MEMORANDUM

TO: File

FROM: Jessica Zuba, Director, Regional Water Planning and Development

DATE: September 24, 2015

SUBJECT: City of Kosse, Limestone County, Texas
Environmental Determination
Water System Improvement Project
Economically Distressed Areas Program, Project No. 10437
(G1000181, L000182)

The attached memorandum contains the staff's views regarding the environmental soundness of the water system improvement project proposed by the City of Kosse (City), Limestone County, Texas. This project will utilize planning, acquisition, and design funds from grant G1000181 and loan L000182 from the Economically Distressed Areas Program. The Texas Water Development Board (TWDB) committed funds for this project on June 20, 2013, in the total amount of $449,000. The City closed the grant and loan on August 29, 2013.

This project will address concerns regarding the City's existing water supply. Currently, the City purchases treated water from the Tri-County Water Supply Corporation, but the maximum amount of water available for purchase is limited, and levels of arsenic in the water supplied to the City have been increasing and are monitored by the Texas Commission on Environmental Quality. To ensure an adequate, reliable source of safe drinking water, the City proposes to establish its own, independent water supply by constructing: 1) two new water wells located east of the City; 2) a new water treatment plant (WTP) at the nearer of the two well sites; 3) a raw-water supply line to convey water from the remote well site to the new WTP; 4) two ground storage tanks and associated piping at the WTP and an elevated storage tank at the highest point between the water plant and the City; and 5) a treated water pipeline to connect the new facilities to the City's existing distribution system (see attached maps).

Based on the TWDB staff's environmental review, I have determined that no significant adverse environmental impacts should result from the proposed project discussed in the attached Environmental Determination. As required by 31 Texas Administrative Code §363.14, full consideration has been given to the views and comments of the requisite regulatory agencies and affected persons. Based on this review, the following conditions have been developed in order to ensure that this TWDB funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment or protected natural resources:

- All recommendations by the United States Fish and Wildlife Service regarding protection of the Houston toad must be implemented:
    1. Removal of mature forest or woodlands (e.g., the proposed WTP site) in Houston toad habitat should be avoided. As needed for project implementation,

understory thinning of shrubs and saplings can be done by hand (e.g., chainsaw) provided the cut vegetation is chipped and spread in a layer not more than 2 inches thick or removed from the site immediately and disposed of outside of Houston toad habitat.

2. Ground disturbing activities (e.g., pipeline installation, clearing of a well or WTP site, etc.) should be conducted outside the Houston toad's breeding season of January 1 through June 30 (i.e., conduct work in the hotter, drier period of July 1-December 31) when the species is less likely to be active on the surface.

3. Work areas (e.g., pipeline ROW, well pads, WTP, storage tank sites as well as temporary staging and laydown areas) in and adjacent to Houston toad habitat should be exclosed (i.e., encircled with silt fence or other exclusionary material capable of keeping Houston toads, including juveniles, out of the work area) for the duration of ground disturbing activities (e.g., pipeline installation, clearing, grading, construction of well pad, storage tank and WTP sites). Particular care should be taken in habitat that occurs within 200 feet of potential Houston toad breeding sites (i.e. riparian areas, ravines, ephemeral wet weather ponds, creeks, streams, drainages, ponds, stock tanks, wetlands, seeps, and springs).

4. Following all work activities, the project proponent (and/or contractors) should ensure that equipment used does not result in potential artificial breeding sites. For example, large tire ruts should be smoothed so as not to create an unintended breeding site.

5. Disturbed surface soils should be smoothed, as above, and planted with native cover prior to de-mobilization from the work area. The (USFWS) is available to assist with selection of appropriate herbaceous or tree species.

6. If the project site experiences 2-inches of rain or more, cumulatively, over a 48-hour period, we recommend that work cease for 24 hours beginning from the last rains.

7. Streams, riparian zones, wetlands, and areas near potential Houston toad breeding sites should not be used for staging equipment or refueling. Equipment should be stored, serviced, and fueled at least 200 feet away from these sensitive areas.

8. Gasoline- and diesel- fueled field equipment should be inspected daily for signs of fuel or hydraulic leaks. Leaking equipment, or spills detected should be addressed immediately upon detection and equipment removed from the habitat until fully repaired. All hazardous materials should be properly contained, used, and/or disposed of.

9. All work crews should be trained by a Houston toad biologist prior to starting work. Training should include an overview of Houston toad characteristics, life cycle, and habitat requirements, and a review of the work conditions outlined in this request. All crew personnel should be trained prior to starting work.

- All recommendations of the Texas Parks and Wildlife Department regarding protection of plant and animal species and their habitats must be implemented:

  1) Vegetation removal and ground disturbance activities must be avoided during the primary migratory bird nesting season, March through August. If ground disturbing activities during the migratory bird nesting season are unavoidable, the

area proposed for construction must be surveyed by a qualified biologist to ensure that no nests with eggs or young would be disturbed by construction activities. Any vegetation or gravel areas where occupied nests are located must not be disturbed until the eggs have hatched and the young have fledged.

2) The City must inform employees and contractors of the potential for the protected Timber rattlesnake to occur in the project area. Contractors should be advised to avoid impacts to any snake. Contractors must avoid contact with the species if encountered and allow the snake to safely leave the premises. This protected species of snake may be handled only by persons permitted through the TPWD Wildlife Permits Office.

3) All erosion stabilization materials and seed/mulch stabilization materials to be used must be of a type that will avoid entanglement hazards to snakes. If erosion control blankets or mats must be utilized, the City and its contractors must avoid mats that contain plastic mesh matting and use only bio-degradable, non-petroleum based, loosely woven, natural fiber matting for which the mesh design allows the threads to move so the opening can expand.

4) The City must avoid or minimize disturbance or removal of stream bank vegetation as well as riparian or wetland vegetation that buffers streams.

5) The City must bore under streams or place pipe aerially on bridges, when feasible, to avoid disturbance to streams and to avoid impacts to aquatic life. If open cut methodology would be used, construction at stream crossings must occur when it the channels are dry to minimize disturbance to aquatic resources.

6) If construction occurs during times when water is present in streams and dewatering activities or other harmful construction activities are involved, such as placement of fill or use of machinery in the stream, the City must submit to TPWD an Aquatic Resource Relocation Plan with an application for a *Permit to Introduce Fish, Shellfish, or Aquatic Plants into Public Waters*, and the plan must be approved by the TPWD at least 30 days prior to dewatering and/or resource relocation.

- Installation of the treated water pipeline must avoid placement of any new fill soils within the limits of floodplains and will not produce any changes to the existing floodplains or the base flood elevations.

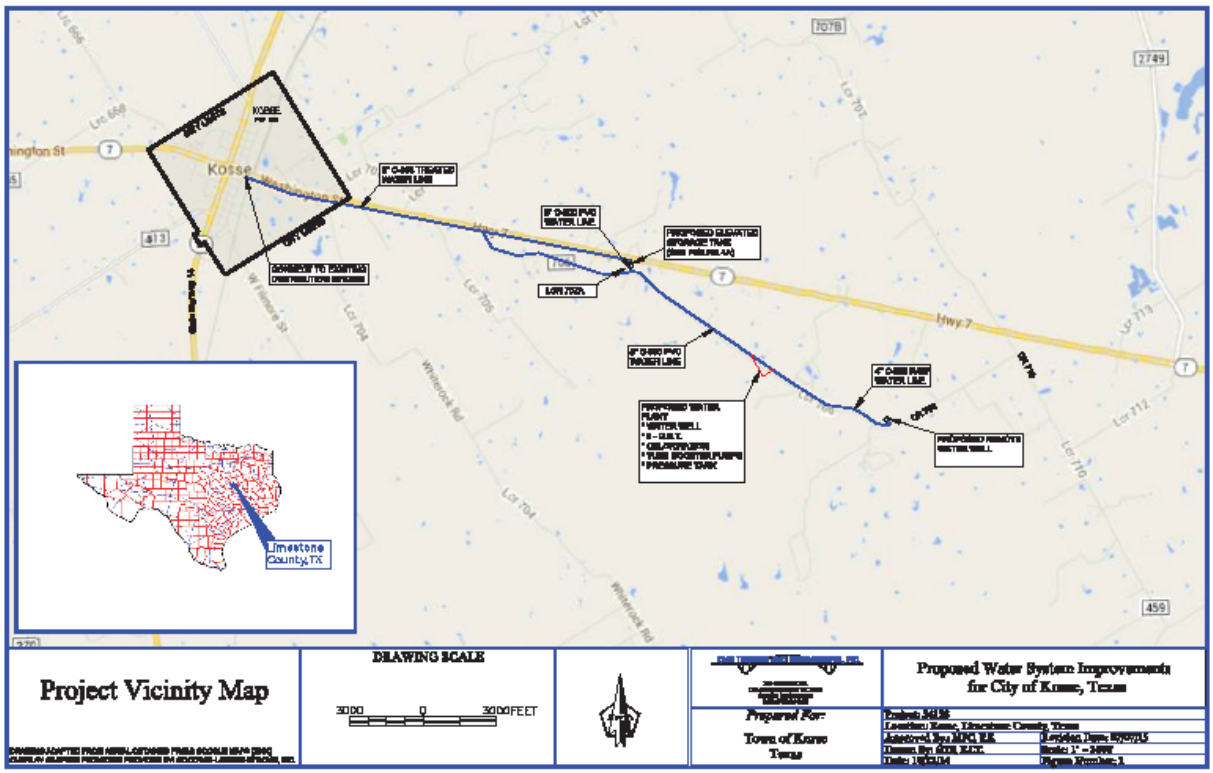
- Standard emergency condition for the discovery of cultural resources; and

- Standard emergency condition for the discovery of threatened or endangered species.

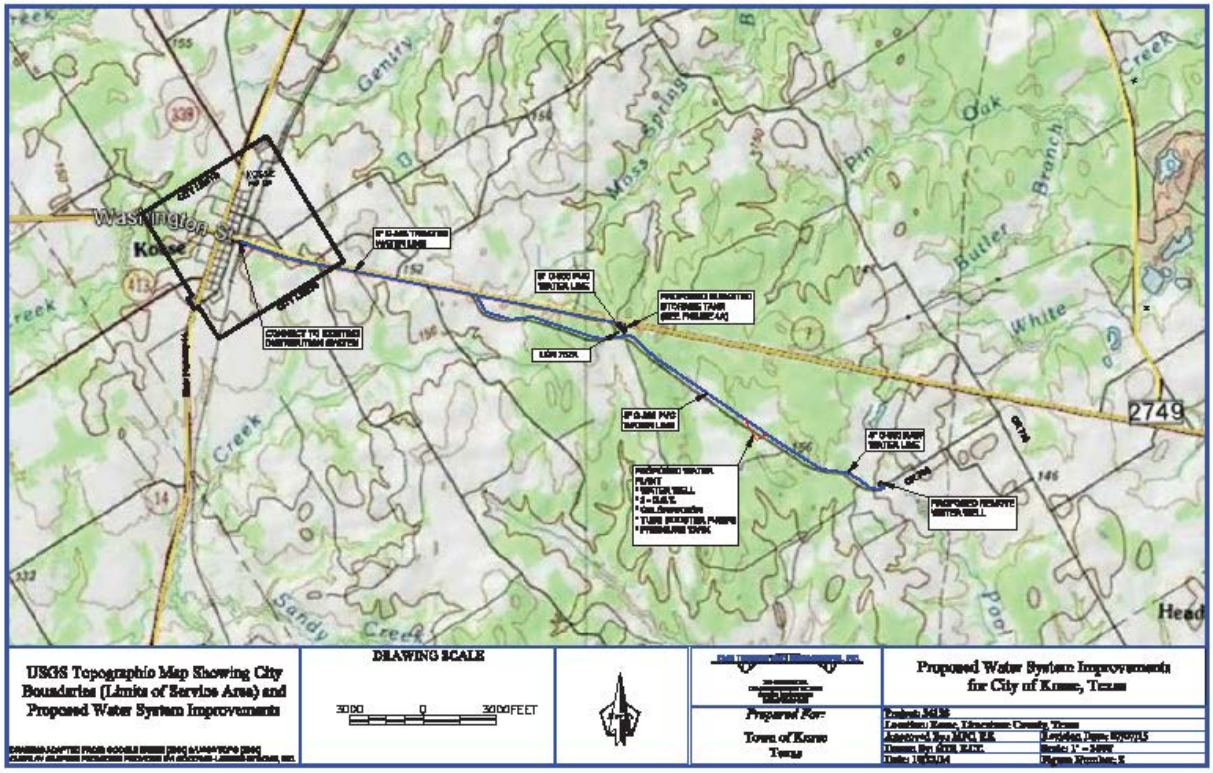
With these conditions, the specified project elements above are environmentally sound and design funds may be released once all other requirements are satisfied.

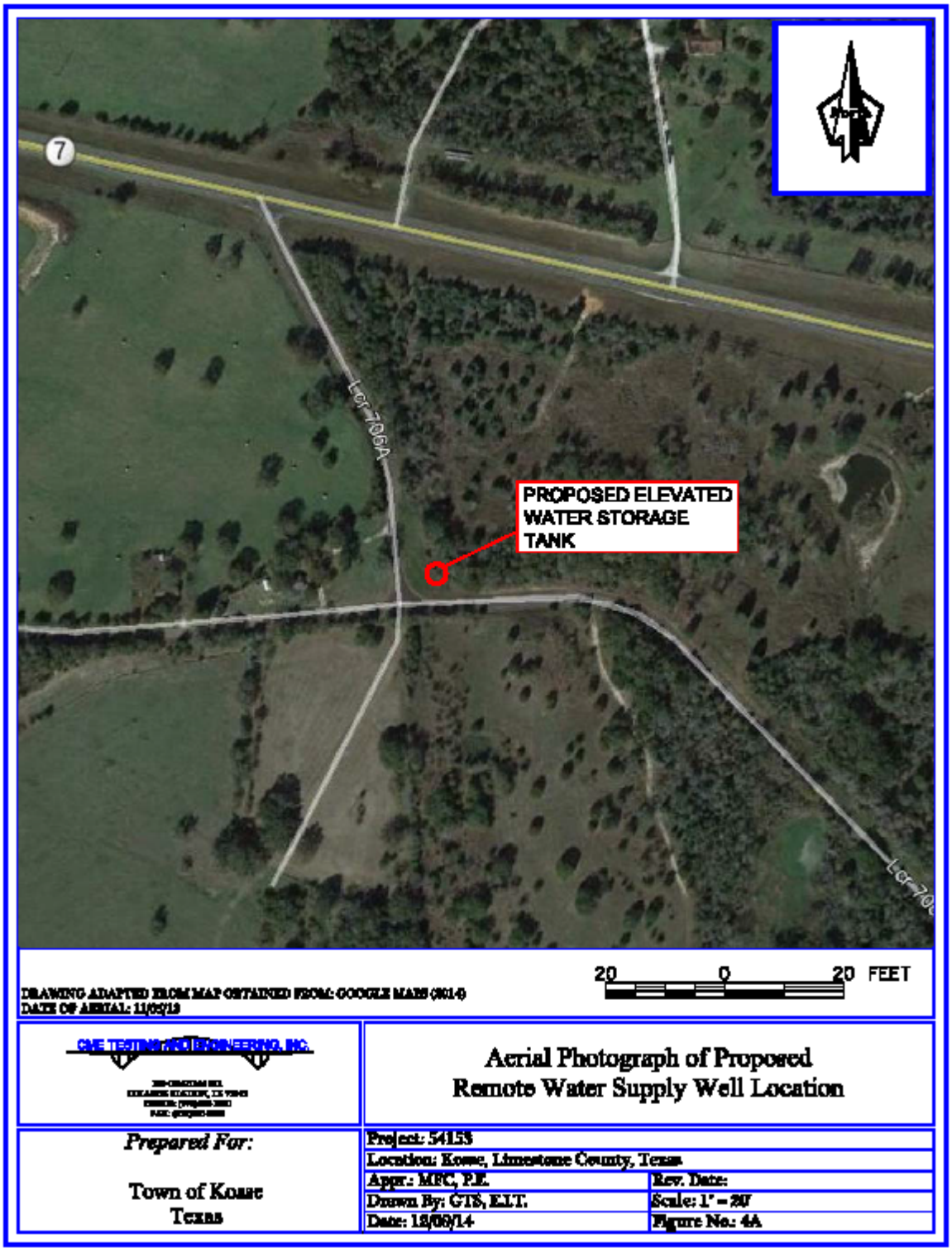
Enclosures

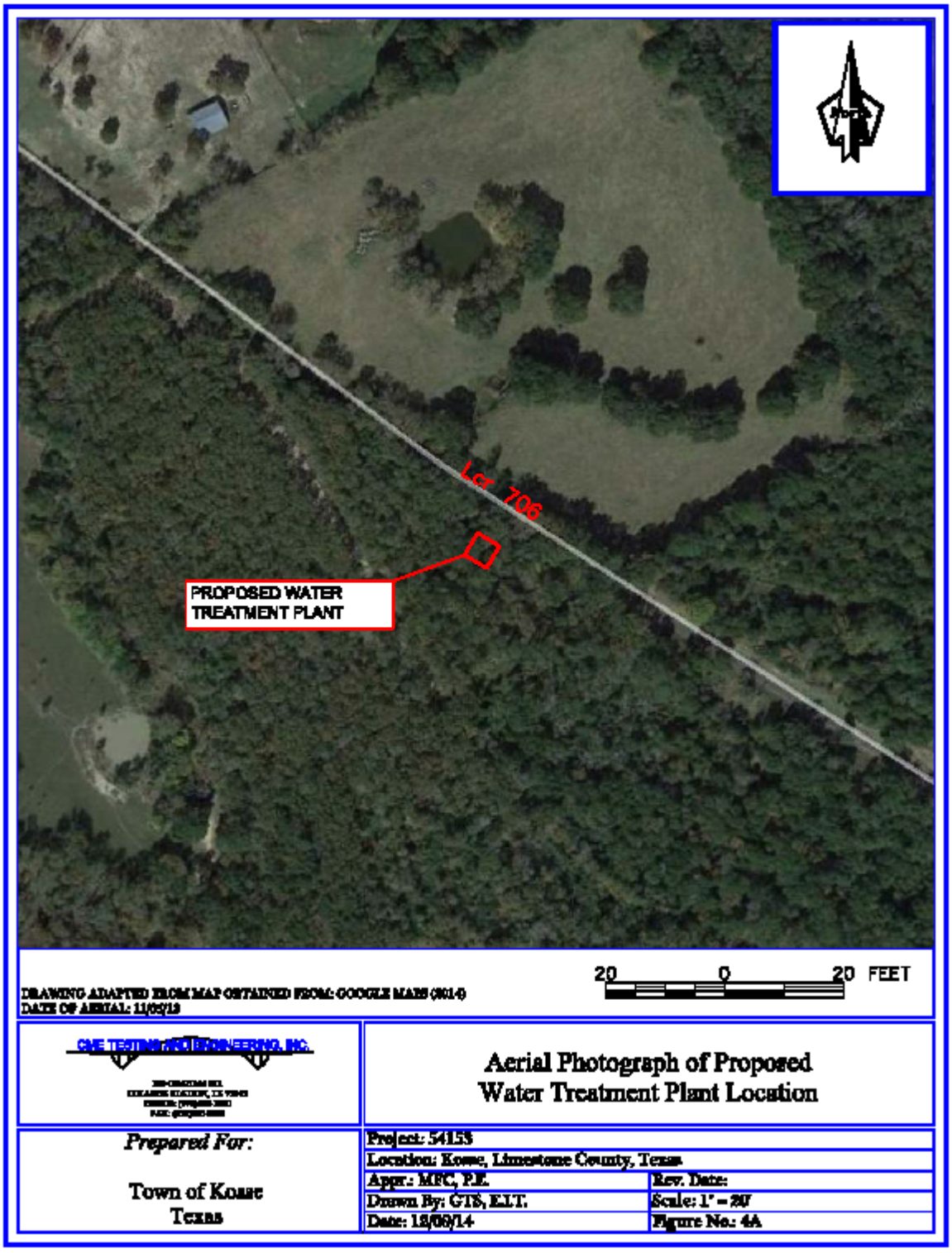
Environmental Determination



Environmental Determination




7
Lcr 706A
PROPOSED ELEVATED
WATER STORAGE
TANK
Lcr 70
20 0 20 FEET
DRAWING ADAPTED FROM MAP OBTAINED FROM: GOOGLE MAPS (2014)
DATE OF AERIAL: 11/05/13
CME TESTING AND ENGINEERING, INC.
Aerial Photograph of Proposed
Remote Water Supply Well Location
Prepared For:
Town of Kosse
Texas
Project: 5415S
Location: Kosse, Limestone County, Texas
Appr.: MFC, P.E.
Rev. Date:
Drawn By: GTS, E.I.T.
Scale: 1" = 20'
Date: 12/09/14
Figure No.: 4A


Lot 706
PROPOSED WATER TREATMENT PLANT
20 0 20 FEET
DRAWING ADAPTED FROM MAP OBTAINED FROM: GOOGLE MAPS (2014)
DATE OF AERIAL: 11/05/13
CME TESTING AND ENGINEERING, INC.
Aerial Photograph of Proposed Water Treatment Plant Location
Prepared For:
Town of Kosse
Texas
Project: 5415S
Location: Kosse, Limestone County, Texas
Appr.: MFC, P.E.
Rev. Date:
Drawn By: GTS, E.I.T.
Scale: 1" = 20'
Date: 12/09/14
Figure No.: 4A

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