

**Economic
Development
Administration –
Draft
Environmental
Narrative**

**Lockhart EDA Sewer
Replacement**

Prepared For:

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A. PROJECT DESCRIPTION

1. *Beneficiaries*

The new construction and replacement of sanitary sewer lines in the City of Lockhart will benefit those residing in the area by providing efficient waste management within Lockhart, Caldwell County, Texas. The property surveyed is divided into two segments totaling approximately 1.51 miles in length (Project Area). The western portion of the proposed Project starts at the lift station approximately 0.11 mile north of N Mockingbird Lane and runs approximately 1.35 miles east and ties into the intersection of Tank and Hunter Streets. This alignment crosses the railroad three times and Stueve Lane once. The eastern portion runs in a north/south direction from Reynolds Street to immediately north of Town Branch, a distance of approximately 0.16 miles.

2. *Proposed Construction*

Please refer to the Preliminary Engineering Report (**Appendix B**).

3. *Need and Purpose*

The need of the Proposed Project is to upgrade the existing sanitary sewer serving citizens of located in the Northwest section of the City of Lockhart by replacing existing undersized sanitary sewer lines and installing new sanitary sewer lines in areas where they are not present. The purpose of the Project is to provide efficient waste management solutions to the citizens of the City of Lockhart.

4. *Alternatives to the Proposed Project*

The No Action Alternative, Initial Action Alternative, and Preferred Action Alternative were reviewed as part of the proposed Project. The No Action Alternative would leave the existing infrastructure as is; therefore, would not solve the Project need. The Initial Action Alternative was originally considered, and details of that alternative are listed below:

Section A: Installation or replacement of 11,800 linear feet (LF) of 12-inch sewer line

- Installation of approximately 2,900 LF of 12-inch sewer line North of the Union Pacific Railroad (UPRR) track west of State Highway (SH) 130.
- Installation of approximately 1,300 LF of 12-inch sewer line along the UPRR to connect to an existing 12-inch diameter sewer line at SH 130.
- Installation of 12-inch sewer line that will connect the existing 12-inch diameter sewer line north of the Windridge development to an existing manhole on Tank Street by running east (approximately 5,700 LF) parallel to the UPRR track and a portion of Town Branch Creek.

Section B: Alignment was 1,900 LF of 15-inch sewer line, replacing 12-inch, heading west on Tank Street and South on N. Commerce.

However, the Initial Action Alternative was removed from consideration due to the following discoveries during the initial design phase:

- 4,200 LF of 12-inch sewer line going south on Farm to Market (FM) 2720 and East parallel to the UPRR has been installed between grant application and beginning of project preliminary engineering.

- The wooded area west of Stueve Lane was discovered to be a deep (<15- feet) swamp. To install sewer through this property would require dewatering, special trench protection measures, and increased environmental impacts.
- Property east of Stueve Lane and south of UPRR are owned by the City of Lockhart and would require less environmental disturbances to install sewer line.

The Preferred Action Alternative was designed and reviewed after the Initial Action Alternative was removed from consideration due to the constraints listed above. Details of the Preferred Action Alternative are listed below:

Section A: Installation or replacement of 8,850 LF of 12-inch, 18-inch, or 24-inch sewer line.

- Replacement of approximately 1,200 LF of existing 12-inch sewer line with proposed 12-inch sewer line from the Windridge Lift Station.
- Installation of approximately 3,500 LF of 18-inch sewer line from connection point to heading west to Stueve Lane.
- Installation of approximately 2,500 LF of 24-inch sewer line from Stueve Lane to Tank Street.
- Replacement of approximately 800 LF of existing 12-inch sewer line with proposed 24-inch sewer line heading south along North Commerce Street, and all appurtenances necessary to complete the Project.

Section B: Alignment was 850 LF of 24-inch sewer line, replacing 12-inch, heading south on North Commerce Street.

The Initial Action Alternative and other alternative actions would require a larger area of impact, increased cost, and would not provide lesser environmental impacts than what is proposed. The Proposed Action Alternative offers the most cost-effective method to provide critical infrastructure necessary to support future development of the area with minimal impacts to the environment.

B. HISTORIC/ARCHEOLOGICAL RESOURCES

A desktop review for cultural resources was completed on July 6, 2023, by TRC archeologists using the Texas Historical Commission (THC) Archeological and Historic Sites Atlas (Atlas) and other sources. The area of potential effects (APE) is defined as 11.8 acres. The maximum depth of ground disturbing activities for the new sewer line and the partial sewer line replacement is 20 feet (ft). According to current design plans, the proposed Project will entail installation or replacement of 8,850 LF of 12-inch, 18-inch, or 24-inch sewer line. The western replacement segment of the Project will be within an existing City utility easement. The central segment will parallel an existing UPRR, within an existing utility easement. The eastern segment along North Commerce Street will be within the existing road Right of Way (ROW). The anticipated construction corridor will be between 30 feet (ft.) and 100 ft. wide, and the anticipated maximum depth of impacts will not exceed 20 ft. The Area of Potential Effects (APE) will ultimately be a total of 11.8 acres (THC 2023).

According to the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey, soils within the APE are mapped as Branyon clay (BrA), 0-1% slopes, Branyon clay (Brb), 1-3% slopes, and Lewisville silty clay (LeB), 1-3% slopes (USDA-NRCS 2023).). The Branyon series is characterized by calcareous clayey alluvium derived from mudstone of Pleistocene age from stream terraces. A typical profile includes

0 to 203 centimeters (cm) of clay. The Lewisville series is characterized by very deep, well drained soils formed in loamy and clayey calcareous sediments. A typical soil profile includes 0 to 157 cm of silty clay.

According to the Atlas, three cemeteries, three previously recorded archeological sites, two NRHP Properties, and one NRHP District are within one km of the APE. No additional sites, cemeteries, properties, or districts listed on the National Register of Historic Places (NRHP) or as a State Antiquities Landmark (SAL), and Historical Markers are intersecting, adjacent to or within one km of the APE. According to the Atlas, the APE has not been previously surveyed for cultural resources. Eight surveys, including one with an eligibility testing component (THC 2023). The APE has never been previously surveyed.

U.S. Geological Survey (USGS) topographic quadrangle maps along with Google Earth imagery were reviewed to determine if standing historic structures (45 years or older) are present within or adjacent to the APE. Adjacent to the APE four structures were depicted on a USGS 1911 *San Marcos, TX* 30' topographic map and a subsequent 1963 USGS *Lockhart North, TX* 7.5' topographic quadrangle showed five nearby structures. The UPRR, formerly the Missouri-Kansas-Texas Railroad, is mapped alongside of and partially intersects the APE. No other historic structures are depicted within the APE. Given that all work will take place within existing easements, it is not anticipated that any structures will be impacted by the Project.

Based on the desktop site-file search, no archeological sites, cemeteries, SALs, or properties listed on the NRHP are shown to intersect the proposed APE. The line will be constructed within either a previously disturbed utility easement, road ROW, or near the existing railroad easement where the integrity of shallow deposits has likely been heavily impacted. Based on geologic and HPALM data, the likelihood of deeply buried prehistoric sites with reasonable integrity is minimal across much of the APE with a small segment of the central portion showing some moderate potential for deeply buried sites with integrity. It is not anticipated that any historic standing structures will be impacted by the Project as the proposed line will be placed within existing easements. Given the prior disturbances from past construction, TRC recommends that no further work is necessary to investigate cultural resources within the proposed APE and the project may proceed to construction.

Therefore, TRC recommended no further work to evaluate the potential for cultural resources which received concurrence from the THC on July 31, 2023 (**Appendix C**). The Project may proceed to construction.

C. AFFECTED ENVIRONMENT

The Project Area is located within the City of Lockhart, Caldwell county, Texas. The western portion of the project is approximately 1 mile northwest of downtown Lockhart and approximately 0.7 miles east of Texas state Highway 130, while the eastern portion of the project area is approximately 0.25 miles north of downtown Lockhart and approximately 450 feet east of Texas Highway 183 (**Figures**). The western portion of the project area slopes east with an elevation change of approximately 25 feet (551 feet to 526 feet above mean sea level [amsl]). The eastern portion of the project area slopes south with an elevation change of approximately 12 feet (509 feet to 497 feet amsl). There are no designated National Parks, National Wildlife Refuges, or National Game Preserves located on or in the vicinity of the proposed Project area. Lockhart State Park is located approximately 3 miles southwest of the project site. There are no wilderness areas or wild or scenic rivers (designated or proposed) under the Wilderness Act or the Wild and Scenic Rivers Act located within or near the proposed Project area (NPS, 2023; National Wild and Scenic Rivers, 2023; BLM, 2023; and Wilderness Connect, 2023: and TPWD, 2023a).

According to current design plans, the proposed Project will entail installation or replacement of 8,850 LF of 12-inch, 18-inch, or 24-inch sewer line. The proposed construction corridor would be between 30 feet to 100 feet wide. Photographs of the proposed Project area are located in **Appendix D**.

1. Coastal Zones

The proposed Project area is not located within a designated coastal zone (TGLO, 2023) and therefore is not subject to the Coast Zone Management Act.

2. Wetlands

An on-site waters of the U.S. delineation was performed in accordance with the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual was conducted on June 14, 2023. No wetlands were observed within or adjacent to the Project Area; however, three ephemeral streams (S-JAG-01, S-JAG-02, and S-JAG-03), four man-made drainage ditches (D-JAG-01, D-JAG-02, D-JAG-03, and D-JAG-04), and one pond (WB-JAG-01) were observed in the Project Area (**Figures**). One National Wetland Inventory polygon (WB-JAG-01) (USFWS, 2023a) and one stream (S-JAG-03) were located within the Project Area (USGS, 2023). Man-made drainage ditches are classified as non-jurisdictional by the USACE and current design plans would avoid the pond and bore beneath the three ephemeral streams. Therefore, the proposed Project would not impact any waters of the U.S. and would not require authorization, or any mitigation plans from the USACE – Fort Worth District. Additionally, no correspondence with the USACE – Fort Worth District would be required for the proposed Project.

3. Floodplains

The Project Area is located within the City of Lockhart, Texas, which participates in the National Flood Plain Insurance Program. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Map (Map Numbers: 48055C0115E, 48055C0120E, 48055C01220E; FEMA, 2012). Within the proposed western portion of the Project Area, the eastern approximately 0.25-mile portion lies within a 100-year floodplain, with a small portion of a 500-year floodplain lying adjacent to and west. Within the proposed eastern portion of the Project Area, the southern approximately 25 feet lies within a 100-year floodplain, while a small portion of a 500-year floodplain lies adjacent to and north. The area within the 100-year floodplain is associated with Town Branch Creek Tributary (**Figures**). The remainder of the Project Area is determined to be outside of a designated floodplain.

No critical action (e.g., emergency response facility, hospital, wastewater treatment plant) is being located within the 500-year floodplain.

4. Endangered Species

The Endangered Species Act of 1973 gives the USFWS federal legislative authority for the protection of federally listed T&E (Threatened and Endangered) species. This protection includes a prohibition of direct take (*i.e.*, killing, harassing) and indirect take (*i.e.*, destruction of critical habitat). In addition, the Texas Parks and Wildlife (TPWD) Code has established a state regulatory mandate for protection of state- listed T&E species and other aquatic resources by prohibiting the take of such species. Authority for protecting state-listed T&E species was provided to the TPWD. A list of federally and state-listed species with potential habitat within or near the Project area and their respective habitat descriptions is provided in **Appendix E**.

Available data was reviewed to determine the potential for encountering any T&E species or other sensitive habitats within or near the Project Area (USFWS, 2023a; USFWS, 2023b; USFWS, 2023c; TPWD, 2023b).

Federally Listed Species

Three (3) federally listed threatened or endangered species, one (1) federal candidate species, and two (2) federal proposed species are listed as potentially occurring within the Project Area by USFWS. The avian species include the Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), and Whooping Crane (*Grus americana*). According to the USFWS IPaC Official Species List (2023a), the Piping Plover and Red Knot are required to be considered for potential adverse effects for wind energy projects only. These species were evaluated during this habitat assessment and are considered transient species and would not be adversely affected by the proposed Project.

The Whooping Crane was evaluated for potential adverse effects of the proposed Project. The City of Lockhart is on the western edge of the migration corridor for the Aransas-Wood Population (Pearse et al., 2018). During migration, Whooping Cranes may rest temporarily at stopover sites and forage along shallow wetlands, reservoirs, and various croplands (Lewis, 2020). No potential stopover habitat was observed during the June 2023 on-site survey. Given the lack the of suitable habitat, the proposed Project will have “no effect” on the Whopping Crane.

Habitat for the two proposed endangered species tricolored bat (*Perimyotis subflavus*) and Guadalupe orb (*Cyclonaias necki*) were evaluated for potential adverse effects for the species. No potential habitat was observed for the two proposed endangered species within the Project Area; therefore, the proposed Project will have “no effect” on the tricolored bat of Guadalupe orb.

The Monarch butterfly (*Danaus plexippus*), listed in the USFWS IPaC Official Species List as a candidate species. Monarch butterflies from the eastern North American population pass through Texas on their migratory routes from Mexico to Canada (USFWS, 2023). They are a host-specific species and only lay eggs on milkweed (*Asclepias spp.*) plants, as their larvae require milkweed to eat leading up to pupation. Green milkweed (*Asclepias viridis*) was observed in the Project Area during the June 2023 on-site assessment; therefore, the Project Area contains suitable habitat for the Monarch butterfly.

Currently, the monarch butterfly, a candidate species, is the only federally-listed species that may be affected by the proposed Project; however, candidate species are not currently afforded protection under Section 7 of the ESA. No federally-listed species were observed during the June 2023 survey. A review of the USFWS Critical Habitat Mapper (USFWS, 2023c) indicates that no federally designated Critical Habitat is located within the Project area.

State-Listed Species

Table 1 below summarizes the state-listed threatened and endangered (T&E) species with the potential to occur in Caldwell County, Texas. No suitable habitat for any state threatened and endangered species was observed within the Project area. Additionally, the TPWD Annotated County List for Caldwell County listed 58 species as a species of greatest conservation need (SGCN) or rare by TPWD (**Appendix E**). None of the SGCN or rare species listed in Caldwell County are expected occur within the Project area.

Table 1: State-listed T&E Species with the Potential to Occur in Caldwell County, Texas.

Common Name	Status ¹	Preferred Habitat	Preferred Habitat in Project Area?
Amphibians			
Houston Toad (<i>Anaxyrus houstonensis</i>)	E	Terrestrial habitat is forests with deep sandy soils. Aquatic habitats can include any water body from a tire rut to a large lake.	No
San Marcos Salamander (<i>Eurycea nana</i>)	T	Aquatic; springs and associated water.	No
Texas Blind Salamander (<i>Eurycea rathbuni</i>)	E	Aquatic and subterranean; streams and caves.	No
Birds			
Black Rail (<i>Laterallus jamaicensis</i>)	T	Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh.	No
Piping Plover (<i>Charadrius melodus</i>)	T	Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway.	No
Rufa Red Knot (<i>Calidris canutus rufa</i>)	T	The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters.	No
Swallow-tailed Kite (<i>Elanoides forficatus</i>)	T	Lowland forested regions, especially swampy areas, ranging into open woodland; marshes, along rivers, lakes, and ponds.	No
White-faced Ibis (<i>Plegadis chihi</i>)	T	Prefers freshwater marshes, sloughs, and irrigated rice fields, brackish and saltwater habitats; currently confined to near-coastal rookeries.	No
Whooping Crane (<i>Grus americana</i>)	E	Small ponds, marshes, and flooded grain fields.	No
Wood Stork (<i>Mycteria Americana</i>)	T	Prefers to nest in large tracts of bald cypress or red mangrove. Forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water.	No
Fish			
Fountain Darter (<i>Etheostoma fonticola</i>)	E	Known only from the spring-fed San Marcos and Comal rivers in dense beds of aquatic plants growing close to bottom; may be found in slow and fast-flowing habitats.	No
Guadalupe Darter (<i>Percina apristis</i>)	T	Endemic to the Guadalupe River Basin; Found in riffles; most common under or around 25-30 cm boulders in the main current; seems to prefer moderately turbid water.	No
Headwater Catfish (<i>Ictalurus lupus</i>)	T	Originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers.	No
Mollusks			
False Spike Mussel (<i>Fusconaia mitchelli</i>)	T	Occurs in small streams to medium-size rivers in habitats such as riffles and runs with flowing water. Is often found in stable substrates of sand, gravel, and cobble.	No
Guadalupe Orb (<i>Cyclonaias necki</i>)	T	Species' distribution is limited to the Guadalupe River basin. Occurs in both mainstem and tributary habitats. Often found in substrates composed of sand, gravel, and cobble, including mud-silt or gravel-filled cracks in bedrock slabs.	No
Reptiles			
Cagle's Map Turtle (<i>Graptemys caglei</i>)	T	Aquatic: shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas	No

Table 1: State-listed T&E Species with the Potential to Occur in Caldwell County, Texas.

Common Name	Status ¹	Preferred Habitat	Preferred Habitat in Project Area?
		between riffles and pools especially important in providing insect prey items.	
Texas horned lizard (<i>Phrynosoma cornutum</i>)	T	Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush, or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows. Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area.	No

¹ E = Endangered, T = Threatened (TPWD, 2023b)

A review of the Texas Natural Diversity Database (TXNDD, 2023) resulted in no elemental occurrences (EO) of federally listed species. The Guadalupe darter is the only state-listed species identified within the 10-mile buffer zone; however, no habitat for the Guadalupe darter was identified in the Project Area.

5. Land Use and Zoning

The City of Lockhart Official Zoning Map was used to determine zoning along the Project (Lockhart, 2023). The western replacement segment of the Project will be within an existing City utility easement and is zoned as residential low intensity but is currently agricultural fields. The central segment will parallel an existing UPPR, within an existing utility easement and is zoned as agricultural and residential median density and is currently a pasture or hay crops. The eastern segment along North Commerce Street will be within the existing road ROW and is zoned as commercial medium business and industrial light and is being used as roadway infrastructure.

There are no actively cultivated farmlands located within the Project area. According to the U.S. Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) web soils report, the majority of the Project area contains soils that are classified as “prime farmland” or “farmland of statewide importance” (USDA-NRCS, 2023) under the Federal Farmlands Protection Act but have since been designated as commercial property by the EEDC. The proposed Project would not directly impact any adjacent farmlands that are actively being cultivated (**Figures**).

6. Solid Waste Management

The proposed Project will not produce any solid waste products. Solid waste is collected by Central Texas Refuse (CTR) and disposed at the Environmental Park 130 Landfill. The Environmental Park 130 Landfill has about 32 years of useful life left.

Solid wastes may be generated during construction of the proposed Project. The construction contractor will be responsible for management and disposal of all solid wastes generated. Wastes generated during construction may include the following:

Construction Wastes

Construction wastes including but not limited to, soil, concrete, slurry from concrete saw cutting, concrete truck wash-out, wood, asphalt and steel will be collected and disposed of off-site in accordance with all applicable local, state, and federal regulatory requirements. No waste material will be buried on site. All waste material will be stockpiled in a manner so as to prevent impact to soil, surface water, and groundwater. During saw

cutting operations, slurry and cuttings will be vacuumed or otherwise collected and not be allowed to discharge from the site. Concrete trucks rinsed onsite will use a concrete washout pit or other containment constructed in accordance with the SWP3 to ensure solids are not discharged to the ground or waterways.

Sanitary Waste

All Sanitary Waste will be properly stored in portable sanitary facilities. Waste will be routinely collected from the portable units as necessary by licensed sanitary waste management contractor for offsite treatment or disposal.

Oily Waste

The use of heavy equipment at the Project site could result in the generation of oily waste if a line rupture, equipment failure or refueling spill occurs. Equipment maintenance will not occur at the Project site other than refueling and topping off of fluids. In the event of a spill, the contractor will be responsible for containment and removal of all oily waste in accordance with applicable local, state, and federal regulations.

General Trash

General trash, such as packaging, wood waste, pallets, paper, and plastic will be generated during the construction activities. All general trash will be collected in containers for offsite disposal. The contractor will be responsible for containing and removing all trash from the Project area prior to completion of the Project.

Solid wastes are not anticipated to be generated by the Project once construction is complete.

7. Hazardous or Toxic Substances

Hazardous or toxic substances that may be used at the site during the Project include, but are not limited to: paints, acids, solvents, asphalt products, fuels, lubricants, oils, chemical additives, and concrete curing compounds. Safety Data Sheets (SDS) will be obtained and kept on site for all products used on the Project. All hazardous or toxic substances that may be kept at the Project site will be stored off bare ground, within secondary containment, covered, and protected from incidental contact by a fence or other barrier. Product labeling on all containers will be maintained in a legible condition in accordance with the Hazard Communication Act.

A safety meeting will be conducted for all personnel who will be working with hazardous materials prior to beginning construction to make workers aware of potential hazards in the workplace. All workers will be provided with personal protective equipment appropriate for any hazardous materials used.

During construction, the contractor will maintain an adequate supply of spill response materials on site. Spill response materials will be suitable for the substances stored at the site in accordance with the SDS and best management practices. In the event of a spill, the contractor will take actions to properly contain and clean up the spill in accordance with the SDS and safe work practices.

Historical Use

A Phase I Environmental Site Assessment (ESA) was not completed for the Proposed Project; therefore, a database search report was not obtained for the Project. To determine the potential for the presence of hazardous or toxic substances that may have been or must be remediated prior to construction, TRC conducted a cursory desktop review of

Industrial Hazardous Waste (IHW) Sites, Petroleum Storage Tanks (PST), Leaking Petroleum Storage Tanks (LPST), and oil and gas operations (wells and pipelines) using the following resources: Texas Railroad Commission Public GIS Viewer (RRC, 2023) Texas Commission on Environmental Quality (TCEQ) Groundwater Contamination Viewer (TCEQ, 2023a), TCEQ Municipal Solid Waste Viewer (TCEQ, 2023b), TCEQ PST Viewer (TCEQ, 2023c), TCEQ LPST Viewer (TCEQ, 2023d), TCEQ Central Registry (TCEQ, 2023e). TRC reviewed these databases for sites within a 0.5-mile radius of the Project Area for potential contamination. A summary of the desktop review is provided in the **Table 2** below and **Figure 7**.

Table 2: Summary of Historical Land Use.

Desktop Review Findings*	Summary of Findings (Low, Moderate or High)
<p>Oil/Gas Operations – 1 site</p> <ul style="list-style-type: none"> No water or oil/gas wells were identified within or adjacent to the Project Area. One dry hole is depicted approximately 0.13-mile SE of the project. 	<p>Low – No oil and gas operations and across from Town Branch</p>
<p>IHW Sites – 7 sites</p> <ul style="list-style-type: none"> No sites were identified within or adjacent to the Project Area. Four sites are associated with gas stations or auto repair facilities. One site is associated with the Lockhart Hospital. One site is associated with pipeline compressor equipment. One site is associated with an industrial facility. 	<p>Low – Only two sites within 0.25-mile of the Project Area and they across from Town Branch</p>
<p>PST Sites – 5 sites</p> <ul style="list-style-type: none"> No sites were identified within or adjacent to the Project Area. Five sites with current registrations with the TCEQ were identified with the search radius. 	<p>Low – Only two sites within 0.25-mile of the Project Area and they across from Town Branch</p>
<p>LPST Sites – 10 sites</p> <ul style="list-style-type: none"> No sites were identified within the Project Area. One site was identified adjacent to the Project Area and is associated with Lockhart Well Service at the intersection of 104 Reynolds Street (RN1006982887). LPST Remediation ID Number 109635 was finalized in January 1998. One site is associated with a Texas Department of Transportation Maintenance Facility. Eight sites are associated with gas stations. 	<p>Moderate – Lockhart Well Service (RN1006982887) adjacent to Project Area</p> <p>Low – Only two sites within 0.25-mile of the Project Area and they across from Town Branch</p>
<p>*A Phase I ESA was not completed for the Project Area. Readily available data for IHW sites, PST, LPST, and oil and gas operations were reviewed.</p>	

Project Area is currently and has historically been used for agricultural purposes. Through the adjacent agricultural operations, herbicides and pesticides may have been used. Given that no storage structures or spills were currently or historically identified at the Project, TRC presumes that the amount of herbicides and pesticides that may have been administered would have been at “application” concentrations. Although TRC cannot rule out the possibility of historic herbicide and pesticide use, the Project Area does not appear likely to have been impacted by releases of herbicides and pesticides. Soil contact could cause exposure to herbicides, pesticides or federalizers used in agricultural operations.

8. Water Resources

The proposed Project is located in the Plum Creek watershed and is not located within an area designated as a sole source aquifer (USEPA, 2023a; TPWD, 2023c). There is one pond and three ephemeral streams within the Project Area. Discharges to surface waterbodies are not anticipated and no Texas Section 303(d) listed impaired waters are located within or adjacent to the Project. As the proposed Project would disturb more than five acres, a Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit, as administered by the Texas Commission on Environmental Quality (TCEQ), would be required. A Storm Water Pollution Prevention Plan would be prepared and implemented, and a construction notice would be posted at the Project site. A Notice of Intent would be required for this Project since the area of disturbance is greater than five acres.

9. Water Supply and Distribution System

The proposed Project would not supply or distribute water to the surrounding community.

10. Wastewater Collection and Treatment Facilities

The proposed Project would include an updated sanitary sewer collection pipelines, but not have any wastewater discharges or treatment facilities.

11. Environmental Justice (Executive Order 12898)

On February 11, 1994, the President issued Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”, providing that “each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The Council on Environmental Quality (CEQ) defines “adverse effects” as significant individual or cumulative human health or environmental effects. Examples of adverse human health effects include bodily impairment, infirmity, illness, or death. Examples of adverse environmental effects include actions that would result in the preparation of an Environmental Impact Statement under the National Environmental Policy Act (NEPA).

According to the CEQ, minority groups include individuals who are members of American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), and Hispanic population groups. A minority population is a group of individuals living in close proximity to one another where either: (a) a minority group of the population within the affected area exceeds 50% of that population, (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population, or (c) there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the first two thresholds.

As defined by the CEQ, low-income groups include individuals who earn an annual family income below the statistical poverty thresholds provided by the U.S. Census Bureau’s Current Population Reports, Series P-60. A low-income population includes a group of individuals whose median family income for the year is below the poverty threshold identified by the U.S. Census Bureau (2020). The most recent income data for the City of Lockhart is the 2020 Census; therefore, low-income groups are defined as individuals who earned an annual income below the statistical poverty threshold provided by the U.S.

Census Bureau for the year 2020. **Table 3** presents minority and low-income statistics for the City of Lockhart (U.S Census Bureau, 2020).

Table 3: 2020 Census Data for the City of Lockhart

Ethnic Composition	City of Lockhart	Percent
White	11,269	75.2%
Black	914	6.1%
American Indian	90	0.6%
Asian	375	2.5%
Native Hawaiian and Other Pacific Islander	0	0.0%
Two or more races	1,394	9.3%
Hispanic or Latino (of any race)	7,852	52.4%
White alone, not Hispanic or Latin	5,604	37.4%
Total Population	14,985	100%
Total Minority	10,625	71.0%
Poverty Levels	City of Lockhart	Percent
Individuals Below Poverty Levels	1,603	10.7

The proposed Project would not result in any “adverse effects” as defined by CEQ; therefore, there would be no adverse effects to any minority or low-income populations.

12. Transportation (Streets, Traffic and Parking)

The Project Area is bounded on the west and the north by Texas State Highway 130, by Texas State Highway 183 to the east, and Texas State Highway 142 (West San Antonio Street) to the South. Texas State Highway 130 is a four-lane divided highway, Texas State Highway 183 is a four-lane undivided highway, and Texas State Highway 142 (West San Antonio) is a residential road. No new traffic patterns are anticipated as a result of this Project. Level of Service (LOS) is a measure of traffic density with a rating system of A (least congested) through F (most congested). General definitions of the rating system are provided in **Table 4**. The proposed Project is a sanitary sewer project and will have no impact on traffic patterns or levels of service.

Table 4: General Definitions of Traffic Levels of Service

Level of Service	General Operating Conditions
A	Free flow
B	Reasonably free flow
C	Stable flow
D	Approaching unstable flow
E	Unstable flow
F	Forced or breakdown flow

Source: American Association of State Highway and Transportation Officials: *A Policy on Geometric Design of Highways and Streets* (2004)

13. **Air Quality**

The Clean Air Act (CAA), as amended in 1977 and 1990, provides the basis for regulating air pollution to the atmosphere. The USEPA classifies air quality within an area according to whether the concentrations of criteria air pollutants in the atmosphere exceed primary or secondary National Ambient Air Quality Standards (NAAQS). NAAQS currently are established for six criteria air pollutants, including carbon monoxide, lead, nitrogen dioxide, particulate matter with a diameter less than or equal to 10 microns, particulate matter with a diameter less than or equal to 2.5 microns, ozone, and sulfur dioxide.

An attainment designation indicates that air quality within an area is as good as or better than the NAAQS. As of June 2023, Caldwell County was designated in attainment status for all criteria pollutants (USEPA, 2023b).

Air quality impacts from construction activities would be localized and temporary, occurring only over a period of months. Negligible impacts are expected from construction activities. Post-construction routine maintenance activities are expected to be similar to current maintenance activities; therefore, no impacts are anticipated from operation and maintenance activities. During Project construction activities, measures such as wetting the soil, limiting unnecessary idling of construction vehicles, maintaining vehicles in proper working condition, and shutting down construction machines that are not in use would be employed to minimize additional air quality impacts from construction activities.

14. **Noise**

The proposed 1.51 mile sanitary sewer installation and replacement will be constructed adjacent to and underneath an existing railroad line, as near as approximately 50-275 feet north of existing residential developments on the western portion of the project area, and on the eastern project area the sanitary sewer runs underneath North Commerce Street and directly in front of Kruez Market. Local ambient noise sources in the vicinity of the Project Area include existing traffic roadway noise from the surrounding area, ambient noise from existing commercial facilities to the east and occasional short-term noise from an active railroad line running through the project area. Based on the City of Lockhart Zoning Map, the Project is located within an Agricultural/Open Space Zone, a Residential Medium Density Zone, an Industrial Light Zone, a Residential High Density Zone, a Commercial Light Business Zone, a Commercial Medium Zone, and a Residential Low Density Zone (City of Lockhart, 2023).

The noise generated by the construction phase of this Project is anticipated to temporarily increase noise levels during daylight hours for the sensitive receptors abutting the Project Area. The duration of increased noise levels for the sensitive receptors will be minimal; therefore, there are no anticipated disruptions of normal activities. The contractor will implement best management practices to minimize construction noise through abatement measures, such as work-hour controls and the regular maintenance of equipment and muffler systems. Once the construction phase is complete it is anticipated that the ambient noise levels for sensitive receptors will not increase; therefore, the proposed Project is not anticipated to result in a noise impact.

15. Permits

A Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit, as administered by the TCEQ, would be required for the proposed Project. The proposed Project would also include drainage improvements, a storm water channel, and stormwater retention basin. The area disturbed will be over five acres and a Notice of Intent (NOI) will be required to be submitted to the TCEQ.

No other federal, state, or local permits would be required for the proposed Project.

16. Public Notification/Controversy

The proposed Project will be published in the Lockhart Post Register newspaper with a 30-day public review period. A copy of the Public Notice is included in **Appendix F**.

17. Cumulative Effects

The combined vegetation impact from the proposed Project would be temporary in nature and revegetated. Suitable habitat for the monarch butterfly (Federal Candidate species) may be impacted by the Project; however, candidate species are not currently afforded protection under Section 7 of the ESA. No suitable habitat for state listed species would be impacted by the Project. Therefore, the cumulative impacts are not likely to adversely affect any federal or state-listed threatened or endangered species. The Project would affect any known archeological resources within the area. Furthermore, the Project is subject to state permitting by the TCEQ, ensuring that it does not degrade water quality from construction activities. Since the Project is subject to the state permitting process, there would be no major cumulative surface water impacts. Cumulative impacts from the Project regarding air quality and noise impacts would be negligible due to the temporary nature.

D. MITIGATION

No adverse impacts to any resources listed above are anticipated at this time. Therefore, no mitigation measures are discussed in this Section.

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Figures

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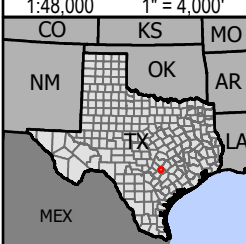
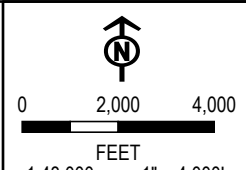
Figure 1: Project Vicinity Map

DRAFT



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PROJECT BOUNDARY



PROJECT: **CITY OF LOCKHART
SANITARY SEWER REPLACEMENT
CALDWELL COUNTY, TX**

TITLE: **PROJECT VICINITY MAP**

DRAWN BY:	E. DOUMA	PROJ. NO.:	534945
CHECKED BY:	S. RAY	FIGURE 1	
APPROVED BY:	J. GEYER		
DATE:	OCTOBER 2023		

14701 ST. MARY'S LANE
 SUITE 500
 HOUSTON, TX 77079
 PHONE: 713.244.1000
 FILE: 534945_WDR


BASE MAP IMAGERY FROM GOOGLE, MARCH 2022.

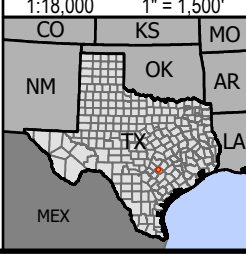
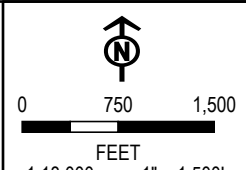
Figure 2: Project Location Map Aerial


DRAFT

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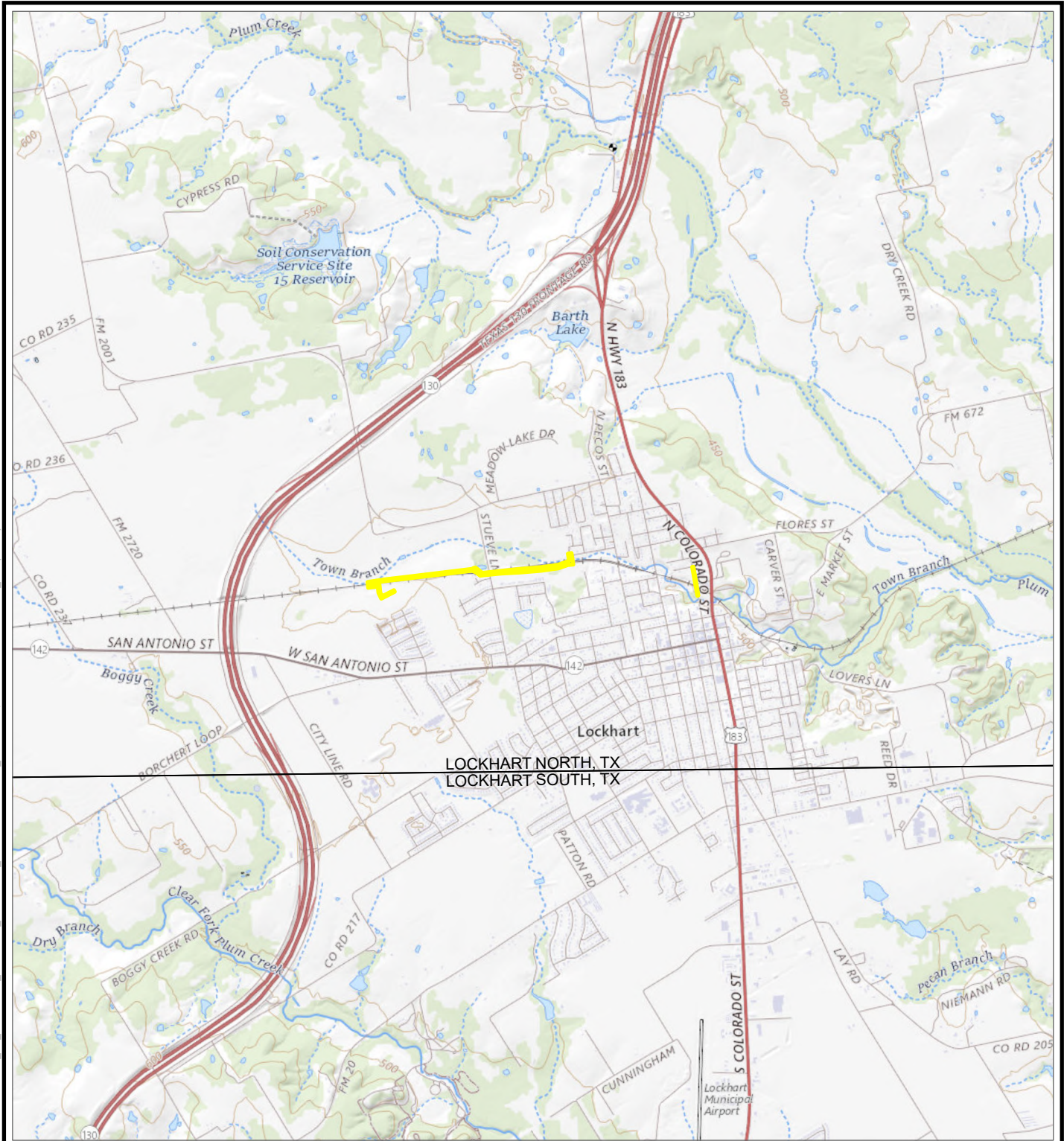
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TITLE:		PROJECT LOCATION MAP AERIAL	
DRAWN BY:	E. DOUMA	PROJ. NO.:	534945
CHECKED BY:	S. RAY	FIGURE 2	
APPROVED BY:	J. GEYER		
DATE:	OCTOBER 2023		
		14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
		FILE:	534945_WDR

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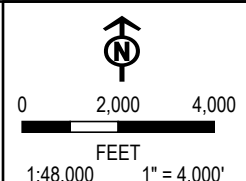
Figure 3: Project Location Map Topographic

DRAFT

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- PROJECT BOUNDARY
- USGS QUADRANGLE BOUNDARY



BASE MAP: USA TOPO MAPS MAP SERVICE, LOCKHART NORTH, TX

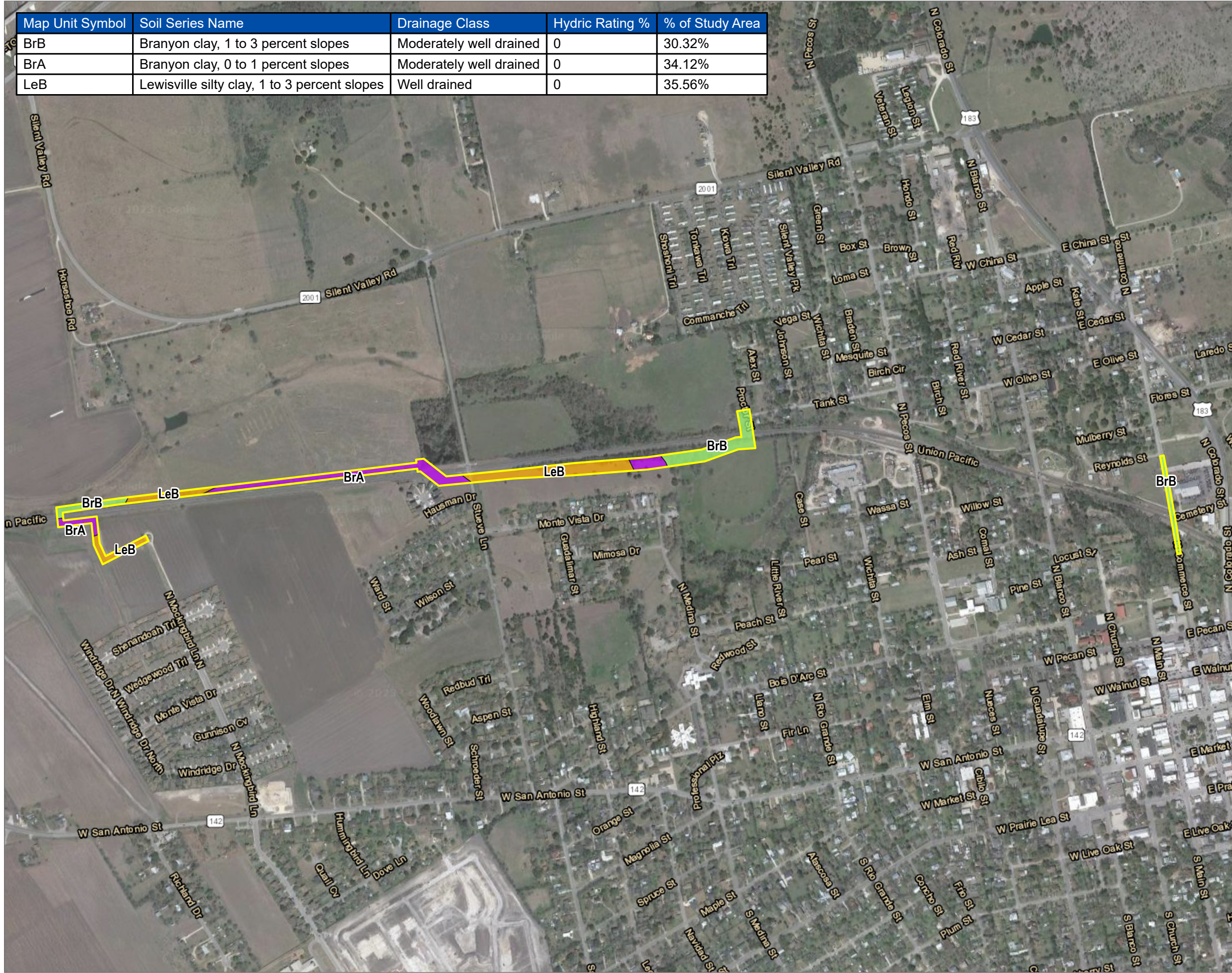
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TITLE: PROJECT LOCATION MAP TOPOGRAPHIC	
DRAWN BY: E. DOUMA	PROJ. NO.: 534945
CHECKED BY: S. RAY	FIGURE 3
APPROVED BY: J. GEYER	
DATE: OCTOBER 2023	
14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
FILE:	534945_WDR

Figure 4: NRCS Soils Map

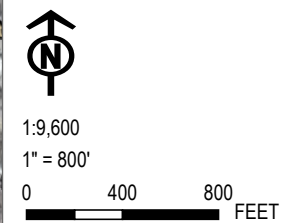
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Map Unit Symbol	Soil Series Name	Drainage Class	Hydric Rating %	% of Study Area
BrB	Branyon clay, 1 to 3 percent slopes	Moderately well drained	0	30.32%
BrA	Branyon clay, 0 to 1 percent slopes	Moderately well drained	0	34.12%
LeB	Lewisville silty clay, 1 to 3 percent slopes	Well drained	0	35.56%

- PROJECT BOUNDARY
- SOIL SERIES NAME
- BRANYON CLAY, 0 TO 1 PERCENT SLOPES
- BRANYON CLAY, 1 TO 3 PERCENT SLOPES
- LEWISVILLE SILTY CLAY, 1 TO 3 PERCENT SLOPES



NOTES:
 1. BASE MAP IMAGERY FROM GOOGLE, MARCH 2022.
 2. SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

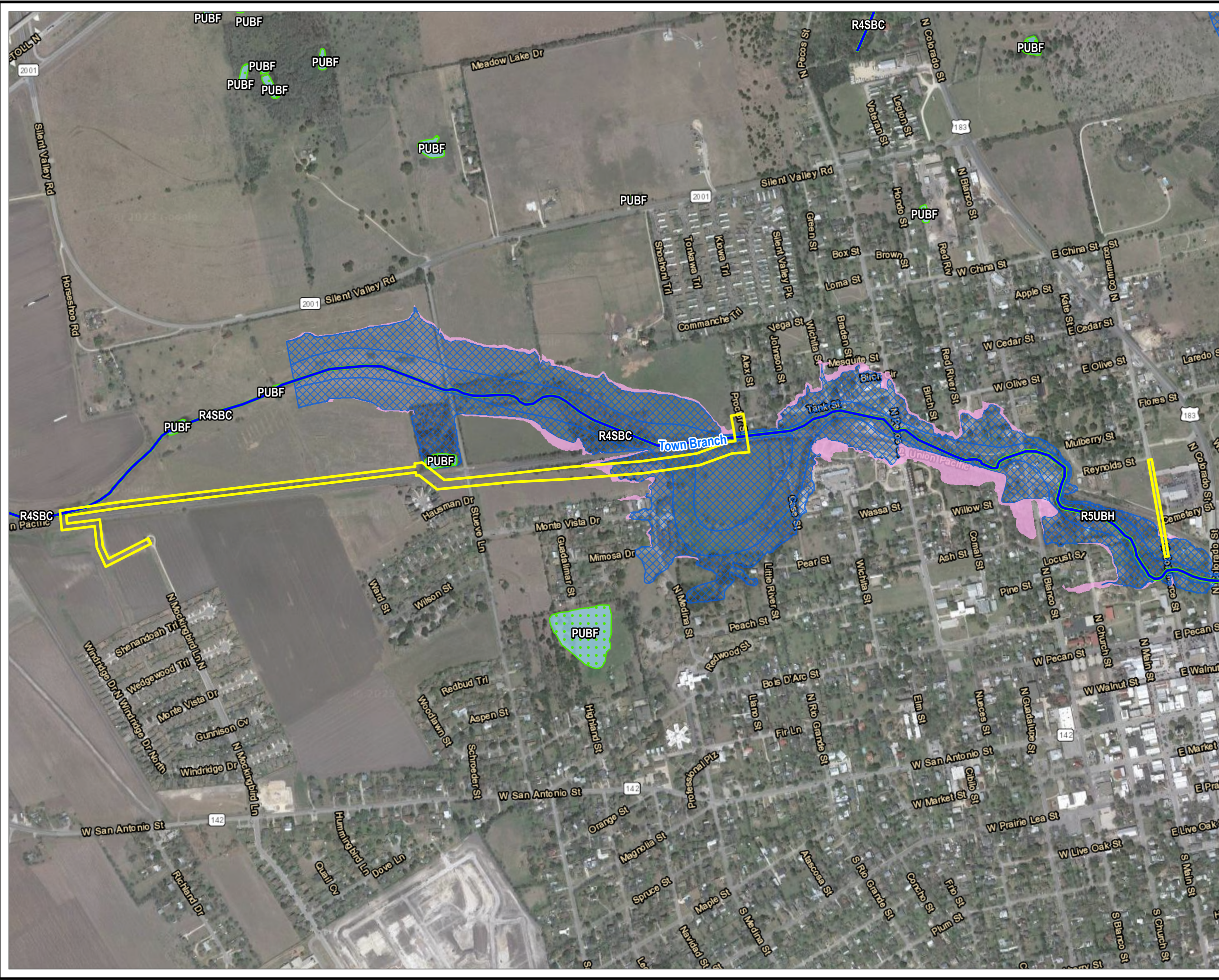


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TITLE: NRCS SOILS MAP	
DRAWN BY: E. DOUMA	PROJ. NO.: 534945
CHECKED BY: S. RAY	FIGURE 4
APPROVED BY: J. GEYER	
DATE: OCTOBER 2023	
14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
FILE:	534945_WDR.aprx

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet, Map Rotation: 0
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Figure 5: FEMA Floodplain and USFWS NWI Map

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- PROJECT BOUNDARY
- NHD STREAM/RIVER
- NHD WATERBODY
- NWI WETLAND
- 100-YEAR FLOOD ZONE/WAY
- 500-YEAR FLOOD ZONE

- NOTES:
1. BASE MAP IMAGERY FROM GOOGLE, MARCH 2022.
 2. WETLANDS ACQUIRED FROM USFWS, NATIONAL WETLAND INVENTORY (NWI).
 3. STREAMS AND WATERBODIES DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD).
 4. FLOOD DATA ACQUIRED FROM THE FEMA NATIONAL FLOOD HAZARD LAYER.



1:9,600
 1" = 800'
 0 400 800 FEET

PROJECT: CITY OF LOCKHART SANITARY SEWER REPLACEMENT CALDWELL COUNTY, TX	
TITLE: HYDROLOGY AND NWI MAP	
DRAWN BY: E. DOUMA	PROJ. NO.: 534945
CHECKED BY: S. RAY	FIGURE 5
APPROVED BY: J. GEYER	
DATE: OCTOBER 2023	
14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
FILE:	534945_WDR.aprx

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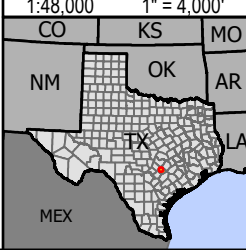
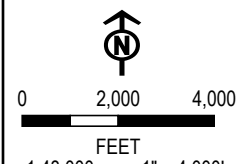
Figure 6: EPA Impaired Waters Map

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- PROJECT BOUNDARY
- 303D IMPAIRED WATERWAY
- 303D IMPAIRED WATERBODY



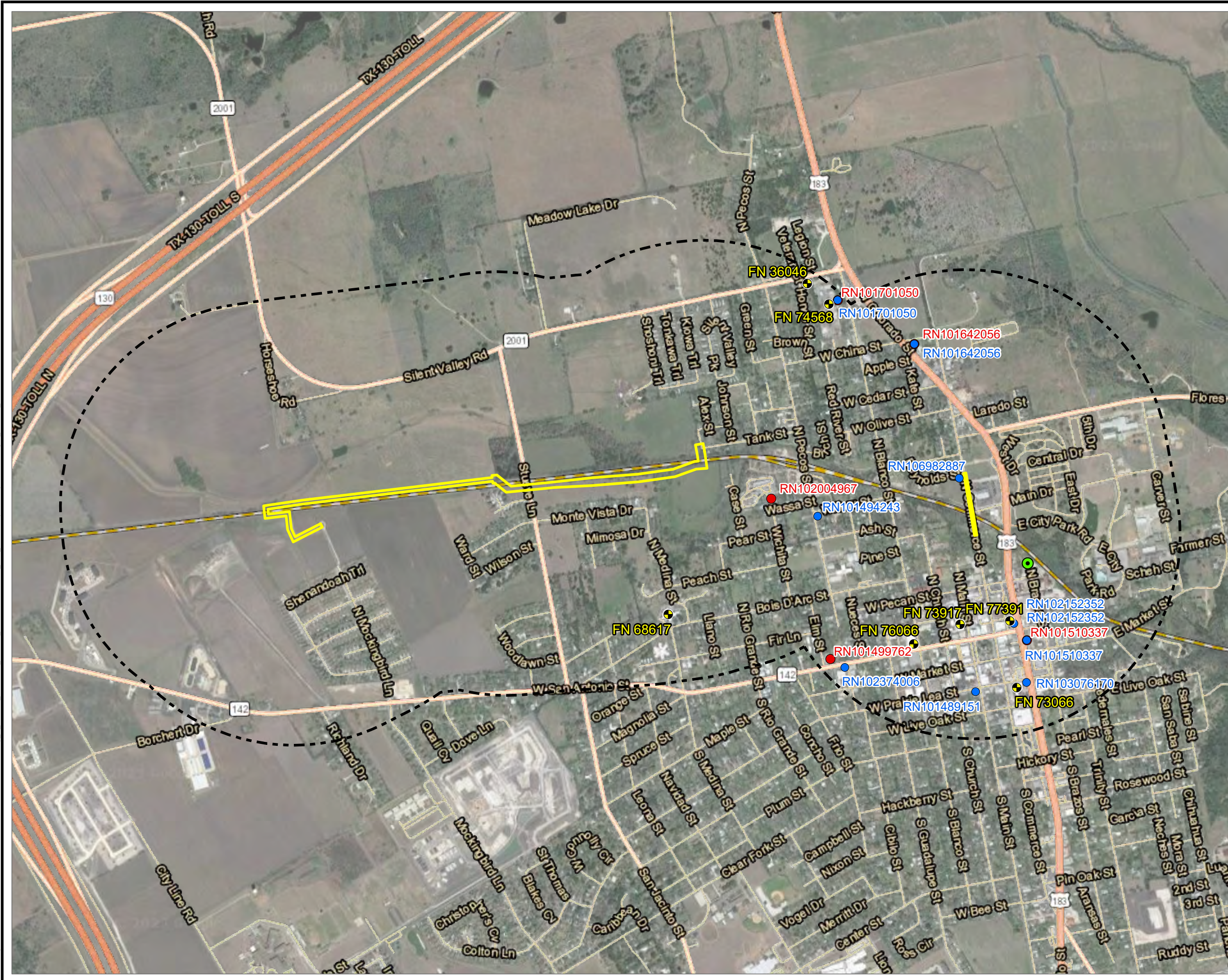
PROJECT: CITY OF LOCKHART SANITARY SEWER REPLACEMENT CALDWELL COUNTY, TX	
TITLE: EPA IMPAIRED WATERS MAP	
DRAWN BY: E. DOUMA	PROJ. NO.: 534945
CHECKED BY: S. RAY	FIGURE 6
APPROVED BY: J. GEYER	
DATE: NOVEMBER 2023	
14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
FILE: 534945_ENV_NARRATIVE	

NOTES:
 1. BASE MAP IMAGERY FROM GOOGLE, MARCH 2022.
 2. IMPAIRED WATERS ACQUIRED FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA) (NO IMPAIRED WATERS WERE FOUND WITHIN THE PROJECT VICINITY).

Figure 7: Historic Land Use and Hazardous Materials Map

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Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet, Map Rotation: 0
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- PROJECT BOUNDARY
- 1/2-MILE RADIUS
- PETROLEUM STORAGE TANK
- LEAKING PETROLEUM STORAGE TANK
- INDUSTRIAL HAZARDOUS WASTE SITE
- DRY HOLE (OIL & GAS WELL LOCATION)

- NOTES:
1. BASE MAP IMAGERY FROM GOOGLE, MARCH 2022.
 2. INDUSTRIAL HAZARDOUS WASTE SITES ACQUIRED FROM REGISTRY.
 3. OIL AND GAS OPERATIONS DATA ACQUIRED FROM RCC TEXAS.GOV.
 4. PETROLEUM DATA ACQUIRED FROM TCEQ ONLINE SERVICES.
 5. PIPELINE DATA ACQUIRED FROM ONLINE SERVICES TTP GIS 2020 (NO PIPELINES WITHIN THE PROJECT BOUNDARY).
 6. MUNICIPAL SOLID WASTE DATA ACQUIRED FROM TCEQ ONLINE SERVICES (NO MUNICIPAL SOLID WASTE SITES WITHIN THE PROJECT BOUNDARY).



↑
N

1:15,000
 1" = 1,250'

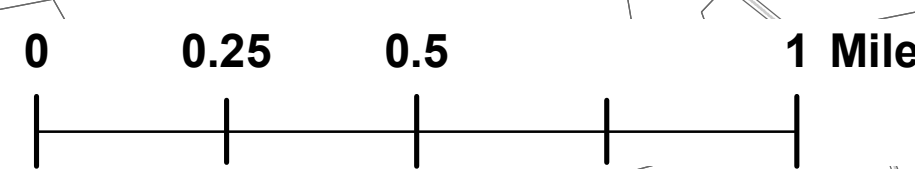
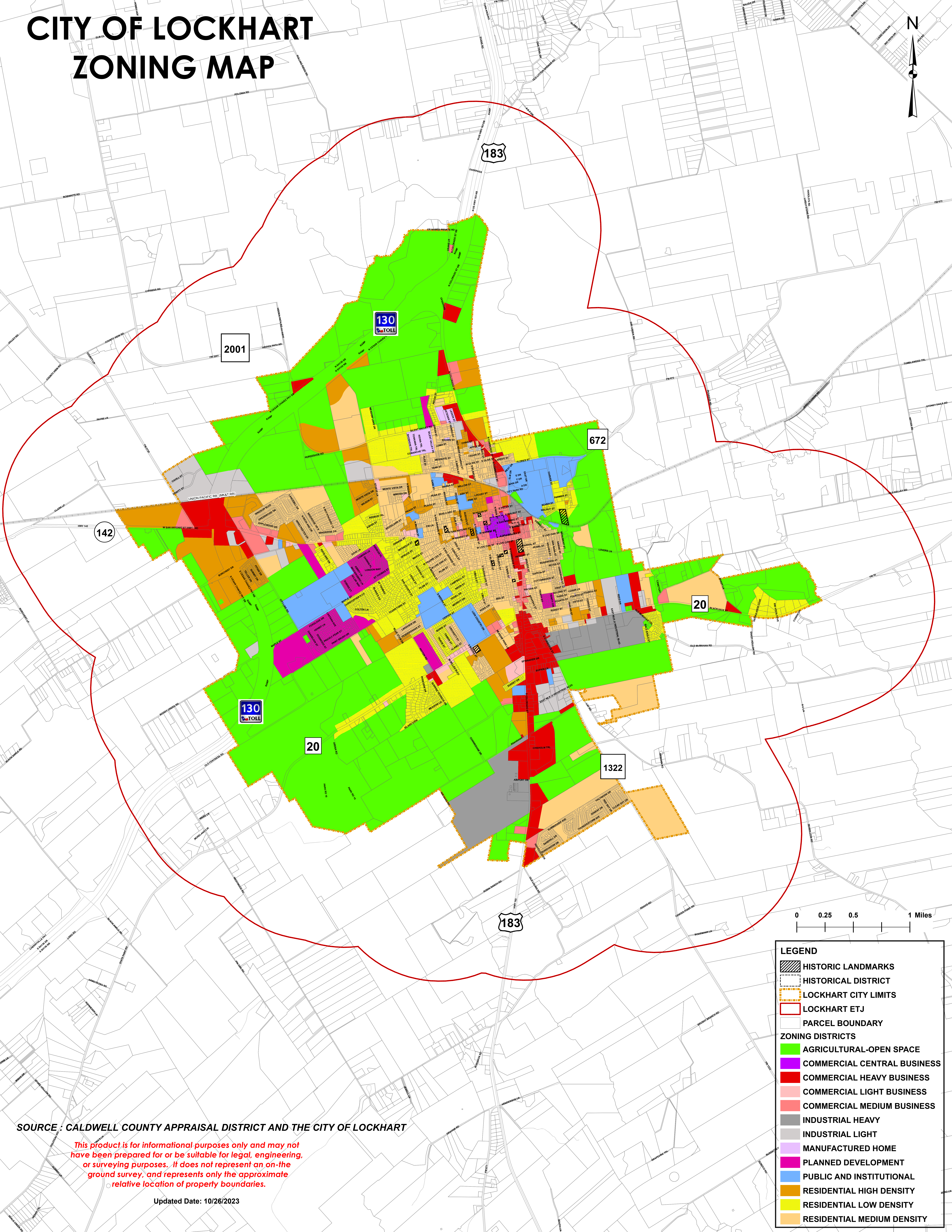
0 625 1,250 FEET

PROJECT: CITY OF LOCKHART SANITARY SEWER REPLACEMENT CALDWELL COUNTY, TX	
TITLE: HISTORIC LAND USE AND HAZARDOUS MATERIALS MAP	
DRAWN BY: E. DOUMA	PROJ. NO.: 534945
CHECKED BY: S. RAY	FIGURE 7
APPROVED BY: J. GEYER	
DATE: NOVEMBER 2023	
14701 ST. MARY'S LANE SUITE 500 HOUSTON, TX 77079 PHONE: 713.244.1000	
FILE: 534945_ENV_Narrative.aprx	

Figure 8: City of Lockhart Zoning Map

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CITY OF LOCKHART ZONING MAP



LEGEND	
	HISTORIC LANDMARKS
	HISTORICAL DISTRICT
	LOCKHART CITY LIMITS
	LOCKHART ETJ
	PARCEL BOUNDARY
ZONING DISTRICTS	
	AGRICULTURAL-OPEN SPACE
	COMMERCIAL CENTRAL BUSINESS
	COMMERCIAL HEAVY BUSINESS
	COMMERCIAL LIGHT BUSINESS
	COMMERCIAL MEDIUM BUSINESS
	INDUSTRIAL HEAVY
	INDUSTRIAL LIGHT
	MANUFACTURED HOME
	PLANNED DEVELOPMENT
	PUBLIC AND INSTITUTIONAL
	RESIDENTIAL HIGH DENSITY
	RESIDENTIAL LOW DENSITY
	RESIDENTIAL MEDIUM DENSITY

SOURCE : CALDWELL COUNTY APPRAISAL DISTRICT AND THE CITY OF LOCKHART

This product is for informational purposes only and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey, and represents only the approximate relative location of property boundaries.

Updated Date: 10/26/2023

Appendix A

Applicant Certification Clause

DRAFT

Appendix B

Preliminary Engineering Report

DRAFT

Appendix C

SHPO Comments

DRAFT

Geyer, Joshua

From: Haefner, Josh
Sent: Friday, September 15, 2023 11:18 AM
To: Geyer, Joshua
Subject: FW: [EXTERNAL] City of Lockhart, Proposed Sewer Line Extension Project

Below is THC's response. So it looks like we don't need to survey.....

Josh Haefner

Senior Archeologist/ Principal Investigator/ Project Manager



505 E. Huntland Drive, Ste 250, Austin, TX 78752
C 512.608.0369 | F 512.329.8750 | jhaefner@trccompanies.com
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: Haefner, Josh <jhaefner@trcsolutions.com>
Sent: Monday, July 31, 2023 1:55 PM
To: Blaisdell, Brandi <BBlaisdell@trccompanies.com>
Cc: Thompson, Ashley <TAThompson@trccompanies.com>; Geyer, Joshua <JGeyer@trccompanies.com>
Subject: FW: [EXTERNAL] City of Lockhart, Proposed Sewer Line Extension Project

Hi Brandi,

THC has reviewed the City of Lockhart Sewer Line Extension Project Coordination Letter and agrees that survey is unwarranted at this time. Unless they hit something that would necessitate assessment, no further cultural work is required from us regarding obligations under the ACT

Best,

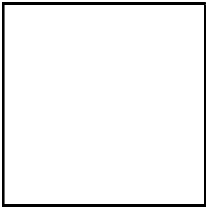
Josh Haefner

Senior Archeologist/ Principal Investigator/ Project Manager



505 E. Huntland Drive, Ste 250, Austin, TX 78752
C 512.698.9049 | F 512.329.8750 | jhaefner@trccompanies.com
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: noreply@thc.state.tx.us <noreply@thc.state.tx.us>
Sent: Monday, July 31, 2023 12:46 PM
To: Haefner, Josh <jhaefner@trcsolutions.com>; reviews@thc.state.tx.us
Subject: [EXTERNAL] City of Lockhart, Proposed Sewer Line Extension Project



Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas

THC Tracking #202310104

Date: 07/31/2023

City of Lockhart, Proposed Sewer Line Extension Project

NW of downtown Lockhart

Lockhart, TX 78644

Description: Lockhart is proposing construction of new build sewer main and partial replacement of a line in Lockhart, Caldwell County, Texas with funding from Economic Assistance Grant.

Dear Josh Haefner:

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 and the Antiquities Code of Texas.

The review staff, led by Jeff Durst and 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.

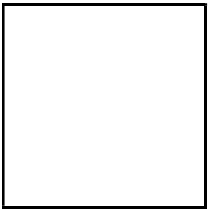
Archeology Comments

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance 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.
- THC/SHPO concurs with information provided.

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: Jeff.Durst@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 <http://thc.texas.gov/etrac-system>.

Sincerely,



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

Please do not respond to this email.

Appendix D

DRAFT

Site Photographs



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-01

PLOT OVERVIEW		29.8893735, -97.7011979	
ID	L-JAG-01-1	Plot Type	Land Cover
Date/Time	2023-06-14 12:08:00	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-10-1-PIC1	Photo Type	Plot Overview
Direction	E	Comment	



Photo ID	L-JAG-10-1-PIC2	Photo Type	Plot Overview
Direction	N	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-02

PLOT OVERVIEW		29.8897126, -97.7012797	
ID	L-JAG-02-1	Plot Type	Land Cover
Date/Time	2023-06-14 12:11:11	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-11--PIC1	Photo Type	Plot Overview
Direction	S	Comment	



Photo ID	L-JAG-11--PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS


D-JAG-03

PLOT OVERVIEW		29.889783339219637, -97.70067933255305	
ID	D-JAG-03-2	Plot Type	Suspected Non-Jurisdictional Water
Date/Time	2023-06-14 12:16:08	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Ditch		
Comments	North end of stream		

PLOT PHOTOS

Photo ID	D-JAG-04-2-PIC1	Photo Type	Feature
Direction	S	Comment	



Photo ID	D-JAG-04-2-PIC2	Photo Type	Plot Overview
Direction	N	Comment	
			
Photo ID	D-JAG-04-2-PIC3	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-04

PLOT OVERVIEW		29.8894973, -97.7002752	
ID	L-JAG-04-1	Plot Type	Land Cover
Date/Time	2023-06-14 11:50:38	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-09-1-PIC1	Photo Type	Plot Overview
Direction	W	Comment	



Photo ID	L-JAG-09-1-PIC2	Photo Type	Plot Overview
Direction	S	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-05

PLOT OVERVIEW			29.8885435, -97.7000913
ID	L-JAG-05-1	Plot Type	Land Cover
Date/Time	2023-06-14 11:45:28	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-07-1-PIC1	Photo Type	Plot Overview
Direction	E	Comment	



Photo ID	L-JAG-07-1-PIC2	Photo Type	Plot Overview
Direction	N	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-06

PLOT OVERVIEW			29.8891128, -97.6993039
ID	L-JAG-06-1	Plot Type	Land Cover
Date/Time	2023-06-14 11:35:02	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Agricultural		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-06-1-PIC1	Photo Type	Plot Overview
Direction	W	Comment	



Photo ID	L-JAG-06-1-PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-07

PLOT OVERVIEW		29.8899639, -97.6983404	
ID	L-JAG-07-1	Plot Type	Land Cover
Date/Time	2023-06-14 12:22:06	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-12-1-PIC1	Photo Type	Plot Overview
Direction	E	Comment	



Photo ID	L-JAG-12-1-PIC2	Photo Type	Plot Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-08

PLOT OVERVIEW			29.8903005, -97.6947825
ID	L-JAG-08-1	Plot Type	Land Cover
Date/Time	2023-06-14 12:33:28	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-13-1-PIC1	Photo Type	Plot Overview
Direction	E	Comment	



Photo ID	L-JAG-13-1-PIC2	Photo Type	Plot Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-09

PLOT OVERVIEW			29.8905421, -97.6919545
ID	L-JAG-09-1	Plot Type	Land Cover
Date/Time	2023-06-14 12:45:49	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-14-1-PIC1	Photo Type	Plot Overview
Direction	E	Comment	



Photo ID	L-JAG-14-1-PIC2	Photo Type	Plot Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

D-JAG-10

PLOT OVERVIEW		29.89061018551864, -97.69159504252004	
ID	D-JAG-10-3	Plot Type	Suspected Non-Jurisdictional Water
Date/Time	2023-06-14 12:50:16	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Pond		
Comments			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-11

PLOT OVERVIEW		29.8903245, -97.6913893	
ID	L-JAG-11-1	Plot Type	Land Cover
Date/Time	2023-06-14 09:50:56	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-01-1-PIC1	Photo Type	Plot Overview
Direction	NW	Comment	



Photo ID	L-JAG-01-1-PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-12

PLOT OVERVIEW		29.8902637, -97.6902955	
ID	L-JAG-12-1	Plot Type	Land Cover
Date/Time	2023-06-14 10:04:21	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-Enter resource number--PIC1	Photo Type	Plot Overview
Direction	W	Comment	



Photo ID	L-JAG-Enter resource number--PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-13

PLOT OVERVIEW				29.890488, -97.6879275
ID	L-JAG-13-1	Plot Type	Land Cover	
Date/Time	2023-06-14 10:12:22	Parcel		
Evaluator(s)	Jamie Rule			
Feature Detail	Open Land/Hay/Pasture/Scrub			
Comments				

PLOT PHOTOS				
Photo ID	L-JAG-03-1-PIC1	Photo Type	Plot Overview	
Direction	E	Comment		



Photo ID	L-JAG-03-1-PIC2	Photo Type	Plot Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-14

PLOT OVERVIEW			29.8906442, -97.6853517
ID	L-JAG-14-1	Plot Type	Land Cover
Date/Time	2023-06-14 10:23:28	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-04-1-PIC1	Photo Type	Plot Overview
Direction	W	Comment	



Photo ID	L-JAG-04-1-PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-15

PLOT OVERVIEW			29.8906875, -97.6845172
ID	L-JAG-15-1	Plot Type	Land Cover
Date/Time	2023-06-14 10:36:23	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-05-1-PIC1	Photo Type	Plot Overview
Direction	W	Comment	



Photo ID	L-JAG-05-1-PIC2	Photo Type	Plot Overview
Direction	E	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-16

PLOT OVERVIEW			29.8909788, -97.6832942
ID	L-JAG-16-1	Plot Type	Land Cover
Date/Time	2023-06-14 10:40:31	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-06-1-PIC1	Photo Type	Plot Overview
Direction	N	Comment	



Photo ID	L-JAG-06-1-PIC2	Photo Type	Plot Overview
Direction	W	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-17

PLOT OVERVIEW			29.891921, -97.6835506
ID	L-JAG-17-1	Plot Type	Land Cover
Date/Time	2023-06-14 13:23:37	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-14-1-PIC1	Photo Type	Plot Overview
Direction	S	Comment	





ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-18

PLOT OVERVIEW			29.8906403, -97.672694
ID	L-JAG-18-1	Plot Type	Land Cover
Date/Time	2023-06-14 13:39:35	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-16-1-PIC1	Photo Type	Plot Overview
Direction	S	Comment	



Photo ID	L-JAG-16-1-PIC2	Photo Type	Plot Overview
Direction	N	Comment	
			



ENVIRONMENTAL SURVEY PLOT REPORT

CLIENT: CITY OF LOCKHART
PROJECT: LOCKHART EDA SS

L-JAG-19

PLOT OVERVIEW			29.8884636, -97.6721933
ID	L-JAG-19-1	Plot Type	Land Cover
Date/Time	2023-06-14 13:35:31	Parcel	
Evaluator(s)	Jamie Rule		
Feature Detail	Open Land/Hay/Pasture/Scrub		
Comments			

PLOT PHOTOS			
Photo ID	L-JAG-14-1-PIC1	Photo Type	Plot Overview
Direction	N	Comment	



Photo ID	L-JAG-14-1-PIC2	Photo Type	Plot Overview
Direction	S	Comment	
			

Appendix E

USFWS IPaC Report and TPWD T&E Species List

DRAFT



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Austin Ecological Services Field Office

1505 Ferguson Lane

Austin, TX 78754-4501

Phone: (512) 937-7371

In Reply Refer To:

Project Code: 2023-0091401

Project Name: Lockhart EDA Sewer Replacement

June 08, 2023

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, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code 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:

Austin Ecological Services Field Office

1505 Ferguson Lane

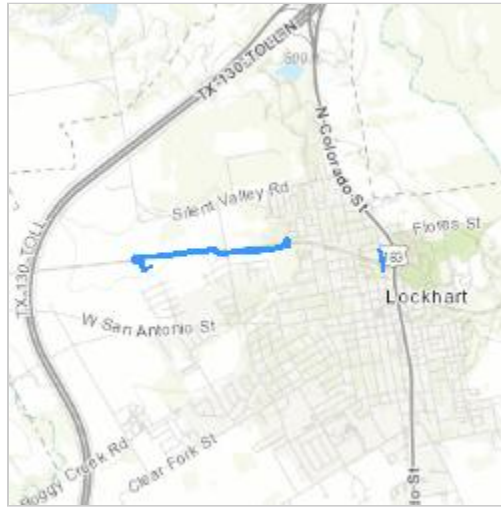
Austin, TX 78754-4501

(512) 937-7371

PROJECT SUMMARY

Project Code: 2023-0091401
Project Name: Lockhart EDA Sewer Replacement
Project Type: Wastewater Pipeline - Maintenance / Modification - Below Ground
Project Description: Sewer replacement
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@29.890103949999997,-97.69710714133296,14z>



Counties: Caldwell County, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane <i>Grus americana</i> Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

CLAMS

NAME	STATUS
Guadalupe Orb <i>Cyclonaias necki</i> Population: There is proposed critical habitat for this species. Your location does not overlap the critical habitat.	Proposed Endangered

INSECTS

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

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: TRC Companies
Name: Andrea Barrera
Address: 505 E Huntland Drive
Address Line 2: Suite 250
City: Austin
State: TX
Zip: 78237
Email: abarrera@trcsolutions.com
Phone: 3152780694

Last Update: 1/4/2023

CALDWELL COUNTY

AMPHIBIANS

Houston toad

Anaxyrus houstonensis

Terrestrial and aquatic: Primary terrestrial habitat is forests with deep sandy soils. Juveniles and adults are presumed to move through areas of less suitable soils using riparian corridors. Aquatic habitats can include any water body from a tire rut to a large lake.

Federal Status: LE

State Status: E

SGCN: Y

Endemic: Y

Global Rank: G1

State Rank: S1

San Marcos salamander

Eurycea nana

Aquatic; springs and associated water.

Federal Status: LT

State Status: T

SGCN: Y

Endemic: Y

Global Rank: G1

State Rank: S1

Strecker's chorus frog

Pseudacris streckeri

Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S3

Texas blind salamander

Eurycea rathbuni

Aquatic and subterranean; streams and caves.

Federal Status: LE

State Status: E

SGCN: Y

Endemic: Y

Global Rank: G1

State Rank: S1

Woodhouse's toad

Anaxyrus woodhousii

Terrestrial and aquatic: A wide variety of terrestrial habitats are used by this species, including forests, grasslands, and barrier island sand dunes. Aquatic habitats are equally varied.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: SU

BIRDS

bald eagle

Haliaeetus leucocephalus

Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S3B,S3N

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CALDWELL COUNTY

BIRDS

black rail *Laterallus jamaicensis*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of Salicornia

Federal Status: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

chestnut-collared longspur *Calcarius ornatus*

Occurs in open shortgrass settings especially in patches with some bare ground. Also occurs in grain sorghum fields and Conservation Reserve Program lands

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

Franklin's gull *Leucophaeus pipixcan*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. This species is only a spring and fall migrant throughout Texas. It does not breed in or near Texas. Winter records are unusual consisting of one or a few individuals at a given site (especially along the Gulf coastline). During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2N

mountain plover *Charadrius montanus*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

piping plover *Charadrius melodus*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.

Federal Status: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

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CALDWELL COUNTY

BIRDS

rufa red knot *Calidris canutus rufa*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes.

Federal Status: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: S2N

Sprague's pipit *Anthus spragueii*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat during migration and in winter consists of pastures and weedy fields (AOU 1983), including grasslands with dense herbaceous vegetation or grassy agricultural fields.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3N

swallow-tailed kite *Elanoides forficatus*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Lowland forested regions, especially swampy areas, ranging into open woodland; marshes, along rivers, lakes, and ponds; nests high in tall tree in clearing or on forest woodland edge, usually in pine, cypress, or various deciduous trees.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2B

western burrowing owl *Athene cunicularia hypugaea*

Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S2

white-faced ibis *Plegadis chihi*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4B

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CALDWELL COUNTY

BIRDS

whooping crane *Grus americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.

Federal Status: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1S2N

wood stork *Mycteria americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers to nest in large tracts of baldcypress (*Taxodium distichum*) or red mangrove (*Rhizophora mangle*); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: SHB,S2N

FISH

fountain darter *Etheostoma fonticola*

Known only from the spring-fed San Marcos and Comal rivers in dense beds of aquatic plants growing close to bottom; may be found in slow- and fast-flowing habitats.

Federal Status: LE	State Status: E	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1

Guadalupe bass *Micropterus treculii*

Endemic to the streams of the northern and eastern Edwards Plateau including portions of the Brazos, Colorado, Guadalupe, and San Antonio basins; species also found outside of the Edwards Plateau streams in decreased abundance, primarily in the lower Colorado River; two introduced populations have been established in the Nueces River system. A pure population was re-established in a portion of the Blanco River in 2014. Species prefers lentic environments but commonly taken in flowing water; numerous smaller fish occur in rapids, many times near eddies; large individuals found mainly in riffle tail races; usually found in spring-fed streams having clear water and relatively consistent temperatures.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Guadalupe darter *Percina apristis*

Endemic to the Guadalupe River Basin; Found in riffles; most common under or around 25-30 cm boulders in the main current; seems to prefer moderately turbid water.

Federal Status:	State Status: T	SGCN: Y
Endemic: Y	Global Rank: G4	State Rank: S2

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CALDWELL COUNTY

FISH

Guadalupe roundnose minnow *Dionda flavipinnis*

Endemic to Guadalupe and southern Colorado drainages; primarily restricted to clear spring-fed waters that have slight temperature variations.

Federal Status: State Status: SGCN: Y
Endemic: Global Rank: GNR State Rank: SNR

headwater catfish *Ictalurus lupus*

Originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers.

Federal Status: State Status: T SGCN: Y
Endemic: N Global Rank: G3 State Rank: S1S2

river darter *Percina shumardi*

In Texas limited to eastern streams including Red River southward to the Neches River, and a disjunct population in the Guadalupe and San Antonio river systems east of the Balcones Escarpment. Confined to large rivers and lower parts of major tributaries; usually found in deep chutes and riffles where current is swift and bottom composed of coarse gravel or rock.

Federal Status: State Status: SGCN: Y
Endemic: Global Rank: G5 State Rank: S4

Texas shiner *Notropis amabilis*

In Texas, it is found primarily in Edwards Plateau streams from the San Gabriel River in the east to the Pecos River in the west. Typical habitat includes rocky or sandy runs, as well as pools.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4 State Rank: S4

INSECTS

American bumblebee *Bombus pensylvanicus*

Habitat description is not available at this time.

Federal Status: State Status: SGCN: Y
Endemic: Global Rank: G3G4 State Rank: SNR

Comanche harvester ant *Pogonomyrmex comanche*

Habitat description is not available at this time.

Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G2G3 State Rank: S2

MAMMALS

Aransas short-tailed shrew *Blarina hylophaga plumbea*

Excavates burrows in sandy soils underlying mottes of live oak trees or in areas with little to no ground cover.

Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G5T1Q State Rank: S1

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CALDWELL COUNTY

MAMMALS

big brown bat

Eptesicus fuscus

Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S5

big free-tailed bat

Nyctinomops macrotis

Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S3

cave myotis bat

Myotis velifer

Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (*Hirundo pyrrhonota*) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G4G5

State Rank: S2S3

eastern red bat

Lasiurus borealis

Red bats are migratory bats that are common across Texas. They are most common in the eastern and central parts of the state, due to their requirement of forests for foliage roosting. West Texas specimens are associated with forested areas (cottonwoods). Also common along the coastline. These bats are highly mobile, seasonally migratory, and practice a type of "wandering migration". Associations with specific habitat is difficult unless specific migratory stopover sites or wintering grounds are found. Likely associated with any forested area in East, Central, and North Texas but can occur statewide.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G3G4

State Rank: S4

eastern spotted skunk

Spilogale putorius

Generalist; open fields prairies, croplands, fence rows, farmyards, forest edges & woodlands. Prefer wooded, brushy areas & tallgrass prairies. S.p. ssp. interrupta found in wooded areas and tallgrass prairies, preferring rocky canyons and outcrops when such sites are available.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: S1S3

hoary bat

Lasiurus cinereus

Hoary bats are highly migratory, high-flying bats that have been noted throughout the state. Females are known to migrate to Mexico in the winter, males tend to remain further north and may stay in Texas year-round. Commonly associated with forests (foliage roosting species) but are found in unforested parts of the state and lowland deserts. Tend to be captured over water and large, open flyways.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G3G4

State Rank: S4

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CALDWELL COUNTY

MAMMALS

long-tailed weasel

Mustela frenata

Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S5

mountain lion

Puma concolor

Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & riparian zones.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S2S3

northern yellow bat

Lasiurus intermedius

Occurs mainly along the Gulf Coast but inland specimens are not uncommon. Prefers roosting in spanish moss and in the hanging fronds of palm trees. Common where this vegetation occurs. Found near water and forages over grassy, open areas. Males usually roost solitarily, whereas females roost in groups of several individuals.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S4

swamp rabbit

Sylvilagus aquaticus

Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S5

tricolored bat

Perimyotis subflavus

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G3G4

State Rank: S2

western hog-nosed skunk

Conepatus leuconotus

Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. *telmalestes*

Federal Status:

State Status:

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: S4

MOLLUSKS

false spike

Fusconaia mitchelli

Occurs in small streams to medium-size rivers in habitats such as riffles and runs with flowing water. Is often found in stable substrates of sand, gravel, and cobble (Howells 2010; Randklev et al. 2012; Sowards et al. 2013; Tsakiris and Randklev 2016). [Mussels of Texas 2019]

Federal Status: PE

State Status: T

SGCN: Y

Endemic: N

Global Rank: GNR

State Rank: S1

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CALDWELL COUNTY

MOLLUSKS

Guadalupe orb *Cyclonaias necki*

Species' distribution is limited to the Guadalupe River basin. Occurs in both mainstem and tributary habitats. Often found in substrates composed of sand, gravel, and cobble, including mud-silt or gravel-filled cracks in bedrock slabs. Considered intolerant of reservoirs, but are known to occur in them (Howells 2010m; Randklev et al. 2017b). [Mussels of Texas 2020]

Federal Status: PE State Status: T SGCN: Y
Endemic: Y Global Rank: GNR State Rank: S2

No accepted common name *Millerelix gracilis*

Habitat description is not available at this time.

Federal Status: State Status: SGCN: Y
Endemic: Global Rank: G2G3 State Rank: S2?

REPTILES

Cagle's map turtle *Gratemys caglei*

Aquatic: shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas between riffles and pools especially important in providing insect prey items; nests on gently sloping sand banks within ca. 30 feet of waters edge.

Federal Status: State Status: T SGCN: Y
Endemic: Y Global Rank: G3 State Rank: S1

eastern box turtle *Terrapene carolina*

Terrestrial: Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enters pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

slender glass lizard *Ophisaurus attenuatus*

Terrestrial: Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Texas horned lizard *Phrynosoma cornutum*

Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive. Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area.

Federal Status: State Status: T SGCN: Y
Endemic: N Global Rank: G4G5 State Rank: S3

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CALDWELL COUNTY

REPTILES

timber (canebrake) rattlesnake *Crotalus horridus*

Terrestrial: Swamps, floodplains, upland pine and deciduous woodland, riparian zones, abandoned farmland. Limestone bluffs, sandy soil or black clay. Prefers dense ground cover, i.e. grapevines, palmetto.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

western box turtle *Terrapene ornata*

Terrestrial: Ornate or western box turtles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

PLANTS

awnless lestdaisy *Chaetopappa imberbis*

In woodlands on lomas of Carrizo sand (TEX-LL specimens Carr 23875, 12507). Flowering and fruiting during Mar - May.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Heller's marbleseed *Onosmodium helleri*

Occurs in loamy calcareous soils in oak-juniper woodlands on rocky limestone slopes, often in more mesic portions of canyons; Perennial; Flowering March-May

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Hill Country wild-mercury *Argythamnia aphoroides*

Mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of oak-juniper woodlands in gravelly soils on rocky limestone slopes; Perennial; Flowering April-May with fruit persisting until midsummer

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S3

sandhill woollywhite *Hymenopappus carrizoanus*

Disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2	State Rank: S2

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CALDWELL COUNTY

PLANTS

- Sutherland hawthorn** *Crataegus viridis* var. *glabriuscula*
In mesic soils of woods or on edge of woods, treeline/fenceline, or thicket. Above/near creeks and draws, in river bottoms. Flowering Mar-Apr; fruiting May-Oct.
Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5T3T4 State Rank: S3
- sycamore-leaf snowbell** *Styrax platanifolius* ssp. *platanifolius*
Rare throughout range, usually in oak-juniper woodlands on steep rocky banks and ledges along intermittent or perennial streams, rarely far from some reliable source of moisture; Perennial; Flowering April-May; Fruiting May-Aug.
Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G3T3 State Rank: S3
- Texas beebalm** *Monarda viridissima*
Endemic perennial herb of the Carrizo Sands; deep, well-drained sandy soils in openings of post oak woodlands; flowers white.
Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G3 State Rank: S3
- Texas sandmint** *Rhododon ciliatus*
Open sandy areas in the Post Oak Belt of east-central Texas; Annual; Flowering April-Aug; Fruiting May-Aug
Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G3 State Rank: S3
- Texas tauschia** *Tauschia texana*
Occurs in loamy soils in deciduous forests or woodlands on river and stream terraces; Perennial; Flowering/Fruiting Feb-April
Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G3 State Rank: S3

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Appendix F

DRAFT

Public Notice and Comments