historic structure or assemblage of historic-age materials older than 50 years.
- If the foreman/EI believes the discovery is a cultural resource, the foreman/EI will take appropriate steps to protect the discovery site. At a minimum, the immediate area of the

discovery will be flagged for avoidance, and the company environmental representative or company representative will be notified. Vehicles and equipment will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed.

- Wieland or its representative will arrange for the discovery to be evaluated by a qualified archeologist. The archeologist will determine whether the discovery is potentially eligible for listing in the National Register of Historic Places (NRHP) and provide recommendations for how to manage the resource under Section 106 of the NHPA.
- The archeologist will immediately contact the RUS and the Texas Historical Commission (THC) regarding the NRHP eligibility of the discovery. If the RUS or THC determine that the discovery is eligible for inclusion in the NRHP, the archeologist will consult with the agencies on how best to avoid, minimize, or otherwise mitigate further impacts. Treatment measures may include mapping, photography, sample collection, or excavation activities.
- The archeologist will rapidly implement the appropriate treatment measure(s) and provide a report describing methods and results.

PROCEDURES FOR DISCOVERY OF HUMAN REMAINS

In the event that human remains are encountered during either construction or maintenance activities, the following outlines the specific procedures to be followed. These procedures meet or exceed the Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects adopted by the Advisory Council on Historic Preservation (ACHP), "Protection of Historic and Cultural Properties" (36 CFR Part 800); the Native American Graves Protection and Repatriation Act (NAGPRA) (43 CFR Part 10); Procedures for the Protection of Historic Properties (33 CFR 325 Appendix C); the Archaeological and Historic Preservation Act; and Consultation and Coordination with Indian Tribal Governments (Executive Order 13175).

- All work within 100.0 feet of the discovery will immediately stop and the foreman/EI will be notified. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the materials.
- Wieland or its representative shall immediately contact the county sheriff's office, medical examiner, and/or coroner's office for the appropriate county (i.e., Hunt).
- The foreman/EI will be responsible for taking appropriate steps to protect the discovery. This
 will include fencing off the immediate area of discovery and flagging the area as an
 avoidance/exclusion zone. The site will be carefully covered and secured for protection from
 degradation by weather or unauthorized individuals. All activity that might disturb the remains
 shall cease and may not resume until authorized by appropriate law enforcement officials or
 agency personnel governing the disposition of human remains.
- If the unmarked burial site, human skeletal remains, or funerary objects can be shown to have ethnic affinity with a federally recognized Native American tribe, a company representative will assist the Wieland, RUS, and THC in determining the tribe(s), if any, who may have historical ties to the region and represent descendants of any Native American remains. If

direct relations to a federally recognized Native American tribe are verified, the tribe will have control of the disposition of the human skeletal remains.

- If the district coroner finds that the unmarked burial site is more than 50 years old and there is no need for a legal inquiry by their office or for a criminal investigation, and if no direct relations to any federally recognized Native Tribe are found, then the BIA or another duly designated agency will have jurisdiction of the site, human skeletal remains, and the burial artifacts.
- Any human remains, burial sites, or burial-related materials will be treated with dignity and respect at all times.

PROCEDURES FOR DISCOVERY OF HUMAN REMAINS

Hunt County Sheriff's Office

2801 Stuart St. Greenville, TX 75401 Emergency: 911 Non-emergency Phone: (903)453-6800

Hunt County Coroner / Medical Examiner's Office

2801 Stuart St. Greenville, TX 75401 Phone: (903) 453-6922

Stellavise Engineering, Inc. (Engineering Consultant)

Brice Casebeer Senior Engineer 2615 Camino Del Rio South, Suite 401 San Diego, CA 92108 Phone: (619) 312-6237

Horizon Environmental Services, Inc. (Archeological Subcontractor)

Jesse Owens Cultural Resources Director 1507 S. Interstate 35 Austin, TX 78741 Phone: (512) 633-4762

Project Developer – SunGrid Power, LLC

Trevor Hand 1577 Randol Mill Ave. Southlake, TX 76092 Phone: (972) 800-2143

APPENDIX X

Air Quality

Dogo

You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information > Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of July 31, 2021

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 μg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:		
TEXAS	~	GO
121115		

Important N	lotes		Download	National Datas	set: dbf xls	Data	a dictionary	(PDF)
County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
TEXAS								
Anderson County	Sulfur Dioxide (2010)	Freestone and Anderson Counties, TX	17/18/19/20/21	//		Part	7	48/001
Bexar County	8-Hour Ozone (2015)	San Antonio, TX	18192021	//	Marginal	Whole	1,714,773	48/029
Brazoria County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304	//	Severe-17	Whole	313,166	48/039
Brazoria County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314	//	Severe 15	Whole	313,166	48/039
Brazoria County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	313,166	48/039
Brazoria County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18192021	//	Marginal	Whole	313,166	48/039

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Chambers County	revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304		Severe-17	Whole	35,096	48/071
Chambers County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314	11	Severe 15	Whole	35,096	48/071
Chambers County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	35,096	48/071
Chambers County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18192021	//	Marginal	Whole	35,096	48/071
Collin County	1-Hour Ozone (1979)- NAAQS revoked	Dallas-Fort Worth, TX	92939495969798990001020304] //	Serious	Whole	782,341	48/085
Collin County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314] //	Serious	Whole	782,341	48/085
Collin County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021		Serious	Whole	782,341	48/085
Collin County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	782,341	48/085
Collin County	Lead (1978)	Collin Co, TX	92939495969798	12/13/1999		Part	782,353	48/085
Collin County	Lead (2008)	Frisco, TX	10111213141516	09/27/2017		Part	3,670	48/085
Dallas County	1-Hour Ozone (1979)- NAAQS revoked	Dallas-Fort Worth, TX	92939495969798990001020304		Serious	Whole	2,368,139	48/113
Dallas County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314		Serious	Whole	2,368,139	48/113

Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants | Green Book | US EPA

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Dallas County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	2,368,139	48/113
Dallas County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX		//	Marginal	Whole	2,368,139	48/113
Denton County	1-Hour Ozone (1979)- NAAQS revoked	Dallas-Fort Worth, TX	92939495969798990001020304	//	Serious	Whole	662,614	48/121
Denton County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314	//	Serious	Whole	662,614	48/121
Denton County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	662,614	48/121
Denton County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	662,614	48/121
El Paso County	1-Hour Ozone (1979)- NAAQS revoked	El Paso, TX	92939495969798990001020304] //	Serious	Whole	800,647	48/141
El Paso County	Carbon Monoxide (1971)	El Paso, TX	92939495969798990001020304050607	10/03/2008	Moderate <= 12.7ppm	Part	73,100	48/141
El Paso County	PM-10	El Paso Co, TX	929394959697989900010203040506070809101112131415161718192021	//	Moderate	Part	649,121	48/141
	Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314		Serious	Whole	149,610	48/139
Ellis County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	149,610	48/139
Ellis County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	149,610	48/139
Fort Bend County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304	//	Severe-17	Whole	585,375	48/157

Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants | Green Book | US EPA

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Fort Bend County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314		Severe 15	· · ·	585,375	48/157
Fort Bend County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	11	Serious	Whole	585,375	48/157
Fort Bend County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18192021	//	Marginal	Whole	585,375	48/157
Freestone County	Sulfur Dioxide (2010)	Freestone and Anderson Counties, TX	1718192021			Part	4,087	48/161
Galveston County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304		Severe-17	Whole	291,309	48/167
Galveston County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314		Severe 15	Whole	291,309	48/167
Galveston County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	291,309	48/167
Galveston County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18/19/20/21	//	Marginal	Whole	291,309	48/167
Hardin County	1-Hour Ozone (1979)- NAAQS revoked	Beaumont-	92939495969798990001020304	//	Serious	Whole	54,635	48/199
Hardin County	8-Hour Ozone (1997)- NAAQS revoked	Beaumont- Port Arthur, TX	040506070809	11/19/2010	Moderate	Whole	54,635	48/199

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Harris County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304		Severe-17		4,092,459	
Harris County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314		Severe 15	Whole	4,092,459	48/201
Harris County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021		Serious	Whole	4,092,459	48/201
Harris County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18192021	//	Marginal	Whole	4,092,459	48/201
Howard County	Sulfur Dioxide (2010)	Howard County, TX	21			Part	281	48/227
Hutchinson County	Sulfur Dioxide (2010)	Hutchinson County, TX		//		Part	14,593	48/233
Jefferson County	1-Hour Ozone (1979)- NAAQS revoked	Beaumont- Port Arthur, TX	92939495969798990001020304	/ /	Serious	Whole	252,273	48/245
Jefferson County	8-Hour Ozone (1997)- NAAQS revoked	Beaumont- Port Arthur, TX	040506070809	11/19/2010	Moderate	Whole	252,273	48/245
Johnson County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314	11	Serious	Whole	150,934	48/251
Johnson County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	150,934	48/251
Johnson County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	150,934	48/251

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Kaufman County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314] //	Serious	Whole	103,350	48/257
Kaufman County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	103,350	48/257
Kaufman County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	103,350	48/257
Liberty County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304	//	Severe-17	Whole	75,643	48/291
Liberty County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314	//	Severe 15	Whole	75,643	48/291
Liberty County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	75,643	48/291
Montgomery County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304] //	Severe-17	Whole	455,746	48/339
Montgomery County	8-Hour	Houston- Galveston- Brazoria, TX	0405060708091011121314		Severe 15	Whole	455,746	48/339
Montgomery County	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	455,746	48/339
Montgomery County	8-Hour Ozone (2015)	Houston- Galveston- Brazoria, TX	18/19/20/21	//	Marginal	Whole	455,746	48/339
Navarro County	Sulfur Dioxide (2010)	Navarro County, TX	21	//		Part	1,593	48/349

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Orange County	1-Hour Ozone (1979)- NAAQS revoked	Beaumont- Port Arthur, TX	92939495969798990001020304	//	Serious	Whole	81,837	48/361
Orange County	8-Hour Ozone (1997)- NAAQS revoked	Beaumont- Port Arthur, TX	040506070809	11/19/2010	Moderate	Whole	81,837	48/361
Panola County	Sulfur Dioxide (2010)	Rusk and Panola Counties, TX	1718192021	//		Part	24	48/365
Parker County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314	//	Serious	Whole	116,927	48/367
Parker County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	116,927	48/367
Parker County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	116,927	48/367
Rockwall County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314] //	Serious	Whole	78,337	48/397
Rockwall County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021		Serious	Whole	78,337	48/397
Rusk County	Sulfur	Rusk and Panola Counties, TX				Part	1,656	48/401
Tarrant County	1-Hour Ozone (1979)- NAAQS revoked		92939495969798990001020304		Serious	Whole	1,809,034	48/439
Tarrant County	8-Hour Ozone (1997)- NAAQS revoked	Dallas-Fort Worth, TX	0405060708091011121314	//	Serious	Whole	1,809,034	48/439

Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants | Green Book | US EPA

	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	1,809,034	48/439
County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18192021	//	Marginal	Whole	1,809,034	48/439
Titus County	(2010)	Titus County, TX		//		Part	211	48/449
Victoria County	1-Hour Ozone (1979)- NAAQS revoked	Victoria, TX	929394	05/08/1995	Incomplete Data	Whole	86,793	48/469
Waller County	1-Hour Ozone (1979)- NAAQS revoked	Houston- Galveston- Brazoria, TX	92939495969798990001020304	//	Severe-17	Whole	43,205	48/473
Waller County	8-Hour Ozone (1997)- NAAQS revoked	Houston- Galveston- Brazoria, TX	0405060708091011121314	//	Severe 15	Whole	43,205	48/473
	8-Hour Ozone (2008)	Houston- Galveston- Brazoria, TX	12131415161718192021	//	Serious	Whole	43,205	48/473
Wise County	8-Hour Ozone (2008)	Dallas-Fort Worth, TX	12131415161718192021	//	Serious	Whole	59,127	48/497
Wise County	8-Hour Ozone (2015)	Dallas-Fort Worth, TX	18/19/20/21	//	Marginal	Whole	59,127	48/497

Important Notes

Discover.

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2021-08-01

APPENDIX XI

Socioeconomics and Environmental Justice



EJSCREEN ACS Summary Report



Location: User-specified point center at 32.991138, -96.055766

Ring (buffer): 10-miles radius

Description: Wieland Solar

Summary of ACS Estimates	2014 - 2018
Population	39,159
Population Density (per sq. mile)	138
People of Color Population	9,055
% People of Color Population	23%
Households	14,539
Housing Units	16,666
Housing Units Built Before 1950	638
Per Capita Income	25,332
Land Area (sq. miles) (Source: SF1)	282.93
% Land Area	91%
Water Area (sq. miles) (Source: SF1)	27.40
% Water Area	9%

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	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	39,159	100%	715
Population Reporting One Race	38,276	98%	1,802
White	32,805	84%	662
Black	2,057	5%	387
American Indian	357	1%	191
Asian	324	1%	143
Pacific Islander	13	0%	21
Some Other Race	2,720	7%	398
Population Reporting Two or More Races	884	2%	291
Total Hispanic Population	5,525	14%	541
Total Non-Hispanic Population	33,634		
White Alone	30,105	77%	655
Black Alone	2,044	5%	384
American Indian Alone	282	1%	189
Non-Hispanic Asian Alone	319	1%	143
Pacific Islander Alone	13	0%	21
Other Race Alone	39	0%	63
Two or More Races Alone	831	2%	291
Population by Sex			
Male	19,685	50%	592
Female	19,475	50%	415
Population by Age			
Age 0-4	2,071	5%	177
Age 0-17	9,305	24%	315
Age 18+	29,854	76%	607
Age 65+	6,896	18%	419

 Data Note:
 Detail may not sum to totals due to rounding.
 Hispanic population can be of any race.

 N/A means not available.
 Source:
 U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018



EJSCREEN ACS Summary Report



Location: User-specified point center at 32.991138, -96.055766

Ring (buffer): 10-miles radius

Description: Wieland Solar

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	26,767	100%	497
Less than 9th Grade	1,514	6%	178
9th - 12th Grade, No Diploma	2,670	10%	199
High School Graduate	8,816	33%	309
Some College, No Degree	8,226	31%	302
Associate Degree	1,894	7%	169
Bachelor's Degree or more	5,540	21%	343
Population Age 5+ Years by Ability to Speak English			
Total	37,088	100%	721
Speak only English	32,519	88%	615
Non-English at Home ¹⁺²⁺³⁺⁴	4,569	12%	416
¹ Speak English "very well"	3,411	9%	380
² Speak English "well"	504	1%	111
³ Speak English "not well"	480	1%	158
⁴ Speak English "not at all"	174	0%	158
³⁺⁴ Speak English "less than well"	654	2%	223
²⁺³⁺⁴ Speak English "less than very well"	1,158	3%	248
Linguistically Isolated Households*			
Total	194	100%	99
Speak Spanish	155	80%	98
Speak Other Indo-European Languages	12	6%	25
Speak Asian-Pacific Island Languages	27	14%	33
Speak Other Languages	0	0%	19
Households by Household Income			
Household Income Base	14,539	100%	188
< \$15,000	1,612	11%	198
\$15,000 - \$25,000	1,893	13%	190
\$25,000 - \$50,000	3,127	22%	230
\$50,000 - \$75,000	2,797	19%	206
\$75,000 +	5,110	35%	288
Occupied Housing Units by Tenure	0,0	0070	200
Total	14,539	100%	188
Owner Occupied	10,277	71%	185
Renter Occupied	4,262	29%	228
Employed Population Age 16+ Years	7,202	2370	220
Total	31,094	100%	583
In Labor Force	17,967	58%	445
Civilian Unemployed in Labor Force	861	3%	115
Not In Labor Force	13,127	42%	325
	10,127	42 /0	320

DataNote:Datail may not sum to totals due to rounding.Hispanic population can be of anyrace.N/Ameans not available.Source:U.S. Census Bureau, American Community Survey (ACS)*Households in which no one 14 and over speaks English "very well" or speaks English only.



EJSCREEN ACS Summary Report



Location: User-specified point center at 32.991138, -96.055766

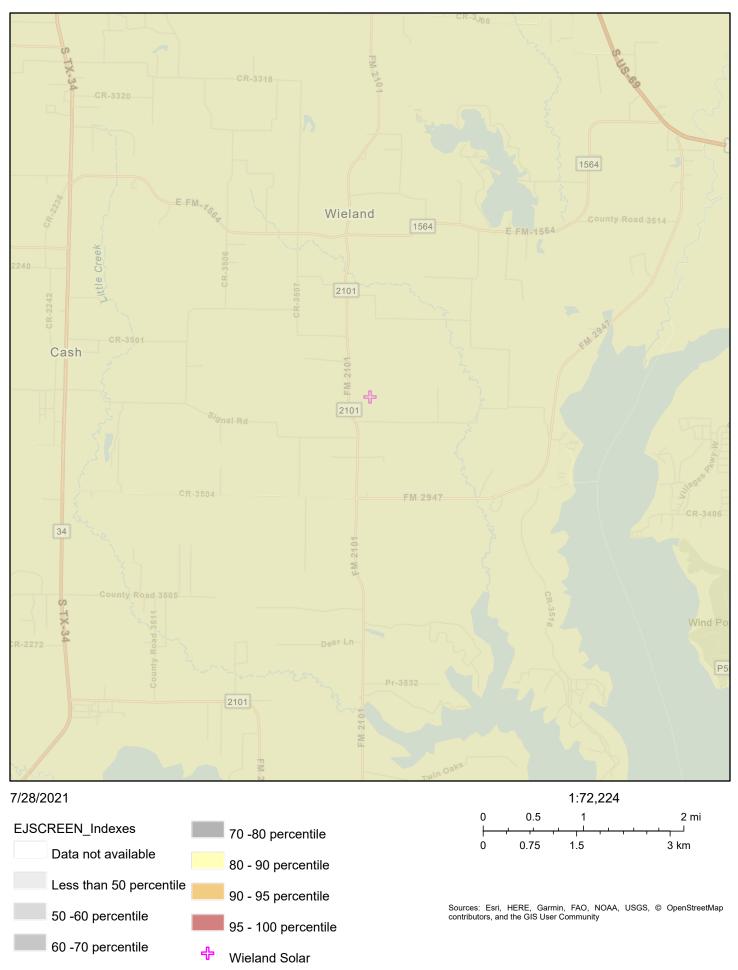
Ring (buffer): 10-miles radius

Description: Wieland Solar

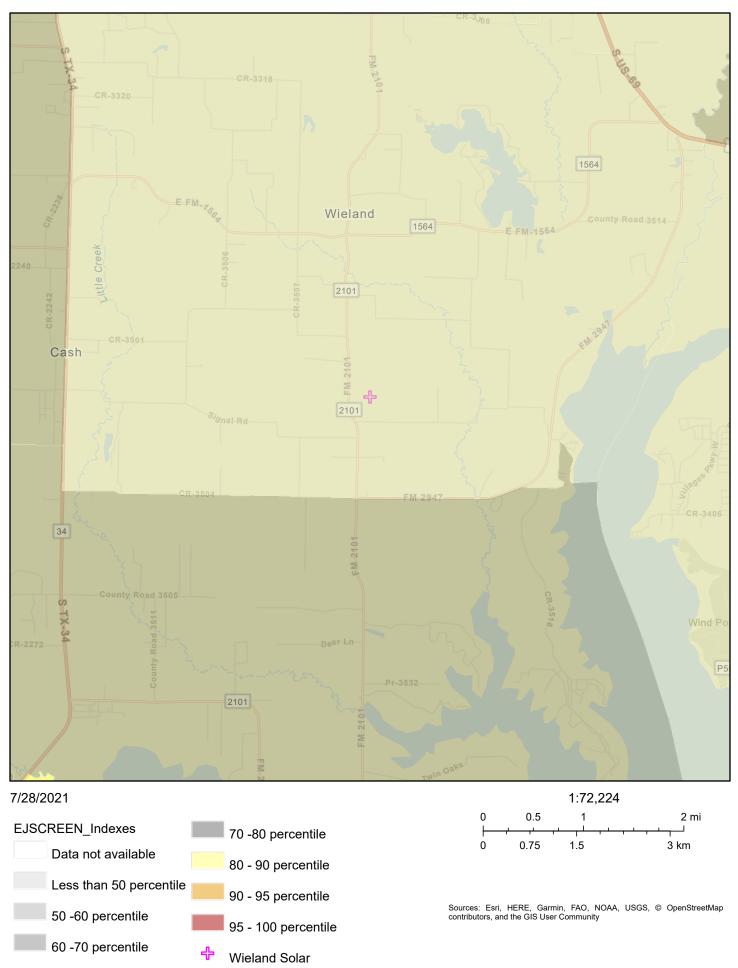
	2014 - 2018 ACS Estimates	Percent	MOE (±
pulation by Language Spoken at Home [*]			
tal (persons age 5 and above)	37,088	100%	721
English	32,519	88%	643
Spanish	4,164	11%	547
French	26	0%	98
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	92	0%	79
Yiddish	N/A	N/A	N//
Other West Germanic	N/A	N/A	N//
Scandinavian	N/A	N/A	N//
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N//
Polish	N/A	N/A	N//
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/
Armenian	N/A	N/A	N/
Persian	N/A	N/A	N/
Gujarathi	N/A	N/A	N/
Hindi	N/A	N/A	N/
Urdu	N/A	N/A	N/.
Other Indic	N/A	N/A	N/
Other Indo-European	43	0%	9
Chinese	23	0%	2
Japanese	N/A	N/A	N/
Korean	23	0%	3
Mon-Khmer, Cambodian	N/A	N/A	N/
Hmong	N/A	N/A	N/
Thai	N/A	N/A	N/
Laotian	N/A	N/A	N/
Vietnamese	25	0%	3
Other Asian	93	0%	9
Tagalog	33	0%	5
Other Pacific Island	N/A	N/A	N/
Navajo	N/A N/A	N/A	N/
Other Native American	N/A N/A	N/A	N/
Hungarian	N/A N/A	N/A N/A	N/
Arabic	0	0%	1
Hebrew	N/A	0% N/A	N/
African	N/A N/A		N/
Other and non-specified		N/A	
Total Non-English	16 4,569	0% 12%	2 94

Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race. N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018. *Population by Language Spoken at Home is available at the census tract summary level and up.

Wieland Solar People of Color Population



Wieland Solar Low Income Population





Human Health and Safety

PHASE I ENVIRONMENTAL SITE ASSESSMENT UPDATE



WIELAND SOLAR

SOUTHEAST OF 5837 FM 2101 QUINLAN, TEXAS 75474

ECS PROJECT NO. 51:1878-A

FOR: SUNGRID POWER

NOVEMBER 30, 2020



"Setting the Standard for Service"



Geotechnical · Construction Materials · Environmental · Facilities

November 30, 2020

Mr. Trevor Hand SunGrid Power P.O. Box 1046 Grapevine, Texas 76099

ECS Project No. 51: 1878-A

Reference: Phase I Environmental Site Assessment Update, Wieland Solar, southeast of 5837 FM 2101, Quinlan, Hunt County, Texas 75474

Dear Mr. Hand:

ECS Southwest, LLP (ECS) is pleased to provide you with the results of our Phase I Environmental Site Assessment Update (ESA) for the referenced site. ECS services were provided in general accordance with ECS Proposal No. 51:1988 authorized on November 13, 2020 and generally meet the requirements of a Phase I ESA Update as described in ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and EPA Standards and Practices for All Appropriate Inquiries contained in 40 CFR Part 312. The purpose of this ESA Update was to identify Recognized Environmental Conditions (RECs) in connection with the subject property since the completion of the previous Phase I ESA and involved an updated site reconnaissance, interviews, and regulatory database search.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

ECS Southwest, LLP

Roger Willis Environmental Senior Project Manager RWillis@ecslimited.com 512-837-8005

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Craig Hiatt Director of Environmental Services chiatt@ecslimited.com 512-837-8005



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Project Summary

Phase I Environmental Site Assessment Update

Wieland Solar Southeast of 5837 FM 2101 Quinlan, Texas 75474

Rep	ort Section	No Further Action	REC	CREC	HREC	BER	Comment
<u>5.1</u>	Federal ASTM Databases	~					
<u>5.2</u>	State ASTM Databases	~					
<u>5.3</u>	Additional Environmental Record Sources	~					
<u>6.0</u>	Updated Historical Use Information	~					
<u>7.0</u>	Updated Site and Area Reconnaissance	~					
<u>8.0</u>	Additional Services	~					
<u>9.0</u>	Updated Interviews	~					



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. 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 the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Mague 24

Roger Willis Environmental Senior Project Manager November 30, 2020

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Craig Hiatt Director of Environmental Services November 30, 2020



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1.0 EXECUTIVE SUMMARY

ECS Southwest, LLP (ECS) was contracted by SunGrid Power to perform a Phase I Environmental Site Assessment Update (ESA) of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474 (i.e. subject property). This Executive Summary is an integral part of the Phase I ESA report. ECS recommends that the report be read in its entirety.

ECS previously performed a Phase I ESA of the property, Our previous study revealed no evidence of RECs in connection with the site. Therefore, ECS did not recommend further investigation at that time.

The subject property is identified by Hunt County as Parcel Identification Number (PIN) 21536 and owned by HAND TREVOR. The approximately 10-acre subject property is agricultural land.

The subject property is located in a rural, residential area of Quinlan, Texas. The subject property is bound on the north by agricultural land, on the east by agricultural land, on the south by agricultural land, and on the west by agricultural land. ECS did not identify environmental issues associated with current occupants and activities at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

The updated regulatory file review did not reveal changes to the current site conditions or to the adjacent properties.

ECS performed an updated interview with Mr. Trevor Hand, representative for the subject property. Mr. Hand indicated he is not aware of changes that have occurred on the subject property since June, 2020.

ECS was not contracted by the User to obtain updated environmental liens or activity and use limitations (AULs) information. The User stated they were not aware of any AULs associated with the subject property.

ECS performed an updated visual inspection of the property on November 18, 2020. No changes to property conditions from those observed during the previous Phase I ESA were identified.

We have performed a Phase I Environmental Site Assessment Update in general conformance with the scope and limitations of ASTM E1527-13 of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474. Exceptions to, or deletions from, this practice are described in Section 2.5 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.



2.0 INTRODUCTION

2.1 Purpose and Reason for Performing Phase I ESA

The purpose of the ESA Update was to:

- evaluate changes to the property that may have occurred since the time of our previous Phase I ESA of the property, ECS Project Number 1878, dated June 3, 2020;
- conduct all appropriate inquiry as defined by ASTM E1527-13 and 40 CFR Part 312;
- evaluate the potential for on-site and off-site contamination; and,
- provide a professional opinion regarding the potential for environmental impact at the site and a list of Recognized Environmental Conditions (RECs).

The ESA should allow the Users the opportunity to qualify for landowner liability protection under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provided certain stipulations are met. The landowner liability protections are: an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser. The User must meet the protection stipulations detailed in CERCLA to qualify as well as meet the User Obligations contained within the ASTM E1527-13 standard.

The reason for conducting this ESA is to perform all appropriate inquiries into the uses and prior ownership of the subject property for the development of a solar facility.

2.2 Scope of Services

The environmental assessment was conducted in general accordance with ASTM E1527-13 and EPA Standards and Practices for All Appropriate Inquiry (40 CFR §312.10). The environmental assessment was conducted under the supervision or responsible charge of an individual that qualifies as an environmental professional, as defined in 40 CFR §312.10.

ECS was contracted by SunGrid Power to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas. ECS was not contracted to address non-scope considerations.

2.3 Definitions

ASTM E1527-13 defines a "recognized environmental condition (REC)" as "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: 1) due to release to the environment, 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment." For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form including solid and liquid at the surface or subsurface and vapor in the subsurface.

ASTM E1527-13 defines a "business environmental risk" (BER) as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental



issues required to be investigated in this practice". ECS also uses the term "Other Environmental Considerations" to discuss BERs and environmental concerns outside of the ASTM E1527-13 requirements (radon, asbestos, lead, wetlands, etc.). Client-imposed limitations and site condition limitations, if encountered, are detailed in Section 7.1 Methodology and Limiting Conditions.

ASTM E1527-13 defines a "*de minimis* condition" as a condition that generally does not represent 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. De minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

ASTM E1527-13 defines a "controlled recognized environmental condition (CREC)" as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition identified as a controlled recognized environmental condition does not imply that the Environmental Professional has evaluated or confirmed the adequacy, implementation or continued effectiveness of the required control that has been, or is intended to be, implemented.

ASTM E1527-13 defines a "historical recognized environmental condition (HREC)" as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the Environmental Professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria).

According to ASTM E1527-13, an Environmental Site Assessment is considered viable for which the information was collected or updated within *one year* prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction may be used provided that the following components of the inquiries were conducted or updated within *180 days* of the date of purchase or the date of the intended transaction:

(i) interviews with owners, operators, and occupants;

(ii) searches for recorded environmental cleanup liens;

(iii) reviews of federal, tribal, state, and local government records;

(iv) visual inspections of the property and of adjoining properties; and

(v) the declaration by the environmental professional responsible for the assessment or update.



2.4 Limitations

The ESA involved a reconnaissance of the subject property and contiguous properties and a review of regulatory and historical information in general accordance with the ASTM standard and EPA regulation referenced herein. No non-scope considerations or additional issues such as asbestos, radon, wetlands or mold were investigated, unless otherwise described in Section 8.0 of this report.

Note: vapor migration in the subsurface is described in Guide E2600 published by ASTM. ECS was not contracted to conduct a Vapor Encroachment Screen in accordance with the E2600 guide.

The conclusions and/or recommendations presented within this report are based upon a level of investigation consistent with the standard of care and skill exercised by members of the same profession currently practicing in the same locality under similar conditions. The intent of this assessment is to identify the potential for recognized environmental conditions in connection with the subject property; however, no environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. The findings of this ESA are not intended to serve as an audit for health and safety compliance issues pertaining to improvements or activities at the subject property. ECS is not liable for the discovery or elimination of hazards that may potentially cause damage, accidents or injury.

Observations, conclusions and/or recommendations pertaining to environmental conditions at the subject property are necessarily limited to conditions observed, and or materials reviewed at the time this study was undertaken. It was not the purpose of this study to determine the actual presence, degree or extent of contamination, if any, at this subject property. This could require additional exploratory work, including sampling and laboratory analysis. No warranty, expressed or implied, is made with regard to the conclusions and/or recommendations presented within this report.

This report is provided for the exclusive use of SunGrid Power. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance. The use of this report is subject to the same terms, conditions and scope of work reflected in this report and the associated proposal.



3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Current Use and Description of the Site

The subject property consists of an approximately 10-acre parcel of land that is currently agricultural land. The subject property is located in an area that can generally be described as rural, residential.

3.2 Physical Setting and Hydrogeology

U	USGS Topographic Map					
Quad DesignationWest Tawakoni, Texas						
Date	2012					
Sul	bject Property Settings					
Average Subject Property Elevation (in feet or meters)	509 feet above mean sea level (amsl)					
General Sloping Direction	The subject property generally slopes to the southeast.					
Bodies of Water	None on the subject property.					
General Directions of Surface Flow	The general direction of surface flow is towards the southeast.					
Presumed Direction of Groundwater Flow	Groundwater flow is expected to flow southeast based on predicted groundwater flow data provided by Environmental Data Resources, Inc.					
Geologic Province	Navarro Group					
Up-gradient Property Direction	Northwest					



Nearby Properties' Setting					
General Sloping Direction	The nearby properties generally slope to the southeast.				
Bodies of Water	None				
General Directions of Surface Flow	The general direction of surface flow is to the southeast.				
Presumed Direction of Groundwater Flow	Groundwater flow is expected to flow southeast based on predicted groundwater flow data provided by Environmental Data Resources, Inc.				

Regional influences may have an impact on groundwater flow. The actual groundwater flow direction cannot be determined without site-specific information obtained through the gauging of groundwater monitoring wells.



4.0 USER PROVIDED INFORMATION

The ASTM standard includes disclosure and obligations of the User to help the Environmental Professional identify the potential for Recognized Environmental Conditions associated with the subject property. ECS previously received a User Questionnaire completed by Trevor Hand with SunGrid Power. No new or updated User Questionnaire was completed for this Phase I ESA Update.

4.1 Title Information

ECS was not provided with title information by the User. If this information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.2 Environmental Liens or Activity and Use Limitations

ECS was neither contracted to obtain information on environmental liens or activity and use limitations, nor have we been provided with information on environmental liens or activity and use limitations for our review. It should be noted by the User of this report that if the User does not obtain activity and use limitation information, the User that is seeking to qualify for an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser liability defense may lose these rights to qualify under CERCLA. If the activity and use information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report. The User stated they were not aware of any AULs associated with the subject property.

4.3 Specialized Knowledge

The User indicated that the subject property has been used for agricultural use.

4.4 Commonly Known or Reasonably Ascertainable Information

The User indicated that they were not aware of commonly known environmental concerns related to the subject property.

4.5 Valuation Reduction for Environmental Issues

According to the User, the purchase price being paid for the subject property reasonably reflects its fair market value.

4.6 Owner, Property Manager, and Occupant Information

The User indicated that Trevor Hand owns the property.

4.7 Degree of Obviousness

The User stated that they were not aware of obvious indicators that point to the presence or likely presence of contamination at the subject property.



5.0 UPDATED RECORDS REVIEW

A regulatory records search of ASTM standard and supplemental databases was conducted for the subject property and is included in Appendix III. The regulatory search report in the appendix includes additional details about the regulatory databases that were reviewed. The regulatory records search involves searching a series of databases for facilities that are located within a specified distance from the subject property. The ASTM standard specifies an approximate minimum search distance from the subject property for each database. Pursuant to ASTM, the approximate minimum search distance may be reduced for each standard environmental record except for Federal NPL site list, and Federal RCRA TSD list. According to ASTM, government information obtained from nongovernmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public. The following table indicates the standard environmental record sources and the approximate minimum search distances for each record.

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
Federal NPL	1.0	No	0
Federal Delisted NPL	0.5	No	0
Federal CERCLIS	0.5	No	0
Federal CERCLIS NFRAP	0.5	No	0
Federal RCRA CORRACTS	1.0	No	0
Federal RCRA non-CORRACTS TSD	0.5	No	0
Federal RCRA Generators	Subject Site and Adjoining Properties	No	0
Federal IC/EC	Subject Site Only	No	N/A
Federal ERNS	Subject Site Only	No	N/A
State and Tribal Hazardous Waste Sites (NPL Equivalent)	1.0	No	0
State and Tribal Hazardous Waste Sites (CERCLIS Equivalent)	0.5	No	0
State and Tribal Landfill and/or solid waste disposal sites	0.5	No	0



Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
State and Tribal Leaking Tanks	0.5	No	0
State and Tribal Registered UST and AST	Subject Site and Adjoining Properties	No	0
State and Tribal IC/EC	Subject Site Only	No	N/A
State and Tribal Voluntary Cleanup (VCP)	0.5	No	0
State and Tribal Brownfield Sites	0.5	No	0

Based on our knowledge of the subject property and the surrounding area, ECS attempts to verify and interpret this data. While this attempt at verification is made with due diligence, ECS cannot guarantee the accuracy of the record(s) search beyond that of information provided by the regulatory report(s). ECS makes no warranty regarding the accuracy of the database report information included within the regulatory report(s).

The regulatory database search was performed by Environmental Data Resources, Inc, dated November 17, 2020. ECS did not reduce the minimum ASTM search distances stipulated in the standard. The regulatory databases reviewed by ECS included supplemental databases researched by Environmental Data Resources, Inc.

5.1 Federal ASTM Databases

Neither the subject property nor properties within the designated search radii were identified on the federal ASTM databases researched for this assessment.

5.2 State ASTM Databases

Neither the subject property nor properties within the designated search radii were identified on the state ASTM databases researched for this assessment.

5.3 Additional Environmental Record Sources

5.3.1 Additional Non-ASTM Federal Databases

Neither the subject property nor properties within the designated search radii were identified on the non-ASTM federal databases researched for this assessment.



5.3.2 Additional Non-ASTM State Databases

Neither the subject property nor properties within the designated search radii were identified on the non-ASTM state databases researched for this assessment.

5.3.3 Other Proprietary Databases

Neither the subject property nor properties within the designated search radii were identified on the proprietary databases researched for this assessment.

5.3.4 Unmapped (Orphan) Facilities and Sites

No properties were identified on the Orphan Summary List. These facilities are considered as unmappable because the facility information in the database is insufficient and does not report accurate facility location.

5.4 Regulatory Review Summary

A regulatory database search report was provided by Environmental Data Resources, Inc. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report did not identify the subject property on the databases researched. The Environmental Data Resources, Inc report did not identify off-site properties within the minimum ASTM search distances. Therefore, ECS does not consider there to be a REC for the subject property.



6.0 UPDATED HISTORICAL USE INFORMATION

Standard historical sources (aerial photos, fire insurance maps, city directories, etc.) were researched for our previous Phase I ESA of the property. Based on previous review of reasonably ascertainable historical information, the subject property has remained agricultural land since at least 1919. Our review of historical information for adjoining or nearby properties identified the area as originally agricultural land that transitioned to rural, residential over time.

6.1 Recorded Environmental Liens

ECS was neither contracted to obtain information on environmental liens or activity and use limitations, nor have we been provided with information on environmental liens or activity and use limitations for our review. It should be noted by the User of this report that if the User does not obtain activity and use limitation information, the User that is seeking to qualify for an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser liability defense may lose these rights to qualify under CERCLA. If the activity and use information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report. The User stated they were not aware of any AULs associated with the subject property.

6.2 Previous Reports

ECS previously conducted a Phase I Environmental Site Assessment for this subject property in June, 2020 (ECS Project number 51:1878). The report indicated that the subject property was approximately 10-acres of agricultural land. ECS did not identify on-site or off-site RECs at the time the Phase I ESA was completed.

6.3 Historical Use Summary

Our previous studies indicated that, according to historical research, the subject property has remained agricultural land since at least 1919. The area has developed slowly from primarily agricultural land to rural, residential over time.

The subject property was historically used as agricultural land. Such use of the subject property may have included the storage and use of beneficial agricultural products such as fungicides, herbicides, and/or fertilizers. The legal use (i.e., in accordance with the manufacturers' specifications and customary practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Further, reasonably ascertainable information was not observed during the course of our assessment, including historical records review, or field reconnaissance observations regarding past site history, that a past release of such substances had occurred. Therefore, the mere presence of this historical land use does not meet the definition of a REC.



7.0 UPDATED SITE AND AREA RECONNAISSANCE

7.1 Methodology

Jared Hovland of ECS conducted the field reconnaissance on November 18, 2020. The weather at the time of the reconnaissance was 72 degrees Fahrenheit and clear. Observations were made from a walking reconnaissance around the perimeter and along several transects across the subject property. Access or visibility limitations, if any, are discussed in Section 2.5. Subject property photographs are included in Appendix V.

7.2 On-Site Features

The subject property is approximately 10 acres in size and consists of agricultural land. A gravel road affords access to the subject property from County Road 2101. Evidence of structures associated with the subject property was not noted. Cattle feed containers were observed near the northwest corner of the subject property. The subject property gently slopes from northwest to southeast.

Pertinent features of environmental concern were not observed during the site reconnaissance.

The table below lists pertinent features of interest that were assessed for the subject property. Relevant information regarding pertinent features is discussed further in this section.

Feature	Yes	No
Underground or aboveground storage tanks		~
Strong, pungent or noxious odors		~
Surface waters		~
Standing pools of liquid likely containing petroleum or hazardous substances		~
Drums or containers of petroleum or hazardous substances greater than five-gallons		~
Drums or containers of petroleum or hazardous substances less than or equal to five-gallons		~
Unidentified opened or damaged containers of hazardous substances or petroleum products		~
Known or suspect PCB-containing equipment (excluding light ballasts)		~
Stains or corrosion to floors, walls or ceilings		✓
Floor drains and sump pumps		~
Pits, ponds or lagoons		~
Stained soil or pavement		✓



Feature	Yes	Νο
Stressed vegetation		~
Solid waste mounds or non-natural fill materials		~
Wastewater discharges into drains, ditches or streams		✓
Groundwater wells including potable, monitoring, dry, irrigation, injections and/or abandoned		~
Septic systems or cesspools		~
Elevators		~
Dry cleaning		~
Onsite emergency electrical generators		~
Specialized industrial equipment (paint booths, bag houses, etc.,) on-site		~
Hydraulic lifts		~
Oil-water separators		~
Compressors on-site		~
Grease traps		✓

7.3 Adjoining and Nearby Properties

Contiguous and nearby properties were observed during a walking and vehicular reconnaissance of the subject property boundary and public places. The subject property is located in a rural, residential area of Quinlan, Hunt County, Texas.

Direction	Description	Relative Gradient	REC
North	Agricultural land	Cross-gradient	No
East	Agricultural land	Down-gradient	No
South	Agricultural land	Cross-gradient	No
West	Agricultural land	Up-gradient	No

7.4 Site and Area Reconnaissance Summary

According to our site observations and a review of adjoining and nearby properties, the subject property is used as agricultural land. The subject property is located in a rural, residential area. Details pertaining to our on-site and off-site observations are referenced previously. We did not identify RECs associated with the subject property or neighboring properties and businesses during the reconnaissance.



8.0 ADDITIONAL SERVICES

ASTM guidelines identify non-scope issues, which are beyond the scope of this practice. Non-scope issues have the potential to be business environmental risks. Some of these non-scope issues include; asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands and mold.

ECS was not authorized to assess non-scope issues in conjunction with this assessment.



9.0 UPDATED INTERVIEWS

During the site reconnaissance, Jared Hovland interviewed Trevor Hand, owner of the subject property. Mr. Hand has approximately one (1) year of knowledge related to the subject property and associated activities. Mr. Hand indicated that he is not aware of 1) environmental concerns associated with the subject property; 2) any pending, past, or threatened administrative litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or 3) any government notices regarding any possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.



10.0 FINDINGS AND CONCLUSIONS

ECS previously performed a Phase I ESA of the property, Our previous study revealed no evidence of RECs in connection with the site. Therefore, ECS did not recommend further investigation at that time.

The subject property is identified by Hunt County as Parcel Identification Number (PIN) 21536 and owned by HAND TREVOR. The approximately 10-acre subject property is agricultural land.

The subject property is located in a rural, residential area of Quinlan, Texas. The subject property is bound on the north by agricultural land, on the east by agricultural land, on the south by agricultural land, and on the west by agricultural land. ECS did not identify environmental issues associated with current occupants and activities at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

The updated regulatory file review did not reveal changes to the current site conditions or to the adjacent properties.

ECS performed an updated interview with Mr. Trevor Hand, representative for the subject property. Mr. Hand indicated he is not aware of changes that have occurred on the subject property since June, 2020.

ECS was not contracted by the User to obtain updated environmental liens or activity and use limitations (AULs) information. The User stated they were not aware of any AULs associated with the subject property.

ECS performed an updated visual inspection of the property on November 18, 2020. No changes to property conditions from those observed during the previous Phase I ESA were identified.

We have performed a Phase I Environmental Site Assessment Update in general conformance with the scope and limitations of ASTM E1527-13 of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474. Exceptions to, or deletions from, this practice are described in Section 2.5 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.



11.0 REFERENCES

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Hand, Trevor. (2020, May 13). Environmental Questionnaire for User.

Hand, Trevor. (2020, November 18). Interview.

Hunt County Appraisal District. (n.d.). Appraisal Information Retrieved from HCAD website <u>http://esearch.hunt-cad.org/Property/View/21536</u>

USGS Texas Geologic Map Data. (n.d.). Texas Geology Retrieved from USGS website http://mrdata.usgs.gov/sgmc/tx.html



Appendix I: Figures



Figure 1: Subject Property Location Map



Wieland Solar Southeast of 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878-A



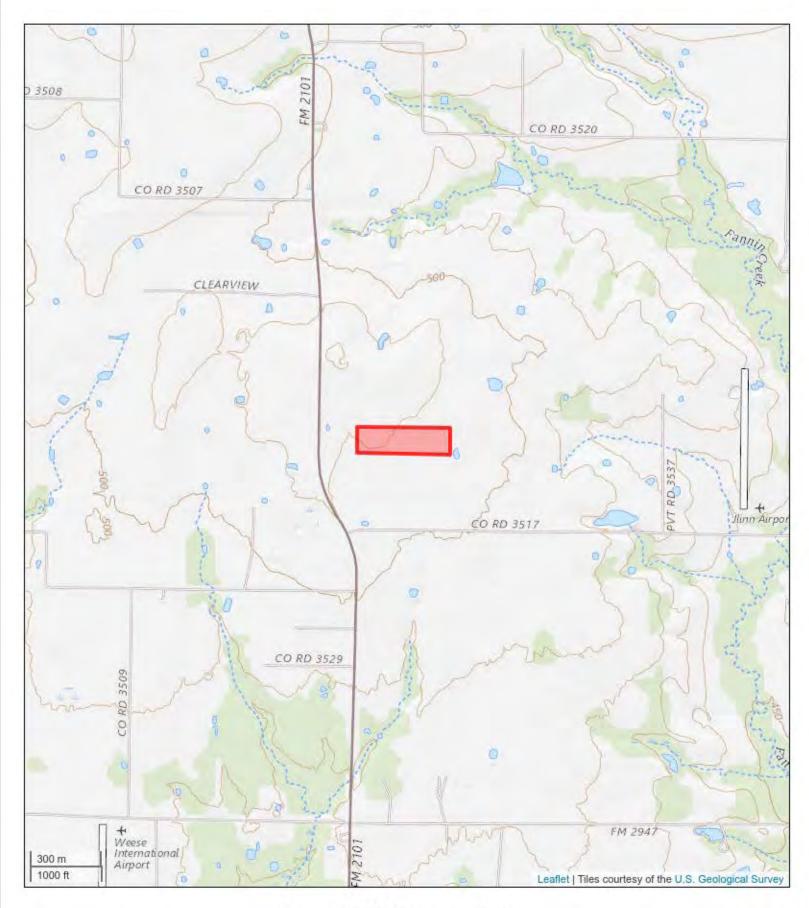


Figure 2: USGS Topographic Map



Wieland Solar West Tawakoni, Texas Quadrangle Southeast of 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878-A







Figure 3: Subject Property Map

Wieland Solar Southeast of 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878-A



Appendix II: Correspondence and User Questionnaire



Environmental Questionnaire for User

Completion required for conformance with ASTM E 1527-13. Failure to provide this information may preclude CERCLA liability protections for the property purchaser. Please return answered form to ECS.

Site Name: Caddo Mills Solar LLC, Wieland Solar LLC, Lone Oak Solar LLC

Name and Title of Person Completing Questionnaire (Please Print):

Trevor Hand

Signature of Person Completing Questionnaire:

Sim Agast

Date: 05/13/2020

Name of Your Company and Your Contact Number (Please Print):

SunGrid Power, 972-800-2143

ASTM E 1527-13 indicates that, "Either the user shall make known to the environmental professional the reason why the user wants to have the Phase I Environmental Site Assessment performed or, if the user does not identify the purpose of the Phase I Environmental Site Assessment, the environmental professional shall assume the purpose is to qualify for an LLP to CERCLA liability and state this in the report." As the user of this ESA, what is the reason for conducting the Phase I ESA? If this question is unanswered, ECS will assume that the user's reason for the ESA is to qualify for landowner liability protections to CERCLA liability.

Please state reason for having ESA performed: We are evaluating each site for the development of a solar facility. Our banking partners require a Phase 1 ESA

Will ye	ou provide Property	Title R	ecords and a	Legal De	escription	to ECS?		
Pl€	ease select one:	NO		YES	X			
Will ye	ou provide a 50-year	chain	of title abstra	act to ECS	S?			
Pl€	ease select one:	NO	X	YES				
Please	e Send Information F	<u>Prompt</u>	lγ					
(1a.)	Environmental lien 1527-13 states that judicial records for forward the results of can obtain this inform know if you would like	the us environ f the la mation	ser should pe mental liens nd title record from a third p	erform a r or activity and judic arty provi	review of and use ial record der for an	recorded I limitations review. If y	and title red for the site ou would pr	cords and e. Please refer, ECS

Please select one: Client to Provide X ECS to Provide for Additional Fee

(1b.) Activity and use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Please select one: If yes, please explain:	ΝΟ Χ	YES	

(2.) Specialized knowledge - As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Please select one:	NO	Х	YES		
If yes, please explain:	Each of the properties h	ave b	een used for agricultural use	or as	long as anyone familiar with each site is aware.

- (3.) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:
- (a.) Do you know the past uses of the property?

Please select one: If yes, please state uses:	NO	X	YES	
(b.) Do you know of specific ch	emical	s that are pre	esent or	once were present at the property?
Please select one: If yes, please explain :	NO	X	YES	
(c.) Do you know of spills or oth Please select one: If yes, please explain:	ner che NO	emical releas	es that h YES	ave taken place at the property?

ENVIRONMENTAL QUESTIONNAIRE

(d.) Do you know of any enviro	onmenta	al cleanup	s that have	e taken place at the property?
Please select one: If yes, please explain:	NO	X	YES	
	FR 312	. 29). Do	es the pu	narket value of the property if it were not urchase price being paid for this property perty?
Please select one: If no, please explain:	NO		YES	X
If you are aware that there is known or believed to be prese Please select one: If yes, please explain : N/A				purchase price because contamination is
(5.) Parcel Property Owne	er(s) &	Contact N	lumber(s)):
A_ Caddo Mills Solar - Tony Gavin - 90	3-450-708	37		
B. Wieland Solar - Trevor Hand - 972-8				
C. Lone Oak Solar - Robin Pattison - 2	14-437-33	30		
D.				
Property Manager and O				
Property Manager: <u>N/A</u>				
Occupant/Tenant:				
Occupant/Tenant:				
property, and the abi CFR 312.31). As the u	lity to user of any ob	detect the this ESA, vious indic	e contami based on	Tikely presence of contamination at the ination by appropriate investigation (40 your knowledge and experience related to t point to the presence or likely presence of
Please select one: If yes, please explain:	NO	X	YES	

Appendix III: Regulatory Records Documentation

Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6269044.2s November 17, 2020

The EDR Radius Map[™] Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBE-GON

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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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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

FM 2101 QUINLAN, TX 75474

COORDINATES

Latitude (North):	32.9908570 - 32° 59' 27.08"
Longitude (West):	96.0557590 - 96° 3' 20.73''
Universal Tranverse Mercator:	Zone 14
UTM X (Meters):	775122.8
UTM Y (Meters):	3653933.2
Elevation:	509 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	
Version Date:	

2012 5939239 GREENVILLE SE, TX

5926052 WEST TAWAKONI, TX

Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

North Map:

Portions of Photo from:	20140724
Source:	USDA

DATABASE ACRONYMS

Target Property Address: FM 2101 QUINLAN, TX 75474

Click on Map ID to see full detail.

MAP ID

SITE NAME

RELATIVEDIST (ft. & mi.)ELEVATIONDIRECTION

NO MAPPED SITES FOUND

ADDRESS

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 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-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity
	Generators)

Federal institutional controls / engineering controls registries

LUCIS...... Land Use Control Information System

US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROLS	Institutional Controls Sites List

Federal ERNS list

ERNS_____ Emergency Response Notification System

State- and tribal - equivalent NPL

SHWS_____ State Superfund Registry

State and tribal landfill and/or solid waste disposal site lists

SWF/LF	Permitted Solid Waste Facilities
DEBRIS	DEBRIS
CLI	Closed Landfill Inventory
WASTE MGMT	Commercial Hazardous & Solid Waste Management Facilities

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land LPST..... Leaking Petroleum Storage Tank Listing

State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
UST	Petroleum Storage Tank Database
AST	Petroleum Storage Tank Database
INDIAN UST	. Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

AUL..... Sites with Controls

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Database INDIAN VCP...... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS_____ Brownfields Site Assessments

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS_____ A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY	Recycling Facility Listing
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
PRIORITYCLEANERS	Dry Cleaner Remediation Program Prioritization List
	Deleted Superfund Registry Sites
US CDL	National Clandestine Laboratory Register
CENTRAL REGISTRY	CENTRAL REGISTRY
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

NON REGIST PST..... Petroleum Storage Tank Non Registered

Local Land Records

HIST LIENS	Environmental Liens Listing
LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS Ha	zardous Materials Information Reporting System
SPILLSSpi	
SPILLS 90	
SPILLS 80	ILLS 80 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	. RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
	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
	_ Toxic Chemical Release Inventory System
	. Section 7 Tracking Systems
ROD	
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
	. Potentially Responsible Parties
	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
MLTS	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
	. Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
	Radiation Information Database

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

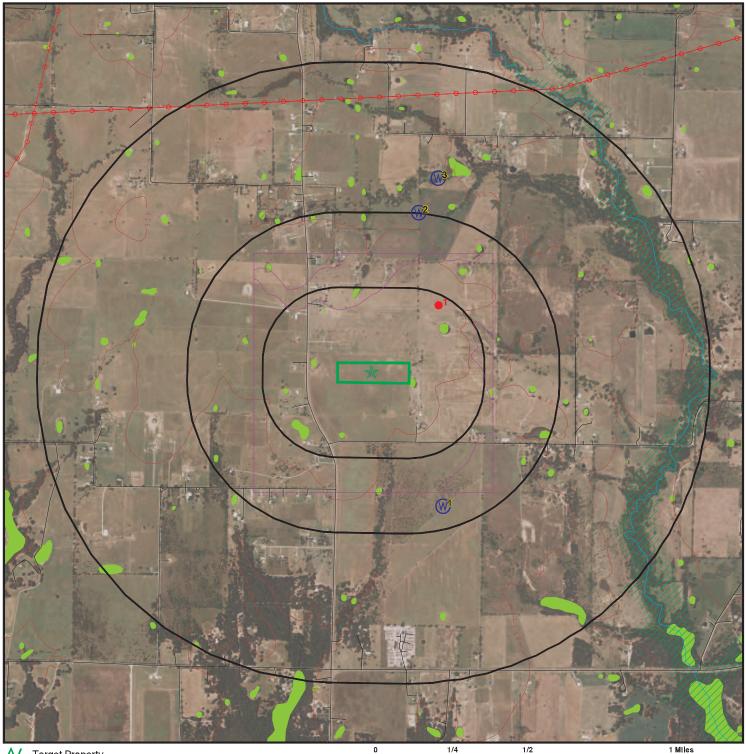
SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

There were no unmapped sites in this report.

OVERVIEW MAP - 6269044.2S



Target Property N

- 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 Special Flood Hazard Area (1%) 0.2% Annual Chance Flood Hazard

National Wetland Inventory State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

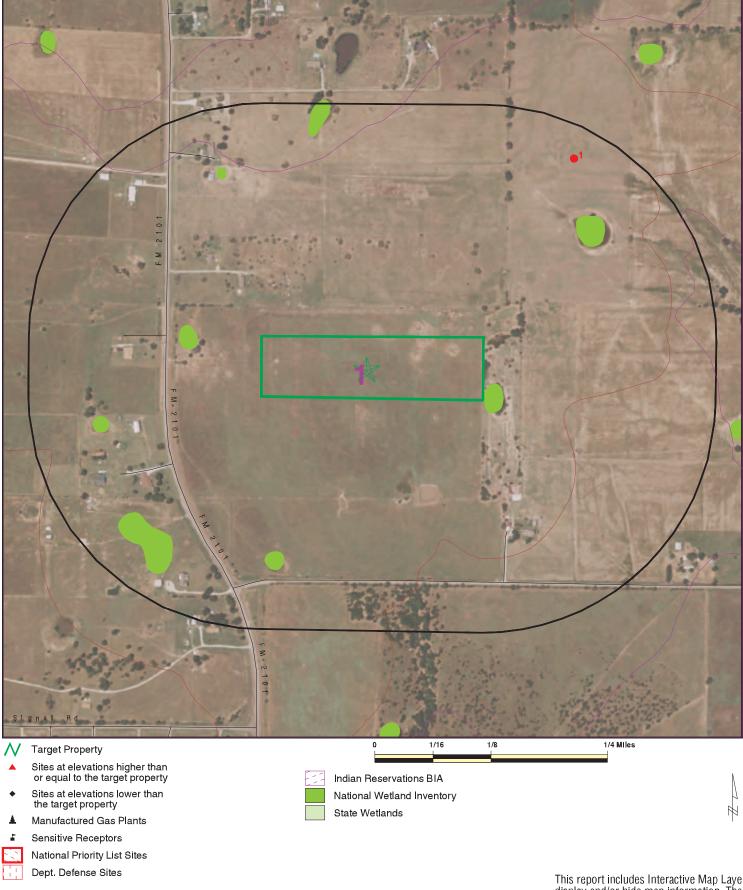
Ħ

SITE NAME:	Wieland Solar
ADDRESS:	FM 2101
LAT/LONG:	Quinlan TX 75474 32.990857 / 96.055759

CLIENT: ECS Southw CONTACT: Jared Hovia INQUIRY #: 6269044.2s ECS Southwest, LLP Jared Hovland DATE: November 17, 2020 9:11 am

Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 6269044.2S



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:	Wieland Solar	CLIENT:	ECS Southwest, LLP
ADDRESS:	FM 2101	CONTACT:	Jared Hovland
LAT/LONG:	Quinlan TX 75474 32.990857 / 96.055759	INQUIRY #: DATE:	

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cor engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list	0.000		0	0	0		INIX	0
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva							INIX	0
-			0	0	0	0	NR	0
SHWS1.0000000NR0State and tribal landfill and/or solid waste disposal site lists								
SWF/LF DEBRIS CLI WASTE MGMT	0.500 0.500 0.500 TP		0 0 0 NR	0 0 0 NR	0 0 0 NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal leaking	storage tank l	ists						
INDIAN LUST	0.500		0	0	0	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LPST	0.500		0	0	0	NR	NR	0
State and tribal registere	ed storage tai	nk lists						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal institution control / engineering co		es						
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntar	y cleanup site	es						
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites			0	Ū	0			0
SWRCY INDIAN ODI ODI DEBRIS REGION 9 IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0
Local Lists of Hazardou Contaminated Sites	s waste /							
US HIST CDL CDL PRIORITYCLEANERS DEL SHWS US CDL CENTRAL REGISTRY PFAS	TP TP 0.500 1.000 TP TP 0.500		NR NR 0 NR NR 0	NR NR 0 NR NR 0	NR NR 0 NR NR 0	NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0 0
Local Lists of Registere	d Storage Tai	nks						
NON REGIST PST	0.250		0	0	NR	NR	NR	0
Local Land Records								
HIST LIENS LIENS LIENS 2	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Records of Emergency	Release Repo	orts						
HMIRS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90 SPILLS 80	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
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
2020 COR ACTION TSCA	0.250 TP		0 NR	0 NR	NR	NR NR	NR NR	0
TRIS	TP		NR	NR	NR NR	NR	NR	0 0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	õ
RMP	TP		NŘ	NR	NR	NR	NR	Õ
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 COAL ASH EPA	TP		NR 0	NR	NR	NR NR	NR NR	0
PCB TRANSFORMER	0.500 TP		NR	0 NR	0 NR	NR	NR	0 0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	õ
DOT OPS	TP		NR	NR	NR	NR	NR	Õ
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
	TP		NR	NR	NR	NR	NR	0
US MINES ABANDONED MINES	0.250 0.250		0 0	0 0	NR NR	NR NR	NR NR	0 0
FINDS	0.250 TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	õ
DOCKET HWC	TP		NR	NR	NR	NR	NR	Õ
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
APAR	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0		NR	NR	0
	0.250 TP		0 NR	0 NR	NR NR	NR NR	NR NR	0 0
ED AQUIF ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
GCC	TP		NR	NR	NR	NR	NR	0

Database Distance Target (Miles) Property < 1/8 1/8 - 1/4 1/4 - 1/2 1/2 - 1 > 1	Total Plotted				
IOP TP NR NR NR NR NR	0				
LEAD TP NR NR NR NR NR	0				
Ind. Haz Waste 0.250 0 0 NR NR NR	0				
MSD 0.500 0 0 0 NR NR	0				
NPDES TP NR NR NR NR NR	0				
RWS TP NR NR NR NR NR	0				
TIER 2 TP NR NR NR NR NR	0				
UIC TP NR NR NR NR NR	0				
IHW CORR ACTION 0.250 0 0 NR NR NR PST STAGE 2 0.250 0 0 NR NR NR	0				
PST STAGE 2 0.250 0 0 NR NR	0 0				
MINES MRDS TP NR NR NR NR NR NR	0				
	0				
EDR HIGH RISK HISTORICAL RECORDS					
EDR Exclusive Records					
EDR MGP 1.000 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				
- Totals 0 0 0 0 0 0	0				

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Database(s) E

EDR ID Number EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
	_				

NO SITES FOUND

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: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/11/2021 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 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

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: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/11/2021 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.

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: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22 Source: EPA Telephone: N/A Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/11/2021 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: 10/02/2020 Next Scheduled EDR Contact: 01/11/2021 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 know 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: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/25/2021 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

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: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22

Source: EPA Telephone: 800-424-9346 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/25/2021 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: 06/15/2020	Source: EPA
Date Data Arrived at EDR: 06/22/2020	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 09/22/2020
Number of Days to Update: 87	Next Scheduled EDR Contact: 01/04/2021
	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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/18/2020 Number of Days to Update: 88

Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/18/2020 Number of Days to Update: 88

Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/18/2020 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly 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). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2020SDate Data Arrived at EDR: 06/22/2020TDate Made Active in Reports: 09/18/2020LNumber of Days to Update: 88N

Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 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: 08/06/2020Source: Department of the NavyDate Data Arrived at EDR: 08/21/2020Telephone: 843-820-7326Date Made Active in Reports: 11/11/2020Last EDR Contact: 11/05/2020Number of Days to Update: 82Next Scheduled EDR Contact: 02/22/2021Data 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: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 11/05/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 12/07/2020
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

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: 02/13/2020SDate Data Arrived at EDR: 02/20/2020TDate Made Active in Reports: 05/15/2020LNumber of Days to Update: 85N

Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 12/07/2020 Data Release Frequency: Varies

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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/17/2020 Number of Days to Update: 87 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

SHWS: State Superfund Registry

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/17/2020	Telephone: 512-239-5680
Date Made Active in Reports: 10/06/2020	Last EDR Contact: 09/17/2020
Number of Days to Update: 81	Next Scheduled EDR Contact: 01/04/2021
	Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Solid Waste 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: 07/17/2020 Date Data Arrived at EDR: 07/22/2020 Date Made Active in Reports: 10/12/2020 Number of Days to Update: 82 Source: Texas Commission on Environmental Quality Telephone: 512-239-6706 Last EDR Contact: 10/14/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: Quarterly

DEBRIS: DEBRIS

A listing of temporary debris management sites and MSW landfills for debris resulting from Hurricane Harvey.

Date of Government Version: 03/27/2018 Date Data Arrived at EDR: 04/04/2018	Source: Texas Commission on Environmental Quality Telephone: 512-239-6840
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 09/02/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 12/21/2020
	Data Release Frequency: Varies

H-GAC CLI: Houston-Galveston Closed Landfill Inventory

Closed Landfill Inventory for the Houston-Galveston Area Council Region. In 1993, the Texas Legislature passed House Bill (HB) 2537, which required Councils of Governments (COGs) to develop an inventory of closed municipal solid waste landfills for their regional solid waste management plans.

Date of Government Version: 03/30/2020SoDate Data Arrived at EDR: 04/01/2020TeDate Made Active in Reports: 06/18/2020La:Number of Days to Update: 78Ne

Source: Houston-Galveston Area Council Telephone: 832-681-2518 Last EDR Contact: 09/30/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies

CLI: Closed Landfill Inventory

Closed and abandoned landfills (permitted as well as unauthorized) across the state of Texas. For current information regarding any of the sites included in this database, contact the appropriate Council of Governments agency.

Date of Government Version: 08/30/1999	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 09/28/2000	Telephone: N/A
Date Made Active in Reports: 10/30/2000	Last EDR Contact: 09/24/2020
Number of Days to Update: 32	Next Scheduled EDR Contact: 01/11/2021
	Data Release Frequency: Varies

WASTE MGMT: Commercial Hazardous & Solid Waste Management Facilities

This list contains commercial recycling facilities and facilities permitted or authorized (interim status) by the Texas Natural Resource Conservation Commission.

Date of Government Version: 10/16/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/10/2020	Telephone: 512-239-2920
Date Made Active in Reports: 03/18/2020	Last EDR Contact: 10/02/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 01/11/2021
	Data Release Frequency: Varies

State and tribal leaking storage tank lists

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-6597
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 10/23/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 02/01/2021
	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: 04/15/2020	Source: EPA Region 7
Date Data Arrived at EDR: 05/20/2020	Telephone: 913-551-7003
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 10/23/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 02/01/2021
	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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/08/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/20/2020	Telephone: 415-972-3372
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 10/23/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 02/01/2021
	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: 04/14/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: Varies	
INDIAN LUST R1: Leaking Underground Storage Ta A listing of leaking underground storage tank lo		
Date of Government Version: 04/29/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: Varies	
INDIAN LUST R5: Leaking Underground Storage Ta Leaking underground storage tanks located on	anks on Indian Land Indian Land in Michigan, Minnesota and Wisconsin.	
Date of Government Version: 04/14/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/14/2020 Date Data Arrived at EDR: 05/26/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 78	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: Varies	
LPST: Leaking Petroleum Storage Tank Database An inventory of reported leaking petroleum stor the information stored varies by state.	rage tank incidents. Not all states maintain these records, and	
Date of Government Version: 06/04/2020 Date Data Arrived at EDR: 06/19/2020 Date Made Active in Reports: 09/02/2020 Number of Days to Update: 75	Source: Texas Commission on Environmental Quality Telephone: 512-239-2200 Last EDR Contact: 09/17/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly	
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: 02/01/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 82	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 10/01/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Varies	

UST: Petroleum Storage Tank Database

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: 06/02/2020
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 1

AST: Petroleum Storage Tank Database Registered Aboveground Storage Tanks.

> Date of Government Version: 06/02/2020 Date Data Arrived at EDR: 06/17/2020 Date Made Active in Reports: 06/18/2020 Number of Days to Update: 1

Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 09/23/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 09/23/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

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: 04/29/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84 Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/03/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84 Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/08/2020	Source: EPA Region 6
Date Data Arrived at EDR: 05/20/2020	Telephone: 214-665-7591
Date Made Active in Reports: 08/12/2020	Last EDR Contact: 10/23/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 02/01/2021
	Data Release Frequency: Varies

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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/14/2020 Date Data Arrived at EDR: 05/26/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 78 Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/14/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84 Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/08/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84 Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 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: 04/14/2020 Date Data Arrived at EDR: 05/20/2020 Date Made Active in Reports: 08/12/2020 Number of Days to Update: 84 Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 10/23/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Sites with Controls

Activity and use limitations include both engineering controls and institutional controls.

Date of Government Version: 06/29/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/20/2020	Telephone: 512-239-5891
Date Made Active in Reports: 10/06/2020	Last EDR Contact: 09/23/2020
Number of Days to Update: 78	Next Scheduled EDR Contact: 01/11/2021
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

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	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 09/16/2020
Number of Days to Update: 142	Next Scheduled EDR Contact: 01/04/2021
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

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

VCP TCEQ: Voluntary Cleanup Program Database

The Texas Voluntary Cleanup Program was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas.

Date of Government Version: 06/29/2020SourceDate Data Arrived at EDR: 07/16/2020TelephoDate Made Active in Reports: 10/06/2020Last EDNumber of Days to Update: 82Next Source

Source: Texas Commission on Environmental Quality Telephone: 512-239-5891 Last EDR Contact: 09/24/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Quarterly

VCP RRC: Voluntary Cleanup Program Sites

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

Date of Government Version: 11/14/2019 Date Data Arrived at EDR: 01/02/2020 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 62 Source: Railroad Commission of Texas Telephone: 512-463-6969 Last EDR Contact: 10/02/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site Assessments

Brownfield site assessments that are being cleaned under EPA grant monies.

Date of Government Version: 06/01/2020 Date Data Arrived at EDR: 07/01/2020 Date Made Active in Reports: 09/16/2020 Number of Days to Update: 77 Source: TCEQ Telephone: 512-239-5872 Last EDR Contact: 09/30/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Semi-Annually

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 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: 06/01/2020 Date Data Arrived at EDR: 06/02/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 09/15/2020 Next Scheduled EDR Contact: 12/28/2020 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

CAPCOG LI: Capitol Area Landfill Inventory

Permitted and unpermitted landfills for the CAPCOG region. Serving Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis, and Williamson Counties.

Hays, Lee, Lia	ino, Travis, and Williamson Coun	nes.
Date Data Arri Date Made Ac	nment Version: 01/06/2017 ived at EDR: 01/10/2017 tive in Reports: 03/15/2017 ys to Update: 64	Source: Capital Area Council of Governments Telephone: 512-916-6000 Last EDR Contact: 10/08/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies
	Central Landfill Inventory Texas Council of Governments la	andfill database.
Date Data Arri Date Made Ac	nment Version: 06/29/2020 ived at EDR: 07/01/2020 tive in Reports: 09/16/2020 ys to Update: 77	Source: North Central Texas Council of Governments Telephone: 817-695-9223 Last EDR Contact: 09/30/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies
SWRCY: Recycling A listing of rec	Facility Listing ycling facilities in the state.	
Date Data Arri Date Made Ac	nment Version: 08/13/2020 ived at EDR: 08/19/2020 tive in Reports: 11/09/2020 ys to Update: 82	Source: TCEQ Telephone: 512-239-6700 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 02/22/2021 Data Release Frequency: Varies
	rt on the Status of Open Dumps o en dumps on Indian land.	on Indian Lands
Date Data Arri Date Made Ac	nment Version: 12/31/1998 ived at EDR: 12/03/2007 tive in Reports: 01/24/2008 ys to Update: 52	Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 10/20/2020 Next Scheduled EDR Contact: 02/08/2021 Data Release Frequency: Varies
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.		
Date Data Arri Date Made Ac	nment Version: 01/12/2009 ived at EDR: 05/07/2009 tive in Reports: 09/21/2009 ys to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 10/13/2020 Next Scheduled EDR Contact: 02/01/2021 Data Release Frequency: No Update Planned
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 Data Arri Date Made Ac	nment Version: 06/30/1985 ived at EDR: 08/09/2004 tive in Reports: 09/17/2004 ys 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
	: Open Dumps on Indian Land open dumps located on Indian La	and 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 Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 10/30/2020 Next Scheduled EDR Contact: 02/08/2021 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: 03/18/2020	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/19/2020	Telephone: 202-307-1000
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 11/16/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 03/08/2021
	Data Release Frequency: No Update Planned

CDL: Clandestine Drug Site Locations Listing A listing of former clandestine drug site locations

Date of Government Version: 08/07/2017	Source: Department of Public Safety
Date Data Arrived at EDR: 08/15/2017	Telephone: 512-424-2144
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 10/22/2020
Number of Days to Update: 269	Next Scheduled EDR Contact: 02/08/2021
	Data Release Frequency: Varies

PRIORITY CLEANERS: Dry Cleaner Remediation Program Prioritization List A listing of dry cleaner related contaminated sites.

Date of Government Version: 03/03/2020 Date Data Arrived at EDR: 06/03/2020 Date Made Active in Reports: 08/18/2020 Number of Days to Update: 76 Source: Texas Commission on Environmenatl Quality Telephone: 512-239-5658 Last EDR Contact: 09/04/2020 Next Scheduled EDR Contact: 12/14/2108 Data Release Frequency: Varies

DEL SHWS: Deleted Superfund Registry Sites

Sites have been deleted from the state Superfund registry in accordance with the Act, ?361.189

Date of Government Version: 06/30/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/17/2020	Telephone: 512-239-0666
Date Made Active in Reports: 10/06/2020	Last EDR Contact: 09/17/2020
Number of Days to Update: 81	Next Scheduled EDR Contact: 01/04/2021
Number of Days to Update: 81	Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Quarterly

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: 03/18/2020 Date Data Arrived at EDR: 03/19/2020 Date Made Active in Reports: 06/09/2020 Number of Days to Update: 82

Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 11/16/2020 Next Scheduled EDR Contact: 03/08/2021 Data Release Frequency: Quarterly

CENTRAL REGISTRY: The Central Registry

The Central Registry, a common record area of the TCEQ, maintains information about TCEQ customers and regulated activities, such as company names, addresses, and telephone numbers. This information is commonly referred to as a??core data.a?? The Central Registry provides the regulated community with a central access point within the agency to check core data and make changes when necessary.

Date of Government Version: 03/25/2020 Date Data Arrived at EDR: 04/07/2020 Date Made Active in Reports: 07/01/2020 Number of Days to Update: 85	Source: Texas Commission on Environmental Quality Telephone: 512-239-5175 Last EDR Contact: 09/24/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies
	Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 05/29/2020 Date Data Arrived at EDR: 06/03/2020 Date Made Active in Reports: 08/18/2020 Number of Days to Update: 76

Source: Texas Commission on Environmental Quality Telephone: 512-239-2341 Last EDR Contact: 08/26/2020 Next Scheduled EDR Contact: 12/14/2020 Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

NON REGIST PST: Petroleum Storage Tank Non Registered

A listing of non-registered petroleum storage tank site locations.

Date of Government Version: 06/01/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 06/02/2020	Telephone: 512-239-2081
Date Made Active in Reports: 08/18/2020	Last EDR Contact: 10/28/2020
Number of Days to Update: 77	Next Scheduled EDR Contact: 02/15/2021
	Data Release Frequency: Quarterly

Local Land Records

HIST LIENS: Environmental Liens Listing

This listing contains information fields that are no longer tracked in the LIENS database.

Date of Government Version: 03/23/2007	Source: Texas Commission on Environmental Qualilty
Date Data Arrived at EDR: 03/23/2007	Telephone: 512-239-2209
Date Made Active in Reports: 05/02/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

The listing covers TCEQ liens placed against either State Superfund sites or Federal Superfund sites to recover cost incurred by TCEQ.

Date of Government Version: 06/29/2020 Date Data Arrived at EDR: 07/20/2020 Date Made Active in Reports: 10/06/2020 Number of Days to Update: 78 Source: Texas Commission on Environmental Quality Telephone: 512-239-2209 Last EDR Contact: 09/23/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Varies

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.

Date of Government Version: 07/29/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 08/25/2020 Number of Days to Update: 22 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/11/2021 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: 06/22/2020	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 06/23/2020	Telephone: 202-366-4555
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 09/22/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 01/04/2021
	Data Release Frequency: Quarterly

SPILLS: Spills Database

Spills reported to the Emergency Response Division.

Date of Government Version: 07/21/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/24/2020	Telephone: 512-239-2507
Date Made Active in Reports: 07/30/2020	Last EDR Contact: 10/08/2020
Number of Days to Update: 6	Next Scheduled EDR Contact: 01/25/2021
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/23/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/07/2013 Number of Days to Update: 63 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 05/15/2005SourceDate Data Arrived at EDR: 01/03/2013TelephDate Made Active in Reports: 03/07/2013Last ENumber of Days to Update: 63Next S

Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/18/2020 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 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: 08/05/2020	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/13/2020	Telephone: 202-528-4285
Date Made Active in Reports: 10/21/2020	Last EDR Contact: 08/13/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 11/30/2020
	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: 10/13/2020 Next Scheduled EDR Contact: 01/25/2021 Data Release Frequency: Semi-Annually

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: 04/02/2018 Date Data Arrived at EDR: 04/11/2018 Date Made Active in Reports: 11/06/2019 Number of Days to Update: 574 Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 10/08/2020 Next Scheduled EDR Contact: 01/18/2021 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 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 11/09/2020 Next Scheduled EDR Contact: 02/22/2021 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: 06/15/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/10/2020 Number of Days to Update: 80 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 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 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 11/02/2020 Next Scheduled EDR Contact: 02/15/2021 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 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 11/06/2020 Next Scheduled EDR Contact: 02/15/2021 Data Release Frequency: Varies

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 Date Data Arrived at EDR: 06/17/2020 Date Made Active in Reports: 09/10/2020 Number of Days to Update: 85 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 09/18/2020 Next Scheduled EDR Contact: 12/28/2020 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: 12/31/2018 Date Data Arrived at EDR: 08/14/2020 Date Made Active in Reports: 11/04/2020 Number of Days to Update: 82 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 08/14/2020 Next Scheduled EDR Contact: 11/30/2020 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: 07/20/2020Source: EPADate Data Arrived at EDR: 07/21/2020Telephone: 202-564-4203Date Made Active in Reports: 10/08/2020Last EDR Contact: 10/19/2020Number of Days to Update: 79Next Scheduled EDR Contact: 02/01/2021Data 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: 07/29/2020	S
Date Data Arrived at EDR: 08/03/2020	Т
Date Made Active in Reports: 08/25/2020	L
Number of Days to Update: 22	Ν

Source: EPA Telephone: 703-416-0223 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 12/14/2020 Data Release Frequency: Annually

RMP: Risk Management Plans

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: 07/24/2020 Date Data Arrived at EDR: 08/03/2020 Date Made Active in Reports: 10/21/2020 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 10/14/2020 Next Scheduled EDR Contact: 02/01/2021 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 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 02/15/2021
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: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 10/02/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 01/18/2021
	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 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 10/01/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Quarterly

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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

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	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

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: 08/05/2020	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/10/2020	Telephone: 301-415-7169
Date Made Active in Reports: 10/08/2020	Last EDR Contact: 10/13/2020
Number of Days to Update: 59	Next Scheduled EDR Contact: 01/31/2021
	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: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 09/04/2020
Number of Days to Update: 42	Next Scheduled EDR Contact: 12/14/2020
	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: 01/12/2017	
Date Data Arrived at EDR: 03/05/2019	
Date Made Active in Reports: 11/11/2019	
Number of Days to Update: 251	

Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 08/31/2020 Next Scheduled EDR Contact: 12/14/2020 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: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 11/06/2021
Number of Days to Update: 96	Next Scheduled EDR Contact: 02/15/2021
	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.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 09/24/2020 Next Scheduled EDR Contact: 01/11/2021 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 Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 10/27/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/08/2021
	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: 06/30/2020	Source: Department
Date Data Arrived at EDR: 07/15/2020	Telephone: Varies
Date Made Active in Reports: 07/21/2020	Last EDR Contact: 1
Number of Days to Update: 6	Next Scheduled EDF
	Data Poloaco Eroqui

Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 10/01/2020 Next Scheduled EDR Contact: 01/18/2021 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: 09/22/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Biennially

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: 10/06/2020
Number of Days to Update: 546	Next Scheduled EDR Contact: 01/18/2021
	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 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018 Number of Days to Update: 3 Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 11/06/2020 Next Scheduled EDR Contact: 02/15/2021 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: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 74 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 08/21/2020 Next Scheduled EDR Contact: 11/30/2020 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2020Source: EnvironmentDate Data Arrived at EDR: 08/03/2020Telephone: 703-60Date Made Active in Reports: 08/25/2020Last EDR Contact:Number of Days to Update: 22Next Scheduled EDR

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 11/05/2020 Next Scheduled EDR Contact: 01/11/2021 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 1931and 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 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 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.

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	
MINES VIOLATIONS: MSHA Violation Assessmer Mines violation and assessment information.	nt Data Department of Labor, Mine Safety & Health Administration.	
Date of Government Version: 05/28/2020 Date Data Arrived at EDR: 05/28/2020 Date Made Active in Reports: 08/13/2020 Number of Days to Update: 77	Source: DOL, Mine Safety & Health Admi Telephone: 202-693-9424 Last EDR Contact: 09/10/2020 Next Scheduled EDR Contact: 12/14/2020 Data Release Frequency: Quarterly	
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: 05/01/2020 Date Data Arrived at EDR: 05/21/2020 Date Made Active in Reports: 08/13/2020 Number of Days to Update: 84	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 08/25/2020 Next Scheduled EDR Contact: 12/07/2020 Data Release Frequency: Semi-Annually	
	I mines are facilities that extract ferrous metals, such as iron ous metal mines are facilities that extract nonferrous metals, such	
Date of Government Version: 05/06/2020 Date Data Arrived at EDR: 05/27/2020 Date Made Active in Reports: 08/13/2020 Number of Days to Update: 78	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 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: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 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: 06/22/2020 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 09/10/2020 Number of Days to Update: 80 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 09/16/2020 Next Scheduled EDR Contact: 12/21/2020 Data Release Frequency: Quarterly

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: 02/03/2020Source: EPADate Data Arrived at EDR: 03/03/2020Telephone: (214) 665-2200Date Made Active in Reports: 05/28/2020Last EDR Contact: 09/15/2020Number of Days to Update: 86Next Scheduled EDR Contact: 12/14/2020Data 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: 08/19/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 12/07/2020
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018	Source: Department of Defense
Date Data Arrived at EDR: 07/02/2020	Telephone: 703-704-1564
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 10/08/2020
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/25/2021
	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: 06/27/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/02/2020	Telephone: 202-564-2280
Date Made Active in Reports: 09/28/2020	Last EDR Contact: 10/06/2020
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/18/2021
	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: 08/17/2020 Date Data Arrived at EDR: 08/17/2020 Date Made Active in Reports: 10/21/2020 Number of Days to Update: 65 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 11/13/2020 Next Scheduled EDR Contact: 03/01/2021 Data Release Frequency: Quarterly

AIRS: Current Emission Inventory Data

The database lists by company, along with their actual emissions, the TNRCC air accounts that emit EPA criteria pollutants.

Date of Government Version: 06/16/2020 Date Data Arrived at EDR: 06/24/2020 Date Made Active in Reports: 09/04/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: N/A Last EDR Contact: 09/02/2020 Next Scheduled EDR Contact: 12/21/2020 Data Release Frequency: Semi-Annually
APAR: Affected Property Assessment Report Site L Listing of Sites That Have Received an APAR	•
Date of Government Version: 07/03/2020 Date Data Arrived at EDR: 07/08/2020 Date Made Active in Reports: 09/28/2020 Number of Days to Update: 82	Source: Texas Commission on Environmental Quality Telephone: 512-239-5872 Last EDR Contact: 10/02/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Varies
ASBESTOS: Asbestos Notification Listing A listing of asbestos notification site locations.	
Date of Government Version: 08/19/2020 Date Data Arrived at EDR: 08/20/2020 Date Made Active in Reports: 11/09/2020 Number of Days to Update: 81	Source: Department of State Health Services Telephone: 512-834-6787 Last EDR Contact: 11/11/2020 Next Scheduled EDR Contact: 03/01/2021 Data Release Frequency: Varies
COAL ASH: Coal Ash Disposal Sites A listing of facilities that use surface impoundm	nents or landfills to dispose of coal ash.
Date of Government Version: 07/29/2020 Date Data Arrived at EDR: 07/31/2020 Date Made Active in Reports: 10/16/2020 Number of Days to Update: 77	Source: Texas Commission on Environmental Quality Telephone: 512-239-6624 Last EDR Contact: 10/22/2020 Next Scheduled EDR Contact: 02/08/2021 Data Release Frequency: Varies
DRYCLEANERS: Drycleaner Registration Database A listing of drycleaning facilities.	e Listing
Date of Government Version: 05/12/2020 Date Data Arrived at EDR: 05/27/2020 Date Made Active in Reports: 08/11/2020 Number of Days to Update: 76	Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 Data Release Frequency: Varies
ED AQUIF: Edwards Aquifer Permits A listing of permits in the Edwards Aquifer Protection Program database. The information provided is for the counties located in the Austin Region (Hays, Travis, and Williamson counties).	
Date of Government Version: 04/03/2020 Date Data Arrived at EDR: 04/09/2020 Date Made Active in Reports: 06/24/2020 Number of Days to Update: 76	Source: Texas Commission on Environmental Quality, Austin Region Telephone: 512-339-2929 Last EDR Contact: 09/17/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Varies
ENFORCEMENT: Notice of Violations Listing A listing of permit violations.	
Date of Government Version: 01/14/2020 Date Data Arrived at EDR: 01/16/2020 Date Made Active in Reports: 04/09/2020 Number of Days to Update: 84	Source: Texas Commission on Environmental Quality Telephone: 512-239-6012 Last EDR Contact: 09/24/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing Financial assurance information.

Date of Government Version: 06/18/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/08/2020	Telephone: 512-239-6239
Date Made Active in Reports: 09/25/2020	Last EDR Contact: 09/17/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/04/2021
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

Financial Assurance information for underground storage tank 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: 06/02/2020Source: Texas Commission on Environmental QualityDate Data Arrived at EDR: 06/17/2020Telephone: 512-239-0986Date Made Active in Reports: 09/04/2020Last EDR Contact: 09/23/2020Number of Days to Update: 79Next Scheduled EDR Contact: 01/04/2021Data Release Frequency: Quarterly

GCC: Groundwater Contamination Cases

Texas Water Code, Section 26.406 requires the annual report to describe the current status of groundwater monitoring activities conducted or required by each agency at regulated facilities or associated with regulated activities. The report is required to contain a description of each case of groundwater contamination documented during the previous calendar year. Also to be included, is a description of each case of contamination documented during previous periods for which voluntary clean up action was incomplete at the time the preceding report was issued. The report is also required to indicate the status of enforcement action for each listed case.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 09/06/2019 Date Made Active in Reports: 11/15/2019 Number of Days to Update: 70 Source: Texas Commission on Environmental Quality Telephone: 512-239-5690 Last EDR Contact: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 Data Release Frequency: Annually

IOP: Innocent Owner/Operator Program

Contains information on all sites that are in the IOP. An IOP is an innocent owner or operator whose property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination.

Date of Government Version: 06/29/2020 Date Data Arrived at EDR: 07/16/2020 Date Made Active in Reports: 10/06/2020 Number of Days to Update: 82 Source: Texas Commission on Environmental Quality Telephone: 512-239-5894 Last EDR Contact: 09/24/2020 Next Scheduled EDR Contact: 01/11/2021 Data Release Frequency: Quarterly

LEAD: Lead Inspection Listing Lead inspection sites

Date of Government Version: 08/19/2020 Date Data Arrived at EDR: 08/20/2020 Date Made Active in Reports: 11/09/2020 Number of Days to Update: 81

Source: Department of State Health Services Telephone: 512-834-6600 Last EDR Contact: 11/11/2020 Next Scheduled EDR Contact: 03/01/2021 Data Release Frequency: Varies

Ind. Haz Waste: Industrial & Hazardous Waste Database

Summary reports reported by waste handlers, generators and shippers in Texas.

Date of Government Version: 03/16/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/15/2020	Telephone: 512-239-0985
Date Made Active in Reports: 10/06/2020	Last EDR Contact: 10/16/2020
Number of Days to Update: 83	Next Scheduled EDR Contact: 01/25/2021
· ·	Data Release Frequency: Annually

MSD: Municipal Settings Designations Database

An MSD is an official state designation given to property within a municipality or its extraterritorial jurisdiction that certifies that designated groundwater at the property is not use as potable water, and is prohibited from future use as potatable water because that groundwater is contaminated in excess of the applicable potable-water protective concentration level.

	Date of Government Version: 07/24/2020 Date Data Arrived at EDR: 07/28/2020 Date Made Active in Reports: 10/12/2020 Number of Days to Update: 76	Source: Texas Commission on Environmental Quality Telephone: 512-239-4982 Last EDR Contact: 10/22/2020 Next Scheduled EDR Contact: 02/08/2021 Data Release Frequency: Varies
NPD	ES: NPDES Facility List Permitted wastewater outfalls.	
	Date of Government Version: 08/10/2020 Date Data Arrived at EDR: 08/11/2020 Date Made Active in Reports: 11/02/2020 Number of Days to Update: 83	Source: Texas Commission on Environmental Quality Telephone: 512-239-4591 Last EDR Contact: 11/11/2020 Next Scheduled EDR Contact: 02/22/2021 Data Release Frequency: Varies
RWS: Radioactive Waste Sites Sites in the State of Texas that have been designated as Radioactive Waste sites.		
	Date of Government Version: 07/24/2006 Date Data Arrived at EDR: 12/14/2006 Date Made Active in Reports: 01/23/2007 Number of Days to Update: 40	Source: Texas Commission on Environmental Quality Telephone: 512-239-0859 Last EDR Contact: 11/09/2020 Next Scheduled EDR Contact: 02/22/2021 Data Release Frequency: Semi-Annually
TIER 2: Tier 2 Chemical Inventory Reports A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.		
	Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 06/07/2013 Date Made Active in Reports: 07/22/2013 Number of Days to Update: 45	Source: Department of State Health Services Telephone: 512-834-6603 Last EDR Contact: 11/11/2020 Next Scheduled EDR Contact: 03/01/2021 Data Release Frequency: Annually
UIC:	UIC: Underground Injection Wells Database Listing Class V injection wells regulated by the TCEQ. Class V wells are used to inject non-hazardous fluids underground. Most Class V wells are used to dispose of wastes into or above underground sources of drinking water and can pose a threat to ground water quality, if not managed properly.	
	Date of Government Version: 11/06/2019 Date Data Arrived at EDR: 11/07/2019 Date Made Active in Reports: 01/16/2020 Number of Days to Update: 70	Source: Texas Commission on Environmental Quality Telephone: 512-239-6627 Last EDR Contact: 10/08/2020 Next Scheduled EDR Contact: 01/25/2021 Data Release Frequency: Varies
нw	CORR ACTION: IHW CORR ACTION	

IHW CORR ACTION: IHW CORR ACTION

Industrial hazardous waste facilities with corrective actions.

Date of Government Version: 03/27/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 04/01/2020	Telephone: 512-239-5872
Date Made Active in Reports: 06/23/2020	Last EDR Contact: 10/05/2020
Number of Days to Update: 83	Next Scheduled EDR Contact: 01/11/2021
	Data Release Frequency: Varies

PST STAGE 2: PST Stage 2 State II Vapor Recovery. Decommissioning of Stage II Rule - Gasoline dispensing facilities (GDFs) may begin the process of removing Stage II equipment on May 16, 2014 providing that all other requirements for decommissioning have been met, including appropriate notification.	
Date of Government Version: 07/17/2019 Date Data Arrived at EDR: 07/18/2019 Date Made Active in Reports: 09/24/2019 Number of Days to Update: 68	Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 09/17/2020 Next Scheduled EDR Contact: 01/04/2021 Data Release Frequency: Varies
COMP HIST: Compliance History Listing A listing of compliance histories of regulated er	ntities
Date of Government Version: 11/19/2019 Date Data Arrived at EDR: 11/25/2019 Date Made Active in Reports: 02/04/2020 Number of Days to Update: 71	Source: Txas Commission on Environmental Quality Telephone: 512-239-3282 Last EDR Contact: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 Data Release Frequency: Varies
PCS ENF: Enforcement data No description is available for this data	
Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 02/05/2015 Date Made Active in Reports: 03/06/2015 Number of Days to Update: 29	Source: EPA Telephone: 202-564-2497 Last EDR Contact: 10/02/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Varies
PCS: Permit Compliance System PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.	
Date of Government Version: 07/14/2011 Date Data Arrived at EDR: 08/05/2011 Date Made Active in Reports: 09/29/2011 Number of Days to Update: 55	Source: EPA, Office of Water Telephone: 202-564-2496 Last EDR Contact: 10/02/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Semi-Annually
PCS INACTIVE: Listing of Inactive PCS Permits An inactive permit is a facility that has shut down or is no longer discharging.	
Date of Government Version: 11/05/2014 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 05/06/2015 Number of Days to Update: 120	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 10/02/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Semi-Annually
MINES MRDS: Mineral Resources Data System Mineral Resources Data System	
Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019 Number of Days to Update: 3	Source: USGS Telephone: 703-648-6533 Last EDR Contact: 08/28/2020 Next Scheduled EDR Contact: 12/07/2020 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.

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 Texas Commission of Environmental Quality in Texas formerly known as Texas Natural Resources Conservation Commission which changed in 2002.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/26/2013 Number of Days to Update: 178 Source: Texas Commission on 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 Texas Commission of Environmental Quality in Texas formerly known as Texas Natural Resources Conservation Commission which changed in 2002.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014 Number of Days to Update: 196 Source: Texas Commission on Environmental Quality Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

COUNTY RECORDS

TRAVIS COUNTY:

HIST UST AUSTIN: Historic Tank Records

A listing of historic records from the City of Austin.

Date of Government Version: 06/25/2012 Date Data Arrived at EDR: 06/29/2012 Date Made Active in Reports: 08/23/2012 Number of Days to Update: 55 Source: Department of Planning & Development Review Telephone: 512-974-2715 Last EDR Contact: 08/26/2020 Next Scheduled EDR Contact: 12/14/2020 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

Date Made Active in Reports: 05/16/2019

Number of Days to Update: 36

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: 08/10/2020	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 10/20/2020	Telephone: 860-424-3375
Date Made Active in Reports: 11/02/2020	Last EDR Contact: 11/09/2020
Number of Days to Update: 13	Next Scheduled EDR Contact: 02/22/2021
	Data Release Frequency: No Update Planned
NJ MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019	Source: Department of Environmental Protection Telephone: N/A

Last EDR Contact: 10/09/2020 Next Scheduled EDR Contact: 01/18/2021 Data Release Frequency: Annually

Telephone: 518-402-8651 Last EDR Contact: 10/30/2020

Telephone: 717-783-8990

Last EDR Contact: 10/07/2020

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 Date Data Arrived at EDR: 04/29/2020 Date Made Active in Reports: 07/10/2020 Number of Days to Update: 72

PA MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019 Number of Days to Update: 53

RI MANIFEST: Manifest information Hazardous waste manifest information

> Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 10/02/2019 Date Made Active in Reports: 12/10/2019 Number of Days to Update: 69

VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

> Date of Government Version: 10/28/2019 Date Data Arrived at EDR: 10/29/2019 Date Made Active in Reports: 01/09/2020 Number of Days to Update: 72

Telephone: 401-222-2797 Last EDR Contact: 11/11/2020 Next Scheduled EDR Contact: 03/01/2021 Data Release Frequency: Annually

Source: Department of Environmental Management

Source: Department of Environmental Conservation

Source: Department of Environmental Protection

Next Scheduled EDR Contact: 02/08/2021 Data Release Frequency: Quarterly

Next Scheduled EDR Contact: 01/25/2021 Data Release Frequency: Annually

Source: Department of Environmental Conservation Telephone: 802-241-3443 Last EDR Contact: 10/08/2020 Next Scheduled EDR Contact: 01/25/2021 Data Release Frequency: Annually

WI MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 76

Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 09/02/2020 Next Scheduled EDR Contact: 12/21/2020 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

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 Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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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.

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: Child Care Facility List Source: Department of Protective & Regulatory Services Telephone: 512-438-3269

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.

State Wetlands Data: Wetland Inventory Source: Texas General Land Office Telephone: 512-463-0745

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

WIELAND SOLAR FM 2101 QUINLAN, TX 75474

TARGET PROPERTY COORDINATES

Latitude (North):	32.990857 - 32° 59' 27.09"
Longitude (West):	96.055759 - 96° 3' 20.73"
Universal Tranverse Mercator:	Zone 14
UTM X (Meters):	775122.8
UTM Y (Meters):	3653933.2
Elevation:	509 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5926052 WEST TAWAKONI, TX
Version Date:	2012
North Map:	5939239 GREENVILLE SE, TX
Version Date:	2013

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:

- Groundwater flow direction, and
 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.

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).

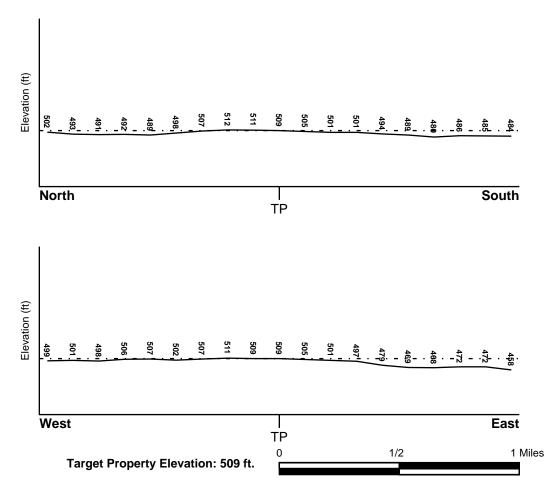
TOPOGRAPHIC INFORMATION

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 SE

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.

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

Flood Plain Panel at Target Property	FEMA Source Type
48231C0525G	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
48231C0400G	FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
NWI Quad at Target Property NOT AVAILABLE	NWI Electronic <u>Data Coverage</u> 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.

Site-Specific Hydrogeological Data*:		
Search Radius:	1.25 miles	
Status:	Not found	

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.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

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.

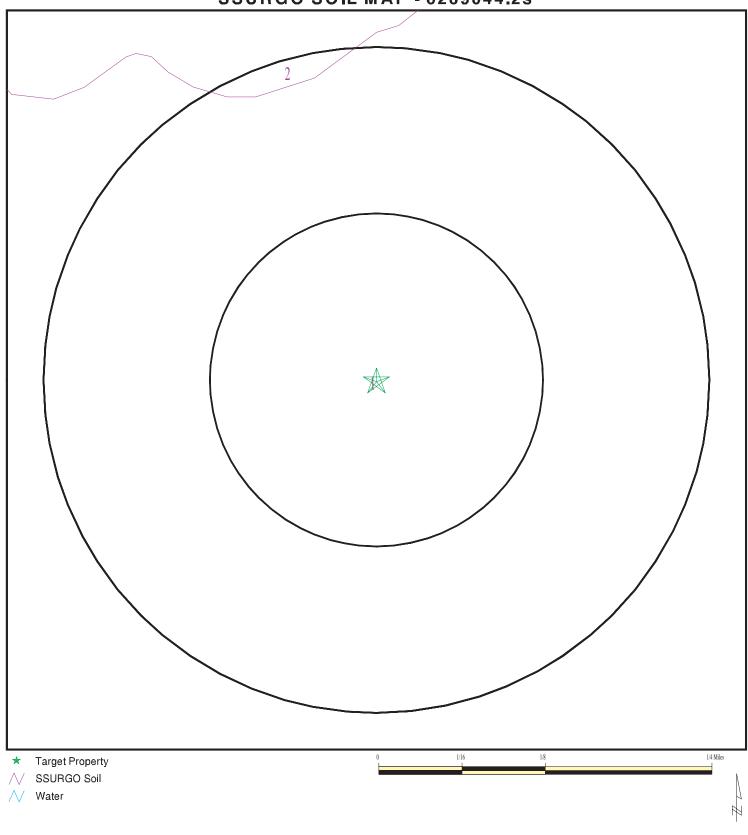
ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Mesozoic	Category:	Stratified Sequence
System:	Cretaceous		
Series:	Navarro Group		
Code:	uK4 (decoded above as Era, System & Se	eries)	

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).





ADDRESS:	CONTACT: INQUIRY #: DATE:	ECS Southwest, LLP Jared Hovland 6269044.2s November 17, 2020 9:12 am
	Copyrig	ght © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

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:	Crockett
Soil Surface Texture:	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:	Moderately well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

Boundary		Boundary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	loam	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
2	7 inches	11 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
3	11 inches	40 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
4	40 inches	53 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	53 inches	64 inches	stratified loam to clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1

Soil Map ID: 2	
Soil Component Name:	Crockett
Soil Surface Texture:	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:	Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
	Bou	Indary		Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	3 inches	loam	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
2	3 inches	11 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
3	11 inches	31 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
4	31 inches	40 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	40 inches	59 inches	stratified loam to clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1

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

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID FROM TP

TC6269044.2s Page A-7

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

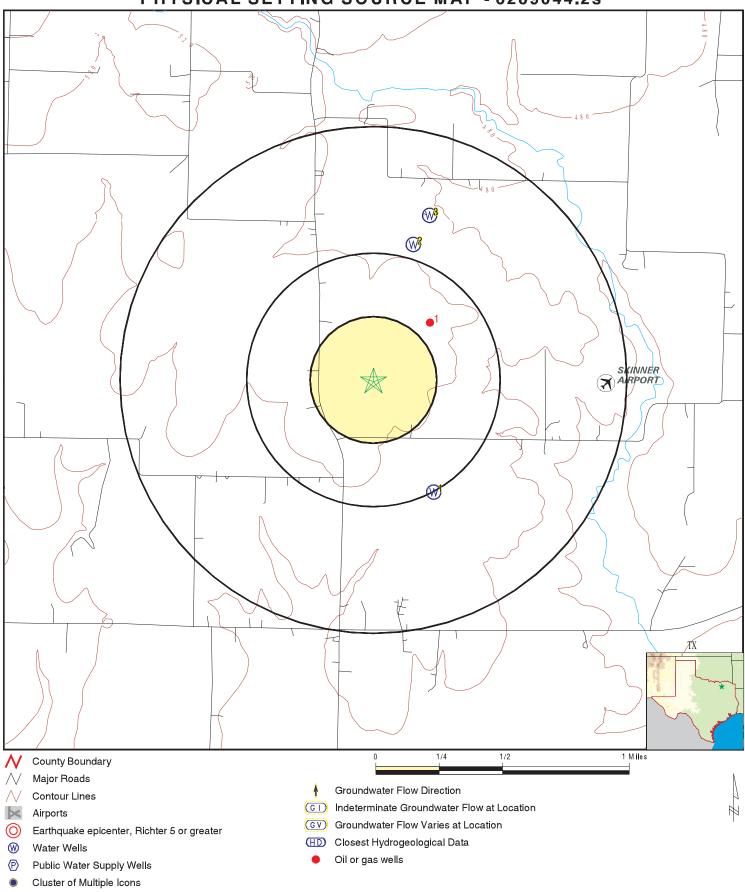
MAP ID	WELL ID	LOCATION FROM TP
1	TXMON5000293774	1/2 - 1 Mile SSE
2	TXMON5000402110	1/2 - 1 Mile NNE
3	TXMON5000236407	1/2 - 1 Mile NNE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
1	TXOG70000670021	1/4 - 1/2 Mile NE

PHYSICAL SETTING SOURCE MAP - 6269044.2s



SITE NAME: Wieland Solar	CLIENT: ECS Southwest, LLP
ADDRESS: FM 2101	CONTACT: Jared Hovland
Quinlan TX 75474	INQUIRY #: 6269044.2s
LAT/LONG: 32.990857 / 96.055759	DATE: November 17, 2020 9:12 am
	Convident © 2020 EDD, Inc. © 2015 TomTom Pol., 2015

Map ID Direction				
Distance Elevation			Database	EDR ID Number
1 SSE 1/2 - 1 Mile Lower			TX WELLS	TXMON5000293774
Database: Well Rpt #: Proposed Use: Injurious Water Quality:	Submitted Drillers Reports Da 297876 Domestic no	atabase (Monitoring) Well Type: Borehole Depth (ft): Plugging Rpt #:	New 315 Not F	Well Reported
Submitted Date: Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	2012-09-07 Not Reported 469 Not Reported Domestic Not Reported 2012-07-11 Other - trimmie tube 300 500 Not Reported Not Reported Not Reported Not Reported Submersible 240.00 No Melvin T Wade No 2892	Owner Name: # Wells Drilled: Type of Work: Original Well Rpt Track # Proposed Use Desc: PWS #: Drill End Date: Seal Method Desc: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #:	Not F New Not F Not F 2012 trimn Not F Not F Not F Not F No Wad Not F	rizmendi Reported Well Reported Reported Reported -07-13 nie tube Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported
Details Reports For: Top Depth: Details Reports For:	Well Bore Hole 0 Well Drilling Method	Diameter: Bottom Depth: Drill Method:	8 320	(Hydraulic) Rotary
Details Reports For:	Well Completion	Borehole Completion:		Packed
Details Reports For: Top Depth: Size:	Well Filter 280 1/8	Filter Material: Bottom Depth:	Grav 320	el
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 Not Reported	Top Depth: Annular Seal: Unit:	•	tland Reported
Details Reports For: Bottom Depth: Amount:	Well Seal Range 280 Not Reported	Top Depth: Annular Seal: Unit:		rtland Reported
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2012-07-13 Unknown	Measurement: Artesian Flow:	80 Not F	Reported

Details Reports For: Yield: Hours:	Well Test 18 6	Test Type: Drawdown:	Pump 200
Details Reports For: Top Depth: Lithology:	Well Lithology 2 brown clay	Migrated Sort #: Bottom Depth:	0 7
Details Reports For: Top Depth: Lithology:	Well Lithology 2 sand	Migrated Sort #: Bottom Depth:	0 2
Details Reports For: Top Depth: Lithology:	Well Lithology 7 yellow clay	Migrated Sort #: Bottom Depth:	0 55
Details Reports For: Top Depth: Lithology:	Well Lithology 55 gray shale	Migrated Sort #: Bottom Depth:	0 130
Details Reports For: Top Depth: Lithology:	Well Lithology 130 hard rock	Migrated Sort #: Bottom Depth:	0 130
Details Reports For: Top Depth: Lithology:	Well Lithology 130 gray shale	Migrated Sort #: Bottom Depth:	0 290
Details Reports For: Top Depth: Lithology:	Well Lithology 290 sand streaks	Migrated Sort #: Bottom Depth:	0 320
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing Not Reported 4 new schule 40 pvc 0-295 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	1 Not Reported Not Reported Not Reported Not Reported
Details Reports For: Top Depth: Migrated Casing Info: Diameter: Casing Material: Schedule:	Well Casing Not Reported 4 new sand screen pvc 295-315 #18 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Casing Status: Casing Type: Gauge:	2 Not Reported Not Reported Not Reported

Map ID Direction				
Distance Elevation			Database	EDR ID Number
2 NNE 1/2 - 1 Mile Lower			TX WELLS	TXMON5000402110
Database: Well Rpt #: Proposed Use: Injurious Water Quality: Submitted Date:	Submitted Drillers Reports Dat 408195 Domestic no 2015-11-03	abase (Monitoring) Well Type: Borehole Depth (ft): Plugging Rpt #: Owner Name:		Well Reported Ragesdale
Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	Not Reported Not Reported Not Reported Domestic Not Reported 2015-10-14 Tremie 1000 1500 Not Reported Not Reported Not Reported Jet 316.00 No Melvin T Wade No 2892	 # Wells Drilled: Type of Work: Original Well Rpt Track # Proposed Use Desc: PWS #: Drill End Date: Seal Method Desc: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #: 	1 New Not F Not F 2015 Not F 1200 Not F Yes Surfa Yes Not F No Wade Not F	Well Reported Reported Reported -10-16 Reported
Details Reports For: Top Depth:	Well Bore Hole 0	Diameter: Bottom Depth:	8 320	
Details Reports For:	Well Drilling Method	Drill Method:	Mud	(Hydraulic) Rotary
Details Reports For:	Well Completion	Borehole Completion:	Scre	ened
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 1	Top Depth: Annular Seal: Unit:	0 Cem Bags	ent /Sacks
Details Reports For: Bottom Depth: Amount:	Well Seal Range 230 3	Top Depth: Annular Seal: Unit:	200 Cem Bags	ent /Sacks
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2015-10-16 Steel Tape	Measurement: Artesian Flow:	80 Not F	Reported
Details Reports For: Yield: Hours:	Well Test 25 4	Test Type: Drawdown:	Jette 150	d

Details Reports For: Top Depth: Water Type:	Well Strata 230 Not Reported	Migrated Strata Depth: Bottom Depth:	Not Reported 320
Details Reports For: Top Depth: Lithology:	Well Lithology 0 sandy soil	Migrated Sort #: Bottom Depth:	0 1
Details Reports For: Top Depth: Lithology:	Well Lithology 1 red clay	Migrated Sort #: Bottom Depth:	0 7
Details Reports For: Top Depth: Lithology:	Well Lithology 7 tan clay	Migrated Sort #: Bottom Depth:	0 42
Details Reports For: Top Depth: Lithology:	Well Lithology 42 gray shale	Migrated Sort #: Bottom Depth:	0 190
Details Reports For: Top Depth: Lithology:	Well Lithology 190 rock	Migrated Sort #: Bottom Depth:	0 190
Details Reports For: Top Depth: Lithology:	Well Lithology 190 sand	Migrated Sort #: Bottom Depth:	0 230
Details Reports For: Top Depth: Lithology:	Well Lithology 230 gray shale	Migrated Sort #: Bottom Depth:	0 240
Details Reports For: Top Depth: Lithology:	Well Lithology 240 rock	Migrated Sort #: Bottom Depth:	0 240
Details Reports For: Top Depth: Lithology:	Well Lithology 240 sand	Migrated Sort #: Bottom Depth:	0 250
Details Reports For: Top Depth: Lithology:	Well Lithology 250 gray shale	Migrated Sort #: Bottom Depth:	0 280
Details Reports For: Top Depth: Lithology:	Well Lithology 280 rock	Migrated Sort #: Bottom Depth:	0 290
Details Reports For: Top Depth:	Well Lithology 290	Migrated Sort #: Bottom Depth:	0 320

Lithology:	sand		
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing 0 Not Reported New Blank Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	0 300 4 Plastic (PVC) 40
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing 300 Not Reported New Screen 0.179999999999999999999	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	0 320 4 Plastic (PVC) 40
3 NNE 1/2 - 1 Mile Lower		TX W	ELLS TXMON5000236407
Database:	Submitted Drillers Reports Datab	assa (Manitoring)	
Well Rpt #:	239772	Well Type:	New Well
Proposed Use:	Domestic	Borehole Depth (ft):	300
Injurious Water Quality:	no	Plugging Rpt #:	Not Reported
Submitted Date: Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Seal Method Desc: Distance to Septic Tank: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #:	2011-01-01 Not Reported 496 Not Reported Domestic Not Reported 2010-11-08 Other - pump trimming tube pump trimming tube Not Reported Not Reported Not Reported Not Reported Not Reported No Wade"s water well LLC Not Reported Not Reported Not Reported Not Reported State State St	Owner Name: # Wells Drilled: Type of Work: Original Well Rpt Track #: Proposed Use Desc: PWS #: Drill End Date: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	Pepi Salazar Not Reported New Well Not Reported Not Reported 2010-11-09 800 300 Not Reported Joe Landrith Not Reported Submersible 280.00 No Melvin T Wade No 2892
Details Reports For: Top Depth:	Well Bore Hole 0	Diameter: Bottom Depth:	8 300
Details Reports For:	Well Drilling Method	Drill Method:	Mud (Hydraulic) Rotary

Details Reports For:

Well Completion

Filter Packed

Borehole Completion:

Details Reports For: Top Depth: Size:	Well Filter 240 .14	Filter Material: Bottom Depth:	Gravel 300
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 Not Reported	Top Depth: Annular Seal: Unit:	0 1 portland Not Reported
Details Reports For: Bottom Depth: Amount:	Well Seal Range 240 Not Reported	Top Depth: Annular Seal: Unit:	200 4 portland Not Reported
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2010-11-10 Unknown	Measurement: Artesian Flow:	60 Not Reported
Details Reports For: Yield: Hours:	Well Test 30 3	Test Type: Drawdown:	Unknown 260
Details Reports For: Top Depth: Lithology:	Well Lithology 0 black soil	Migrated Sort #: Bottom Depth:	0 1
Details Reports For: Top Depth: Lithology:	Well Lithology 1 black clay	Migrated Sort #: Bottom Depth:	0 6
Details Reports For: Top Depth: Lithology:	Well Lithology 6 yellow	Migrated Sort #: Bottom Depth:	0 36
Details Reports For: Top Depth: Lithology:	Well Lithology 36 gray shale	Migrated Sort #: Bottom Depth:	0 250
Details Reports For: Top Depth: Lithology:	Well Lithology 250 rock	Migrated Sort #: Bottom Depth:	0 260
Details Reports For: Top Depth: Lithology:	Well Lithology 260 sand	Migrated Sort #: Bottom Depth:	0 300
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing Not Reported 4 new schule 40 pvc 0-280 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	1 Not Reported Not Reported Not Reported Not Reported

Details Reports For: Top Depth: Migrated Casing Info: Diameter: Casing Material: Schedule: Well Casing Not Reported 4 new Pvc sreen 280-300 .18 Not Reported Not Reported Not Reported Migrated Sort #: Bottom Depth:

Casing Status: Casing Type: Gauge: 2 Not Reported

Not Reported Not Reported Not Reported

Map ID Direction Distance

Database

EDR ID Number

TXOG70000670021

1 NE 1/4 - 1/2 Mile

Surface ID: Current Well #: Radioactive: Well Type:

642982 1 Not Reported . Dry Hole

Well ID: API #: Side Track:

Not Reported 42231 Not Reported

OIL_GAS

AREA RADON INFORMATION

State Database: TX Radon

Radon Test Results

County	Mean	Total Sites	%>4 pCi/L	%>20 pCi/L	Min pCi/L	Max pCi/L
HUNT	.9	9	.0	.0	<.5	2.6

Federal EPA Radon Zone for HUNT County: 3

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: 75474

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 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

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.

State Wetlands Data: Wetland Inventory Source: Texas General Land Office Telephone: 512-463-0745

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

Public Water Supply Sources Databases Source: Texas Commission on Environmental Quality Telephone: 512-239-6199 Locations of public drinking water sources maintained by the TCEQ.

Groundwater Database Source: Texas Water Development Board Telephone: 512-936-0837

Well Report Database Source: Department of Licensing and Regulation Telephone: 512-936-0833

Water Well Database Source: Harris-Galveston Coastal Subsidence District Telephone: 281-486-1105

Brackish Resources Aquifer Characterization System Database

Source: Texas Water Development Board

WDB's Brackish Resources Aquifer Characterization System (BRACS) was designed to map and characterize the brackish aquifers of Texas in greater detail than previous studies. The information is contained in the BRACS Database and project data are summarized in a project report with companion geographic information system data files.

Submitted Driller's Reports Database

Source: Texas Water Development Board

Telephone: 512-936-0833

The Submitted Driller's Report Database is populated from the online Texas Well Report Submission and Retrieval System which is a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application that registered water-well drillers use to submit their required reports.

OTHER STATE DATABASE INFORMATION

Texas Oil and Gas Wells Source: Texas Railroad Commission Telephone: 512-463-6882 Oil and gas well locations.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

RADON

State Database: TX Radon Source: Department of Health Telephone: 512-834-6688 Rinal Report of the Texas Indoor Radon Survey

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.

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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Appendix IV: Historical Research Documentation

Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.8 May 21, 2020

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

Site Name:

Client Name:

05/21/20

Wieland Solar FM 2101 Quinlan, TX 75474 EDR Inquiry # 6066748.8 ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland



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:				
Year	Scale	Details	Source	
2016	1"=500'	Flight Year: 2016	USDA/NAIP	
2012	1"=500'	Flight Year: 2012	USDA/NAIP	
2008	1"=500'	Flight Year: 2008	USDA/NAIP	
2005	1"=500'	Flight Year: 2005	USDA/NAIP	
1995	1"=500'	Acquisition Date: February 21, 1995	USGS/DOQQ	
1981	1"=500'	Flight Date: January 01, 1981	USGS	
1975	1"=500'	Flight Date: January 01, 1975	USGS	
1962	1"=500'	Flight Date: January 01, 1962	USGS	
1954	1"=500'	Flight Date: January 01, 1954	AMS	
1949	1"=500'	Flight Date: January 01, 1949	AMS	

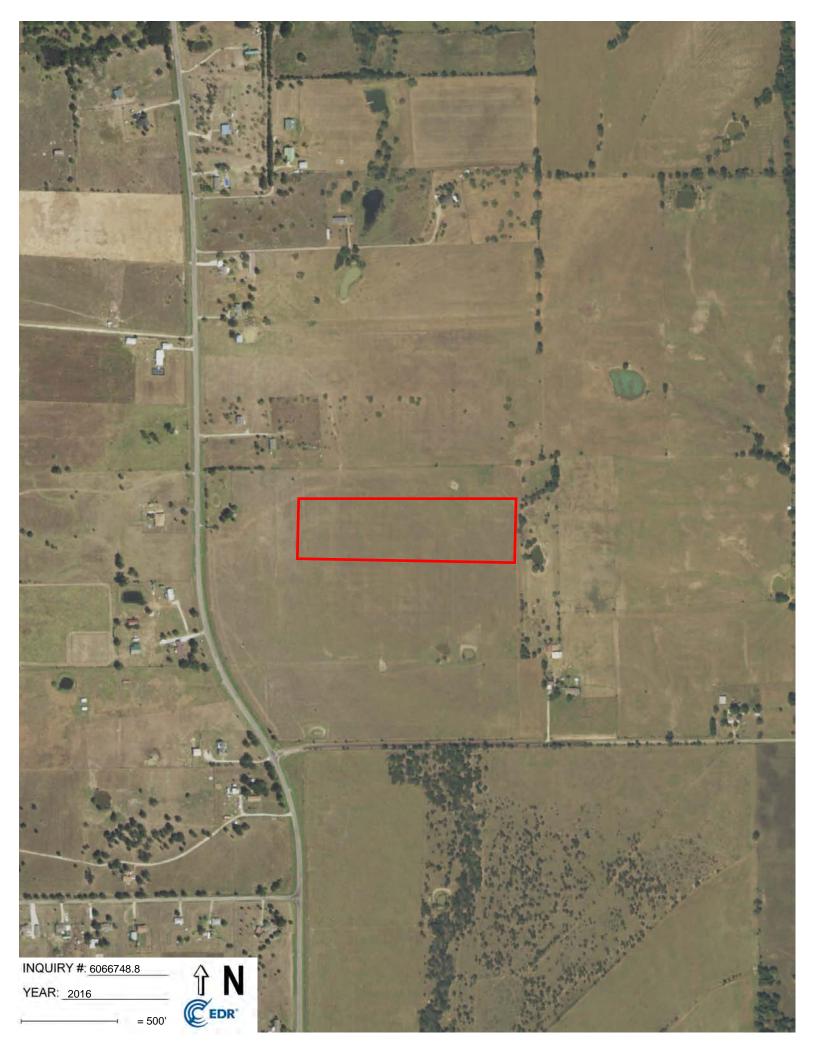
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

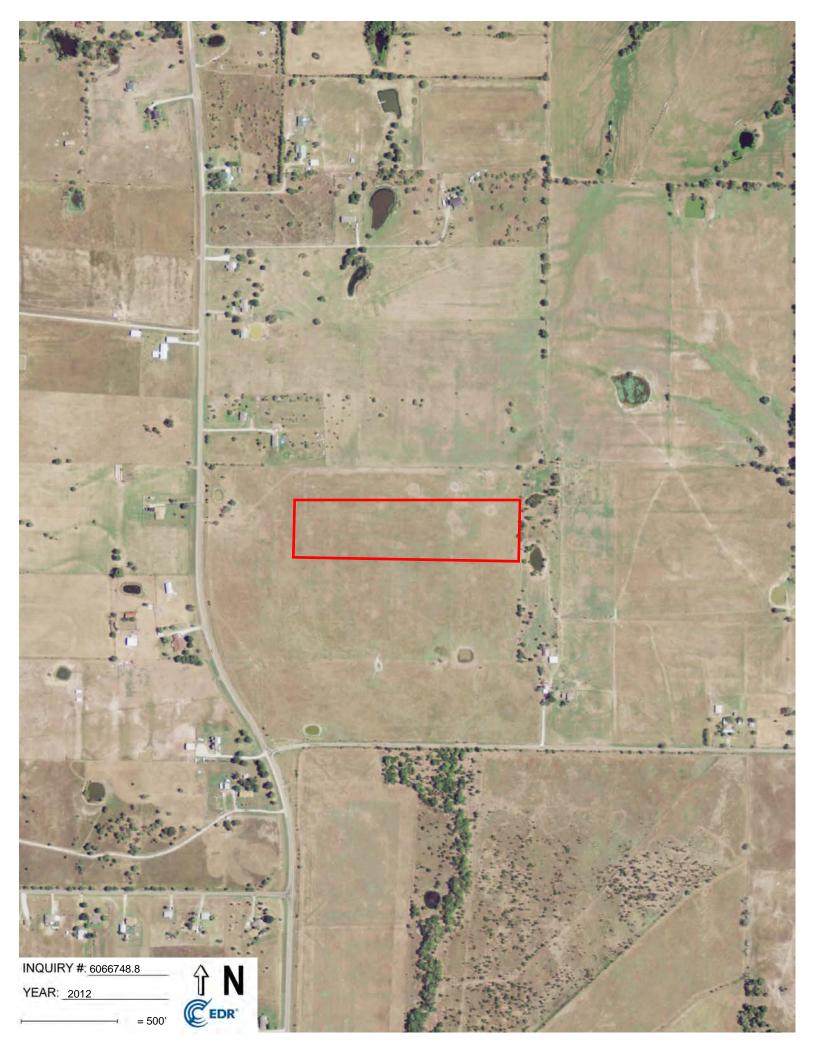
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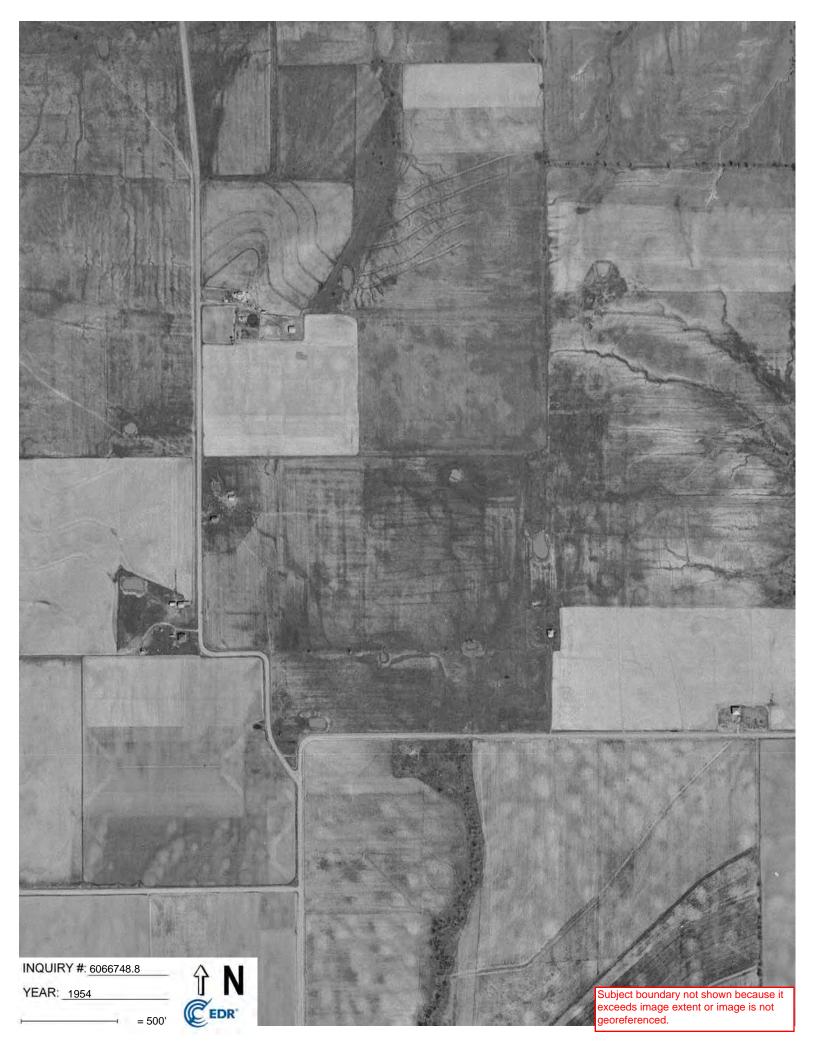
INQUIRY #: 6066748.8

YEAR: 1962

= 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





Wieland Solar FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.3 May 18, 2020

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

Site Name:

Wieland Solar FM 2101 Quinlan, TX 75474 EDR Inquiry # 6066748.3 ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland

Client Name:



05/18/20

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ECS Southwest, LLP 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 # 3EEA-4142-BEF8 PO# 51-1878 Weiland Solar Project

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 #: 3EEA-4142-BEF8

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 Congr	ess
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University Publications of America

EDR Private Collection

The Sanborn Library LLC Since 1866™

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Wieland Solar FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.4 May 18, 2020

EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Site Name:

FM 2101

1962 1956 1919

Wieland Solar

Quinlan, TX 75474

EDR Inquiry # 6066748.4

Client Name:

ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ECS Southwest, LLP were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		Coordinates:	Coordinates:	
P.O.#	51-1878	Latitude:	32.990857 32° 59' 27" North	
Project:	Weiland Solar	Longitude:	-96.055759 -96° 3' 21" West	
-		UTM Zone:	Zone 14 North	
		UTM X Meters:	775116.75	
		UTM Y Meters:	3654124.34	
		Elevation:	508.74' above sea level	
Maps Provided:				
2012, 2013 1980	3			

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012, 2013 Source Sheets



West Tawakoni 2012 7.5-minute, 24000



Greenville SE 2013 7.5-minute, 24000

1980 Source Sheets



West Tawakoni 1980 7.5-minute, 24000 Aerial Photo Revised 1975

1962 Source Sheets



Greenville SE 1962 7.5-minute, 24000 Aerial Photo Revised 1961

1956 Source Sheets



Quinlan 1956 15-minute, 62500 Aerial Photo Revised 1954

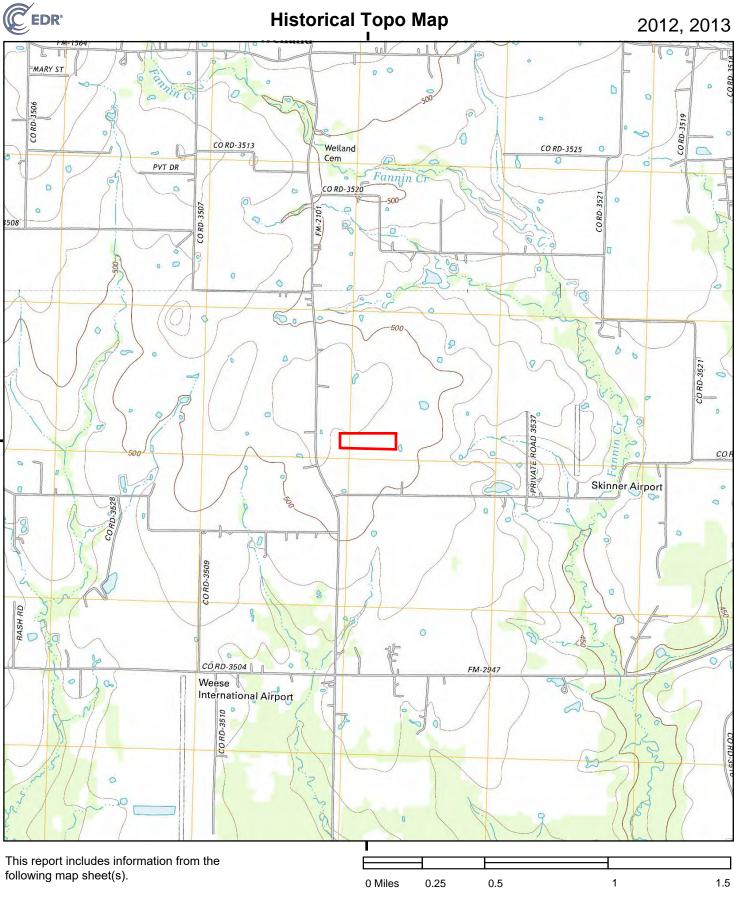
Topo Sheet Key

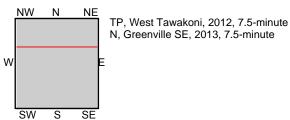
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1919 Source Sheets

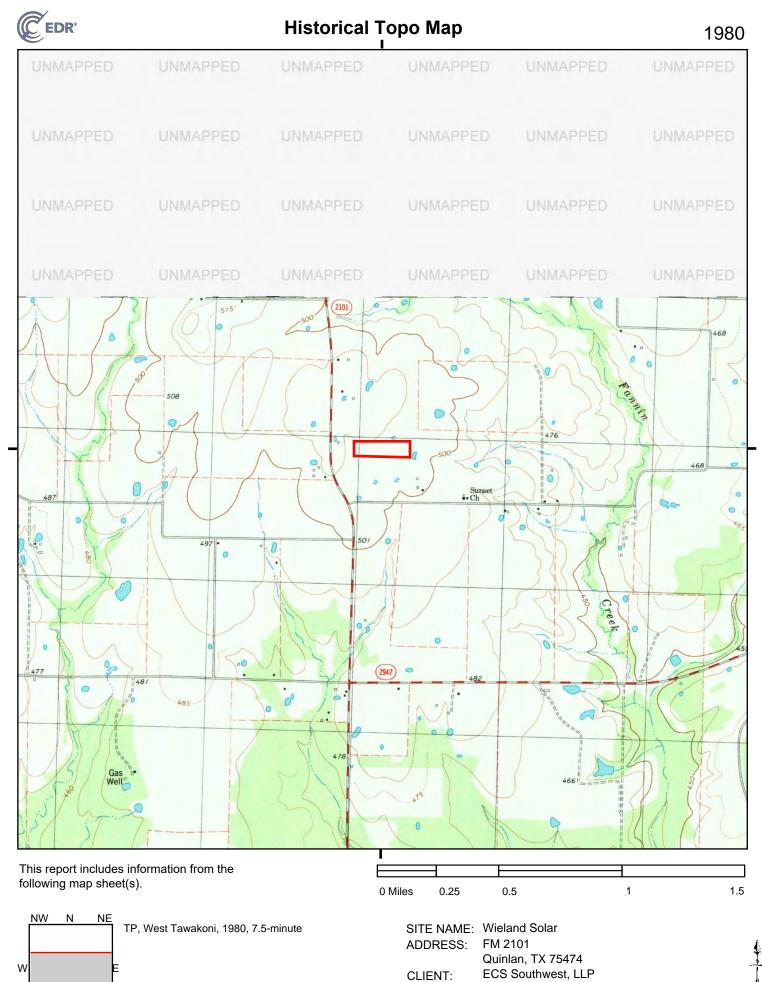


QUINLAN 1919 15-minute, 62500



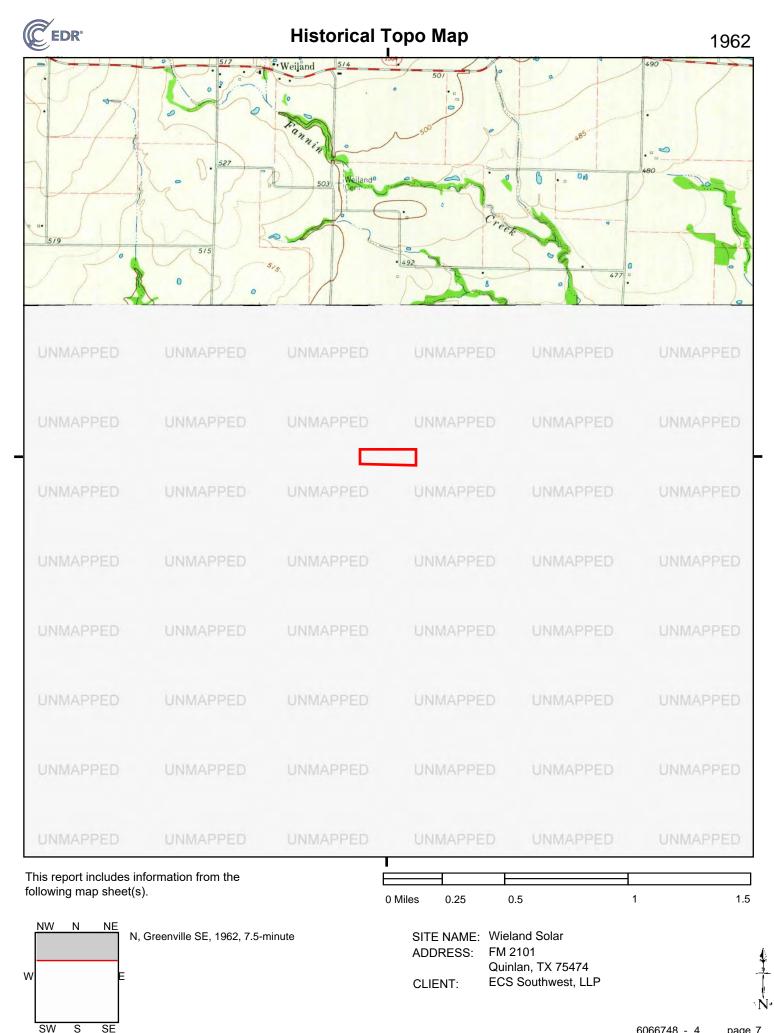


SITE NAME:	Wieland Solar
ADDRESS:	FM 2101
	Quinlan, TX 75474
CLIENT:	ECS Southwest, LLP



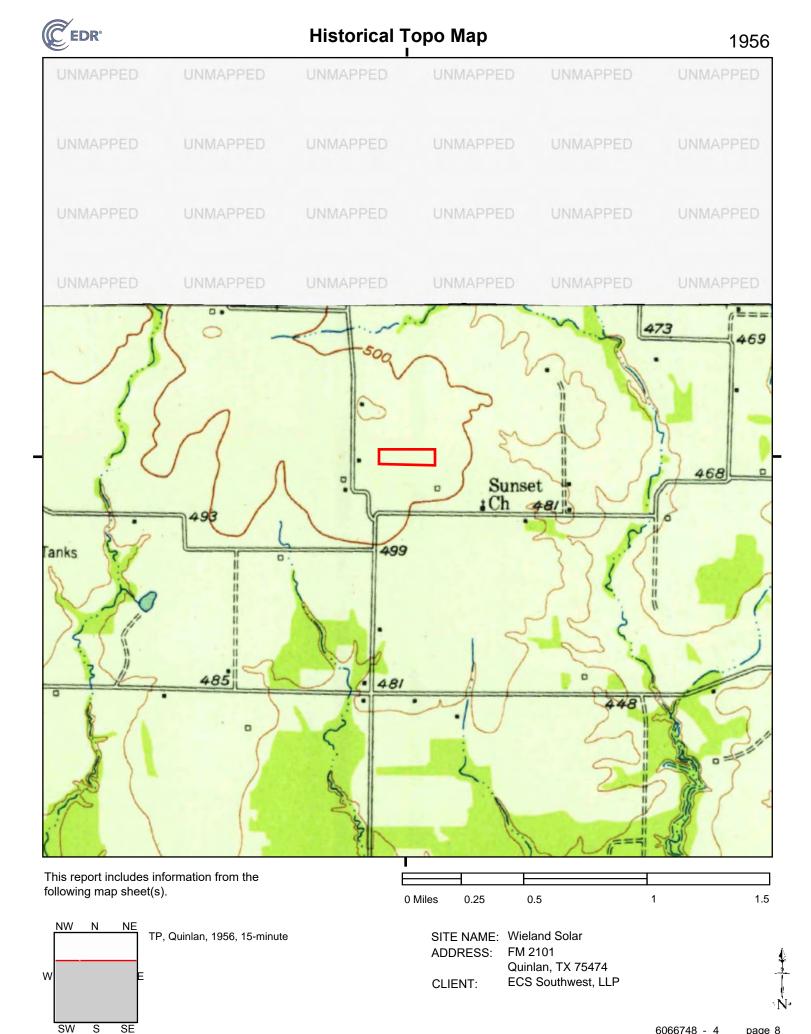
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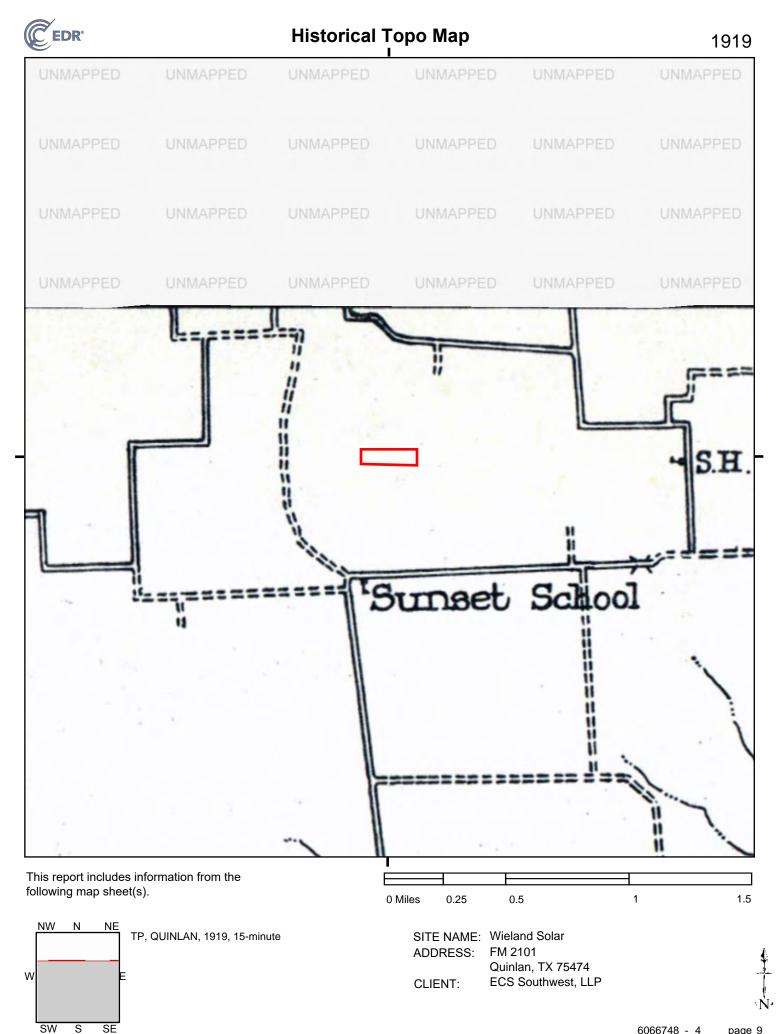
SW



S

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Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.5 May 18, 2020

The EDR-City Directory Image Report



6 Armstrong Road Shelton, CT 06484 800.352.0050 www.edrnet.com

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Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	<u>Cross Street</u>	<u>Source</u>
2017	\checkmark	\checkmark	EDR Digital Archive
2014	\checkmark	\checkmark	EDR Digital Archive
2010	\checkmark	\checkmark	EDR Digital Archive
2005	\checkmark	\checkmark	EDR Digital Archive
2000	\checkmark	\checkmark	EDR Digital Archive
1995			EDR Digital Archive
1992			EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

FM 2101 Quinlan, TX 75474

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>FM 2101</u>			
2017	pg A2	EDR Digital Archive	
2014	pg A4	EDR Digital Archive	
2010	pg A6	EDR Digital Archive	
2005	pg A8	EDR Digital Archive	
2000	pg A10	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>COUNTY F</u>	ROAD 3517		
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	pg. A7	EDR Digital Archive	
2000	pg. A9	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source

City Directory Images

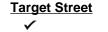
Target Street

-

Cross Street ✓ Source EDR Digital Archive

COUNTY ROAD 3517 2017

1660	ARNOLD, BILLY E
1762	BALEY, DAN K
1857	HAYNES, DALE M
1889	CLEMENTS, BOBBY C
1933	ELMORE, JOE A
1972	UNDERWOOD, DENNIS A
2042	GRAY, GLENDA
2244	WILSON, HENRY
2305	BOTTONE, LOIS E
2310	JACKSON, ALVIN L
2315	KIOWSKI, LUCAS
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J



FM 2101 2017

5236	FYFFE, MICHAEL P
5274	TINNEY, HAROLD D
5431	SEIDEMANN, SCOTT L
5444	COUCH, AMBER N
5462	MARSHALL, JEFF G
5475	LAMAN, ARTHUR C
5494	MEDINA, FRANK L
5506	OSORNIO, CINTHIA
5528	GIBSON, CASSANDRA
5549	DORMAN, LEONARD A
5582	NIX, KEVIN G
5585	NIELSON, NATHAN S
5652	RUSS, SHAWN R
5669	CARIAS, MANANN
5677	BEASLEY, ROSS L
5691	MCCLURE, DANNY R
5701	LOWE, JOHN D
5731	WORTHINGTON, WILLIAM C
5733	FOWLER, KAREN T
5741	STEEDMAN, JASON W
5769	STEEDMAN, CHRISTOPHER J
5784	BUTLER, MARK D
5837	SMITHEY, DANIEL S
5878	JOHNSON, GARRETT L
5946	HITCHCOCK, MILTON D
5948	HITCHCOCK, MILTON D
6028	WEAVER, JACKIE E
6060	MCKINNEY, RYAN A
6192	THUMANN, CHASE E
6290	SHEFFIELD, BILLY R
6373	DOOLEY, DOIS L
6494	WEEKS, THOMAS L
6512	MASSEY, KORY L
6513	MCRIGHT, MARSHA
6514	MASSEY, KORY L
6522	RHODES, TODD F
6575	LONG, CHARLES R
6586	CHURCH, DARRELL W
6737	COGBURN, MIKE J

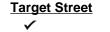
Target Street

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Source EDR Digital Archive

COUNTY ROAD 3517 2014

1660	ARNOLD, BILLY E
1762	BALEY, DAN K
1857	HAYNES, DALE G
1889	OCCUPANT UNKNOWN,
1933	ELMORE, JOE A
	ELMORES SAND GRAVEL & GRADING
1952	UNDERWOOD, RICHARD M
1972	UNDERWOOD, DENNIS A
2042	SKINNER, JAMES S
2244	MASTERS, BARBARA N
2303	BERRY, DWAYNE F
2305	OCCUPANT UNKNOWN,
2310	JACKSON, ALVIN L
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J
2468	COUNTS, DARRELL R



FM 2101 2014

5236 5274	FYFFE, MICHAEL P TINNEY, HAROLD D
5274 5431	OCCUPANT UNKNOWN,
5444	OCCUPANT UNKNOWN,
5462	MARSHALL, JEFF G
5475	LAMAN, ARTHUR C
5480	DOLLEMAN, JONATHAN M
5494	STRONG, JAY
5506	OSORNIO, CINTHIA
5528	GIBSON, CASSANDRA
5549	DORMAN, LEONARD A
5582	NIX, NORRIS A
5652	RUSS, SHAWN R
5691	WEEKS, THOMAS L
5701	LOWE, JOHN D
5731	SKINNER, JACKY L
5741	STEEDMAN, JASON W
5769	LESTER, ASHLEY
5780	HARRISON, WESLEY K
5784	BUTLER, MARK D
5835	MEDLIN, DEBBIE M
5837	SMITHEY, JUDY R
5948	ARIZMENDI, KELSEY
6028	JOHNSON, PHILLIP
6060	MCKINNEY, RYAN A
	RYANS WOODWORKS
6192	THUMANN, CHASE E
6290	OCCUPANT UNKNOWN,
6444	OCCUPANT UNKNOWN,
6494	MASSEY, KEVIN L
6512	JACKSON, LISA
6513	OCCUPANT UNKNOWN,
6514	OCCUPANT UNKNOWN,
6522	RHODES, TODD F
6575	OCCUPANT UNKNOWN,
6586 6727	CHURCH, DARRELL W COGBURN, MIKE J
6737	COGBURN, MIKE J

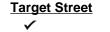
Target Street

-

Source EDR Digital Archive

COUNTY ROAD 3517 2010

1660 1762	ARNOLD, BILLY E BALEY, DAN K SOUTHERN LITES
1816	SANDLIN, ANTHONY W
1857	HUNT, CHARLES D
1933	ELMORE, JOE A
	ELMORES SAND GRAVEL & GRADING
1952	UNDERWOOD, RICHARD M
1972	UNDERWOOD, DENNIS A
2042	GRAY, GLENDA
2244	WILSON, MARGARET B
2303	BERRY, DWAYNE F
2305	BOTTONE, LOIS E
2310	JACKSON, ALVIN L
2315	KIOWSKI, LUCAS
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J
2468	COUNTS, DARRELL R

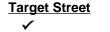


FM 2101 2010

FOOD	
5236	FYFFE, MICHAEL P
5274	TINNEY, HAROLD D
5431	OCCUPANT UNKNOWN,
5444	WALLACE, ERIC M
5462	MARSHALL, JEFF G
5475	OCCUPANT UNKNOWN,
5480	OCCUPANT UNKNOWN,
5494	STRONG, D J
5506	OSORNIO, TEODULFO R
5528	RAGLE, BRIAN L
5549	DORMAN, LEONARD A
5582	NIX, PAMELA J
5592	SHERMAN, CHARLES E
5652	RUSS, SHAWN R
5691	GABRIELLE BRITTAIN & CO
	WEEKS, THOMAS L
5701	LOWE, JOHN D
5731	SKINNER, JACKY L
5733	SKINNER, LAVENIA
5741	STEEDMAN, JASON W
5769	STEEDMAN, JOHN R
5784	BUTLER, MARK
5835	PALMER, SEAN
5948	WARD, FRANK W
6028	GLICK, JAMES A
6060	MCKINNEY, RYAN
	RYANS WOODWORKS
6192	OCCUPANT UNKNOWN,
6290	SHEFFIELD, BILLY R
6373	DOOLEY, MILLIE C
6444	OCCUPANT UNKNOWN,
6494	MASSEY, KEVIN J
6512	JACKSON, LISA
6514	ARRINGTON, TIFFANY
6522	RHODES, TODD F
6586	OCCUPANT UNKNOWN,
6602	LONG, CHARLES R
6737	COGBURN, MICHAEL J
	,

COUNTY ROAD 3517 2005

1660	RIDGE, THEDA J
1762	BALEY, DAN K
1816	SANDLIN, ANTHONY
1857	HAYNES, DALE M
1889	ELMORE, GREG A
1933	ELMORE, JOE A
1952	UNDERWOOD, RICHARD M
2042	SKINNER, JAMES S
2244	MASTERS, STEVE O
2302	OCCUPANT UNKNOWN,
2303	BERRY, DWAYNE F
2305	BOTTONES LAZY B INC
2310	STOVALL, RONNIE
2315	KIOWSKI, PATRICK M
2367	QUEST LAND DEVELOPMENT INC
	QUIMBY, KEITH P
2426	SHEPHERD, ADDIE



FM 2101 2005

5236 5274 5431 5444 5462 5475 5480 5506 5528 5549	FYFFE, MARJORIE F LANE, JIMMIE K OCCUPANT UNKNOWN, GLOVER, BOBBY HAWKINS, SHEILA A OCCUPANT UNKNOWN, BAKER, JOE COLLEY, CATHY RAGLE, BRIAN L DORMAN, LEONARD A
5691 5701	WEEKS, MICHELLE LOWE, JOHN D
5733	SKINNER, LAVENIA
5769	STEEDMAN, JOHN R
5780	OCCUPANT UNKNOWN,
5791	GABRIELLE BRITTAIN & CO
5835	OCCUPANT UNKNOWN,
5878	SHELTON, PAULA G
5948	WARD, FRANK
6028	GLICK, JAMES A
6060	MCKINNEY, LARRY D
6192	OCCUPANT UNKNOWN,
6290	OCCUPANT UNKNOWN,
6373	OCCUPANT UNKNOWN,
6444	LEVINS, DAVID
6494	OCCUPANT UNKNOWN,
6512	HOLDER, STEVE
6513 6514	JOHNSON, CARROLL E COFFMAN, JASON
6514 6522	CLARKE, JOHN M
6586	OCCUPANT UNKNOWN,
6602	LONG, CHARLES R
6737	COGBURN, MIKE
	· · · · · · · · · · · · · · ·

Target Street

Cross Street ✓ Source EDR Digital Archive

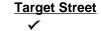
COUNTY ROAD 3517 2000

1952 UNDERWOOD, RICHARD

-

2303 BERRY, DWAYNE

2367 QUIMBY, KEITH P



Cross Street

-

Source EDR Digital Archive

FM 2101 2000

5780 KENNEDY, JAMES A6494 CROUCH, DAVID6512 OCCUPANT UNKNOWN,

PHASE I ENVIRONMENTAL SITE ASSESSMENT



WIELAND SOLAR

SOUTHEAST OF 5837 FM 2101 QUINLAN, HUNT COUNTY, TEXAS 75474 ECS PROJECT NO. 51:1878

FOR

SUNGRID POWER

JUNE 3, 2020



"Setting the Standard for Service"



Geotechnical · Construction Materials · Environmental · Facilities

June 3, 2020

Mr. Trevor Hand SunGrid Power P.O. Box 1046 Grapevine, Texas 76099

ECS Project No. 51: 1878

Reference: Phase I Environmental Site Assessment Report, Wieland Solar, southeast of 5837 FM 2101, Quinlan, Hunt County, Texas 75474

Dear Mr. Hand:

ECS Southwest, LLP (ECS) is pleased to provide you with the results of our Phase I Environmental Site Assessment (ESA) for the referenced site. ECS services were provided in general accordance with ECS Proposal No. 51:1539R2 authorized on May 13, 2020 and generally meet the requirements of ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and EPA Standards and Practices for All Appropriate Inquiries contained in 40 CFR Part 312.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

ECS Southwest, LLP

Roger Willis Senior Project Manager RWillis@ecslimited.com 512-837-8005

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Craig Hiatt Director of Environmental Services chiatt@ecslimited.com 512-837-8005

Project Summary

Wieland Solar Southeast of 5837 FM 2101 Quinlan, Texas 75474

Rep	ort Section	No Further Action	REC	CREC	HREC	BER	Comment
<u>4.0</u>	User Provided Information	~					
<u>5.1</u>	Federal ASTM Databases	~					
<u>5.2</u>	State ASTM Databases	~					
<u>5.3</u>	Additional Environmental Record Sources	~					
<u>6.0</u>	Historical Use Information	~					
<u>7.0</u>	Site and Area Reconnaissance	~					
<u>8.0</u>	Additional Services	~					
<u>9.0</u>	Interviews	~					



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. 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 the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

MANT

Roger Willis Senior Project Manager June 3, 2020

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Craig Hiatt Director of Environmental Services June 3, 2020



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1.0 EXECUTIVE SUMMARY

ECS Southwest, LLP (ECS) was contracted by SunGrid Power to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474 (i.e. subject property). This Executive Summary is an integral part of the Phase I ESA report. ECS recommends that the report be read in its entirety.

The subject property is identified by the Hunt Country Appraisal District as a portion of Parcel Identification Number (PIN) 21536 and owned by HAND TREVOR. The approximately 10-acre subject property is agricultural land.

The subject property is located in a rural, residential area of Quinlan, Texas. The subject property is bound on the north by agricultural land, on the east by agricultural land, on the south by agricultural land, and on the west by agricultural land. ECS did not identify environmental issues at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property has remained agricultural land since at least 1919. Historical records prior to 1919 were not reasonably ascertainable for the subject property.

The subject property was historically used as agricultural land. Such use of the subject property may have included the storage and use of beneficial agricultural products such as fungicides, herbicides, and/or fertilizers. The legal use (i.e., in accordance with the manufacturers' specifications and customary practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Further, reasonably ascertainable information was not observed during the course of our assessment, including historical records review, or field reconnaissance observations regarding past site history, that a past release of such substances had occurred. Therefore, the mere presence of this historical land use does not meet the definition of a REC.

Our review of historical information for adjoining or nearby properties identified the area as originally agricultural land that transitioned to rural, residential over time.

A regulatory database search report was provided by Environmental Data Resources, Inc. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report did not identify the subject property on the databases researched. The Environmental Data Resources, Inc. report did not identify off-site properties within the minimum ASTM search distances.

ASTM E1527-13 defines a "data gap" as: "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information." Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.



We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.



2.0 INTRODUCTION

2.1 Purpose and Reason for Performing Phase I ESA

The purpose of the ESA was to:

- evaluate the probability of impact to the surface water, groundwater and/or soils within the property boundaries through a review of regulatory information and a reconnaissance of the subject property and vicinity;
- evaluate historical land usage to identify previous conditions that could potentially impact the environmental condition of the subject property;
- conduct all appropriate inquiry as defined by ASTM E1527-13 and 40 CFR Part 312;
- evaluate the potential for on-site and off-site contamination; and,
- provide a professional opinion regarding the potential for environmental impact at the site and a list of Recognized Environmental Conditions (RECs).

The ESA should allow the Users the opportunity to qualify for landowner liability protection under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provided certain stipulations are met. The landowner liability protections are: an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser. The User must meet the protection stipulations detailed in CERCLA to qualify as well as meet the User Obligations contained within the ASTM E1527- 13 standard.

The reason for conducting this ESA is to perform all appropriate inquiries into the uses and prior ownership of the subject property for the development of a solar facility.

2.2 Scope of Services

The environmental assessment was conducted in general accordance with ASTM E1527-13 and EPA Standards and Practices for All Appropriate Inquiry (40 CFR §312.10). The environmental assessment was conducted under the supervision or responsible charge of an individual that qualifies as an environmental professional, as defined in 40 CFR §312.10.

ECS was contracted by SunGrid Power to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas. ECS was not contracted to address non-scope considerations.

2.3 Definitions

ASTM E1527-13 defines a "recognized environmental condition (REC)" as "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: 1) due to release to the environment, 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment." For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form including solid and liquid at the surface or subsurface and vapor in the subsurface.



ASTM E1527-13 defines a "business environmental risk" (BER) as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice". ECS also uses the term "Other Environmental Considerations" to discuss BERs and environmental concerns outside of the ASTM E1527-13 requirements (radon, asbestos, lead, wetlands, etc.). Client-imposed limitations and site condition limitations, if encountered, are detailed in Section 7.1 Methodology and Limiting Conditions.

ASTM E1527-13 defines a "*de minimis* condition" as a condition that generally does not represent 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. De minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

ASTM E1527-13 defines a "controlled recognized environmental condition (CREC)" as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition identified as a controlled recognized environmental condition does not imply that the Environmental Professional has evaluated or confirmed the adequacy, implementation or continued effectiveness of the required control that has been, or is intended to be, implemented.

ASTM E1527-13 defines a "historical recognized environmental condition (HREC)" as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the Environmental Professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria).

2.4 Limitations

The ESA involved a reconnaissance of the subject property and contiguous properties and a review of regulatory and historical information in general accordance with the ASTM standard and EPA regulation referenced herein. No non-scope considerations or additional issues such as asbestos, radon, wetlands or mold were investigated, unless otherwise described in Section 8.0 of this report.

Note: vapor migration in the subsurface is described in Guide E2600 published by ASTM. ECS was not contracted to conduct a Vapor Encroachment Screen in accordance with the E2600 guide.



The conclusions and/or recommendations presented within this report are based upon a level of investigation consistent with the standard of care and skill exercised by members of the same profession currently practicing in the same locality under similar conditions. The intent of this assessment is to identify the potential for recognized environmental conditions in connection with the subject property; however, no environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. The findings of this ESA are not intended to serve as an audit for health and safety compliance issues pertaining to improvements or activities at the subject property. ECS is not liable for the discovery or elimination of hazards that may potentially cause damage, accidents or injury.

Observations, conclusions and/or recommendations pertaining to environmental conditions at the subject property are necessarily limited to conditions observed, and or materials reviewed at the time this study was undertaken. It was not the purpose of this study to determine the actual presence, degree or extent of contamination, if any, at this subject property. This could require additional exploratory work, including sampling and laboratory analysis. No warranty, expressed or implied, is made with regard to the conclusions and/or recommendations presented within this report.

This report is provided for the exclusive use of SunGrid Power. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance. The use of this report is subject to the same terms, conditions and scope of work reflected in this report and the associated proposal.

2.5 Data Gaps

Data failures (historical data gaps) were identified during the historical research of this subject property. Use of the subject property was generally documented back to 1919. Historical information was missing for various periods. However, due to the apparent historical use, the present use, and the other information that was obtained about the subject property; the historical data gaps are not expected to impact our ability to render a professional opinion regarding the subject property.

2.6 Limiting Conditions/Deviations

ASTM E1527-13 requires that the Environmental Professional identify limiting conditions, deletions, and deviations from the ASTM E1527-13 standard, if any, including client-imposed constraints. Limiting conditions and/or deviations from the standard practice that would be expected to impact our ability to provide a professional opinion concerning the subject property were not encountered during the performance of this Phase I ESA.



3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Subject Property Location and Legal Description

Site Name	Wieland Solar
Property Address	Southeast of 5837 FM 2101
Property City, State	Quinlan, Texas
Property County	Hunt County
Number of Parcels	A portion of one (1)
Property ID Number(s)	21536
Property Size	10 Acres
Property Owner of Record	HAND TREVOR
Property Legal Description	A0076 BROWN LEONARD,TRACT 6, ACRES 20.22

3.2 Physical Setting and Hydrogeology

USGS Topographic Map				
Quad Designation	West Tawakoni, Texas			
Date	2012			
Su	bject Property Settings			
Average Subject Property Elevation (in feet or meters)	509 feet above mean sea level (amsl)			
General Sloping Direction	The subject property generally slopes to the southeast.			
Bodies of Water	None			
General Directions of Surface Flow	The general direction of surface flow is towards the southeast.			
Presumed Direction of Groundwater Flow	Groundwater flow is expected to flow southeast based on predicted groundwater flow data provided by Environmental Data Resources, Inc.			
Geologic Province	Navarro Group			
Up-gradient Property Direction	Northwest			



Nearby Properties' Setting				
General Sloping Direction The nearby properties generally slope to the				
Bodies of Water	None			
General Directions of Surface Flow	The general direction of surface flow is to the southeast.			
Presumed Direction of Groundwater Flow	Groundwater flow is expected to flow southeast based on predicted groundwater flow data provided by Environmental Data Resources, Inc.			

Regional influences may have an impact on groundwater flow. The actual groundwater flow direction cannot be determined without site-specific information obtained through the gauging of groundwater monitoring wells.

3.3 Current Use and Description of the Site

The subject property consists of an approximately 10-acre parcel of land that is currently agricultural land. The subject property is located in an area that can generally be described as rural, residential.



4.0 USER PROVIDED INFORMATION

The ASTM standard includes disclosure and obligations of the User to help the Environmental Professional identify the potential for Recognized Environmental Conditions associated with the subject property. The ASTM E1527-13 User Questionnaire was submitted to and completed by Trevor Hand, representing SunGrid Power (User of the report). Section 4.0 is based on the completed User Questionnaire. A copy of the completed User Questionnaire is included in Appendix II.

4.1 Title Information

ECS was not provided with title information by the User. If this information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.2 Environmental Liens or Activity and Use Limitations

ECS was neither contracted to obtain information on environmental liens or activity and use limitations, nor have we been provided with information on environmental liens or activity and use limitations for our review. It should be noted by the User of this report that if the User does not obtain activity and use limitation information, the User that is seeking to qualify for an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser liability defense may lose these rights to qualify under CERCLA. If the activity and use information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report. The User stated they were not aware of any AULs associated with the subject property.

4.3 Specialized Knowledge

The User indicated that the property has always been used for agricultural use.

4.4 Commonly Known or Reasonably Ascertainable Information

The User indicated that they were not aware of commonly known environmental concerns related to the subject property.

4.5 Valuation Reduction for Environmental Issues

According to the User, the purchase price being paid for the subject property reasonably reflects its fair market value.

4.6 Owner, Property Manager, and Occupant Information

The User indicated that Trevor Hand owns the property.

4.7 Degree of Obviousness

The User stated that they were not aware of obvious indicators that point to the presence or likely presence of contamination at the subject property.



5.0 RECORDS REVIEW

A regulatory records search of ASTM standard and supplemental databases was conducted for the subject property and is included in Appendix III. The regulatory search report in the appendix includes additional details about the regulatory databases that were reviewed. The regulatory records search involves searching a series of databases for facilities that are located within a specified distance from the subject property. The ASTM standard specifies an approximate minimum search distance from the subject property for each database. Pursuant to ASTM, the approximate minimum search distance may be reduced for each standard environmental record except for Federal NPL site list, and Federal RCRA TSD list. According to ASTM, government information obtained from nongovernmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public. The following table indicates the standard environmental record sources and the approximate minimum search distances for each record.

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
Federal NPL	1.0	No	0
Federal Delisted NPL	0.5	No	0
Federal CERCLIS	0.5	No	0
Federal CERCLIS NFRAP	0.5	No	0
Federal RCRA CORRACTS	1.0	No	0
Federal RCRA non-CORRACTS TSD	0.5	No	0
Federal RCRA Generators	Subject Site and Adjoining Properties	No	0
Federal IC/EC	Subject Site Only	No	N/A
Federal ERNS	Subject Site Only	No	N/A
State and Tribal Hazardous Waste Sites (NPL Equivalent)	1.0	No	0
State and Tribal Hazardous Waste Sites (CERCLIS Equivalent)	0.5	No	0
State and Tribal Landfill and/or solid waste disposal sites	0.5	No	0



Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
State and Tribal Leaking Tanks	0.5	No	0
State and Tribal Registered UST and AST	Subject Site and Adjoining Properties	No	0
State and Tribal IC/EC	Subject Site Only	No	N/A
State and Tribal Voluntary Cleanup (VCP)	0.5	No	0
State and Tribal Brownfield Sites	0.5	No	0

Based on our knowledge of the subject property and the surrounding area, ECS attempts to verify and interpret this data. While this attempt at verification is made with due diligence, ECS cannot guarantee the accuracy of the record(s) search beyond that of information provided by the regulatory report(s). ECS makes no warranty regarding the accuracy of the database report information included within the regulatory report(s).

The regulatory database search was performed by Environmental Data Resources, Inc., dated May 18, 2020. ECS did not reduce the minimum ASTM search distances stipulated in the standard. The regulatory databases reviewed by ECS included supplemental databases researched by Environmental Data Resources, Inc.

5.1 Federal ASTM Databases

Neither the subject property nor properties within the designated search radii were identified on the federal ASTM databases researched for this assessment.

5.2 State ASTM Databases

Neither the subject property nor properties within the designated search radii were identified on the state ASTM databases researched for this assessment.

5.3 Additional Environmental Record Sources

5.3.1 Additional Non-ASTM Federal Databases

Neither the subject property nor properties within the designated search radii were identified on the non-ASTM federal databases researched for this assessment.



5.3.2 Additional Non-ASTM State Databases

Neither the subject property nor properties within the designated search radii were identified on the non-ASTM state databases researched for this assessment.

5.3.3 Other Proprietary Databases

Neither the subject property nor properties within the designated search radii were identified on the proprietary databases researched for this assessment.

5.3.4 Unmapped (Orphan) Facilities and Sites

No properties were identified on the Orphan Summary List. These facilities are considered as unmappable because the facility information in the database is insufficient and does not report accurate facility location.

5.4 Regulatory Review Summary

A regulatory database search report was provided by Environmental Data Resources, Inc. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report did not identify the subject property on the databases researched. The Environmental Data Resources, Inc. report did not identify off-site properties within the minimum ASTM search distances. Therefore, ECS does not consider there to be a REC for the subject property.



6.0 HISTORICAL USE INFORMATION

6.1 Aerial Photograph Review

ECS reviewed aerial photographs of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The aerial photographs were obtained from Environmental Data Resources, Inc. The aerial photographs reviewed were dated 1949, 1954, 1962, 1975, 1981, 1995, 2005, 2008, 2012, and 2016. Aerial photographs dated prior to 1949 were not available for review. The ECS review is dependent on the quality and scale of the photographs. The following is a description of relevant information from the aerial photographs:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1949, 1954, 1962, 1975, 1981, 1995, 2005, 2008, 2012, and 2016	The subject property appeared to be agricultural land.	The adjoining properties appeared to be agricultural land.	No

6.2 Sanborn Fire Insurance Map Review

In an effort to identify past uses, ECS utilized Environmental Data Resources, Inc. to search for historical Sanborn Fire Insurance Maps (Sanborn) for the subject property and surrounding area. Sanborn maps were not available for this area. The absence of such maps generally indicates that the subject property is located in an area where Sanborn maps were not produced because the area was rural or it was not economically feasible. ECS does not expect the lack of Sanborn maps to impact our ability to render a professional opinion concerning the subject property given the amount of historical information obtained from our research, the USGS topographic map, aerial photographs, city directories, and other historical records obtained. A copy of the Unmapped Property report is included within Appendix IV.

6.3 Property Tax Files

Property tax files may include records of past ownership, appraisals, maps, sketches, photos or other information kept by the local jurisdiction for property tax assessment purposes. According to the Hunt County tax assessor on-line information, the subject property is owned by HAND TREVOR. The subject property is listed as a 10-acre portion of a parcel with an identification number of 21536.



6.4 Recorded Land Title Records

Recorded land title records may include leases, land contracts, and AULs recorded by the local jurisdiction. Land title records may provide only a list of the names of previous owners and may be of limited use; however, they may provide useful information about uses or occupancy of the property when employed in combination with other sources.

ECS was not provided with Land Title Records.

6.5 Historical USGS Topographic Maps

Topographic maps are produced by the United States Geological Survey (USGS) for various time periods. ECS reviewed topographic maps of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The topographic maps were obtained from Environmental Data Resources, Inc. and were dated 1919, 1956, 1962, 1980, 2012, and 2013. Topographic maps dated prior to 1919 were not available for review. The following is a description of relevant information from the topographic maps:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1919 and 1956	No structures were depicted on the subject property.	No structures were depicted on the adjoining properties.	No
1962	The subject property was unmapped on the topographic map.	The adjoining properties were unmapped on the topographic map.	No
1980	No structures were depicted on the subject property.	A perennial pond was depicted on the north adjoining property and the east adjoining property.	No
2012 and 2013	No structures were depicted on the subject property.	A perennial pond was depicted on the east adjoining property.	No

6.6 City Directory Review

One of the ASTM standard historical sources to be reviewed for previous subject property uses is local street directories, commonly known as City Directories. The purpose of the directory review is to identify past occupants of the subject property, adjoining properties, or nearby properties. In some rural areas, street directories information is limited.

ECS reviewed city directories obtained from Environmental Data Resources, Inc. The directories reviewed were dated 1992, 1995, 2000, 2005, 2010, 2014, and 2017. The directories reviewed prior to 2000 did not provide listings for the subject property or surrounding area. Directories dated prior to



1992 were not available for review. The subject property address utilized for the research was 5837 FM 2101. A copy of the city directory report is included in Appendix IV. The following is a description of relevant information from the city directories:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1992, 1995, 2000, 2005, and 2010	No listing	No listings	No
2014 and 2017	No listing	5837 FM 2101 - Residential	No

6.7 Building Department Records

The term building department records means those records of the local government indicating permissions of the local government to construct, alter or demolish improvements on the property.

ECS contacted the Hunt County Building Department to determine if they had historical information regarding construction dates, inspections, or other information regarding the subject property. However, Hunt County does not maintain building records except for septic tanks. A record of a septic tank was not available due to the lack of an address for the subject property.

6.8 Zoning/Land Use Records

The term zoning/land use records refers to records of the local government indicating the uses permitted by the government in particular zones within its jurisdictions. ECS reviewed zoning/land use records obtained from the City of Quinlan. However, the subject property is located outside of the city limits. ECS attempted to reviewed zoning/land use records obtained from Hunt County. However, Hunt County does not maintain zoning requirements.

6.9 Other Historical Sources

Other credible historical sources may be reviewed to identify past uses of the subject property. These sources may include websites, county or state road maps, historical society documents, or local library information.

ECS contacted Hunt County via phone to determine if they had regulatory/historical information regarding environmental issues concerning the subject property. Hunt County only maintains records for septic tanks. A record of a septic tank was not available due to the lack of an address for the subject property.



6.10 Previous Reports

We have not been provided with environmental or engineering assessment reports for the subject property completed by others, nor has ECS completed similar studies or prior assessments of the subject property.

6.11 Historical Use Summary

According to historical research, the subject property has been agricultural land and the area has developed slowly from a primarily agricultural area to a rural, residential area. No obvious indications of RECs were identified in the historical data review.

The subject property was historically used as agricultural land. Such use of the subject property may have included the storage and use of beneficial agricultural products such as fungicides, herbicides, and/or fertilizers. The legal use (i.e., in accordance with the manufacturers' specifications and customary practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Further, reasonably ascertainable information was not observed during the course of our assessment, including historical records review, or field reconnaissance observations regarding past site history, that a past release of such substances had occurred. Therefore, the mere presence of this historical land use does not meet the definition of a REC.



7.0 SITE AND AREA RECONNAISSANCE

7.1 Methodology

Jared Hovland of ECS conducted the field reconnaissance on May 14, 2020. The weather at the time of the reconnaissance was 80 degrees Fahrenheit and clear. Observations were made from a walking reconnaissance around the perimeter and along several transects across the subject property. Access or visibility limitations, if any, are discussed in Section 2.6. Subject property photographs are included in Appendix V.

7.2 On-Site Features

The subject property is approximately 10 acres in size and consists of agricultural land. A gravel road affords access to the subject property from County Road 2101. Evidence of structures associated with the subject property was not noted. Cattle feed containers were observed near the northwest corner of the subject property. The subject property gently slopes from northwest to southeast.

The table below lists pertinent features of interest that were assessed for the subject property. Relevant information regarding pertinent features is discussed further in this section.

Feature	Yes	No
Underground or aboveground storage tanks		~
Strong, pungent or noxious odors		×
Surface waters		×
Standing pools of liquid likely containing petroleum or hazardous substances		~
Drums or containers of petroleum or hazardous substances greater than five-gallons		~
Drums or containers of petroleum or hazardous substances less than or equal to five-gallons		~
Unidentified opened or damaged containers of hazardous substances or petroleum products		~
Known or suspect PCB-containing equipment (excluding light ballasts)		~
Stains or corrosion to floors, walls or ceilings		✓
Floor drains and sump pumps		✓
Pits, ponds or lagoons		✓
Stained soil or pavement		✓
Stressed vegetation		~



Feature	Yes	No
Solid waste mounds or non-natural fill materials		~
Wastewater discharges into drains, ditches or streams		~
Groundwater wells including potable, monitoring, dry, irrigation, injections and/or abandoned		~
Septic systems or cesspools		~
Elevators		~
Dry cleaning		~
Onsite emergency electrical generators		~
Specialized industrial equipment (paint booths, bag houses, etc.,) on-site		~
Hydraulic lifts		~
Oil-water separators		~
Compressors on-site		~
Grease traps		~

7.3 Adjoining and Nearby Properties

Contiguous and nearby properties were observed during a walking and vehicular reconnaissance of the subject property boundary and public places. The subject property is located in a rural, residential area of Quinlan, Hunt County, Texas.

Direction	Description	Relative Gradient	REC
North	Agricultural land	Cross-gradient	No
East	Agricultural land	Down-gradient	No
South	Agricultural land	Cross-gradient	No
West	Agricultural land	Up-gradient	No

7.4 Site and Area Reconnaissance Summary

According to our site observations and a review of adjoining and nearby properties, the subject property is used as agricultural land. The subject property is located in a rural, residential area. Details pertaining to our on-site and off-site observations are referenced previously. We did not identify RECs associated with the subject property or neighboring properties and businesses during the reconnaissance.



8.0 ADDITIONAL SERVICES

ASTM guidelines identify non-scope issues, which are beyond the scope of this practice. Non-scope issues have the potential to be business environmental risks. Some of these non-scope issues include; asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands and mold.

ECS was not authorized to assess non-scope issues in conjunction with this assessment.



9.0 INTERVIEWS

During the site reconnaissance, Jared Hovland interviewed Trevor Hand, representative for the subject property. Mr. Hand has approximately six (6) months of knowledge related to the subject property and associated activities. Mr. Hand indicated that he is not aware of 1) environmental concerns associated with the subject property; 2) any pending, past, or threatened administrative litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or 3) any government notices regarding any possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.



10.0 FINDINGS AND CONCLUSIONS

The subject property is identified by the Hunt Country Appraisal District as a portion of Parcel Identification Number (PIN) 21536 and owned by HAND TREVOR. The approximately 10-acre subject property is agricultural land.

The subject property is located in a rural, residential area of Quinlan, Texas. The subject property is bound on the north by agricultural land, on the east by agricultural land, on the south by agricultural land, and on the west by agricultural land. ECS did not identify environmental issues at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property has remained agricultural land since at least 1919. Historical records prior to 1919 were not reasonably ascertainable for the subject property.

The subject property was historically used as agricultural land. Such use of the subject property may have included the storage and use of beneficial agricultural products such as fungicides, herbicides, and/or fertilizers. The legal use (i.e., in accordance with the manufacturers' specifications and customary practices) of such substances, in the course of standard operational practices does not constitute a "release to the environment." Further, reasonably ascertainable information was not observed during the course of our assessment, including historical records review, or field reconnaissance observations regarding past site history, that a past release of such substances had occurred. Therefore, the mere presence of this historical land use does not meet the definition of a REC.

Our review of historical information for adjoining or nearby properties identified the area as originally agricultural land that transitioned to rural, residential over time.

A regulatory database search report was provided by Environmental Data Resources, Inc. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report did not identify the subject property on the databases researched. The Environmental Data Resources, Inc. report did not identify off-site properties within the minimum ASTM search distances.

ASTM E1527-13 defines a "data gap" as: "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information." Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the Wieland Solar located southeast of 5837 FM 2101 in Quinlan, Hunt County, Texas 75474. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.



11.0 REFERENCES

ASTM, E1527-13. (2013). Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Environmental Data Resources, Inc. (2020). *Certified Sanborn*® *Map Report* (Report No. 6066748.3). 2020, May 18.

Environmental Data Resources, Inc. (2020). *EDR Aerial Photo Decade Package* (Report No. 6066748.8). 2020, May 21.

Environmental Data Resources, Inc. (2020). *EDR City Directory Abstract* (Report No. 6066748.5). 2020, May 18.

Environmental Data Resources, Inc. (2020). *EDR Historical Topographic Map Report* (Report No. 6066748.4). 2020, May 18.

Environmental Data Resources, Inc. (2020). *EDR Radius Map™ Report with GeoCheck*® (Report No. 6066748.2s). 2020, May 18.

Hand, Trevor. (2020, May 14). Interview.

Hand, Trevor. (2020, May 13). Environmental Questionnaire for User.

Hunt County Appraisal District. (n.d.). Appraisal Information Retrieved from HCAD website <u>http://esearch.hunt-cad.org/Property/View/21536</u>

USGS Texas Geologic Map Data. (n.d.). Texas Geology Retrieved from USGS website http://mrdata.usgs.gov/sgmc/tx.html



Appendix I: Figures



Figure 1: Subject Property Location Map



Wieland Solar 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878



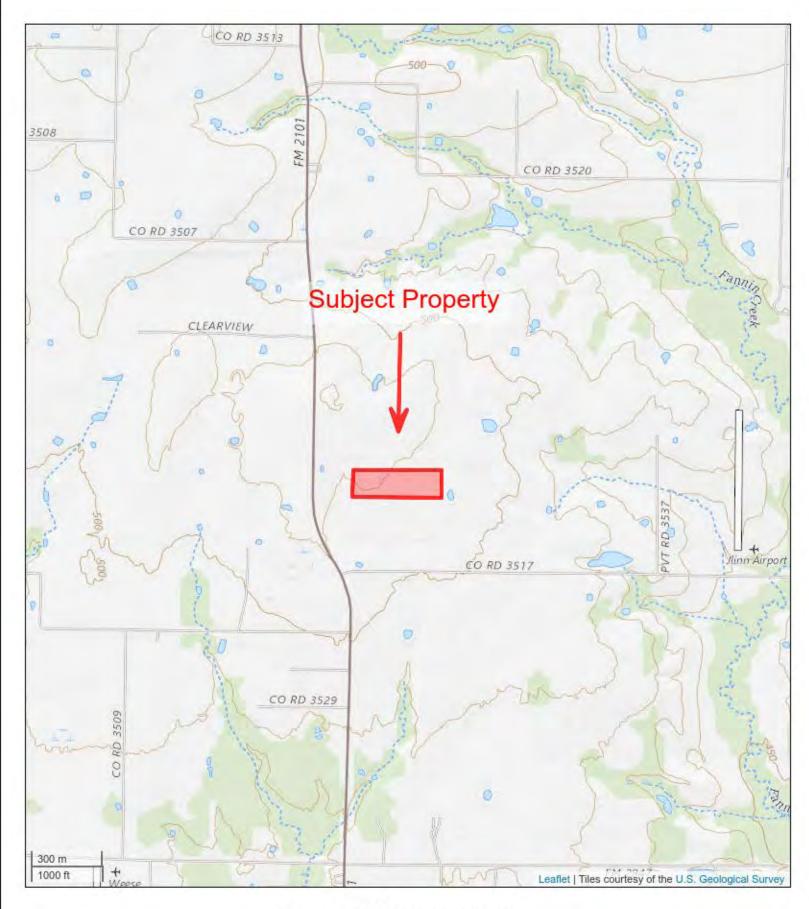


Figure 2: USGS Topographic Map



Wieland Solar West Tawakoni, Texas Quadrangle Southeast of 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878





w K s

Figure 3: Subject Property Map

Wieland Solar Southeast of 5837 FM 2101 Quinlan, Texas 75474 ECS Project No. 51:1878



Appendix II: Correspondence and User Questionnaire



Wieland Solar

Closest Intersection: Wieland, TX. East side of FM 2101, north of CR 3517. Driveway access with newly installed road for access to location of solar facility towards the back of the property. 2.7MWdc solar facility, approximate acreage = 15-17 acres.

GPS: 33.990926,-96.058578

https://www.google.com/maps/place/32°59'22.4%22N+96°03'32.9%22W/@32.989567,-96.0613237,17z/data=!3m1!4b1!4m5!3m4!1s0x0:0x0!8m2!3d32.989567!4d-96.059135

Wieland Solar - Initial Layout





Environmental Questionnaire for User

Completion required for conformance with ASTM E 1527-13. Failure to provide this information may preclude CERCLA liability protections for the property purchaser. Please return answered form to ECS.

Site Name: Caddo Mills Solar LLC, Wieland Solar LLC, Lone Oak Solar LLC

Name and Title of Person Completing Questionnaire (Please Print):

Trevor Hand

Signature of Person Completing Questionnaire:

Sim Agast

Date: 05/13/2020

Name of Your Company and Your Contact Number (Please Print):

SunGrid Power, 972-800-2143

ASTM E 1527-13 indicates that, "Either the user shall make known to the environmental professional the reason why the user wants to have the Phase I Environmental Site Assessment performed or, if the user does not identify the purpose of the Phase I Environmental Site Assessment, the environmental professional shall assume the purpose is to qualify for an LLP to CERCLA liability and state this in the report." As the user of this ESA, what is the reason for conducting the Phase I ESA? If this question is unanswered, ECS will assume that the user's reason for the ESA is to qualify for landowner liability protections to CERCLA liability.

Please state reason for having ESA performed: We are evaluating each site for the development of a solar facility. Our banking partners require a Phase 1 ESA

Will ye	ou provide Property	Title R	ecords and a	Legal De	escription	to ECS?		
Pl€	ease select one:	NO		YES	X			
Will ye	ou provide a 50-year	chain	of title abstra	act to ECS	S?			
Pl€	ease select one:	NO	X	YES				
Please	e Send Information F	<u>Prompt</u>	lγ					
(1a.)	Environmental lien 1527-13 states that judicial records for forward the results of can obtain this inform know if you would like	the us environ f the la mation	ser should pe mental liens nd title record from a third p	erform a r or activity and judic arty provi	review of and use ial record der for an	recorded I limitations review. If y	and title red for the site ou would pr	cords and e. Please refer, ECS

Please select one: Client to Provide X ECS to Provide for Additional Fee

(1b.) Activity and use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Please select one: If yes, please explain:	ΝΟ Χ	YES	

(2.) Specialized knowledge - As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Please select one:	NO	Х	YES		
If yes, please explain:	Each of the properties h	ave b	een used for agricultural use	or as	long as anyone familiar with each site is aware.

- (3.) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:
- (a.) Do you know the past uses of the property?

Please select one: If yes, please state uses:	NO	X	YES	
(b.) Do you know of specific ch	emical	s that are pre	esent or	once were present at the property?
Please select one: If yes, please explain :	NO	X	YES	
(c.) Do you know of spills or oth Please select one: If yes, please explain:	ner che NO	emical releas	es that h YES	ave taken place at the property?

ENVIRONMENTAL QUESTIONNAIRE

(d.) Do you know of any enviro	onmenta	al cleanup	s that have	e taken place at the property?
Please select one: If yes, please explain:	NO	X	YES	
	FR 312	. 29). Do	es the pu	narket value of the property if it were not urchase price being paid for this property perty?
Please select one: If no, please explain:	NO		YES	X
If you are aware that there is known or believed to be prese Please select one: If yes, please explain : N/A				purchase price because contamination is
(5.) Parcel Property Owne	er(s) &	Contact N	lumber(s)):
A_ Caddo Mills Solar - Tony Gavin - 90	3-450-708	37		
B. Wieland Solar - Trevor Hand - 972-8				
C. Lone Oak Solar - Robin Pattison - 2	14-437-33	30		
D.				
Property Manager and O				
Property Manager: <u>N/A</u>				
Occupant/Tenant:				
Occupant/Tenant:				
property, and the abi CFR 312.31). As the u	lity to user of any ob	detect the this ESA, vious indic	e contami based on	T likely presence of contamination at the ination by appropriate investigation (40 your knowledge and experience related to t point to the presence or likely presence of
Please select one: If yes, please explain:	NO	X	YES	

Appendix III: Regulatory Records Documentation

Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.2s May 18, 2020

The EDR Radius Map[™] Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBC-GON

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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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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

FM 2101 QUINLAN, TX 75474

COORDINATES

Latitude (North):	32.9908570 - 32° 59' 27.08"
Longitude (West):	96.0557590 - 96° 3' 20.73''
Universal Tranverse Mercator:	Zone 14
UTM X (Meters):	775122.8
UTM Y (Meters):	3653933.2
Elevation:	509 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	
Version Date:	

2012 5939239 GREENVILLE SE, TX

5926052 WEST TAWAKONI, TX

Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

North Map:

Portions of Photo from:	20140724
Source:	USDA

DATABASE ACRONYMS

Target Property Address: FM 2101 QUINLAN, TX 75474

Click on Map ID to see full detail.

MAP ID

SITE NAME

RELATIVEDIST (ft. & mi.)ELEVATIONDIRECTION

NO MAPPED SITES FOUND

ADDRESS

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-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity
	Generators)

Federal institutional controls / engineering controls registries

LUCIS...... Land Use Control Information System

US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROLS	Institutional Controls Sites List

Federal ERNS list

ERNS_____ Emergency Response Notification System

State- and tribal - equivalent NPL

SHWS_____ State Superfund Registry

State and tribal landfill and/or solid waste disposal site lists

SWF/LF	Permitted Solid Waste Facilities
CLI	Closed Landfill Inventory
DEBRIS	DEBRIS
WASTE MGMT	Commercial Hazardous & Solid Waste Management Facilities

State and tribal leaking storage tank lists

INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
LPST	Leaking Petroleum Storage Tank Listing

State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
UST	Petroleum Storage Tank Database
AST	Petroleum Storage Tank Database
INDIAN UST	. Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

AUL..... Sites with Controls

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Database INDIAN VCP...... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS_____ Brownfields Site Assessments

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY	Recycling Facility Listing
	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations

ODI	Open Dump Inventory
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
PRIORITYCLEANERS	. Dry Cleaner Remediation Program Prioritization List
DEL SHWS	Deleted Superfund Registry Sites
US CDL	National Clandestine Laboratory Register
	PFAS Contamination Site Location Listing
CENTRAL REGISTRY	

Local Lists of Registered Storage Tanks

NON REGIST PST..... Petroleum Storage Tank Non Registered

Local Land Records

HIST LIENS	Environmental Liens Listing
LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	
	SPILLS 90 data from FirstSearch
SPILLS 80	. SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS DOD	RCRA - Non Generators / No Longer Regulated Formerly Used Defense Sites Department of Defense Sites
	State Coalition for Remediation of Drycleaners Listing
EPA WATCH LIST	
	. 2020 Corrective Action Program List
	Toxic Substances Control Act
	Toxic Chemical Release Inventory System
	Section 7 Tracking Systems
ROD	
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
	PCB Activity Database System
ICIS	Integrated Compliance Information System
	- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
MLTS	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
COAL ASH DOE	. Steam-Electric Plant Operation Data
	Coal Combustion Residues Surface Impoundments List
	PCB Transformer Registration Database
	Radiation Information Database

Financial Assurance Financial Assurance Information Listing GCC. Groundwater Contamination Cases IOP. Innocent Owner/Operator Program LEAD. LEAD Ind. Haz Waste Industrial & Hazardous Waste Database MSD. Municipal Settings Designations Database NPDES. NPDES Facility List RWS. Radioactive Waste Sites TIER 2. Tier 2 Chemical Inventory Reports UIC. Underground Injection Wells Database Listing IHW CORR ACTION. IHW CORR ACTION PST STAGE 2. PST Stage 2 COMP HIST. Compliance History Listing MINES MRDS. Mineral Resources Data System
MINES MRDS

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

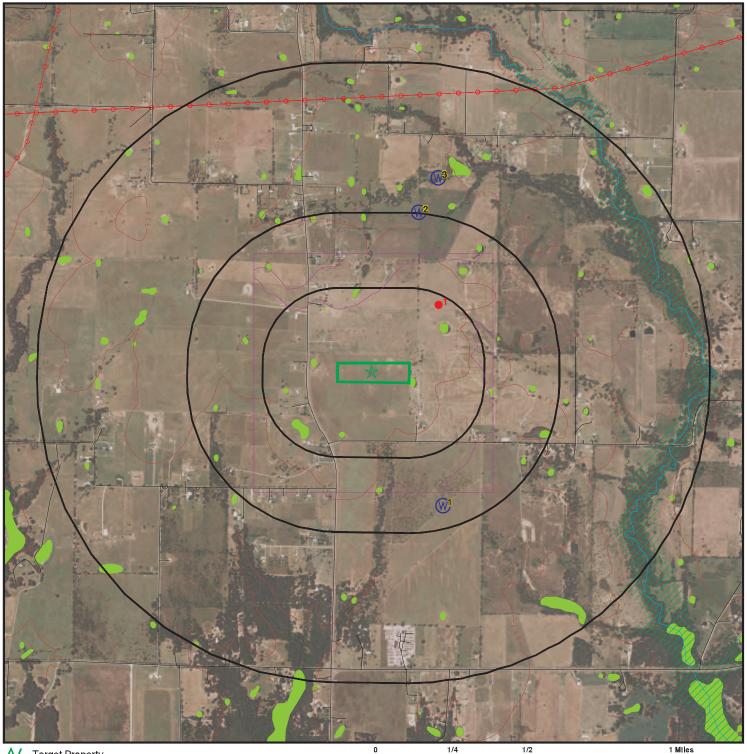
SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

There were no unmapped sites in this report.

OVERVIEW MAP - 6066748.2S



\mathcal{N} 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 Special Flood Hazard Area (1%) 0.2% Annual Chance Flood Hazard

1/4

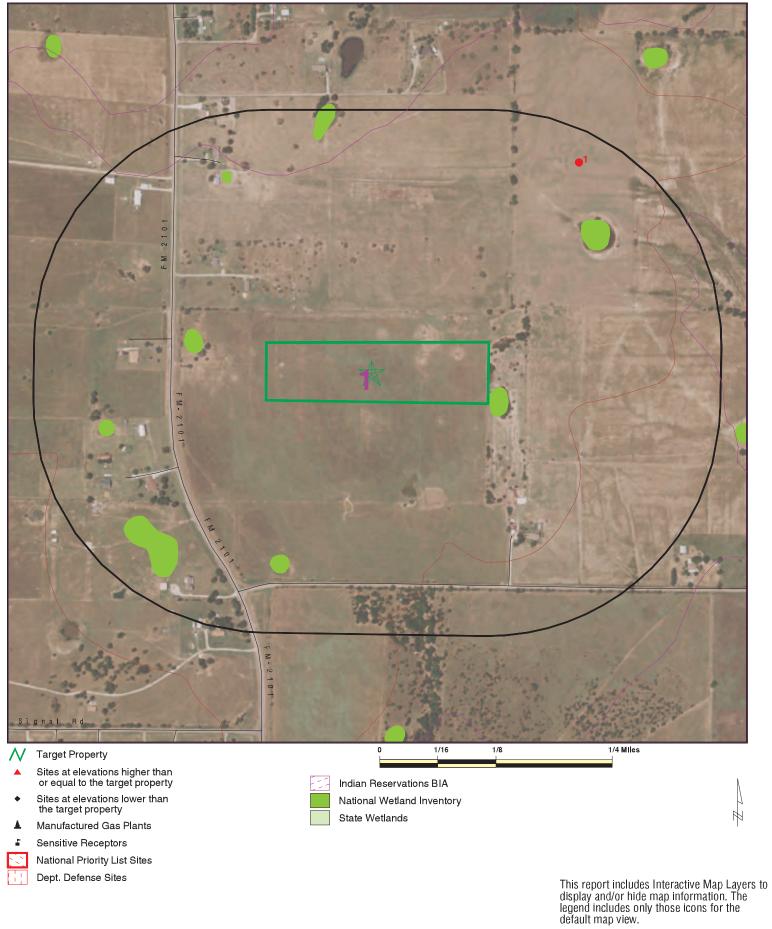
National Wetland Inventory State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

Ħ

SITE NAME: Wieland Solar ADDRESS: FM 2101 Quinlan TX 75474 LAT/LONG: 32.990857 / 96.055759 CLIENT: CONTACT: ECS Southwest, LLP Jared Hovland INQUIRY #: 6066748.2s DATE: May 18, 2020 1:49 pm Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 6066748.2S



SITE NAME:Wieland SolarCLIENT:ECS Southwest, LLPADDRESS:FM 2101CONTACT:Jared HovlandQuinlan TX 75474INQUIRY #:6066748.2sLAT/LONG:32.990857 / 96.055759DATE:May 18, 2020 1:50 pm

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Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cor engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equive	alent NPL							
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF CLI DEBRIS WASTE MGMT	0.500 0.500 0.500 TP		0 0 0 NR	0 0 0 NR	0 0 0 NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal leaking	storage tank l	ists						
INDIAN LUST	0.500		0	0	0	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LPST	0.500		0	0	0	NR	NR	0
State and tribal registere	ed storage ta	nk lists						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal institution control / engineering co		es						
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntar	y cleanup sit	es						
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie			0	0	0			0
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	NTAL RECORD	s						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites			-	-	-			-
SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardou Contaminated Sites	s waste /							
US HIST CDL CDL PRIORITYCLEANERS DEL SHWS US CDL PFAS CENTRAL REGISTRY	TP TP 0.500 1.000 TP 0.500 TP		NR NR 0 NR 0 NR	NR NR 0 NR 0 NR	NR NR 0 NR 0 NR	NR NR 0 NR NR NR	NR NR NR NR NR NR	0 0 0 0 0 0 0
Local Lists of Registere	d Storage Tai	nks						
NON REGIST PST	0.250		0	0	NR	NR	NR	0
Local Land Records								
HIST LIENS LIENS LIENS 2	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Records of Emergency	Release Repo	orts						
HMIRS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90 SPILLS 80	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST 2020 COR ACTION	0.250		NR 0	NR 0	NR NR	NR NR	NR NR	0 0
TSCA	0.250 TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	Õ
ROD	1.000		0	0	0	0	NR	Ō
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 MLTS	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 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	ŏ
RADINFO	TP		NR	NR	NR	NR	NR	Ō
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
	0.500					NR	NR	0
LEAD SMELTERS US AIRS	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	Ő	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	Õ
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
APAR	TP TP		NR	NR	NR	NR	NR	0
ASBESTOS COAL ASH	0.500		NR 0	NR 0	NR 0	NR NR	NR NR	0 0
DRYCLEANERS	0.300		0	0	NR	NR	NR	0
ED AQUIF	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	Ő
Financial Assurance	TP		NR	NR	NR	NR	NR	Õ
GCC	TP		NR	NR	NR	NR	NR	0

Database Distance Target (Miles) Property < 1/8 1/8 - 1/4 1/4 - 1/2 1/2 - 1 > 1	Total Plotted
IOP TP NR NR NR NR NR	0
LEAD TP NR NR NR NR NR	0
Ind. Haz Waste 0.250 0 0 NR NR NR	0
MSD 0.500 0 0 0 NR NR	0
NPDES TP NR NR NR NR NR	0
RWS TP NR NR NR NR NR	0
TIER 2 TP NR NR NR NR NR	0
UIC TP NR NR NR NR NR	0
IHW CORR ACTION 0.250 0 0 NR NR NR PST STAGE 2 0.250 0 0 NR NR NR	0
PST STAGE 2 0.250 0 0 NR NR	0 0
MINES MRDS TP NR NR NR NR NR NR	0
	0
EDR HIGH RISK HISTORICAL RECORDS	
EDR Exclusive Records	
EDR MGP 1.000 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
- Totals 0 0 0 0 0 0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Database(s) E

EDR ID Number EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
	_				

NO SITES FOUND

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: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: EPA Telephone: N/A Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/13/2020 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 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

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: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: EPA Telephone: N/A Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/13/2020 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.

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: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: EPA Telephone: N/A Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/13/2020 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: 04/03/2020 Next Scheduled EDR Contact: 07/13/2020 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 know 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: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

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: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/27/2020 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: 12/16/2019	Source: EPA
Date Data Arrived at EDR: 12/16/2019	Telephone: 800-424-9346
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 03/25/2020
Number of Days to Update: 4	Next Scheduled EDR Contact: 07/06/2020
	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: 12/16/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 12/20/2019 Number of Days to Update: 4 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 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: 12/16/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 12/20/2019 Number of Days to Update: 4 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

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: 12/16/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 12/20/2019 Number of Days to Update: 4 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly 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). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 12/20/2019 Number of Days to Update: 4

Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 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: 11/04/2019Source: Department of the NavyDate Data Arrived at EDR: 11/13/2019Telephone: 843-820-7326Date Made Active in Reports: 01/28/2020Last EDR Contact: 05/14/2020Number of Days to Update: 76Next Scheduled EDR Contact: 08/24/2020Data 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: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

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: 02/13/2020SoDate Data Arrived at EDR: 02/20/2020TeDate Made Active in Reports: 05/15/2020LaNumber of Days to Update: 85No

Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 05/15/2020 Next Scheduled EDR Contact: 09/07/2020 Data Release Frequency: Varies

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: 12/16/2019 Date Data Arrived at EDR: 12/19/2019 Date Made Active in Reports: 03/06/2020 Number of Days to Update: 78 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 03/24/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

SHWS: State Superfund Registry

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 12/31/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/30/2020	Telephone: 512-239-5680
Date Made Active in Reports: 04/14/2020	Last EDR Contact: 03/19/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Solid Waste 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: 01/27/2020 Date Data Arrived at EDR: 01/30/2020 Date Made Active in Reports: 04/14/2020 Number of Days to Update: 75 Source: Texas Commission on Environmental Quality Telephone: 512-239-6706 Last EDR Contact: 04/10/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Quarterly

DEBRIS: DEBRIS

A listing of temporary debris management sites and MSW landfills for debris resulting from Hurricane Harvey.

Date of Government Version: 03/27/2018	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 04/04/2018	Telephone: 512-239-6840
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 03/09/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 06/22/2020
	Data Release Frequency: Varies

H-GAC CLI: Houston-Galveston Closed Landfill Inventory

Closed Landfill Inventory for the Houston-Galveston Area Council Region. In 1993, the Texas Legislature passed House Bill (HB) 2537, which required Councils of Governments (COGs) to develop an inventory of closed municipal solid waste landfills for their regional solid waste management plans.

Date of Government Version: 09/30/2019 Date Data Arrived at EDR: 10/01/2019 Date Made Active in Reports: 12/06/2019 Number of Days to Update: 66 Source: Houston-Galveston Area Council Telephone: 832-681-2518 Last EDR Contact: 10/01/2019 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

CLI: Closed Landfill Inventory

Closed and abandoned landfills (permitted as well as unauthorized) across the state of Texas. For current information regarding any of the sites included in this database, contact the appropriate Council of Governments agency.

Date of Government Version: 08/30/1999	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 09/28/2000	Telephone: N/A
Date Made Active in Reports: 10/30/2000	Last EDR Contact: 03/23/2020
Number of Days to Update: 32	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Varies

WASTE MGMT: Commercial Hazardous & Solid Waste Management Facilities

This list contains commercial recycling facilities and facilities permitted or authorized (interim status) by the Texas Natural Resource Conservation Commission.

Date of Government Version: 10/16/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/10/2020	Telephone: 512-239-2920
Date Made Active in Reports: 03/18/2020	Last EDR Contact: 04/03/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Varies

State and tribal leaking storage tank lists

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-6597
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 04/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

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: 10/01/2019	Source: EPA Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 04/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
······································	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: 10/15/2019 Date Data Arrived at EDR: 12/17/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 55	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies
	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: 10/04/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/04/2019	Telephone: 415-972-3372
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 04/24/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 08/03/2020
	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: 10/03/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 72	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies	
INDIAN LUST R10: Leaking Underground Storage LUSTs on Indian land in Alaska, Idaho, Orego		
Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/23/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies	
INDIAN LUST R4: Leaking Underground Storage Ta LUSTs on Indian land in Florida, Mississippi ar		
Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 67	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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.		
Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies	
LPST: Leaking Petroleum Storage Tank Database An inventory of reported leaking petroleum storage tank incidents. Not all states maintain these records, and the information stored varies by state.		
Date of Government Version: 12/19/2019 Date Data Arrived at EDR: 01/03/2020 Date Made Active in Reports: 03/17/2020 Number of Days to Update: 74	Source: Texas Commission on Environmental Quality Telephone: 512-239-2200 Last EDR Contact: 03/17/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly	
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: 08/27/2019 Date Data Arrived at EDR: 08/28/2019 Date Made Active in Reports: 11/11/2019 Number of Days to Update: 75	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 03/19/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies	

UST: Petroleum Storage Tank Database

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: 11/05/2019 Date Data Arrived at EDR: 12/23/2019 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly	
AST: Petroleum Storage Tank Database Registered Aboveground Storage Tanks.		
Date of Government Version: 11/05/2019 Date Data Arrived at EDR: 12/23/2019 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly	
INDIAN UST R10: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).		
Date of Government Version: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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 Iand in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).		
Date of Government Version: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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 Iand in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)		
Date of Government Version: 10/10/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 67	Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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: 10/01/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68	Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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: 10/02/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68 Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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: 10/11/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/10/2020 Number of Days to Update: 68 Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

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: 10/03/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 72 Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 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: 10/04/2019 Date Data Arrived at EDR: 12/04/2019 Date Made Active in Reports: 02/27/2020 Number of Days to Update: 85 Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 04/24/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Sites with Controls

Activity and use limitations include both engineering controls and institutional controls.

Date of Government Version: 12/30/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/16/2020	Telephone: 512-239-5891
Date Made Active in Reports: 03/27/2020	Last EDR Contact: 03/23/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP RRC: Voluntary Cleanup Program Sites

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

Date of Government Version: 11/14/2019 Date Data Arrived at EDR: 01/02/2020 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 62 Source: Railroad Commission of Texas Telephone: 512-463-6969 Last EDR Contact: 04/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Sourc
Date Data Arrived at EDR: 04/22/2008	Telep
Date Made Active in Reports: 05/19/2008	Last E
Number of Days to Update: 27	Next \$
	D ()

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

VCP TCEQ: Voluntary Cleanup Program Database

The Texas Voluntary Cleanup Program was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas.

Date of Government Version: 01/02/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/03/2020	Telephone: 512-239-5891
Date Made Active in Reports: 03/18/2020	Last EDR Contact: 03/17/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Quarterly

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	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/18/2020
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site Assessments

Brownfield site assessments that are being cleaned under EPA grant monies.

Date of Government Version: 12/03/2019 Date Data Arrived at EDR: 01/02/2020 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 62 Source: TCEQ Telephone: 512-239-5872 Last EDR Contact: 04/01/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

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: 12/02/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 03/06/2020 Number of Days to Update: 81 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 03/17/2020 Next Scheduled EDR Contact: 06/29/2020 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

NCTCOG LI: North Central Landfill Inventory North Central Texas Council of Governments landfill database.		
Date of Government Version: 04/02/2019 Date Data Arrived at EDR: 04/04/2019 Date Made Active in Reports: 06/20/2019 Number of Days to Update: 77	Source: North Central Texas Council of Governments Telephone: 817-695-9223 Last EDR Contact: 03/16/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies	
CAPCOG LI: Capitol Area Landfill Inventory Permitted and unpermitted landfills for the CAF Hays, Lee, Llano, Travis, and Williamson Cour	PCOG region. Serving Bastrop, Blanco, Burnet, Caldwell, Fayette, nties.	
Date of Government Version: 01/06/2017 Date Data Arrived at EDR: 01/10/2017 Date Made Active in Reports: 03/15/2017 Number of Days to Update: 64	Source: Capital Area Council of Governments Telephone: 512-916-6000 Last EDR Contact: 04/03/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies	
SWRCY: Recycling Facility Listing A listing of recycling facilities in the state.		
Date of Government Version: 02/14/2020 Date Data Arrived at EDR: 02/14/2020 Date Made Active in Reports: 04/24/2020 Number of Days to Update: 70	Source: TCEQ Telephone: 512-239-6700 Last EDR Contact: 04/29/2020 Next Scheduled EDR Contact: 08/24/2020 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: 04/16/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies	
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.		
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: 04/09/2020 Next Scheduled EDR Contact: 08/03/2020 Data Release Frequency: No Update Planned	
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	
IHS OPEN DUMPS: Open Dumps on Indian Land A listing of all open dumps located on Indian L	and 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 Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 05/01/2020 Next Scheduled EDR Contact: 08/10/2020 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.

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/21/2020
Next Scheduled EDR Contact: 06/08/2020
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Site Locations Listing A listing of former clandestine drug site locations

Date of Government Version: 08/07/2017	Source: Department of Public Safety
Date Data Arrived at EDR: 08/15/2017	Telephone: 512-424-2144
Date Made Active in Reports: 05/11/2018	Last EDR Contact: 04/17/2020
Number of Days to Update: 269	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Varies

PRIORITY CLEANERS: Dry Cleaner Remediation Program Prioritization List A listing of dry cleaner related contaminated sites.

Date of Government Version: 09/01/2019 Date Data Arrived at EDR: 12/05/2019 Date Made Active in Reports: 02/05/2020 Number of Days to Update: 62 Source: Texas Commission on Environmenatl Quality Telephone: 512-239-5658 Last EDR Contact: 03/06/2020 Next Scheduled EDR Contact: 06/18/2108 Data Release Frequency: Varies

DEL SHWS: Deleted Superfund Registry Sites

Sites have been deleted from the state Superfund registry in accordance with the Act, ?361.189

Date of Government Version: 12/31/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/30/2020	Telephone: 512-239-0666
Date Made Active in Reports: 04/14/2020	Last EDR Contact: 03/19/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

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: 06/11/2019 Date Data Arrived at EDR: 06/13/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 82 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 02/21/2020 Next Scheduled EDR Contact: 06/08/2020 Data Release Frequency: Quarterly

CENTRAL REGISTRY: The Central Registry

The Central Registry, a common record area of the TCEQ, maintains information about TCEQ customers and regulated activities, such as company names, addresses, and telephone numbers. This information is commonly referred to as a??core data.a?? The Central Registry provides the regulated community with a central access point within the agency to check core data and make changes when necessary.

Date of Government Version: 01/03/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/07/2020	Telephone: 512-239-5175
Date Made Active in Reports: 02/19/2020	Last EDR Contact: 03/23/2020
Number of Days to Update: 43	Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 09/27/2019 Date Data Arrived at EDR: 09/30/2019 Date Made Active in Reports: 12/06/2019 Number of Days to Update: 67 Source: Texas Commission on Environmental Quality Telephone: 512-239-2341 Last EDR Contact: 02/24/2020 Next Scheduled EDR Contact: 06/15/2020 Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

NON REGIST PST: Petroleum Storage Tank Non Registered A listing of non-registered petroleum storage tank site locations.

Date of Government Version: 11/11/2019Source: Texas Commission on Environmental QualityDate Data Arrived at EDR: 11/13/2019Telephone: 512-239-2081Date Made Active in Reports: 01/16/2020Last EDR Contact: 05/04/2020Number of Days to Update: 64Next Scheduled EDR Contact: 08/17/2020Date Release Frequency: Quarterly

Local Land Records

HIST LIENS: Environmental Liens Listing

This listing contains information fields that are no longer tracked in the LIENS database.

Date of Government Version: 03/23/2007	Source: Texas Commission on Environmental Qualilty
Date Data Arrived at EDR: 03/23/2007	Telephone: 512-239-2209
Date Made Active in Reports: 05/02/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

The listing covers TCEQ liens placed against either State Superfund sites or Federal Superfund sites to recover cost incurred by TCEQ.

Date of Government Version: 01/02/2020 Date Data Arrived at EDR: 01/16/2020 Date Made Active in Reports: 03/27/2020 Number of Days to Update: 71 Source: Texas Commission on Environmental Quality Telephone: 512-239-2209 Last EDR Contact: 03/23/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Varies

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.

Date of Government Version: 01/30/2020 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 02/14/2020 Number of Days to Update: 9 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/13/2020 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: 12/05/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/06/2019	Telephone: 202-366-4555
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/24/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/06/2020
· ·	Data Release Frequency: Quarterly

SPILLS: Spills Database

Spills reported to the Emergency Response Division.

Date of Government Version: 08/09/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 08/14/2019	Telephone: 512-239-2507
Date Made Active in Reports: 11/01/2019	Last EDR Contact: 04/02/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/23/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/07/2013 Number of Days to Update: 63 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 05/15/2005Source: FirstSearchDate Data Arrived at EDR: 01/03/2013Telephone: N/ADate Made Active in Reports: 03/07/2013Last EDR Contact: 01/03/2013Number of Days to Update: 63Next Scheduled EDR Contact: N/AData Release Frequency: No Update Planned

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: 12/16/2019 Date Data Arrived at EDR: 12/16/2019 Date Made Active in Reports: 12/20/2019 Number of Days to Update: 4 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 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: 01/28/2020	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 02/19/2020	Telephone: 202-528-4285
Date Made Active in Reports: 05/14/2020	Last EDR Contact: 02/19/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 06/01/2020
	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: 04/10/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Semi-Annually

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: 04/02/2018 Date Data Arrived at EDR: 04/11/2018 Date Made Active in Reports: 11/06/2019 Number of Days to Update: 574 Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 04/06/2020 Next Scheduled EDR Contact: 07/20/2020 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 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 05/15/2020 Next Scheduled EDR Contact: 08/24/2020 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: 12/16/2019 Date Data Arrived at EDR: 12/19/2019 Date Made Active in Reports: 02/27/2020 Number of Days to Update: 70 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 03/24/2020 Next Scheduled EDR Contact: 07/06/2020 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 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 05/04/2020 Next Scheduled EDR Contact: 08/17/2020 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 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 05/08/2020 Next Scheduled EDR Contact: 08/17/2020 Data Release Frequency: Varies

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 Date Data Arrived at EDR: 06/21/2017 Date Made Active in Reports: 01/05/2018 Number of Days to Update: 198 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 03/20/2020 Next Scheduled EDR Contact: 06/29/2020 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: 12/31/2018 Date Data Arrived at EDR: 02/05/2020 Date Made Active in Reports: 04/24/2020 Number of Days to Update: 79 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 02/05/2020 Next Scheduled EDR Contact: 06/01/2020 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: 05/01/2019Source: EPADate Data Arrived at EDR: 10/23/2019Telephone: 202-564-4203Date Made Active in Reports: 01/15/2020Last EDR Contact: 04/21/2020Number of Days to Update: 84Next Scheduled EDR Contact: 08/03/2020Data 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: 01/30/2020	5
Date Data Arrived at EDR: 02/05/2020	٦
Date Made Active in Reports: 02/14/2020	L
Number of Days to Update: 9	1

Source: EPA Telephone: 703-416-0223 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 06/15/2020 Data Release Frequency: Annually

RMP: Risk Management Plans

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: 11/05/2019 Date Data Arrived at EDR: 11/20/2019 Date Made Active in Reports: 04/17/2020 Number of Days to Update: 149 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 04/15/2020 Next Scheduled EDR Contact: 08/03/2020 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 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 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: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 05/06/2020
Number of Days to Update: 8	Next Scheduled EDR Contact: 08/17/2020
	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: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 04/10/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/20/2020
	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 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Quarterly

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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

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	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

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: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 04/10/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/03/2020
	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: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 03/06/2020
Number of Days to Update: 42	Next Scheduled EDR Contact: 06/15/2020
	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: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 02/27/2020 Next Scheduled EDR Contact: 06/15/2020 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: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/08/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 08/17/2020
	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.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 07/01/2019 Next Scheduled EDR Contact: 07/13/2020 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 Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/28/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/10/2020
	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: 12/31/2019	
Date Data Arrived at EDR: 01/17/2020	
Date Made Active in Reports: 03/06/2020	
Number of Days to Update: 49	

Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 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: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Biennially

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: 04/10/2020
Number of Days to Update: 546	Next Scheduled EDR Contact: 07/20/2020
	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	
Date Data Arrived at EDR: 09/11/2018	
Date Made Active in Reports: 09/14/2018	
Number of Days to Update: 3	

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 04/29/2020 Next Scheduled EDR Contact: 08/17/2020 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: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 74 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 02/21/2020 Next Scheduled EDR Contact: 06/01/2020 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020SourceDate Data Arrived at EDR: 02/05/2020TelephDate Made Active in Reports: 02/14/2020Last EINumber of Days to Update: 9Next S

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 05/06/2020 Next Scheduled EDR Contact: 07/13/2020 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 1931and 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 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 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.

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
MINES VIOLATIONS: MSHA Violation Assessmer Mines violation and assessment information.	nt Data Department of Labor, Mine Safety & Health Administration.
Date of Government Version: 12/03/2019 Date Data Arrived at EDR: 12/03/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 56	Source: DOL, Mine Safety & Health Admi Telephone: 202-693-9424 Last EDR Contact: 03/02/2020 Next Scheduled EDR Contact: 06/15/2020 Data Release Frequency: Quarterly
US MINES: Mines Master Index File Contains all mine identification numbers issue violation information.	ed for mines active or opened since 1971. The data also includes
Date of Government Version: 11/06/2019 Date Data Arrived at EDR: 11/25/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 64	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 02/25/2020 Next Scheduled EDR Contact: 06/08/2020 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: 02/28/2020 Next Scheduled EDR Contact: 06/08/2020 Data Release Frequency: Varies
US MINES 3: Active Mines & Mineral Plants Datab Active Mines and Mineral Processing Plant op of the USGS.	base Listing berations for commodities monitored by the Minerals Information Team
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: 02/28/2020 Next Scheduled EDR Contact: 06/08/2020 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: 12/09/2019 Date Data Arrived at EDR: 12/11/2019 Date Made Active in Reports: 02/27/2020 Number of Days to Update: 78

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 03/05/2020 Next Scheduled EDR Contact: 06/22/2020 Data Release Frequency: Quarterly

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: 11/22/2019 Source: EPA Date Data Arrived at EDR: 12/04/2019 Telephone: (214) 665-2200 Date Made Active in Reports: 03/02/2020 Last EDR Contact: 03/03/2020 Next Scheduled EDR Contact: 06/15/2020 Number of Days to Update: 89 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: 02/21/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/03/2020
Next Scheduled EDR Contact: 07/27/2020
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: 01/05/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/07/2020	Telephone: 202-564-2280
Date Made Active in Reports: 03/06/2020	Last EDR Contact: 04/07/2020
Number of Days to Update: 59	Next Scheduled EDR Contact: 07/20/2020
	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: 02/18/2020 Date Data Arrived at EDR: 02/19/2020 Date Made Active in Reports: 05/14/2020 Number of Days to Update: 85

Source: EPA Telephone: 800-385-6164 Last EDR Contact: 02/19/2020 Next Scheduled EDR Contact: 06/01/2020 Data Release Frequency: Quarterly

AIRS: Current Emission Inventory Data

The database lists by company, along with their actual emissions, the TNRCC air accounts that emit EPA criteria pollutants.

Date of Government Version: 01/16/2020 Date Data Arrived at EDR: 01/22/2020 Date Made Active in Reports: 04/03/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: N/A Last EDR Contact: 03/09/2020 Next Scheduled EDR Contact: 06/22/2020 Data Release Frequency: Semi-Annually
APAR: Affected Property Assessment Report Site L Listing of Sites That Have Received an APAR	-
Date of Government Version: 01/07/2020 Date Data Arrived at EDR: 01/15/2020 Date Made Active in Reports: 03/27/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: 512-239-5872 Last EDR Contact: 03/26/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Varies
ASBESTOS: Asbestos Notification Listing A listing of asbestos notification site locations.	
Date of Government Version: 02/07/2020 Date Data Arrived at EDR: 02/21/2020 Date Made Active in Reports: 04/30/2020 Number of Days to Update: 69	Source: Department of State Health Services Telephone: 512-834-6787 Last EDR Contact: 05/07/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies
COAL ASH: Coal Ash Disposal Sites A listing of facilities that use surface impoundm	ents or landfills to dispose of coal ash.
Date of Government Version: 04/30/2019 Date Data Arrived at EDR: 05/02/2019 Date Made Active in Reports: 06/28/2019 Number of Days to Update: 57	Source: Texas Commission on Environmental Quality Telephone: 512-239-6624 Last EDR Contact: 04/17/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies
DRYCLEANERS: Drycleaner Registration Database A listing of drycleaning facilities.	e Listing
Date of Government Version: 02/06/2020 Date Data Arrived at EDR: 02/26/2020 Date Made Active in Reports: 04/14/2020 Number of Days to Update: 48	Source: Texas Commission on Environmental Quality Telephone: 512-239-2160 Last EDR Contact: 02/26/2020 Next Scheduled EDR Contact: 06/08/2020 Data Release Frequency: Varies
ED AQUIF: Edwards Aquifer Permits A listing of permits in the Edwards Aquifer Prot located in the Austin Region (Hays, Travis, and	ection Program database. The information provided is for the counties I Williamson counties).
Date of Government Version: 01/13/2020 Date Data Arrived at EDR: 01/23/2020 Date Made Active in Reports: 04/03/2020 Number of Days to Update: 71	Source: Texas Commission on Environmental Quality, Austin Region Telephone: 512-339-2929 Last EDR Contact: 03/19/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Varies
ENFORCEMENT: Notice of Violations Listing A listing of permit violations.	
Date of Government Version: 01/14/2020 Date Data Arrived at EDR: 01/16/2020 Date Made Active in Reports: 04/09/2020 Number of Days to Update: 84	Source: Texas Commission on Environmental Quality Telephone: 512-239-6012 Last EDR Contact: 03/23/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing Financial assurance information.

Date of Government Version: 12/18/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/03/2020	Telephone: 512-239-6239
Date Made Active in Reports: 03/17/2020	Last EDR Contact: 03/16/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

Financial Assurance information for underground storage tank 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: 11/05/2019 Date Data Arrived at EDR: 12/23/2019 Date Made Active in Reports: 03/04/2020 Number of Days to Update: 72

Source: Texas Commission on Environmental Quality Telephone: 512-239-0986 Last EDR Contact: 03/25/2020 Next Scheduled EDR Contact: 07/06/2020 Data Release Frequency: Quarterly

GCC: Groundwater Contamination Cases

Texas Water Code, Section 26.406 requires the annual report to describe the current status of groundwater monitoring activities conducted or required by each agency at regulated facilities or associated with regulated activities. The report is required to contain a description of each case of groundwater contamination documented during the previous calendar year. Also to be included, is a description of each case of contamination documented during previous periods for which voluntary clean up action was incomplete at the time the preceding report was issued. The report is also required to indicate the status of enforcement action for each listed case.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 09/06/2019 Date Made Active in Reports: 11/15/2019 Number of Days to Update: 70

Source: Texas Commission on Environmental Quality Telephone: 512-239-5690 Last EDR Contact: 02/28/2020 Next Scheduled EDR Contact: 06/08/2020 Data Release Frequency: Annually

IOP: Innocent Owner/Operator Program

Contains information on all sites that are in the IOP. An IOP is an innocent owner or operator whose property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination.

Date of Government Version: 01/03/2020 Date Data Arrived at EDR: 01/03/2020 Date Made Active in Reports: 03/17/2020 Number of Days to Update: 74

Source: Texas Commission on Environmental Quality Telephone: 512-239-5894 Last EDR Contact: 03/17/2020 Next Scheduled EDR Contact: 07/13/2020 Data Release Frequency: Quarterly

LEAD: Lead Inspection Listing Lead inspection sites

Date of Government Version: 02/07/2020 Date Data Arrived at EDR: 02/21/2020 Date Made Active in Reports: 04/30/2020 Number of Days to Update: 69

Source: Department of State Health Services Telephone: 512-834-6600 Last EDR Contact: 05/07/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Varies

Ind. Haz Waste: Industrial & Hazardous Waste Database

Summary reports reported by waste handlers, generators and shippers in Texas.

Date of Government Version: 11/05/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/15/2020	Telephone: 512-239-0985
Date Made Active in Reports: 03/31/2020	Last EDR Contact: 04/15/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Annually

MSD: Municipal Settings Designations Database

An MSD is an official state designation given to property within a municipality or its extraterritorial jurisdiction that certifies that designated groundwater at the property is not use as potable water, and is prohibited from future use as potatable water because that groundwater is contaminated in excess of the applicable potable-water protective concentration level.

Date of Government Version: 01/03/2020 Date Data Arrived at EDR: 01/07/2020 Date Made Active in Reports: 03/17/2020 Number of Days to Update: 70	Source: Texas Commission on Environmental Quality Telephone: 512-239-4982 Last EDR Contact: 04/17/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Varies
NPDES: NPDES Facility List Permitted wastewater outfalls.	
Date of Government Version: 02/10/2020 Date Data Arrived at EDR: 02/12/2020 Date Made Active in Reports: 04/24/2020 Number of Days to Update: 72	Source: Texas Commission on Environmental Quality Telephone: 512-239-4591 Last EDR Contact: 05/13/2020 Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Varies
RWS: Radioactive Waste Sites Sites in the State of Texas that have been designated as Radioactive Waste sites.	
Date of Government Version: 07/24/2006 Date Data Arrived at EDR: 12/14/2006 Date Made Active in Reports: 01/23/2007 Number of Days to Update: 40	Source: Texas Commission on Environmental Quality Telephone: 512-239-0859 Last EDR Contact: 05/15/2020 Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: Semi-Annually
TIER 2: Tier 2 Chemical Inventory Reports A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.	
Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 06/07/2013 Date Made Active in Reports: 07/22/2013 Number of Days to Update: 45	Source: Department of State Health Services Telephone: 512-834-6603 Last EDR Contact: 05/07/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Annually
UIC: Underground Injection Wells Database Listing Class V injection wells regulated by the TCEQ. Class V wells are used to inject non-hazardous fluids underground. Most Class V wells are used to dispose of wastes into or above underground sources of drinking water and can pose a threat to ground water quality, if not managed properly.	
Date of Government Version: 11/06/2019 Date Data Arrived at EDR: 11/07/2019 Date Made Active in Reports: 01/16/2020 Number of Days to Update: 70	Source: Texas Commission on Environmental Quality Telephone: 512-239-6627 Last EDR Contact: 04/13/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Varies
IHW CORR ACTION: IHW CORR ACTION	

Industrial hazardous waste facilities with corrective actions.

Date of Government Version: 01/03/2020	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 01/07/2020	Telephone: 512-239-5872
Date Made Active in Reports: 03/17/2020	Last EDR Contact: 03/23/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Varies

PST STAGE 2: PST Stage 2

State II Vapor Recovery. Decommissioning of Stage II Rule - Gasoline dispensing facilities (GDFs) may begin the process of removing Stage II equipment on May 16, 2014 providing that all other requirements for decommissioning have been met, including appropriate notification.

Date of Government Version: 07/17/2019	Source: Texas Commission on Environmental Quality
Date Data Arrived at EDR: 07/18/2019	Telephone: 512-239-2160
Date Made Active in Reports: 09/24/2019	Last EDR Contact: 03/27/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Varies

COMP HIST: Compliance History Listing

A listing of compliance histories of regulated entities

Date of Government Version: 11/19/2019	Source: Txas Commission on Environmental Quality
Date Data Arrived at EDR: 11/25/2019	Telephone: 512-239-3282
Date Made Active in Reports: 02/04/2020	Last EDR Contact: 02/28/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 06/08/2020
	Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System Mineral Resources Data System

> Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019 Number of Days to Update: 3

Source: USGS Telephone: 703-648-6533 Last EDR Contact: 02/28/2020 Next Scheduled EDR Contact: 06/08/2020 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.

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 Texas Commission of Environmental Quality in Texas formerly known as Texas Natural Resources Conservation Commission which changed in 2002.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/26/2013 Number of Days to Update: 178 Source: Texas Commission on 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 Texas Commission of Environmental Quality in Texas formerly known as Texas Natural Resources Conservation Commission which changed in 2002.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014 Number of Days to Update: 196 Source: Texas Commission on Environmental Quality Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

COUNTY RECORDS

TRAVIS COUNTY:

HIST UST AUSTIN: Historic Tank Records A listing of historic records from the City of Austin.

> Date of Government Version: 06/25/2012 Date Data Arrived at EDR: 06/29/2012 Date Made Active in Reports: 08/23/2012 Number of Days to Update: 55

Source: Department of Planning & Development Review Telephone: 512-974-2715 Last EDR Contact: 03/02/2020 Next Scheduled EDR Contact: 06/15/2020 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: 01/30/2020 Date Data Arrived at EDR: 01/30/2020 Date Made Active in Reports: 03/09/2020 Number of Days to Update: 39	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 05/12/2020 Next Scheduled EDR Contact: 08/24/2020 Data Release Frequency: No Update Planned
NJ MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019 Number of Days to Update: 36	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 04/10/2020 Next Scheduled EDR Contact: 07/20/2020 Data Release Frequency: Annually
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 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 06/21/2019 Number of Days to Update: 51	Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 04/29/2020 Next Scheduled EDR Contact: 08/10/2020 Data Release Frequency: Quarterly
PA MANIFEST: Manifest Information Hazardous waste manifest information.	
Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019 Number of Days to Update: 53	Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 04/02/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Annually
RI MANIFEST: Manifest information Hazardous waste manifest information	
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 10/02/2019 Date Made Active in Reports: 12/10/2019 Number of Days to Update: 69	Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 05/14/2020 Next Scheduled EDR Contact: 08/31/2020 Data Release Frequency: Annually
VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.	
Date of Government Version: 10/28/2019 Date Data Arrived at EDR: 10/29/2019 Date Made Active in Reports: 01/09/2020 Number of Days to Update: 72	Source: Department of Environmental Conservation Telephone: 802-241-3443 Last EDR Contact: 04/03/2020 Next Scheduled EDR Contact: 07/27/2020 Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information Hazardous waste manifest information.

Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 76 Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 03/09/2020 Next Scheduled EDR Contact: 06/22/2020 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

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 Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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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.

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: Child Care Facility List

Source: Department of Protective & Regulatory Services

Telephone: 512-438-3269

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

State Wetlands Data: Wetland Inventory Source: Texas General Land Office Telephone: 512-463-0745

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

WIELAND SOLAR FM 2101 QUINLAN, TX 75474

TARGET PROPERTY COORDINATES

Latitude (North):	32.990857 - 32° 59' 27.09"
Longitude (West):	96.055759 - 96° 3' 20.73"
Universal Tranverse Mercator:	Zone 14
UTM X (Meters):	775122.8
UTM Y (Meters):	3653933.2
Elevation:	509 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5926052 WEST TAWAKONI, TX
Version Date:	2012
North Map:	5939239 GREENVILLE SE, TX
Version Date:	2013

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:

- Groundwater flow direction, and
 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.

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).

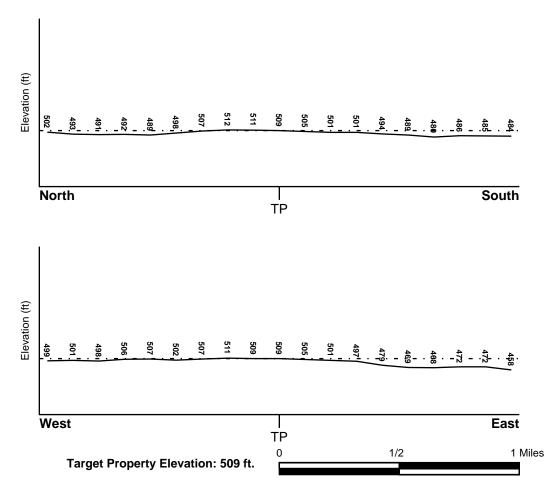
TOPOGRAPHIC INFORMATION

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 SE

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.

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

Flood Plain Panel at Target Property	FEMA Source Type
48231C0525G	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
48231C0400G	FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
NWI Quad at Target Property NOT AVAILABLE	NWI Electronic <u>Data Coverage</u> 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.

Site-Specific Hydrogeological Data*:			
Search Radius:	1.25 miles		
Status:	Not found		

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.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

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.

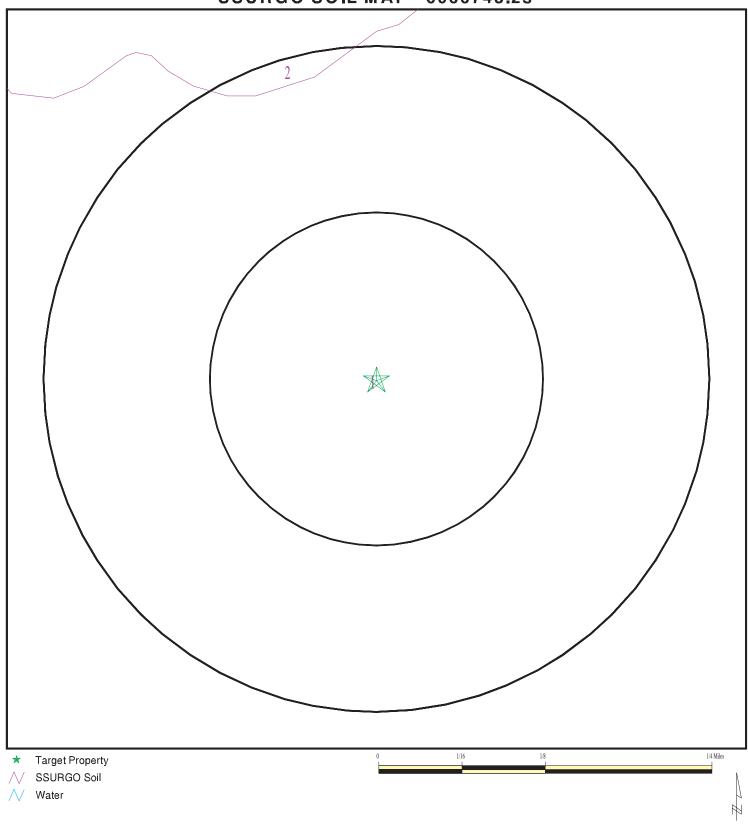
ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Mesozoic Ca	ategory:	Stratified Sequence
System:	Cretaceous		
Series:	Navarro Group		
Code:	uK4 (decoded above as Era, System & Series))	

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).





ADDRESS	: FM 2101 Quinlan TX 75474	CLIENT: ECS Southwest, LLP CONTACT: Jared Hovland INQUIRY #: 6066748.2s DATE: May 18, 2020 1:51 pm
		Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.

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:	Crockett
Soil Surface Texture:	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:	Moderately well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

	Soil Layer Information						
	Boundary			Classification		Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	7 inches	loam	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
2	7 inches	11 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
3	11 inches	40 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
4	40 inches	53 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	53 inches	64 inches	stratified loam to clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1

Soil Map ID: 2	
Soil Component Name:	Crockett
Soil Surface Texture:	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:	Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
Boundary			Classi	Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	3 inches	loam	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
2	3 inches	11 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
3	11 inches	31 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
4	31 inches	40 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1
5	40 inches	59 inches	stratified loam to clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 8.4 Min: 6.1

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

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
······		

No Wells Found

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

LOCATION MAP ID FROM TP WELL ID

TC6066748.2s Page A-7

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

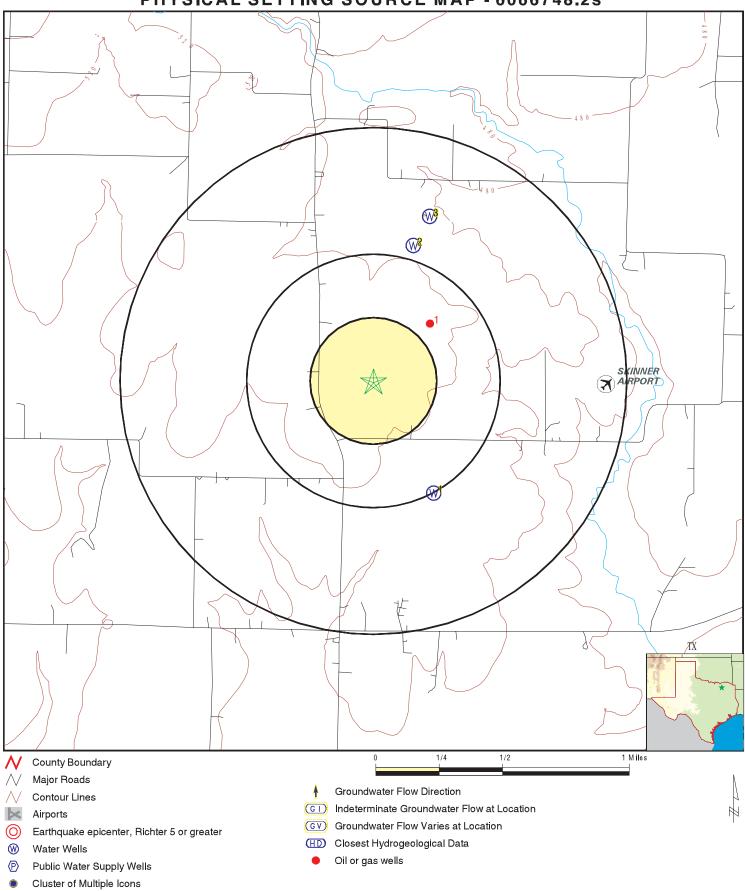
MAP ID	WELL ID	LOCATION FROM TP
1	TXMON5000293774	1/2 - 1 Mile SSE
2	TXMON5000402110	1/2 - 1 Mile NNE
3	TXMON5000236407	1/2 - 1 Mile NNE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
1	TXOG70000670021	1/4 - 1/2 Mile NE

PHYSICAL SETTING SOURCE MAP - 6066748.2s



ADDRESS:	Wieland Solar FM 2101 Quinlan TX 75474 32.990857 / 96.055759	CLIENT: ECS Southwest, LLP CONTACT: Jared Hovland INQUIRY #: 6066748.2s DATE: May 18, 2020 1:50 pm	
		Copyright © 2020 EDR, Inc. © 2015 TomTom Rel. 2015.	

Map ID Direction				
Distance Elevation			Database	EDR ID Number
1 SSE 1/2 - 1 Mile Lower			TX WELLS	TXMON5000293774
Database: Well Rpt #: Proposed Use: Injurious Water Quality:	Submitted Drillers Reports Da 297876 Domestic no	atabase (Monitoring) Well Type: Borehole Depth (ft): Plugging Rpt #:	New 315 Not F	Well Reported
Submitted Date: Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	2012-09-07 Not Reported 469 Not Reported Domestic Not Reported 2012-07-11 Other - trimmie tube 300 500 Not Reported Not Reported Not Reported Submersible 240.00 No Melvin T Wade No 2892	Owner Name: # Wells Drilled: Type of Work: Original Well Rpt Track # Proposed Use Desc: PWS #: Drill End Date: Seal Method Desc: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #:	Not F New Not F Not F 2012 trimn Not F Not F Not F Not F No Wad Not F	rizmendi Reported Well Reported Reported Reported -07-13 nie tube Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported Reported
Details Reports For: Top Depth: Details Reports For:	Well Bore Hole 0 Well Drilling Method	Diameter: Bottom Depth: Drill Method:	8 320	(Hydraulic) Rotary
Details Reports For:	Well Completion	Borehole Completion:		Packed
Details Reports For: Top Depth: Size:	Well Filter 280 1/8	Filter Material: Bottom Depth:	Grav 320	el
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 Not Reported	Top Depth: Annular Seal: Unit:	•	tland Reported
Details Reports For: Bottom Depth: Amount:	Well Seal Range 280 Not Reported	Top Depth: Annular Seal: Unit:		rtland Reported
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2012-07-13 Unknown	Measurement: Artesian Flow:	80 Not F	Reported

Details Reports For: Yield: Hours:	Well Test 18 6	Test Type: Drawdown:	Pump 200
Details Reports For: Top Depth: Lithology:	Well Lithology 2 brown clay	Migrated Sort #: Bottom Depth:	0 7
Details Reports For: Top Depth: Lithology:	Well Lithology 2 sand	Migrated Sort #: Bottom Depth:	0 2
Details Reports For: Top Depth: Lithology:	Well Lithology 7 yellow clay	Migrated Sort #: Bottom Depth:	0 55
Details Reports For: Top Depth: Lithology:	Well Lithology 55 gray shale	Migrated Sort #: Bottom Depth:	0 130
Details Reports For: Top Depth: Lithology:	Well Lithology 130 hard rock	Migrated Sort #: Bottom Depth:	0 130
Details Reports For: Top Depth: Lithology:	Well Lithology 130 gray shale	Migrated Sort #: Bottom Depth:	0 290
Details Reports For: Top Depth: Lithology:	Well Lithology 290 sand streaks	Migrated Sort #: Bottom Depth:	0 320
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing Not Reported 4 new schule 40 pvc 0-295 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	1 Not Reported Not Reported Not Reported Not Reported
Details Reports For: Top Depth: Migrated Casing Info: Diameter: Casing Material: Schedule:	Well Casing Not Reported 4 new sand screen pvc 295-315 #18 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Casing Status: Casing Type: Gauge:	2 Not Reported Not Reported Not Reported

Map ID Direction				
Distance Elevation			Database	EDR ID Number
2 NNE 1/2 - 1 Mile Lower			TX WELLS	TXMON5000402110
Database: Well Rpt #: Proposed Use: Injurious Water Quality:	Submitted Drillers Reports Data 408195 Domestic no	base (Monitoring) Well Type: Borehole Depth (ft): Plugging Rpt #:	New 316 Not F	Well Reported
Submitted Date: Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	2015-11-03 Not Reported Not Reported Domestic Not Reported 2015-10-14 Tremie 1000 1500 Not Reported Not Reported Not Reported Jet 316.00 No Melvin T Wade No 2892	Owner Name: # Wells Drilled: Type of Work: Original Well Rpt Track # Proposed Use Desc: PWS #: Drill End Date: Seal Method Desc: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #:	1 New Not F Not F 2015 Not F 1200 Not F Yes Surfa Yes Not F No Wad Not F	Reported Reported -10-16 Reported
Details Reports For: Top Depth:	Well Bore Hole 0	Diameter: Bottom Depth:	8 320	
Details Reports For:	Well Drilling Method	Drill Method:	Mud	(Hydraulic) Rotary
Details Reports For:	Well Completion	Borehole Completion:	Scre	ened
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 1	Top Depth: Annular Seal: Unit:	0 Cem Bags	ent /Sacks
Details Reports For: Bottom Depth: Amount:	Well Seal Range 230 3	Top Depth: Annular Seal: Unit:	200 Cem Bags	ent /Sacks
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2015-10-16 Steel Tape	Measurement: Artesian Flow:	80 Not F	Reported
Details Reports For: Yield: Hours:	Well Test 25 4	Test Type: Drawdown:	Jette 150	d

Details Reports For: Top Depth: Water Type:	Well Strata 230 Not Reported	Migrated Strata Depth: Bottom Depth:	Not Reported 320
Details Reports For: Top Depth: Lithology:	Well Lithology 0 sandy soil	Migrated Sort #: Bottom Depth:	0 1
Details Reports For: Top Depth: Lithology:	Well Lithology 1 red clay	Migrated Sort #: Bottom Depth:	0 7
Details Reports For: Top Depth: Lithology:	Well Lithology 7 tan clay	Migrated Sort #: Bottom Depth:	0 42
Details Reports For: Top Depth: Lithology:	Well Lithology 42 gray shale	Migrated Sort #: Bottom Depth:	0 190
Details Reports For: Top Depth: Lithology:	Well Lithology 190 rock	Migrated Sort #: Bottom Depth:	0 190
Details Reports For: Top Depth: Lithology:	Well Lithology 190 sand	Migrated Sort #: Bottom Depth:	0 230
Details Reports For: Top Depth: Lithology:	Well Lithology 230 gray shale	Migrated Sort #: Bottom Depth:	0 240
Details Reports For: Top Depth: Lithology:	Well Lithology 240 rock	Migrated Sort #: Bottom Depth:	0 240
Details Reports For: Top Depth: Lithology:	Well Lithology 240 sand	Migrated Sort #: Bottom Depth:	0 250
Details Reports For: Top Depth: Lithology:	Well Lithology 250 gray shale	Migrated Sort #: Bottom Depth:	0 280
Details Reports For: Top Depth: Lithology:	Well Lithology 280 rock	Migrated Sort #: Bottom Depth:	0 290
Details Reports For: Top Depth:	Well Lithology 290	Migrated Sort #: Bottom Depth:	0 320

Lithology:	sand		
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing 0 Not Reported New Blank Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	0 300 4 Plastic (PVC) 40
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing 300 Not Reported New Screen 0.17999999999999999999	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	0 320 4 Plastic (PVC) 40
3 NNE 1/2 - 1 Mile Lower		TX W	ELLS TXMON5000236407
Database: Well Rpt #: Proposed Use: Injurious Water Quality:	Submitted Drillers Reports Datab 239772 Domestic no	ase (Monitoring) Well Type: Borehole Depth (ft): Plugging Rpt #:	New Well 300 Not Reported
Submitted Date: Well #: Elevation: Work Type Desc: Proposed Use: TCEQ Approved Plans: Drill Start Date: Seal Method: Seal Method Desc: Distance to Septic Tank: Distance Verify Meth: Sealed by Driller: Surface Completion: Completed by Driller: Pump Type Desc: Chemical Analysis: Company Name: Comments: Plugging Rpt Tracking #: Apprentice Reg #:	2011-01-01 Not Reported 496 Not Reported Domestic Not Reported 2010-11-08 Other - pump trimming tube pump trimming tube Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported No Wade"s water well LLC Not Reported Not Reported Sc281	Owner Name: # Wells Drilled: Type of Work: Original Well Rpt Track #: Proposed Use Desc: PWS #: Drill End Date: Dist to Septic/Other Contam: Dist to Property Line: Approved by Variance: Sealed by Name: Surf Complete Desc: Pump Type: Pump Depth: Injurious Water: Driller Name: Plugged within 48 hrs: Driller License #:	Pepi Salazar Not Reported New Well Not Reported Not Reported 2010-11-09 800 300 Not Reported Joe Landrith Not Reported Submersible 280.00 No Melvin T Wade No 2892
Details Reports For: Top Depth:	Well Bore Hole 0	Diameter: Bottom Depth:	8 300
Details Reports For:	Well Drilling Method	Drill Method:	Mud (Hydraulic) Rotary

Details Reports For:

Well Completion

Filter Packed

Borehole Completion:

Details Reports For: Top Depth: Size:	Well Filter 240 .14	Filter Material: Bottom Depth:	Gravel 300
Details Reports For: Bottom Depth: Amount:	Well Seal Range 10 Not Reported	Top Depth: Annular Seal: Unit:	0 1 portland Not Reported
Details Reports For: Bottom Depth: Amount:	Well Seal Range 240 Not Reported	Top Depth: Annular Seal: Unit:	200 4 portland Not Reported
Details Reports For: Measurement Date: Measurement Method:	Well Levels 2010-11-10 Unknown	Measurement: Artesian Flow:	60 Not Reported
Details Reports For: Yield: Hours:	Well Test 30 3	Test Type: Drawdown:	Unknown 260
Details Reports For: Top Depth: Lithology:	Well Lithology 0 black soil	Migrated Sort #: Bottom Depth:	0 1
Details Reports For: Top Depth: Lithology:	Well Lithology 1 black clay	Migrated Sort #: Bottom Depth:	0 6
Details Reports For: Top Depth: Lithology:	Well Lithology 6 yellow	Migrated Sort #: Bottom Depth:	0 36
Details Reports For: Top Depth: Lithology:	Well Lithology 36 gray shale	Migrated Sort #: Bottom Depth:	0 250
Details Reports For: Top Depth: Lithology:	Well Lithology 250 rock	Migrated Sort #: Bottom Depth:	0 260
Details Reports For: Top Depth: Lithology:	Well Lithology 260 sand	Migrated Sort #: Bottom Depth:	0 300
Details Reports For: Top Depth: Migrated Casing Info: Casing Status: Casing Type: Gauge:	Well Casing Not Reported 4 new schule 40 pvc 0-280 Not Reported Not Reported Not Reported	Migrated Sort #: Bottom Depth: Diameter: Casing Material: Schedule:	1 Not Reported Not Reported Not Reported Not Reported

Details Reports For: Top Depth: Migrated Casing Info: Diameter: Casing Material: Schedule: Well Casing Not Reported 4 new Pvc sreen 280-300 .18 Not Reported Not Reported Not Reported Migrated Sort #: Bottom Depth:

Casing Status: Casing Type: Gauge: 2 Not Reported

Not Reported Not Reported Not Reported

Map ID Direction Distance

Database

EDR ID Number

1 NE 1/4 - 1/2 Mile

Surface ID: Current Well #: Radioactive: Well Type:

642982 1 Not Reported . Dry Hole

Well ID: API #: Side Track: OIL_GAS TXOG70000670021

Not Reported 42231 Not Reported

AREA RADON INFORMATION

State Database: TX Radon

Radon Test Results

County	Mean	Total Sites	%>4 pCi/L	%>20 pCi/L	Min pCi/L	Max pCi/L
HUNT	.9	9	.0	.0	<.5	2.6

Federal EPA Radon Zone for HUNT County: 3

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: 75474

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 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

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.

State Wetlands Data: Wetland Inventory Source: Texas General Land Office Telephone: 512-463-0745

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

Public Water Supply Sources Databases Source: Texas Commission on Environmental Quality Telephone: 512-239-6199 Locations of public drinking water sources maintained by the TCEQ.

Groundwater Database Source: Texas Water Development Board Telephone: 512-936-0837

Well Report Database Source: Department of Licensing and Regulation Telephone: 512-936-0833

Water Well Database Source: Harris-Galveston Coastal Subsidence District Telephone: 281-486-1105

Brackish Resources Aquifer Characterization System Database

Source: Texas Water Development Board

WDB's Brackish Resources Aquifer Characterization System (BRACS) was designed to map and characterize the brackish aquifers of Texas in greater detail than previous studies. The information is contained in the BRACS Database and project data are summarized in a project report with companion geographic information system data files.

Submitted Driller's Reports Database

Source: Texas Water Development Board

Telephone: 512-936-0833

The Submitted Driller's Report Database is populated from the online Texas Well Report Submission and Retrieval System which is a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application that registered water-well drillers use to submit their required reports.

OTHER STATE DATABASE INFORMATION

Texas Oil and Gas Wells Source: Texas Railroad Commission Telephone: 512-463-6882 Oil and gas well locations.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

RADON

State Database: TX Radon Source: Department of Health Telephone: 512-834-6688 Rinal Report of the Texas Indoor Radon Survey

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.

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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Appendix IV: Historical Research Documentation

Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.8 May 21, 2020

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

Site Name:

Client Name:

05/21/20

Wieland Solar FM 2101 Quinlan, TX 75474 EDR Inquiry # 6066748.8 ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland



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:				
Year	Scale	Details	Source	
2016	1"=500'	Flight Year: 2016	USDA/NAIP	
2012	1"=500'	Flight Year: 2012	USDA/NAIP	
2008	1"=500'	Flight Year: 2008	USDA/NAIP	
2005	1"=500'	Flight Year: 2005	USDA/NAIP	
1995	1"=500'	Acquisition Date: February 21, 1995	USGS/DOQQ	
1981	1"=500'	Flight Date: January 01, 1981	USGS	
1975	1"=500'	Flight Date: January 01, 1975	USGS	
1962	1"=500'	Flight Date: January 01, 1962	USGS	
1954	1"=500'	Flight Date: January 01, 1954	AMS	
1949	1"=500'	Flight Date: January 01, 1949	AMS	

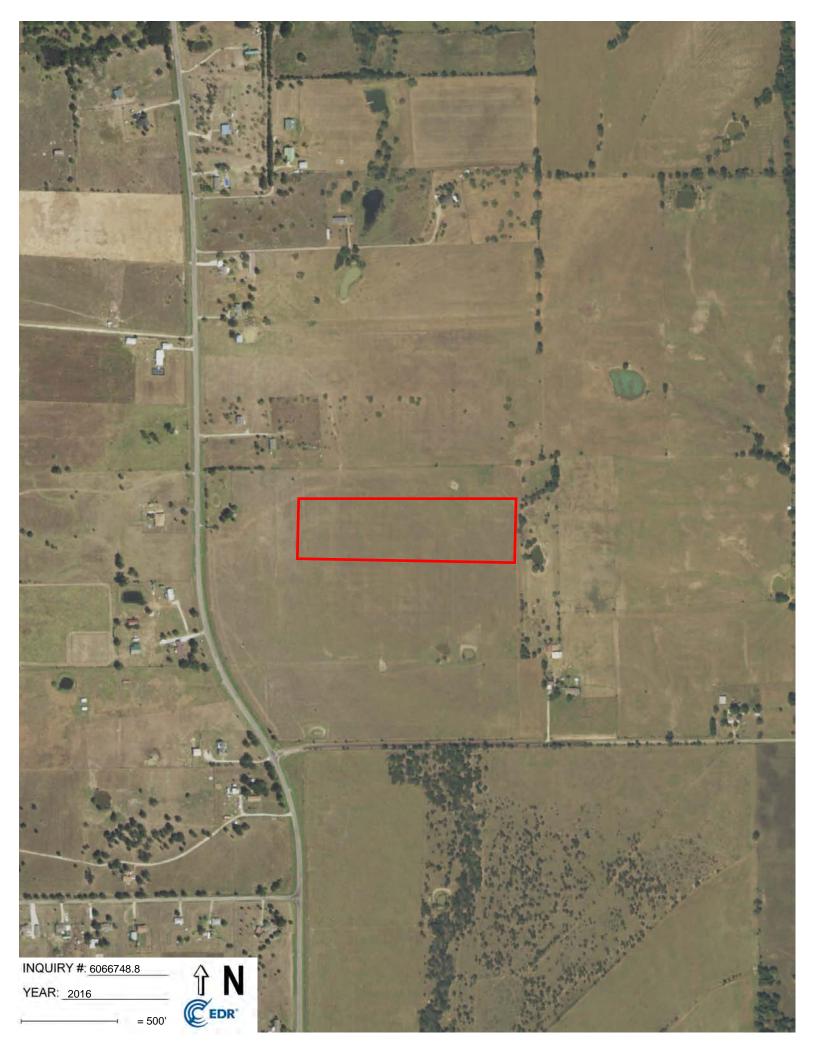
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

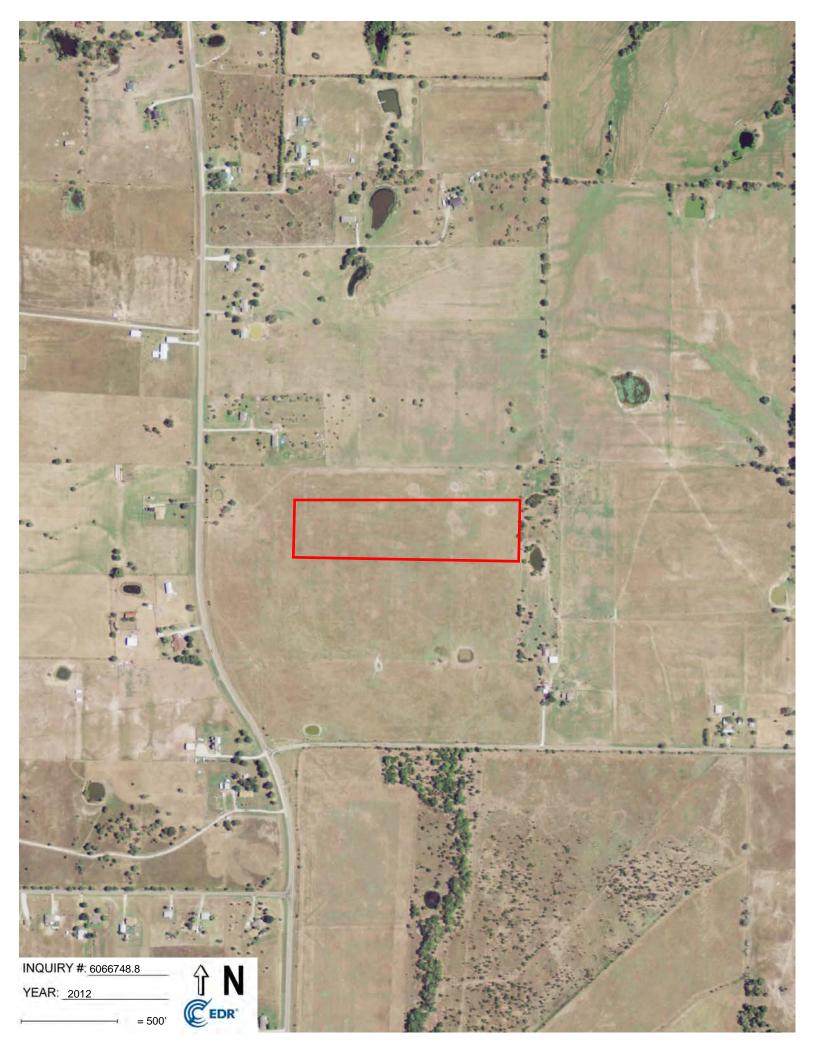
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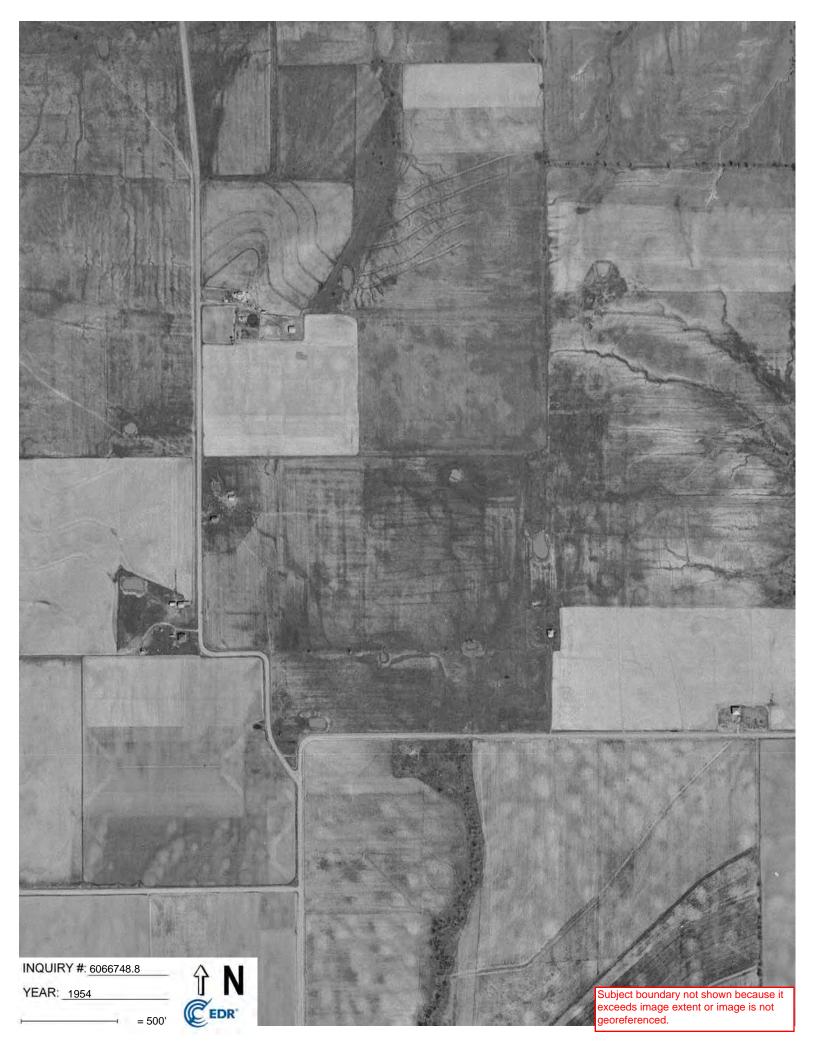
INQUIRY #: 6066748.8

YEAR: 1962

= 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.





Wieland Solar FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.3 May 18, 2020

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

Site Name:

Wieland Solar FM 2101 Quinlan, TX 75474 EDR Inquiry # 6066748.3 ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland

Client Name:



05/18/20

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ECS Southwest, LLP 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 # 3EEA-4142-BEF8 PO# 51-1878 Weiland Solar Project

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 #: 3EEA-4142-BEF8

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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Wieland Solar FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.4 May 18, 2020

EDR Historical Topo Map Report with QuadMatch™



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Site Name:

FM 2101

1962 1956 1919

Wieland Solar

Quinlan, TX 75474

EDR Inquiry # 6066748.4

Client Name:

ECS Southwest, LLP 3033 Kellway Drive Suite 110 Carrollton, TX 75006-0000 Contact: Jared Hovland



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ECS Southwest, LLP were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		Coordinates:	Coordinates:	
P.O.#	51-1878	Latitude:	32.990857 32° 59' 27" North	
Project:	Weiland Solar	Longitude:	-96.055759 -96° 3' 21" West	
-		UTM Zone:	Zone 14 North	
		UTM X Meters:	775116.75	
		UTM Y Meters:	3654124.34	
		Elevation:	508.74' above sea level	
Maps Provid	ded:			
2012, 2013 1980	3			

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012, 2013 Source Sheets



West Tawakoni 2012 7.5-minute, 24000



Greenville SE 2013 7.5-minute, 24000

1980 Source Sheets



West Tawakoni 1980 7.5-minute, 24000 Aerial Photo Revised 1975

1962 Source Sheets



Greenville SE 1962 7.5-minute, 24000 Aerial Photo Revised 1961

1956 Source Sheets



Quinlan 1956 15-minute, 62500 Aerial Photo Revised 1954

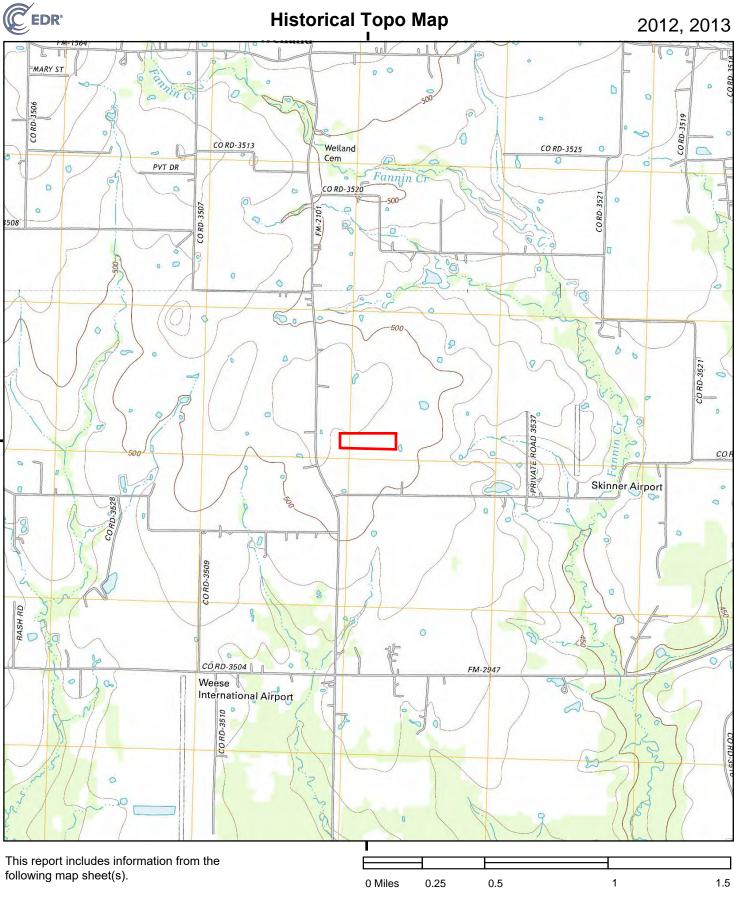
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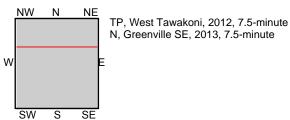
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1919 Source Sheets

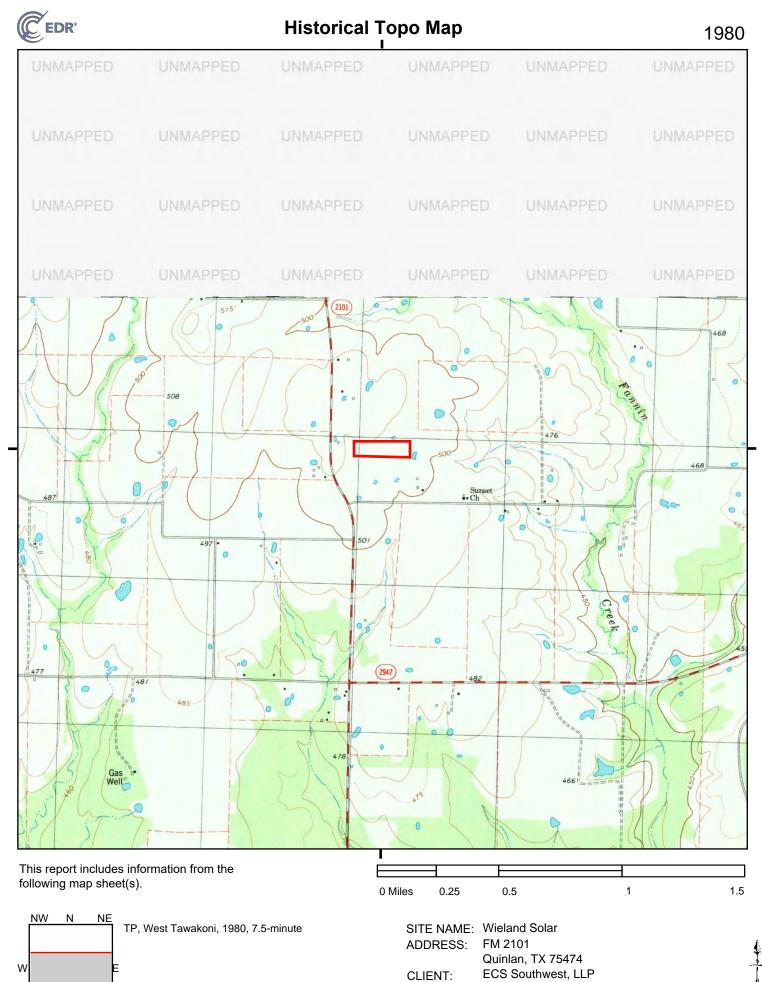


QUINLAN 1919 15-minute, 62500



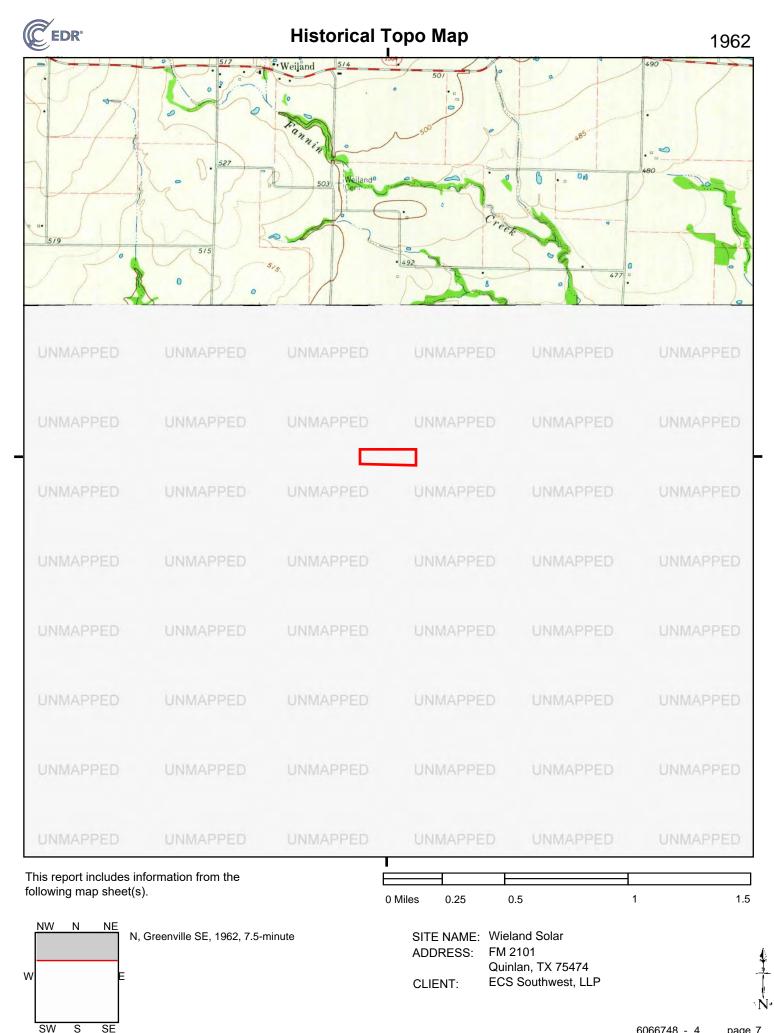


SITE NAME:	Wieland Solar
ADDRESS:	FM 2101
	Quinlan, TX 75474
CLIENT:	ECS Southwest, LLP



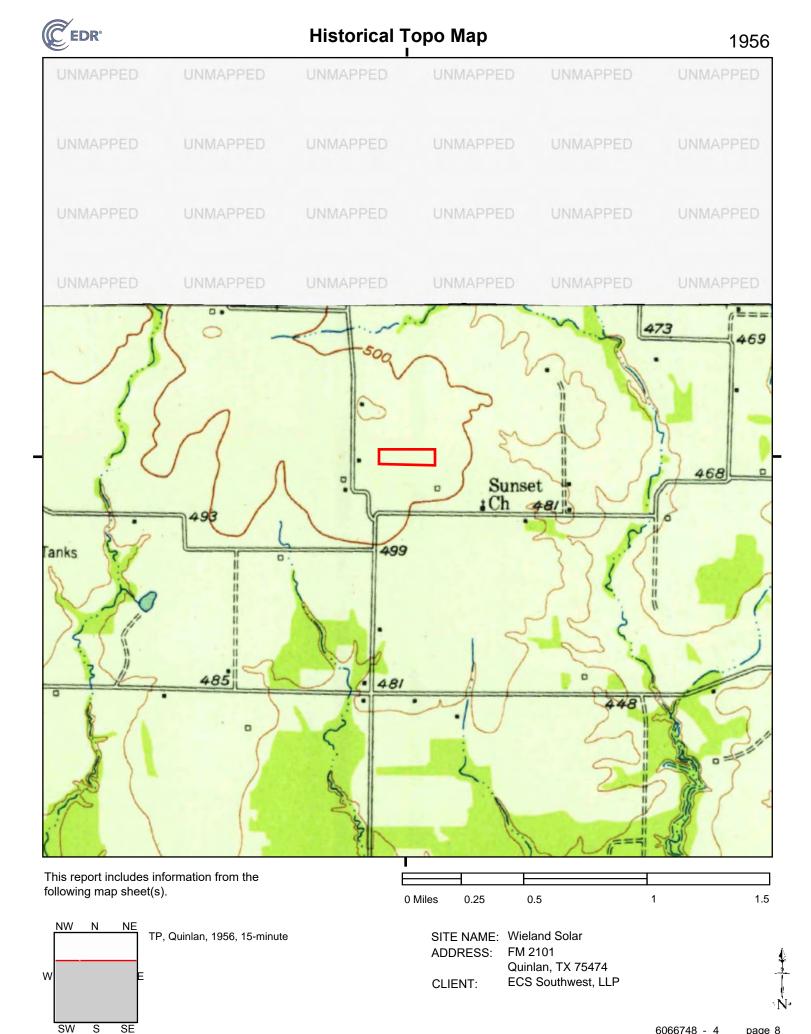
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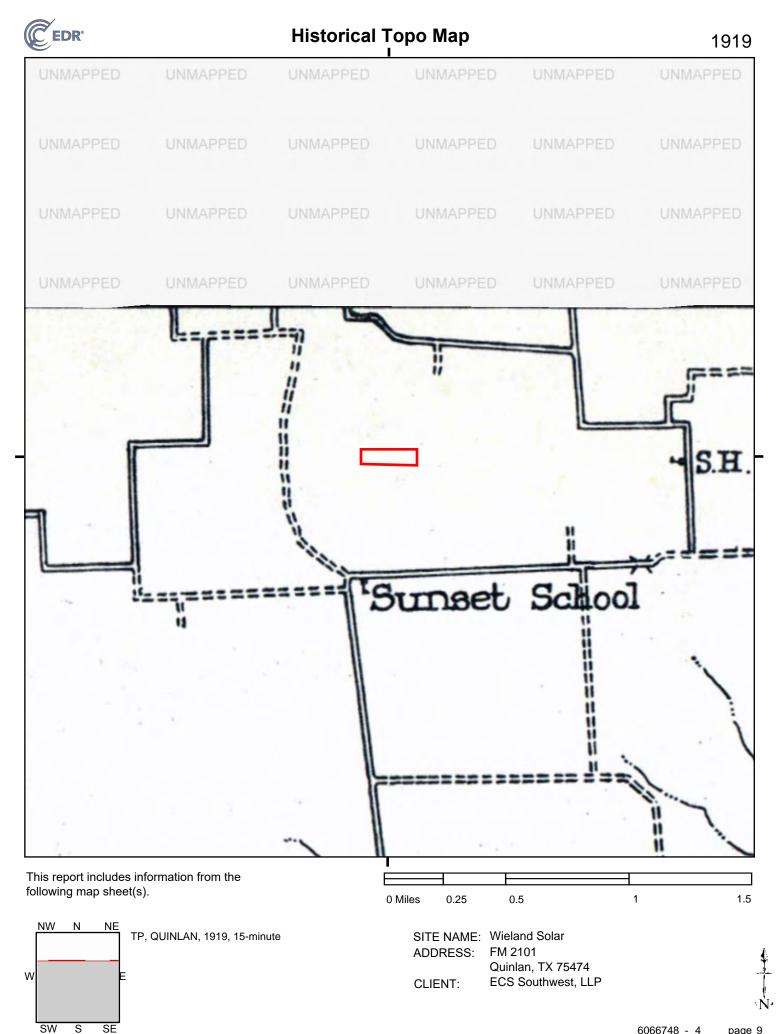
SW



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page 7 6066748 - 4





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Wieland Solar

FM 2101 Quinlan, TX 75474

Inquiry Number: 6066748.5 May 18, 2020

The EDR-City Directory Image Report



6 Armstrong Road Shelton, CT 06484 800.352.0050 www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	<u>Cross Street</u>	<u>Source</u>
2017	\checkmark	\checkmark	EDR Digital Archive
2014	\checkmark	\checkmark	EDR Digital Archive
2010	\checkmark	\checkmark	EDR Digital Archive
2005	\checkmark	\checkmark	EDR Digital Archive
2000	\checkmark	\checkmark	EDR Digital Archive
1995			EDR Digital Archive
1992			EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

FM 2101 Quinlan, TX 75474

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>FM 2101</u>			
2017	pg A2	EDR Digital Archive	
2014	pg A4	EDR Digital Archive	
2010	pg A6	EDR Digital Archive	
2005	pg A8	EDR Digital Archive	
2000	pg A10	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>COUNTY F</u>	ROAD 3517		
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	pg. A7	EDR Digital Archive	
2000	pg. A9	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source

City Directory Images

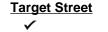
Target Street

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Cross Street ✓ Source EDR Digital Archive

COUNTY ROAD 3517 2017

1660	ARNOLD, BILLY E
1762	BALEY, DAN K
1857	HAYNES, DALE M
1889	CLEMENTS, BOBBY C
1933	ELMORE, JOE A
1972	UNDERWOOD, DENNIS A
2042	GRAY, GLENDA
2244	WILSON, HENRY
2305	BOTTONE, LOIS E
2310	JACKSON, ALVIN L
2315	KIOWSKI, LUCAS
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J



FM 2101 2017

5236	FYFFE, MICHAEL P
5274	TINNEY, HAROLD D
5431	SEIDEMANN, SCOTT L
5444	COUCH, AMBER N
5462	MARSHALL, JEFF G
5475	LAMAN, ARTHUR C
5494	MEDINA, FRANK L
5506	OSORNIO, CINTHIA
5528	GIBSON, CASSANDRA
5549	DORMAN, LEONARD A
5582	NIX, KEVIN G
5585	NIELSON, NATHAN S
5652	RUSS, SHAWN R
5669	CARIAS, MANANN
5677	BEASLEY, ROSS L
5691	MCCLURE, DANNY R
5701	LOWE, JOHN D
5731	WORTHINGTON, WILLIAM C
5733	FOWLER, KAREN T
5741	STEEDMAN, JASON W
5769	STEEDMAN, CHRISTOPHER J
5784	BUTLER, MARK D
5837	SMITHEY, DANIEL S
5878	JOHNSON, GARRETT L
5946	HITCHCOCK, MILTON D
5948	HITCHCOCK, MILTON D
6028	WEAVER, JACKIE E
6060	MCKINNEY, RYAN A
6192	THUMANN, CHASE E
6290	SHEFFIELD, BILLY R
6373	DOOLEY, DOIS L
6494	WEEKS, THOMAS L
6512	MASSEY, KORY L
6513	MCRIGHT, MARSHA
6514	MASSEY, KORY L
6522	RHODES, TODD F
6575	LONG, CHARLES R
6586	CHURCH, DARRELL W
6737	COGBURN, MIKE J

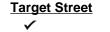
Target Street

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Source EDR Digital Archive

COUNTY ROAD 3517 2014

1660	ARNOLD, BILLY E
1762	BALEY, DAN K
1857	HAYNES, DALE G
1889	OCCUPANT UNKNOWN,
1933	ELMORE, JOE A
	ELMORES SAND GRAVEL & GRADING
1952	UNDERWOOD, RICHARD M
1972	UNDERWOOD, DENNIS A
2042	SKINNER, JAMES S
2244	MASTERS, BARBARA N
2303	BERRY, DWAYNE F
2305	OCCUPANT UNKNOWN,
2310	JACKSON, ALVIN L
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J
2468	COUNTS, DARRELL R



FM 2101 2014

5236 5274	FYFFE, MICHAEL P TINNEY, HAROLD D
5274 5431	OCCUPANT UNKNOWN,
5444	OCCUPANT UNKNOWN,
5462	MARSHALL, JEFF G
5475	LAMAN, ARTHUR C
5480	DOLLEMAN, JONATHAN M
5494	STRONG, JAY
5506	OSORNIO, CINTHIA
5528	GIBSON, CASSANDRA
5549	DORMAN, LEONARD A
5582	NIX, NORRIS A
5652	RUSS, SHAWN R
5691	WEEKS, THOMAS L
5701	LOWE, JOHN D
5731	SKINNER, JACKY L
5741	STEEDMAN, JASON W
5769	LESTER, ASHLEY
5780	HARRISON, WESLEY K
5784	BUTLER, MARK D
5835	MEDLIN, DEBBIE M
5837	SMITHEY, JUDY R
5948	ARIZMENDI, KELSEY
6028	JOHNSON, PHILLIP
6060	MCKINNEY, RYAN A
	RYANS WOODWORKS
6192	THUMANN, CHASE E
6290	OCCUPANT UNKNOWN,
6444	OCCUPANT UNKNOWN,
6494	MASSEY, KEVIN L
6512	JACKSON, LISA
6513	OCCUPANT UNKNOWN,
6514	OCCUPANT UNKNOWN,
6522	RHODES, TODD F
6575	OCCUPANT UNKNOWN,
6586 6727	CHURCH, DARRELL W COGBURN, MIKE J
6737	COGBURN, MIKE J

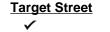
Target Street

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Source EDR Digital Archive

COUNTY ROAD 3517 2010

1660 1762	ARNOLD, BILLY E BALEY, DAN K SOUTHERN LITES
1816	SANDLIN, ANTHONY W
1857	HUNT, CHARLES D
1933	ELMORE, JOE A
	ELMORES SAND GRAVEL & GRADING
1952	UNDERWOOD, RICHARD M
1972	UNDERWOOD, DENNIS A
2042	GRAY, GLENDA
2244	WILSON, MARGARET B
2303	BERRY, DWAYNE F
2305	BOTTONE, LOIS E
2310	JACKSON, ALVIN L
2315	KIOWSKI, LUCAS
2367	QUIMBY, KEITH P
2426	SHEPHERD, KATRIN J
2468	COUNTS, DARRELL R

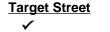


FM 2101 2010

FOOD	
5236	FYFFE, MICHAEL P
5274	TINNEY, HAROLD D
5431	OCCUPANT UNKNOWN,
5444	WALLACE, ERIC M
5462	MARSHALL, JEFF G
5475	OCCUPANT UNKNOWN,
5480	OCCUPANT UNKNOWN,
5494	STRONG, D J
5506	OSORNIO, TEODULFO R
5528	RAGLE, BRIAN L
5549	DORMAN, LEONARD A
5582	NIX, PAMELA J
5592	SHERMAN, CHARLES E
5652	RUSS, SHAWN R
5691	GABRIELLE BRITTAIN & CO
	WEEKS, THOMAS L
5701	LOWE, JOHN D
5731	SKINNER, JACKY L
5733	SKINNER, LAVENIA
5741	STEEDMAN, JASON W
5769	STEEDMAN, JOHN R
5784	BUTLER, MARK
5835	PALMER, SEAN
5948	WARD, FRANK W
6028	GLICK, JAMES A
6060	MCKINNEY, RYAN
	RYANS WOODWORKS
6192	OCCUPANT UNKNOWN,
6290	SHEFFIELD, BILLY R
6373	DOOLEY, MILLIE C
6444	OCCUPANT UNKNOWN,
6494	MASSEY, KEVIN J
6512	JACKSON, LISA
6514	ARRINGTON, TIFFANY
6522	RHODES, TODD F
6586	OCCUPANT UNKNOWN,
6602	LONG, CHARLES R
6737	COGBURN, MICHAEL J
	, -

COUNTY ROAD 3517 2005

1660	RIDGE, THEDA J
1762	BALEY, DAN K
1816	SANDLIN, ANTHONY
1857	HAYNES, DALE M
1889	ELMORE, GREG A
1933	ELMORE, JOE A
1952	UNDERWOOD, RICHARD M
2042	SKINNER, JAMES S
2244	MASTERS, STEVE O
2302	OCCUPANT UNKNOWN,
2303	BERRY, DWAYNE F
2305	BOTTONES LAZY B INC
2310	STOVALL, RONNIE
2315	KIOWSKI, PATRICK M
2367	QUEST LAND DEVELOPMENT INC
	QUIMBY, KEITH P
2426	SHEPHERD, ADDIE



FM 2101 2005

5236 5274 5431 5444 5462 5475 5480 5506 5528 5549	FYFFE, MARJORIE F LANE, JIMMIE K OCCUPANT UNKNOWN, GLOVER, BOBBY HAWKINS, SHEILA A OCCUPANT UNKNOWN, BAKER, JOE COLLEY, CATHY RAGLE, BRIAN L DORMAN, LEONARD A
5691 5701	WEEKS, MICHELLE LOWE, JOHN D
5733	SKINNER, LAVENIA
5769	STEEDMAN, JOHN R
5780	OCCUPANT UNKNOWN,
5791	GABRIELLE BRITTAIN & CO
5835	OCCUPANT UNKNOWN,
5878	SHELTON, PAULA G
5948	WARD, FRANK
6028	GLICK, JAMES A
6060	MCKINNEY, LARRY D
6192	OCCUPANT UNKNOWN,
6290	OCCUPANT UNKNOWN,
6373	OCCUPANT UNKNOWN,
6444	LEVINS, DAVID
6494	OCCUPANT UNKNOWN,
6512	HOLDER, STEVE
6513 6514	JOHNSON, CARROLL E COFFMAN, JASON
6514 6522	CLARKE, JOHN M
6586	OCCUPANT UNKNOWN,
6602	LONG, CHARLES R
6737	COGBURN, MIKE
	· · · · · · · · · · · · · · ·

Target Street

Cross Street ✓ Source EDR Digital Archive

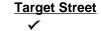
COUNTY ROAD 3517 2000

1952 UNDERWOOD, RICHARD

-

2303 BERRY, DWAYNE

2367 QUIMBY, KEITH P



Cross Street

-

Source EDR Digital Archive

FM 2101 2000

5780 KENNEDY, JAMES A6494 CROUCH, DAVID6512 OCCUPANT UNKNOWN,

Appendix V: Site Photographs



1 - North boundary looking east



2 - North boundary looking west





3 - East boundary looking south



4 - East boundary looking north





5 - South boundary looking west



6 - South boundary looking east





7 - West boundary looking north



8 - West boundary looking south





9 - Adjoining property to the north



10 - Adjoining property to the east





11 - Adjoining property to the south



12 - Adjoining property to the west





13 - North boundary looking south



14 - East boundary looking west





15 - South boundary looking north



16 - West boundary looking east



Appendix VI: Statement of Qualifications

Roger S. Willis II.

EDUCATION

Master of Science, 2013, Environmental Science, University of Texas – San Antonio, San Antonio, Texas

Bachelor of Science, 2009, Biology, University of Georgia, Athens, Georgia

CERTIFICATIONS

Phasel/PhaseII ESA - ASTM Certified 40-hour HAZWOPER Wetland Delineation – Wetland Training Institute

Mr. Willis is the Environmental Project Manager for ECS Texas, LLP (ECS) in our Austin, Texas office. Since he has started with ECS in the spring of 2014, Mr. Willis has had experience on numerous geotechnical and environmental consulting projects. Mr. Willis has significant experience working in laboratories and the field in addition to conducting and assisting with scientific research. Additionally, he has experience working with Texas and federal environmental law. His present responsibilities include project management, field testing, reporting, and business development for the environmental and geotechnical services departments in our Texas operations. Mr. Willis has performed environmental studies in Texas, Louisiana, Oklahoma, Arizona, Utah, Ohio, Connecticut, Massachusetts, and Rhode Island as well as scientific field studies in North Carolina, Georgia, and Texas.

ENVIRONMENTAL ASSESSMENTS - Mr. Willis has performed numerous Phase I Environmental Site Assessments (ESAs) consisting of observation and research/inquiry studies to identify potential environmental liabilities relative to real estate transactions. Project types range from residential developments to commercial business properties, industrial facilities, and publicly owned facilities. Mr. Willis also has experience performing Phase II Limited Site Investigations – sampling soil and groundwater, directing drilling crews, and designing and reporting sound scientific analysis. Mr. Willis has conducted Environmental Review for Environmental Assessments, as well as Environmental Exit Audits.

Environmental Project Manager

NATURAL RESOURCES ASSESSMENTS – Mr. Willis has conducted several wetlands, endangered species, and geologic assessments consisting of site reconnaissance, records reviews, and reporting. Mr. Willis has experience working with federal, state, county, and municipal regulators to successfully complete these projects.

SAMPLE ENVIRONMENTAL PROJECT EXPERIENCE

- 115 Wild Basin, Austin, Texas
- Old Dowlen Road Wetlands, Beaumont, Texas
- Stream Delineation, Del Valle, Texas
- Hydraulic Tank Closure, TX, UT, OH, CT, RI, MA

SAMPLE PHASE I/II PROJECT EXPERIENCE

- Multi Family Development, San Antonio, Texas
- Credit Union, Katy, Texas
- Multi Family Development, Dripping Springs, Texas
- Oil Change Shop, Pflugerville, Texas
- Auto Parts Store, Helotes, Texas
- Auto Parts Store, Baytown, Texas
- Multi Family Development, Austin, Texas
- Assisted Living Facility, Kyle, Texas
- Single Family Development, Leander, Texas
- Retail Center, San Marcos, Texas
- Block 107, Houston, Texas
- Automotive Repair Shop, Hill Country Village, Texas
- Single Family Development, Odessa, Texas
- Fast Casual Restaurant, Tulsa Oklahoma

SAMPLE GEOTECHNICAL PROJECT EXPERIENCE

- Retail Center, Spicewood, Texas
- Armed Services YMCA, Harker Heights, Texas
- Single Family Development, Horseshoe Bay, Texas
- Large Grocery Store, Austin, Texas
- Electrical Resistivity Testing, Fort Stockon Area, Texas



Craig Hiatt

Director of Environmental Services

EDUCATION

Master of Science, 2013, Environmental Planning, American Public University, Charles Town, WV Bachelor of Science, 1995, Environmental Biology and Management, University of California, Davis, CA

REGISTRATIONS

Wetlands Delineator

Mr. Hiatt serves as the Director of Environmental Services for our ECS Texas, LLP subsidiary. Mr. Hiatt has over 21 years of experience in the environmental planning, permitting, NEPA and CEQA documentation, environmental compliance, soil and groundwater remediation, and due diligence.

Mr. Hiatt is responsible for management and oversight of ECS environmental services, including Phase I and II Environmental Site Assessments, soil and groundwater remediation, underground storage tank assessment and removal, risk and remedial assessments, asbestos, mold and hazardous materials surveys, contaminant delineations, developing corrective action plans, hydrogeologic studies, Environmental Impact Statements, natural resources and wetlands delineation studies.

PHASE I and II ENVIRONMENTAL SITE ASSESSMENTS -

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WETLAND DELINEATIONS - Mr. Hiatt conducts and oversees wetland delineations, coordinates Endangered Species Act compliance, and coordinates Jurisdictional Determinations with the State and U.S. Army Corps of Engineers (USACE). He also oversees and prepares Section 404/401 Individual Permit Applications, Joint Permit Applications, State Programmatic General Permit Applications and Nationwide Permit Applications. He designs and monitors wetland mitigation projects, works with mitigation bankers, and coordinates in-lieu fee payments with state agencies. He manages routine to complex wetland and stream related projects, critically evaluating technical problems, directing plan development, and supervising technical aspects of document preparation.

SAMPLE PROJECT EXPERIENCE

- Round Rock Memory Care, Round Rock, Texas
- Lakeway Residential Property, Austin, Texas
- Bastrop UST Removal, Bastrop Texas
- XS Ranch Comunity Center, Bastrop, Texas
- Weslayan Mold Remediation, Georgetown, Texas
- Bluff Bend Warehouse, Austin, Texas
- Solavera Unit K, Ambient Air Sampling, Austin, Texas
- Bluff Springs, Phase I ESA, Austin, Texas



Appendix V: Site Photographs



1 - North boundary looking east



2 - North boundary looking west





3 - East boundary looking south



4 - East boundary looking north





5 - South boundary looking west



6 - South boundary looking east





7 - West boundary looking north



8 - West boundary looking south





9 - Adjoining property to the north



10 - Adjoining property to the east





11 - Adjoining property to the south



12 - Adjoining property to the west





13 - North boundary looking south



14 - East boundary looking west





15 - South boundary looking north



16 - West boundary looking east





17 - Access road



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- Assisted Living Facility, Kyle, Texas
- Single Family Development, Leander, Texas
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- Fast Casual Restaurant, Tulsa Oklahoma

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- Single Family Development, Horseshoe Bay, Texas
- Large Grocery Store, Austin, Texas
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- Weslayan Mold Remediation, Georgetown, Texas
- Bluff Bend Warehouse, Austin, Texas
- Solavera Unit K, Ambient Air Sampling, Austin, Texas
- Bluff Springs, Phase I ESA, Austin, Texas



Appendix VII: Acronyms

List of Common Acronyms

AULs	Activity and Use Limitations
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ACM	Asbestos Containing Materials
BER	Business Environmental Risk
CORRACTS	CERCLA Corrective Action List
NPL	CERCLA National Priorities List
NFRAP	CERCLA No Further Remedial Action Planned
CERCLA	Comprehnsive Environmental Response Cleanup Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CREC	Controlled Recognized Environmental Condition
ERNS	Emergency Response Notification System
EC	Engineering Controls
HIST LF	Historical Landfill
HREC	Historical Recognized Environmental Condition
IC	Institutional Controls
LQG	Large Quantity Generator
LBP	Lead Based Paint
LTANKS	Leaking Tanks
LUST	Leaking Underground Storage Tank
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
SQG	Small Quantity Generator
SWF/LF	Solid Waste Facility/Landfill
SHWS	State Hazardous Waste Sites
UST	Underground Storage Tank
USGS	United States Geological Survey



Aeronautical Study No. 2020-ASW-15954-OE



Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Group 10101 Hillwood Parkway Fort Worth, TX 76177

Issued Date: 12/07/2020

Trevor Hand Wieland Solar 1577 Randol Mill Ave. Southlake, TX 76092

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Solar Panel Wieland Solar
Location:	Quinlan, TX
Latitude:	32-59-29.56N NAD 83
Longitude:	96-03-28.50W
Heights:	510 feet site elevation (SE)
	8 feet above ground level (AGL)
	518 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 06/07/2022 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD. This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-ASW-15954-OE.

(DNE)

Signature Control No: 457158769-458716050 Andrew Hollie Specialist

Attachment(s) Case Description Map(s)

Case Description for ASN 2020-ASW-15954-OE

We are constructing a small solar farm that will be approximately 10-12 in size

TOPO Map for ASN 2020-ASW-15954-OE

