SAGUARO
CONNECTOR PIPELINE

December 20, 2022

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: Saguaro Connector Pipeline, L.L.C.
Docket No. CP23-____-000
Application for Natural Gas Act Section 3 Authorization and Presidential Permit

Dear Secretary Bose:

Enclosed herewith for filing with the Federal Energy Regulatory Commission ("Commission") is the application of Saguaro Connector Pipeline, L.L.C. ("Saguaro") pursuant to Section 3 of the Natural Gas Act, 15 U.S.C. § 717b, and subpart B of part 153 of the Commission's regulations, requesting authorization to site, construct, connect, operate, and maintain certain natural gas pipeline facilities ("Border Facilities") for the export of natural gas at a point on the International Boundary between the United States, in the vicinity of Sierra Blanca in Hudspeth County, Texas, and the Estados Unidos Mexicanos (United Mexican States) ("Mexico").

Saguaro also requests, pursuant to Executive Order No. 10485 as amended by Executive Order No. 12038 and subpart C of part 153 of the Commission's regulations, that the Commission issue a Presidential Permit authorizing Saguaro to site, construct, connect, operate, and maintain the Border Facilities for the export of natural gas from the United States to Mexico. Saguaro respectfully requests that the Commission grant such authorizations by December 29, 2023.

This Application is being submitted under the following volumes:

Volume I Contains Public Information
- Transmittal Letter
- Application
- Verification and Compliance Statements
- Notice of Application
- Protective Agreement
- Exhibits to the Application

Volume II Contains Privileged and Confidential Information ("CUI//PRIV")
- Construction and Operational Services Agreement Between ONEOK WesTex Transmission, L.L.C. and Saguaro Connector Pipeline, L.L.C. to Exhibit D

- Appendix 1E (Landowner List and Landowner Reference Table) to Exhibit F
- Appendix 1F (Non-FERC Jurisdictional Facilities) to Exhibit F

Saguaro requests that the information submitted in Volume II be accorded privileged and confidential treatment pursuant to Section 388.112[1] of the Commission's regulations. Accordingly, Saguaro has marked Volume II **CUI//PRIV** "**CONTAINS PRIVILEGED AND CONFIDENTIAL INFORMATION – DO NOT RELEASE.**" This volume contains information that is sensitive data, proprietary information, or information that otherwise is not appropriate for disclosure to the public and is customarily treated as privileged and confidential.

Saguaro respectfully requests that all Commission orders and correspondence, as well as pleadings and correspondence from other persons, concerning this filing be served upon:

Denise Adams Director, Regulatory Affairs ONEOK, Inc. 100 West 5th Street Tulsa, Oklahoma 74103 (918) 732-1408 Email: regulatoryaffairs@oneok.com	Lisa Nishimuta Legal Counsel, Regulatory ONEOK, Inc. 100 West 5th Street Tulsa, Oklahoma 74103 (918) 588-7730 Email: lisa.nishimuta@oneok.com

Please direct any questions relating to this filing to Denise Adams at (918) 732-1408.

In accordance with the Commission's filing requirements, Saguaro is submitting this application with the Commission's Secretary through the eFiling system.

Pursuant to Sections 385.2005 and 385.2011(c)(5) of the Commission's regulations,[2] the undersigned has read this filing and knows its contents, and the contents are true as stated, to the best knowledge and belief of the undersigned. The paper copies contain the same information as the electronic version.

Respectfully submitted,

/s/ Denise Adams
Denise Adams
Director, Regulatory Affairs
ONEOK, Inc.
100 West 5th Street
Tulsa, Oklahoma 74103

Attachments

[1] 18 C.F.R. § 388.112.
[2] 18 C.F.R. §§ 385.2005, 385.2011(c)(5).

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

VOLUME I

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Saguaro Connector Pipeline, L.L.C.	)	Docket No. CP23-____-000

APPLICATION FOR AUTHORITY UNDER SECTION 3 OF THE NATURAL GAS ACT AND PRESIDENTIAL PERMIT TO SITE, CONSTRUCT, CONNECT, OPERATE, AND MAINTAIN FACILITIES FOR THE EXPORTATION OF NATURAL GAS

Pursuant to Section 3 of the Natural Gas Act ("NGA"), 15 U.S.C. § 717b, and subpart B of part 153 of the regulations of the Federal Energy Regulatory Commission ("Commission" or "FERC"), 18 C.F.R. part 153, subpart B, Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), hereby submits for filing this application for Commission authorization ("Application") to site, construct, connect, operate, and maintain[1] certain natural gas pipeline facilities at a new International Boundary crossing ("Border Facilities") for the export of natural gas between the United States, in Hudspeth County, Texas, to the Estados Unidos Mexicanos (United Mexican States) ("Mexico").

Furthermore, pursuant to Executive Order No. 10485,[2] as amended by Executive Order No. 12038,[3] and subpart C of part 153 of the Commission's regulations, 18 C.F.R. part 153, subpart C, Saguaro requests issuance of a Presidential Permit authorizing it to site, construct, connect, operate, and maintain the Border Facilities for the export of natural gas from the United States to Mexico. Saguaro respectfully requests that the Commission

[1] An affiliate of Saguaro, ONEOK WesTex Transmission, L.L.C., a Texas limited liability company, will manage the construction of and operate the Border Facilities pursuant to an operating agreement with Saguaro. *See* Exhibit D, attached hereto.
[2] Exec. Order No. 10,485, 18 Fed. Reg. 5397 (Sept. 9, 1953).
[3] Exec. Order No. 12,038, 43 Fed. Reg. 4957 (Feb. 3, 1978).

grant such authorizations by December 29, 2023, to enable Saguaro to construct and commence service through the Border Facilities in the second quarter of 2025.

In support hereof, Saguaro states as follows:

I. COMMUNICATIONS

Please direct all communications and correspondence regarding this Application to the following persons:

Denise Adams Director, Regulatory Affairs ONEOK, Inc. 100 West 5th Street Tulsa, Oklahoma 74103 (918) 732-1408 Email: regulatoryaffairs@oneok.com	Lisa Nishimuta Legal Counsel, Regulatory ONEOK, Inc. 100 West 5th Street Tulsa, Oklahoma 74103 (918) 588-7730 Email: lisa.nishimuta@oneok.com

II. DESCRIPTION OF APPLICANT

The exact legal name of Saguaro is Saguaro Connector Pipeline, L.L.C. Saguaro is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business located at 100 West Fifth Street, Tulsa, Oklahoma, 74103. Saguaro is authorized to conduct business as a foreign limited liability company in the State of Texas. Saguaro was formed to construct, own, and operate an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas ("RRC"), which includes the Border Facilities that are the subject of this Application. Attached hereto in Exhibit A are Saguaro's Certificate of Formation and Limited Liability Company Agreement, and Exhibit C contains an opinion of counsel that Saguaro's proposal to construct and operate the Border Facilities is within the authorized powers of Saguaro.

Attached as Exhibit B is a statement of financial and corporate relationships.

Saguaro affirms that the construction and operation of the Border Facilities will not involve any existing contracts between Saguaro and a foreign government or person concerning the control of operations or rates for the delivery or receipt of natural gas that may restrict or prevent other United States companies from extending their activities in the same general area.

III. DESCRIPTION OF BORDER FACILITIES

The Border Facilities will be owned by Saguaro, but the Border Facilities will be constructed and operated by an affiliate of Saguaro, ONEOK WesTex Transmission, L.L.C. ("WesTex"), a Texas limited liability company, pursuant to an operating agreement with Saguaro. *See* Exhibit D, attached hereto. The Border Facilities will consist of approximately 1,000 feet of 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river. The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas.[4]

The Border Facilities will be constructed and installed under the Rio Grande river using the Direct Pipe micro-tunneling trenchless construction method. The Border Facilities will have an ultimate design capacity of approximately 2.834 billion standard cubic feet per day and up to a Maximum Allowable Operating Pressure of approximately 1,480 pounds per square inch gauge. The Border Facilities will cost approximately

[4] While, as described in Section IV below, the Border Facilities will interconnect with Saguaro's new, connecting intrastate pipeline, which will be constructed and operated under the jurisdiction of the RRC, the Border Facilities consist of only the first 1,000 feet extending from the border. *See, e.g.*, *Southern LNG Inc.*, 131 FERC ¶ 61,155, at P 15 n.17 (2010) ("When companies construct a pipeline to transport import or export volumes, only a small segment of the pipeline close to the border is deemed to be the import or export facility for which Section 3 authorization is necessary . . . .").

$9,500,000. The Border Facilities construction will affect approximately 35.5 acres of land, all located in Hudspeth County, Texas. The construction area will include workspace, additional temporary workspace, and a temporary access road. Following construction, 34.4 acres will revert to preconstruction conditions, and the remaining approximately 1.1 acres will be retained for operation of the Border Facilities. Additionally, the Border Facilities will require a 50-foot-wide permanent easement that will require approximately 1.1 acres. Attached hereto as Exhibit G is a geographic map of the Border Facilities.

At the International Boundary, Saguaro will connect with NewCo Mexico Pipeline,[5] which will extend to a natural gas export facility under development on the West Coast of Mexico. Saguaro anticipates that it will enter into an interconnection and operating agreement with NewCo Mexico Pipeline with respect to the interconnection of the two pipelines.

IV. DESCRIPTION OF NON-JURISDICTIONAL FACILITIES

The Border Facilities in Texas will interconnect with a new intrastate pipeline located wholly in the State of Texas and will be designed to transport natural gas from the Waha Hub in Pecos County, Texas to the Border Facilities. Saguaro also will construct and own the new non-FERC jurisdictional pipeline, compression, and associated facilities.[6] The new non-FERC jurisdictional intrastate pipeline will consist of approximately 155 miles of 48-inch-diameter natural gas pipeline originating at the Waha Hub in Pecos County, Texas; traversing Reeves, Jeff Davis, and Culberson Counties, Texas; and terminating at the Border Facilities in Hudspeth County, Texas (the "Intrastate Facilities").

[5] Because the name of the interconnecting pipeline in Mexico has not been finalized, Saguaro will use "NewCo Mexico Pipeline" in this application.

[6] As noted, WesTex will manage the construction of and operate the intrastate pipeline pursuant to the operating agreement with Saguaro.

It is currently contemplated that the aboveground portion of the non-jurisdictional Intrastate Facilities will include construction of two new compressor stations, plus the typical appurtenances including, but not limited to, one new meter station, launchers and receivers, and mainline valves. The Intrastate Facilities will interconnect with the Border Facilities and will also tie into the existing WesTex intrastate natural gas pipeline at the Waha Hub in Pecos County, Texas.

The Intrastate Facilities will be an intrastate pipeline as defined by Section 2(16) of the Natural Gas Policy Act ("NGPA").[7] They will be subject to the jurisdiction of the RRC and will have all required authorizations from the RRC prior to the commencement of service. Saguaro will provide intrastate natural gas transportation service that is not subject to the jurisdiction of the Commission under the NGA.[8]

V. THE BORDER FACILITIES ARE IN THE PUBLIC INTEREST

Pursuant to Section 3 of the NGA, the Border Facilities shall be approved unless it is demonstrated they are inconsistent with the public interest.[9] As demonstrated below, the

[7] *See* 15 U.S.C. § 3301(16) ("The term 'intrastate pipeline' means any person engaged in natural gas transportation (not including gathering) which is not subject to the jurisdiction of the Commission under the Natural Gas Act (other than any such pipeline which is not subject to the jurisdiction of the Commission solely by reason of Section 1(c) of the Natural Gas Act).").

[8] Saguaro's export of natural gas also is not subject to the jurisdiction of the Commission under the NGA, as "foreign commerce" does not constitute "interstate commerce" under the NGA. *Houston Pipe Line Co.*, 60 FERC ¶ 61,260, at 61,860 & n.6 (1992) (citing *Mich. Consol. Gas Co. – Util. Div.*, 48 FERC ¶ 61,300, at 61,958 (1989)); *see also Border Pipe Line Co. v. FPC*, 171 F.2d 149, 150-51 (D.C. Cir. 1948). Saguaro will not initially provide interstate transportation service pursuant to NGPA Section 311, 15 U.S.C. § 3371, but may do so in the future after making all necessary filings pursuant to the Commission's regulations to enable it to provide such service.

[9] *See* 15 U.S.C. § 717b(a). NGA Section 3 establishes a rebuttable presumption that the Commission must approve Saguaro's application. A party protesting an NGA Section 3 application must make "an affirmative showing of inconsistency with the public interest to *deny* an application." *New Eng. Fuel Inst. v. Econ. Regul. Admin.*, 875 F.2d 882, 889 (D.C. Cir. 1989) (quoting *Panhandle Producers & Royalty Owners Ass'n v. Econ. Regul. Admin.*, 882 F.2d 1105, 1111 (D.C. Cir. 1987)); *see also Cameron LNG, LLC*, DOE/FE Order No. 3391, FE Docket No. 11-162-LNG, at 5 (Feb. 11, 2014) (concluding that opponents of the application "have not demonstrated that the requested authorization will be inconsistent with the public interest").

siting, construction, connecting, operation, and maintenance of the proposed Border Facilities are consistent with the public interest and therefore meet this standard.[10] The Border Facilities will deliver natural gas supplies from the Waha Hub in Pecos County, Texas, to Mexico to meet international demand for natural gas. That is, the Border Facilities will allow a new interconnection at the International Boundary with NewCo Mexico Pipeline which has a planned delivery to a natural gas export facility under development on the West Coast of Mexico.[11]

Section 3(c) of the NGA provides that: "[T]he exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such . . . exportation shall be granted without modification or delay."[12] The United States and Mexico are parties to a free trade agreement. Specifically, the United States and Mexico are signatories to the United States-Mexico-Canada Agreement, which eliminates barriers to trade in natural gas between the two nations.[13] Accordingly, Saguaro's requested NGA Section 3 authorization and Presidential Permit should be granted "without modification or delay."

[10] *Id*.
[11] The natural gas export facility in Mexico will meet the increasing global market demand driven by growing coal-to-natural gas switching and will assist in providing the requisite energy security needed to facilitate the release of or additional critical flows of natural gas to European markets.
[12] 15 U.S.C. § 717b(c).
[13] *See United States-Mexico-Canada Agreement*, Office of the United States Trade Representative, https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement (last visited Dec. 16, 2022).

VI. COMPLIANCE WITH LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to Sections 153.3 and 157.6(d) of the Commission's regulations,[14] within three business days following the Commission's issuance of a notice of this Application, Saguaro will make a good faith effort to notify each affected landowner and governmental agency involved in the Border Facilities either by certified or first-class mail, or by hand, within the same period. A list of affected landowners is provided under Exhibit F, Appendix 1E, which has been designated as privileged information ("CUI//PRIV"). Within thirty days of filing the Application, Saguaro will file an updated list of affected landowners, including information concerning notices that were returned as undeliverable.

Further, within three days after the Commission assigns a docket number to this Application, a copy of this Application will be made available for inspection, either in hard copy or electronic disc, in a public library near the Border Facilities. A hard copy of this Application will be furnished to any requesting party. Within fourteen days after assignment of a docket number, a notice that this Application has been filed will be published twice in newspapers of general circulation in Hudspeth County, Texas.

Saguaro is in the process of obtaining all easements required for the Border Facilities construction activities for lands in Hudspeth County, Texas.

VII. ENVIRONMENTAL INFORMATION

Pursuant to Section 153.8(a)(7)[15] of the Commission's regulations, an analysis of the environmental impacts for the Border Facilities is included in the Environmental Report ("ER") under Exhibit F to this Application. As demonstrated in the environmental review,

[14] 18 C.F.R. §§ 153.3, 157.6(d).
[15] 18 C.F.R. § 153.8(a)(7).

the Border Facilities will not individually or cumulatively have a significant effect on the quality of human health, the environment, landowners, or surrounding communities. A table of all the Federal and State Permits/Approvals Applicable to the Border Facilities is included in the attached ER in Resource Report 1 at Table 1.8-1. That table provides a listing and status of required federal and state permits and approvals for the construction and operation of the Border Facilities. Saguaro agrees to comply with all applicable mitigation requirements for the Border Facilities stated in the environmental clearances from federal and state agencies.

The Border Facilities will incorporate proven construction techniques and mitigation procedures and will result in minimal impact on the quality of human health, the environment, landowners, and surrounding communities. Construction of the Border Facilities will be completed in accordance with the Commission's current *Upland Erosion Control, Revegetation and Maintenance Plan*,[16] and *Wetland and Waterbody Construction and Mitigation Procedures*,[17] as further described in Exhibit F.

Saguaro's ER focuses on the 1,000-foot Border Facilities, consistent with applicable precedent and Commission practice. In addition, through this Application, including the ER in Exhibit F and the geographic map of the Border Facilities in Exhibit G, Saguaro provides all relevant information regarding the Intrastate Facilities.[18]

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[16] Office of Energy Projects, *Upland Erosion Control, Revegetation and Maintenance Plan*, Federal Energy Regulatory Commission (May 2013), https://www.ferc.gov/sites/default/files/2020-04/upland-erosion-control-revegetation-maintenance-plan.pdf.

[17] Office of Energy Projects, *Wetland and Waterbody Construction and Mitigation Procedures*, Federal Energy Regulatory Commission (May 2013), https://www.ferc.gov/sites/default/files/2020-04/wetland-waterbody-construction-mitigation-procedures.pdf.

[18] *See Comanche Trails Pipeline, LLC*, 155 FERC ¶ 61,182, at PP 26-51 (2016); *Trans-Pecos Pipeline, LLC*, 155 FERC ¶ 61,140, at PP 31-51 (2016); *Roadrunner Gas Transmission, LLC*¸ 153 FERC ¶ 61,041, at P 4 (2015); *Houston Pipe Line Co.*, 146 FERC ¶ 61,195 (2014); *NET Mexico Pipeline Partners, LLC*, 145 FERC ¶ 61,112 (2013); *Oasis Pipeline, L.P.*, 127 FERC ¶ 61,263 (2009); *Coral Mex. Pipeline, LLC*, 89 FERC ¶ 61,171 (1999); *San Diego Gas & Elec. Co.*, 64 FERC ¶ 61,221 (1993).

VIII. CERTIFICATION

Pursuant to the Natural Gas Pipeline Safety Act of 1968,[19] Saguaro hereby certifies that the Border Facilities proposed herein will be designed and constructed in accordance with the requirements of the Department of Transportation Pipeline Safety Regulations, 49 C.F.R. part 192, or any superseding federal or state safety code applicable to gas transmission pipelines. In addition, all construction and restoration activities will be performed in accordance with the environmental plans, procedures, and guidelines as contained in the ER in Exhibit F.

IX. DEPARTMENT OF ENERGY REQUEST TO EXPORT

It is not necessary for Saguaro to obtain authorization from the Office of Fossil Energy of the Department of Energy ("DOE") under Section 3 of the NGA to export natural gas to Mexico, as Saguaro will not hold title to any of the gas that will be transported through the Border Facilities. However, Saguaro anticipates that any customer transporting gas across the Border Facilities will obtain, or has already obtained, authorization from the DOE to export natural gas between the United States and Mexico.

X. NOTICE

Included with this application is a form of notice of this Application suitable for publication in the Federal Register.

[19] Pub. L. No. 90-481, 82 Stat. 720 (1978) (codified as amended in scattered sections of 49 U.S.C.).

XI. EXHIBITS

In accordance with Sections 153.8 and 153.16[20] of the Commission's regulations, the following exhibits are attached or have been omitted for the reason indicated.

Verification Statement Submitted herewith.

Federal Register Notice Submitted herewith.

Exhibit A **Certificate of Formation and Limited Liability Company Agreement**

Submitted herewith is a certified copy of Saguaro's Certificate of Formation and its Limited Liability Company Agreement.

Exhibit B **Financial and Corporate Relationships**

Submitted herewith.

Exhibit C **Opinion of Counsel**

Submitted herewith.

Exhibit D **Construction and Operational Services Agreement**

Submitted herewith is the Construction and Operational Services Agreement Between ONEOK WesTex Transmission, L.L.C. and Saguaro Connector Pipeline, L.L.C. ("Operating Agreement"). The Operating Agreement contains privileged and confidential information and is marked **CUI//PRIV "CONTAINS PRIVILEGED AND CONFIDENTIAL INFORMATION – DO NOT RELEASE."** Saguaro requests that the Operating Agreement be treated as privileged information pursuant to Section 388.112 of the Commission's regulations.[21]

Exhibit E **Import or Export of LNG Report**

Omitted. Not applicable.

[20] 18 C.F.R. §§ 153.8, 153.16.
[21] 18 C.F.R. § 388.112.

Exhibit E-1	**Report on Earthquake Hazards and Engineering Concerns for LNG Facility Siting** Omitted. Not applicable.
Exhibit F	**Environmental Report** Submitted herewith. Appendix 1E (Landowner List and Landowner Reference Table) contains privileged and confidential information and is marked **CUI//PRIV "CONTAINS PRIVILEGED AND CONFIDENTIAL INFORMATION – DO NOT RELEASE."** Saguaro requests that it be treated as privileged information pursuant to Section 388.112 of the Commission's regulations.[22]
Exhibit G	**Map of Border Facilities** Submitted herewith in Exhibit G, Geographic Map of Border Facilities.
Exhibit H	**Required Federal Authorizations** Submitted herewith in Exhibit F, Environmental Report, Resource Report 1, Table 1.8-1 is a list of all federal and state permits required for the Border Facilities.

XII. CONCLUSION

WHEREFORE, Saguaro respectfully requests that, pursuant to NGA Section 3, the Commission authorize Saguaro to site, construct, connect, operate, and maintain the Border Facilities described above. Saguaro further requests that, pursuant to subpart C of part 153 of the Commission's regulations and Executive Order Nos. 10485 and 12038, the Commission issue a Presidential Permit authorizing Saguaro to site, construct, connect, operate, and maintain these same Border Facilities. Saguaro respectfully requests that the Commission grant the authorizations herein requested by December 29, 2023, so as to

[22] *Id.*

permit the construction and operation of the Border Facilities in as timely a manner as possible.

DATED this 20th day of December 2022.

Respectfully submitted,

ONEOK, Inc.

/s/ *Denise Adams*

Denise Adams
Director, Regulatory Affairs

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Attachment 1

Verification & Compliance Statements

VERIFICATION

STATE OF OKLAHOMA)

) SS.

COUNTY OF TULSA)

Denise Adams, being duly sworn upon her oath says that she is Director, Regulatory Affairs of Saguaro Connector Pipeline, L.L.C.; that she has read the foregoing document and has personal knowledge of the matter therein set forth; that she is authorized to execute such document; and that the facts contained therein are true to the best of her knowledge and belief.

Denise Adams

Denise Adams

Subscribed and sworn to before

me this 19th day of December, 2022.

Karen Young Herzog



SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Attachment 2

Federal Register Notice

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

SAGUARO CONNECTOR PIPELINE, L.L.C. Docket No. CP23-____ -000

NOTICE OF APPLICATION

(December__, 2022)

Take notice that on December 20, 2022, Saguaro Connector Pipeline, L.L.C. ("Saguaro"), 100 West Fifth Street, Tulsa, OK, 74103, filed pursuant to Section 3 of the Natural Gas Act ("NGA") and part 153 of the Federal Energy Regulatory Commission's ("Commission") regulations, for an order authorizing construction of new border crossing pipeline facilities for the export of natural gas at the International Boundary between the United States and the Estados Unidos Mexicanos (United Mexican States) ("Mexico"), and a Presidential Permit for those facilities, all as more fully set forth in the application which is on file with the Commission and open to public inspection. The filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website at http://www.ferc.gov using the "eLibrary" link. Enter the docket number, excluding the last three digits in the docket number field, to access the document. For assistance, contact FERC at FERCOnlineSupport@ferc.gov or call toll-free, (866) 208-3676 or TTY, (202) 502-8659.

Any questions concerning this application may be directed to Denise Adams, Director, Regulatory Affairs of Saguaro Connector Pipeline, L.L.C. 100 West Fifth Street, Tulsa, Oklahoma, 74103. Ms. Adams may also be contacted at (918) 732-1408 or at regulatoryaffairs@oneok.com.

Pursuant to Section 157.9 of the Commission's rules, 18 C.F.R. § 157.9, within 90 days of this Notice the Commission staff will either: complete its environmental assessment ("EA") and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement ("FEIS") or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below, file with the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.214 or 385.211) and the regulations under the NGA (18 C.F.R. § 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 5 copies of filings made with the Commission and must provide a copy to the applicant and to

every other party in the proceeding. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commenters will be placed on the Commission's environmental mailing list and will be notified of any meetings associated with the Commission's environmental review process. Environmental commenters will not be required to serve copies of filed documents on all other parties. However, the non-party commenters will not receive copies of all documents filed by other parties or issued by the Commission and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, protests, and interventions in lieu of paper using the "eFiling" link at http://www.ferc.gov. Persons unable to file electronically should submit an original and five copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. This filing is accessible on-line at http://www.ferc.gov, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll-free). For TTY, call (202) 502-8659.

Comment Date: _____, 2022.

Kimberly D. Bose,
Secretary.

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Attachment 3

Protective Agreement

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Saguaro Connector Pipeline, L.L.C.) Docket No. CP23-___000

PROTECTIVE AGREEMENT

THIS PROTECTIVE AGREEMENT ("Protective Agreement") is made and entered into the ____ day of ____, 2022 ("Effective Date"), by and between Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a Delaware limited liability company, and **[insert name of Participant]** ("Participant"), **[insert jurisdiction and organization type]**. Saguaro and Participant may be referred to collectively as the Parties and singularly as a Party.

WHEREAS, Saguaro submitted documents to the Federal Energy Regulatory Commission ("Commission" or "FERC") in the above-captioned docket ("Proceeding");

WHEREAS, pursuant to Section 388.112(b) of the Commission's regulations, 18 C.F.R. § 388.112(b), this Protective Agreement applies to requests for access to the non-public version of any document or portion of a document filed or produced by Saguaro in this Proceeding;

WHEREAS, Participant desires to obtain access to non-public information in this Proceeding;

WHEREAS, Participant has provided a signed Non-Disclosure Certificate and agrees to comply with all terms of this Protective Agreement and the Commission's regulations; and

WHEREAS, without waiving any claims of privilege or objections to any request for disclosure of documents, Saguaro agrees to disclose to Participant certain non-public information designated as privileged and/or CEII, or other Protected Materials (as defined below), pursuant to the terms of this Protective Agreement.

NOW, THEREFORE, Saguaro and Participant agree as follows:

1. This Protective Agreement shall govern the use of all Protected Materials filed or produced by, or on behalf of, Saguaro in this Proceeding. Notwithstanding any order terminating this Proceeding, this Protective Agreement shall remain in effect until terminated or modified by mutual written agreement of the Parties, by order of the Commission or court of competent jurisdiction, or by order of a Presiding Administrative Law Judge (including the Chief Judge) in a proceeding set for hearing pursuant to 18 C.F.R. § 385 Subpart E.

2. This Protective Agreement applies to the following categories of materials, all constituting Protected Materials (as defined in Paragraph 3):

(a) all materials filed or produced by Saguaro in this Proceeding and designated as (i) privileged, or (ii) privileged and not available to Competitive Duty Personnel (as defined

below), or otherwise as Protected Materials which are customarily treated as sensitive or proprietary or if disclosed could risk of competitive disadvantage or other business injury;

(b) all materials produced by Saguaro in this Proceeding and designated as CEII; and

(c) all materials filed or produced in this Proceeding which reflect or disclose Protected Materials.

3. (a) (1) The term "Protected Materials" means (A) materials provided by Saguaro in this Proceeding including but not limited to any application, pleadings, response to data and/or discovery requests and designated by Saguaro as protected; (B) any information contained in or obtained from such designated materials; (C) any other materials which are made subject to this Protective Agreement by the Commission, by any court or other body having appropriate authority, or by agreement of the Parties; (D) Notes of Protected Materials, as defined in Paragraph 3(a)(2); and (E) copies of Protected Materials Saguaro shall physically mark the Protected Material on each page as "CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE" or "CONTAINS PRIVILEGED INFORMATION AND NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL - DO NOT RELEASE" or with words of similar import as long as the term "Protected" and/or "Privileged" is included in that designation to indicate that they are Protected Materials. Protected Materials include any information or document contained in the files of the Commission that has been designated as CEII. If the Protected Materials contain CEII, such information shall be marked on each page with the words "CONTAINS CRITICAL ENERGY INFRASTRUCTURE INFORMATION - DO NOT RELEASE."

(2) The term "Notes of Protected Materials" means memoranda, handwritten notes, or any other form of information (including electronic form and audio recordings) which copies, reflects, or discloses materials described in Paragraph 3(a)(1). Notes of Protected Materials are subject to the same restrictions provided in this agreement for Protected Materials except as specifically provided in this agreement.

(3) Protected Materials shall not include (A) any information or document that has been filed with and accepted into the public files of the Commission, or contained in the public files of any other federal or state agency, or any federal or state court, unless the information or document has been determined to be protected by such agency or court, or (B) information that is public knowledge, or which becomes public knowledge, other than through disclosure in violation of this Protective Agreement.

(b) (1) The term "Non-Disclosure Certificate of Protected Materials Excluding Protected Materials Marked as Not Available to Competitive Duty Personnel" shall mean the certificate attached hereto by which representatives of Participant who have been granted access to Protected Materials, excluding Protected Materials marked as Not Available to Competitive Duty Personnel, shall certify their understanding that such access to Protected Materials is provided pursuant to the terms and restrictions of this Protective Agreement, and that such representatives have read the Protective Agreement and agree to be bound by it.

(2) The term "Non-Disclosure Certificate of Protected Materials Including Protected Materials Marked as Not Available to Competitive Duty Personnel" shall mean the certificate attached hereto by which representatives of Participant who have been granted access to Protected Materials marked as "Not Available to Competitive Duty Personnel" shall certify (i) that they do not perform any "Competitive Duty Personnel" functions, as described in Paragraph 23 of this Protective Agreement, (ii) their understanding that such access to Protected Materials is provided pursuant to the terms and restrictions of this Protective Agreement applicable to Protected Materials which are marked as "Not Available to Competitive Duty Personnel," and (iii) that such representatives have read the terms and restrictions of this Protective Agreement applicable to such materials and agree to be bound by them.

(c) Subject to the provisions of Paragraph 23, the term "Reviewing Representative" shall mean a person who has signed a Non-Disclosure Certificate and who is:

(1) Commission Staff designated as such in this Proceeding;

(2) an attorney who has made an appearance in this Proceeding for Participant;

(3) attorneys, paralegals, and other employees associated for purposes of this Proceeding with an attorney described in Subparagraph (2);

(4) an expert or an employee of an expert retained by Participant for the purpose of advising, preparing for or testifying in this Proceeding;

(5) a person designated as a Reviewing Representative by order of the Commission; or

(6) employees or other representatives of Participant appearing in this Proceeding with significant responsibility for this docket.

4. Protected Materials shall be made available under the terms of this Protective Agreement only to Participant and only through their Reviewing Representatives as provided in Paragraphs 7-9; provided that if the Protected Materials include rates, rate-related provisions, and/or credit support provisions, Saguaro may redact rates, rate-related provisions, and/or credit support provisions from the version of the Protected Materials provided to Participant's Reviewing Representatives. In the event that Saguaro redacts any such information, if requested by Participant, the Parties shall meet to discuss the terms and conditions under which one or more of the Participant's Review Representatives may be provided such redacted information. If no agreement is reached, Participant may submit such dispute to the Commission or Presiding Judge, if any, for resolution.

5. Protected Materials shall remain available to Participants until the later of the date that an order terminating this proceeding becomes no longer subject to judicial review, or the date that any other Commission proceeding relating to the Protected Material is concluded and no longer subject to judicial review. If requested to do so in writing after that date, the Participant shall, within fifteen days of such request, return the Protected Materials (excluding Notes of Protected Materials) to Saguaro, or shall destroy the materials, except that copies of filings, official

transcripts and exhibits in this proceeding that contain Protected Materials, and Notes of Protected Material may be retained, if they are maintained in accordance with Paragraph 6, below. Within such time period the Participant, if requested by Saguaro, shall also submit to Saguaro an affidavit stating that, to the best of its knowledge, all Protected Materials and all Notes of Protected Materials have been returned or have been destroyed or will be maintained in accordance with Paragraph 6. To the extent Protected Materials are not returned or destroyed, they shall remain subject to the Protective Agreement.

6. All Protected Materials shall be maintained by the Participant in a secure place. Access to those materials shall be limited to those Reviewing Representatives specifically authorized pursuant to Paragraphs 8-9. For documents submitted to Commission Staff ("Staff"), Staff shall follow the notification procedures of 18 C.F.R. § 388.112 before making public any Protected Materials.

7. Protected Materials shall be treated as confidential by the Participant and by its Reviewing Representative(s) in accordance with the certificate executed pursuant to Paragraph 9. Protected Materials shall not be used by the Participant and by its Reviewing Representatives except as necessary for the conduct of this Proceeding, nor shall they be disclosed in any manner to any person except a Reviewing Representative who is engaged in the conduct of this Proceeding and who needs to know the information in order to carry out that person's responsibilities in this Proceeding. Reviewing Representatives may make copies of Protected Materials, but such copies shall become Protected Materials. Reviewing Representatives may make Notes of Protected Materials, which shall be treated as Notes of Protected Materials if they disclose or reflect the contents of Protected Materials.

8. (a) A Reviewing Representative may use Protected Materials only for purposes of its participation in this proceeding, and may not use information contained in any Protected Materials obtained through this proceeding to give Participant, Participant’s affiliates, any customer or potential customer of Saguaro, or any competitor of Saguaro a commercial advantage.

(b) Subject to Paragraph 23 regarding Protected Materials marked as Not Available to Competitive Duty Personnel, in the event that Participant wishes to designate as a Reviewing Representative a person not described in Paragraph 3(c) above, the Participant shall seek agreement from Saguaro. If an agreement is reached that person shall be a Reviewing Representative pursuant to Paragraph 3(c) above with respect to those materials. If no agreement is reached, the Participant shall submit the disputed designation to the Commission or Presiding Judge, if any, for resolution.

9. (a) A Reviewing Representative shall not be permitted to inspect, participate in discussions regarding, or otherwise be permitted access to Protected Materials pursuant to this Protective Agreement unless that Reviewing Representative has first executed the appropriate attached Non-Disclosure Certificate, provided that, if an attorney qualified as a Reviewing Representative has executed such a certificate, the paralegals, secretarial and clerical personnel under the attorney’s instruction, supervision, or control need not do so. A copy of each Non-

Disclosure Certificate shall be provided to counsel for Saguaro prior to disclosure of any Protected Material to that Reviewing Representative.

(b) Attorneys qualified as Reviewing Representatives are responsible for ensuring that persons under their supervision or control comply with this agreement.

10. Subject to Paragraph 4 above and to the provisions of Paragraph 23 regarding access to Protected Materials that are designated Not Available to Competitive Duty Personnel, any Reviewing Representative may disclose Protected Materials to any other Reviewing Representative as long as the disclosing Reviewing Representative and the receiving Reviewing Representative both have executed a Non-Disclosure Certificate, provided that a Reviewing Representative who has executed the "Non-Disclosure Certificate of Protected Materials Including Protected Materials Marked as Not Available to Competitive Duty Personnel" shall not disclose Protected Materials marked as Not Available to Competitive Duty Personnel to a Reviewing Representative who executed the "Non-Disclosure Certificate of Protected Materials Excluding Protected Materials Marked as Not Available to Competitive Duty Personnel." In the event that any Reviewing Representative to whom the Protected Materials are disclosed ceases to be engaged in this Proceeding, or is employed or retained for a position whose occupant is not qualified to be a Reviewing Representative under Paragraph 3(c), access to Protected Materials by that person shall be terminated. Even if no longer engaged in this Proceeding, every person who has executed a Non-Disclosure Certificate shall continue to be bound by the provisions of this Protective Agreement and the certification for as long as the Protective Agreement is in effect.

11. Subject to Paragraph 18, the Commission or the Presiding Judge, if any, shall resolve any disputes arising under this Protective Agreement. Prior to presenting any dispute under this Protective Agreement to the Commission or the Presiding Judge, if any, the Parties shall use their best efforts to resolve it. If Participant contests the designation of materials as protected, Participant shall notify Saguaro in writing, specifying which Protected Materials are contested by the Participant.

12. All Protected Materials and all documents reflecting Protected Materials, including the portion of any application, contract, pleading, exhibits, transcripts, briefs and other documents which contain or refer to Protected Materials, to the extent they will be filed with the Commission, shall be filed either (i) by hand in sealed envelopes or other appropriate containers endorsed to the effect that they are sealed pursuant to this Protective Agreement; or (ii) electronically on the Commission's website in accordance with the procedures for electronic filing of privileged material or CEII. Such documents shall be physically marked on each page as "CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE" or "CONTAINS PRIVILEGED INFORMATION AND NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL - DO NOT RELEASE," or if the Protected Materials contain CEII, the Participant producing such information shall additionally mark on each page containing such information the words "CONTAINS CRITICAL ENERGY INFRASTRUCTURE INFORMATION - DO NOT RELEASE." For anything filed under seal, redacted versions or, where an entire document is protected, a letter indicating such, will also be filed with the Commission and served on all

parties on the service list. Participant shall take all reasonable precautions necessary to assure that Protected Materials are not distributed to unauthorized persons.

13. If the Participant desires to include, utilize or refer to any Protected Materials or information derived therefrom in any submission during this Proceeding in such a manner that might require disclosure of such material to persons other than Reviewing Representatives, the Participant shall first notify both counsel for Saguaro and the Commission or Presiding Judge, if any, of such desire, identifying with particularity each of the Protected Materials. Thereafter, use of such Protected Materials will be governed by procedures determined by the Commission or the Presiding Judge, if any. Protected Materials or any information derived therefrom shall not be disclosed during a technical conference to this Proceeding without the advance written consent of Saguaro detailing the material and the extent to which such Protected Materials may be disclosed.

14. Nothing in this Protective Agreement shall be construed as precluding any Party from objecting to the use of Protected Materials on any legal grounds.

15. Nothing in this Protective Agreement shall preclude either Party from requesting the Commission, the Presiding Judge, if any, or any other body having appropriate authority, to find that this Protective Agreement should not apply to all or any materials previously designated as Protected Materials pursuant to this Protective Agreement.

16. The provisions of 18 C.F.R. §§ 388.112 and 388.113 shall apply to any requests under the Freedom of Information Act. (5 U.S.C. § 552) for Protected Materials in the files of the Commission.

17. If the Commission or the Presiding Judge, if any, finds at any time in the course of this Proceeding that all or part of the Protected Materials need not be protected, those materials shall, nevertheless, be subject to the protection afforded by this Protective Agreement until the date the Commission or the Presiding Judge, if any, orders the materials be produced. Saguaro reserves the right to seek additional administrative or judicial remedies after the Commission's or the Presiding Judge's decision respecting Protected Materials or Reviewing Representatives, or the Commission's or Presiding Judge's denial of any appeal thereof.

18. Nothing in this Protective Agreement shall be deemed to preclude the Participant from independently seeking through discovery in any other administrative or judicial proceeding information or materials produced in this Proceeding under this Protective Agreement.

19. Saguaro reserves the right to pursue any other legal or equitable remedies that may be available in the event of actual or anticipated disclosure of Protected Materials.

20. The contents of Protected Materials or any other form of information that copies or discloses Protected Materials shall not be disclosed to anyone other than in accordance with this Protective Agreement and shall be used only in connection with this Proceeding. Any violation of this Protective Agreement and of any Non-Disclosure Certificate executed hereunder shall constitute a breach of the Protective Agreement.

21. The inadvertent disclosure of Protected Materials shall not constitute a waiver of their protected status.

22. Saguaro shall physically mark the words "Not Available to Competitive Duty Personnel" on any Protected Materials that Saguaro believes in good faith would, if disclosed to Reviewing Representatives without added precautions beyond Paragraphs 1-21 of this Protective Agreement, subject Saguaro, or a third party, to undue risk of competitive disadvantage or business injury. Such information may include, but is not limited to (a) non-public business development, acquisition, marketing, or facilities design and operating data, plans or activities, (b) non-public strategic business or financial plans or activities, or (c) negotiations of services, prices and rates, the public disclosure of which Saguaro in good faith believes would competitively harm Saguaro or a third party (hereafter, "Market Sensitive Information"). Market Sensitive Information should customarily be treated by Saguaro as sensitive or proprietary and not be available to the public. Any challenge to such a designation may be made as provided in this Protective Agreement for challenges to designations of Protected Materials.

23. (a) With respect to Protected Materials that have been marked "Not Available to Competitive Duty Personnel" and information derived therefrom, a Reviewing Representative may not be any employee or agent of Participant whose duties may include (1) the marketing, sale, or purchase of natural gas or natural gas transportation, storage, gathering, or processing services; (2) management responsibility regarding, or the supervision of any employee whose duties may include, the marketing, sale, or purchase of natural gas or natural gas transportation, storage, gathering, or processing services; (3) the provision of consulting services regarding the marketing, sale, or purchase of natural gas or natural gas transportation, storage, gathering, or processing services for a pipeline, storage, gathering, or processing facility; or (4) management responsibility regarding other strategic business activities in which use of Market Sensitive Information could be reasonably expected to cause competitive harm to Saguaro or a third party (collectively, "Competitive Duty Personnel").

(b) Notwithstanding the above, in-house and/or outside counsel for Participant may serve as a Reviewing Representative; provided, however, that in-house and/or outside counsel shall not disclose any Market Sensitive Information to Competitive Duty Personnel. In the event that (a) any person who has been a Reviewing Representative subsequently is assigned to perform any Competitive Duty Personnel functions, or (b) previously available Protected Materials are changed to "Not Available to Competitive Duty Personnel," a Reviewing Representative who performs any Competitive Duty Personnel functions shall have no access to Saguaro's Protected Materials that are marked "Not Available to Competitive Duty Personnel" or information derived therefrom. Such Reviewing Representative shall immediately dispose of Saguaro's Protected Materials in his/her possession that are marked "Not Available to Competitive Duty Personnel" and information derived therefrom and shall continue to comply with the requirements of the Non-Disclosure Certificate of Protected Materials Including Protected Materials Marked as Not Available to Competitive Duty Personnel and this Protective Agreement with respect to any Protected Materials to which such Reviewing Representative previously had access.

(c) Notwithstanding the foregoing, with respect to Protected Materials that have been marked "Not Available to Competitive Duty Personnel" and information derived therefrom, a Reviewing Representative may not be an employee of a FERC-regulated natural gas pipeline or storage facility or a non-regulated gathering or processing facility in the region in which Saguaro operates. Reviewing Representatives of such a facility, with respect to Protected Materials that have been marked "Not Available to Competitive Duty Personnel," shall be limited to outside counsel and/or consultants, provided such individuals are not engaged as Competitive Duty Personnel, as defined above, on behalf of such facility.

(d) Notwithstanding the foregoing, a person who otherwise would be disqualified as Competitive Duty Personnel may serve as a Reviewing Representative upon agreement with Saguaro or, in the absence of such agreement, upon entry of an order of the Commission or the Presiding Judge, if any, authorizing such person to serve as a Reviewing Representative. Any request for an agreement or order under the preceding sentence shall be subject to the following conditions: (i) Participant must certify in writing to Saguaro that Participant's ability to participate effectively in this Proceeding would be prejudiced if it was unable to rely on the assistance of the particular Reviewing Representative; (ii) Participant must identify by name and job title the particular Reviewing Representative required and must describe the person's duties and responsibilities; (iii) the Participant claiming such prejudice must acknowledge in writing to Saguaro that access to the Protected Materials which are marked as Not Available to Competitive Duty Personnel shall be restricted only to such access necessary for the adjudication of this Proceeding, absent prior written consent of the Saguaro or authorization of the Commission or the Presiding Judge, if any, with opportunity for Saguaro to seek review of such decision as provided in this order; (iv) Participant must acknowledge in writing that any other use of Protected Materials which are Not Available to Competitive Duty Personnel shall constitute a violation of this Protective Agreement; and (v) prior to having access to any Protected Materials which are marked as Not Available to Competitive Duty Personnel, the Competitive Duty Personnel who is authorized to act as a Reviewing Representative must execute and deliver to Saguaro a Non-Disclosure Certificate Concerning Protected Material Including Protected Material Marked As Not Available to Competitive Duty Personnel acknowledging his or her familiarity with the contents of this Protective Agreement and the particular restrictions set forth in this paragraph regarding such Protected Materials. Such agreement by Saguaro shall not be unreasonably withheld, delayed, or conditioned. Provided that Protected Materials are correctly labeled, compliance with this Protective Agreement shall be the responsibility of the receiving Participant. Materials marked as "Not Available to Competitive Duty Personnel" shall be returned or destroyed at the conclusion of this Proceeding as otherwise provided in this Protective Agreement.

24. If Saguaro believes that Protected Materials that it previously disclosed to Reviewing Representative(s) contain Market Sensitive Information, public disclosure of which would competitively harm Saguaro, and should be treated as if such Protected Materials had been labeled "Not Available to Competitive Duty Personnel," Saguaro must notify Participant. Such notice must specifically identify the Protected Materials that contain such Market Sensitive Information, make an informal showing of why such information should be subject to the restrictions applicable to Protected Materials labeled "Not Available to Competitive Duty Personnel," and must seek Participant's consent to treatment of the subject materials as "Not

Available to Competitive Duty Personnel." Such consent shall not be unreasonably withheld, delayed, or conditioned. If no agreement is reached concerning the designation of previously distributed Protected Material as "Not Available to Competitive Duty Personnel," Saguaro may submit the dispute to the Commission or the Presiding Judge. If any. In the event that Saguaro's previously distributed Protected Material is subsequently designated as "Not Available to Competitive Duty Personnel," it will be the responsibility of Participant to ensure compliance with this Protective Agreement after the additional designation; Saguaro will not be responsible for redistributing or re-labeling the affected Protected Materials.

25. If Participant is required by process of law to disclose the contents of Protected Materials, Participant agrees to timely notify Saguaro of any such request prior to making any disclosure, and to take all reasonable steps to ensure that such information or materials will be accorded confidential treatment, in accordance with this Protective Agreement, FERC's procedures set forth at 18 C.F.R. §§ 385.112 and 385.113, as well as in FERC's policies set forth by various FERC orders. Further, Participant agrees to limit disclosures only to information that is necessary to be responsive to any such request.

26. All notices concerning this Protective Agreement, other than the day-to-day communications between the Parties, shall be in writing and shall be sent to the relevant address set forth below. The Parties may designate other addressees or addresses by notice to the other Party. A notice shall be deemed effective (a) when given by hand delivery; (b) three days after deposit into the U.S. mail, postage prepaid; or (c) one business day after deposit with commercial overnight delivery service, charges prepaid.

Saguaro Connector Pipeline, L.L.C.	Participant
Attn: Legal / Regulatory Affairs	Attn:
Address: 100 West Fifth Street, Tulsa, Oklahoma, 74103	Address
Telephone: 918-588-7730	Telephone
Email: regulatoryaffairs@oneok.com	Email

{Signature Page Follows}

INTENDING TO BE LEGALLY BOUND, the Parties enter into this Protective Agreement as of the date first written above.

SAGUARO CONNECTOR PIPELINE, L.L.C.	**PARTICIPANT:**
_____	_____
By: _____	By: _____
Name:_____	Name:_____
Title:_____	Title:_____

UNITED STATES OF AMERICA
BEFOTE THE
FEDERAL ENERGY REGULATORY COMMISSION

Saguaro Connector Pipeline, L.L.C.) Docket No. CP23-___000

NON-DISCLOSURE CERTIFICATE OF PROTECTED MATERIALS EXCLUDING PROTECTED MATERIALS MARKED AS NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL

I hereby certify my understanding that access to Protected Materials is provided to me pursuant to the terms and restrictions of the Protective Agreement in this proceeding, that I have been given a copy of and have read the Protective Agreement, and that I agree to be bound by it. I understand that the contents of the Protected Materials, any notes or other memoranda, or any other form of information that copies or discloses Protected Materials shall not be disclosed to anyone other than in accordance with the Protective Agreement. I acknowledge that a violation of this certificate constitutes a breach of the Protective Agreement.

By: _____
Printed Name: _____
Title: _____
Representing: _____
Date: _____

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Saguaro Connector Pipeline, L.L.C.) Docket No. CP23-___000

NON-DISCLOSURE CERTIFICATE OF PROTECTED MATERIALS INCLUDING PROTECTED MATERIALS MARKED AS NOT AVAILABLE TO COMPETITIVE DUTY PERSONNEL

I hereby certify my understanding that access to Protected Materials is provided to me pursuant to the terms and restrictions of the Protective Agreement in this proceeding, that I have been given a copy of and have read the Protective Agreement, and that I agree to be bound by it. I further certify that I do not perform any "Competitive Duty Personnel" functions, as described in Paragraph 23 of the Protective Agreement. I understand that the contents of the Protected Materials, including Protected Materials marked as "Not Available to Competitive Duty Personnel," any notes or other memoranda, or any other form of information that copies or discloses Protected Materials shall not be disclosed to anyone other than in accordance with that Protective Agreement. I acknowledge that a violation of this certificate constitutes a breach of the Protective Agreement.

By: _____
Printed Name: _____
Title: _____
Representing: _____
Date: _____

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Exhibit A

Certificate of Formation and
Limited Liability Company Agreement

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "SAGUARO CONNECTOR PIPELINE, L.L.C.", FILED IN THIS OFFICE ON THE NINETEENTH DAY OF OCTOBER, A.D. 2022, AT 5:51 O`CLOCK P.M.

Jeffrey W. Bullock, Secretary of State

7093528 8100
SR# 20223812248

Authentication: 204668656
Date: 10-20-22

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 05:51 PM 10/19/2022
FILED 05:51 PM 10/19/2022
SR 20223812248 - File Number 7093528

STATE OF DELAWARE
CERTIFICATE OF FORMATION
OF LIMITED LIABILITY COMPANY

The undersigned authorized person, desiring to form a limited liability company pursuant to the Limited Liability Company Act of the State of Delaware, hereby certifies as follows:

1. The name of the limited liability company is **Saguaro Connector Pipeline, L.L.C.** (the "***Company***").

2. The Registered Office of the Company in the State of Delaware is located at **1209 Orange Street, Wilmington, DE 19801**. The name of the Registered Agent at such address upon whom process against the Company may be served is **National Registered Agents, Inc.**

By: /s/ Thomas J. Hutchison
Authorized Person

Name: Thomas J. Hutchison
Print or Type

LIMITED LIABILITY COMPANY AGREEMENT
OF
SAGUARO CONNECTOR PIPELINE, L.L.C.

Effective October 19, 2022, this Limited Liability Company Agreement (this "***Agreement***") of Saguaro Connector Pipeline, L.L.C., a Delaware limited liability company (the "***Company***"), is adopted and entered into by Saguaro Connector Pipeline Holdings, L.L.C., a Delaware limited liability company, as sole member (the "***Members***," which term includes any other persons or entities which may become members of the Company in accordance with the terms of this Agreement and the Act (as defined herein) and each such person or entity is a "***Member***") of the Company pursuant to and in accordance with the Delaware Limited Liability Company Act, as amended from time to time (the "***Act***"). Terms used in this Agreement which are not otherwise defined shall have the respective meanings given those terms in the Act.

ARTICLE I
NAME

Section 1.01 Name. The name of the limited liability company under which it was formed is: **Saguaro Connector Pipeline, L.L.C.** The Members may designate a new name for the Company from time to time.

ARTICLE II
TERM

Section 2.01 Term. The term of the Company commenced on the date the Certificate of Formation (the "***Certificate***") of the Company was filed with the Secretary of State of the State of Delaware and shall be perpetual, and the Company shall continue until dissolved in accordance with the Act.

ARTICLE III
MEETINGS OF MEMBERS

Section 3.01 Meetings of Members. Meetings of the Members may be called by Members holding not less than a majority of the limited liability company interests in the Company or by the Chairman of the Company ("***Chairman***") or, in the absence of a Chairman, the Chief Executive Officer. Meetings shall be held at the principal office of the Company. A written notice of each meeting shall be given to each Member stating the place, time and date of the meeting and the purposes of the meeting. Such notice will be given not less than five (5) days nor more than twenty (20) days prior to the meeting. Members may waive notice in writing. Members holding a majority of the limited liability company interests in the Company shall decide all elections and matters brought before the meeting unless a greater majority is required by this Agreement for any such election or matter. The meeting shall be conducted by the Chairman or in his absence the senior officer of the Company present at the meeting. Any action required or permitted to be taken at a meeting of the Members may be taken without a meeting if the written consent thereto is signed by Members holding the limited liability company interests in the Company necessary for such action.

ARTICLE IV
MANAGEMENT

Section 4.01 Management. Management of the Company is vested in the managers of the Company who shall consist of and be known as officers elected from time to time by the Members holding a majority of the limited liability company interests in the Company. The officers of the Company shall be a Chief Executive Officer, one or more Presidents, one or more Vice Presidents, a Secretary and such other officers as may be elected or appointed by the Members from time to time, including, but not limited to, a Chairman. Officers shall have such powers and duties, as managers of the Company, as are permitted or required by law and as may be specified by or in accordance with the Certificate, this Agreement or by resolutions of the Members, except such powers as are by statute, the Certificate or this Agreement vested solely in the Members. Each officer shall hold office until such person shall resign, be removed or such person's successor shall be elected and qualified. In the absence of any contrary determination by the Members, the person designated as Chief Executive Officer shall, subject to the power and authority of the Members, have general supervision, direction and control of the officers of the Company and the employees, business and affairs of the Company and shall have the right to remove any officer of the Company. Except as otherwise expressly provided for in any written contract duly authorized by the Members, all officers, agents, and employees shall be subject to removal at any time by the affirmative vote of the Members holding a majority of the limited liability company interests in the Company and all officers, agents and employees, other than those elected or appointed by the Members, shall also be subject to removal at any time by the officer with supervisory responsibility over them. Any officer may resign at any time by giving written notice to the Secretary of the Company which shall be effective upon receipt.

Section 4.02 Voting Stock and Other Interests. The person designated as the Chief Executive Officer or, in such officer's absence or with such officer's consent, the next ranking officer of the Company shall have full power and authority on behalf of the Company (i) to attend and to act and to vote, or in the name of the Company to execute proxies to vote, at any meetings of shareholders of any corporations in which the Company may hold stock, and at any such meetings shall possess and may exercise in person or by proxy, any and all rights, powers, and privileges incident to the ownership of such stock, and (ii) to act and to vote or consent on behalf of the Company, as a member of any limited liability company, partnership, or other entity, the Company's ownership or interest therein and shall possess and may exercise any and all rights, powers and privileges incident to such ownership or interest. The Members may, by resolution, from time to time, confer like powers upon any other person or persons.

Section 4.03 Limitation of Liability of Managers/Officers. No manager or officer of the Company shall be liable to the Company or its Members for monetary damages for breach of fiduciary duty as a manager or officer; provided, however, that nothing contained herein shall eliminate or limit the liability of a manager or officer (i) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of the law and (ii) for any transaction from which the manager or officer derived an improper personal benefit.

PURPOSE

Section 5.01 Purpose. The purpose of the Company is to engage in any lawful act or activity for which limited liability companies may be formed under the Act and to engage in any and all activities necessary or incidental to these acts or activities, including, but not limited to, owning certain pipeline assets that are to be operated in accordance with the Operating Agreement between the Company and ONEOK WesTex Transmission, L.L.C.

ARTICLE VI
MEMBERS

Section 6.01 Members. The names and business addresses of the initial Member is as follows:

Name	Address
Saguaro Connector Pipeline Holdings, L.L.C.	100 West Fifth Street Tulsa, Oklahoma 74103

ARTICLE VII
CAPITAL CONTRIBUTIONS

Section 7.01 Units. There shall be an aggregate of one hundred (100) Units in the Company. The term "***Unit***" shall mean a unit representing a limited liability company interest in the Company.

Section 7.02 Capital Contributions. The initial Member contributed $100.00 to the Company in exchange for one hundred (100) Units in the Company. For purposes of this Agreement, the value of any future capital contributions which may be made shall equal the book value of such assets, property and interests, less such liabilities, in the hands of the Member on the date transferred to the Company.

ARTICLE VIII
ADDITIONAL CONTRIBUTIONS

Section 8.01 Additional Contributions. No Member is required to make any additional capital contribution to the Company.

ARTICLE IX
ALLOCATION OF PROFITS AND LOSSES

Section 9.01 Allocation of Profits and Losses. The Company's profits and losses will be allocated among the Members in proportion to the value of the capital contributions of the Members.

ARTICLE X
DISTRIBUTIONS

Section 10.01 Distributions. Distributions shall be made to the Members at the times and in the aggregate amounts determined by unanimous consent of the Members. Such distributions shall be allocated among the Members in proportion to the value of the capital contributions of the Members.

ARTICLE XI
WITHDRAWAL OF MEMBER

Section 11.01 Withdrawal of Member. A Member may withdraw from the Company in accordance with the Act.

ARTICLE XII
ASSIGNMENTS

Section 12.01 Assignments. A Member may assign, transfer or similarly dispose of, in whole or in part, its limited liability company interest in the Company.

ARTICLE XIII
ADMISSION OF ADDITIONAL MEMBERS

Section 13.01 Admission of Additional Members. One or more additional Members of the Company may be admitted to the Company with the vote or written consent of the Members holding a majority of the limited liability company interests of the Company.

ARTICLE XIV
LIABILITY OF MEMBERS

Section 14.01 Liability of Members. The Members shall not have any liability for the obligations or liabilities of the Company, except to the extent provided in the Act.

ARTICLE XV
INDEMNIFICATION

Section 15.01 Actions, Suits, or Proceedings Other Than by or in the Right of the Company. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of the fact that the person is or was a Member, manager, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, manager, officer, employee or agent of another limited liability company, corporation, partnership, joint venture, trust or other enterprise or as a member of any committee or similar body, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the Company and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith

and in a manner which the person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, that the person had reasonable cause to believe that the person's conduct was unlawful.

Section 15.02 Actions, Suits, or Proceedings by or in the Right of the Company. The Company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that the person is or was a Member, manager, officer, employee or agent of the Company, or is or was serving at the request of the Company as a manager, director, officer, employee or agent of another limited liability company, corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith in a manner the person reasonably believed to be in or not opposed to the best interests of the Company, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless, and only to the extent that the court in which such action or suit was brought shall determine upon application, that despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the court shall deem proper.

Section 15.03 Indemnity if Successful. Notwithstanding the other provisions of this Article, to the extent that a Member, manager, officer, employee or agent of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 15.01 and 15.02, or in defense of any claim, issue or matter therein, the person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

Section 15.04 Determination of Right of Indemnification. Any indemnification under Sections 15.01 or 15.02 of this Agreement unless ordered by a court shall be made by the Company only as authorized in the specific case upon a determination that indemnification of the Member, manager, officer, employee or agent is proper in the circumstances because such person has met the applicable standard of conduct set forth in Sections 15.01 and 15.02. Such determination shall be made (i) by the Members by a majority vote of a quorum consisting of Members who were not parties to such action, suit or proceeding, or (ii) if such a quorum is not obtainable or even if obtainable a quorum of disinterested Members so directs, by independent legal counsel in a written opinion.

Section 15.05 Advance of Expenses. Expenses incurred by a Member, manager, officer, agent or employee in defending a civil or criminal action, suit or proceeding may be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such Member, manager, officer, agent or employee to repay such amount if it shall ultimately be determined that the person is not entitled to be indemnified by the Company as authorized in this Article.

Section 15.06 Provisions not Exclusive. The indemnification and advancement of expenses provided by or granted pursuant to the other sections of this Article shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses

may be entitled under any agreement, vote of disinterested Members or otherwise, both as to such person's official capacity and as to action in another capacity while holding such office.

Section 15.07 Insurance. The Company may purchase and maintain insurance on behalf of any person who is or was a Member, manager, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, manager, officer, employee or agent of another limited liability company, corporation, partnership, joint venture, trust or other enterprise, or as a member of any committee or similar body against any liability asserted against the person and incurred by the person in any such capacity, or arising out of the person's status as such, whether or not the Company would have the power to indemnify the person against such liability under the provisions of this Article.

Section 15.08 Constituent Companies. For the purposes of this Article, references to "***the Company***" include in addition to the resulting entity, any constituent entity (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its managers, directors, officers, employees or agents, so that any person who is or was a manager, director, officer, employee or agent of such constituent entity or is or was serving at the request of such constituent entity as a manager, director, officer, employee, or agent of another limited liability company, corporation, partnership, joint venture, trust, or other enterprise, or as a member of any committee or similar body shall stand in the same position under the provisions of this Article with respect to the resulting or surviving entity as such person would have with respect to such constituent entity if its existence had continued.

Section 15.09 Certain Definitions. For purposes of this Section, references to "***other enterprises***" shall include employee benefit plans; references to "***fines***" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "***serving at the request of the Company***" shall include any service as an officer, manager, employee, or agent of the Company which imposes duties on, or involves services by, such officer, manager, employee, or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner the person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "***not opposed to the best interests of the Company***" as referred to in this Section.

Section 15.10 Continuation of Rights Provided by this Article. The indemnification and advancement of expenses provided by or granted pursuant to this Article shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a Member, manager, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 15.11 Miscellaneous. In furtherance and not in limitation of the foregoing provisions of this Article XV, the Company shall indemnify the persons referred to hereinabove to the fullest extent permitted by the Act.

ARTICLE XVI
TAX MATTERS

Section 16.01 Fiscal Year. The fiscal year of the Company shall end on the 31st day of December of each year.

ARTICLE XVII
GENERAL PROVISIONS

Section 17.01 Conveyances. All of the assets of the Company shall be held in the name of the Company. Any deed, bill of sale, mortgage, lease, contract of sale or other instrument purporting to convey or encumber the interest of the Company of all or any portion of the assets of the Company shall be sufficient if signed on behalf of the Company by an officer of the Company. No person shall be required to inquire into the authority of any individual to sign any instrument which is executed pursuant to this Section 17.01.

Section 17.02 Amendment. This Agreement may be amended by a vote or consent of Members holding a majority of limited liability company interests in the Company, except Articles VIII, IX and XIV which will require the unanimous vote or consent of all Members. Anything herein to the contrary notwithstanding, no amendment shall be adopted or effective if, in the opinion of counsel to the Company, it would change the Company to an association taxable as a corporation, change the liability of or reduce the limited liability company interests of the Members, unless the affected party shall affirmatively consent thereto, or result in any adverse securities law or other adverse legal consequences.

Section 17.03 Anticipated Transactions. It is recognized that the Members and the officers have other legal and financial relationships and that they will participate in business ventures other than the Company which are not in direct competition with the Company.

Section 17.04 Entire Agreement. This Agreement and the Certificate embody the entire understanding and agreement among the Members concerning the Company and supersede any and all prior negotiations, understandings or agreements in regard thereto.

Section 17.05 Counterparts. This Agreement may be executed in multiple counterpart copies, each of which shall be considered an original and all of which taken together shall constitute one and the same instrument.

Section 17.06 Choice of Law. This Agreement shall be construed and interpreted according to the laws of the State of Delaware.

Section 17.07 Binding Effect. This Agreement and all of the terms and provisions hereof shall be binding upon and shall insure to the benefit of the Members and their respective heirs, executors, administrators, trustees, successors and permitted assigns.

Section 17.08 Gender and Number; Person. Whenever the context requires, the gender of all words used herein shall include the masculine, feminine and neuter, and the number of all words shall include the singular and plural thereof. As used in this Agreement, "***person***" shall mean and

include a natural person, corporation, partnership, trust, estate, limited liability company, government unit or other entity.

Section 17.09 Members; Agreement. As used herein, the term "***Member***" or "***Members***" shall include all assignees and transferees of limited liability company interests who are admitted as members or persons who become Members under the provisions of Sections 12.01 and 13.01 hereof. As used herein, the phrase "***this Agreement***" shall include any amendments that may be made hereto from time to time.

Section 17.10 Headings. All headings and other titles and captions used in this Agreement are for convenience only and shall not be considered in construing or interpreting any provision of this Agreement.

Section 17.11 Severability. In the event that any provision of this Agreement shall be declared to be invalid, illegal or unenforceable, such provision shall survive to the extent it is not so declared, and the validity, legality and enforceability of the other provisions hereof shall not in any way be affected or impaired thereby, unless such action would substantially impair the benefits to any party of the remaining provisions of this Agreement.

Section 17.12 Waiver. Whenever any notice is required to be given under the Act or this Agreement, a waiver thereof in writing, signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice.

[*SIGNATURE PAGE ATTACHED*]

IN WITNESS OF WHICH, the undersigned has duly executed this Agreement as of the date first set forth above.

"Member"

SAGUARO CONNECTOR PIPELINE HOLDINGS, L.L.C.

By: */s/ Pierce H. Norton II*

Pierce H. Norton II, President and Chief Executive Officer

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Exhibit B

Financial and Corporate Relationships

EXHIBIT B

Financial and Corporate Relationships

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), is a limited liability company organized and existing under the laws of the State of Delaware, which is authorized to conduct business as a foreign limited liability company in the State of Texas. Saguaro was formed to construct, own, and operate an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, as well as the Border Facilities that are the subject of this Application.

The sole member of Saguaro is Saguaro Connector Pipeline Holdings, L.L.C., a limited liability company organized and existing under the laws of the State of Delaware.

Saguaro is owned 100% by ONEOK, Inc. through its various subsidiaries. ONEOK, Inc. is funding all costs relating to the pipeline through capital contributions to Saguaro by using cash on hand, as well as its own financing sources.

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Exhibit C

Opinion of Counsel

wright & talisman

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Washington, D.C. 20005-3898
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wrightlaw.com

December 9, 2022

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: *Saguaro Connector Pipeline, L.L.C.*; Docket No. CP23-____-000
Application of Saguaro Connector Pipeline, L.L.C., for Natural Gas Act Section 3 Authorization and Presidential Permit to Construct Natural Gas Pipeline Facilities at the United States-México Border

Dear Secretary Bose:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a duly-formed limited liability company, certified by the state of Delaware on October 19, 2022, is applying to the Federal Energy Regulatory Commission pursuant to Section 3(a) of the Natural Gas Act for authorization to site, construct, connect, operate, and maintain border crossing facilities at the International Boundary between the United States and the Republic of México ("Border Facilities").

Pursuant to 18 C.F.R. § 153.8(a)(3), I have reviewed Saguaro's Certificate of Formation and currently effective Limited Liability Company Agreement and am of the opinion that Saguaro's proposal to construct and operate the Border Facilities, as more fully described in the above-referenced application, is within the authorized powers of Saguaro and that, to my knowledge, Saguaro has complied with the laws and regulations of the state in which it was formed.

Respectfully submitted,

Ryan J. Collins

Counsel for Saguaro Connector Pipeline, L.L.C.

SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Exhibit F

Environmental Report

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 1
General Project Description

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 1—GENERAL PROJECT DESCRIPTION

Minimum Filing Requirements:	**Addressed in Section:**
1. Describe and provide location maps of all jurisdictional facilities, including all aboveground facilities associated with the project (such as: meter stations, pig launchers/receivers, valves), to be constructed, modified, abandoned, replaced, or removed, including related construction and operational support activities and areas such as maintenance bases, staging areas, communications towers, power lines, and new access roads (roads to be built or modified). As relevant, the report must describe the length and diameter of the pipeline, the types of aboveground facilities that would be installed, and associated land requirements. It must also identify other companies that must construct jurisdictional facilities related to the project, where the facilities would be located, and where they are in the Commission's approval process. —Title 18 of the Code of Federal Regulations (CFR) (§) 380.12(c)(1)	Section 1.1, Section 1.2, Figures 1.1-1-1.1-4, and Section 1.10
2. Identify and describe all non-jurisdictional facilities, including auxiliary facilities that will be built in association with the project, including facilities to be built by other companies. i. Provide the following information: a. A brief description of each facility, including as appropriate: ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of federal, state, and local permits/approvals; b. The length and diameter of any interconnecting pipeline; c. Current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities; d. Correspondence with the appropriate State Historic Preservation Officer or duly authorized Tribal Historic Preservation Officer for tribal lands regarding whether properties eligible for listing on the National Register of Historic Places would be affected; e. Correspondence with the United States Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species; and f. For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program. ii. Address each of the following factors and indicate which ones, if any, appear to indicate the need for the Commission to do an environmental review of project-related non-jurisdictional facilities. a. Whether or not the regulated activity comprises "merely a link" in a corridor type project (e.g., a transportation or utility transmission project) b. Whether there are aspects of the non-jurisdictional facility in the immediate vicinity of the regulated activity which uniquely determine the location and configuration of the regulated activity c. The extent to which the entire project will be within the Commission's jurisdiction d. The extent of cumulative federal control and responsibility. —18 CFR § 380.12(c)(2)	Section 1.10 and Appendix 1F (Volume II)

3. Provide the following maps and photos: i. Current, original United States Geological Survey (USGS) 7.5-minute series topographic maps or maps of equivalent detail, covering at least a 0.5-mile-wide corridor centered on the pipeline, with integer mileposts identified, showing the location of rights-of-way, new access roads, other linear construction areas, compressor stations, and pipe storage areas. Show nonlinear construction areas on maps at a scale of 1:3,600 or larger keyed graphically and by milepost to the right-of-way maps. ii. Original aerial images or photographs or photo-based alignment sheets based on these sources, not more than 1 year old (unless older ones accurately depict current land use and development) and with a scale of 1:6,000 or larger, showing the proposed pipeline route and location of major aboveground facilities, covering at least a 0.5-mile-wide corridor, and including mileposts. Older images/photographs/alignment sheets should be modified to show any residences not depicted in the original. Alternative formats (e.g., blue-line prints of acceptable resolution) need prior approval by the environmental staff of the Office of Energy Projects. iii. In addition to the copy required under §157.6(a)(2) of this chapter, applicant should send two additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects. —18 CFR § 380.12(c)(3)	Section 1.12, Figures 1.1-2 and 1.1-3
4. When new or additional compression is proposed, include large scale (1:3,600 or greater) plot plans of each compressor station. The plot plan should reference a readily identifiable point(s) on the USGS maps required in paragraph (c)(3) of this section. The maps and plot plans must identify the location of the nearest noise-sensitive areas (schools, hospitals, or residences) within 1 mile of the compressor station, existing and proposed compressor and auxiliary buildings, access roads, and the limits of areas that would be permanently disturbed. —18 CFR § 380.12(c)(4)	Not Applicable
5. i. Identify facilities to be abandoned, and state how they would be abandoned, how the site would be restored, who would own the site or right-of-way after abandonment, and who would be responsible for any facilities abandoned in place. ii. When the right-of-way or the easement would be abandoned, identify whether landowners were given the opportunity to request that the facilities on their property, including foundations and below ground components, be removed. Identify any landowners whose preferences the company does not intend to honor, and the reasons therefore. —18 CFR § 380.12(c)(5)	Not Applicable
6. Describe and identify by milepost, proposed construction and restoration methods to be used in areas of rugged topography, residential areas, active croplands, sites where the pipeline would be located parallel to and under roads, and sites where explosives are likely to be used. —18 CFR § 380.12(c)(6)	Not Applicable
7. Unless provided in response to Resource Report 5, describe estimated workforce requirements, including the number of pipeline construction spreads, average workforce requirements for each construction spread and meter or compressor station, estimated duration of construction from initial clearing to final restoration, and number of personnel to be hired to operate the proposed project. —18 CFR § 380.12(c)(7)	Section 1.3
8. Describe reasonably foreseeable plans for future expansion of facilities, including additional land requirements and the compatibility of those plans with the current proposal. —18 CFR § 380.12(c)(8)	Section 1.7
9. Describe all authorizations required to complete the proposed action and the status of applications for such authorizations. Identify environmental mitigation requirements specified in any permit or proposed in any permit application to the extent not specified elsewhere in this section. —18 CFR § 380.12(c)(9)	Section 1.8 and Table 1.8-1

10. Provide the names and mailing addresses of all affected landowners specified in 18 CFR §157.6(d) and certify that all affected landowners will be notified as required in 18 CFR §157.6(d). —18 CFR § 380.12(c)(10)	Section 1.9 and Appendix 1E (Volume II)
Additional Information:	
Provide plot/site plans of all other aboveground facilities that are not completely within the right-of-way.	Not Applicable
Provide detailed typical construction right-of-way cross-section diagrams showing information such as widths and relative locations of existing rights-of-way, new permanent right-of-way, and temporary construction right-of-way.	Not Applicable
Summarize the total acreage of land affected by construction and operation of the Project.	Table 1.2-1

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 1—GENERAL PROJECT DESCRIPTION

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Appendix 1B	Inadvertent Release Control Plan (IRCP)
Appendix 1C	Spill Prevention, Containment, and Countermeasure (SPCC) Plan
Appendix 1D	Agency Correspondence
Appendix 1E	Landowner List and Landowner Reference Table (*Filed Under Separate Cover in Volume II, Contains Privileged information – Do Not Release*)
Appendix 1F	Non-FERC Jurisdictional Facilities (*Filed Under Separate Cover in Volume II, Contains Privileged information – Do Not Release*)

ACRONYMS AND ABBREVIATIONS

APE	area of potential effects
ATWS	additional temporary workspace
Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
Direct Pipe	Direct Pipe micro-tunneling
DOT	Department of Transportation
EI	Environmental Inspector
FERC	Federal Energy Regulatory Commission
FERC Plan	FERC's May 2013 *Erosion Control, Revegetation, and Maintenance Plan*
FERC Procedures	FERC's May 2013 *Wetland and Waterbody Construction and Mitigation Procedures*
HUC	Hydrologic Unit Code
IRCP	*Inadvertent Release Control Plan*
LNG	liquified natural gas
Mexico	Estados Unidos Mexicanos (United Mexican States)
NSA	Noise Sensitive Area
ONEOK	ONEOK, Inc.
Project	Saguaro Pipeline Connector Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
RFFA	Reasonably foreseeable future action
ROW	Right-of-Way
Saguaro	Saguaro Connector Pipeline, L.L.C.
SPCC	Spill Prevention, Containment, and Countermeasure
TCEQ	Texas Commission on Environmental Quality
U.S.	United States

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

1.0 RESOURCE REPORT 1—GENERAL PROJECT DESCRIPTION

1.1 Project Description

Saguaro Connector Pipeline, L.L.C. (”Saguaro”), a subsidiary of ONEOK, Inc. (“ONEOK”) and an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States (“U.S.”) to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). Saguaro has entered into an operating agreement with ONEOK WesTex Transmission, L.L.C., a subsidiary of ONEOK, to construct and operate the Project. Saguaro is submitting an application under Section 3 of the Natural Gas Act (15 United States Code § 717b), as amended, and Part 153 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) regulations (18 Code of Federal Regulations [“CFR”] § 153, *et seq*.) for approval of a Presidential Permit for the Project.

The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. The pipeline will have a design capacity of 2.834 billion standard cubic feet per day and up to a Maximum Allowable Operating Pressure of approximately 1,480 pounds per square inch gauge.

This Resource Report 1 describes the Project, applicable construction and operational procedures, environmental permits required for the Project, and the review of practice and procedures used to identify environmental resources that may be impacted by the Project. The resource reports included in the application are the following:

Resource Report 1—General Project Description
Resource Report 2—Water Use and Quality
Resource Report 3—Fish, Wildlife, and Vegetation
Resource Report 4—Cultural Resources
Resource Report 5—Socioeconomics
Resource Report 6—Geological Resources
Resource Report 7—Soils
Resource Report 8—Land Use, Recreation, and Aesthetics
Resource Report 9—Noise and Air Quality
Resource Report 10—Alternatives
Resource Report 11—Reliability and Safety
Resource Report 12—PCB Contamination

Resource Report 5 is required only if significant aboveground and pipeline facilities are proposed. The proposed Project does not include any aboveground facilities; therefore, Resource Report 5 is not required. Nonetheless, Saguaro recognizes the value of assessing impacts on

environmental justice communities and is providing an abbreviated Resource Report 5 to provide information relevant to environmental justice. Section 1.3 of Resource Report 1 addresses the estimated workforce requirements and construction schedules.

Resource Report 9 is required only for applications involving compressor facilities at new or existing stations, and for all new liquefied natural gas ("LNG") facilities. The Project does not involve any compression, LNG facilities, or any aboveground facilities, and thus Resource Report 9 is not required. However, Saguaro understands FERC's responsibilities under U.S. Environmental Protection Agency's ("EPA") General Conformity regulations implementing the Clean Air Act and recognizes the value of assessing noise impacts related to nighttime construction activities. Accordingly, Saguaro is providing Resource Report 9 to assist FERC is meeting its National Environmental Policy Act obligations.

Resource Report 11 describes the reliability and safety aspects of proposed projects and is required for new or recommissioned LNG facilities. The proposed Project does not involve new or decommissioned LNG facilities. Nonetheless, Saguaro recognizes the value of addressing reliability and safety concerns even for pipeline infrastructure and is providing a Resource Report 11 that characterizes the applicable safety regulations.

1.1.1 Purpose and Need

The purpose of the Project is to site, construct, connect, operate, and maintain a new International Boundary crossing between the U.S. and Mexico located in Hudspeth County, Texas, as more fully described herein. Saguaro is developing the Project to connect its intrastate natural gas transmission pipeline and related facilities—originating near the Waha Hub in Pecos County, Texas—with downstream facilities located in Mexico through the Border Facilities at the International Boundary crossing. Saguaro is an intrastate pipeline under the regulatory jurisdiction of the Railroad Commission of Texas. The Project will construct the Border Facilities for the purpose of providing firm transportation of natural gas from points in Texas for export to an interconnect with a pipeline under development in Mexico. The transportation of natural gas on Saguaro and the pipeline in Mexico will supply a new natural gas export facility under development on the West Coast of Mexico. Transportation services are scheduled to commence, subject to regulatory approvals and Project completion, in the second quarter of 2025 with an initial service term of 20 years.

1.1.2 Location and Description of Facilities Proposed for Project

Saguaro proposes the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river that is approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. The Border Facilities will be constructed and installed under the Rio Grande river using the Direct Pipe micro-tunneling ("Direct Pipe") trenchless construction method.

Construction activities by Saguaro for the Border Facilities at the work site will be limited to a new 50-foot permanent Right-of-Way ("ROW"), additional temporary workspace ("ATWS"), and a temporary access road. Some ATWS would overlap with the construction and permanent ROW of the new non-FERC jurisdictional Saguaro intrastate 48-inch-diameter pipeline.

The Project maps, alignment sheets, and drawings are located in Appendix 1A. Figure 1.1-1 shows a Regional Overview Map depicting the location of the proposed Project workspace. Figure 1.1-2 shows a map depicting the location of the proposed Project workspace on U.S. Geological Survey topographic quadrangles. Figure 1.1-3 is an aerial photograph-based map of the Project workspace. Property tracts are depicted on Figure 1.1-3, and a corresponding landowner reference table is provided in Appendix 1E which has been filed under separate cover in Volume II and is marked "Contains Privileged Information – Do Not Release." An alignment sheet indicating the Project's footprint, with the Direct Pipe crossing profile, is provided following the figures in Appendix 1A.

1.2 LAND REQUIREMENTS

Construction activities will be performed to install the Border Facilities using a new Direct Pipe crossing under the Rio Grande river. The land requirements associated with the Project by workspace configuration are provided in Table 1.2-1.

Construction of the Border Facilities will affect approximately 35.5 acres of land—including the permanent workspace for the Border Facilities, ATWS, and a temporary access road—as shown in the figures in Appendix 1A. Following construction, 34.4 acres will revert to preconstruction conditions and the remaining approximately 1.1 acres will be retained for operation of the Project facilities. Although the Project area is not currently being used for agriculture, after the Border Facilities are installed, future agricultural use of the permanent pipeline ROW will be allowable on the permanent pipeline ROW.

Table 1.2-1: Land Requirements

Facility	Land Affected During Construction (acres) [a]	Land Affected During Operations (acres) [a]
Border Facilities permanent ROW	1.1	1.1
ATWS	14.2	0
Temporary access road	20.1	0
TOTAL	**35.5**	**1.1**

[a] Acres are rounded to the tenth decimal place for presentation purposes.
[b] The subtotals and totals in this table may not reflect the sum of the addends due to rounding.

1.2.1 Project Workspace

The Border Facilities will require a 50-foot-wide permanent ROW and the Project will also require ATWS for construction. The Project construction workspace consists of 14.2 acres of land, of which 1.1 acres will be retained for permanent ROW. ATWS will be required for Direct Pipe drilling equipment, drill pipe and drilling materials, and hydrostatic testing of the new 48-inch-diameter pipeline after installation under the Rio Grande river.

The Project's workspace will be used by the Direct Pipe contractor for construction management, vehicle parking, equipment staging, materials storage, and pipe stringing. Approximately 1.0 acre of the ATWS at the northern extent of the public access road (Farm-to-Market 192/Indian Hot Spring Road) will be used as a truck turnaround area and as a staging area for equipment and hydrostatic testing water tanks.

1.2.2 Access Roads

Access to the Project workspace will be via an existing public road. The temporary access road to be utilized is an existing, graveled county road north of the Project workspace and is approximately 6.9 miles long starting along Farm-to-Market 192, which turns into Indian Hot Springs Road. In total, the temporary access road equals 20.1 acres.

The temporary access road associated with construction of the Project is identified on the overview maps and location drawings on Figures 1.1-1 and 1.1-3 in Appendix 1A. Minor maintenance, including pothole and culvert repair, to the proposed temporary access road are anticipated to be required.

Prior to commencement of construction, if conditions indicate that improvements and construction of additional temporary roads are needed, Saguaro will file the locations of the new access roads or improvements with the Commission for review and approval prior to use.

1.3 PROJECT SCHEDULE AND WORKFORCE

Saguaro anticipates that Project construction will begin the second half of 2024, subject to receipt of the required federal and state permits and approvals. Construction work in the U.S. will be completed by one Direct Pipe drilling crew, welders, and pipeline hands and will consist of approximately 40 to 60 workers, one Direct Pipe drilling rig, two track hoes, two or three side-boom tractors, two pipe stringing trucks, and five contractor heavy-duty pickups. Construction workdays will be Monday through Saturday, six days per week, between the hours of approximately 5 a.m. to 9 p.m. During the approximately 45 days of Direct Pipe pipeline installation, construction workdays will be Sunday through Saturday, seven days per week, 24 hours per day. Construction work timing, including cleanup activities, is expected to take 160 days with anticipated completion, and put in service, in the second quarter of 2025 concurrent with the completion of the non-FERC jurisdictional 48-inch-diameter intrastate pipeline.

It is not anticipated that any new permanent jobs will be added for operation of the Border Facilities.

1.4 CONSTRUCTION PROCEDURES

The Project will be completed in accordance with all applicable requirements as defined by the U.S. Department of Transportation ("DOT") regulations in Title 49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; 18 CFR § 380.15, *Siting and Maintenance Requirements*; and other applicable federal and state regulations. Construction will follow industry-standard procedures for construction and installation of pipelines and associated facilities. Saguaro will implement FERC's May 2013 versions of both the *Upland Erosion Control, Revegetation, and Maintenance Plan* ("FERC Plan") and the *Wetland and Waterbody Construction and Mitigation Procedures* ("FERC Procedures") with requested modifications to the FERC Procedures as described in section 1.4.3 below.

1.4.1 General Construction Procedures

Prior to the start of construction activities, affected landowners will be notified, the contractor will coordinate with the Texas One Call system to have underground utilities identified and flagged, and the limits of construction workspace will be staked or otherwise marked. For

the Border Facilities site that requires ground-disturbing activities, the work crew will clear the area of vegetation and any other obstacles present. Temporary erosion and sediment controls will be installed, as appropriate, in areas required by the FERC Plan and FERC Procedures. The temporary erosion and sediment controls will be maintained throughout the construction and restoration phases of the Project.

Excavation required to trench for the Direct Pipe installation of facilities will be conducted using a track hoe or similar equipment. The excavations will cover an area sufficient for work crews to perform the Direct Pipe method and installation of the Border Facilities as indicated above and to provide a minimum of 3 feet of cover over the piping and other appurtenances after completion of construction activities.

Restoration will begin after backfilling the excavations as specified in the FERC Plan and FERC Procedures and in accordance with any landowner arrangements for the Project workspace, as applicable. Construction debris will be collected from each work site and taken to an approved disposal facility. Permanent erosion controls will be installed as necessary and temporary workspace will be seeded with an appropriate seed mix in areas required by the FERC Plan or as requested by affected landowners.

1.4.2 Direct Pipe Procedures

The Direct Pipe method is a trenchless crossing method that is typically used to avoid direct impacts to sensitive resources (waterbodies and wetlands) or infrastructure (major roads and railways) by directionally drilling beneath them. Installation via the Direct Pipe method on the proposed Project will result in a pipeline that is installed beneath the ground surface via a single stage where, after fabrication of the pipeline or pipe string, a micro-tunneling head is affixed to the front of the pipe string. The pipe string and the micro-tunneling head are then "jacked" or pushed along the planned profile by remote control of the micro-tunneling head. The Direct Pipe method is generally less disturbing to the existing environment than conventional open trench installations.

The Direct Pipe method's rigs and associated equipment (e.g., control cab, drill string pipe storage, office and tool storage trailers, power generators, bentonite storage, bentonite slurry mixing equipment, slurry pump, cuttings separation equipment, and heavy construction equipment) will be set up on the U.S. side of the Rio Grande river crossing. Due to the specialized equipment and area requirements associated with Direct Pipe technology, ATWS is required to stage and operate the equipment.

The proposed Direct Pipe drilling fluid will consist of water and bentonite. Bentonite drilling fluid is delivered to the cutting head through the drill string to provide the hydraulic cutting action, lubricate the drill bit, stabilize the hole, and remove cutting spoil as the drilling fluid returns to the entry point of the pilot hole to an excavated containment pit. Typically, bentonite clay returns are processed to remove the cuttings and the bentonite is recycled for use as the drilling operation continues. Excess spoils and drilling fluid will be disposed of at an approved location in accordance with regulatory requirements, agreements, and permit conditions.

ATWS will be required on the U.S. side of the Rio Grande river for the entry point of the drill to prefabricate the 48-inch-diameter pipeline into one continuous section in preparation for the drill string push. Once assembled with the cutting head affixed to the drilling end of the pipe string, the pipeline is placed on pipe rollers to convey it into the drill hole during the push operation.

The fabricated pipe will be hydrostatically tested prior to installation. Upon completion of pipeline construction, the entire pipe will again be hydrostatically tested from the U.S. side of the International Boundary as explained below.

A successful Direct Pipe method will result in little or no impact to the waterbody being crossed. An inadvertent drilling fluid release could result if the annular fluid pressure exceeds the subsurface soil or rock formation limit pressure and is forced through a fracture in the subsurface formation from the drill annulus to the ground surface. To minimize any potential impacts of inadvertent releases of bentonite drilling fluid, Saguaro has prepared an *Inadvertent Release Control Plan* ("IRCP"). The IRCP is included as Appendix 1B and describes the procedures that will be used to monitor, contain, and/or conduct any other necessary response actions to potential releases of drilling fluid. Use of the procedures described in the IRCP will minimize the impacts of any potential inadvertent release of drilling fluid. Additionally, Saguaro has prepared a Spill Prevention, Containment, and Countermeasure ("SPCC") Plan (included as Appendix 1C) to establish basic procedures to prevent the discharge of hazardous or regulated materials during construction of the Project. The SPCC Plan is a guideline that sets forth minimum standards for the prevention of spills (handling and storing regulated substances) and for the minimization of impacts resulting from spills of fuels, petroleum products, or other regulated substances during pipeline construction, should a spill occur.

If the Direct Pipe crossing fails, Saguaro will attempt to re-drill the crossing. If the re-drilling were to fail, Saguaro will employ Horizontal Directional Drilling as an alternate method in conformance with state and federal permits (including, but not limited to, the International Boundary and Water Commission License) and FERC approval.

Following Direct Pipe installation, the pipeline will be hydrostatically tested again according to U.S. DOT specifications to ensure structural integrity. The pipeline will be capped, filled with water, and pressurized. Any loss of pressure that cannot be attributed to other factors, such as temperature changes, will be investigated. The anticipated hydrostatic test water may be privately sourced and approximately 300,000 to 350,000 gallons of water will be required for hydrostatic testing of the pipe.

It is anticipated that hydrostatic test water will be discharged overland in accordance with applicable permits within or along the edges of the construction workspace using energy dissipation devices to minimize erosion and sedimentation. Test water will contact only new pipe and no chemicals are currently anticipated to be added to the water. The water will be sampled prior to discharge and tested to determine suitability for discharge. If treatment of hydrostatic test water is found to be required, treatment procedures will be developed prior to discharge. After completion of construction and hydrostatic testing, the new pipeline will be cleaned and dried using pipeline pigs that are propelled through the pipeline with compressed air. Once cleaned and purged of air, the pipeline will be packed with natural gas.

1.4.3 Wetland and Waterbody Crossings

The Project's Wetland Delineation Report, included as Appendix 2B of Resource Report 2, describes the wetland and waterbody features that were identified during survey in October 2022. They include the Rio Grande river and an unnamed ephemeral stream that has been labeled as "shua004e". Construction activities within shua004e will be limited to those necessary to complete the Direct Pipe installation of the new 48-inch-diameter pipeline.

Consistent with the FERC Procedures, crossing of waterbodies when they are dry and not flowing may proceed using standard upland construction techniques in accordance with the FERC Plan provided that the Environmental Inspector ("EI") verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. As discussed in Resource Report 2, Saguaro requests modification to FERC Procedures Section V.B.2.a to allow for no workspace set-back, as shown in Figure 1.1-2, where shua004e crosses the workspace, as well no workspace set-back from shua001p (Rio Grande river) for monitoring and addressing any inadvertent release concerns. Saguaro also requests modification to the FERC Procedures Section V.B.5.a so that any equipment may cross shua004e at any time without use of an equipment bridge.

1.4.4 Residential Areas

No residences are located within 0.25 miles of the Project area.

1.5 ENVIRONMENTAL INSPECTION AND COMPLIANCE

Saguaro is committed to constructing the Border Facilities in a manner that minimizes environmental impacts and complies with applicable permits and approvals, the FERC Plan and FERC Procedures, and/or other environmental laws, regulations, plans or requirements as described in this report. These requirements will be incorporated into the construction bid documents for the Project. In addition, training of company and contractor personnel prior to construction will occur to familiarize them with environmental plans, requirements, and/or other conditions of approval. The training program will focus on, but will not be limited to, compliance with the FERC Plan and FERC Procedures, Project-specific conditions included in the permits and Presidential Permit, and Project-specific construction and restoration plans.

The Project will include one EI during construction activities. The EI will have peer status with other inspectors; be present throughout construction and restoration activities; and have the authority to enforce permit and FERC environmental conditions, issue stop-activity orders, and impose corrective actions to maintain environmental compliance.

1.6 OPERATION AND MAINTENANCE

After construction, Saguaro will operate and maintain the Border Facilities needed to provide natural gas service to customers in accordance with all applicable federal and state requirements including the minimum federal safety standards identified at 49 CFR § 192.

1.7 FUTURE EXPANSION PLANS

Currently, no plans for future construction of additional facilities at the U.S./Mexico border crossing of the Rio Grande river are anticipated in relation to the Project. If future market demands warrant an expansion of the system or additional pipeline capacity, an application will be filed with FERC for authorization to construct, modify, or expand facilities as applicable.

1.8 PERMITS AND APPROVALS

Table 1.8-1 lists the federal and state environmental permits and approvals required to implement the Project, along with the status of each permit or approval. In most cases, the permitting or approval process has been initiated through agency contacts and consultations. In

certain instances, consultation will be deferred with some agencies for those permits that are typically filed shortly before construction begins. Copies of agency correspondence up to the date of the filing of the application are provided in Appendix 1D, and the appendices of other applicable resource reports.

Table 1.8-1: Federal and State Permits/Approvals Applicable to the Border Facilities

Agency or Organization	Permit/Approval/Consultation	Submittal Date *(Anticipated)*	Approval Date *(Anticipated)*
FEDERAL			
FERC	Natural Gas Act Section 3 Presidential Permit Application and 18 CFR Part 153	December 20, 2022	*December 2023*
U.S. Army Corps of Engineers—Albuquerque, New Mexico District	Clean Water Act Section 404 (Nationwide Permit 12) and Rivers and Harbors Act Section 10	December 20, 2022	*June 2023*
U.S. Fish and Wildlife Service, Austin Ecological Services Field Offices—Austin, Texas	Threatened and endangered species consultation (section 7, Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act)	December 20, 2022	*April 2023*
U.S. Customs and Border Protection, Border Patrol Division	Communication consultation	November 2022	N/A
International Boundary and Water Commission—U.S. and Mexico Sections, El Paso, Texas	International Boundary and Water Commission License	December 20, 2022	*June 2024*
MEXICAN			
Comision Reguladora de Energia Estados Unidos Mexicanos—Mexico City, Mexico	Permit for transportation service in Mexico	*January 2023*	*June 2024*
Comision Internacional De Lìmites Y Aguas	License for International Boundary Crossing	*January 2023*	*June 2024*
TRIBAL			
Native American Tribes	Native American Tribal Consultation with the following tribes: Alabama-Coushtta Tribe of Texas, Comanche Nation, Tonkawa Tribe of Oklahoma, Ysleta Del Sur Pueblo, Mescalero Apache Tribe of the Mescalero Reservation, Apache Tribe of Oklahoma, Wichita, and Affiliated Tribes	November 21, 2022	N/A
TEXAS			
Texas Commission on Environmental Quality ("TCEQ")	Temporary Water Use/Appropriation Permit (TCEQ-20425 or TCEQ-10202)	*November 2023*	*December 2023*
	Texas Pollutant Discharge Elimination System General Permit TXR150000 Relating to Stormwater Discharges Associated with Construction Activities	*September 2023*	*January 2024*
	Hydrostatic Test Water Discharges General Permit—TXG670000	*September 2023*	*December 2023*
Railroad Commission of Texas	Clean Water Act Section 401 Water Quality Certification	December 20, 2022	Automatic with use of NWP12, contingent upon implementation of certification conditions
Texas Parks and Wildlife Department	State-listed species consultation—wildlife habitat assessment	November 20, 2022	*February 2023*

Agency or Organization	Permit/Approval/Consultation	Submittal Date *(Anticipated)*	Approval Date *(Anticipated)*
Texas Historic Commission	Cultural resources consultation (Section 106, National Historic Preservation Act) Antiquities Code of Texas Antiquities Permit	December 13, 2022	*July 2023*

1.9 LANDOWNER NOTIFICATION AND STAKEHOLDER COMMUNICATIONS

A list of all landowners affected by the Project is provided in Appendix 1E, which has been filed under separate cover in Volume II and is marked "Contains Privileged Information – Do Not Release." Saguaro mailed Project introduction letters to landowners on October 27, 2022. Saguaro will comply with the landowner notification requirements set forth in 18 CFR § 157.6(d). Additionally, all landowners adjacent to the Project workspace will be notified of the facilities to be constructed.

Saguaro also mailed Project introduction letters to agencies, tribes, and other stakeholders between November 21, 2022, and December 13, 2022. Outreach with local, state, and federal officials will be an ongoing effort for the Project team.

1.10 NON-FERC JURISDICTIONAL FACILITIES

As indicated in section 1.1 above, the Border Facilities will interconnect with a new intrastate pipeline located wholly in the State of Texas and will be designed to transport natural gas from the Waha Hub in Pecos County, Texas, to the Border Facilities. Saguaro[1] will also construct and operate the new non-FERC jurisdictional 48-inch-diameter intrastate pipeline, compression, and associated facilities. These facilities will be constructed and operated in compliance with U.S. DOT regulations in 18 CFR Part 192 and under the jurisdiction of the Railroad Commission of Texas, as described below.

The intrastate pipeline will consist of approximately 155 miles of 48-inch-diameter natural gas pipeline originating at the Waha Hub in Pecos County, Texas; traversing Reeves, Jeff Davis, and Culberson Counties, Texas; and terminating at the Border Facilities in Hudspeth County, Texas. The intrastate pipeline also includes the construction of the following non-jurisdictional aboveground facilities:

- Compressor Stations: Saguaro will construct and operate two new compressor stations. The first compressor station will be located at the beginning of the pipeline near Coyanosa, Texas, on private land that will be owned by Saguaro with an approximate footprint of 13 acres. The second compressor station will be located on private land that will be acquired by Saguaro at an intermediate point on the pipeline (currently planned for approximately MP 113) with an approximate footprint of 20 acres. The horsepower for each compressor station will be between 55,000, and 100,000.

- Meter Station: Saguaro will construct and operate one new meter station with an approximate footprint of 400 feet by 400 feet (3.7 acres). The meter station will be

[1] ONEOK WesTex Transmission, L.L.C. will manage the construction of, and operate, the intrastate pipeline pursuant to the operating agreement with Saguaro.

located near the downstream end of the intrastate pipeline near the International Boundary in Hudspeth County, Texas, but not within the Project workspace. For the sake of this resource report analysis, Saguaro conservatively assumes that a meter station will be located within 0.25 mile of the Project workspace.

- Launchers and Receivers: Saguaro will construct and operate approximately five launcher/receiver trap sites located along the pipeline, each with an approximate footprint of 125 feet by 300 feet (0.9 acre). Approximately three of the launcher/receiver trap sites will be collocated with other aboveground facilities.

- Mainline Valves: Saguaro will construct and operate approximately seven mainline valve sites located along the pipeline with an approximate footprint of 75 feet by 150 feet (0.3 acre) each.

An overview map of the non-FERC jurisdictional pipeline is provided as Figure 1.10-1 below and a more detail set of maps of the non-FERC jurisdictional pipeline is included in Appendix 1F, which has been filed under separate cover in Volume II and is marked "Contains Privileged Information – Do Not Release." These maps indicate the approximate length of the interconnected intrastate pipeline. Table 1.10-1 lists the federal and state permits that will be required for the new intrastate pipeline facilities, compressor facilities, and metering station.

Table 1.10-1: Federal and State Permits/Approvals Applicable to the Non-FERC Jurisdictional Facilities

Agency or Organization	Permit/Approval/Consultation
FEDERAL	
U.S. Army Corps of Engineers—Albuquerque, New Mexico District	Clean Water Act Section 404 and Rivers and Harbors Action Section 10 (Nationwide Permit 12)
U.S. Fish and Wildlife Service, Austin Ecological Services Field Offices—Austin, Texas	Threatened and endangered species consultation (Section 7 of the Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act)
TEXAS	
Texas Commission on Environmental Quality ("TCEQ")	Temporary Water Use/Appropriation Permit (TCEQ-20425 or TCEQ-10202)
	Texas Pollutant Discharge Elimination System General Permit TXR150000 Relating to Stormwater Discharges Associated with Construction Activities
	Hydrostatic Test Water Discharges General Permit—TXG670000
	Permit By Rule, Oil and Gas Standard, Minor NSR, Prevention of Significant Deterioration Permit, and/or Nonattainment New Source Review Air Permit (as needed)
Railroad Commission of Texas	Clean Water Act Section 401 Water Quality Certification
	T-4 Permit to Operate a Pipeline in Texas
	Water-based Drilling Mud Land Farm Permit
Texas General Land Office (GLO)	State Land Use Lease for Uplands Easement and Permit
Texas Department of Transportation	New Utility Installations in Existing Right of Way or Form 1082
Texas Parks and Wildlife Department	State-listed species consultation—wildlife habitat assessment program
	Marl, Sand, Gravel, Shell, or Mudshell Permit, if required.
Texas Historic Commission (State Historic Preservation Office)	Cultural resources consultation (Section 106 of the National Historic Preservation Act), Antiquities Code of Texas

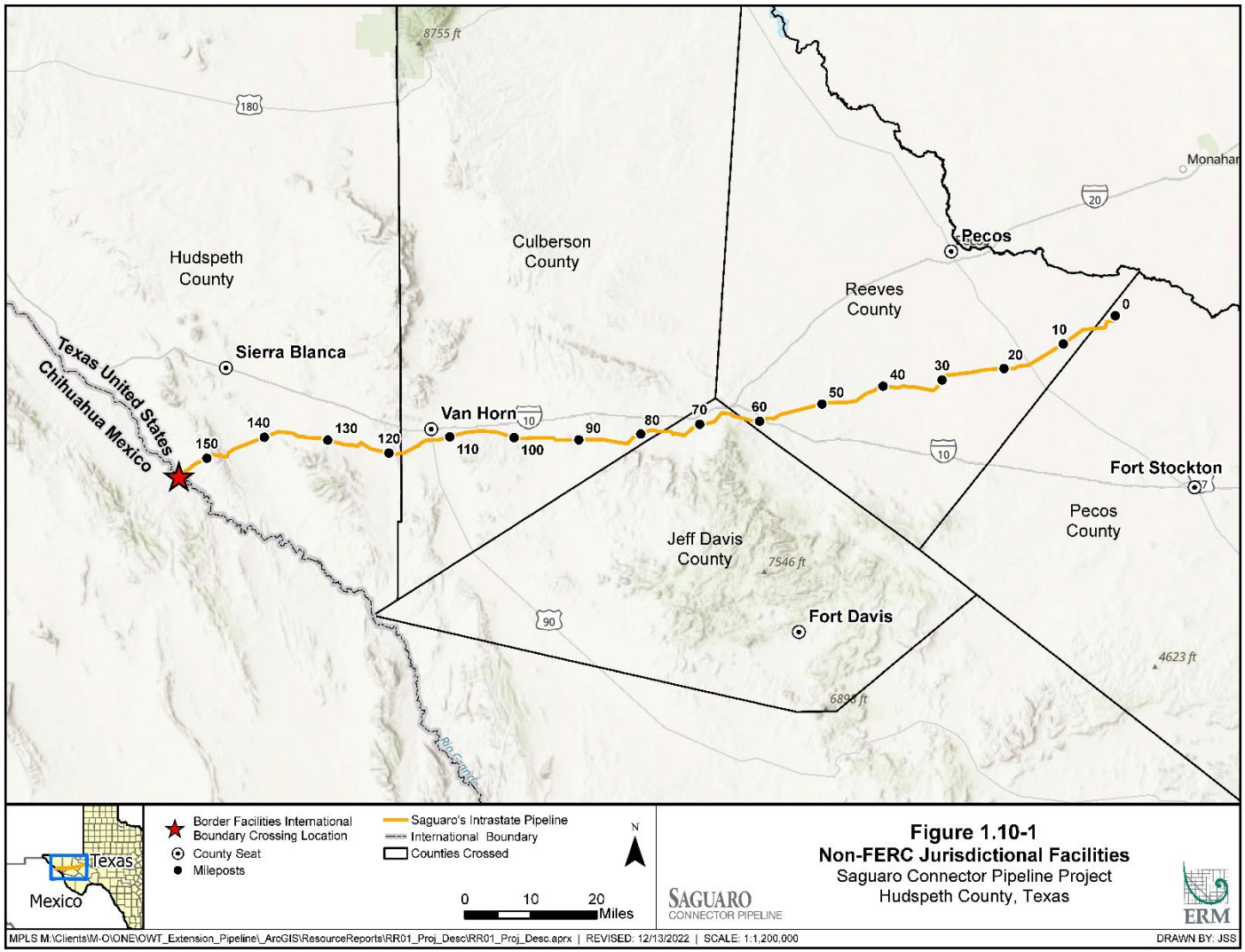


Figure 1.10-1
Non-FERC Jurisdictional Facilities
Saguaro Connector Pipeline Project
Hudspeth County, Texas

1.10.1 Four-Factor Test

Under 18 CFR § 380.12(c)(2)(ii), FERC uses a four-factor procedure to determine whether there is sufficient federal control and responsibility over a project to warrant environmental analysis of project-related non-jurisdictional facilities. The four factors, and the analysis of the procedure relative to the Project, are provided below:

1. *Whether or not the regulated activity comprises "merely a link" in a corridor-type project (e.g., transportation or utility transportation project).*

The regulated activities for the Project are related solely to the proposed construction of the Border Facilities. The pipeline interconnect construction is a minor action within Saguaro's new project boundary and Saguaro's new non-FERC jurisdictional meter station site and pipeline ROW. The Border Facilities are planned to be the last link under a non-FERC jurisdictional project designed to transport natural gas from the Waha Hub over 155 miles to the pipeline system located in Mexico. The Border Facilities, over which the Commission has jurisdiction, consist of only 1,000 feet. Therefore, the Project is merely a small link in a larger, corridor-type project, i.e., a link between two non-jurisdictional facilities: Saguaro's 155-mile connecting intrastate pipeline and the downstream facilities located in Mexico.

2. *Whether there are aspects of the non-jurisdictional facility in the immediate vicinity of the regulated activity that affect the configuration and location of the regulated activity.*

The Project will construct the Border Facilities in Hudspeth County, Texas. The locations of the non-FERC jurisdictional facilities have no effect on the configuration or location of the new Border Facilities. As discussed in Resource Report 10, the location of the International Boundary crossing facility is dictated by the interconnect location inside Mexico.

3. *The extent to which the entire project will be within the Commission's jurisdiction.*

The Project is but a small part of the overall Saguaro project delivering natural gas supplies from the Waha Hub in Pecos County, Texas, to Mexico. Following construction, the 1,000 feet of the Project (i.e., the Border Facilities) will link Saguaro's 155-mile, non-FERC jurisdictional facilities, which are regulated by the Railroad Commission of Texas, with downstream facilities in Mexico. The Border Facilities will be used in foreign commerce, transporting natural gas across the U.S./Mexico International Boundary, and Saguaro's connecting facilities will be used in the intrastate and foreign transportation of natural gas as explained in section 1.10. The non-FERC jurisdictional facilities discussed in section 1.10 are planned to be constructed to transport natural gas in intrastate transport service. The Commission has no jurisdiction over the siting or construction of any of these intrastate facilities.

4. *The extent of cumulative federal control and responsibility.*

The extent of the cumulative federal control and responsibility over the Project, following construction of the Border Facilities, is limited. The non-FERC jurisdictional facilities require no anticipated substantive federal approval. No federal lands are anticipated to be involved with intrastate facilities; there will be no federal financial involvement. Saguaro is responsible for obtaining the federal permits required to construct the intrastate facilities and the federal permits are limited to those within the jurisdiction of the U.S. Army Corps of Engineers for construction activities associated with the non-FERC jurisdictional facilities in or near wetlands and

waterbodies. In Texas, the permitting of gas pipeline facilities falls under the jurisdiction of the Railroad Commission of Texas and other state and local agencies.

Based on the above discussion, none of the four factors justifies environmental review of the non-jurisdictional facilities by the Commission.

1.11 Cumulative Effects

Cumulative impacts represent the incremental accumulation of past, present, and reasonably foreseeable future actions ("RFFA") on the environment (40 CFR § 1508.7). Cumulative impacts may result when a single action continuously impacts the environment, multiple projects impact the same resource over a period of time, or direct impacts on one resource result in indirect impacts on a different resource. Although the individual impacts of each separate project might not be significant, the additive or synergistic impacts of multiple projects could be significant.

In accordance with the requirements of the National Environmental Policy Act, the cumulative impacts of the proposed Project and the other projects or actions in the region are considered for each resource and provided in the respective resource reports. Table 1.11-1 summarizes the resource-specific geographic boundaries considered in this analysis and the justification for each. Actions occurring outside these geographical boundaries were not evaluated because their potential to contribute to a cumulative impact diminishes with increasing distance from the Project. Since the Border Facilities are not anticipated to have noise or air quality impacts during operation, those resources are not included in the review.

Table 1.11-1: Resource-Specific Geographic Regions for Cumulative Impact Assessment

Environmental Resource	Geographic Scope for Cumulative Impacts	Justification for Geographic Scope
Groundwater, Surface Water, and Wetlands	HUC-12 sub-watershed	Impacts on groundwater and surface water resources could reasonably extend throughout an HUC-12 sub-watershed (i.e., a detailed hydrologic unit that can accept surface water directly from upstream drainage areas and indirectly from associated surface areas such as remnant, noncontributing, and diversions to form a drainage area with single or multiple outlet points) as could the related impacts on aquatic resources and fisheries.
Vegetation, Fisheries, and Wildlife	HUC-12 sub-watershed	Consideration of impacts within an HUC-12 sub-watershed sufficiently accounts for impacts on vegetation, wildlife, and threatened and endangered species that would be directly affected by construction activities and for indirect impacts such as changes in habitat availability and displacement of transient species.
Cultural Resources	Overlapping impacts within the area of potential effect ("APE")	The APE for direct effects (physical) includes areas subject to ground disturbance, while the APE for indirect effects (visual or audible) includes aboveground ancillary facilities or other Project elements that are visible from historic properties in which the setting contributes to their National Register of Historic Places eligibility.
Socioeconomics – Environmental Justice	Affected census block group	Census block Group CT 9503.00 GB1 would experience the greatest impacts associated with environmental justice.
Soils and Surficial Geology	Construction workspaces	Impacts on soils and surficial geology would be highly localized and would not be expected to extend beyond the area of direct disturbance associated with the Project.
Land Use, Recreation, and Special Interest Areas	1.0-mile radius from the Project	Impacts on general land use would be restricted to the construction workspaces and the immediate surrounding vicinity; therefore, the geographic scope for land use and recreation is 1.0 mile from the Project workspace.

Environmental Resource	Geographic Scope for Cumulative Impacts	Justification for Geographic Scope
Visual Resources	1.0-mile radius from the Project	Assessing the impact based on the viewshed (i.e., the distance from which the tallest feature at the planned facility would be visible from neighboring communities) allows for the impact to be considered with any other feature that could have an effect on visual resources. Because the ground-disturbing activities at the Project work site are relatively minor, Saguaro limited the cumulative impact study area to the visual range from the Project workspace to a maximum distance of 1 mile.
Noise—Construction	0.25 mile—daytime only construction 0.5 mile—nighttime and 24-hour construction	Areas in the immediate proximity of construction activities (within 0.25 mile during daytime construction and 0.5 mile during nighttime and 24-hour construction) would have the potential to be affected by construction noise.
Noise—Operation	N/A	No aboveground facilities are proposed to be installed.
Air Quality—Construction	0.25 mile of construction footprint	Air emissions during construction would be limited to vehicle and construction equipment emissions and dust and would be localized to the Project workspace.
Air Quality—Operation	N/A	No aboveground facilities or combustion equipment is proposed to be installed as part of the Border Facilities.

HUC = Hydrologic Unit Code
N/A = Not Applicable

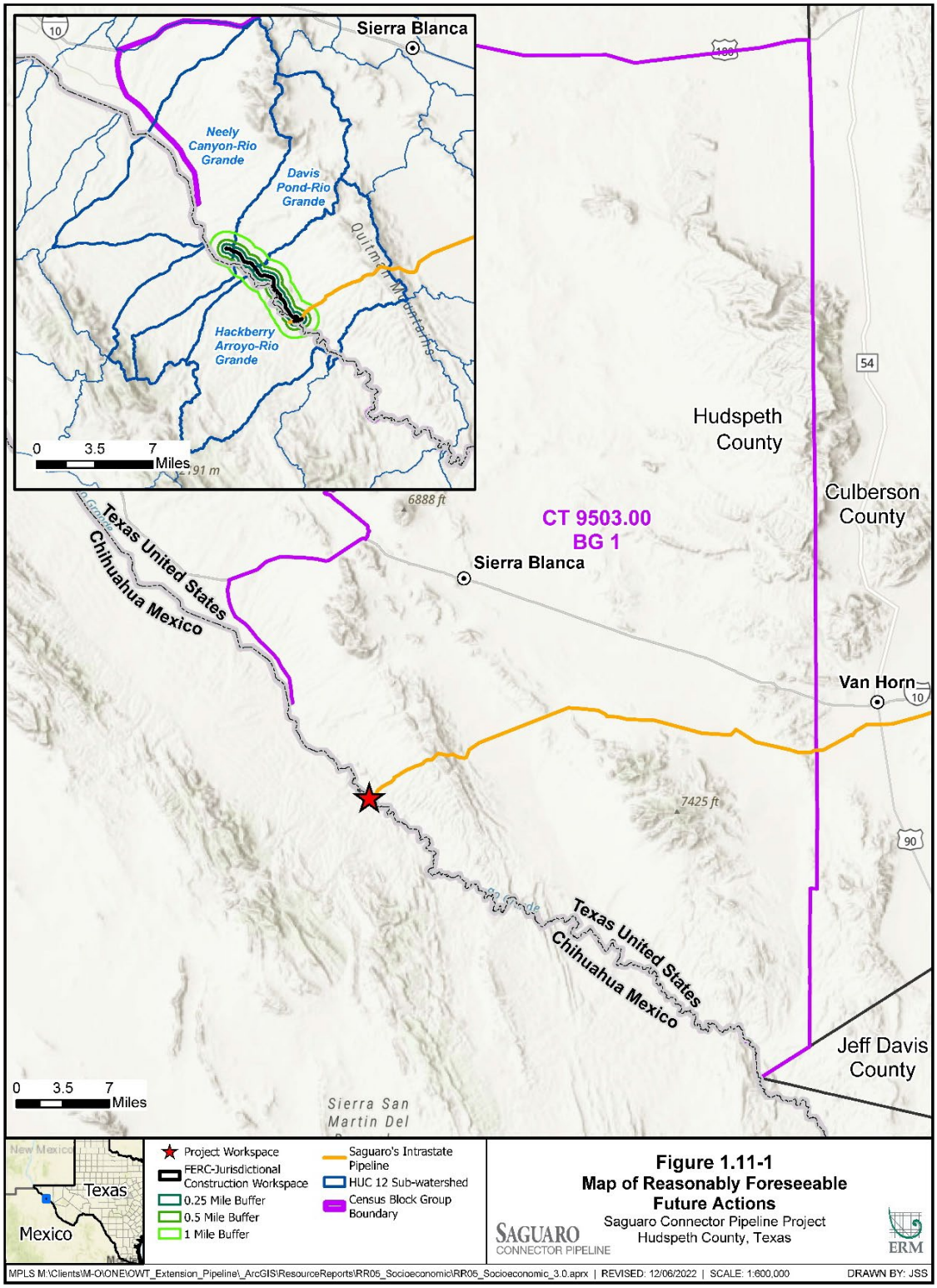
Past, present, and RFFAs within the geographic scope may affect the same resources as the proposed Project within the same timeframe. These include (but are not limited to) actions that are being implemented, have been funded, are under review by a regulatory agency, or are being considered by state and local planners. Actions that have not progressed beyond planning and feasibility stages of development were not included in the analysis due to the uncertainty of whether the projects will be implemented. While recent past actions that continue to contribute to discernable impacts on a resource would be considered (e.g., a project is operational but restoration/revegetation is not complete), the impacts of past actions are expressed in each resource report as baseline environmental conditions and are not included in the cumulative impact analysis.

Past, present, and RFFAs within the Project's geographic scope for cumulative impacts were identified through review of publicly available information regarding planned developments and other development projects in cities, counties, and public lands near the Project. The review also included state and federal transportation improvement projects and a review of publicly available information for proposed development projects (Construction Bid Source, 2022; Hudspeth County Herald, 2022; Geographic.org, 2022; TDOT 2022; Texas Press Association, 2022).

The following RFFAs were identified within the Project's geographic scope for cumulative impacts:

- Round Top Mountain rare earth mining project (The Big Bend Sentinel*,* 2021; Texas Mineral Resources Corp*,* 2022); and
- Saguaro's connecting intrastate pipeline as further described in section 1.10.

While the Round Top Mountain rare earth mining project is located within the geographic scope of cumulative impacts on Environmental Justice populations and could contribute to a cumulative effect, there is no recent, publicly available information indicating this project's expected permitting or construction schedule. The only project identified in this evaluation that has an overlapping temporal scope (planned for work or completion between 2024 and 2025) and that overlaps with the Project's geographic scope for cumulative impacts is Saguaro's connecting intrastate pipeline project. Figure 1.11-1 depicts the locations of RFFAs within the geographic scope for this analysis.


Sierra Blanca
Neely Canyon-Rio Grande
Davis Pond-Rio Grande
Hackberry Arroyo-Rio Grande
Quitman Mountains
0 3.5 7 Miles
Hudspeth County
Culberson County
CT 9503.00
BG 1
Sierra Blanca
Texas United States
Chihuahua Mexico
Van Horn
6888 ft
7425 ft
Texas United States
Chihuahua Mexico
Jeff Davis County
Sierra San Martin Del
0 3.5 7 Miles
New Mexico
Texas
Mexico
Project Workspace
FERC-Jurisdictional Construction Workspace
0.25 Mile Buffer
0.5 Mile Buffer
1 Mile Buffer
Saguaro's Intrastate Pipeline
HUC 12 Sub-watershed
Census Block Group Boundary
Figure 1.11-1
Map of Reasonably Foreseeable Future Actions
Saguaro Connector Pipeline Project
Hudspeth County, Texas
SAGUARO CONNECTOR PIPELINE
ERM
MPLS M:\Clients\M-O\ONE\OWT_Extension_Pipeline_ArcGIS\ResourceReports\RR05_Socioeconomic\RR05_Socioeconomic_3.0.aprx | REVISED: 12/06/2022 | SCALE: 1:600,000
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1.11.1 Groundwater, Surface Water Resources, and Wetlands

Excavation activity associated with the Project has the potential to temporarily affect overland water flow and the recharge of shallow aquifers. These impacts are expected to be minor and temporary due to the limited areas of excavation and duration of excavation activity. Small-scale, short-term impacts on waterbodies could occur as a result of construction activities in and near wetlands and waterbodies. There is a possibility of an inadvertent release of bentonite drilling fluid during Direct Pipe drilling. The Project is not anticipated to have any impacts on wetlands. The geographic scope for cumulative impacts to groundwater, surface water, and wetland resources includes the U.S. Geological Survey 12-digit Hydrologic Unit Code ("HUC") HUC12-130402010106, which underlies the Project. Saguaro's connecting intrastate pipeline project would also be constructed within the same HUC-12 subwatershed as the Border Facilities and contribute to a cumulative impact. Groundwater impacts from the Project are expected to be minor and temporary and while the connecting intrastate pipeline will result in additional trenching and potential groundwater impacts, the footprint of both projects is relatively small compared to the size of the subwatershed and both projects will implement an SPCC Plan to minimize the potential for discharge of hazardous materials that could affect groundwater.

Impacts from the Project on surface water and wetland resources during construction would be minor and temporary when considered cumulatively with impacts from Saguaro's connecting intrastate pipeline. Both projects would require mitigation measures for impacts on U.S. Army Corps of Engineers-jurisdictional wetlands and waterbodies. Additionally, either project would be required to mitigate any permanent fill of surface waters or wetland resources during operation and neither project is currently proposing permanent fill of surface waters and wetlands. The mitigation measures that will be taken by both projects including erosion and sediment control devices, compliance with a project-specific SPCC Plan, and restoration requirements are expected to reduce the cumulative effect of impacts on groundwater, surface waters, or wetlands to less than significant.

1.11.2 Fisheries

The Project will largely avoid direct impacts on fishery resources. In the event of an inadvertent release of drilling fluid into the Rio Grande river, Saguaro would implement the measures identified in the IRCP to minimize the impact. Additionally, Saguaro will implement the measures specified in the FERC Plan and FERC Procedures to prevent sediment flow into waterbodies and in the Project-specific SPCC Plan to prevent contamination from spills or leaks of equipment fuels, lubricants, or coolant. Saguaro's intrastate pipeline project would involve additional fisheries impacts associated with in-stream construction of the pipeline; however, the impacts will be minor, localized, and limited to the construction period. Saguaro's intrastate pipeline project will implement similar measures as the Project to minimize impacts on fish and, as a result, significant cumulative impacts on fish are not anticipated.

1.11.3 Vegetation, Wildlife, and Special Status Species

Vegetation and land cover at the Project area consists primarily of scrub-shrub habitat and open land. Construction of the Border Facilities may result in temporary impacts on vegetation associated with clearing and grading of the Project's workspace. Timely restoration of the Project workspace, reseeding with appropriate seed mixes, and the use of effective erosion control measures will minimize vegetation disturbance.

Short-term impacts on wildlife and special-status species during active construction include increased noise, lighting, and human activity, which could disrupt breeding and/or feeding behavior of wildlife near the Project. Movement of equipment, vehicles, and vessels during construction and operation could result in direct mortality of some small, less mobile mammals, reptiles, and amphibians that are unable to leave the area. Based on the relatively small Project footprint and abundant availability of nearby suitable habitat, these impacts are anticipated to be minimal and short-term.

The geographic scope for cumulative impacts on vegetation, wildlife, and special-status species includes the HUC-12 subwatershed. Approximately 6.8 miles of Saguaro's connecting intrastate pipeline, and potentially a meter station, would be constructed within the same HUC-12 subwatershed as the Project and would contribute to a cumulative impact. The proposed intrastate project would have similar short-term and long-term impacts on vegetation associated with clearing and grading of a construction ROW and maintenance of a 50-foot-wide area over the pipeline that will be maintained in a herbaceous state to facilitate pipeline inspection and on wildlife due to increased noise. The proposed meter station would have a small permanent footprint that would not be restored to a herbaceous state. As described in section 3.2.4 of Resource Report 3, scrub-shrub habitat that would be cleared for temporary workspaces and the pipeline ROW could take up to 10 years to successfully revegetate. There is sufficient nearby habitat for temporarily displaced wildlife to occupy in the vicinity of the meter station and along the pipeline route until the workspaces have become re-established. With implementation of the mitigation measures described, significant impacts on vegetation and wildlife are not anticipated.

Both projects would be required to comply with Section 7 of the Endangered Species Act that requires all federal agencies to use their authorities to conserve endangered and threatened species in consultation with the U.S. Fish and Wildlife Service and have the potential to impact a federally-listed threatened and endangered species. Due to the regulatory requirement to consult with the U.S. Fish and Wildlife Service regarding a project's impacts on protected species and critical habitats that requires that the Project's impacts be considered in light of existing conditions and in conjunction with nearby development, it is unlikely that the Project, in combination with the impacts from Saguaro's intrastate pipeline project, would contribute to a significant cumulative effect on threatened and endangered species.

1.11.4 Cultural Resources

As described in Table 1.11-1, the geographic scope for potential direct cumulative impacts on cultural resources includes the area of potential effect ("APE"). The APE for direct effects (physical) includes areas subject to ground disturbance and the APE for indirect effects (visual or audible) includes aboveground ancillary facilities or other Project elements that are visible from historic properties in which the setting contributes to their National Register of Historic Places eligibility. While Saguaro's connecting intrastate pipeline project will overlap the APE for direct and indirect effects, cultural survey has not yet been performed to determine that whether there are archaeological sites or historic structures within the direct or indirect APE and, the potential for cumulative impacts on cultural resources will be determined after survey has been completed.

1.11.5 Environmental Justice

While the Project is located in a Census Block Group designated as an environmental justice community, the Project is located in a rural area with a population density of less than one person per square mile. No residences were identified within a 3-mile radius of the Border

Facilities or within 1 mile of the Project workspace.[2] Sensitive receptors such as schools, playgrounds, churches, and health facilities show that the nearest receptor is the Sierra Blanca Public Park, which is located 18.8 miles northeast of the Border Facilities. Due to the lack of proximity to residences and potential sensitive receptors, the burden on the community is expected to be minimal during construction periods; limited mostly to traffic and a small influx of workers. These impacts will be mitigated with standard control measures and Saguaro has begun outreach to stakeholders that includes a Spanish language option. Impacts from operations are expected to be negligible. As such, environmental justice impacts are not anticipated to result from the Project.

Saguaro's connecting intrastate pipeline is also located in the same Census Block Group as the Project and would include approximately 37 miles of pipeline construction. The intrastate pipeline project also would not be located within 5 miles of a residence, school, hospital, commercial services, or other sensitive receptor. Given the rural nature of the pipeline route and lack of proximity to sensitive receptors, the burden on the community is expected to be minimal during construction periods; limited mostly to traffic and a small influx of workers and these impacts will be mitigated with standard control measures.

Additionally, the intrastate project falls under the jurisdiction of Texas Commission on Environmental Quality ("TCEQ"). On November 1, 2022, TCEQ's new Public Involvement Plan Form for permit and registration applications went into effect (TCEQ-20960). The form requires applicants for certain projects and in certain regions to submit a public involvement plan based on community and demographic information from the U.S. Environmental Protection Agency Environmental Justice Screen tool and the U.S. Census Bureau. TCEQ's Public Participation Plan uses preliminary screening and the creation of public involvement plans to achieve meaningful public outreach. Applicants who are applying for a new registration, permit, or activity or who are making certain types of changes to an existing registration, permit, or activity are required to complete a Public Involvement Plan.

For projects meeting the TCEQ application requirements (including Saguaro's intrastate pipeline facilities), the following will be submitted:

- a plain language summary of planned activities;
- Community and Demographic Information from the U.S. Environmental Protection Agency Environmental Justice Screen tool, the U.S Census Bureau, and any other demographic tools that may be useful and information in the section can assist with the determination of whether alternative language notice is necessary;
- if more than 5 percent of the population is limited English proficient, notice in alternative language is required;
- TCEQ asks if public meetings will be held and if translation services will be provided; and

[2] The structure located approximately 620 feet north of the northernmost end of the temporary access road is abandoned.

- applicants should also indicate where hard copies of the application will be made available.

Title 30 of the Texas Administrative Code Chapter 39 also requires the publication of notice in a newspaper in English and an alternative language; posting of English and alternative language on TCEQ's website; plain language summary, in English and alternative language; and sign posting.

All these tasks will be included in Saguaro's stakeholder engagement efforts so that outreach activities will be consistent for both the Project and Saguaro's intrastate pipeline project.

Given that the cumulative impact on environmental justice communities from either project is considered to be negligible and the similar levels of outreach and consideration are planned for environmental justice communities, significant cumulative impacts on environmental justice communities are not expected.

1.11.6 Geology and Soils

Impacts on geological resources and soils are expected to be minimal due to the nature of the Project activities—including a trenchless crossing of the Rio Grande river, which will be limited to a relatively small work area. To minimize or avoid impacts on soils, the Project will implement the FERC Plan, the FERC Procedures, and the Project-specific SPCC Plan.

The geographic scope for cumulative impacts on geological and soil resources is the Project's construction footprint. Saguaro's connecting intrastate pipeline project would overlap a portion of the Project's construction footprint and contribute to a cumulative impact. While both the Project and the connecting intrastate pipeline project could contribute to impacts on soil and geological resources within the overlapping construction areas during pipeline construction and restoration, these impacts will be temporary and highly localized. Significant cumulative impacts are not expected when the Project's impacts are combined with the intrastate pipeline project due to the localized nature of the soil and geological resources impacts and the relatively short duration when soils will be disturbed in any area.

1.11.7 Land Use, Recreation, and Visual Resources

Construction of the Border Facilities will impact approximately 14.2 acres of land and an additional 20.1 acres of existing county road usage. Approximately 1.1 acres of the construction workspace will be located within permanent ROW. After construction, areas outside of the permanent ROW will revert to preconstruction conditions and uses and the permanent ROW will be maintained in accordance with the FERC Plan. Therefore, impacts on land use will be temporary and minor. There are no recreational facilities or special interest areas within the Project area, so there will be no impacts on recreation. As there are no aboveground facilities associated with the Border Facilities, visual impacts will be limited to the time of active construction.

The scope for cumulative impacts on land use, recreation, and visual resources includes impacts that could extend within a 1.0-mile radius of the Project workspace during construction. Saguaro's connecting intrastate pipeline project would occur within a 1.0-mile radius of the Project workspace and contribute to a temporary cumulative impact to land use as areas of open land would temporarily be used for construction activities. Additionally, a meter station for the

intrastate pipeline project may be sited within 0.25 mile of the Project workspace, which would result in a localized, permanent impact on land use. Once construction is completed, areas outside of the permanent ROW and the meter station site would be restored to preconstruction conditions and uses. Because there are no aboveground facilities associated with the Border Facilities, there will be no cumulative impacts on visual resources.

1.11.8 Noise and Air Quality

During construction, the Project involves the use of heavy equipment that would generate emissions of air contaminants and fugitive dust. Impacts on air quality would be minimized because the construction activities are minimal and would occur over a short period and the Project would implement the mitigation described in the Project's Dust Control Plan (see Appendix 9B).

As described in Table 1.11-1, the geographic scope for cumulative impacts on Air Quality—Construction is considered within 0.25 mile of the Project workspace. Saguaro's connecting intrastate pipeline project would overlap the geographic scope for Air Quality—Construction impacts and result in a similar, localized impact on air quality. Both projects would only operate equipment on an as-needed basis and mitigate fugitive dust by implementing measures found in project-specific Fugitive Dust Control Plans. There are no anticipated cumulative effects on air quality as a result of the Project.

Noise during Project construction will be short-term and temporary in nature. Although construction may occur 24-hours per day during use of the Direct Pipe method, all other construction activities will take place during the day and will not have an impact on nighttime sounds levels. Because there are no noise sensitive areas ("NSA") within 0.5 mile of the Direct Pipe location (the nearest NSA is over 3 miles from the Border Facilities), the use of the Direct Pipe method will have no impact on nighttime sound levels at NSAs.

As described in Table 1.11-1, the geographic scope for cumulative impacts on Noise—Construction includes areas in the immediate proximity of construction activities (within 0.25 mile during daytime construction and 0.5 mile during nighttime and 24-hour construction). Saguaro's intrastate pipeline project would overlap the Project's geographic scope for Noise—Construction impacts and would result in similar daytime construction noise levels. No cumulative nighttime noise is anticipated as part of the intrastate pipeline project since there are no bores or drills within 0.5 mile of the Border Facilities workspace. Since there are no NSAs within 3 miles of the Border Facilities, the cumulative noise level on NSAs from the two projects will not be significant.

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APPENDIX 1A FIGURES, ALIGNMENT SHEET, AND CROSSING PLAN

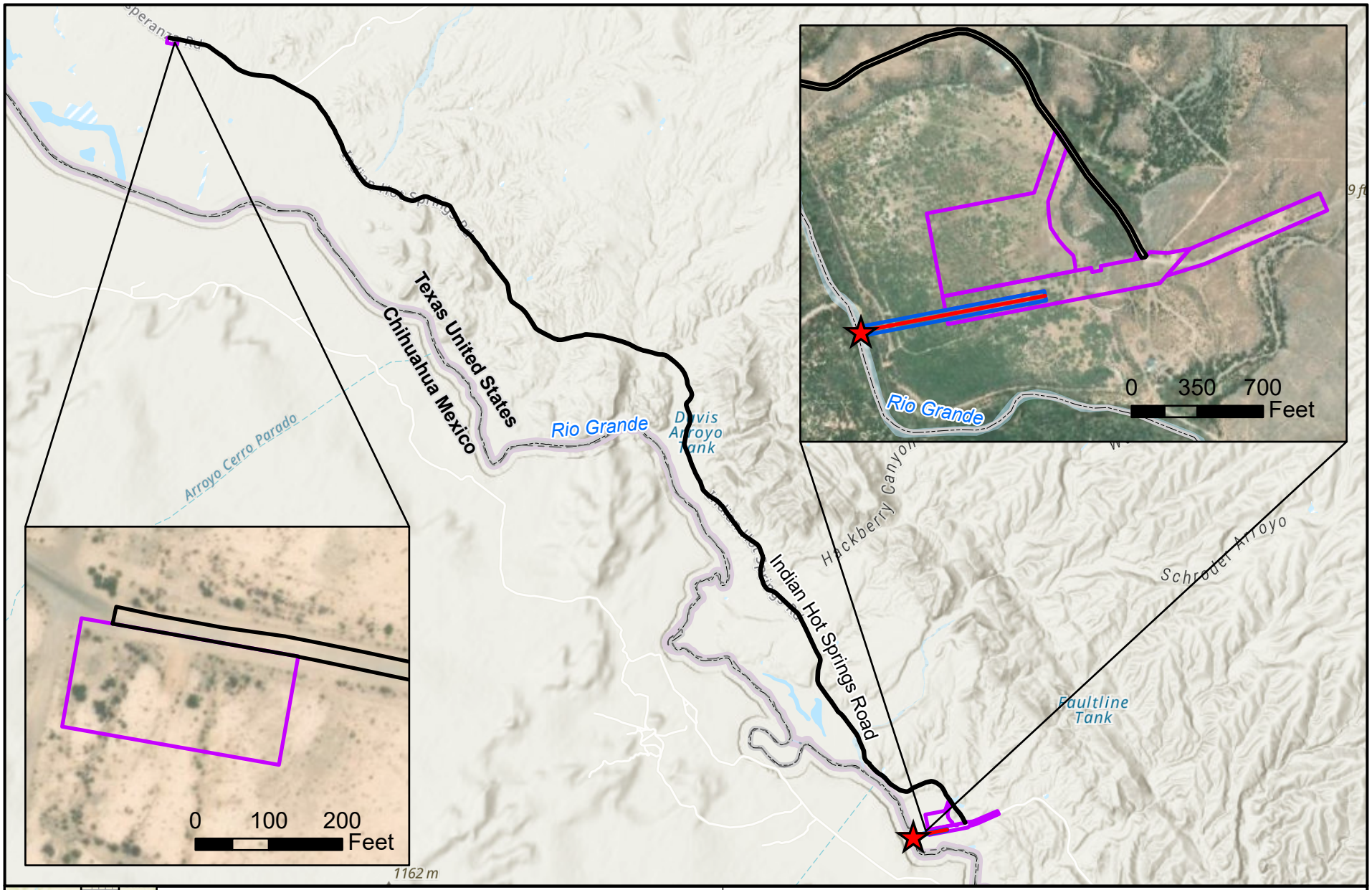


Figure 1.1-1
Regional Overview Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

ERM

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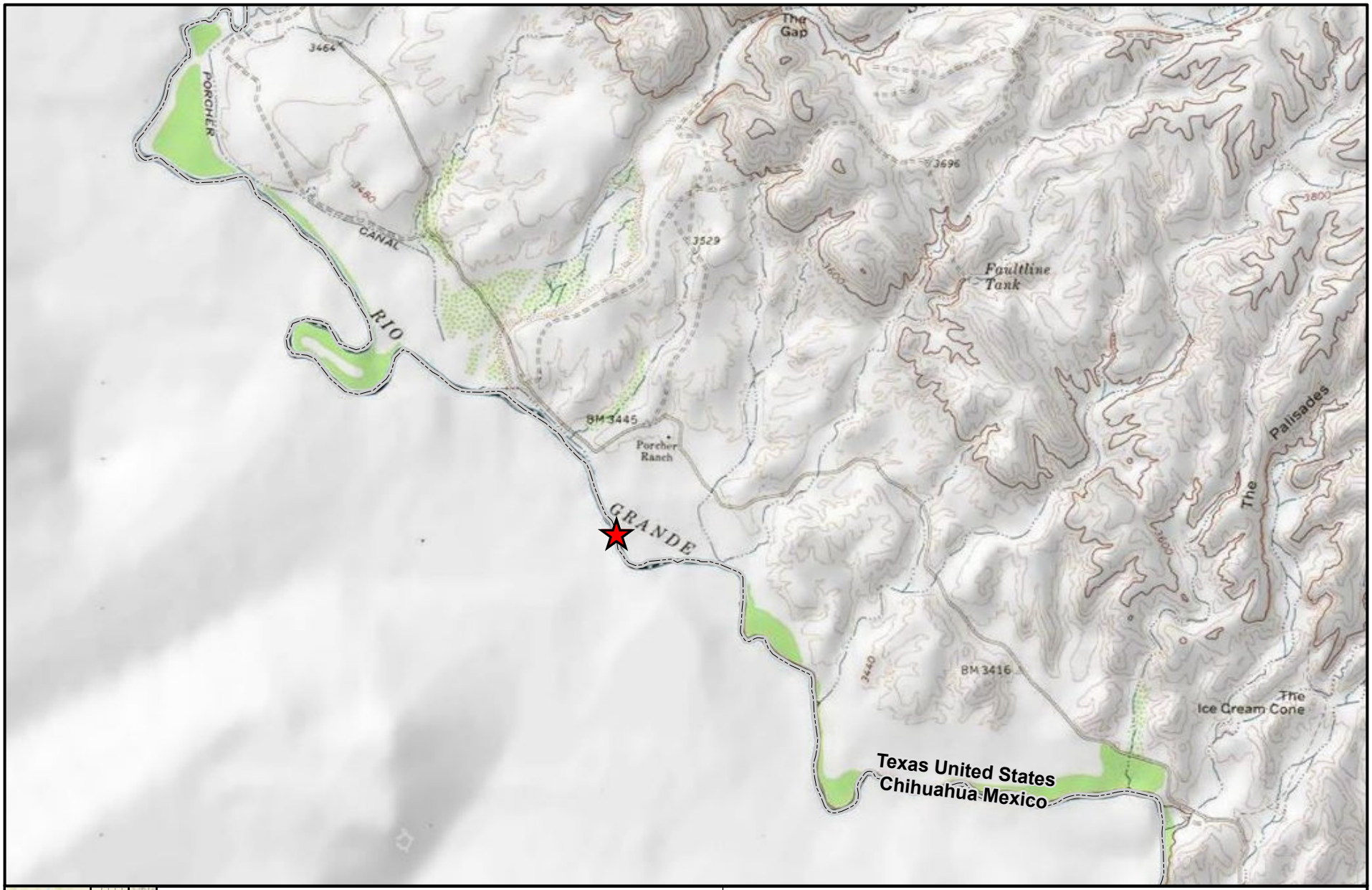


Figure 1.1-2
Topographic Map of Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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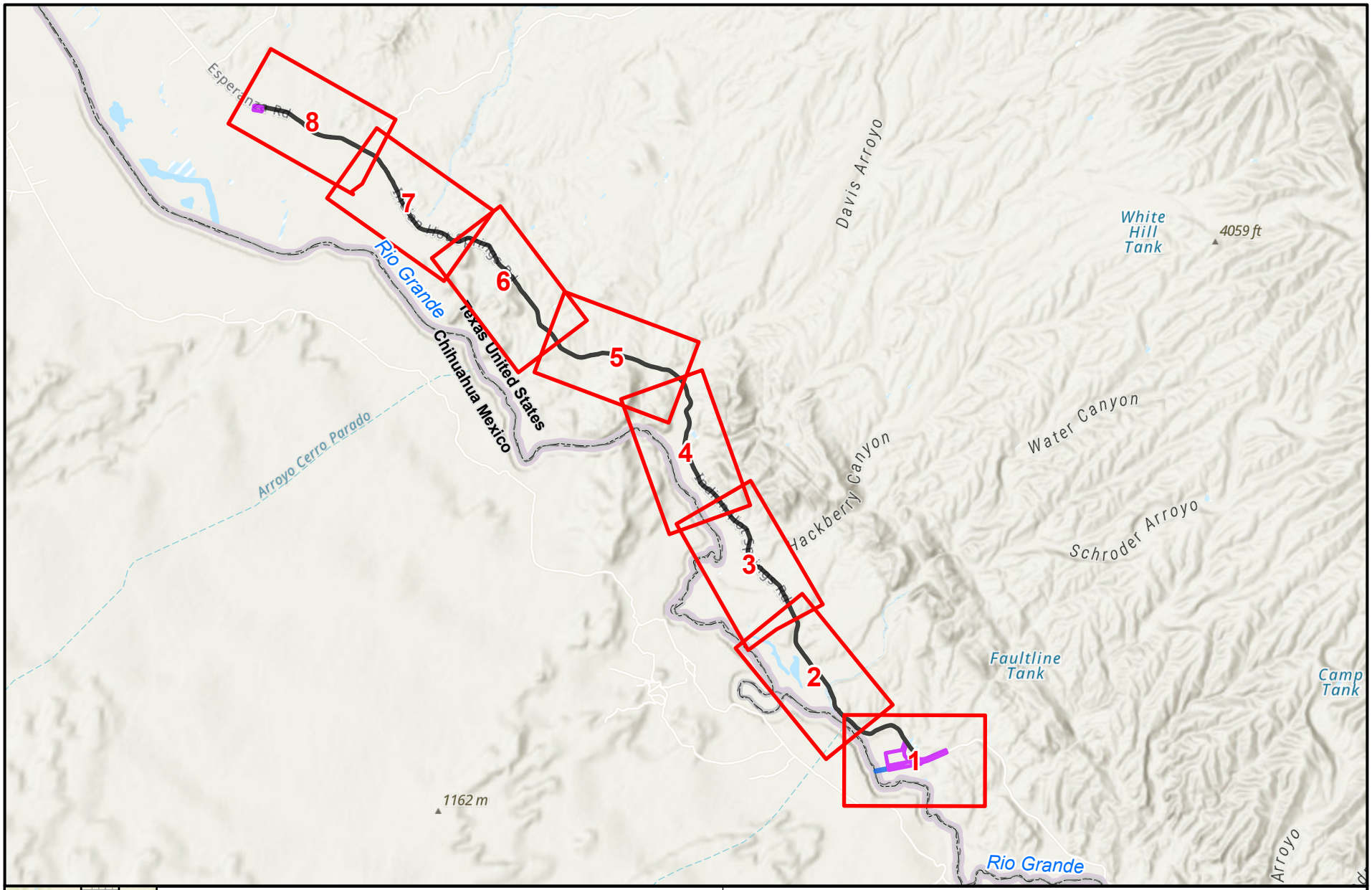
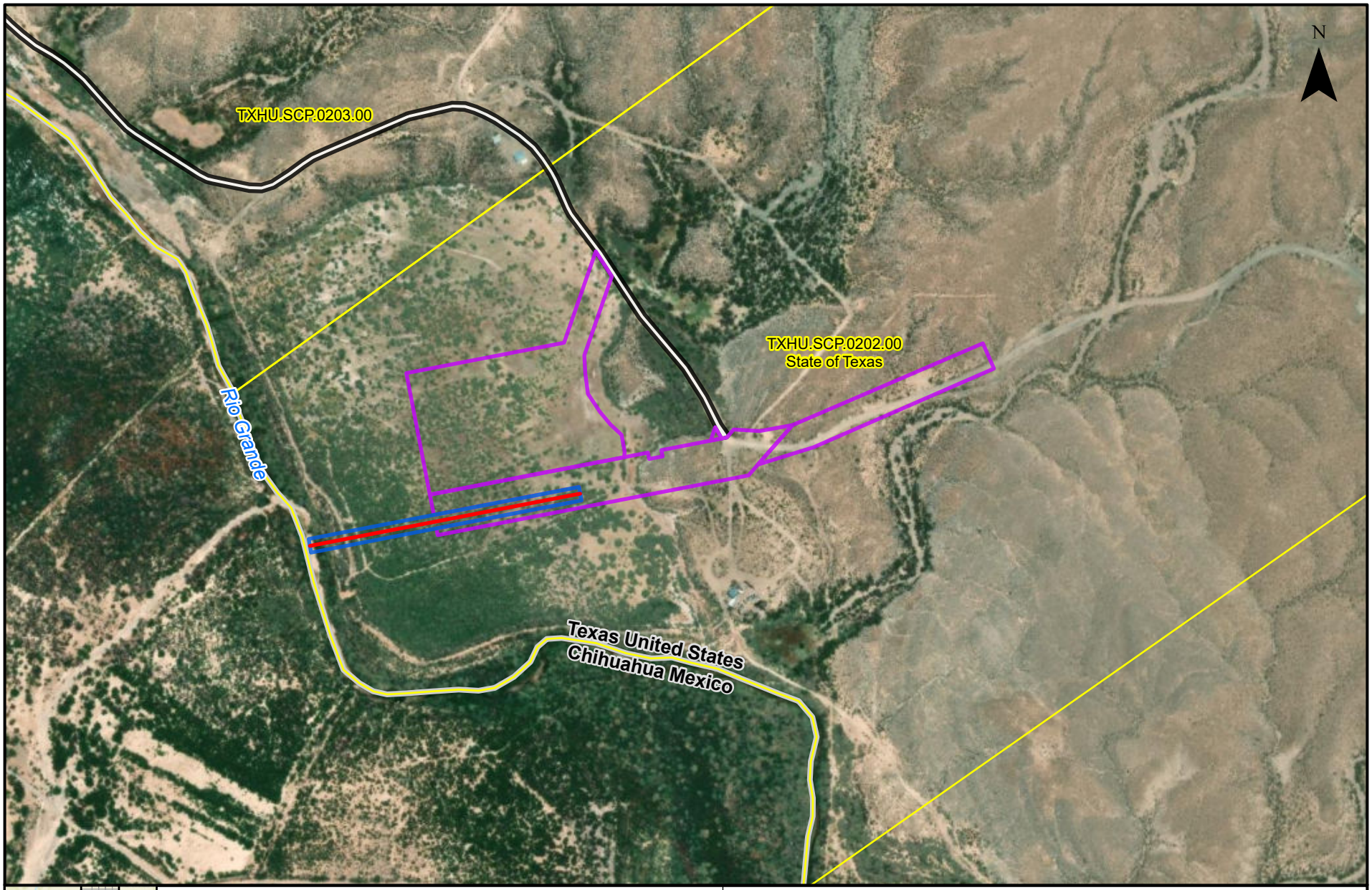


Figure 1.1-3
Aerial Map of the Project Area Index
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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SAGUARO CONNECTOR PIPELINE

Page 1 of 8

Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

ERM

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Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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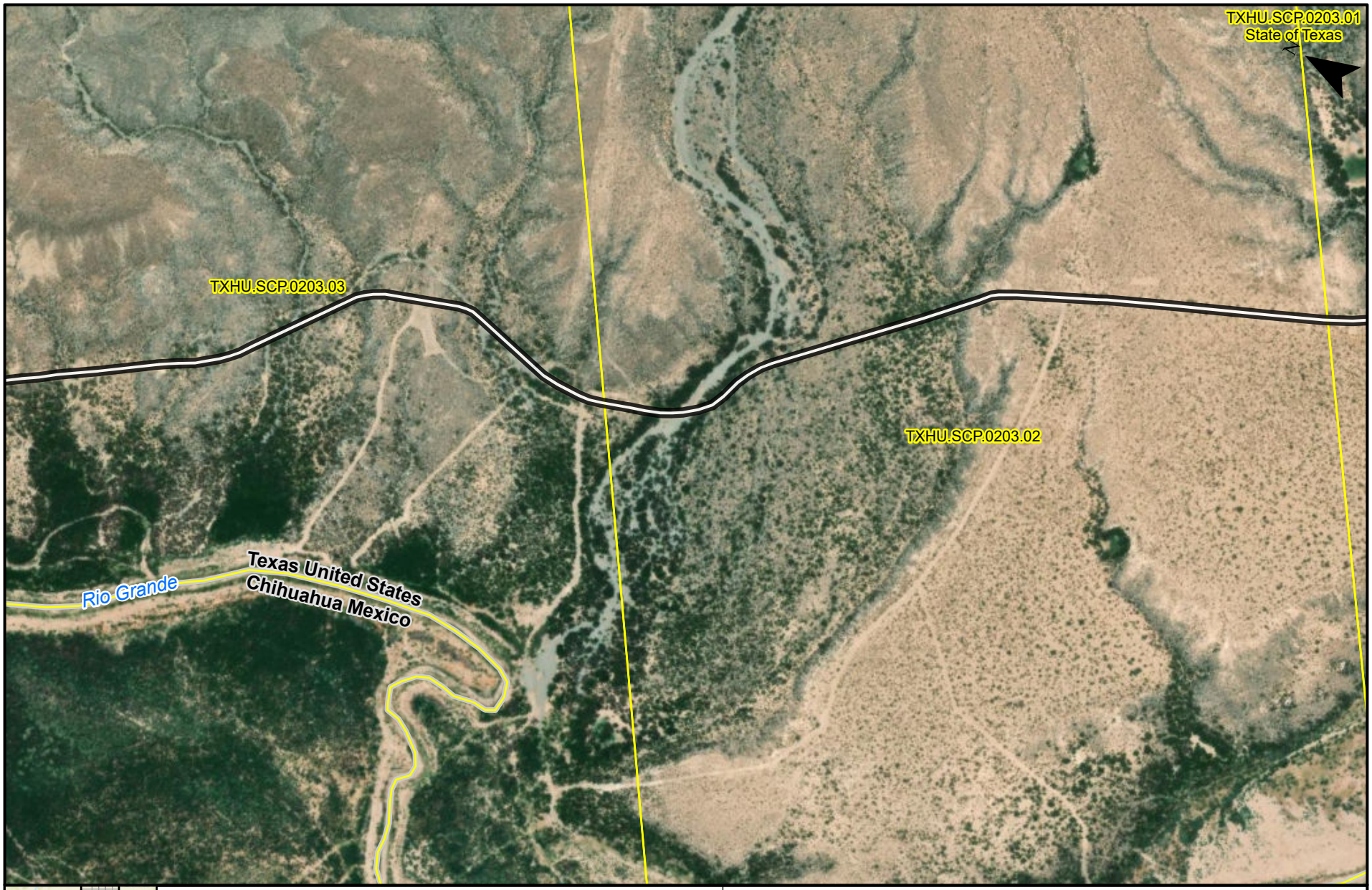


Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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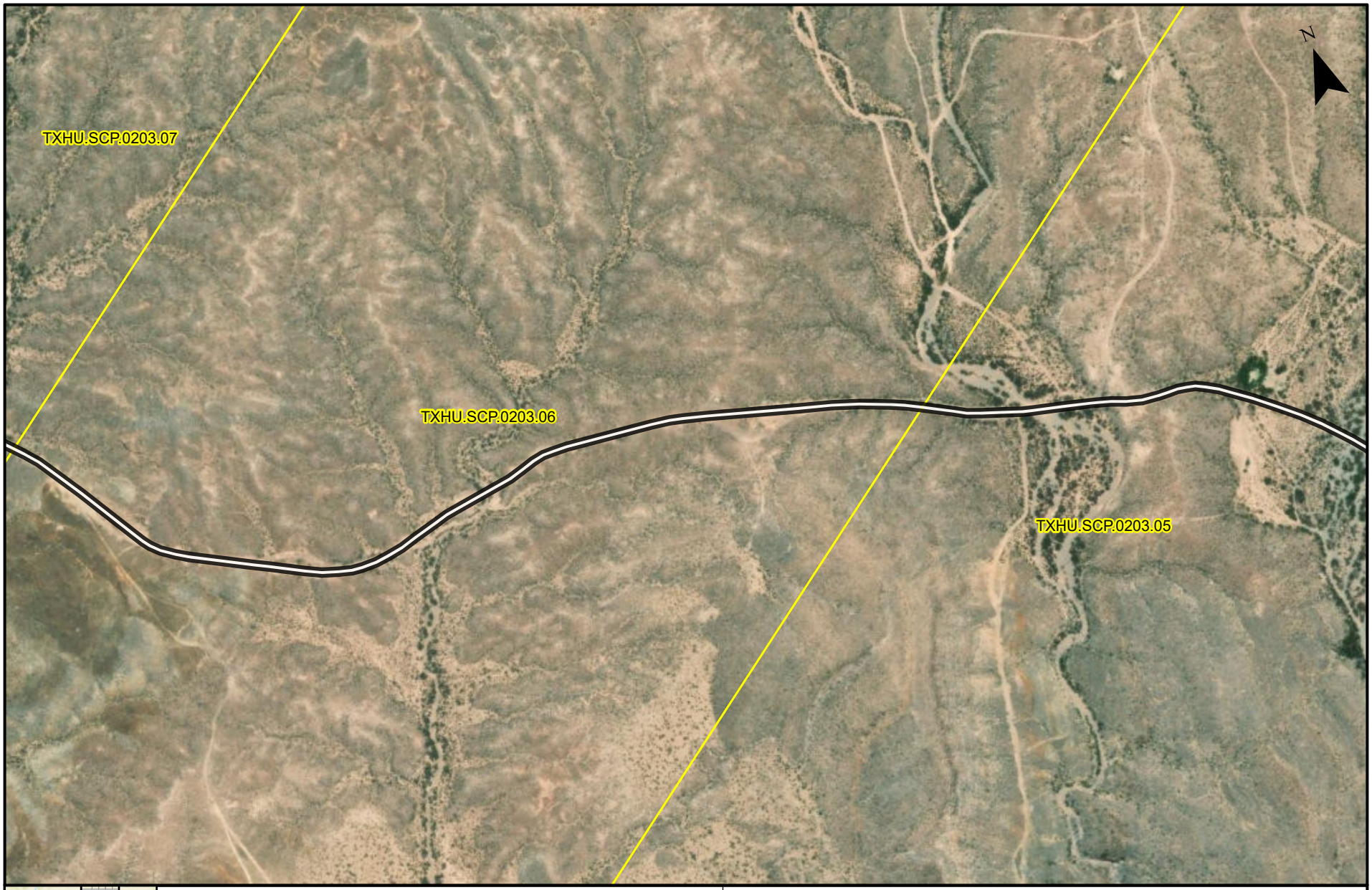


Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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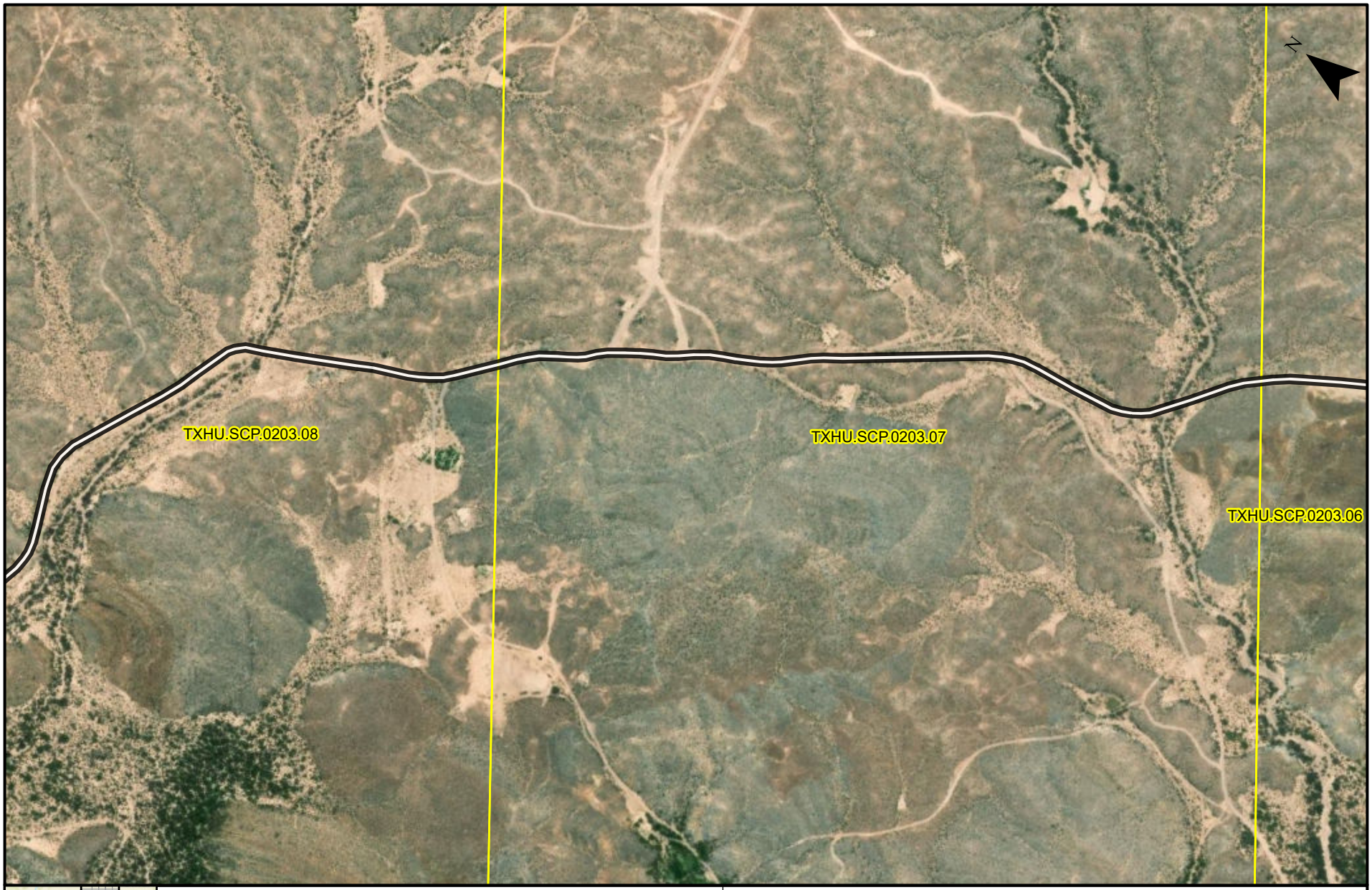


SAGUARO CONNECTOR PIPELINE

Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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Figure 1.1-3
Aerial Map of the Project Area
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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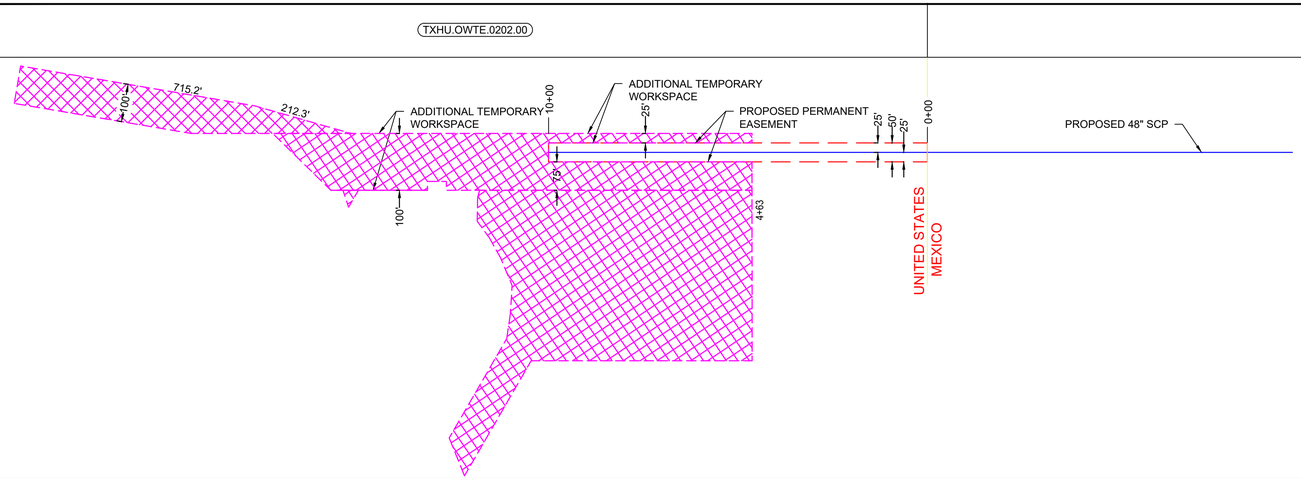
TRACT NUMBER

WORKROOM

PERMANENT EASEMENT

ADDITIONAL TEMPORARY WORKSPACE (ATWS)

NOTE:
IRREGULAR SHAPED ATWS MAY NOT BE SHOWN VISUALLY CORRECT IN THIS BAND



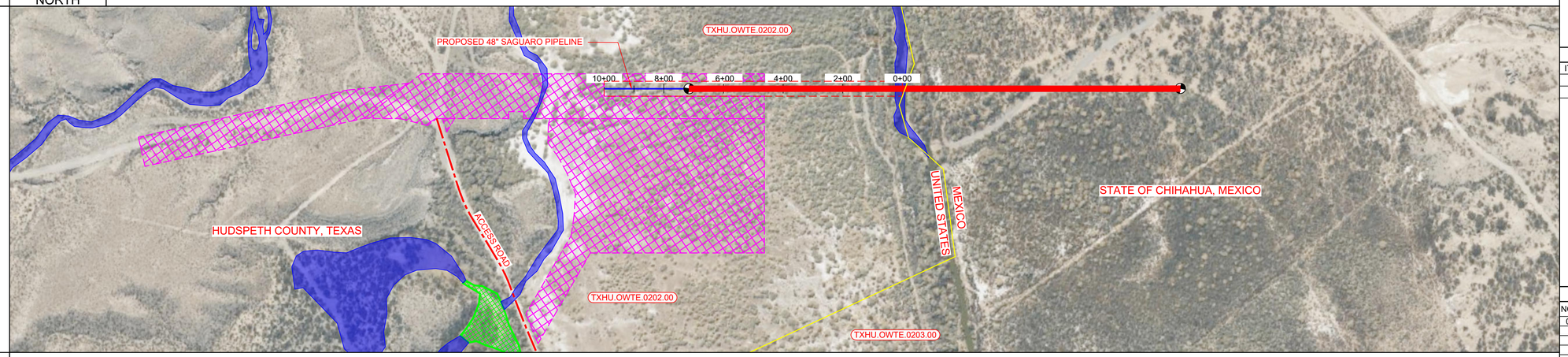
STATIONING

NORTH

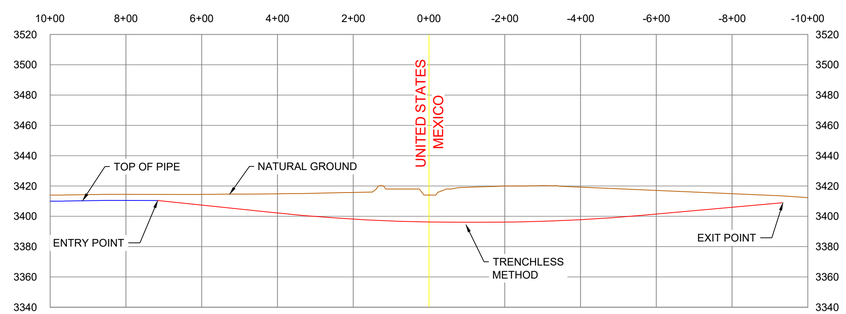
7+16 ENTRY POINT

0+00 INTERNATIONAL BORDER

PLAN

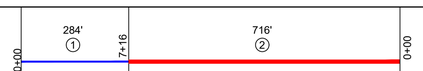


PROFILE
HORIZONTAL = 1" = 200'
VERTICAL = 1" = 50'



PIPE DETAIL

MATERIAL / COATING



NOTES

1. FOREIGN UTILITY LOCATIONS ARE APPROXIMATE AND MUST BE VERIFIED BY CONTRACTOR.
2. CONTRACTOR SHALL CONFINE CONSTRUCTION ACTIVITIES AND EQUIPMENT OPERATION OR TRANSPORTATION TO THE ROW, DESIGNATED WORKSPACE, PUBLIC ROAD, AND DESIGNATED ACCESS ROADS.
3. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PROPOSED CENTERLINE
PERMANENT EASEMENT
ATWS
TXCO.OWTE.XXXX.XX TRACT NUMBER
PROPERTY LINE
SECTION LINE
FENCE LINE
U/G UTILITY
O/H UTILITY
ACCESS ROAD
TEST STATION
HEAVY WALL PIPE
SEGMENTABLE BEND
VALVE
POWER POLE
BORE/HDD ENTRY OR EXIT POINT
MAG BED
DECOUPLER
AC MITIGATOR WIRE

ENVIRONMENTAL LEGEND

WATERBODY
WETLAND

BILL OF MATERIALS

ITEM	DESCRIPTION	QTY
1	LINE PIPE	284'
2	HEAVY WALL PIPE	716'

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	9/22/22	EL	ISSUED FOR PERMITTING

LEGEND:
REFER TO INDEX SHEET

SCALES:
B-SIZE (11X17) = 1" = 400'
D-SIZE (22X34) = 1" = 200'

811 Know what's Below Call before you dig.

1" = 200' 0 1" = 200' 400
SCALE IN FEET

DRAWN BY	EL	9/21/22	PHOTO BY		
CHECKED BY	RC	9/22/22	PLOT BY	EL	11/30/22
APPROVED			DATE		

LWS
222 South Gillette Ave.
Suite 304
Gillette, WY 82716
(918) 280-8907
www.lwssurvey.com

SAGUARO CONNECTOR PIPELINE

MAINLINE-ALIGNMENT SHEET
PROPOSED 48" SAGUARO CONNECTOR PIPELINE
HUDSPETH COUNTY, TEXAS

DWG. NO. SCP-FERC-001 REV. 0

APPENDIX 1B INADVERTENT RELEASE CONTROL PLAN (IRCP)

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Inadvertent Release Control Plan

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
Inadvertent Release Control Plan

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SAGUARO CONNECTOR PIPELINE, L.L.C
SAGUARO CONNECTOR PIPELINE PROJECT

1.0 PURPOSE AND NEED

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States to the Estados Unidos Mexicanos (United Mexican States) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas.

To cross the Rio Grande river, the Direct Pipe micro-tunneling (“Direct Pipe”) method will be used to install the Border Facilities. Ideally, this drilling method involves no disturbances to the bed or bank of the waterbody being crossed without excavating between the drill entry and exit points. However, if a natural fracture or unconsolidated area in the ground is encountered, an unexpected release of drilling fluid to the environment could occur. The objective of this drilling Inadvertent Release Control Plan is to provide procedures that will minimize the potential for release of drilling fluid into sensitive resource areas such as wetlands and waterbodies or onto the adjacent surface soils.

2.0 DRILLING BASICS

The method of crossing features with the Direct Pipe is a technically advanced process involving specialized equipment and skilled operators. The Direct Pipe method will result in a pipeline that is installed beneath the ground surface via a single stage where after fabrication of the pipeline, or pipe string, a micro-tunneling head is affixed to the front of the pipe string. The pipe string and the micro-tunneling head is then “jacked” or pushed along the planned profile by remote control of the micro-tunneling head.

The Horizontal Directional Drill (“HDD”) method has been identified as a potential alternative to the Direct Pipe installation method. The HDD, or other boring methods, is a technically advanced process involving specialized equipment and skilled operators. The method involves placing a drill unit on one side of the feature and drilling a small-diameter pilot hole under the feature along a prescribed profile. After the pilot hole has been completed, specialized reaming tools are used to enlarge the pilot hole to accommodate the desired diameter for the pipeline. Once the properly sized hole is established, the pipe section is pulled through the hole by the drilling rig and welded to the adjoining sections of pipe on each side of the feature. The selection and supervision of the drilling contractor for drilling activities will be the responsibility of Saguaro.

3.0 DRILLING FLUID AND DRILLING FLUID SYSTEM

The drilling process uses drilling fluid consisting primarily of water and bentonite, a naturally occurring clay. Drilling fluid removes the cuttings from the borehole, stabilizes the walls of the borehole, and acts as a coolant and lubricant to the drill bit during the drilling process. The drilling fluid mixture consists of a small percentage of bentonite clay and inert solids generated

during the drilling process from the borehole cuttings with the remainder being water. Under certain conditions an additive may need to be mixed with the drilling fluids/mud for viscosity or lubricating reasons. Only Saguaro-approved, non-hazardous additives will be used and a Safety Data Sheet for the additives will be maintained onsite.

The drilling fluid is prepared in the mixing tank using both new and clean recycled drilling fluid. The fluid is pumped through the center of the drill pipe to the drilling tools. Return flow is through the annulus created between the wall of the drilled hole and the drill pipe. During pilot hole drilling, the cuttings are returned to a small excavation at the entry point called the entry pit. From the entry pit, the returned fluid is pumped to the fluid processing equipment. Typically, shaker screens, desanders, desilters and centrifuges process and remove increasingly finer cuttings from the drilling fluid. The cleaned fluid is recycled to the mixing tank for reuse in the borehole. The cuttings removed by the cleaning process are disposed of at a site approved to accept this type of material.

4.0 DRILLING FLUID RELEASE

The primary environmental risk associated with the drilling crossing method comes from the potential for inadvertent release of drilling fluid into a waterbody or wetland. This plan can also be followed should a release occur in an upland area. A drilling fluid release is indicated when pressure in the drill hole is not maintained and/or a loss of circulation of drilling fluids occurs. Minimal, consistent losses of drilling fluid are common during the drilling process due to the fluid filling natural voids in layers of loose sand, gravel, or fractured rock encountered along the drilling path. Larger losses of circulating drilling fluid and a reduction in drilling pressure indicate that seepage is occurring outside of the hole.

4.1 Prevention

Drilling fluid releases can occur when the drilling path encounters naturally occurring fractures in bedrock or other voids in the strata that allow the pressurized drilling fluid a less resistant path to the surface. Drilling fluid releases may also be caused by blockage of the return flow path around the drill pipe where pressurization of the drilling fluid rises above the containment capability of the overburden soil material.

Prevention of drilling fluid seepage is a major consideration in determining the profile of the Direct Pipe method crossing. A minimum depth of cover of 15 feet below the bottom of the waterbody is required to provide a margin of safety against drilling fluid seepage.

Contractors should evaluate the drill profile path for any potential concerns of the soil formation and determination of the drilling mud mixture and monitor the speed of the drill and pressures as these are critical components to prevent releases.

4.1.1 Suitable Material and Adequate Overburden

The areas that present the highest potential for drilling fluid seepage are the drill entry and exit points where the overburden depth is minimal. Appropriate containment materials will be staged near the entrance and exit locations for quick deployment should an inadvertent return occur within these areas.

4.1.2 Pipeline Geometry

The geometry of the pipeline profile can affect the potential for drilling fluid seepage. In a profile, which forces the pipe to make compound or excessively tight radius turns, key-seating of the drill pipe may develop, blocking the return flow to surface, allowing down-hole pressures to build up, and, thereby, increasing the potential for drilling fluid seepage. The profile for Saguaro's pipeline crossing minimizes this potential with very smooth and gradual vertical curves in the crossing profile and, therefore, affording consistent cover under the feature. Therefore, the potential for pressure buildup caused by pipeline geometry has been minimized.

4.1.3 Responsibility of Drilling Contractor

The drilling contractor is responsible for the execution of the Direct Pipe, including actions for detecting and controlling drilling fluid seepage and containment and cleanup of inadvertent returns. Saguaro will closely supervise the progress and actions of the drilling contractor.

4.2 Detection and Monitoring Procedures

To determine if an advertent release has occurred, drilling activities will be constantly monitored on this Project—either by the Contractor, Construction Inspector, Saguaro environmental representative, or any combination of the three. Monitoring procedures will include the following:

- Continuous inspection along the drill path during active drilling with mud circulation. Construction observers will be briefed on what to watch for and will be made aware of the importance of timely detection and response actions to any release of drilling mud.

- Construction observers will have appropriate operational communication equipment (e.g., radio and/or cell phone) available at all times during installation of the crossing, with the ability to communicate directly with the drilling operator or control center.

- Continuous examination of drilling mud pressure gauges and return flows to the surface pits. If the drilling operator realizes a sustained loss in fluid pressure or loss of circulation, the operator will immediately notify the construction observers of the assumed position of the drill head. Releases could occur in adjacent areas not directly over the drill path and should be observed if necessary.

- If a release occurs in a wetland, containment of the drilling fluids and continued inspection to determine any potential for movement of the released drilling mud within the wetland and collection of drilling mud returns at the location for future analysis will be conducted as required.

- If a release occurs in a wetland or waterbody, monitoring of the release will be documented by Saguaro. Access to the edge of the waterbody will be necessary so that Saguaro may keep photographs of release events on record.

5.0 NOTIFICATION PROCEDURES

If monitoring indicates a release is occurring or has occurred, the Contractor shall immediately begin corrective action. The Construction Inspector or Saguaro will immediately notify Saguaro's construction management personnel.

Saguaro will notify the appropriate agencies upon discovery of an inadvertent release to a waterbody or wetland, detailing the location and nature of the release, corrective actions being taken, and whether the release poses any threat to public health and safety.

6.0 CORRECTIVE ACTION

In the event that an inadvertent drilling mud release is observed during a crossing, the release will be assessed to determine the amount of drilling mud being released and the potential for the release to reach sensitive resource areas (e.g., wetlands and waterbodies). Response measures will vary based on the location of the inadvertent release, as discussed below.

As discussed above, the greatest potential for drilling fluid seepage is during drill entry and exit where the overburden is reduced for entry and exit of drilling tools at the low approach angle. In the contingency planning for the pipeline crossings, drilling fluid seepage containment will be incorporated into the drill plan. The entry or exit locations will generally be located in upland areas on a dry land segment where drilling fluid seepage can be readily detected and contained. The Contractor will be required to have containment response and clean-up equipment available at both sides of the crossing location prior to the commencement of the drill to assure a timely response in the event of an inadvertent release of drilling fluid. Containment and response equipment may include, but is not limited to, the following:

- straw bales and staking;
- silt fencing;
- plastic sheeting;
- shovels and other appropriate hand tools;
- squeegees;
- pails;
- push brooms;
- pumps and sufficient hose;
- mud storage tanks;
- vacuum truck on 24-hour call;
- pre-filled sandbags;

- geotextile fabric;
- one small boat (for larger rivers and open water wetlands);
- steel box or large-diameter pipe section (or the equivalent) that, under appropriate conditions, could be used to contain an inadvertent release; and
- light plant/generator.

Saguaro will address an inadvertent release immediately upon discovery. The following measures will be implemented to minimize or prevent further release, contain the release, and clean up the affected area.

Upland Release:

- The Contractor will determine and implement any modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content, temporary lowering of the downhole pressures) to minimize or prevent further releases of drilling mud.
- Saguaro will oversee the placement of containment structures at the accessible affected area to prevent migration of the release.
- If the amount of the release is large enough to allow collection, the drilling mud will be collected and returned to either the drilling operations or a disposal site by hose or tanker.
- If the amount of the release is not large enough to allow collection, the released drilling fluid will be swept, shoveled, or mixed with sand and temporarily left in place to dry.
- Reduce drilling operations if the mud release cannot be effectively contained within accessible containment areas.
- If public health and safety are threatened by an inadvertent release, drilling operations will be shut down until the threat is eliminated. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure (if the HDD method is used).

Waterbody Release:

- If a release occurs within a waterbody, Saguaro will contact the appropriate agency as soon as possible to inform them if there is a potential threat to public health and safety and explain whether or not the release can be corrected without incurring additional environmental impact. If necessary, drilling operations will be reduced to assess the extent of the release and to implement corrective actions.
- If the release is a single-point release, accessible with a hose and truck, the Contractor will attempt to ‘cap’ the release, if possible, by placing a section of pipe over the release to contain the fluid within the pipe section. With a larger release, the Contractor may

attempt to place a water-filled bladder around the release in order to isolate it from the waterbody prior to removal. The contractor may require access to the waterbody edge to install a sump pump at the waterbody edge in order to try to lower the bore hole pressure. After the release is contained, the fluid will be pumped into trucks and reused or disposed of at an appropriate facility.

- If public health and safety are threatened, drilling fluid circulation pumps will be turned off. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure (if the HDD method is used).

- Saguaro will assist agencies by collecting water samples, if required.

Wetland/Riparian Area Release:

- Saguaro will evaluate the release to determine if containment structures are warranted and can effectively contain the release. When making this determination, Saguaro will also consider if placement of containment structures will cause additional adverse environmental impact.

- If a release occurs within the wetland, reasonable measures, within the limitation of directional drilling technology and Contractor's capability, will be taken to re-establish drilling mud circulation.

- The Contractor will determine and implement any modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content, temporary lowering of the downhole pressures) to minimize or prevent further releases of drilling mud.

- Upon completion of the drilling operations, Saguaro will consult with applicable regulatory agencies to determine any final clean-up requirements for the inadvertent release.

- If public health and safety are threatened by the inadvertent release, drilling operations will be shut down until the threat is eliminated. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure (if the HDD method is used).

- Saguaro will assist regulatory agencies with any sampling they may require.

7.0 ABANDONMENT

If corrective actions do not prevent the threat to public health and safety or if the pipeline installation is unsuccessful, Saguaro may opt to re-drill the hole along a different alignment after receiving appropriate regulatory approvals. In this case, the following procedures will be implemented to abandon the previous drill hole.

- To seal the abandoned drill hole, thickened drilling mud and cuttings will be pumped into the hole as the drill assembly is extracted.

- Within approximately 10 vertical feet of the surface, Saguaro will remove drilling mud and cuttings and then fill the drill end points and any mud pits with soil and grade the location to the original contour.

8.0 FOLLOW-UP

After the drilling fluid seepage has been contained, the drilling contractor and Saguaro will try to determine the cause of the seepage. After the cause has been determined, measures will be implemented to control the factors causing the seepage and to minimize the chance of recurrence. Developing the corrective measure will be a joint effort of Saguaro and the drilling contractor and will be site and problem specific.

In some cases, the corrective measure may involve a determination that the existing hole encountered a void, which could be bypassed with a slight change in the profile. In other cases, it may be determined that the existing hole encountered a zone of unsatisfactory soil material and the hole may have to be abandoned. If the hole is abandoned, it will be filled with cuttings and drilling fluid as described in section 7.0.

9.0 CLEAN UP

Clean-up measures following mud releases in uplands, wetlands, and waterbodies will be implemented as determined by this plan and in consultation with the appropriate regulatory agencies. The following measures are to be considered as appropriate:

- Drilling mud will be cleaned up by hand using hand shovels, buckets, and soft-bristled brooms as possible without causing extensive ancillary damage to existing vegetation. Clean water washes may also be employed if deemed beneficial and feasible.

- Containment structures will be pumped out and the ground surface scraped to bare topsoil without causing undue loss of topsoil or ancillary damage to existing and adjacent vegetation.

- Material will be collected in containers for temporary storage prior to removal from the site.

- Potential for secondary impact from the clean-up process is to be regularly evaluated and clean-up activities terminated if physical damage to the site is deemed to exceed the benefits of removal activities in consultation with the appropriate regulatory agencies and/or field representatives.

APPENDIX 1C SPILL PREVENTION, CONTAINMENT, AND COUNTERMEASURE (SPCC) PLAN

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Spill Prevention, Containment and Countermeasure Plan

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Spill Prevention, Containment and Countermeasure Plan

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Saguaro Connector Pipeline Project
SPILL PREVENTION CONTAINMENT AND COUNTERMEASURE PLAN

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1.0 INTRODUCTION

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), is committed to meeting or exceeding applicable federal, state, and local environmental requirements during the planning, construction, and operation of the international border facilities at the new International Boundary crossing between the U.S. and Mexico located in Hudspeth County, Texas, U.S. ("Project").

This Spill Prevention, Containment, and Countermeasure (SPCC) Plan was developed to establish basic procedures to prevent the discharge of hazardous or regulated materials during construction of the Project. The SPCC Plan is a guideline that sets forth minimum standards for the prevention of spills (handling and storing regulated substances) and for the minimization of impacts resulting from spills of fuels, petroleum products, or other regulated substances as a result of pipeline construction should a spill occur. This document is not a complete summary of all requirements.

The provisions of this SPCC Plan will be implemented by project personnel during the construction of Project. The Contractor (i.e. pipeline construction general contractor) is responsible for understanding and complying with all applicable federal, state, and local requirements related to all aspects of work on the Project, including the transportation, storage, and disposal of polluting and hazardous materials. Other contractors (i.e. the reclamation contractor) are responsible for understanding and complying with applicable federal, state, and local requirements relating to their work on the Project, including the transportation, storage, and disposal of polluting and hazardous materials.

2.0 PLANNING AND PREVENTION

Saguaro's goal is to prevent spills and/or exposure to hazardous or dangerous substances during construction of the Project. The SPCC Plan is designed to reduce the likelihood of a spill, provide for prompt containment and clean up if a spill does occur, comply with applicable state and federal laws as well as other Project permit conditions throughout construction and restoration of the Project, and protect human health and the environment.

Saguaro requires its Contractors to implement proper planning and preventive measures to minimize the potential of spilling regulated substances such as fuels and petroleum products and to quickly and successfully clean up a spill should one occur. Potential sources of construction-related spills include (but are not limited to) storage tank leaks, machinery and equipment failure, and fuel handling and transfer accidents. The Contractor will be responsible for implementing, at a minimum, the planning and prevention measures contained in this document.

2.1 Roles and Responsibilities

The following roles and responsibilities have been developed by Saguaro for the Project.

2.1.1 Environmental Manager

- The Environmental Manager will be a designated Saguaro Employee or a third party Designee.
- The Environmental Manager will have a Lead Environmental Inspector located at the construction sites. The Lead Environmental Inspector may act on the behalf of the Environmental Manager on certain issues that will be defined before construction is started.
- The Environmental Manager will promptly report spills to appropriate federal, state, and local agencies as required.
- The Environmental Manager will coordinate with these agencies regarding contacting additional parties or agencies. The Environmental Manager may request that the Contractor's Spill Coordinator assist with these notifications.
- The Environmental Manager will help direct further response actions in accordance with EPA guidelines and assist throughout the cleanup and disposal of wastes.
- All spills defined as "Reportable Spills" must be reported immediately to the Field Construction Manager, Environmental Manager and Lead Environmental Inspector.

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2.1.2 Lead Environmental Inspector

- The Lead Environmental Inspector will monitor the Contractor's compliance with the provisions of this SPCC Plan.
- The Lead Environmental Inspector may act on the behalf of the Environmental Manager on certain issues that will be defined before construction is started.
- Environmental Inspectors shall have peer status with all other activity inspectors.
- Environmental Inspectors shall have the authority to stop activities that violate the environmental conditions of the FERC's Orders, stipulations of other environmental permits or approvals, or landowner easement agreements; and to order appropriate correction action.
- The Lead Environmental Inspector is an initial point of contact of the Spill Coordinator (in addition to the Field Construction Manager) when a spill occurs, will verify that the information is correctly reported on the spill form and conduct a follow up inspection, if required, to ensure that the spill was properly cleaned up.

2.1.3 Field Construction Manager

- The Field Construction Manager referred to in this plan will be a designated Saguaro employee or a third-party designee who is responsible for the management of construction activities on this project (representing the Construction Manager for Saguaro).
- The Field Construction Manager is the initial point of contact of the Spill Coordinator (in addition to the Lead Environmental Inspector) when a spill occurs, and determines the containment measures that may be required.
- The Field Construction Manager is responsible for documenting the general information regarding any spills such as work stoppages, injuries, fires, and the extent of exposure to workers on the site.
- The Field Construction Manager is responsible for overseeing the Contractors response to a spill to ensure that appropriate notifications are completed, spill response resources are allocated, and cleanup is accomplished in accordance with the SPCC and applicable agency requirements.
- The Field Construction Manager is responsible for coordinating any emergency response services that may be required such as the Fire Department, the Sheriff Department, or for contacting Emergency Response Contractors.

2.1.4 Contractor Construction Superintendent

- The Contractor's Construction Superintendent is responsible for designating the Spill Coordinator and communicating who that person is to the Environmental Manager, Lead Environmental Inspector, and Field Construction manager.

2.1.5 Contractor Spill Coordinator

- A Spill Coordinator shall be designated and employed by the Contractor.
- The Spill Coordinator is responsible for completing a Spill Report Form (Appendix A) for every spill event, regardless of the size/volume of material spilled. The completed Spill Report Form must be submitted to the Lead Environmental Inspector within 24-hours of the occurrence of the spill.
- The Spill Coordinator shall notify the Field Construction Manager and Lead Environmental Inspector immediately of any spill. All spills defined as "Reportable Spills" must be reported immediately to the Field Construction Manager, Environmental Manager and Lead Environmental Inspector (Reportable spills will be defined by federal and state-specific guidelines. See Appendix C).
- The Spill Coordinator shall mobilize on-site personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill.
- Prior to the start of construction, the Spill Coordinator must identify Emergency Response Contractors located in the area of the Project. The list of identified Emergency Response Contractors must be submitted to Saguaro for review and approval.

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- The Spill Coordinator is responsible for coordinating the proper transport and disposal of contaminated media associated with the cleanup of a spill. Media will be disposed of at a State and Saguaro approved facility.
- The Spill Coordinator shall assist the appropriate Emergency Response Contractor (Appendix H) and monitor containment activities to ensure that the actions are consistent with the requirements of this SPCC Plan.
- The Spill Coordinator shall coordinate with the Environmental Manager regarding the need to contact additional parties or agencies. The Spill Coordinator should not contact an agency regarding a spill without authorization from the Environmental Manager and/or Lead Environmental Inspector.
- The Spill Coordinator and/or Lead Environmental Inspector or the Field Construction Manager, in consultation with appropriate agencies, shall determine when it is necessary to evacuate spill sites to safeguard human health.

2.1.6 Authorized Personnel

- Authorized Personnel are representatives of the Contractor who are designated and properly trained to handle fuel, lubricants, or other regulated substances.
- Authorized Personnel shall be familiar with the requirements of the SPCC Plan and the consequences of non-compliance.

2.1.7 Construction Personnel

- Construction Personnel are representatives of the Contractor involved with the pipeline project.
- Construction Personnel shall notify the crew foreman or Spill Coordinator immediately of any spill of a petroleum product or hazardous liquid, regardless of volume.

2.2 Training

- The Contractor shall instruct construction personnel in the operation and maintenance of equipment to prevent an accidental discharge or spill of fuel, oil and lubricants. Personnel shall also be made aware of the pollution control laws, rules and regulations applicable to their work.
- The Contractor shall train construction personnel who handle fuels and other regulated substances on the proper methods to quickly and effectively contain and clean up spills that may occur, in accordance with applicable regulations.
- A spill prevention briefing shall be scheduled and conducted by Contractor prior to the initiation of construction to assure adequate understanding of this SPCC. The topics to be addressed at the briefing shall include the following:
    - SPCC contents;
    - Possible equipment failure and malfunction;
    - Precautionary measures;
    - Standard operating procedures in case of a spill;
    - Location of emergency response materials;
    - Refueling and maintenance restriction areas; and
    - Equipment, materials and supplies to be maintained by Contractor and available for cleanup of a spill.

3.0 GENERAL BEST MANAGEMENT PRACTICES

The following general preventive actions and procedures will be implemented prior to and throughout construction.

3.1 Typical Fuels, Lubricants and Hazardous Materials Management

The table in Appendix G identifies fuels, lubricants, coolants, and other hazardous materials generally present on pipeline construction spreads and identifies typical total volumes, storage and transportation methods. The Contractor must provide Saguaro with a list of fuels, lubricants, and hazardous materials and the expected quantities that will be stored and/or maintained

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on each construction spread. Contractors must also have appropriate MSDS sheets on-site for each product, as required by OSHA.

3.1.1 Fuel, Lubricants, and Hazardous Material Storage Areas

- All petroleum products used by Contractor necessary for fueling and maintenance of construction equipment shall be stored at a designated, well maintained and secured/supervised location to minimize the environmental and safety impacts associated with releases of fuel, lubricants, or hazardous substances.
- Fuel, lubricant, or hazardous materials will be stored only in the designated staging areas and equipment storage yards, and will be at least 100 feet from all waterbodies, wetlands, or municipal watersheds.
- Fuels, lubricants, waste oil, and any other regulated substances shall be stored in aboveground tanks only. Storage tanks and containers must conform to all applicable industry codes (NFPA, UFC, etc.).
- A suitable secondary containment structure must be utilized at each fuel, lubricant, and waste oil storage site. These structures must be lined with suitable plastic sheeting; provide a minimum containment volume equal to 150 percent of the volume of the largest storage vessel; and provide at least 1 foot of freeboard.
- Secondary containment areas must not have drains. Precipitation may be drawn off as necessary. If visual inspection indicates that no spillage has occurred in the secondary containment structure, accumulated water may be drawn off and sprayed on the surrounding upland areas. If spillage has occurred in the structure, accumulated waste shall be drawn off and pumped into drum storage for proper disposal.
- If earthen containment dikes are used, they shall be constructed with slopes no steeper than 3:1 (horizontal to vertical) to limit erosion and provide structural stability.
- Tools and materials to stop the flow of leaking tanks and pipes shall be kept on-site. Such equipment may include, but not be limited to, plugs of various sizes, tank patches, hammer, screwdriver, plastic tape, and assorted sizes of metal screws with rubber washers. Fully furbished spill kits must be located at all fuel storage areas.
- Proper signage must be installed at and adjacent to fuel storage areas to include "Fuel Storage Area – No smoking within 50 feet."
- No hazardous or potentially hazardous materials, other than essential materials (coating, sandblasting media, etc.), essential equipment fuel (gasoline, diesel, etc.) or standard lubricants (engine oils, grease, etc.) will be transported onto the right-of-way or construction area without Environmental Manager coordination and approval.
- Storage of potentially hazardous materials will not occur within a 150-foot radius of a private well or within a 400-foot radius of a municipal or community water supply well.
- Construction equipment shall be removed from wetlands and parked a minimum of 100 feet away from streams, wetlands, ditches, and other waterbodies at the end of each work day. Stationary equipment (e.g., pumps) located within the 100 foot restriction zone must be placed within proper secondary containment.

3.1.2 Equipment Maintenance and Lubrication Areas

- The Contractor shall ensure that all equipment is free of leaks prior to use on the Project, and prior to entering or working in or near waterbodies or wetlands. The Contractor shall perform and provide documentation to Saguaro of a pre-construction inspection and test of all equipment to ensure that it is in good repair prior to the equipment reaching the right-of-way.
- During construction, the Contractor shall regularly inspect hoses, pipes, valves, and tanks to ensure equipment is free of leaks. Any equipment that is leaking or in need of repair will be immediately removed from service and repaired, prior to resuming use of the equipment. Buckets/containment materials and absorbent materials (as necessary) will be placed under the equipment until the leak can be repaired.
- Equipment that requires extensive repairs will be removed from the right-of-way until the repairs are completed or a protection plan will be developed by the Spill Coordinator and the Lead Environmental Inspector if the equipment cannot be moved.

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- Precautionary measures will be implemented when performing equipment maintenance or repair activities including placing absorbent pads (or equivalent materials) on the ground beneath the equipment when changing crankcase oil, repairing hydraulic lines, or adding coolant to construction equipment and when appropriate for other repair activities.
- Maintenance, refueling, and lubrication of construction equipment is not allowed within 100 feet of a waterbody, wetland boundary, or within a municipal watershed.
- Equipment maintenance wastes, including used oils and other fluids, shall be handled and managed by properly trained personnel. All equipment maintenance waste (e.g., oils and lubricants) shall be collected in proper containers within the designated storage, refueling and lubrication areas and disposed of in accordance with section 7.0 of this SPCC Plan. All equipment maintenance wastes will be properly disposed of at facilities permitted to receive hydrocarbon waste.

3.2 Refueling

- Fuels shall be dispensed by Authorized Personnel during daylight hours only unless otherwise approved by the Lead Environmental Inspector.
- Fuel dispensing operations shall be attended by Authorized Personnel at all times. Personnel must be stationed at both ends of the hose during fueling unless both ends are visible and are readily accessible by one person.
- During refueling, the Contractor will take appropriate measures to reduce the risk of a spill, including not overfilling fuel tanks and placing an absorbent pad under the fuel nozzle while fueling equipment. Contractor personnel will observe and control refueling at all times to prevent overfilling.
- Fuel dispensing equipment (i.e., portable gas cans, nozzles, hoses, etc.) shall be of the appropriate type. Refueling within 100 feet of waterbodies, wetland boundaries, or within a municipal watershed is not allowed without approval from the Lead Environmental Inspector.
- In large wetlands where no upland site is available for refueling, auxiliary fuel tanks on construction equipment are recommended.
- Refueling will not occur within a 150-foot radius of all private wells and a 400-foot radius of all municipal or community water supply wells.
- When unique conditions require refueling within the restricted zones listed above the Contractor will consult with the Lead Environmental Inspector to determine necessary emergency equipment that will be in place and emergency response actions that shall be conducted prior to refueling activities. At a minimum, the determination will consider the environmental and/or safety risks of relocating equipment to a refuel/lubrication area verses risks involved with refuel/lubrication in place. If requested by the Contractor, the Lead Environmental Inspector will evaluate site-specific conditions within the restricted zone and may require implementation of additional precautionary measures prior to approval of refueling within the restricted zones. In addition, absorbent materials or other spill containment materials shall be available for immediate deployment prior to commencing refueling activities.

3.3 Spill Response Equipment

- The Contractor must maintain spill kits containing a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to absorbent pads, commercial absorbent materials, spill containment barriers, plastic bags and/or sheeting, skimmer pumps, holding tanks, and shovels. This equipment shall be located near fuel storage areas and other locations as necessary to be readily available to control foreseeable spills.
- Each construction crew shall have on hand sufficient supplies of absorbent materials, barrier material, and DOT approved containers to allow for rapid containment and recovery of any spill which may occur.
- All fuel, and where necessary, service vehicles, shall carry spill containment materials adequate to control foreseeable spills.
- The Spill Coordinator shall identify the locations of spill control equipment and materials, and have them readily accessible during construction activity.
- All fuel nozzles shall be equipped with functional automatic shut-offs and over-flow alarms.

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- Fuel trucks transporting fuel to on-site construction equipment shall travel only on approved access roads.
- Suitable plastic lining materials shall be available for placement below and on top of temporarily-stored contaminated soils and materials.

4.0 GENERAL SPILL RESPONSE

The following guidelines specify the procedures used to control a release, notify appropriate Project personnel, complete site clean-up activities, and document corrective actions. In the event of a spill, the Contractor shall abide by all applicable federal, state and local regulations for cleaning up the spill.

All spills, regardless of size, must be reported to the Spill Coordinator and Lead Environmental Inspector.

4.1 Immediate Containment and Cleanup Response

Controlling spills and releases shall be accomplished by stopping or segregating the source of the release, using the required stockpiled materials to contain the spill and, if warranted, stopping operations within the affected areas.

Immediately upon learning of any fuel, oil, hazardous material or other regulated substance spill, the person discovering the situation shall:

- Identify the source of the spill.
- Deploy absorbent materials and initiate actions to contain the fluid that has spilled.
- Initiate action to eliminate the source of the spill (e.g., shut off valves, upright containers, stop pumps, etc.) to the maximum extent that is safely possible.
- Notify the crew foreman and/or the Spill Coordinator and provide them with the following information:
    - Location and cause of the spill;
    - The type of material that has spilled; and,
    - Whether the spill has reached or is likely to reach any surface water

Personnel should only respond to a spill if they have adequate training to do so safely.

Upon learning of a spill or a potential spill the Spill Coordinator shall:

- Accumulate as much information as possible as to the nature and size of the spill. This information shall be recorded using the Construction Spill Report Form (see Appendix A) for documentation of the spill.
- Assess the situation and determine the need for further action which may include mobilizing additional personnel, equipment, and materials for containment and/or cleanup commensurate with the extent of the spill.
- Direct subsequent activities and/or further assign responsibilities to other personnel.
- Notify project individuals as outlined in section 2.1.5.
- If the Spill Coordinator determines that a spill is beyond the scope of on-site equipment and personnel, the Spill Coordinator shall immediately notify the Environmental Manager and the Field Construction Manager that an Emergency Response Contractor is needed to contain and/or clean up the spill. Available Emergency Response Contractors will be identified in Appendix H prior to construction start.
- The Spill Coordinator shall assist the Emergency Response Contractor and monitor containment procedures to ensure that the actions are consistent with the requirements of this SPCC Plan.

4.1.1 Spills Occurring in Uplands

In addition to the above measures, the following procedures shall be followed for any spill occurring in an upland area.

- The source of the spill must be identified and contained immediately to the maximum extent that is safely possible.

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- If a spill should occur during refueling operations, STOP the refueling operation until the spill can be controlled and the situation corrected.
- Absorbent material(s) shall be placed over spills to minimize spreading and to reduce its penetration into the soil.
- If free-standing fluid is present, actions can be taken to skim fluids and place into DOT approved containers.
- It is the responsibility of the contractor to ensure that spilled material, contaminated soil, and other materials associated with these releases is treated, collected, and/or disposed of in accordance with all applicable federal, state, and local agency requirements (see sections 6.0 and 7.0 of this SPCC Plan).
- Flowing spills must be contained and/or absorbed before reaching sensitive resource areas such as surface waters or wetlands.
    - Plug all storm drains the spill may gain access to; and
    - Construct terrace dam or ditch to stop the spill's flow.

4.2 Spills Occurring in Wetlands or Waterbodies

In addition to the above measures, the following conditions shall apply if a spill occurs near or into a stream, wetland or other waterbody, regardless of the size of the spill:

- For spills into streams, lakes or other waterbodies containing standing or flowing water, regardless of size, the Spill Coordinator must apprise the Field Construction Manager, Environmental Manager, and Lead Environmental Inspector of the incident immediately.
- For spills in standing water, sorbent booms and pads shall be on hand and used by the Contractor to contain and recover released materials. In addition, other spill response materials and equipment shall be on hand as appropriate for each waterbody and used to contain and recover foreseeable spills. This may include containment booms, skimmer pumps, holding tanks, boats, and other equipment.
- If contaminated soils are present in wetlands contain as much of the spill as possible and contact the appropriate agencies before excavating the soil. Unless the agency deems otherwise the contaminated soil must be excavated and temporarily placed on plastic sheeting in a bermed area, a minimum of 100 feet away from the wetland. Contaminated soils shall be covered with plastic sheeting while being stored temporarily and properly disposed of as soon as possible, in accordance with this SPCC Plan (see sections 6.0 and 7.0).

4.3 Notifications

- Notify the Field Construction Manager and Lead Environmental Inspector of any spill and provide the necessary information by using the Construction Spill Report Form (Appendix A).
- All agency notifications shall be accomplished at the direction of the Environmental Manager.
- If the situation warrants, the Field Construction Manager shall notify appropriate local police, fire department and/or area residents.
- Make other Contractor and Saguaro and agency notifications per the SPCC Plan, or as instructed by the Environmental Manager.
- The Contractor shall have designated employees on-call 24 hours per day for notification of the emergency response companies referenced in Appendix H.

4.4 Records

The Contractor shall maintain written records of all actions taken during the course of a spill event.

5.0 REPORTABLE QUANTITY SPILL RESPONSE

The reporting, disposal, and pre-cleanup sampling requirements in this section apply to all spills of reportable quantities (Appendix C).

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5.1 Immediate Spill Response Actions

In addition to the responses listed above, the Contractor shall implement the following steps in response to any spill of fuel, oil, hazardous materials or other regulated substance of a reportable quantity:

- Stop operation of affected equipment/area, if warranted.
- Turn off utilities to the area, if necessary.
- Cordon the area to prevent entry of unnecessary personnel or equipment. Establish a single point of ingress and egress to control access to the spill area.
- Accumulate as much information as possible as to the nature and size of the spill. Use the Construction Spill Report Form (see Appendix A) for the type of information required.
- The Spill Coordinator and/or Field Construction Manager, in consultation with appropriate agencies, determine when spill sites will be evacuated as necessary to safeguard human health. Evacuation parameters shall include consideration for the potential of fire, explosion, and hazardous gases.

5.2 Spill Event Log Establishment

In addition to the Construction Spill Report Form, the Spill Coordinator shall complete a Spill Event Log for reportable spills that documents all spill-related events and clean-up activities. The Spill Event Log will include the following information in the log:

- Time and date of initial notification of spill and approximate time the spill occurred.
- Start and completion time of all key activities.
- A detailed description of all activities undertaken and identification of personnel accomplishing these activities.
- Note time of all correspondence, personnel involved with the correspondence, and nature of the correspondence.

The log shall be maintained by the Spill Coordinator until actions to clean up the spill are complete (approximately 24 hours, unless conditions extend the response to the emergency).

5.3 Notifications

The Spill Coordinator will:

- Notify the Environmental Manager, Lead Environmental Inspector, and the Field Construction Manager immediately of any reportable quantity spill and provide the necessary information by using the Construction Spill Report Form (Appendix A).
- Make other Contractor, Saguaro and agency notifications per the SPCC Plan, or as instructed by the Environmental Manager.
- Notify local police or fire department if assistance is necessary.

5.4 Reportable Spill Containment

In addition to the requirements listed in section 4.0, the following procedures shall also be implemented.

- Ensure that all possible efforts are made to limit the migration of the surface spill until properly equipped cleanup teams can arrive.
    - Construct terrace dam or ditch to stop the spill's flow, as needed.
    - Scatter hay, straw, sand or other similar materials to absorb the spill.
- Flowing spills must be contained and/or absorbed before reaching sensitive resource areas such as surface waters or wetlands.
- If free-standing fluid is present, actions can be taken to skim fluids and place into DOT approved containers or pump into tank trucks.
- Use skimmers, pumps or available absorbent materials to remove spill from water.
- If possible, create a back current to limit out-flow of material into open or flowing water.

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6.0 CLEANUP REQUIREMENTS

6.1 General Requirements

- Wipe down equipment with absorbent pads (or equivalent) where fuel, lubricants, or other materials have spilled.
- All soil within the spill area (e.g., visible traces of soil and a lateral and vertical buffer around the visible traces) must be excavated.
- All excavation material shall be stored and disposed of in accordance with local, State, and Federal regulations.
    - All cleanup soil and wastes shall be collected in DOT approved containers. See Appendix D for a listing of approved containers.
    - Appendix E contains guidance on how to manage the area used to temporarily store waste containers.
    - Appendix F contains guidance on inspection procedures for stored waste containers required by EPA Regulations.
- The ground shall be restored to its original configuration by back-filling with clean soil.
- Cleanup requirements of a spill area shall be completed within 48 hours after notification or knowledge of the spill.

6.1.1 Determination of Spill Boundaries in the Absence of Visible Traces

For spills where there are insufficient visible traces, yet there is evidence of a leak or spill, the boundaries of the spill shall be determined using a statistically based sampling scheme. The Environmental Manager will provide sampling assistance.

6.1.2 Effect of Emergency or Adverse Weather

Completion of cleanup may be delayed beyond 48 hours in case of circumstances including but not limited to:

- Civil emergency;
- Adverse weather conditions;
- Lack of access to the site; and/or,
- Emergency operating conditions.

The occurrence of a spill on a weekend, after hours overtime costs, or that would require the shutdown of construction activities are not acceptable reasons to delay response.

Completion of cleanup may be delayed only for the duration of the adverse conditions. If the adverse weather conditions or time lapse due to other emergencies has left insufficient visible traces, a statistically based sampling scheme to determine the spill boundaries will be developed and implemented.

6.2 Reportable Spill Records

All records that document reportable spill events and corrective actions taken will be maintained in the project files for three (3) years from the date the corrective actions were completed. Documentation and certification of area decontamination shall be conducted upon completion of and during all cleanup operations. The records and certifications shall be completed, as follows:

- Identification of the source of the spill (e.g., type of equipment or container).
- Location and estimated area of spill.
- Estimated quantity of material spilled.
- Estimated or actual date and time of the spill occurrence.
- The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather, the nature and duration of the delay).
- A brief description of the spill location.
- Pre-cleanup sampling data used to establish the spill boundaries if required due to insufficient visible traces, and a brief description of the sampling methodology used to establish the spill boundaries.

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- A brief description of the solid surfaces cleaned and of the wash/rinse method used.
- Approximate depth of soil excavation and the amount of soil removed.
- A certification statement signed by the Construction Director, Spill Coordinator and the Environmental Manager stating the cleanup requirements have been met and the information contained in the record is true to the best of his/her knowledge.
- The estimated cost of pre- or post-cleanup and sampling by man-hours, dollars, or both.

7.0 WASTE STORAGE AND DISPOSAL

7.1 Storage of Contaminated Materials

- All contaminated soils, solvents, rags, and other materials generated during construction shall be stored in DOT approved containers in accordance with the applicable state and federal regulations. See Appendix D for a list of approved containers.
- Containers shall be labeled with required waste label(s), dated and inventoried.
- Spent oils, lubricants, filters, etc. shall be collected and disposed of, or recycled, at an approved location in accordance with state and federal regulations.
- Containers will be placed in a designated accumulation point for disposal.
- Containers may be stored at the construction site in the identified staging areas for up to 90 days from the date waste accumulation begins.
    - Appendix E contains guidance on how to manage the area used to temporarily store waste containers.
    - Appendix F contains guidance on inspection procedures for stored waste containers required by EPA Regulations.
- If it is necessary to temporarily store excavated soils on site, these materials shall be placed on, and covered by, plastic sheeting, or placed in properly labeled ring-top 55-gallon drums and the storage area bermed to prevent and contain runoff.
- Any hazardous or contaminated material stored on Saguaro property or the right-of-way will be properly labeled in accordance with state and federal labeling requirements.

7.2 Disposal of Contaminated Materials

- All contaminated soils, solvents, rags, and other materials resulting from the cleanup actions shall also be properly disposed of in accordance with the applicable state and federal regulations using permitted transporters and permitted disposal facilities.
- Only licensed carriers may be used to transport contaminated material from the site to a disposal facility.
- The Contractor will recycle those wastes, such as motor oil, where there is an established recycling program available.
- All hazardous waste containers shall be properly manifested prior to departure from the construction area. The Contractor will be listed as the waste generator on the waste manifest. The Contractor and Saguaro will maintain all manifest records with the project file for at least three years after the containers were shipped for disposal.
- Appendix H of this SPCC Plan lists potential treatment and disposal facilities for contaminated materials, petroleum products, and other construction-related wastes.

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APPENDIX A
CONSTRUCTION SPILL REPORT FORM

If a spill is below the reportable quantity complete only section 1.
If the spill exceeds the reportable quantity complete both sections 1 and 2.

Section 1 (All Spills)

Facility Name:_____ District/Region:

Facility Phone Number:_____

Facility Address:_____

Date of Spill:_____ Date of Spill Discovery:

Time of Spill:_____ Time of Spill Discovery:

Location of release: _____ County/State

Type of material spilled and manufacturer's name:_____

Substance released to (Check all that apply): Land_____ Air_____ Water_____ Secondary Containment

Estimated volume of spill:_____Estimated volume recovered:

Brief description of the incident including cause and corrective action:

Person Completing Form (Contact):_____ Date:

Contact's Phone Number: _____

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APPENDIX A (continued)
CONSTRUCTION SPILL REPORT FORM

Section 2 (Reportable Spills)

- Facility Type (well, tank, flow line, pit):_____
- Spill Location: Address: _____
- County:_____ Coordinates: Latitude_____ Longitude_____
- PLSS: Township_____ Range_____ Section_____
- Additional Location Details: _____
- _____
- Spill medium (pavement, sandy soil, water, etc.):_____
- Topography and surface conditions of spill site:_____
- Soil/Geology Description:_____
- Weather Conditions: Wind Direction _____ Wind Speed_____ Temperature_____ Precipitation_____
- Proximity of spill to surface waters: _____
- Did the spill reach Ground Water? _____ Yes _____ No
- Did the spill reach Surface Water? _____ Yes _____ No
- If so, was a sheen present?
  _____ Yes _____ No
- Current Land Use:_____
- Distance to Nearest…
- Surface Water _____ Wetland _____ Building _____ Livestock_____ Water Wells_____
- Depth to Shallowest Groundwater _____
- Was there a fire associated with the release? _____Yes _____ No
- Did the incident result in death or injury? _____Yes _____ No
- Was there any immediate damage observed to plants or animals? _____Yes _____ No
- Describe the extent of observed contamination, both horizontal and vertical (i.e., spill-stained soil in a 5-foot radius to a depth of 1 inch):
- _____
- How was the extent of the spill determined?_____
- Current status of cleanup actions: _____

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APPENDIX A (continued)
CONSTRUCTION SPILL REPORT FORM

- Proposed Remediation Activities: _____
- Describe measures to prevent reoccurrence: _____
- Did the spill occur while in transit? _____
- Duration of spill occurrence: _____
- Directions from nearest community: _____
- Name and Title of Discoverer: _____
- Name of Operator: _____
- Address of Operator:_____
- Operator Contact Person:_____
- Is the Operator the responsible party? _____Yes _____No
- If no, what is the responsible party's name and contact information? :

_____

- _____
- List all parties and agencies notified (Counties, BLM, EPA, DOT, Local, etc.)

Date	Agency	Contact	Phone Number	Response

-
- Any additional information:_____
- _____
- _____
- _____
- _____
- _____

APPENDIX A (continued)

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CONSTRUCTION SPILL REPORT FORM

- Name/Company/Address/Phone Number for the following:
- Construction Superintendent:_____
- _____
- Spill Coordinator:_____
- _____
- Environmental Manager:_____
- _____
- Person Who Reported the Spill:_____
- _____
- Environmental Inspector:_____

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APPENDIX B
REPORTABLE QUANTITIES

PURPOSE:
This procedure identifies reportable quantities for releases of oil or hazardous substances in accordance with the CERCLA of 1980, the CWA, the Oil Pollution Act of 1990 (OPA 90) and the TSCA.

RESPONSIBILITY FOR ADMINISTRATION:
Contractor's Spill Coordinator is responsible for administration of this procedure.

GENERAL:

I. Reportable quantity is the quantity of a release which requires notification of an agency.
II. Any amount of oil spill into navigable waters is reportable. Oil spills onto land may be required to be reported, depending upon quantity spilled and state regulations. Refer to Appendix C.
III. Appendix C lists Reportable Quantities (RQs) specified by the EPA.
IV. RQs for Toxic Hazardous Wastes are based on the toxic contaminant. The RQ means the quantity of the waste, not the quantity of the toxic contaminant. If toxic waste has two or more contaminants, the RQ is based on the lowest RQ for those contaminants.

PROCEDURES:

I. If oil is discharged into or upon the navigable waters of the United States, or adjoining shorelines:
   A. Report the spill to the National Response Center (800) 424-8802.
   B. Submit a written report within 60 days to the EPA Regional Administrator and the state agency, if the project has discharged quantities of oil into or upon the navigable waters of the United States or adjoining shorelines, which:
      1. is more than 1,000 gallons of oil in a single spill event; or
      2. is in harmful quantities as defined by 40 CFR Part 110, Oil Pollution Prevention regulations, in two spill events occurring within a twelve month period. Harmful quantity includes a film or sheen or discoloration of the surface of the water of adjoining shorelines or a sludge or emulsion deposited beneath the surface of the water or upon adjoining shorelines.
   C. The report to the EPA Regional Administrator and the state agency will include:
      1. Name of facility;
      2. Name(s) of the owner or operator of the facility;
      3. Location of the facility;
      4. Date and year of initial facility operation;
      5. Maximum storage or handling capacity of the facility and normal daily throughput;
      6. Description of facility, including maps, flow diagrams and topographical maps;
      7. A complete copy of the SPCC Plan with amendments;
      8. The cause of the spill, including a failure analysis of the system or subsystem in which the failure occurred;
      9. The corrective actions and/or countermeasures taken, including description of equipment repairs and replacements;
      10. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and,
      11. Any additional information the EPA Regional Administrator may require pertinent to the SPCC Plan or spill event.
II. If a hazardous waste or hazardous substance has been released into the environment in quantities equal to or in excess of reportable quantities listed in 40 CFR 302, the National Response Center must be notified.
   A. Contact the required agencies with the pertinent spill information.
   B. Provide verbal notification of the following information:
      1. Name and telephone number of reporter;
      2. Name and address of facility;
      3. Type of substance discharged;

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4. Quantity of substance discharged;
5. Location of discharge;
6. Actions the person reporting the discharge proposes to take to contain, cleanup and remove the substances, if any; and,
7. Any other information concerning the discharge which may be requested by the Agency at the time of notification.

III. If a hazardous waste, hazardous substance or extremely hazardous substance has been released in quantities equal to or in excess of reportable quantities the State Emergency Planning Commission and Local Emergency Planning Committee must be notified. Contact the required agencies with the pertinent spill information as soon as possible.

B. Submit a written report on the incident to the appropriate state and local agency. The report will include the following:
1. Name, address and telephone number of the owner or operator;
2. Name, address and telephone number of the facility and a detailed location of the spill;
3. Date, time and type of incident;
4. Name and quantity of material(s) involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
7. Assessment of the scope and magnitude of the spill;
8. Description of the immediate actions that have been taken and the estimated quantity and disposition of recovered material that resulted from the incident; and,
9. Provide an implementation schedule for undertaking suggested measures to eliminate the spill.

Spill incident reports will be maintained in the project files for a minimum period of three (3) years.

RESPONSIBILITY FOR PROCEDURE:
Address any questions to the:

ONEOK, Project Manager Amanda Myers	918-588-5787 Amanda.myers@oneok.com	100 West Fifth Street Tulsa, OK 74103
ONEOK, Environmental Manger Beth Ann Ludwig	918-588-7257 beth.ludwig@oneok.com	100 West Fifth Street. Tulsa, OK 74103

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APPENDIX C
STATE AND FEDERAL REQUIREMENTS FOR REPORTING

These guidelines are intended to help the Environmental Manager determine what a reportable spill is. In addition to the guidelines listed below, any substantial natural gas release which could cause an agency to initiate an unneeded emergency response should be considered reportable. The Environmental Manager and Spill Coordinator shall maintain a copy of the latest edition of the TITLE III List of Lists.

TEXAS (800) 832-8224 (24-hours)

https://www.tceq.texas.gov/response/spills/spills.html

On-call Operator, Texas Commission on Environmental Quality (TCEQ)

- Spills that cause a film, "sheen," or change the color of Texas waters;
- Spills of twenty-five (25) gallons or more of any petroleum product such as: crude oil, gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil; produced water;
- Reportable Quantities (RO) of 100 lbs for any chemicals introduced into Texas waters;
- Within 30 working days of the discovery of a reportable discharge or spill, submit written information to the appropriate TCEQ regional office describing the details and supporting the adequacy of the response;
- For Emergency Reporting of an incident or accident on a pipeline facility, call Railroad Commission of Texas (RRC) - 512-463-6788 (24-hour).

NATIONAL RESPONSE CENTER 1-800-424-8802

https://nrc.uscg.mil/Default.aspx
On-call Operator, National Response Center

List of Hazardous Substances and Reportable Quantities:
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-302/section-302.4

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APPENDIX D
DOT APPROVED CONTAINERS

PURPOSE:
This procedure provides a listing of containers which have been approved by the EPA for storage of contaminated materials or wastes. These drums may be ordered from drum suppliers by specification number.

I. Specification 5 - steel barrel or drum with removable head:
   A. Body seams welded;
   B. Chime (reinforced rim) reinforced;
   C. Heads closed by 12 gauge bolted ring with drop forged lugs;
   D. Marked "DOT-5."

II. Specification 5B - steel barrel or drum with removable head:
   A. Body seams welded;
   B. Chime (reinforced rim) reinforced;
   C. Heads closed by 12 gauge bolted ring with drop forged lugs;
   D. Marked "DOT-5B."

III. Specification 6D Overpack; cylindrical steel overpack, straight sided, for inside plastic container. Specification 6D Overpack must be used with the specification 2S of 2SL plastic container.

IV. Specification 2S - polyethylene container:
   A. No removable heads;
   B. Constructed with new polyethylene resin;
   C. Marked "DOT-2S;"
   D. Must fit snugly in overpack container (Spec. 6D).

V. Specification 2SL - molded or thermoformed polyethylene container:
   A. No removable heads;
   B. Constructed with new polyethylene resin;
   C. Marked "DOT-2SL;"
   D. Must fit snugly in overpack container (Spec. 6D).

VI. Specification 17C - single trip container, steel drum:
   A. Removable heads are authorized;
   B. Crowned head;
   C. Heads closed by 12 gauge bolted ring with drop forged lugs;
   D. Marked "DOT-17C."

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APPENDIX E
HANDLING CONTAINERS AND DRUMS

PURPOSE:
This procedure provides general requirements for the design of areas used to store containers and drums, in accordance with EPA regulations 40 CFR Part 112 and 40 CFR Part 265.170.

RESPONSIBILITY FOR ADMINISTRATION:
The Contractor's Spill Coordinator will be responsible for this procedure.

GENERAL:

I. This procedure covers container and drum storage areas storing oils and petroleum distillates and non-permitted Hazardous Waste container and drum storage areas.
II. It is not necessary to permit Hazardous Waste container and storage areas if the waste is stored for less than 90 days. Secondary containment is not required for non-permitted Hazardous Waste container and drum storage areas.

PROCEDURE:

I. All containers and drums must be stored to avoid contact with the ground and standing water and protected to prevent rupture or leakage and to facilitate inspection.
II. The areas with containers and drums in which oil and petroleum distillate are stored and have the potential to be spilled off site must be designed to contain spills and releases. Appropriate secondary containment may include dikes, berms or retaining walls sufficiently impermeable (10^{-5} centimeters per second) to contain spill oils.
III. The following applies to hazardous waste containers and drums:
    A. Containers and drums holding ignitable or reactive Hazardous Waste must be stored at least 50 feet from the property line of boundary. Follow manufacturer's instructions regarding appropriate storage of product containers and drums.
    B. Hazardous Waste containers and drums must be separated and protected from incompatible materials by means of dike, berm, retaining wall or other approved means. Incompatible materials are wastes which, when mixed, can produce effects which are harmful to human health and the environment, such as (1) heat and pressure, (2) fire or explosion, (3) violent reaction, (4) toxic fumes or, (5) flammable fumes.
    C. Hazardous Waste containers and drums must be inspected weekly. That inspection shall be documented, as per requirements listed in Appendix F.
IV. The Contractor shall comply with all rules for Hazardous Waste Generators for satellite accumulation under 40 CFR 262.24(c)(1)(ii):
    A. Mark each container with the words "Hazardous Waste."
    B. Containers must be in good condition and kept closed except when adding or emptying waste. In addition, containers must not contain waste that is incompatible with the containers.
V. Conditionally Exempt Small Quantity Generators and Small Quantity Generators of Hazardous Waste must comply with the following:
    A. Meet all conditions outlined in Procedure Section II.
    B. Mark each drum or container with the words "Hazardous Waste."
    C. Label each drum or container with the date it is first used and the date it is last used.

RECORDS:
Storage area inspection records must be kept with the project files for a minimum period of three (3) years.

ONEOK, Project Manager	918-588-5787	100 West Fifth Street
Amanda Myers	Amanda.myers@oneok.com	Tulsa, OK 74103
ONEOK, Environmental Manger	918-588-7257	100 West Fifth Street.
Beth Ann Ludwig	beth.ludwig@oneok.com	Tulsa, OK 74103

APPENDIX F

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INSPECTION OF WASTE DRUMS AND CONTAINERS

PURPOSE:
This procedure outlines inspection requirements for waste drums and containers as required by Federal Regulations 40 CFR 262 - 265 and 40 CFR 761.

RESPONSIBILITY:
The Contractor's Spill Coordinator is responsible for implementation of this procedure.

GENERAL:

I. Drums and containers used to store hazardous substances and wastes shall be inspected for leaks, malfunctions, deterioration, operator errors and discharges which may lead to a release into the environment or a threat to human health.
II. If problems are discovered during the inspection, remedial action shall be taken immediately. The action taken will be noted on the inspection report form.

PROCEDURE:

I. Each waste drum and container shall be inspected and records maintained on a Waste Container Inspection Form. Inspection records shall include the date and time of the inspection, the name of the inspector, observations and the date and nature of any problems, repairs and remedial action.
    A. Waste drum and container storage areas shall be inspected weekly for the following:
        1. Leaking containers, deterioration of containers and deterioration of the spill containment system.
        2. Drums and containers shall be properly labeled and dated.
        3. Drums and containers shall be stored on pallets or drum racks.
    B. If a drum or container is leaking, the incident shall be recorded on the inspection form and immediately cleaned up according to the SPCC Plan.

RECORDS:

I. Inspection records shall be maintained in the project files for three (3) years from the date of inspection.
II. A report of the remedial action taken for leaks shall be prepared and kept with either the original inspection forms, inspection log or in the records of the project. These records shall be maintained for three (3) years with the project files.

RESPONSIBILITY FOR PROCEDURE:

ONEOK, Project Manager Amanda Myers	918-588-5787 Amanda.myers@oneok.com	100 West Fifth Street Tulsa, OK 74103
ONEOK, Environmental Manger Beth Ann Ludwig	918-588-7257 beth.ludwig@oneok.com	100 West Fifth Street. Tulsa, OK 74103

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APPENDIX F (continued)
INSPECTION OF WASTE DRUMS AND CONTAINERS

WASTE CONTAINER INSPECTION FORM		
Facility:_____	**Type of Container:**_____	
Date	**Deficiencies Noted**	**Inspected By**

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APPENDIX G
TYPICAL PETROLEUM STORAGE AND HANDLING VOLUMES ON A CONSTRUCTION SPREAD

	Fluids	Typical Amounts	Storage	Typical Transport Mode
Fuels	Diesel	6,000-12,000 Gallons	1-3 Tanks or Tankers stored at Contractor locations 5 gallon cans, 100 gallon storage in pickups, etc.	1-3 Fuel Trucks, 1-3 "Fuel Skids"
	Military Aviation Kerosene [1]	6,000-12,000 Gallons		
	Kerosene [1]	6,000-12,000 Gallons		
	Gasoline	5,000 Gallons		
Lubricant	Engine Oil	< 500 Gallons	Bulk Storage or Retail Packaging at Contractor Yard Warehouse	1-3 "Grease" Trucks
	Transmission/ Drive Train Oil	< 500 Gallons		
	Hydraulic Oil	< 500 Gallons		
	Gear Oil	< 500 Gallons		
	Lubricating Grease	20-30 cases of 24 cans per case		
Coolants	Ethylene Glycol	100 Gallons		
	Propylene Glycol	100 Gallons		

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APPENDIX H
EMERGENCY RESPONSE CONTRACTORS; DISPOSAL AND TREATMENT FACILITIES

The Contractor must dispose of all wastes according to applicable state and local requirements and is responsible for complying with all interstate requirements for transporting hazardous materials across state lines. A listing of potential Emergency Spill Response Contractors and waste disposal facilities is provided below. This list was developed from state-wide databases. This list represents firms operating at the time the data base was produced. These firms are not necessarily endorsed by Saguaro. The Contractor is responsible for verifying if a contractor or facility is currently operating under appropriate permits or licenses. Selection of an Emergency Response Contractor or disposal facility is subject to approval by Saguaro. The Contractor is responsible for ensuring wastes are disposed of properly.

Spill Response Contractors
Directory of Oil Spill Cleanup Contractors
http://cleanupoil.com/Texas/

Texas – Highway Spill Clean –up License
https://www.cleanupoil.com/Texas/

Name/ Company	Under Contract	Phone Number(s)	Location	Services Provided
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			

Waste Handling/Disposal Contractors

Name/ Company	Under Contract	Phone Number(s)	Location	Services Provided
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			

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APPENDIX H (continued)
EMERGENCY RESPONSE CONTRACTORS; DISPOSAL AND TREATMENT FACILTIES

Disposal Facilities

Texas – Landfills approved to accept non-hazardous industrial wastes:
https://www.tceq.texas.gov/gis/download-tceq-gis-data

Name/ Company	Under Contract	Phone Number(s)	Location	Services Provided
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			
	☐ Yes ☐ No			

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APPENDIX 1D AGENCY CORRESPONDENCE

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Texas Commission on Environmental Quality
P.O. Box 13087 MC-160
Austin, TX 78711

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear Texas Commission on Environmental Quality:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). Saguaro requests the Texas Commission on Environmental Quality ("TCEQ") review the Project and include a statement of no objection from your agency, which Saguaro will provide to the International Boundary and Water Commission ("IBWC") in support of Saguaro's Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico. Saguaro is also providing this Project introduction letter to familiarize the TCEQ with the Project and to inform your agency that Saguaro and other agencies may reach out to you regarding the Project.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the IBWC. As the applicant for this permit, it is Saguaro's responsibility to contact and request a statement of no objection from the Texas Historical Commission ("THC"), U.S. Fish and Wildlife Service ("USFWS"), USACE, Texas Parks and Wildlife Department ("TPWD"), and the TCEQ.

We look forward to working with you on the Project. If you require additional information or have any questions regarding this project, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

If you have no objection, comments, or concerns please sign this letter in the allotted space below.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM

I have no objection, comments, or concerns regarding the Project described above:

_____

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Mr. Rick Gatewood, Regulatory Manager
U.S. Army Corps of Engineers, Albuquerque District
Las Cruces Regulatory Office
505 South Main Street, Suite 142
Las Cruces, New Mexico 88001

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter and Meeting Request

Dear Mr. Gatewood:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). We would like to schedule a meeting to further discuss the Project with you on November 21, 2022.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

On October 11, 2022, Saguaro coordinated with the U.S. Army Corps of Engineers ("USACE") – Albuquerque District to determine if there were any section 408 Civil Works project impacts to consider. That same day, the USACE responded stating that a section 408 permit was not required (see **Enclosures**).

A wetland delineation of the Project area was conducted in October 2022 in accordance with the USACE *Wetlands Delineation Manual*, as amended by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0*. Three wetlands and six

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waterbodies (including the Rio Grande river) were identified within the Project area at the time of the field survey.

The Rio Grande river is a designated section 10 water (i.e., navigable waters of the United States) under the Rivers and Harbors Act ("RHA"). With regard to section 404 of the Clean Water Act ("CWA"), no permanent excavation, backfill, or bedding is proposed to install the Border Facilities; impacts to the aquatic environment would be temporary and would be restored to pre-construction conditions. Based on this information, Saguaro anticipates submitting an NWP 12 with a Pre-construction Notification ("PCN").

For proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, Saguaro plans to file a PCN for Nationwide Permit ("NWP") 12: Oil and Gas Pipeline Activities in December 2022 to the USACE – Albuquerque District.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC").

We look forward to working with you on the Project. Please provide your comments, questions, or concerns to me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: USACE Coordination, October 2022

Cc: Kelly Brezovar, ERM

From: Jordan, Bruce CIV USARMY CESPA (USA)
To: Kelly Brezovar
Cc: Riggs, Justin C CIV USARMY CESPA (USA); Riley, Reid A CIV USARMY CESPA (USA)
Subject: RE: Section 408 Review - Potential Project in Hudspeth County, TX
Date: Tuesday, October 11, 2022 3:13:03 PM
Attachments: image001.png

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kelly
Sorry I missed your phone call, I took a look at the KMZ you sent and there will be no need to seek a Section 408 Permission for this location. I also check the National Levee Database (https://levees.sec.usace.army.mil/#/) to see if there are potentially USIBWC levees in the area. The NLD did not indicate a USIBWC levee in the area but you should contact them also just to make sure they have no interest. USIBWC has their own process for making modifications.

Thanks,

Bruce A Jordan P.E.
Levee Safety Program Manager
Albuquerque District - USACE
WK (505) 342 3427 CELL (505) 401 0844

From: SPA-RD-NM <SPA-RD-NM@usace.army.mil>
Sent: Tuesday, October 11, 2022 1:43 PM
To: Jordan, Bruce CIV USARMY CESPA (USA) <Bruce.A.Jordan@usace.army.mil>
Cc: Riggs, Justin C CIV USARMY CESPA (USA) <Justin.C.Riggs@usace.army.mil>; Riley, Reid A CIV USARMY CESPA (USA) <Reid.A.Riley@usace.army.mil>
Subject: FW: Section 408 Review - Potential Project in Hudspeth County, TX

Hello Bruce,
Will you please coordinate with Kelly and cc me on your response? Thank you,
Christina

From: Kelly Brezovar <kelly.brezovar@erm.com>
Sent: Tuesday, October 11, 2022 9:56 AM
To: SPA-RD-NM <SPA-RD-NM@usace.army.mil>
Cc: Reina Foster <Reina.Foster@erm.com>; Bill Miller <Bill.Miller@erm.com>
Subject: [URL Verdict: Neutral][Non-DoD Source] Section 408 Review - Potential Project in Hudspeth County, TX

Good Morning,

We are working on a potential Project located in Hudspeth County along the Rio Grande. I just wanted to verify if there were any Section 408 concerns associated with the attached workspace.

Contact info – please see contact information below in signature

- Applicant Entity: Private developer
- Applicant Representative (e.g. consultant/agent), if applicable: ERM

Project information:

- Name of USACE Regulatory POC / Number of USACE Regulatory Permit (if applicable): Not applicable
- Location of proposed work (street/city/zip code): See KMZ
- Latitude (in decimal degrees, i.e. 1.11): See KMZ
- Longitude (in decimal degrees, i.e. 1.11): See KMZ
- Google Maps link (Google Maps pin drop location via url): See KMZ
- Describe the proposed project (be as detailed as possible): Infrastructure pipeline crossing
- Current land ownership: State of Texas
- Section township range: Hudspeth County, TX
- Work type (indicate one: new construction/maintenance/installation/dredging/environmental restoration/gravel mining): New construction, installation of pipeline via HDD or Direct Pipe installation
- Other work type (if other work type, explain): N/A
- Attachments: N/A (in early stages of planning)
- Design drawings / conceptual sketches / area maps / other project design info: See KMZ of potential project workspace

Please let me know if you have any questions or need additional information.

Thank you so much!

Kelly G. Brezovar, PWS
Principal Consultant

ERM
840 West Sam Houston Parkway North | Suite 600 | Houston, TX 77024
T +1 281-600-1000 | **M** +1 713-854-6503
E kelly.brezovar@erm.com | **W** www.erm.com

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Mr. Frankie Pinion, Realty Officer
International Boundary and Water Commission
4191 North Mesa Street, Suite C-100
El Paso, Texas 79902-1441

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear Mr. Pinion:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). While no action is required from the International Boundary and Water Commission ("IBWC") at this time, Saguaro is providing this Project introduction letter to familiarize the IBWC with the Project and to inform your agency that Saguaro and other agencies may reach out to you regarding the Project.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

On October 27, 2022, Saguaro and ERM participated in a pre-application meeting with IBWC in El Paso, Texas to present the proposed Project and to identify a clear path forward as to what the IBWC expects to have an efficient review and approval process. Participants from IBWC in the meeting included Mr. Frankie Pinion, Ms. Andrea 'Andie' Glover, and Dr. Apurba Boarh. Saguaro anticipates submitting the Outgrant Permit application in December 2022.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Mr. Frankie Pinion

Saguaro plans to submit an application to the Federal Energy Regulatory Commission ("FERC") in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

We look forward to working with you on the Project. If you require additional information or have any questions regarding this project, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Dallas, TX 75202

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear U.S. Environmental Protection Agency:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). While no action is required from the U.S. Environmental Protection Agency ("EPA") at this time, Saguaro is providing this Project introduction letter to familiarize the EPA with the Project and to inform your agency that Saguaro and other agencies may reach out to you regarding the Project.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the Federal Energy Regulatory Commission ("FERC") in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary is proposed to begin in 2024, and the International Boundary is proposed to become operational in 2025.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Environmental Protection Agency

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC").

We look forward to working with you on the Project. If you require additional information or have any questions regarding this project, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Texas General Land Office
1700 North Congress Ave
Austin, Texas 78701

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear Texas General Land Office:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). While no action is required from the Texas General Land Office ("GLO") at this time, Saguaro is providing this Project introduction letter to familiarize the GLO with the Project and to inform your agency that Saguaro and other agencies may reach out to you regarding the Project.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the Federal Energy Regulatory Commission ("FERC") in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Texas General Land Office

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC").

We look forward to working with you on the Project. If you require additional information or have any questions regarding this project, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ER

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Railroad Commission of Texas
1701 N. Congress
Austin, Texas 78701

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear Railroad Commission of Texas:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas ("RRC"), has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). While no action is required from the Railroad Commission of Texas ("RRC") at this time, Saguaro is providing this Project introduction letter to familiarize the RRC with the Project and to inform your agency that Saguaro and other agencies may reach out to you regarding the Project.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). Construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the Federal Energy Regulatory Commission ("FERC") in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Texas Railroad Commission

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC").

We look forward to working with you on the Project. If you require additional information or have any questions regarding this project, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

Thank you for your time and assistance with this Project.

Sincerely,
DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...
Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Mr. Rode Mills
Rangeland Management Specialist
USDA Alpine Service Center
1805 State Hwy 118 North
Alpine, TX 79830
rode.mills@usda.gov

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Review Request

Dear Mr. Mills,

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). Saguaro requests recommendation of seed mixes for use during restoration and comment on invasive species concerns in the Project area.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate non-Federal Energy Regulatory Commission (FERC) jurisdictional, intrastate 48-inch-diameter pipeline.

A review of the Soil Survey Geologic Database indicates the Project area is crossed by eight soil maps units:

- Baviza loamy fine sand, 1 to 8 percent slopes;
- Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded;
- Chillon extremely gravelly sandy loam, 1 to 3 percent slopes;
- Ojinaga-Corazones complex, 1 to 5 percent slopes; .
- Pantera-Riverwash complex, 0 to 2 percent slopes, frequently flooded;
- Redlight and Terlingua soils and Rock outcrop, 35 to 65 percent slopes;
- Terlingua-Corazones complex, 10 to 30 percent slopes; and
- Tornillo very fine sandy loam, 0 to 2 percent slopes, rarely flooded.

The soils crossed are predominately deep, well drained soils with gravelly sandy loam or clay texture. Vegetation species identified during biological field surveys indicate the Project area is dominated by big saltbush (*Atriplex lentiformis*), honey mesquite (*Prosopis glandulosa*), saltcedar (*Tamarix chinensis*), and creosote bush (*Larrea tridentate*).

Saguaro will implement FERC's Upland Erosion Control, Revegetation, and Maintenance Plan and Wetland and Waterbody Construction and Mitigation Procedures. Final cleanup will begin after pipeline construction is complete, and as soon as weather and site conditions permit. Every reasonable effort will be made to complete final cleanup (including final grading and installation of permanent erosion control devices) within 20 days after tie-in. Contours will be restored to pre-existing conditions, as closely as possible. If seeding cannot be completed within recommended seeding dates, temporary stabilization measures will be implemented, including but not limited to temporary seeding. Segregated topsoil will be spread over the surface of the right-of-way.

We look forward to working with you on the Project. Please provide your concurrence, comments, questions, or concerns to me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

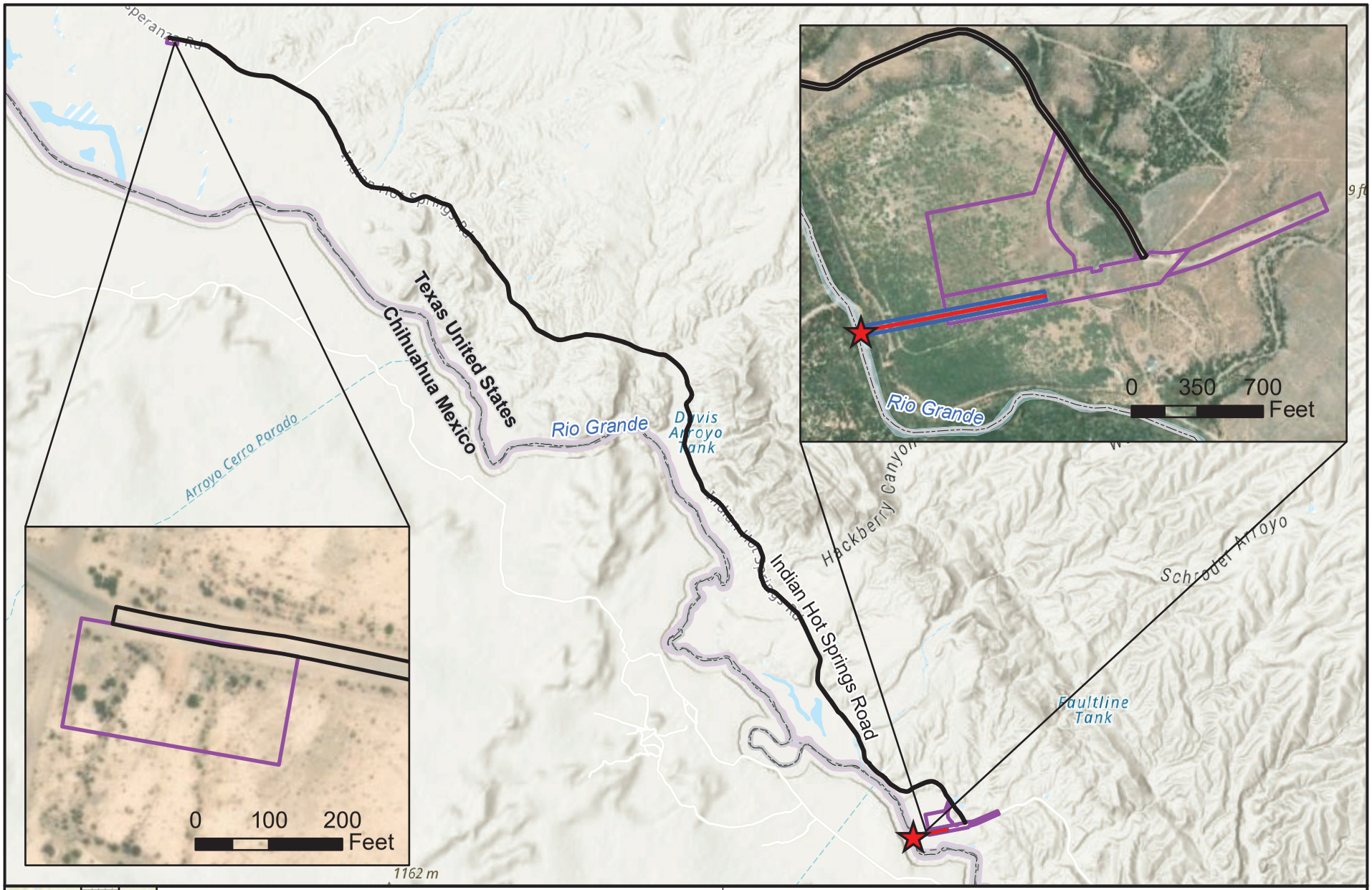
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM
Destiny Kerr, ERM

Enclosure: Figure 1: Project Overview Mapping



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

December 5, 2022

Jose Grajeda
Watch Commander
US Customs & Border Patrol Protection
900 Aztec Drive Sierra Blanca, TX 79851

Re: Saguaro Connector Pipeline, L.L.C. Project

Dear Watch Commander Jose Grajeda:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), is an intrastate natural gas pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas. Saguaro has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities that would transport natural gas across several counties in Texas before exporting the natural gas to the Estados Unidos Mexicanos (United Mexican States) ("Mexico").

Saguaro's proposed project would include a 155-mile, 48-inch-diameter natural gas pipeline and associated facilities that would transport natural gas supplies from the Waha Hub in Pecos County, Texas, west through Reeves, Jeff Davis, Culberson and Hudspeth Counties ("Connector Pipeline"). The Connector Pipeline would include a 1,000-feet long segment extending from a point in Hudspeth County to a point at the center of the Rio Grande River (i.e., a point on the border between the United States ("U.S.") and Mexico) located approximately 18 miles southwest of Sierra Blanca in Hudspeth County ("Border Crossing Point") from which the natural gas would be exported to Mexico; this 1,000-feet long segment of the Connector Pipeline is referred to as the "Border Crossing Segment." The Connector Pipeline, including the Border Crossing Segment, is also referred to as the "Project."

As required under Section 3(a) of the Natural Gas Act, Saguaro is preparing to file a Presidential Permit application requesting authorization from the Federal Energy Regulatory Commission (FERC) to construct and operate the Border Crossing Segment of the Project. Saguaro expects to file the Presidential Permit application in mid-December 2022. Following receipt of the FERC authorization for the Border Crossing Segment and all other required permits and approvals for the Connector Pipeline, Saguaro intends to commence construction of the Project in 2024 with full commercial operation anticipated to begin in 2025. Between now and then, Saguaro will be seeking additional required permits from other federal and state agencies, including the U.S. Army Corps of Engineers, Texas Commission on Environmental Quality, and Texas Railroad Commission.

You are receiving this letter because your constituents or your organization may be impacted by the proposed Project. The enclosed fact sheet with map depicts the preliminary proposed Connector Pipeline route, including the Border Crossing Segment and Border Crossing Point.

Saguaro is committed to listening to stakeholders and obtaining input on the Project and any potential impacts to communities. Our Project team has already begun face-to-face outreach on the ground in Hudspeth County and will continue into early 2023 to engage elected officials and key stakeholders across the entire footprint of the Project.

We look forward to working with you on the Project. We will be reaching out to you and members of your community in the months ahead. If you have any questions in the meantime, please reach out to our team at 855-217-7918.

Sincerely,



Beth Ann Ludwig, Environmental Project Manager

Enclosure: Saguaro Connector Pipeline Project Fact Sheet

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

SAGUARO
CONNECTOR PIPELINE

Re: Proyecto del gasoducto del conector Saguaro

Estimado/a Watch Commander Jose Grajeda:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), una subsidiaria de ONEOK, Inc. ("ONEOK"), un gasoducto intraestatal en el estado de Texas bajo la jurisdicción de la Comisión de Ferrocarriles de Texas, está desarrollando un proyecto para construir, conectar, operar, y mantener instalaciones de gasoductos para transportar gas natural a través de unos condados en Texas antes de exportar a los Estados Unidos Mexicanos ("México").

El propuesto proyecto de Saguaro ("Connector Pipeline") es un gasoducto de 155 millas y 48 pulgadas de diámetro y instalaciones asociadas que transportará y exportará suministros de gas natural desde el Waha Hub en el condado de Pecos, a través de los condados de Reeves, Jeff Davis, Culberson, y Hudspeth. El Connector Pipeline incluiría un segmento de tubería de 1,000 pies de largo extendiendo de un punto en el condado de Hudspeth hasta un punto en el centro del Rio Grande (un punto en la frontera entre los Estados Unidos ("EE.UU.") y México) aproximadamente 18 millas al suroeste de Sierra Blanca en el condado de Hudspeth Texas ("Border Crossing Point") de donde se exportaría gas natural a México; este segmento de tubería de 1,000 pies de largo del Connector Pipeline se conoce como el "Border Crossing Segment." El Connector Pipeline, incluyendo el Border Crossing Segment, se conoce también como el "Proyecto."

Como lo requiere la sección 3(a) de la ley de gas natural, el Proyecto está preparando a solicitar un permiso presidencial de la Comisión Federal Reguladora de Energía (FERC) para construir y operar el Border Crossing Segment del Proyecto. Saguaro espera presentar la solicitud formal para la autorización del permiso presidencial en diciembre 2022. Después de recibir autorización de la FERC y todos los permisos y aprobaciones adicionales a lo largo de la ruta del gasoducto, la construcción está programada para comenzar en 2024 y se anticipa que la operación comercial completa comenzará en el 2025. Todos los permisos y/o consultas requeridos por otras agencias estatales y federales, incluyendo el Cuerpo de Ingenieros del Ejército de los EE. UU., la Comisión de Calidad Ambiental de Texas, y la Comisión de Ferrocarriles de Texas, se obtendrán antes del comienzo de la construcción.

Usted está recibiendo esta carta porque sus electores o su organización pueden ser afectados por el propuesto Proyecto. La hoja informativa adjuntado con el mapa muestra la ubicación propuesta preliminar de la ruta del Connector Pipeline, incluyendo el Border Crossing Segment y Border Crossing Point.

Escuchar a las partes interesadas y obtener opiniones sobre la ruta es una parte importante del desarrollo del proyecto para Saguaro. El equipo del Proyecto ya ha comenzado a comunicarse con gente en el condado de Hudspeth y continuará comunicando con los funcionarios electos y los principales interesados en toda la ruta del gasoducto hasta principios del 2023.

Esperamos trabajar con usted en el Proyecto. Estaremos en contacto con ustedes para organizar eventos de participación con la comunidad en los próximos meses. Si tiene alguna pregunta mientras tanto, comuníquese con nuestro equipo al 855-217-7918.

Sinceramente,



Beth Ann Ludwig, Environmental Project Manager
Adjunto: Hoja Informativa del Saguaro Connector Pipeline Project

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Tulsa, OK 74103
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APPENDIX 1E LANDOWNER LIST AND LANDOWNER REFERENCE TABLE (*FILED UNDER SEPARATE COVER IN VOLUME II, CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE*)

APPENDIX 1F NON-FERC JURISDICTIONAL FACILITIES (*FILED UNDER SEPARATE COVER IN VOLUME II, CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE*)

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE L.L.C.

Saguaro Connector Pipeline Project

Resource Report 2
Water Use and Quality

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 2—WATER USE AND QUALITY

Minimum Filing Requirements for Environmental Reports:	Addressed In Section:
1. Identify and describe by milepost perennial waterbodies and municipal water supply or watershed areas, specially designated surface water protection areas and sensitive waterbodies, and wetlands that would be crossed. For each waterbody crossing, identify the approximate width, state water quality classifications, any known potential pollutants present in the water or sediments, and any potable water intake sources within 3 miles downstream. – Title 18 Code of Federal Regulations ("CFR") part 380.12(d)(1).	Table 2.2-1, Sections 2.1.2, 2.2.1, 2.2.4, 2.2.5, and 2.2.3
2. Compare proposed mitigation measures with the staff's current "Wetland and Waterbody Construction and Mitigation Procedures," which are available from the Commission Internet home page or the Commission staff, describe what proposed alternative mitigation would provide equivalent or greater protection to the environment, and provide a description of site- specific construction techniques that would be used at each major waterbody crossing. – 18 CFR 380.12(d)(2).	Sections 2.2.6 and 2.2.7
3. Describe typical staging area requirements at waterbody and wetland crossings. Also, identify and describe waterbodies and wetlands where staging areas are likely to be more extensive. – 18 CFR 380.12(d)(3).	Not applicable, the additional temporary workspace for the Project includes workspace for staging equipment and pipe storage.
4. Include National Wetlands Inventory ("NWI") maps. If NWI maps are not available, provide the appropriate state wetland maps. Identify for each crossing, the milepost, the wetland classification specified by the U.S. Fish and Wildlife Service, and the length of the crossing. Include two copies of the NWI maps (or the substitutes, if NWI maps are not available) clearly showing the proposed route and mileposts directed to the environmental staff. Describe by milepost, wetland crossings as determined by field delineations using the current Federal methodology. – 18 CFR 380.12(d)(4).	Appendix 2B
5. Identify aquifers within excavation depth in the project area, including the depth of the aquifer, current and projected use, water quality and average yield, and known or suspected contamination problems. – 18 CFR 380.12(d)(5).	Sections 2.1.1 and 2.2.4
6. Describe specific locations, the quantity required, and the method and rate of withdrawal and discharge of hydrostatic test water. Describe suspended or dissolved material likely to be present in the water as a result of contact with the pipeline, particularly if an existing pipeline is being retested. Describe chemical or physical treatment of the pipeline or hydrostatic test water. Discuss waste products generated and disposal methods. – 18 CFR 380.12(d)(6).	Section 2.2.6
7. If underground storage of natural gas is proposed: i. Identify how water produced from the storage field will be disposed of, and ii. For salt caverns, identify the source locations, the quantity required, and the method and rate of withdrawal of water for creating salt cavern(s), as well as the means of disposal of brine resulting from cavern leaching. – 18 CFR 380.12(d)(7).	Not Applicable
8. Discuss proposed mitigation measures to reduce the potential for adverse impacts to surface water, wetlands, or groundwater quality to the extent they are not described in response to paragraph (d)(2) of this section. Discuss the potential for blasting to affect water wells, springs, and wetlands, and measures to be taken to detect and remedy such effects. – 18 CFR 380.12(d)(8).	Sections 2.1.6, 2.2.6, 2.2.7, and 2.3
9. Identify the location of known public and private groundwater supply wells or springs within 150 feet of proposed construction areas. Identify locations of United States Environmental Protection Agency or state-designated sole source aquifers and wellhead protection areas crossed by the proposed pipeline facilities. – 18 CFR 380.12(d)(9).	Sections 2.1.2, 2.1.3, and 2.1.4

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 2—WATER USE AND QUALITY

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APPENDICES

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ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
Direct Pipe	Direct Pipe micro-tunneling
EPA	U.S. Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FERC Procedures	*Wetland and Waterbody Construction and Mitigation Procedures*
Mexico	Estados Unidos Mexicanos
NHD	national hydrography data
NWI	National Wetlands Inventory
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
SPCC	Spill Prevention, Containment, and Countermeasure Plan
U.S.	United States
USGS	U.S. Geological Survey

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

2.0 RESOURCE REPORT 2—WATER USE AND QUALITY

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Saguaro completed the wetland/waterbody delineation within the Project workspace in October 2022. The Project will cross the Rio Grande river using the Direct Pipe micro-tunneling ("Direct Pipe") trenchless construction method. No temporary or permanent impacts to the Rio Grande river are proposed. The pipe string will require temporary impact to one ephemeral stream.

Resource Report 2 describes water quality and provides data sufficient to determine the expected impact of the Project and the effectiveness of mitigative, enhancement, or protective measures. Information provided in this Report is derived from field surveys, technical documents, publicly available data and maps, and consultation with federal, state/commonwealth, and local authorities.

2.1 GROUNDWATER RESOURCES

A thorough desktop study was conducted and combined with site reviews and field surveys to identify water resources in the vicinity of the Project. Recent aerial imagery, ground-level site photographs, U.S. Geological Survey ("USGS") 7.5-minute quadrangle maps, USGS Groundwater Atlas information, National Wetland Inventory ("NWI") data, and information obtained from state environmental agencies were utilized to evaluate potential impacts on water resources.

2.1.1 Aquifers

The Project site is located entirely in the Hueco Bolson aquifer, which is part of the Rio Grande Aquifer System (USGS, 1996). The Hueco Bolson aquifer is situated in parts of New Mexico, Texas, and Mexico. In Texas, the northern part of the basin lies between the Franklin Mountains on the west and the Hueco Mountains on the east. The unconsolidated alluvial deposits in the Hueco Bolson aquifer consist of gravel, sand, silt, and clay. The local deposits are as much as 9,000 feet thick in a deep trough adjacent and parallel to the Franklin Mountains. The deposits that compose the Hueco Bolson alluvial aquifer include the Rio Grande alluvium, which is likely not more than 200 feet thick (USGS, 1996). The primary use of the Hueco Bolson aquifer is domestic water supply and the reported yield is 110,00 acre-feet per year. The upper

portion of the aquifer contains fresh to slightly saline water and has less than 1,000 to 10,000 or more milligrams per liter of total dissolved solids (TWDB, 2022).

2.1.2 Public and Private Water Supply Wells

The primary source of drinking water for the Project vicinity within Hudspeth County is a combination of surface water from the Rio Grande river and groundwater from the Hueco Bolson aquifer (TWDB, 2005).

Saguaro consulted the USGS Water Information System Mapper (USGS, 2021) and determined that no groundwater wells or springs for drinking water are located within 150 feet of the Project workspace.

2.1.3 Designated Sole Source Aquifers

A sole-source aquifer is an aquifer designated by the U.S. Environmental Protection Agency as the "sole or principal source" of drinking water for a given service area. This designation is given to aquifers that supply 50 percent or more of the drinking water for an area and for which there are no reasonably available alternative sources should the aquifer become contaminated (EPA, 2022a).

Drinking water for Hudspeth County comes from both the Rio Grande river and the Hueco Bolson aquifer. Depending on location and hydrologic conditions, most communities receive drinking water from a combination of these sources (TWDB, 2005). The aquifer beneath the Project workspace, the Hueco Bolson, is not designated as a sole source aquifer (EPA, 2022a).

2.1.4 Wellhead Protection Areas

Wellhead Protection Areas are defined by the Texas Commission on Environmental Quality as "designated surface and subsurface zones surrounding public water supply wells or well fields." These zones are identified to prevent contaminants from entering the groundwater table and compromising the quality of public drinking water.

A review of publicly available information from the Texas Commission on Environmental Quality determined that there are no public water supply wells or reservoirs within 1 mile of the Project. The closest public water supply well is more than 10 miles north of the Project, near Fort Hancock, Texas (TCEQ, 2022d). The Project will not impact any Wellhead Protection Areas.

2.1.5 Contaminated Groundwater

A search of publicly available information from state environmental agencies to assess the potential presence of contaminated groundwater in the Project area was conducted. No known leaking underground storage tanks, Brownfield sites, or other contaminated sites were identified within 0.25 mile of the Project workspace (TCEQ, 2022a; 2022b; 2022c).

2.1.6 Groundwater Construction Impacts and Mitigation

Excavation activity associated with the Project has the potential to temporarily affect overland water flow and recharge of shallow aquifers. These impacts are expected to be minor and temporary due to the limited areas of excavation and duration of excavation activity.

The Direct Pipe method will be used to install the pipeline at a depth of approximately 33 feet below the bottom of the Rio Grande river. Wells in the area have documented the groundwater level at anywhere from 5 to 15 feet below the land surface (TWDB, 2022a). Given the thickness of the aquifer, the Direct Pipe method will likely pass directly through these groundwater resources. Impacts on groundwater resources from the Direct Pipe method would include a change in groundwater flow paths potentially resulting in changes in groundwater discharge locations and inadvertent returns of drilling mud potentially contaminating the groundwater. The nearest drinking water wells are more than 5 miles away from the Project, so any impacts on drinking water would be localized to the Project area.

Inadvertent releases of fuels, lubricants, or solvents from construction activities within the Project workspace and along the existing access roads could result in groundwater contamination but are not anticipated. The Project will implement proper storage, containment, and handling procedures to minimize this potential hazard. In the event of a release, the Project will implement its Spill Prevention, Containment, and Countermeasure ("SPCC") Plan. The SPCC Plan is included as Appendix 1C in Resource Report 1. The SPCC Plan describes measures, which will be implemented to prevent or control inadvertent spills of hazardous materials and groundwater contamination. Furthermore, Project activities will be conducted in compliance with the Federal Energy Regulatory Commission's ("FERC") *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures* ("FERC Procedures") with the proposed alternative measures identified in section 1.4.3 of Resource Report 1.

Saguaro does not anticipate the need for blasting to conduct construction activities for the Project. Blasting is further addressed in Resource Report 6, Geological Resources.

2.2 SURFACE WATER RESOURCES

To assess potential impacts on surface waters, national hydrography data ("NHD"), USGS topographic maps, and recent aerial photographs were reviewed and on-the-ground field surveys were conducted of the Project workspace. Table 2.2-1 lists the waterbody classification and impact profile for the waterbodies within the Project workspace. Waterbody locations in relation to the Project workspace are depicted in Appendix 2A and the Wetland Delineation Report is included as Appendix 2B.

Table 2.2-1 summarizes impacts associated with the workspace required to install the Direct Pipe under the Rio Grande river. A site-specific plan for this crossing is included as Appendix 2C. The proposed temporary access road is an existing public county road (Indian Hot Spring Road) and crosses two delineated streams and 21 streams that were identified on the NHD database (survey efforts for the temporary access road are ongoing and, therefore, NHD data is provided for surveyed portions of the access road). Indian Hot Spring Road routinely experiences erosion/washout and Hudspeth County is responsible for repair and maintenance. To maintain access during construction, Saguaro may support Hudspeth County to quickly repair or maintain the road to its existing condition (e.g., replacing culverts, re-graveling areas, or using timber mats) to address erosion/washout issues. Impacts on streams associated with potential maintenance to Indian Hot Spring Road is not expected as a result of the Project; however, any necessary permits will be obtained for any work within the ordinary high-water mark of any stream identified adjacent to the existing county road.

Table 2.2-1: Waterbodies Within and Adjacent to the Project Workspace

Waterbody Name	NHD Classification	Designated Use [a]	Impact Type	Impact Acreage	Width (feet)	Comment
Rio Grande river (shua001p)	Perennial Waterbody	PCR1, H, PS	Avoided	0.00	55	Waterbody will be avoided by the Direct Pipe installation method.
Unnamed tributary to Rio Grande river (shua004e)	Ephemeral Waterbody	None	Temporary	0.05	35	Waterbody will be impacted by temporary workspace necessary to complete the Direct Pipe installation under the Rio Grande river. Impacts will be limited to equipment crossings and area will be restored following construction. Stream is typically dry and no work will occur within the stream if there is flowing water.
			Total:	**0.05**		

Source: (TCEQ, 2018).
PCR = Primary contact recreation
H = High aquatic life use
PS = Public water supply

2.2.1 Water Quality and Contaminated Sediments

No areas with contaminated sediments were identified within the Project workspace (EPA, 2022b) and, thus, the Project activities are not expected to disturb contaminated sediments.

2.2.2 303(d) Listed Waters

Section 303(d) of the Clean Water Act requires states to develop a list of surface waters that do not meet state water quality standards or do not support their designated uses. Upon review of the Section 303(d) impaired waterbody lists and 305(b) Water Quality Inventory Reports, there are no 303(d) listed waters that will be directly impacted by the Project (TCEQ, 2018).

2.2.3 Surface Water Intakes

The Rio Grande river will be crossed using the Direct Pipe installation method; therefore, no potable surface water intakes will be affected. There are no surface water intakes within 3 miles of the Rio Grande river crossing (TCEQ, 2022d).

2.2.4 Public Watershed Areas

The Project will be constructed within one watershed, the Hackberry Arroyo-Rio Grande watershed. No public water wells or drinking water intakes are located within 5 miles of the Project (TWDB, 2022).

The Project does not cross U.S. Environmental Protection Agency-designated sole source aquifers or surface water protection areas (EPA, 2022a). One principal aquifer could be impacted by the Project, the Rio Grande Aquifer System (USGS, 2021). The Rio Grande Aquifer System

underlies a 70,000-square-mile area of western Texas, southern Colorado, and central New Mexico. Recharge to the Rio Grande aquifer system primarily originates as precipitation in mountainous areas within its boundaries. Groundwater levels in the Rio Grande aquifer system have an altitude less than 3,800 feet in the southern portion near El Paso, Texas (USGS, 1996).

Based on a review of the USGS Water Information System Mapper (USGS, 2021), no groundwater wells or springs for drinking water are located within 150 feet of the Project workspace.

2.2.5 Sensitive Surface Waters

Sensitive waterbodies include those that:

- are designated as National Wild and Scenic Rivers;
- are state-designated high quality or outstanding natural resource waters;
- provide habitat for threatened and/or endangered species or critical habitat;
- have potable surface water intakes located within 3.0 miles downstream of the pipeline crossing; and/or
- do not currently support designated uses.

The Project will cross the Rio Grande river using the Direct Pipe method. This section of the Rio Grande river is sensitive in that it provides habitat for the Rio Grande Silvery Minnow (*Hybognathus amarus*), which is an endangered species listed under the Endangered Species Act of 1973. See Resource Report 3 for a discussion of threatened and endangered species. The Rio Grande river is not designated as a National Wild and Scenic River within the Project workspace (BLM, 2022). The Rio Grande river is not a state-designated, high-quality or outstanding natural resource waters, is not listed as an impaired water, and supports a primary contact recreation, high aquatic life, and public water supply uses (TCEQ, 2018). No potable surface water intakes are located within 3 miles downstream of the Border Facilities. The other ephemeral waterbody within the Project's construction workspace is not sensitive.

No impacts on sensitive surface waters are anticipated. In the event of an inadvertent release, Saguaro will implement its Inadvertent Release Control Plan (see Resource Report 1, Appendix 1B).

2.2.6 Hydrostatic Test and Dust Suppression Water Withdrawal and Discharge

Approximately 300,000 to 350,000 gallons of water will be required for hydrostatic testing of the pipe. Saguaro has not yet determined specific water sources for hydrostatic testing activities but anticipates sourcing water from either a municipal or private source. The hydrostatic test water will be discharged overland in accordance with applicable permits within or along the edges of the construction right-of-way using energy dissipation devices to minimize erosion and sedimentation. Saguaro does not anticipate needing to add chemicals to the hydrostatic test water prior to discharge.

The anticipated volume of water necessary for dust suppression will be dependent on weather conditions at the time of construction. Dust suppression water will be sourced either from private wells or municipal sources. Water will be discharged for dust suppression at a rate of approximately 0.25 gallons per square yard with a total water requirement of approximately 1,700,000 gallons assuming dry conditions.

2.2.7 Surface Water Construction Impacts and Mitigation

Project activities will result in approximately 0.05 acre of temporary impact to an unnamed ephemeral stream that is within the temporary workspace east of the Direct Pipe crossing of the Rio Grande river. No construction activities will occur within the ephemeral stream if there is flowing water, except for maintenance and use of the existing temporary access road. The proposed modification to the FERC Procedures is required due to the proximity of the workspace to the proposed Direct Pipe entry location (see also section 1.4.3 of Resource Report 1.)

Indirect impacts on waterbodies could potentially occur where these features are located in close proximity to temporary workspaces, but such impacts will be short term and minimal. Saguaro will implement the measures specified in FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* and the modified FERC Procedures, as described in section 1.4.3 of Resource Report 1, to prevent sediment flow into waterbodies in the vicinity of the Border Facilities. The Project's temporary access road is an existing, graveled road with existing low-water crossings that would be used during construction. Indian Hot Spring Road routinely experiences erosion/washout and Hudspeth County is responsible for repair and maintenance. To maintain access during construction, Saguaro may quickly repair or maintain the road to its existing condition (e.g., replacing culverts, regraveling areas, or using timber mats) to address erosion/washout issues on behalf of, or in partnership with, Hudspeth County.

Releases of fuel or other hydrocarbon liquids from nearby containers or from vehicles or equipment operating near waterbodies could potentially affect water quality. The Project's SPCC Plan (Appendix 1C of Resource Report 1) will be implemented to minimize impacts from inadvertent spills of fuels, lubricants, solvents, or other hazardous materials that could affect water quality. To minimize potential impacts from any potential inadvertent releases, storage of hazardous materials, chemicals, lubricating oils, and fuels will occur in upland areas at least 100 feet from waterbodies in accordance with the FERC Procedures. Similarly, refueling of construction equipment will be conducted at least 100 feet from waterbodies.

2.3 WETLANDS

To assess potential impacts on wetlands from Project activities, Saguaro reviewed NWI data, USGS topographic maps, recent aerial photographs, and conducted field surveys of the Project workspace. Based on the field survey, no wetlands were identified within the additional temporary workspace or permanent right-of-way. Field surveys are pending along the proposed access road (Indian Hot Spring Road). NWI data does identify a wetland within the footprint of the county road. The Project's temporary access road is an existing, graveled road with existing low-water crossings that would be used during construction. Indian Hot Spring Road routinely experiences erosion/washout and Hudspeth County is responsible for repair and maintenance. To maintain access during construction, Saguaro may quickly repair or maintain the road to its existing condition (e.g., replacing culverts, re-graveling areas, or using timber mats) to address erosion/washout issues on behalf of, or in partnership with, Hudspeth County. Impacts on wetlands associated with potential maintenance to Indian Hot Spring Road are not expected as a

result of the Project. It is not anticipated that the Project will result in any wetland impacts. The Wetland Delineation Report is included as Appendix 2B.

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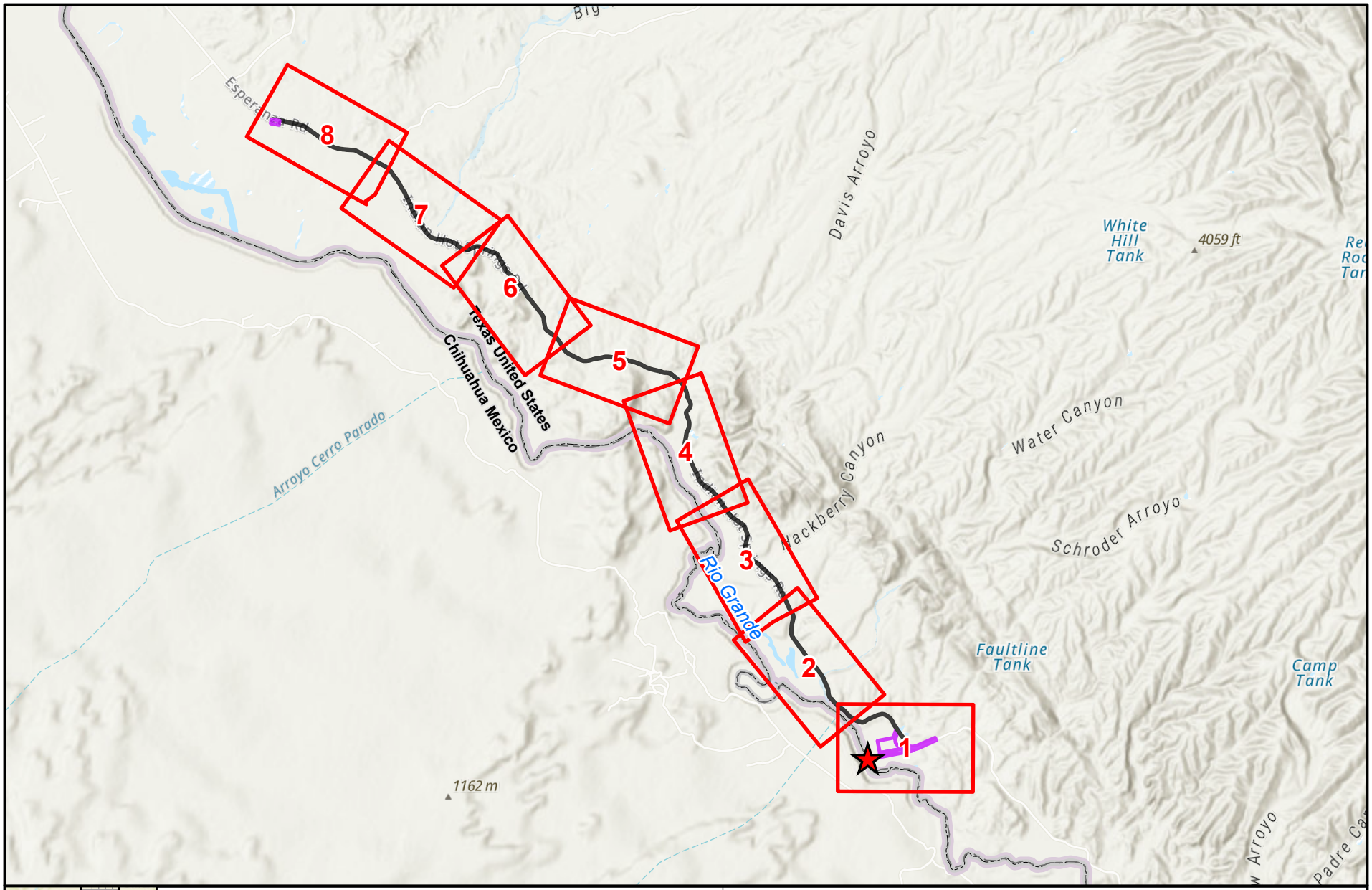
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APPENDIX 2A WETLAND AND WATERBODY OVERVIEW MAP

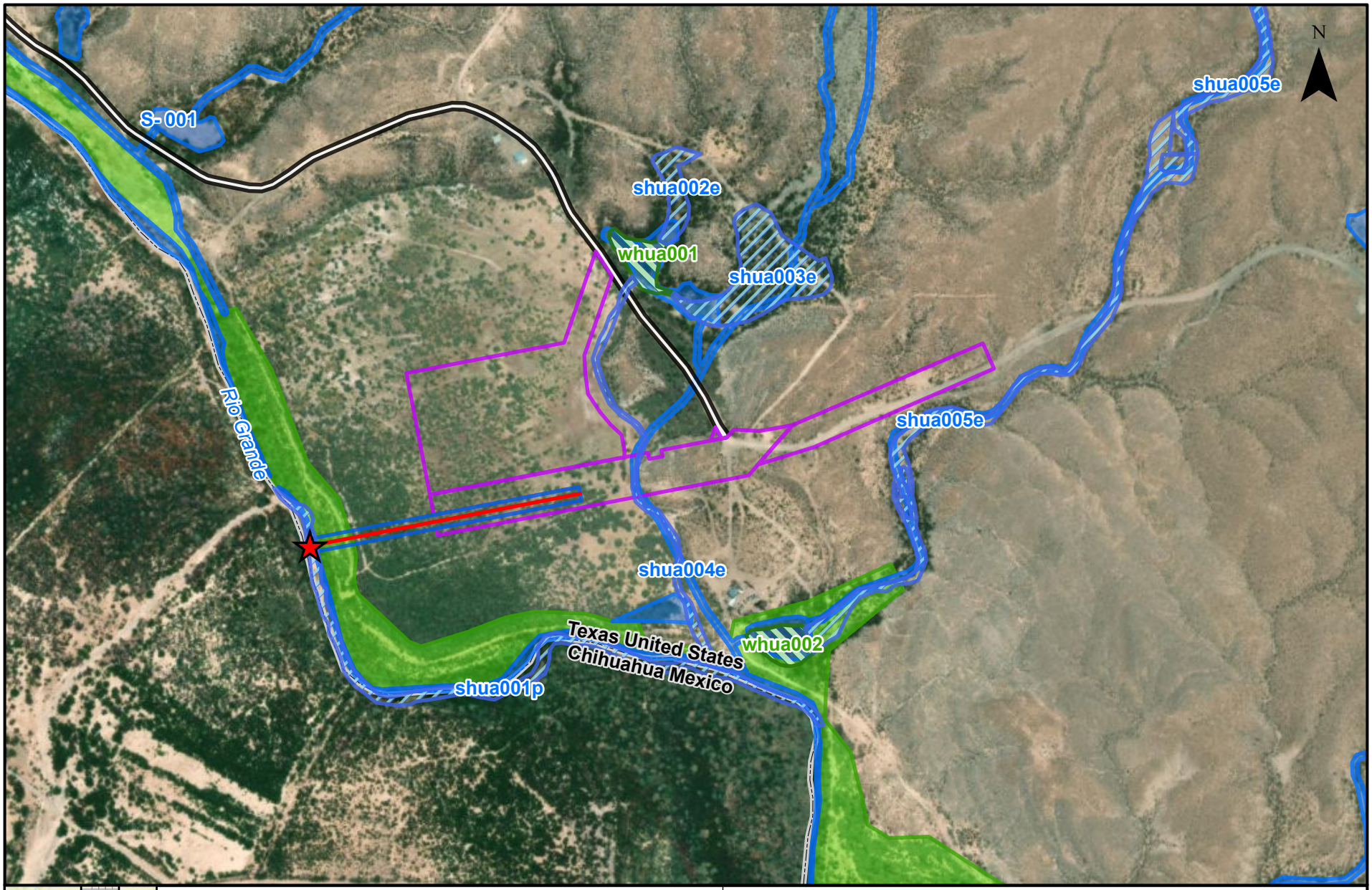


Appendix 2A
Wetland and Waterbody Index
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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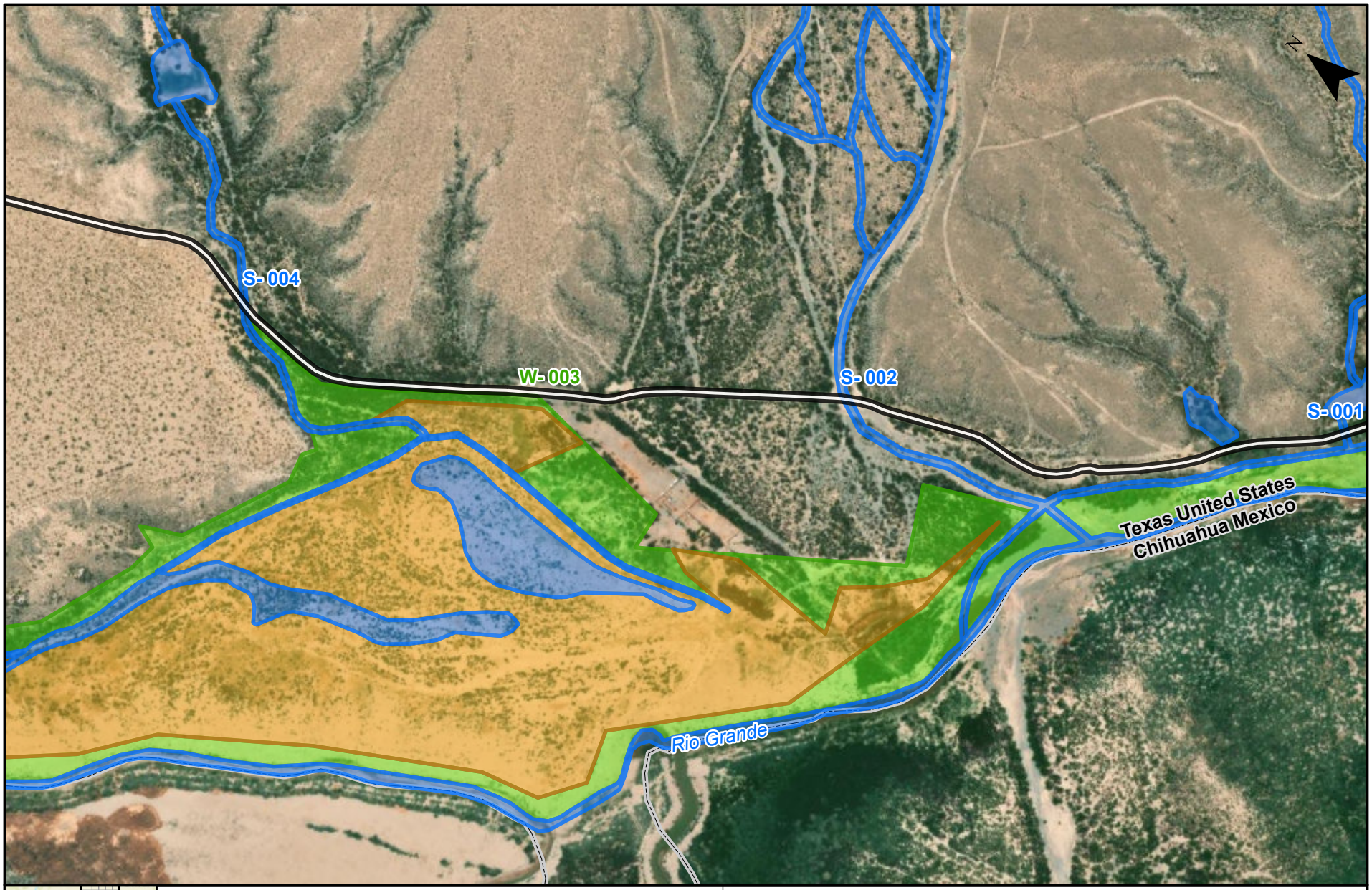


Appendix 2A
Wetland and Waterbody Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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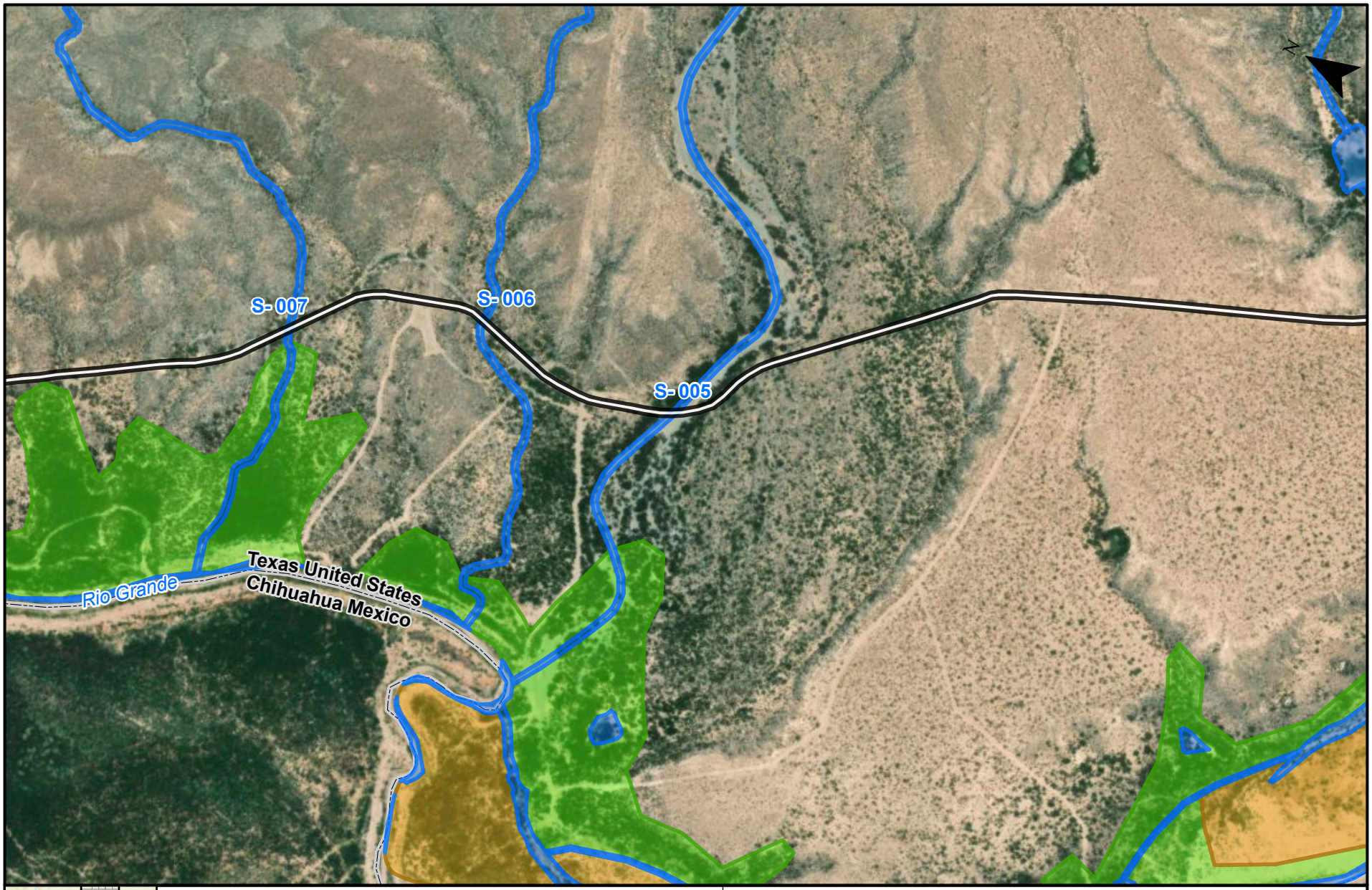


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Hudspeth County, Texas

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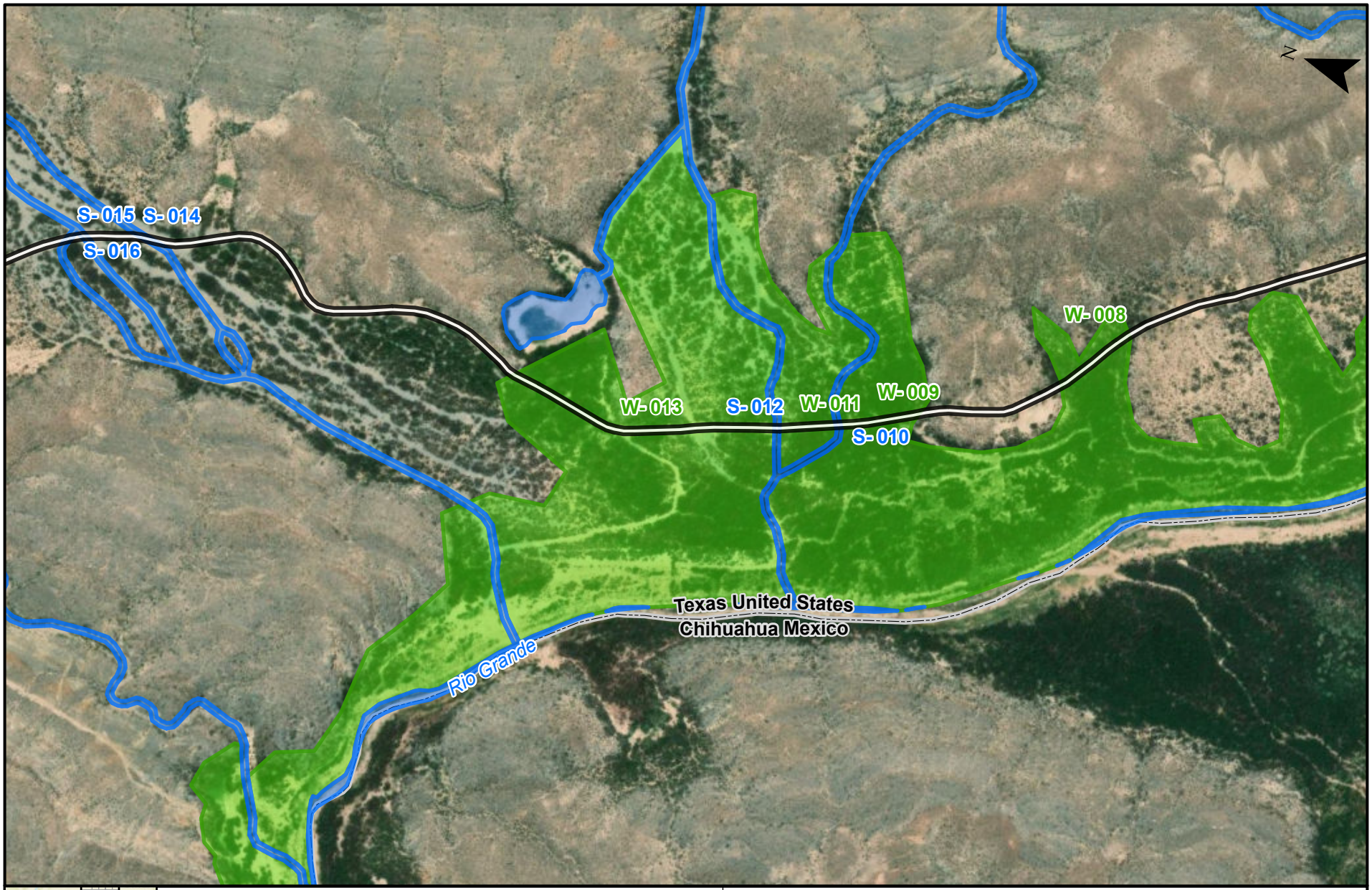


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Hudspeth County, Texas

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Hudspeth County, Texas

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NWI Waterbody

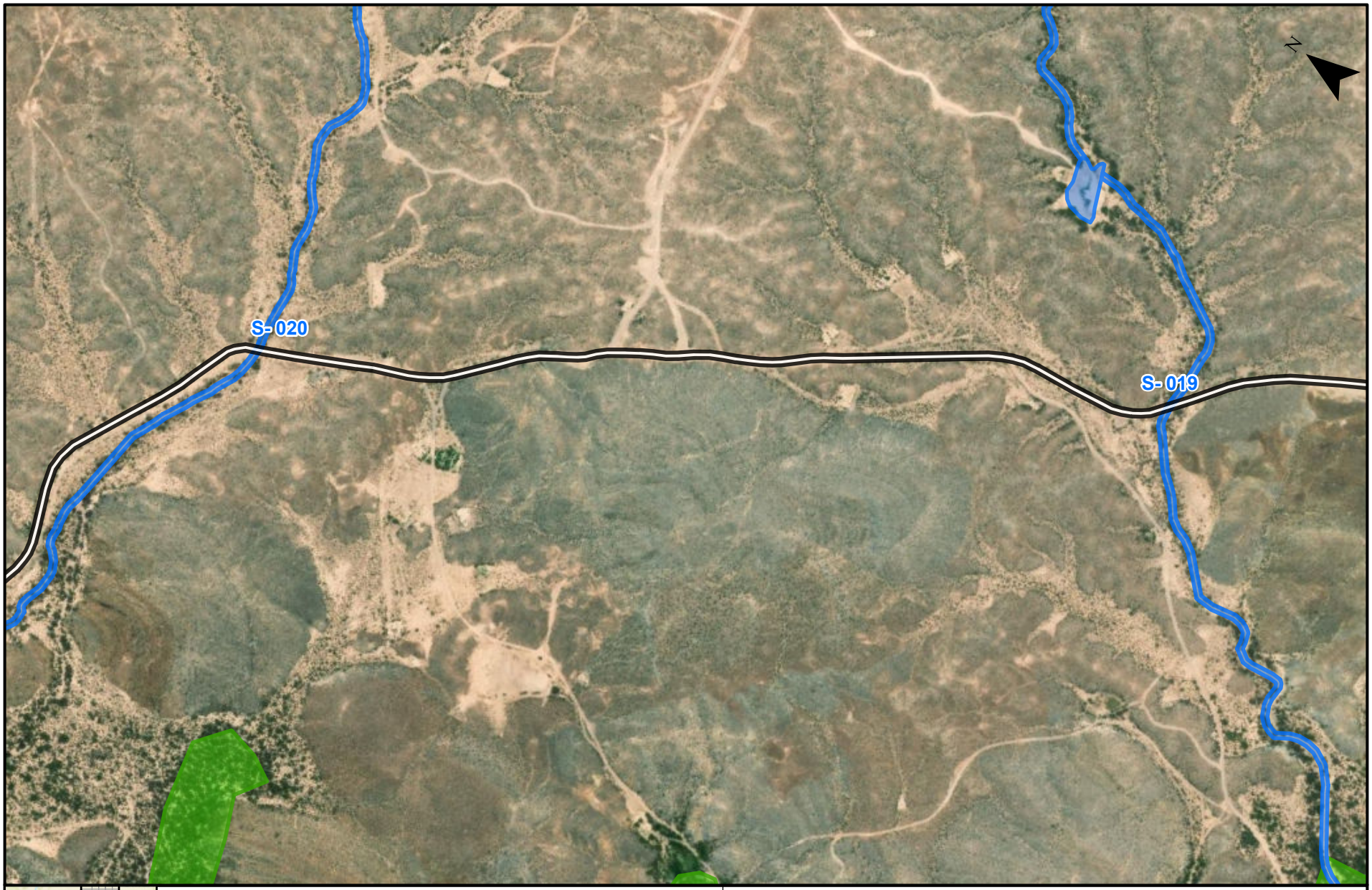
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CONNECTOR PIPELINE

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Saguaro Connector Pipeline Project
Hudspeth County, Texas

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Access Road
NWI PFO Wetland
NWI Waterbody

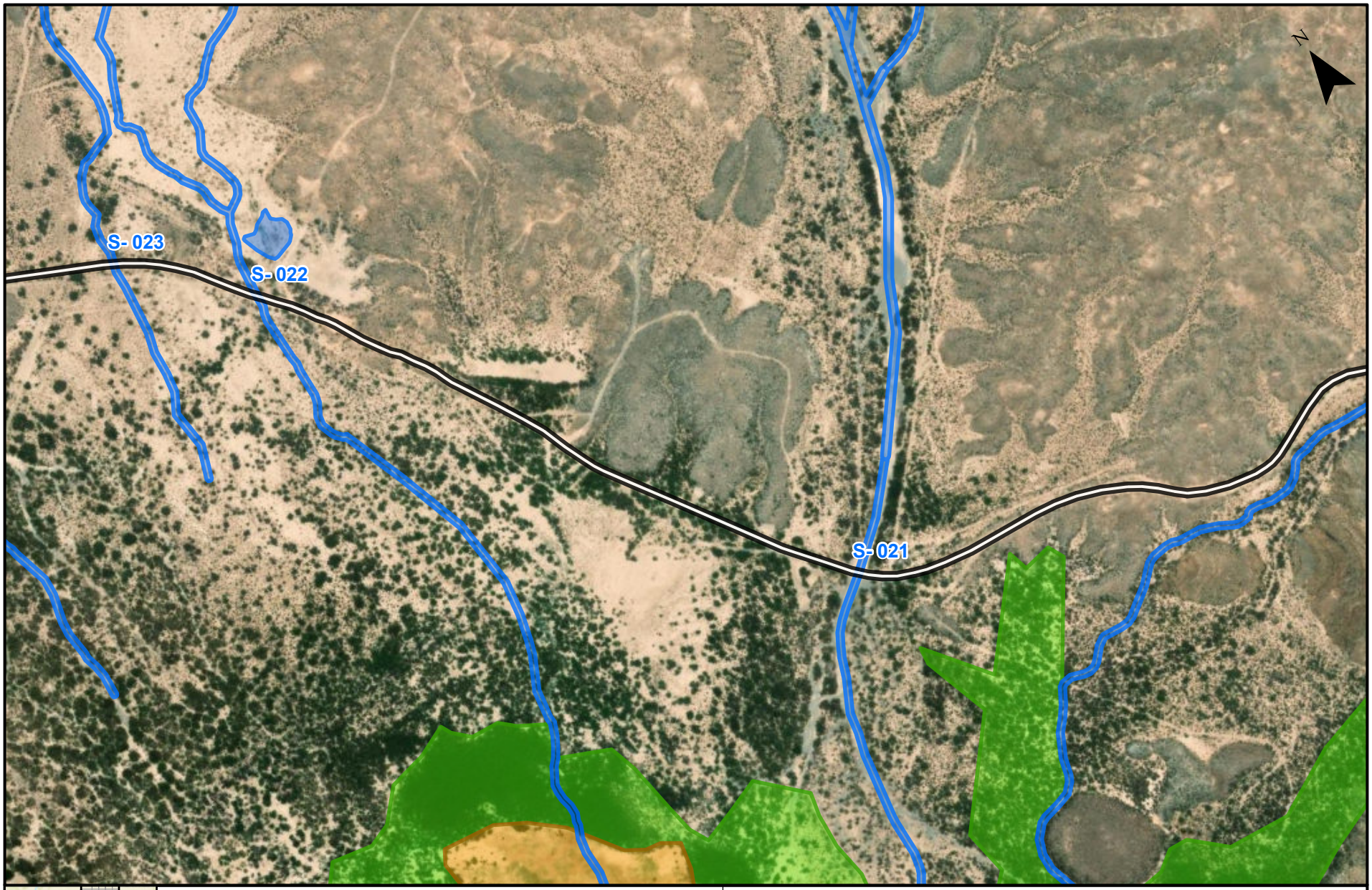
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SAGUARO CONNECTOR PIPELINE

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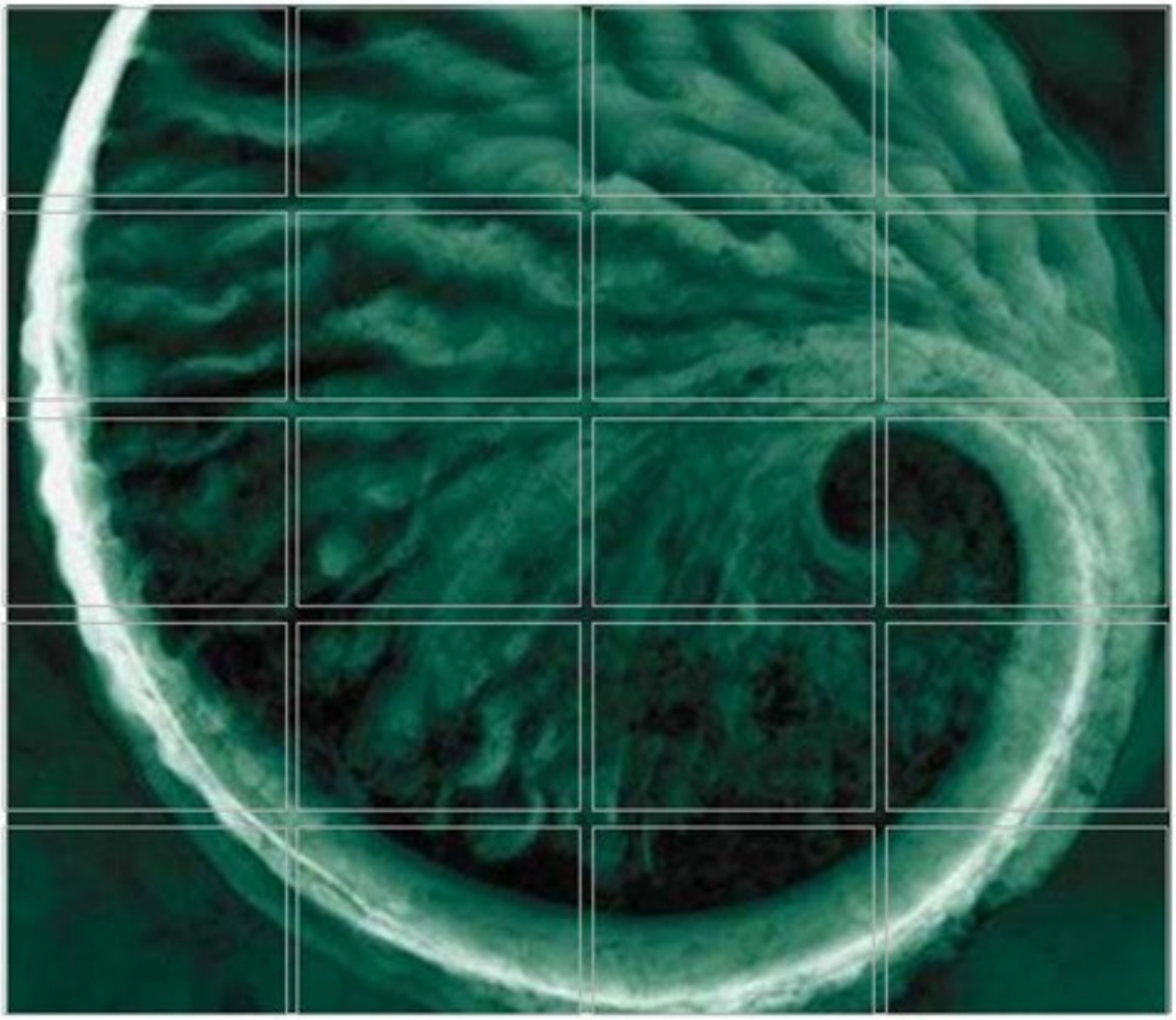
SAGUARO CONNECTOR PIPELINE

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Hudspeth County, Texas

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APPENDIX 2B WETLAND DELINEATION REPORT



SAGUARO
CONNECTOR PIPELINE

Wetland Delineation Report

Saguaro Connector Pipeline Project, Border Facilities

13 December 2022

Project No.: 0662464

The business of sustainability

ERM

Signature Page

13 December 2022

Wetland Delineation Report

Saguaro Connector Pipeline Project, Border Facilities

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Acronyms and Abbreviations

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river
CFR	Code of Federal Regulations
CWA	Clean Water Act
DAREM	direct antecedent rainfall evaluation method
ERM	Environmental Resources Management
FAC	facultative plants
FACU	facultative upland plants
FACW	facultative wetland plants
FEMA	Federal Emergency Management Agency
FM	Farm-to-Market
HUC	Hydrologic Unit Code
I-10	Interstate Highway 10
LF	linear feet
Manual	Wetlands Delineation Manual
NHD	National Hydrography Dataset
NI	no indicator plants
NRCS	National Resources Conservation Service
NWI	National Wetland Inventory
OBL	obligate wetland plants
ONEOK	ONEOK Inc.
PEM	palustrine emergent
Project	Saguaro Connector Pipeline Project
PSS	palustrine scrub/shrub
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0.
RGL	Regulatory Guidance Letter
RHA	Rivers and Harbors Act
Survey area	The Rio Grande river crossing area of the proposed ONEOK natural gas pipeline project
Saguaro	Saguaro Connector Pipeline, L.L.C.
TNW	traditional navigable waterway
UPL	upland plants
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WETS	Climate Analysis for Wetlands Tables
WOTUS	waters of the U.S.

EXECUTIVE SUMMARY

On behalf of Saguaro Connector Pipeline, L.L.C. (Saguaro), a subsidiary of ONEOK, Inc. (ONEOK), Environmental Resources Management Southwest, Inc. (ERM) completed a wetlands and other waters of the U.S. (WOTUS) survey in support of the proposed Saguaro Connector Pipeline Project (Project). This report details an approximate 107-acre review area (the site or survey area) in Hudspeth County, Texas, United States (U.S.). The survey area exceeds the land requirements of the Project. The objective of this investigation is to determine the location and extent of any potentially jurisdictional WOTUS.

Per Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act (RHA), a delineation of potential jurisdictional wetlands and other WOTUS (as defined by 33 Code of Federal Regulations [CFR] 328) was conducted within the survey area. The delineation was conducted in accordance with the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0*.

A wetland was identified where hydrophytic vegetation, soil, and hydrology indicator criteria were met. Ordinary High Water Mark (OHWM) identifications for waterbodies was determined in accordance with the 2005 USACE Regulatory Guidance Letter (RGL) and the *Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States: A Delineation Manual*.

ERM performed the delineation of wetlands and other WOTUS on October 6, 2022, and October 23 through 28, 2022. Two wetlands and five waterbodies were identified within the survey area at the time of the field survey. All 1.2 acres of wetland and 7,749 linear feet (LF) of waterbodies are considered potentially jurisdictional. The potential jurisdictional status is based on best professional judgment; only the USACE can make the final decision on a jurisdictional determination.

1. INTRODUCTION

On behalf of Saguaro, a subsidiary of ONEOK, ERM completed a WOTUS survey in support of the proposed Project. The proposed Project comprises a 48-inch natural gas pipeline across the International Boundary at the center of the Rio Grande river in Hudspeth County, Texas, U.S (Border Facilities). This report details a 107-acre survey area (the site or survey area) adjacent to the Rio Grande river in Hudspeth County, Texas, United States (U.S.). The survey area exceeds the land requirements of the Project. encompassing the potential border crossing facility locations (**Figure 1, Appendix A**).

The objective of this investigation is to determine the location and extent of any wetlands or other WOTUS (i.e., waterbodies) within the survey area. The wetland delineation was conducted through desktop assessment and field surveys. As part of this investigation all identified features were recorded and potential jurisdictional status assigned, as defined by Section 404 of the CWA and/or Section 10 of the RHA and implemented by the USACE.

1.1 Location

The survey area is located at the Rio Grande river in Hudspeth County, Texas, U.S., approximately 18 miles southwest of Sierra Blanca, Texas, U.S. (**Figure 1, Appendix A**). The center point is located at approximately 30.936391 degrees latitude and -105.471698 degrees longitude. Access to the site is available from U.S. Interstate 10 (I-10) via Farm-to-Market (FM) 34 south which merges into FM 192 and becomes Indian Hot Spring Road.

1.2 Site Setting

The survey area is within the Chihuahuan Deserts ecoregion that extends from southeastern Arizona into south-central Texas (Griffith et al., 2004). In general, land cover and land use in this region consist of shrubland, grassland, or barren land with wildlife habitat, some urban and military land, irrigated cropland, and/or ranching (Griffith et al., 2007). There is minimal land use in the vicinity of the survey area. Land cover is devoid of development and consists mainly of shrub/scrub with woody wetlands along the Rio Grande river (Multi-Resolution Land Characteristics Consortium, 2019). The vegetation varies in the Chihuahuan Deserts, often coinciding with changes in topography. Vegetation communities vary from grasslands, shrublands, cactus savannas, and mountain woodlands (Griffith et al., 2004). Vegetative cover is predominately semi-desert grassland and arid shrubland (Griffith et al., 2007). Land use within the survey area currently includes active pasture and historically was used for agriculture in addition to pasture.

The Chihuahuan Deserts ecoregion has a diverse topography. The terrain includes ecoregion includes desert flats and valleys, bolson drainages, plateaus, sand hills, and mountain ranges (Griffith et al., 2004). As represented in the U.S. Geological Survey (USGS) Schroder Arroyo Quadrangle, Texas – Hudspeth County 7.5-Topographic Series, the elevation at the site ranges between 3,400 and 3,500 feet above mean sea level (USGS, 2022a) (**Figure 2, Appendix A**).

Aside from the major river drainages, such as the Rio Grande river, the landscape of the Chihuahuan Deserts ecoregion is largely internally drained (Griffith et al., 2004). The survey area is located within the Hackberry Arroyo-Rio Grande watershed (Hydrologic Unit Code [HUC] 130402010106) (USGS, 2022b).

According to the USGS National Hydrography Dataset (NHD), there are three streams, one river, and three open-water waterbodies mapped within the site (**Figure 3, Appendix A**). The streams consist of two unnamed ephemeral streams that meet and flow into one perennial stream, the Rio Grande river. The other three waterbodies consist of two lake/pond features and one reservoir feature (USGS, 2022b). These features are also mapped on U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) of surface waters (**Figure 3, Appendix A**). There is palustrine forested wetland mapped surrounding the Rio Grande and along a portion of one of the unnamed ephemeral streams (USFWS, 2022).

Areas of the site along the Rio Grande river and the two unnamed ephemeral streams are within the Federal Emergency Management Agency (FEMA) floodplain Zone A, designated 100-year flood hazard without base elevations (FEMA, 1985) (**Figure 4, Appendix A**).

The Chihuahuan Deserts ecoregion receives most of its annual precipitation in the summer during monsoon thunderstorms (National Parks Service, 2022). The total monthly average precipitation data for Hudspeth County was recorded from 1971 to 2000 by the U.S. Department of Agriculture's (USDA) National Resources Conservation Service (NRCS) Climate Analysis for Wetlands (WETS) Table Station Fort Hancock 8SSE. Rain gauge data from Station ACALA 2.4 NW collected monthly in 2022 was compared to the WETS data to determine normality of rainfall for October 2022 (AgACIS, 2012). The normality is calculated using data from the preceding three months, known as the direct antecedent rainfall evaluation method (DAREM). Normal rainfall conditions were present at the time of the field survey. DAREM calculations at the time of the field survey may be found in Table 1-1 below.

Table 1-1: DAREM Calculation for October 2022

Prior Month		WETS Rainfall Percentile		Measured Rainfall	Month Condition	Month Condition Value[1]	Month Weight	Product of Month Condition and Weight[2]
		30th	70th					
1	September	0.68	2.40	0.46	Dry	1	3	3
2	August	0.92	1.79	4.94	Wet	3	2	6
3	July	0.70	1.93	1.43	Normal	2	1	2
Sum								11
Rainfall								Normal

[1]dry (1), normal (2), wet (3)
[2]drier than normal (6-9), normal (10-14), wetter than normal (15-18)

The mountain ranges of the Chihuahuan Deserts are a geologic mix, but most soils are derived from limestone beds. The mountains contain limestone slopes and basins contain alluvium and erosional materials from the surrounding mountains (Griffith et al., 2007). According to the USDA's NRCS, the survey area consists of four soil units (NRCS, 2022a) (**Figure 5, Appendix A**). These soils are:

- Castolon, Gadsden, and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded (CBA);
- Changas-Corazones complex, 1 to 30 percent slopes (CCE);
- Ojinaga-Corazones complex, 1 to 5 percent slopes (OCB); and
- Redlight and Terlingua soils and Rock outcrop, 5 to 30 percent slopes (RDF).

Of the soils mapped within the site, only the Castolon, Gadsden and Lomapelona soil is considered hydric in Hudspeth County, Texas according to the National Hydric Soils list (NRCS, 2022b). The hydric soil accounts for 64.3% of the survey area and is located adjacent to the Rio Grande river.

2. WATERS OF THE U.S. DELINEATION METHODS

The following sections describe the background information used, methods implemented, and resources accessed while completing this investigation. Per Section 404 of the CWA, a delineation of potential jurisdictional wetlands and other WOTUS (as defined by 33 CFR 328) was conducted within the survey area. A special notice was posted in September 2021 stating the USACE is interpreting consistent with the pre-2015 regulatory regime until further notice. Therefore, this delineation was interpreted using the pre-2015 regulatory regime rule (i.e., Rapanos).

2.1 Desktop Assessment

Prior to initiating the field survey of wetlands and other WOTUS, an initial desktop review of current and historical aerial photography, USGS topographic and NHD maps, FEMA floodplain map, USFWS NWI maps, and the USDA NRCS soil survey data were evaluated. The objective of the desktop assessment was to identify areas known or assumed to be wetlands or WOTUS, as well as areas exhibiting indicative wetland features that would need to be investigated further in the field. The results of the desktop assessment facilitated planning and preparation for the field delineation of wetlands and other WOTUS.

2.2 Field Survey

2.2.1 Wetlands

The pedestrian field surveys were conducted by a two-person team of wetland ecologists. The wetland delineations are completed in accordance with the three-parameter wetland requirements as described in the USACE Manual (USACE, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Regional Supplement) (USACE, 2008). These criteria include hydrophytic vegetation, hydric soils, and wetland hydrology.

Wetland determination data forms (data sheets) were used to record and document the presence or absence of the required criteria at each point. The plant species in each vegetation layer (i.e., tree, sapling/shrub, herbaceous, and vine) are observed and recorded.

The 2020 National Wetland Plant List, Version 3.5 (USACE, 2020), was used to determine the wetland indicator status of plant species. The indicator statuses include no indicator (NI), upland (UPL), facultative upland (FACU), facultative (FAC), facultative wetland (FACW), and obligate (OBL). Taxonomy of plant species follows the 2020 list and the USDA PLANTS Database (USDA, 2021).

Soils were inspected for indicators of hydric conditions (USACE, 1987; USACE, 2008) and evaluated with the Munsell Soil Color Charts (Munsell, 2009). Where practicable depths of 20-inches were achieved to review soils, however due to the arid environment and compacted soils or bedrock formations not all sample points achieved a depth of 20-inches.

Field indicators of wetland hydrology were evaluated and recorded based on guidance provided in the Manual and the Regional Supplement.

At sample points where hydrophytic vegetation, soil, and hydrology indicator criteria are met as defined by the Regional Supplement, the area is identified as a wetland and categorized following the classification system of Cowardin et al. (1979).

In certain situations, normal seasonal or annual variation in environmental conditions can lead to the development of problem areas in which wetland vegetation, hydric soil, or wetland hydrology may not be readily identifiable. Additional investigation may be needed in these situations to determine the presence or absence of wetland indicators. In other situations, recent human activities or natural events can create atypical situations in which positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation

are absent or unreliable. As with problem areas, additional investigations may be needed in these situations to determine if a wetland is present.

2.2.2 Other Waters of the U.S.

Other WOTUS, or waterbodies (streams, washes, ponds, etc.), are identified by the presence of an OHWM which typically represents the outer limits of potential USACE jurisdiction. Waterbodies are classified as ephemeral, intermittent, or perennial based on field observations of perceived flow regimes.

- An ephemeral waterbody conveys flowing water for only brief durations only following precipitation events in a typical year;
- An intermittent waterbody conveys flowing water during times of the year when groundwater provides water for flow that is supplemented by rainfall; and
- Perennial waterbodies flow year-round under normal hydrologic conditions supplied by groundwater or upstream tributaries supplemented by precipitation.

Common information recorded for waterbodies and other waters includes type, flow, OHWM, observed water, bank slope, substrate, and quality. OHWM identification is determined in accordance with the USACE RGL (USACE, 2005) and the *Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States: A Delineation Manual* (Lichvar and McColley, 2008).

2.2.3 Mapping and Documentation

The ArcGIS Field Maps application is used to collect data in real time to map any identified features, collect photos, and/or data points during the survey. All features or points collected within the survey area are given a unique identifier. Paired with a Trimble R1 Receiver, this method typically has a post-processed sub-meter accuracy. Geographic information system (GIS) is used to calculate areas and generate site maps.

Each collected feature is given a unique identification. Identification convention starts with the feature type designated with a letter: “W” for wetland, “S” for waterbody, and “O” for open waterbody. The feature type is then followed by the county name abbreviation (HU), team letter, and an assigned sequential number. Individual data points are named in the field by denoting “WP” for wetland point and “UP” for “upland point” followed by an assigned number.

3. RESULTS

The field survey was conducted on October 6, 2022, and October 23 through 28, 2022. This section contains the results of the field investigation in the approximate 107-acre survey area. Section 1.2 details the results of the desktop assessment.

3.1 Wetlands

At the time of the field survey, two wetlands were identified within the survey area (**Figure 6, Appendix A**). The wetlands are summarized in Table 3-1. The wetland determination data forms are provided in **Appendix B**. Representative photographs are available in **Appendix C**.

Table 3-1: Identified Wetlands

Feature ID	Wetland Classification[1]	Location (Degree's latitude, degrees longitude)	Size (acres)	Located in 100-year floodplain	Potentially Jurisdictional
whua001	PEM/PSS	30.938194, -105.472750	0.59	Yes	Yes
whua002	PEM/PSS	30.934433, -105.471119	0.59	Yes	Yes
Total Wetlands			1.18	Yes	Yes

[1]Based on Cowardin et al. 1979; PEM = palustrine emergent, PSS= Palustrine scub-shrub

Wetland whua001 is a 0.6-acre wetland along an unnamed ephemeral stream in the northern portion of the site and wetland whua002 is a 0.6-acre wetland along another unnamed ephemeral stream in the southeastern portion of the survey area. The vegetation within both ephemeral stream beds is classified as palustrine emergent (PEM), however the bank vegetation falls under the palustrine scrub-shrub (PSS) classification. Although the dominant vegetation shifts between the bed and bank at both wetlands, the areas are considered one wetland given the proximity and hydrological connectivity.

All wetlands are located within floodplain Zone A, designated 100-year flood hazard. Wetland whua001 and whua002 are within ephemeral streams and flow directly into the Rio Grande river. Therefore, the wetlands within the survey area are considered potentially jurisdictional.

3.1.1 Vegetation

Wetlands whua001 and whua002 were dominated by knotgrass (*Paspalum distichum*, FACW) and common barnyard grass (*Echinochloa crus-galli*, FACW) in the stream bed and dominated by big saltbrush (*Atriplex lentiformis*, FACU) and saltcedar (*Tamarix chinensis*, FAC). Other common species observed in the wetlands include tumble windmill grass (*Chloris verticillata*, UPL), and willow baccharis (*Baccharis salicina*, FACW).

Upland areas were dominated by saltbrush and honey mesquite (*Prosopis glandulosa*, FACU). Other common upland vegetation identified includes saltcedar, creosotebush (*Larrea tridentata*, UPL), and curly dock (*Rumex crispus*, FAC).

3.1.2 Soils

Only one of the mapped soil series within the survey area is listed as hydric within Hudspeth County (see Section 1.2). Soils observed in wetland areas within the survey area typically developed under alternating aerobic-anaerobic conditions (i.e., wet/dry hydroperiod). The hydric soil indicator observed was depleted matrix (F3). Hydric soils consisted of loamy/clayey and sandy textures ranging in color from dark grayish brown (7.5 YR 4/2) to yellowish brown (10YR 5/3) with orangish brown (10YR 5/6) redoximorphic

features. Soils observed in uplands did not meet hydric soil indicators and consisted of loamy/clayey textures ranging in color from dark brown (10YR 4/4) to brownish gray (7.5YR 5/3).

3.1.3 Hydrology

As calculated in Section 1.2, the site had normal precipitation conditions at the time of the field survey. Hydrological indicators were observed within all wetlands. The primary indicator was surface water (A1) with a depth of 3 to 4 inches. The secondary indicators included drift deposits (B3), drainage patterns (B10), and FAC-neutral test (D5). No hydrologic indicators were observed or recorded within the uplands.

3.2 Other Waters of the U.S.

At the time of the field survey, five waterbodies were identified within the survey area (**Figure 6, Appendix B**). The waterbodies are summarized in Table 3-2. Representative photographs are available in **Appendix C**.

Table 3-2: Identified Waterbodies

Feature ID	Feature Type	Flow Regime	Location (Degree's latitude, degrees longitude)	OHWM (average feet)	Total length in Survey Area (LF[1])	Potentially Jurisdictional
shua001	River	Perennial	30.935315, -105.476582	25	2,660	Yes
shua002	Dry wash	Ephemeral	30.938674, -105.472376	25	403	Yes
shua003	Dry wash	Ephemeral	30.937864, -105.471561	75	550	Yes
shua004	Dry wash	Ephemeral	30.93595, -105.472848	5	1,560	Yes
shua005	Dry wash	Ephemeral	30.936649, -105.469157	20	2,576	Yes
Total Waterbodies					7,749	

[1]Linear feet

The Rio Grande river (shua001) is a known TNW. The mapped dry washes shua002, shua003, and shua004 are tributaries to the Rio Grande. Therefore, these waterbodies within the survey area are considered potentially jurisdictional. The dry wash shu005 drains into wetland whua002, as such it is considered to be potentially jurisdictional.

3.2.1 Waterbody Identification

The Rio Grande river (shua001) was a well-defined waterbody feature with 2,660 LF identified within the survey area. At the time of the survey, surface water was present and flowing in the Rio Grande river. The observed characteristics used to determine the Rio Grande river OHWM included natural line on bank, bed and banks, shelving, change in plant community, and deposition.

Five dry wash channels were well-defined waterbody features with a total of 5,089 LF identified within the site. At the time of the survey, surface water was not present in any of the dry wash channels. Observations of recent surface water flow, such as saturated soil, was present only in dry wash shua002. The characteristics used to determine the dry wash OHWM of low flow channels included clear natural scour line impressed on the bank, recent bank erosion destruction of native terrestrial vegetation, and change in sediment texture and/or size.

4. SUMMARY

On behalf of Saguaro, ERM completed a wetland and other WOTUS survey within an approximate 107-acre survey area located in Hudspeth County, Texas, U.S on October 6, 2022, and October 23 through 28, 2022. Two wetlands and five waterbodies were identified within the survey area. All 1.2 acres of wetland and 7,749 LF of waterbodies are considered potentially jurisdictional under Section 404 of the CWA.

The potential jurisdictional status is based on best professional judgment; only the USACE can make the final decision on jurisdictional determination.

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APPENDIX A FIGURES

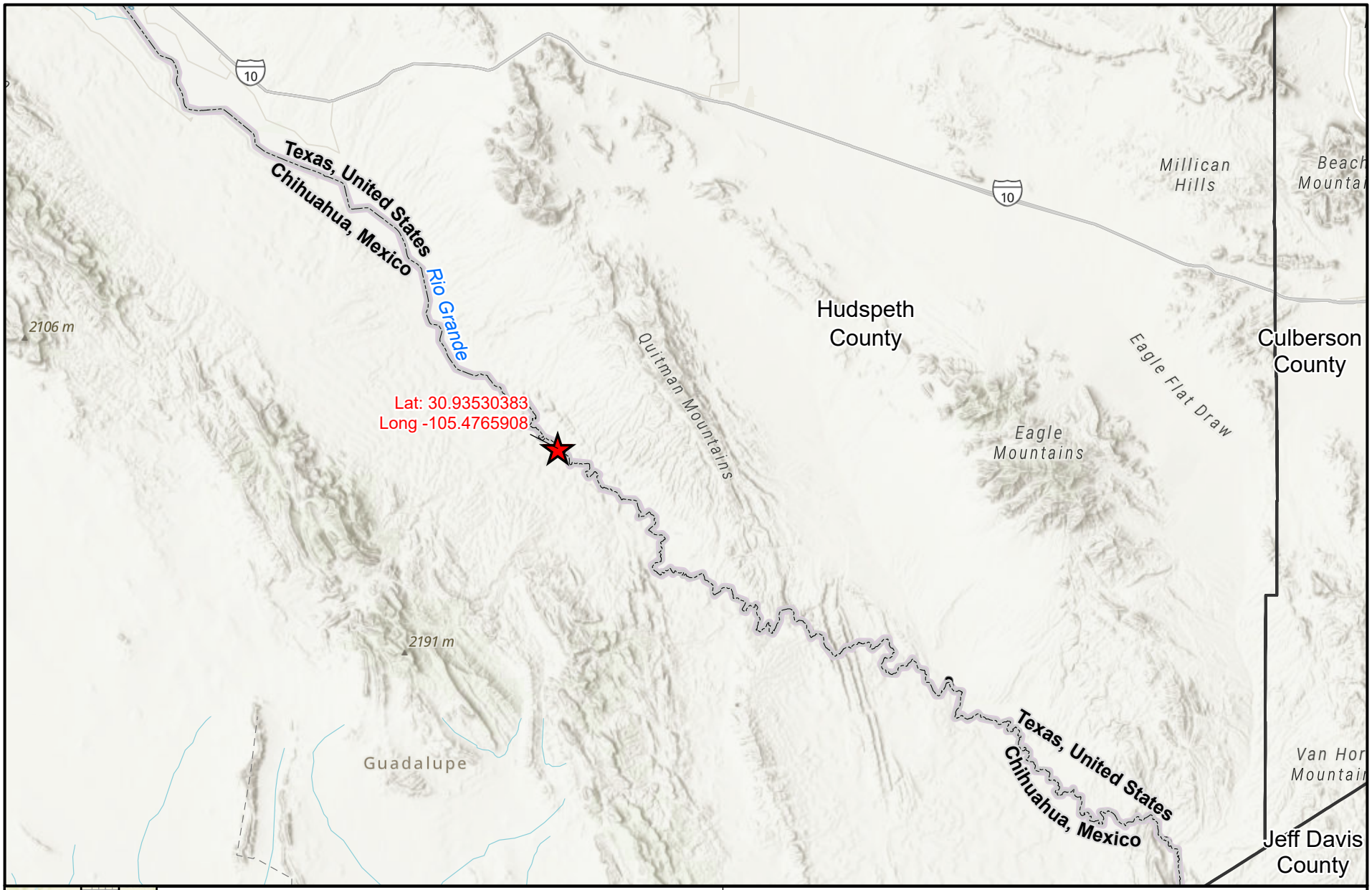
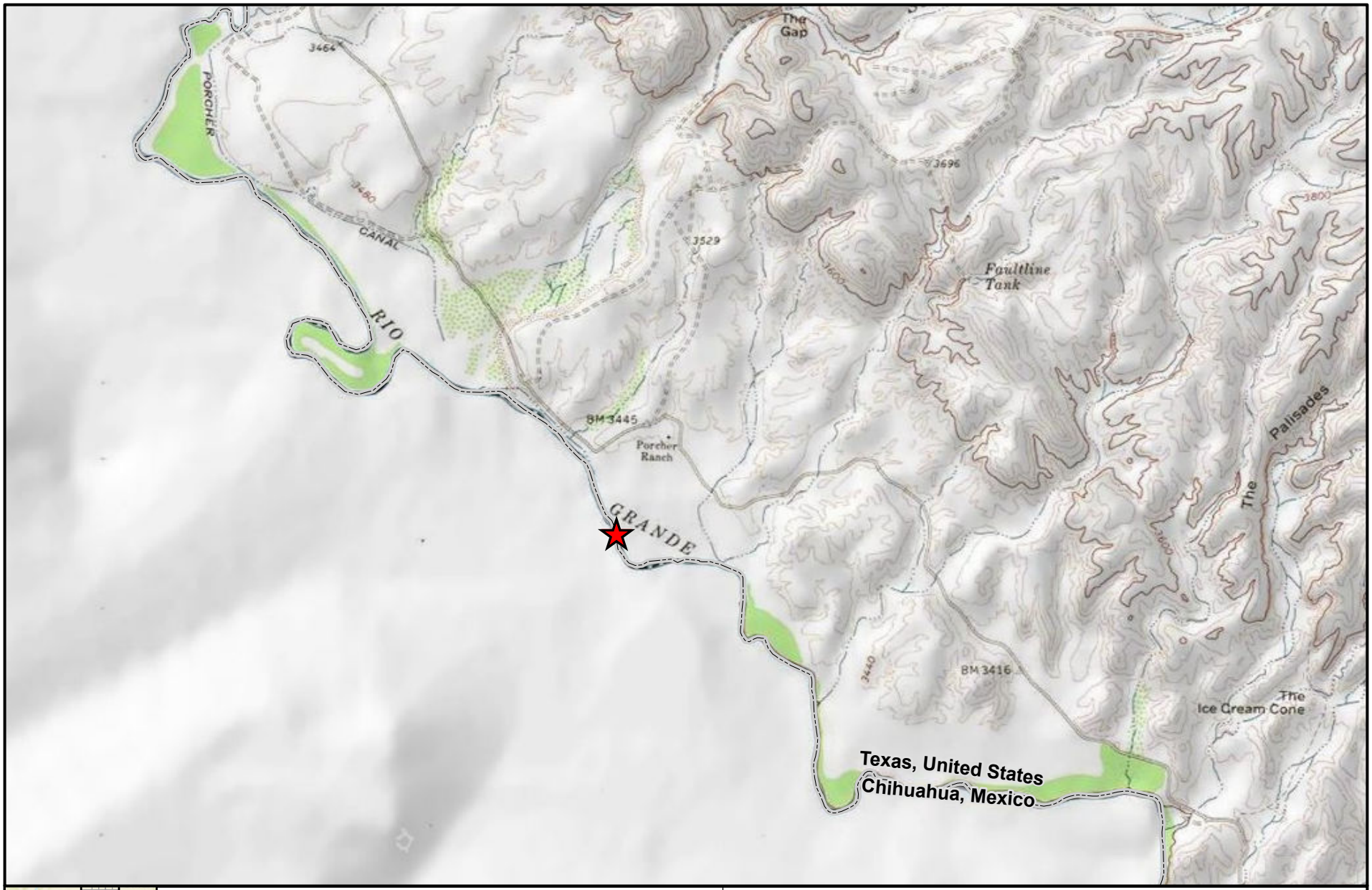


Figure 1
Vicinity Map and Project Location
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO
CONNECTOR PIPELINE

ERM

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Survey Area

International Boundary

Schroder Arroyo USGS 7.5 minute Quad

N

0 1,000 2,000 Feet

SAGUARO CONNECTOR PIPELINE

Figure 2
Topographic Map
Saguaro Connector Pipeline
Project Hudspeth County, Texas

ERM

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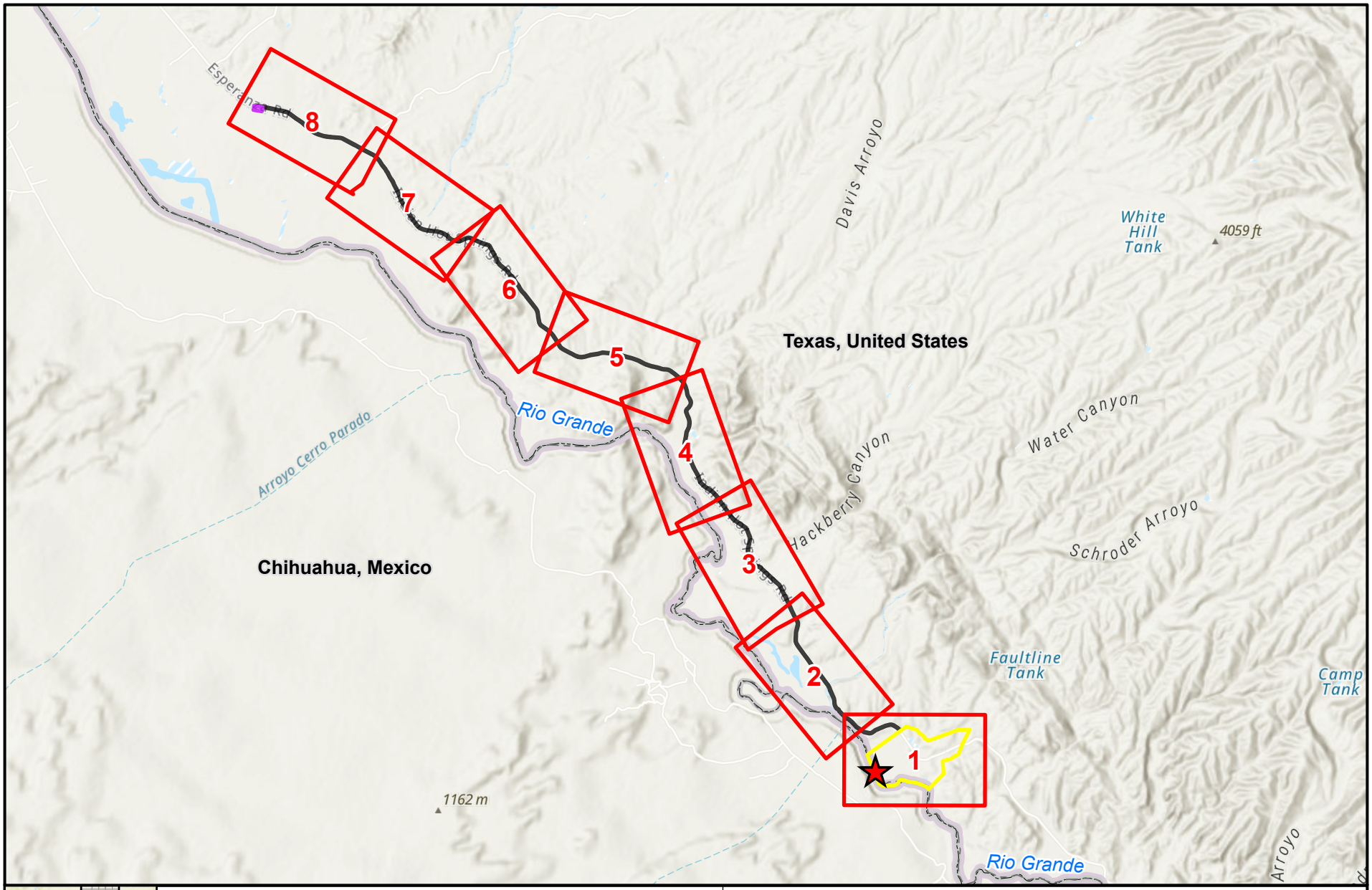
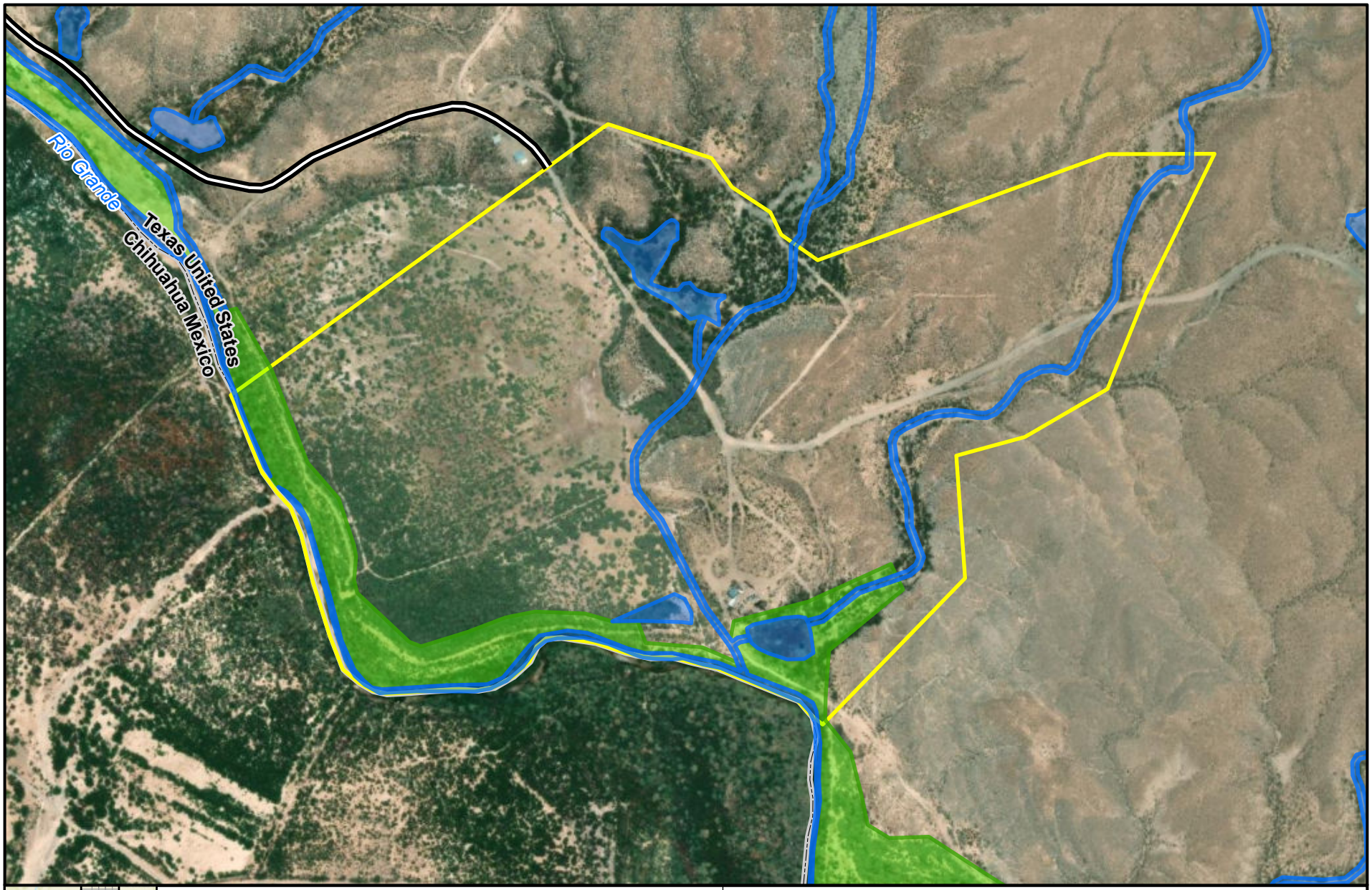


Figure 3
NHD and NWI Index
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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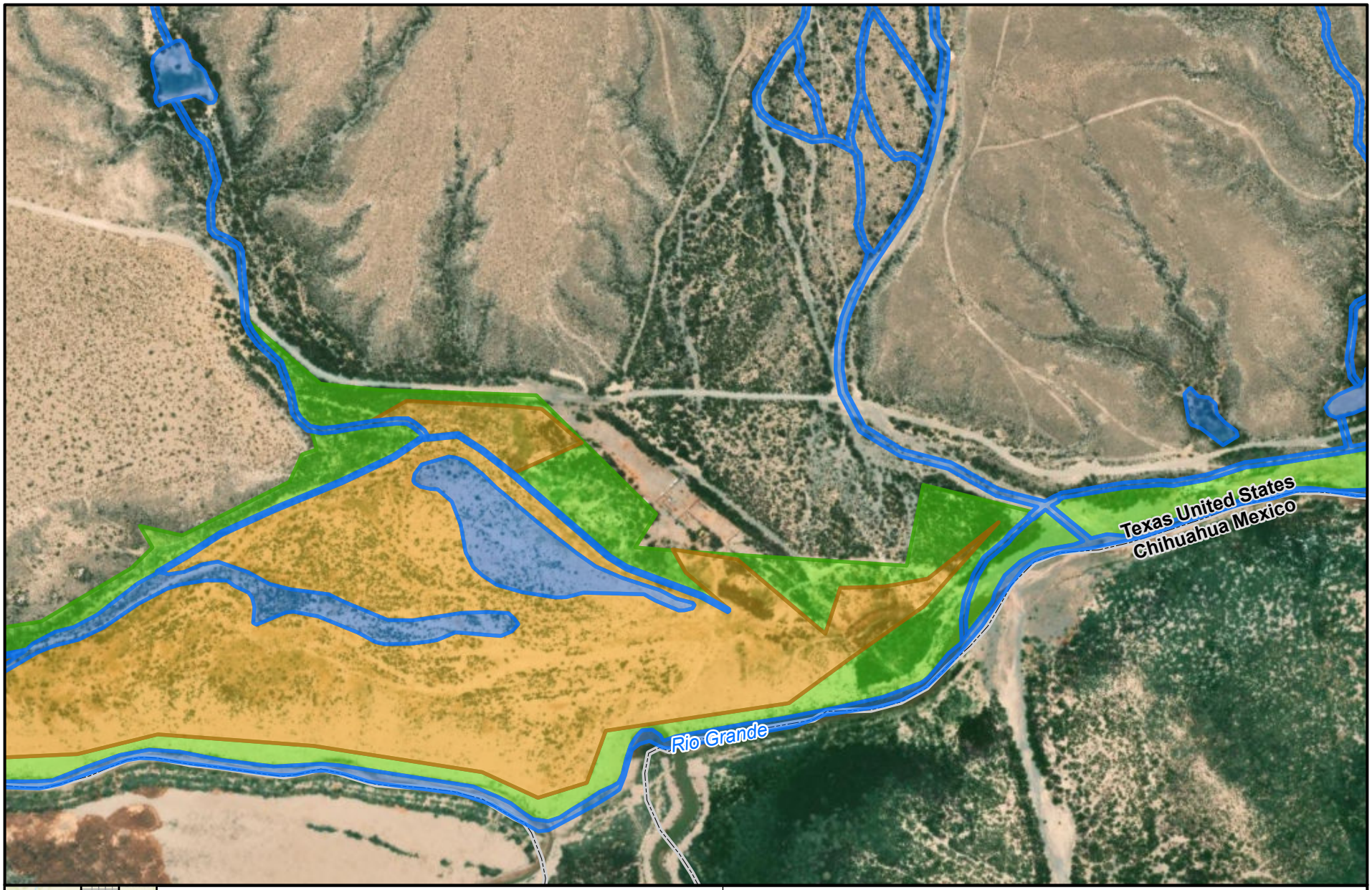


SAGUARO CONNECTOR PIPELINE

Figure 3
NHD and NWI Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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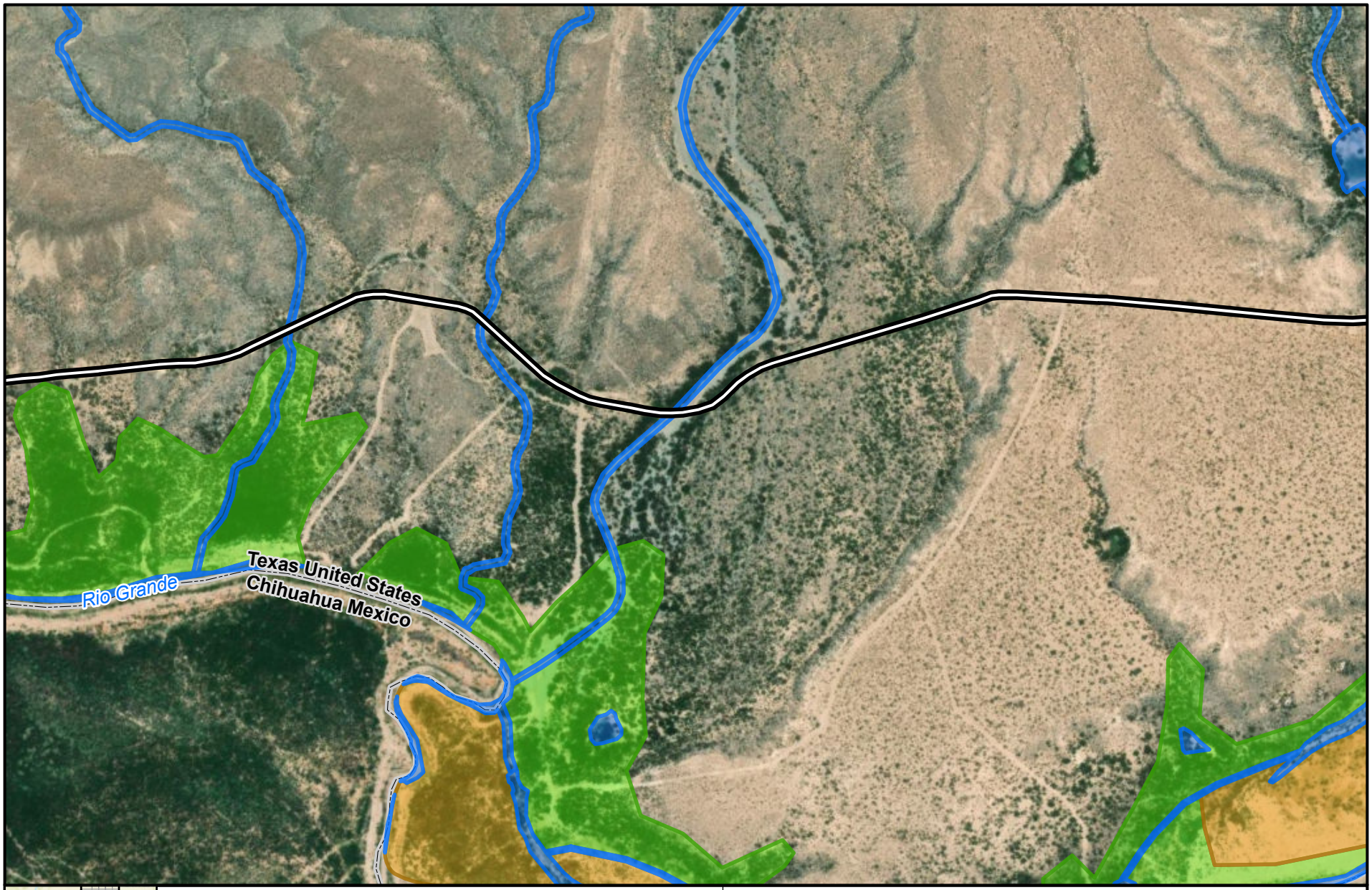


SAGUARO CONNECTOR PIPELINE

Figure 3
NHD and NWI Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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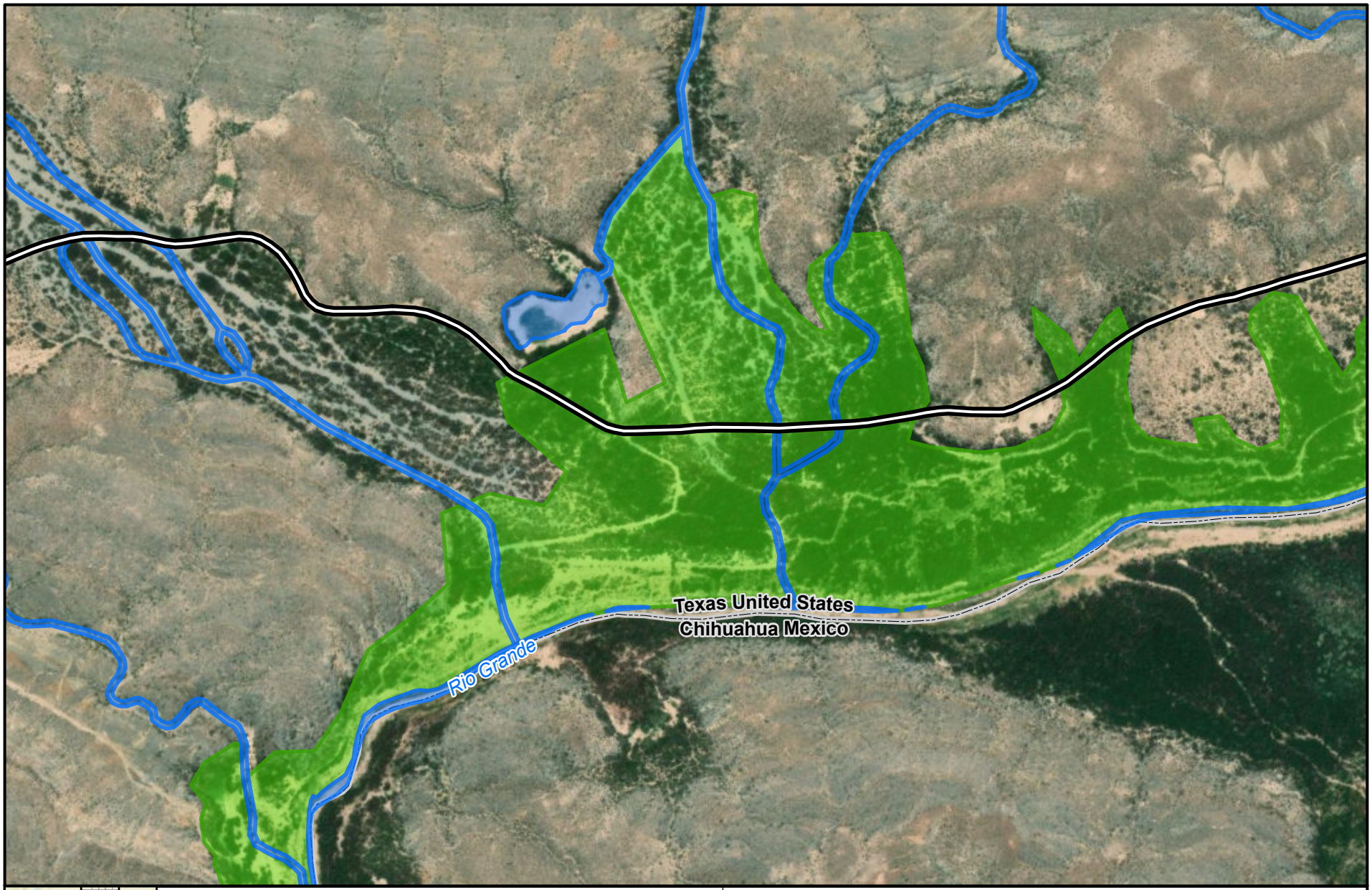


SAGUARO CONNECTOR PIPELINE

Figure 3
NHD and NWI Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

Figure 3
NHD and NWI Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO
CONNECTOR PIPELINE

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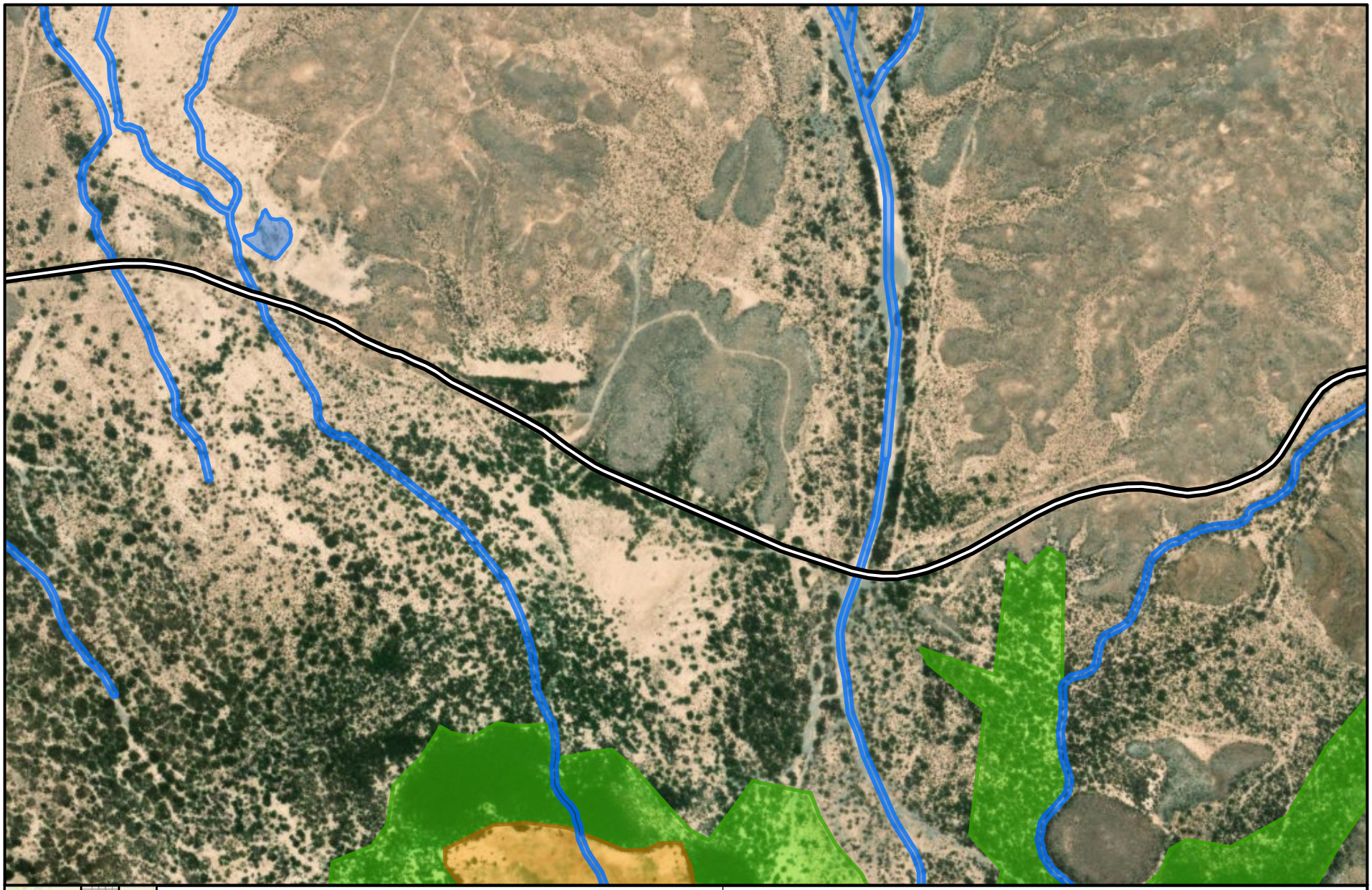


SAGUARO CONNECTOR PIPELINE

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NHD and NWI Map
Saguaro Connector Pipeline
Hudspeth County, Texas

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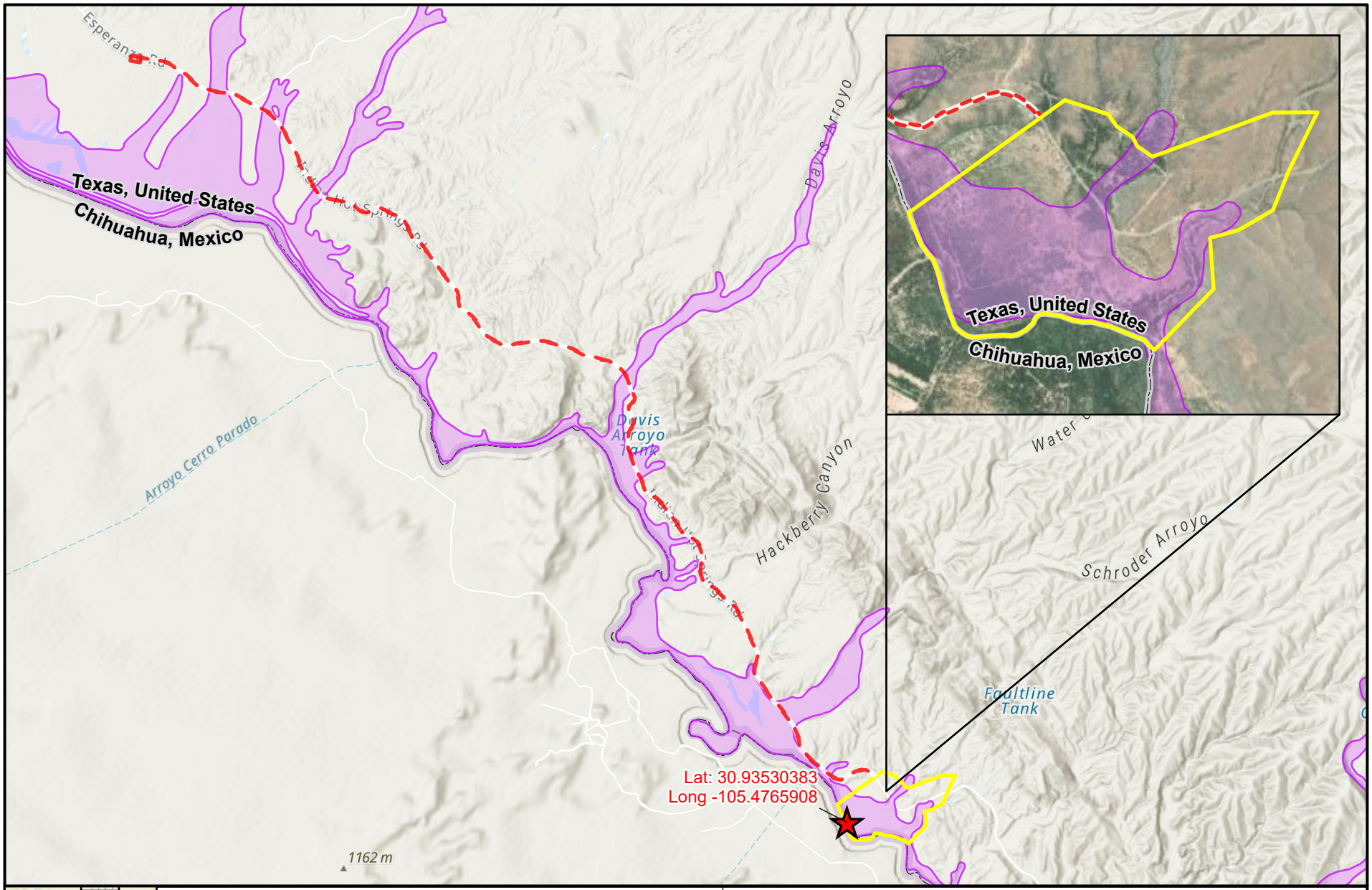
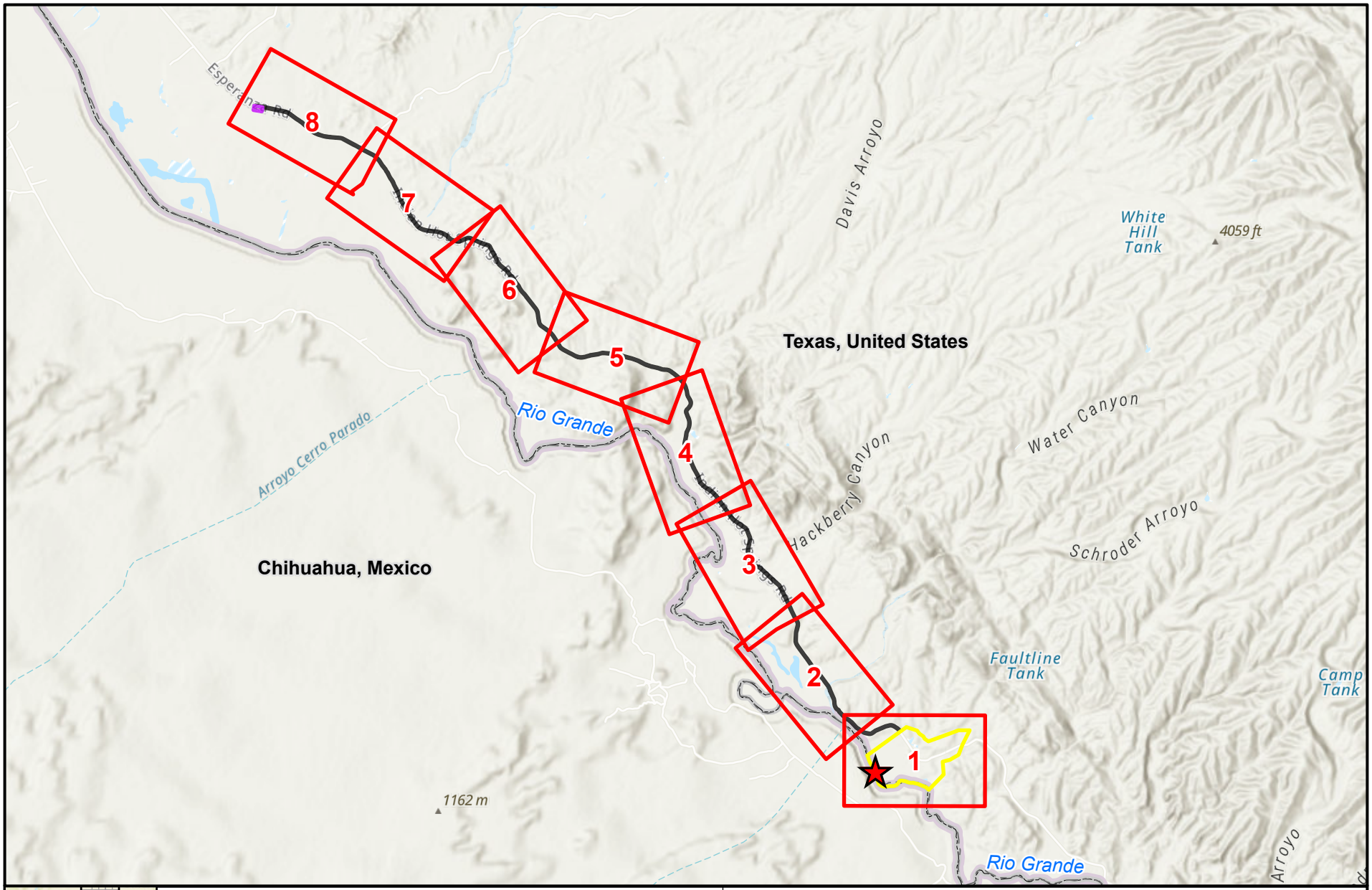


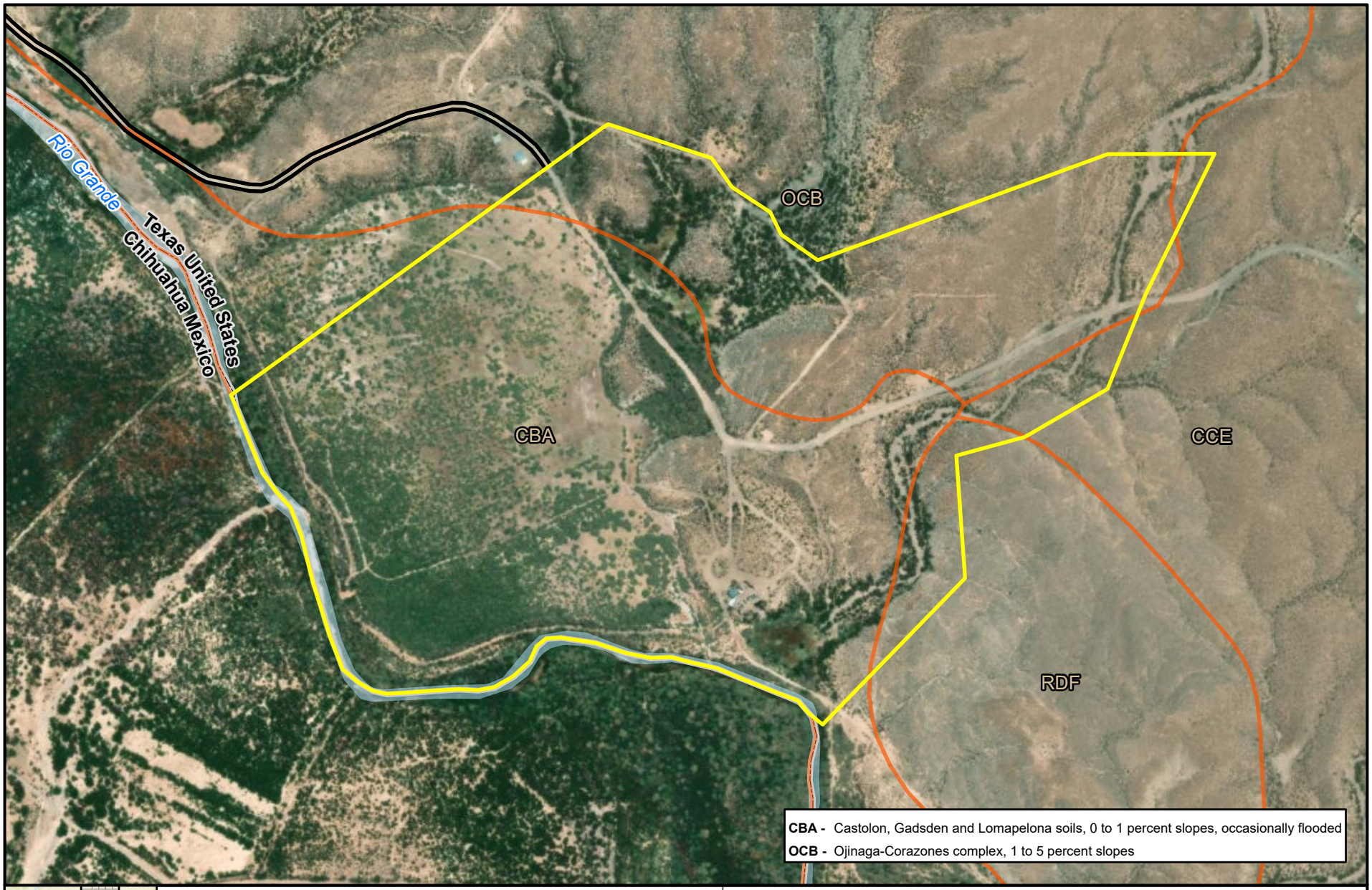
Figure 4
Floodplain Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

ERM

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8
7
6
5
4
3
2
1
Texas, United States
Chihuahua, Mexico
Rio Grande
Arroyo Cerro Parado
Davis Arroyo
White Hill Tank
4059 ft
Water Canyon
Hackberry Canyon
Schroder Arroyo
Faultline Tank
Camp Tank
1162 m
Rio Grande
Arroyo
New Mexico
Texas
Mexico
Border Crossing Facilities
Survey Area
Page Extent
Access Road
Additional Temporary Workspace
International Boundary
N
0
0.5
1
Miles
SAGUARO
CONNECTOR PIPELINE
Figure 5
Soils Index
Saguaro Connector Pipeline Project
Hudspeth County, Texas
ERM
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SAGUARO CONNECTOR PIPELINE

Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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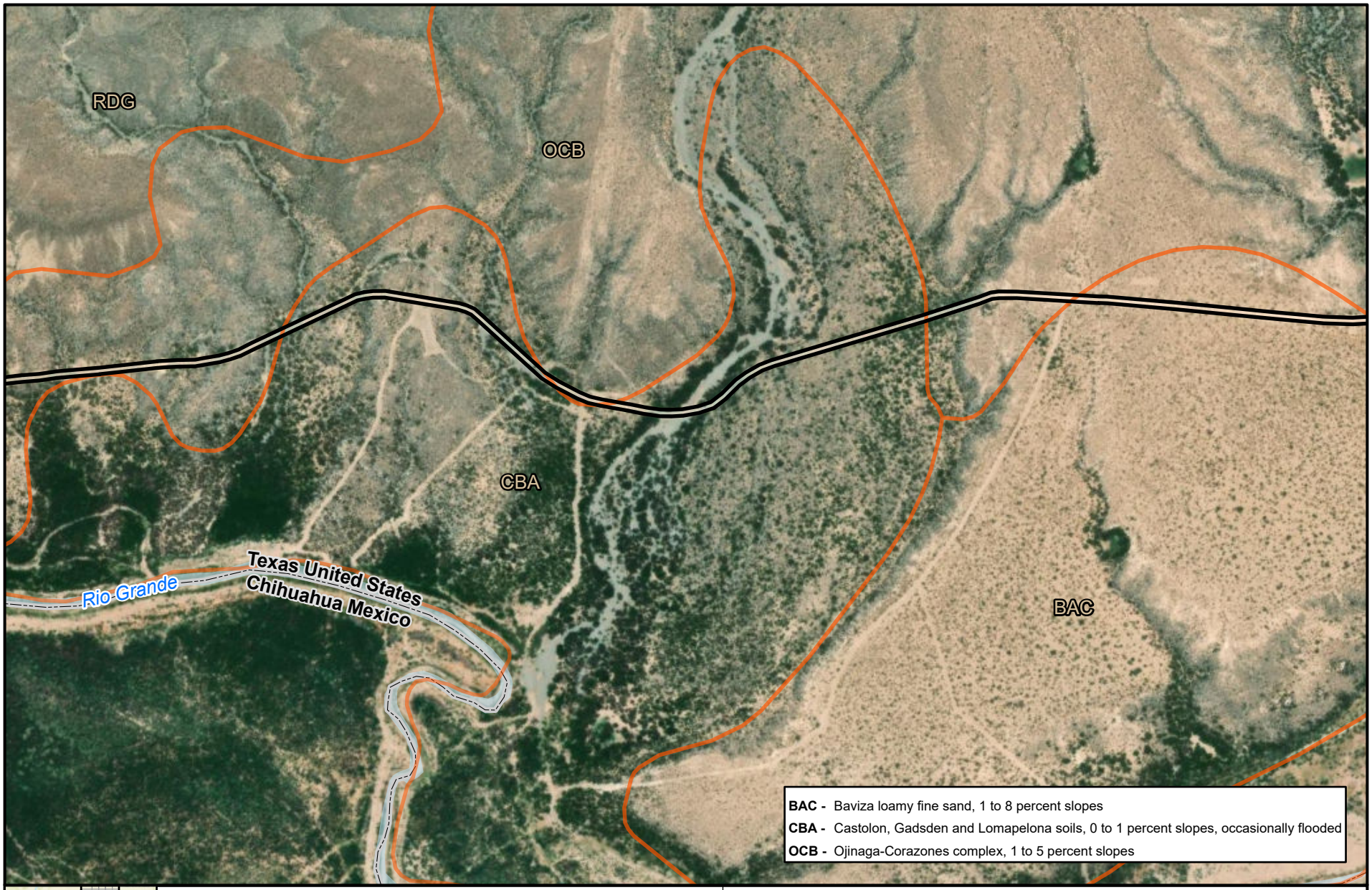
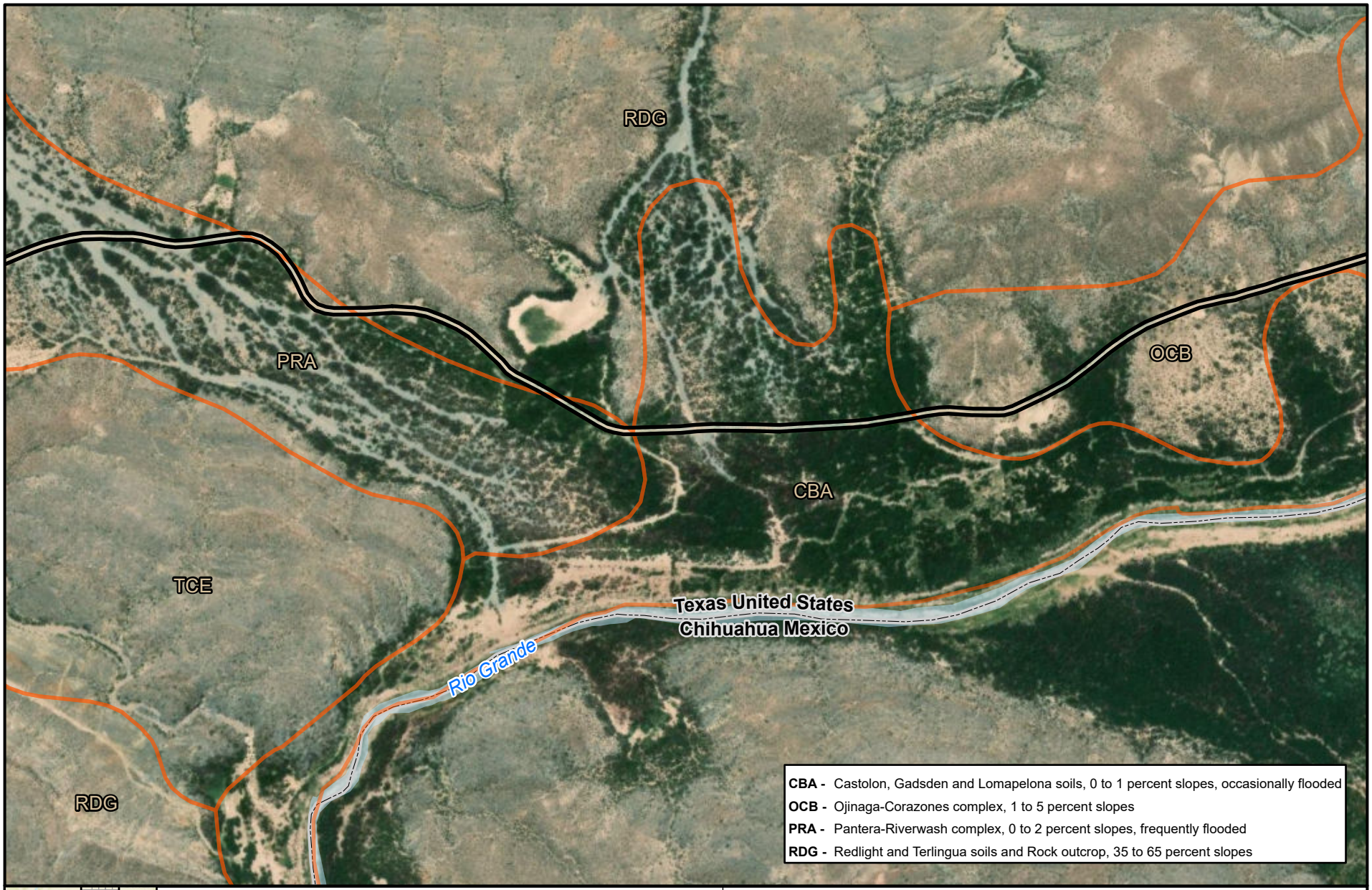


Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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SAGUARO CONNECTOR PIPELINE

Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

ERM

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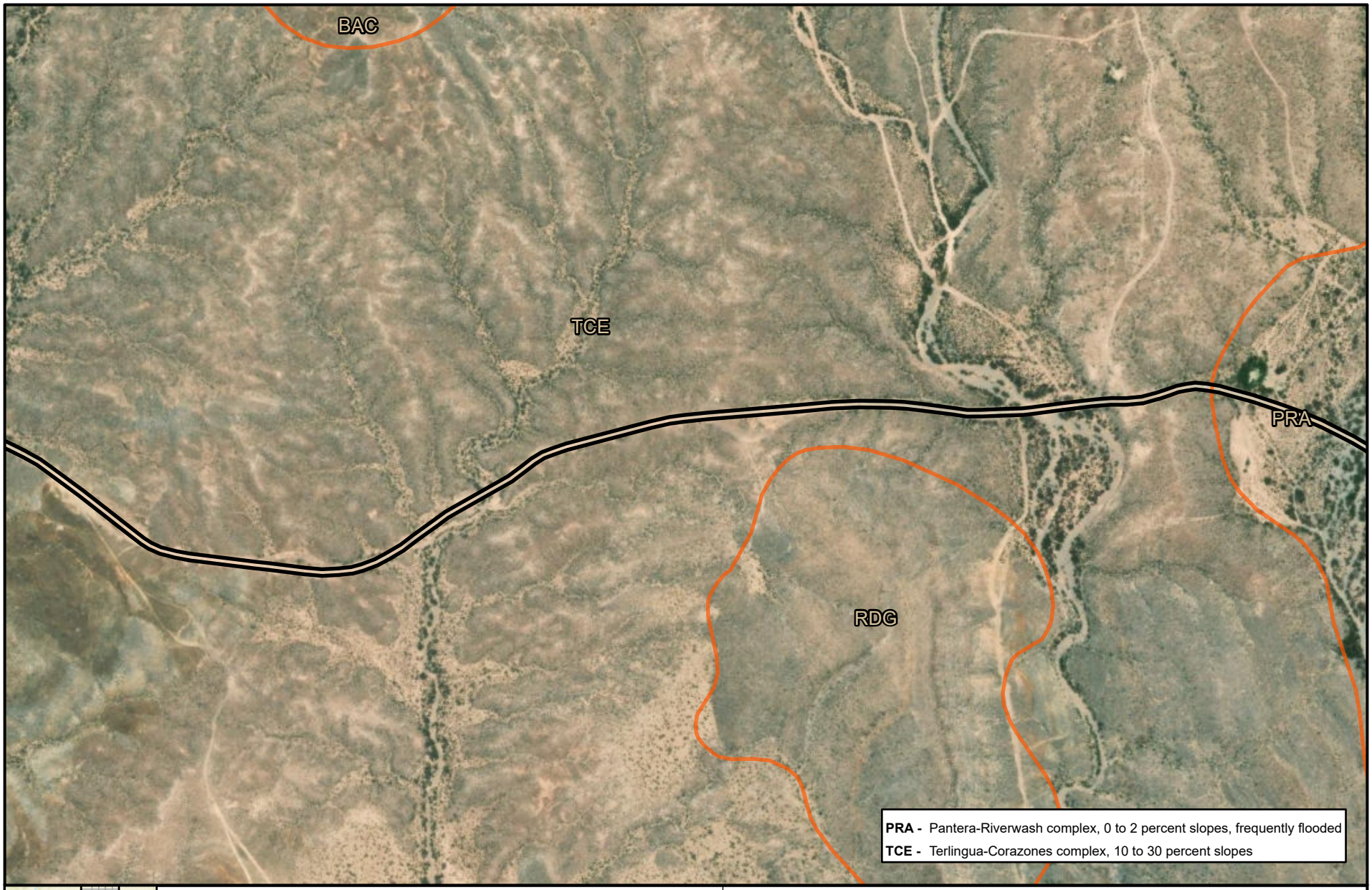


Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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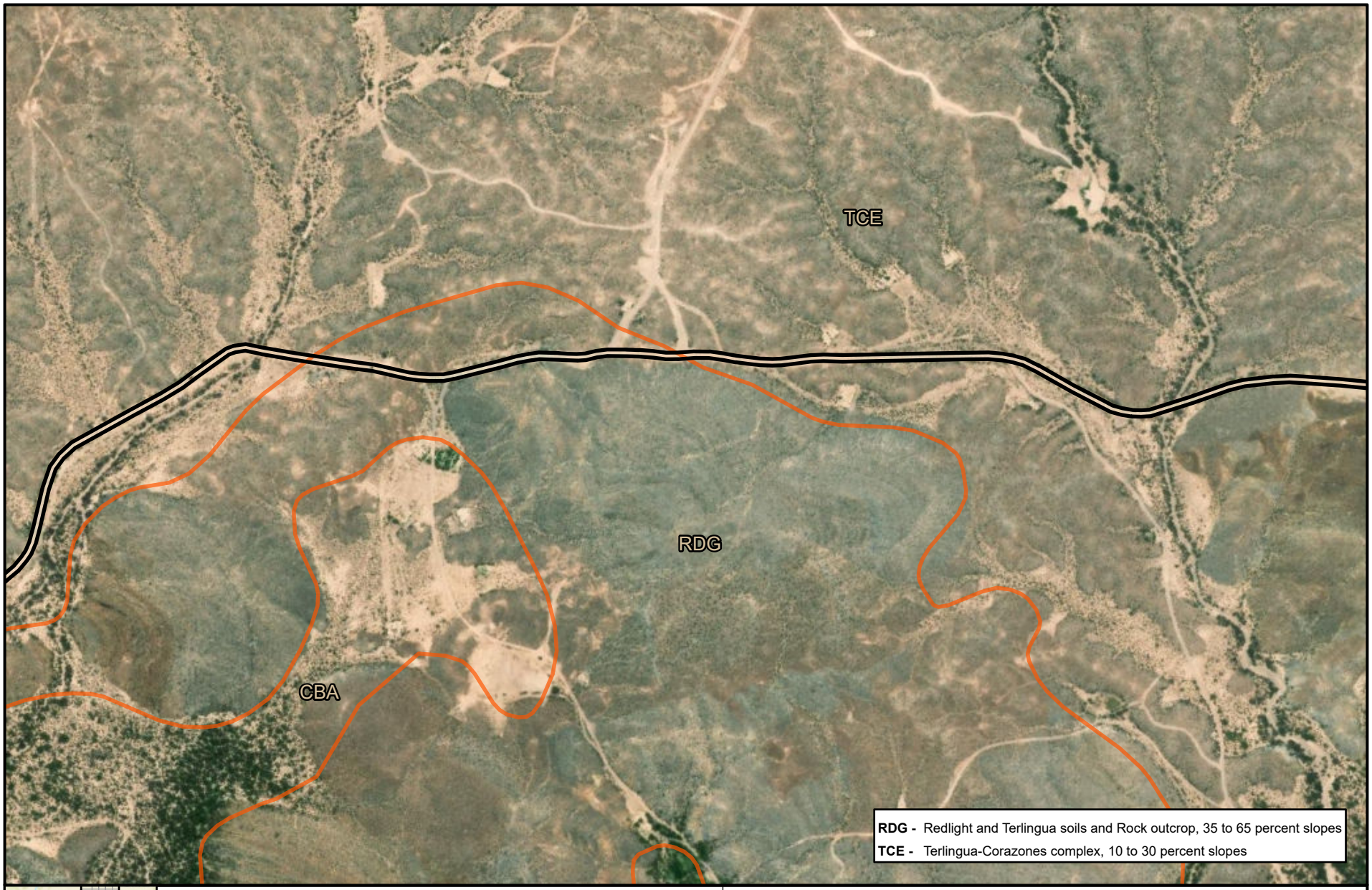
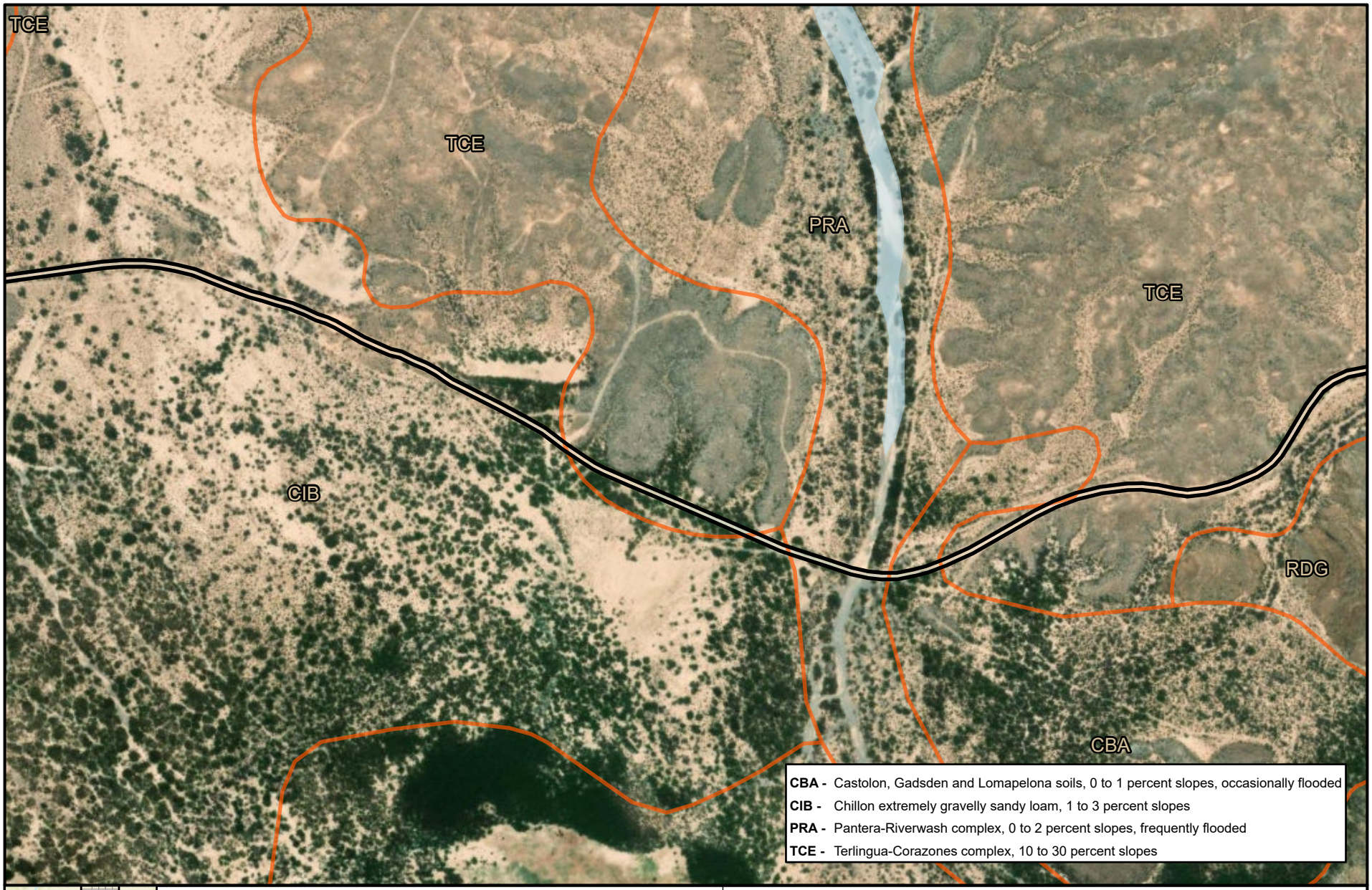


Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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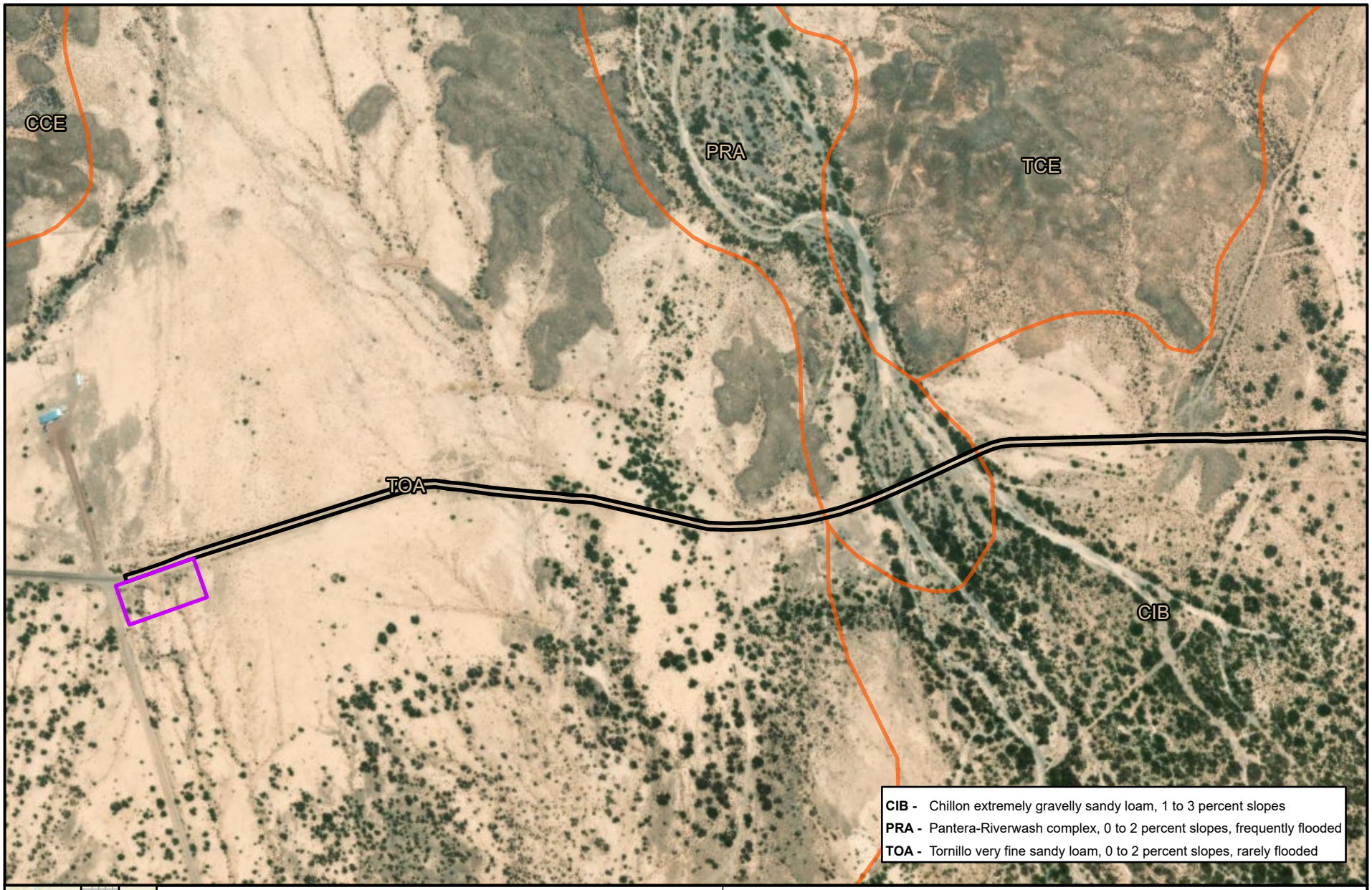


SAGUARO CONNECTOR PIPELINE

Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

ERM

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SAGUARO CONNECTOR PIPELINE

Figure 5
Soils
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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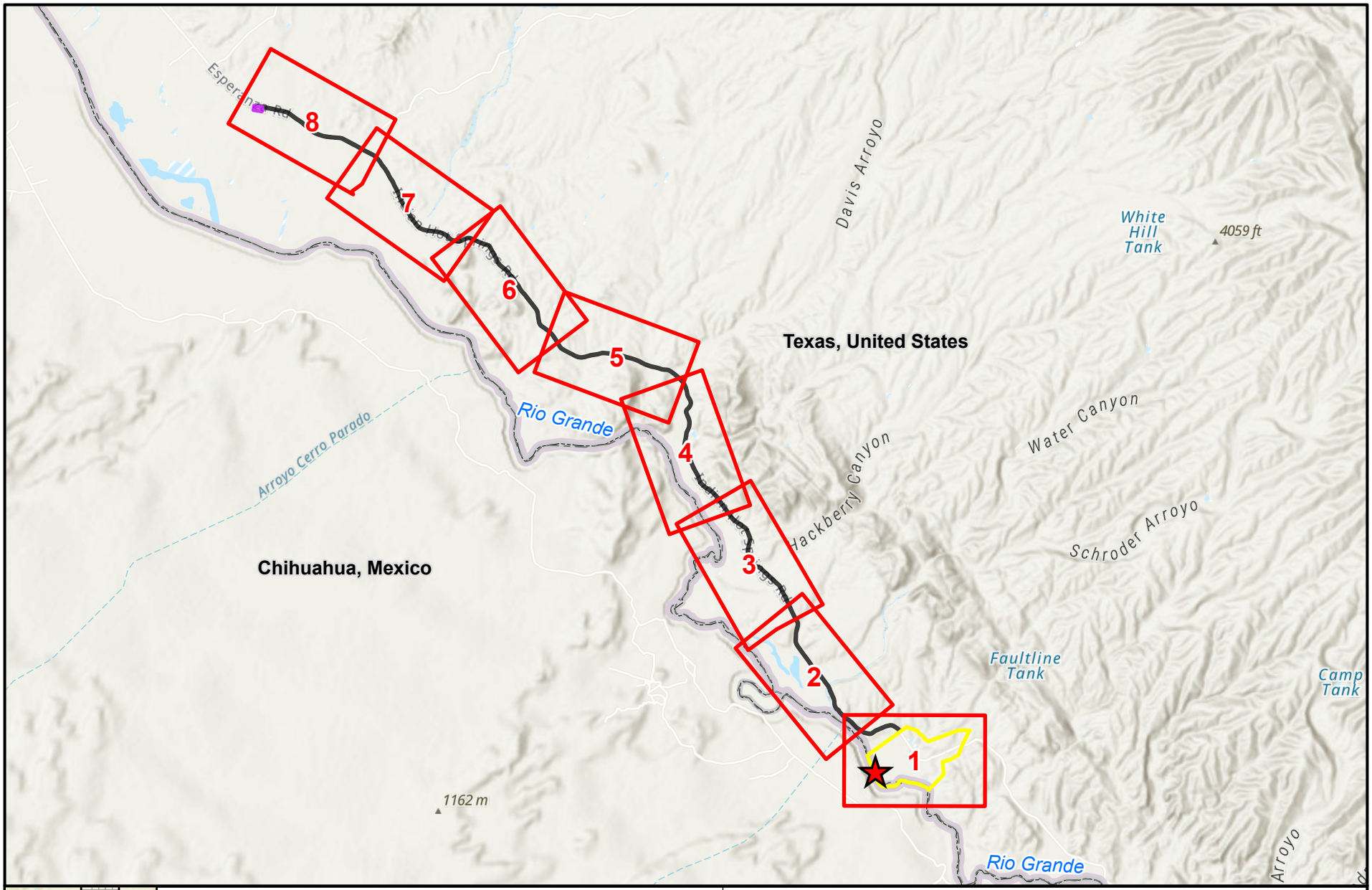
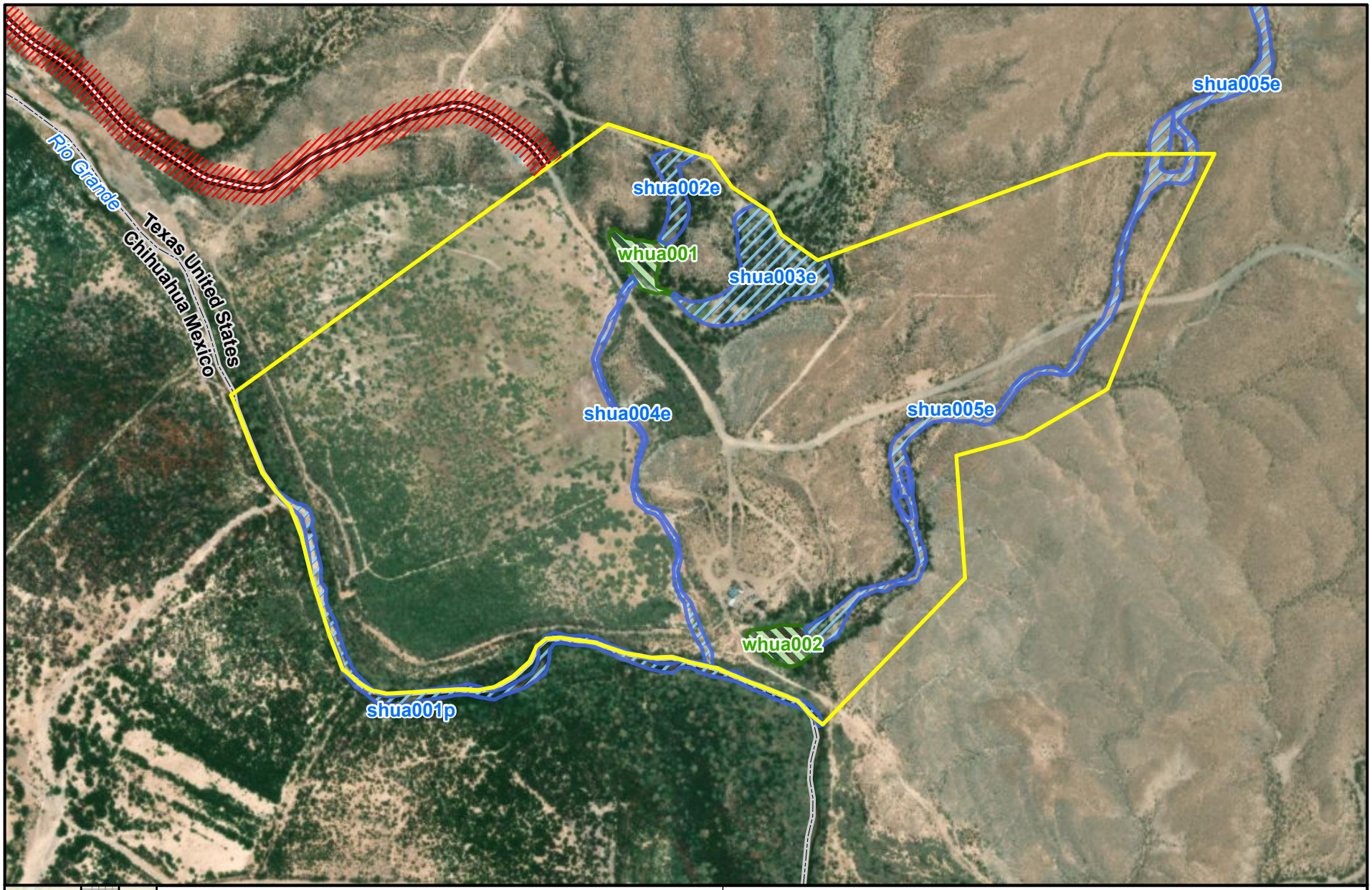


Figure 6
Field Data Index
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

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SAGUARO CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

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Saguaro Connector Pipeline Project
Hudspeth County, Texas

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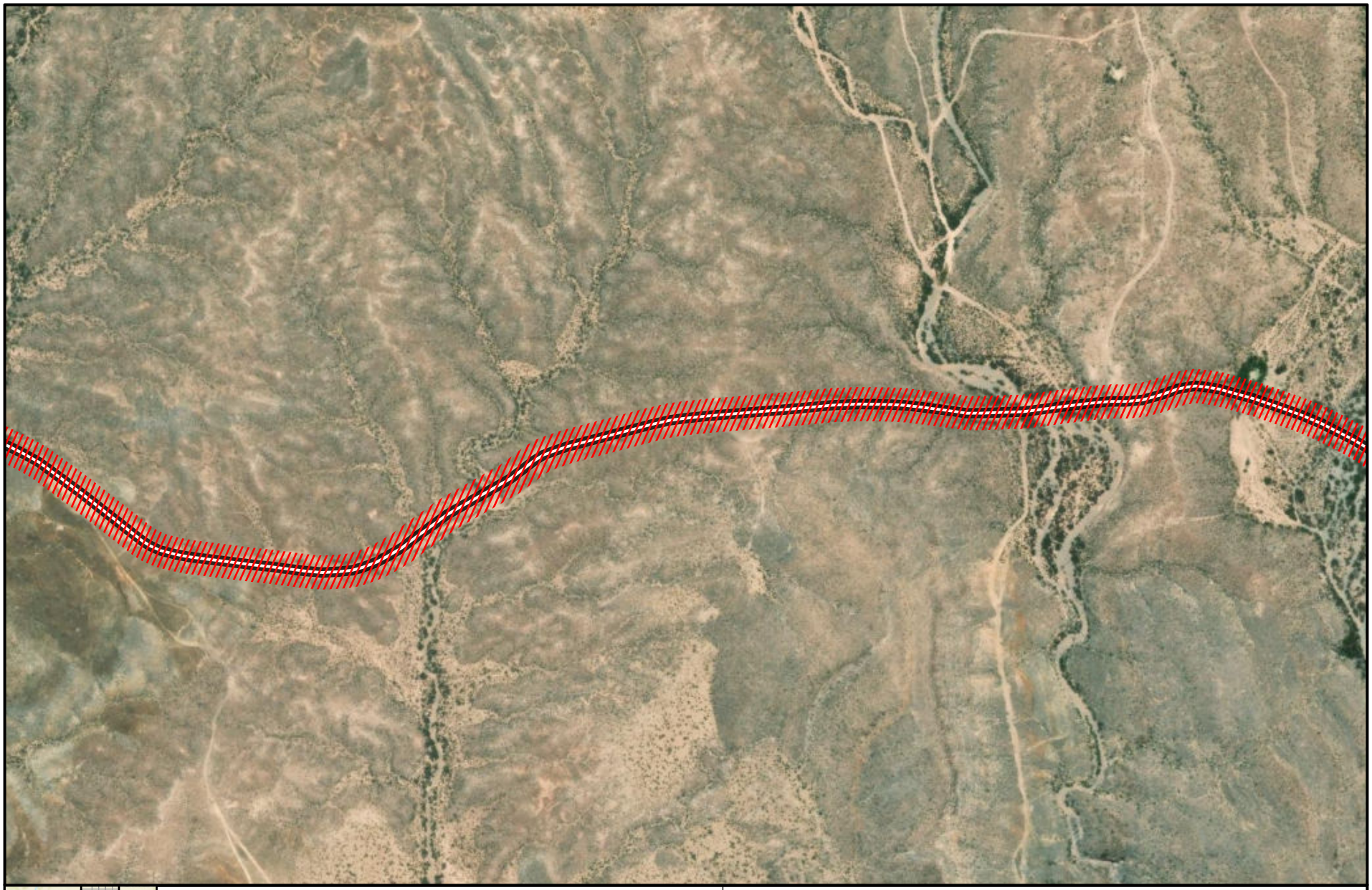


SAGUARO CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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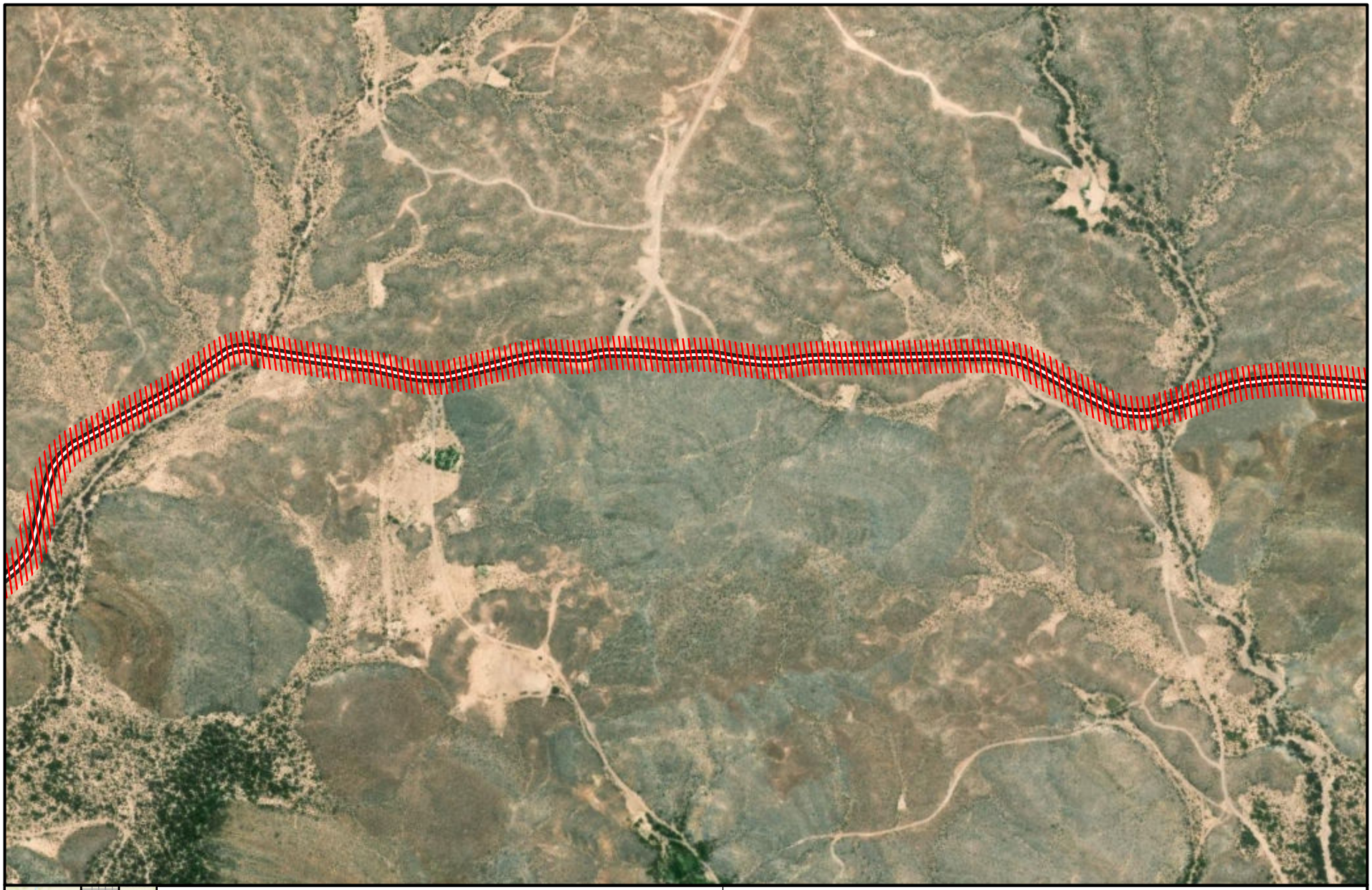


SAGUARO
CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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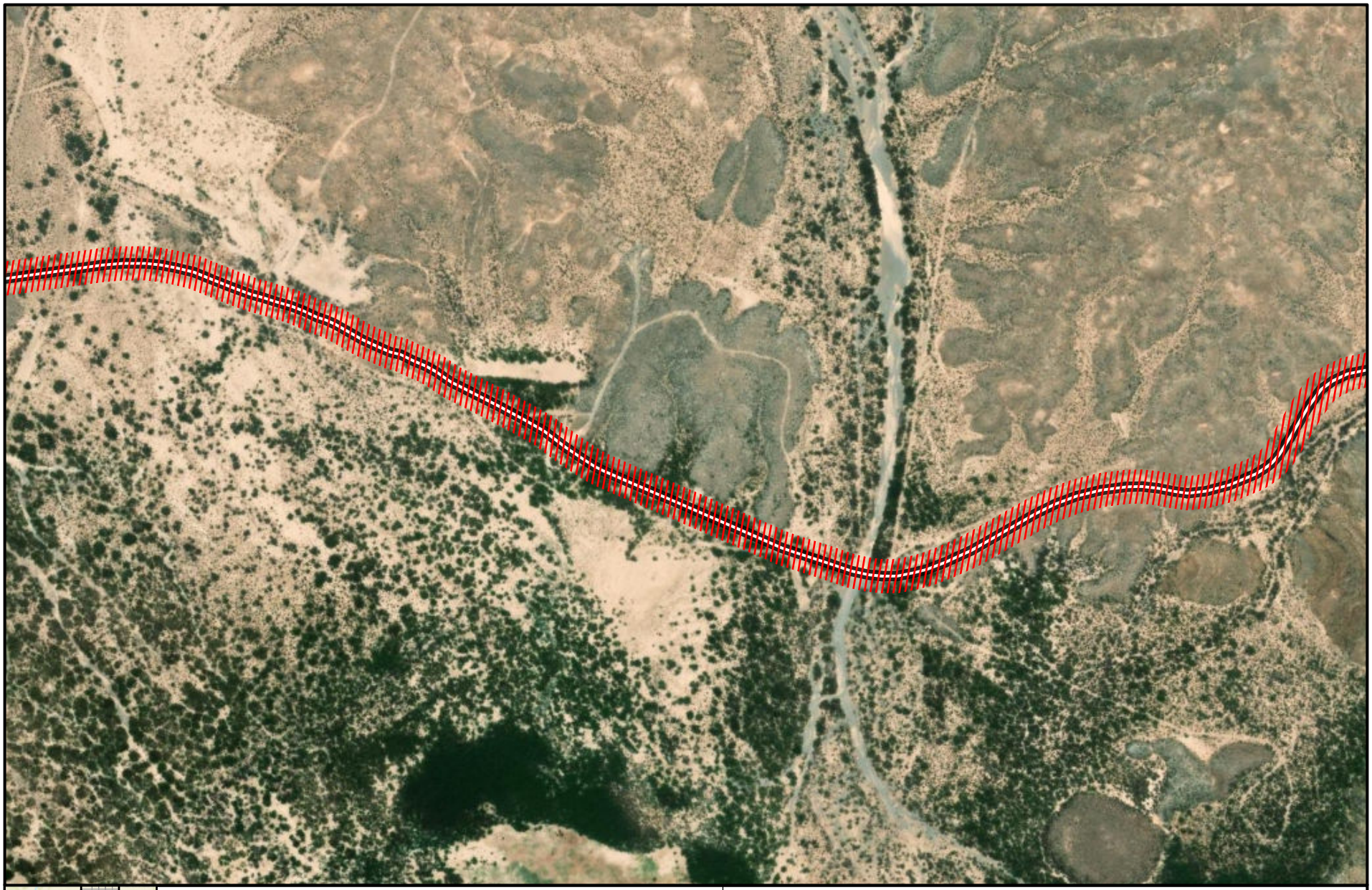


SAGUARO
CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO
CONNECTOR PIPELINE

Figure 6
Field Data Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

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SAGUARO CONNECTOR PIPELINE

Figure 6
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Saguaro Connector Pipeline Project
Hudspeth County, Texas

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APPENDIX B WETLAND DETERMINATION DATA FORMS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline | City/County: Hudspeth County | Sampling Date: 10/25/2022
Applicant/Owner: Saguaro Connector Pipeline, LLC | State: TX | Sampling Point: nohua001
Investigator(s): CM, KK | Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Toe Slope | Local relief (concave, convex, none): Concave | Slope (%): 2
Subregion (LRR): LRR D | Lat: 30.935382 | Long: -105.476259 | Datum: WGS 1984
Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded | NWI classification: PFOC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Upland point recorded at an NWI. The point is adjacent to the Rio Grande River west of a manmade berm. Historic imagery suggest this area was used for agriculture prior to the 1990s.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Atriplex lentiformis*	40	Yes	FACU
2. *Tamarix chinensis*	18	Yes	FAC
3.			
4.			
5.			
	58 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Rumex crispus*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	23	x 3 =	69
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	63 (A)		229 (B)
Prevalence Index = B/A =	3.63		

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: nohua001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 5/3	88	7.5YR 5/6	2	C	PL	Loamy/Clayey	Dsitinct redox concentrations, 7.5YR 3/1 at 10%
3-8	7.5YR 5/3	80	7.5YR 5/6	5	C	PL	Loamy/Clayey	Dsitinct redox concentrations, 7.5YR 5/2 at 25%
8-16	7.5YR 5/3	70	7.5YR 5/6	5	C	PL	Loamy/Clayey	Distinct redox concentrations, 7.5YR 5/2 at 25%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline | City/County: Hudspeth County | Sampling Date: 10/25/2022
Applicant/Owner: Saguaro Connector Pipeline, LLC | State: TX | Sampling Point: nohua002
Investigator(s): CM, KK | Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): 2
Subregion (LRR): LRR D | Lat: 30.935575 | Long: -105.475436 | Datum: WGS 1984
Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded | NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Upland point recorded at an NWI. The point is adjacent to the Rio Grande River east of a manmade berm. Historic imagery suggest this area was used for agriculture prior to the 1990s.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Atriplex lentiformis*	80	Yes	FACU
2. *Tamarix chinensis*	5	No	FAC
3.			
4.			
5.			
	85 =Total Cover		
Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	85 (A)		335 (B)
Prevalence Index = B/A =	3.94		

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: nohua002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 5/3	80	5YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations, 2.5YR 5/4 at 10%
6-18	7.5YR 5/3	75	7.5YR 5/8	10	C	PL	Loamy/Clayey	Prominent redox concentrations, 7.5YR 5/2 at 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline City/County: Hudspeth County Sampling Date: 10/25/2022

Applicant/Owner: Saguaro Connector Pipeline, LLC State: TX Sampling Point: whua001_u

Investigator(s): CM, KK Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Midslope Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR): LRR D Lat: 30.937859 Long: -105.472902 Datum: WGS 1984

Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Upland point taken on roadside berm.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Atriplex lentiformis*	35	Yes	FACU
2. *Prosopis glandulosa*	10	No	FACU
3. *Tamarix chinensis*	10	No	FAC
4.			
5.			
	55 =Total Cover		
Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	55 (A)		210 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: whua001_u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 10

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline | City/County: Hudspeth County | Sampling Date: 10/25/2022
Applicant/Owner: Saguaro Connector Pipeline, LLC | State: TX | Sampling Point: whua001e_w
Investigator(s): CM, KK | Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Midslope | Local relief (concave, convex, none): Concave | Slope (%): 2
Subregion (LRR): LRR D | Lat: 30.938101 | Long: -105.472897 | Datum: WGS 1984
Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded | NWI classification: PUBF
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
Wetland located in a depressional area where multiple ephemeral washes drain to. Indian Hot Springs road impounds this wetland area with manmade berms. During high precipitation events Indian Hot Springs road floods and forms a stream that flows South towards the Rio Grande river. Cattle disturbance present within wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Atriplex lentiformis*	10	Yes	FACU
2.			
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Paspalum distichum*	55	Yes	FACW
2. *Echinochloa crus-galli*	30	Yes	FACW
3. *Chloris verticillata*	10	No	UPL
4.			
5.			
6.			
7.			
8.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	10	x 5 =	50
Column Totals:	105 (A)		260 (B)

Prevalence Index = B/A = 2.48

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: whua001e_w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 4/2	60	7.5YR 5/6	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations, 7.5YR 5/2 at 30%
6-12	10YR 5/2	70	10YR 5/6	30	C	PL/M	Loamy/Clayey	Prominent redox concentrations
12-16	10YR 5/3	90	10YR 4/6	10	C	PL/M	Sandy	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	X	No		Depth (inches): 4
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline | City/County: Hudspeth County | Sampling Date: 10/25/2022
Applicant/Owner: Saguaro Connector Pipeline, LLC | State: TX | Sampling Point: whua002_u
Investigator(s): CM, KK | Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Midslope | Local relief (concave, convex, none): Convex | Slope (%): 2
Subregion (LRR): LRR D | Lat: 30.934552 | Long: -105.471594 | Datum: WGS 1984
Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded | NWI classification: PFOC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Atriplex lentiformis*	35	Yes	FACU
2. *Prosopis glandulosa*	20	Yes	FACU
3. *Larrea tridentata*	10	No	UPL
4.			
5.			
	65 =Total Cover		
Herb Stratum (Plot size: 5)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	10	x 5 =	50
Column Totals:	65 (A)		270 (B)

Prevalence Index = B/A = 4.15

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

SOIL

Sampling Point: whua002_u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 5/3	40					Loamy/Clayey	10YR 4/4 at 40%, 10YR 4/3 at 20%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 10

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Saguaro Connector Pipeline | City/County: Hudspeth County | Sampling Date: 10/25/2022
Applicant/Owner: Saguaro Connector Pipeline, LLC | State: TX | Sampling Point: whua002e_w
Investigator(s): CM, KK | Section, Township, Range: N/A
Landform (hillside, terrace, etc.): Midslope | Local relief (concave, convex, none): Concave | Slope (%): 3
Subregion (LRR): LRR D | Lat: 30.934463 | Long: -105.471449 | Datum: WGS 1984
Soil Map Unit Name: CBA—Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded | NWI classification: PUBF
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetland located in a depressional area where an ephemeral wash drains to. Wetland area impounded by an unimproved road to the south. Cattle disturbance present within wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Tamarix chinensis*	8	Yes	FAC
2. *Atriplex lentiformis*	2	Yes	FACU
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Echinochloa crus-galli*	30	Yes	FACW
2. *Paspalum distichum*	30	Yes	FACW
3. *Baccharis salicina*	15	No	FACW
4. *Chloris verticillata*	5	No	UPL
5.			
6.			
7.			
8.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	8	x 3 =	24
FACU species	2	x 4 =	8
UPL species	5	x 5 =	25
Column Totals:	90 (A)		207 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: whua002e_w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/2	80	10YR 5/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- X Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	X	No		Depth (inches): 3
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

APPENDIX C PHOTOGRAPH LOG

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
North

Description:
nohua001



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
South

Description:
wlaa001e_w



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
East

Description:
nohua002



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
west

Description:
nohua002



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
Northwest

Description:
whua001e_w



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
Southeast

Description:
whua001e_w



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
Northwest

Description:
whua001_u



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
Southeast

Description:
whua001_u



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
East

Description:
whua002e_w



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
South

Description:
whua002e_w



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
North

Description:
whua002_u



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
South

Description:
whua002_u



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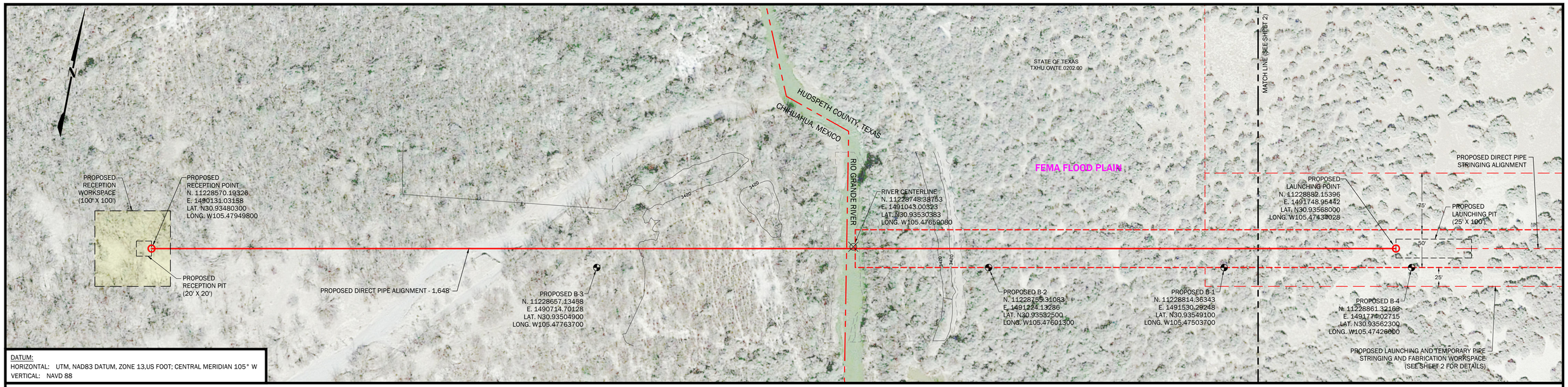
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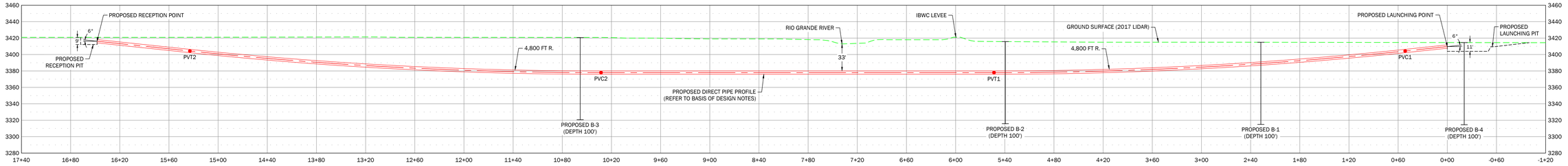
APPENDIX 2C RIO GRANDE RIVER SITE-SPECIFIC CROSSING PLAN



DATUM:
HORIZONTAL: UTM, NAD83 DATUM, ZONE 13,US FOOT; CENTRAL MERIDIAN 105° W
VERTICAL: NAVD 88

NOTE: THIS IS A FULL SIZE DRAWING THAT IS INTENDED TO BE PRINTED ON A 24" X 36" SHEET OF PAPER.

PLAN
60 0 60
SCALE IN FEET



PROFILE
60 0 60
HORIZONTAL SCALE IN FEET
60 0 60
VERTICAL SCALE IN FEET

DIRECT DRILL DATA RIO GRANDE DIRECT PIPE		
DESCRIPTION	STATION (FT)	ELEVATION (FT)
LAUNCHING @ 6°	0+00.00	3409.70
PVC1 (6.00° @ 4,800 FT R.)	0+51.42	3404.29
PVT1	5+53.16	3378.00
PVC2 (6.00° @ 4,800 FT R.)	10+32.72	3378.00
PVT2	15+34.45	3404.29
RECEPTION @ 6°	16+47.72	3416.20
HORIZONTAL DISTANCE = 1,647.72 FT		
DIRECT DRILL PIPE LENGTH = 1,650.47 FT		

DIRECT DRILL PIPE SEGMENTS RIO GRANDE DIRECT PIPE		
SEGEMENT NAME	TYPE	LENGTH (FT)
LAUNCHING TANGENT	STRAIGHT	51.70
LAUNCHING CURVE	VERTICAL CURVE	502.65
BOTTOMTANGENT	STRAIGHT	479.56
RECPTION CURVE	VERTICAL CURVE	502.65
RECEPTION TANGENT	STRAIGHT	113.89

LEGEND

PROPOSED BORING PROFILE

PROPOSED BORING LOCATION
PROPOSED DIRECT PIPE ALIGNMENT
PROPOSED DIRECT PIPE PROFILE
PERMANENT ROW
TEMPORARY WORKSPACE
ADDITIONAL TEMPORARY WORKSPACE
ADDITIONAL TEMPORARY WORKSPACE (MEXICO)
FEMA FLOOD INSURANCE RATE MAP BOUNDARY
MAJOR CONTOUR - 10' INTERVAL
MINOR CONTOUR - 2' INTERVAL

BASIS OF DESIGN:

1. CARRIER PIPE WILL CONSIST OF 48" O.D. X 0.875" W.T., CS, STD, GRADE X-70 HFW, TRL, PEB, API-5L 45TH ED., PSL 2, 14-16 MILS FBE COATED, 30-40 MILS ARO COATED STEEL PIPE.
2. THE MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP) = 1,480 PSIG.
3. THE PIPE/AMBIENT TEMPERATURE MUST BE NO LESS THAN 40° FAHRENHEIT DURING TIE-IN WITHOUT PRIOR APPROVAL FROM COMPANY.

ISSUED FOR PERMIT

SAGUARO
CONNECTOR PIPELINE

REFERENCES	
DRAWING NUMBER	REFERENCE DRAWING TITLE
OWT_RIO_GRANDE_HDD	DP DESIGN
HDD_ROW_BASE	ROW

REVISIONS						
NO.	DESCRIPTION	DRAWN	DESIGN	CHK'D	APP'D	DATE
A	CONCEPTUAL: NOT FOR CONSTRUCTION	BTL	JLR			10/10/22
B	CONCEPTUAL: NOT FOR CONSTRUCTION	BTL	JLR			10/19/22
C	ISSUED FOR PERMIT: NOT FOR CONSTRUCTION	BTL	JLR	JLR	CGM	12/09/22
D	ISSUED FOR PERMIT: NOT FOR CONSTRUCTION	BTL	JLR	JLR	CGM	12/13/22
E	ISSUED FOR PERMIT: NOT FOR CONSTRUCTION	BTL	JLR	JLR	CGM	12/14/22

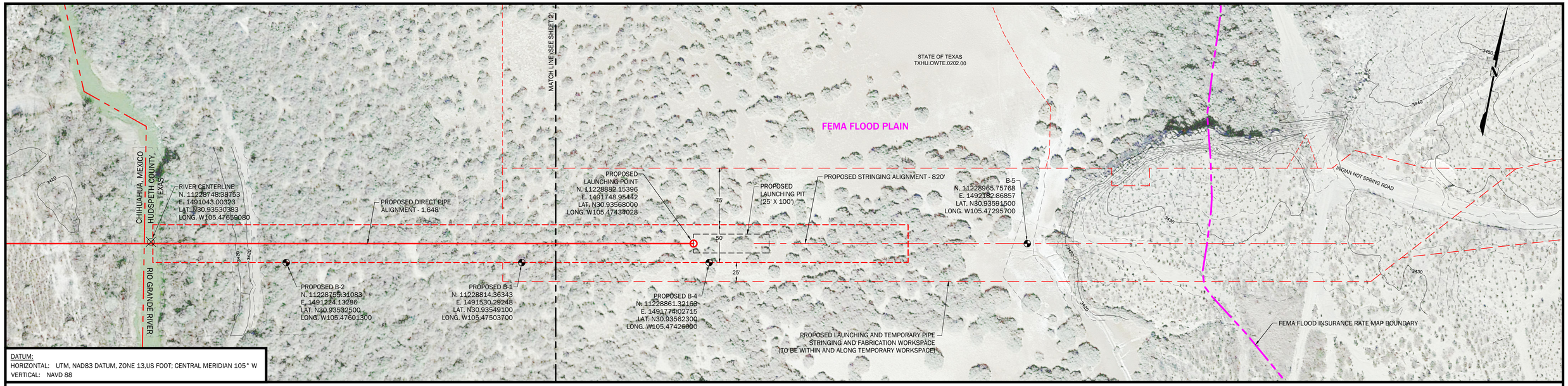
STATE OF TEXAS
CHRISTOPHER G. MILLS
121043
LICENSED PROFESSIONAL ENGINEER
12-14-22
GEOENGINEERS, INC. F-8780

GEOENGINEERS
2155-A West Chesterfield Blvd
Springfield, MO 65807
Telephone (417) 831-9700
Fax (417) 831-9777

SAGUARO CONNECTOR PIPELINE, LLC
SAGUARO CONNECTOR PIPELINE PROJECT
RIO GRANDE DIRECT PIPE
PLAN AND PROFILE
HUDSPETH COUNTY, TEXAS & CHIHUAHUA, MEXICO

Project No. 22072-006-00
Drawing No.
Sheet 1 of 2

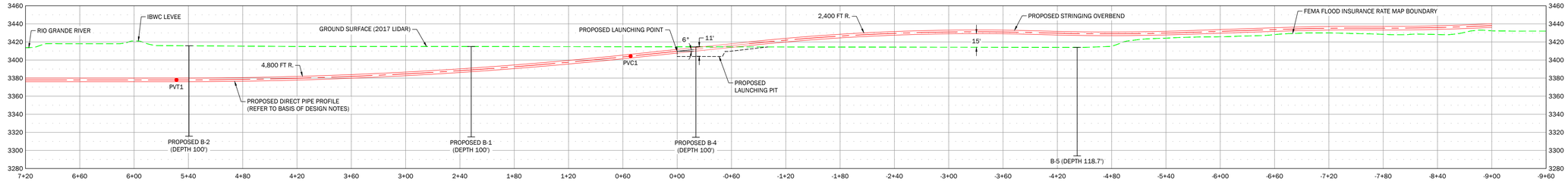
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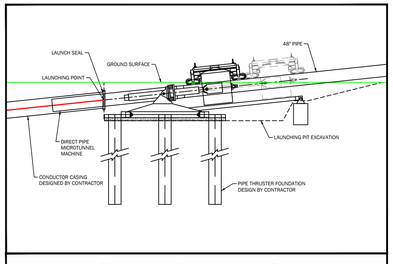
DATUM:
HORIZONTAL: UTM, NAD83 DATUM, ZONE 13,US FOOT; CENTRAL MERIDIAN 105° W
VERTICAL: NAVD 88

NOTE: THIS IS A FULL SIZE DRAWING THAT IS INTENDED TO BE PRINTED ON A 24" X 36" SHEET OF PAPER.

PLAN
60 0 60
SCALE IN FEET



PROFILE
60 0 60
HORIZONTAL SCALE IN FEET
60 0 60
VERTICAL SCALE IN FEET



DIRECT PIPE THRUSTER AND LAUNCH DETAIL
NOT TO SCALE

LEGEND

- PROPOSED BORING PROFILE
- PROPOSED BORING LOCATION
- PROPOSED DIRECT PIPE ALIGNMENT
- PROPOSED DIRECT PIPE PROFILE
- PERMANENT ROW
- TEMPORARY WORKSPACE
- ADDITIONAL TEMPORARY WORKSPACE
- FEMA FLOOD INSURANCE RATE MAP BOUNDARY
- MAJOR CONTOUR - 10' INTERVAL
- MINOR CONTOUR - 2' INTERVAL

ISSUED FOR PERMIT

SAGUARO
CONNECTOR PIPELINE

CONTRACTOR NOTES:

1. ALL EQUIPMENT MUST ACCESS THE SITE ALONG THE CONSTRUCTION RIGHT-OF-WAY OR FROM APPROVED ACCESS ROADS.

REFERENCES:

1. AERIAL IMAGE TAKEN FROM GOOGLE EARTH PRO © 2022, LICENSED TO GEOENGINEERS, INC., IMAGE DATED 01/12/20.
2. GROUND SURFACE 2017 LIDAR AND SURVEY DATA PROVIDED BY BY ONEOK BY EMAIL ON SEPTEMBER 28, 2020.

REFERENCES	
DRAWING NUMBER	REFERENCE DRAWING TITLE
OWT_RIO_GRANDE_HDD	DP DESIGN
HDD_ROW_BASE	ROW

REVISIONS						
NO.	DESCRIPTION	DRAWN	DESIGN	CHK'D	APP'D	DATE
A	CONCEPTUAL: NOT FOR CONSTRUCTION	BTL	JLR			10/10/22
B	CONCEPTUAL: NOT FOR CONSTRUCTION	BTL	JLR			10/19/22
C	ISSUED FOR PERMIT: NOT FOR CONSTRUCTION	BTL	JLR	JLR	CGM	12/09/22
D	ISSUED FOR PERMIT: NOT FOR CONSTRUCTION	BTL	JLR	JLR	CGM	12/13/22
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RIO GRANDE DIRECT PIPE
STRINGING WORKSPACE - PLAN AND PROFILE
HUDSPETH COUNTY, TEXAS & CHIHUAHUA, MEXICO

Project No. 22072-006-00
Drawing No.
Sheet 2 of 2

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SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 3
Fish, Wildlife, and Vegetation

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 3—FISH, WILDLIFE, AND VEGETATION

Minimum Filing Requirements for Environmental Reports:	Addressed In:
1. Describe commercial and recreational warmwater, coldwater, and saltwater fisheries in the affected area and associated significant habitats such as spawning or rearing areas and estuaries —Title 18 of the Code of Federal Regulations (CFR) Part (§) 380.12(e)(1).	Section 3.1
2. Describe terrestrial habitats, including wetlands, typical wildlife habitats, and rare, unique, or otherwise significant habitats that might be affected by the proposed action. Describe typical species that have commercial, recreational, or aesthetic value —18 CFR § 380.12(e)(2).	Section 3.2
3. Describe and provide the acreage of vegetation cover types that would be affected, including unique ecosystems or communities such as remnant prairie or old-growth forest, or significant individual plants, such as old-growth specimen trees —18 CFR § 380.12(e)(3).	Sections 3.2.1 and 3.2.2
4. Describe the impact of construction and operation on aquatic and terrestrial species and their habitats, including the possibility of a major alteration to ecosystems or biodiversity, and any potential impact on state-listed endangered or threatened species. Describe the impact of maintenance, clearing and treatment of the project area on fish, wildlife, and vegetation. Surveys may be required to determine specific areas of significant habitats or communities of species of special concern to state or local agencies —18 CFR § 380.12(e)(4).	Sections 3.1.4 and 3.2.4
5. Identify all federally listed or proposed endangered or threatened species and critical habitat that potentially occur in the vicinity of the project. Discuss the results of the consultation requirements listed in § 380.13(b) at least through § 380.13(b)(5)(i) and include any written correspondence that resulted from the consultation. The initial application must include the results of any required surveys unless seasonal considerations make this impractical. If species surveys are impractical, there must be field surveys to determine the presence of suitable habitat unless the entire project area is suitable habitat —18 CFR § 380.12(e)(5).	Section 3.3
6. Identify all federally listed essential fish habitat that potentially occurs in the vicinity of the project. Provide information on all essential fish habitats, as identified by the pertinent Federal fishery management plans, that may be adversely affected by the project and the results of abbreviated consultations with the National Marine Fisheries Service, and any resulting essential fish habitat assessments —18 CFR § 380.12(e)(6).	Section 3.1.2
7. Describe site-specific mitigation measures to minimize impacts on fisheries, wildlife, and vegetation —18 CFR § 380.12(e)(7).	Sections 3.1.4, 3.2.4, and 3.4.1
8. Include copies of correspondence not provided pursuant to paragraph (e)(5) of this section, containing recommendations from appropriate Federal and state fish and wildlife agencies to avoid or limit impact on wildlife, fisheries, and vegetation, and the applicant's response to the recommendations —18 CFR § 380.12(e)(8).	Appendix 3A

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 3—FISH, WILDLIFE, AND VEGETATION

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APPENDICES

Appendix 3A Agency Correspondence

ACRONYMS AND ABBREVIATIONS

ATWS	additional temporary workspace
BCC	Birds of Conservation Concern
Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
FERC	Federal Energy Regulatory Commission
FERC Plan	FERC's *Erosion Control, Revegetation, and Maintenance Plan*
FERC Procedures	FERC's *Wetland and Waterbody Construction and Mitigation Procedures*
MBTA	Migratory Bird Treaty Act
Mexico	Estados Unidos Mexicanos (United Mexican States)
NWI	National Wetlands Inventory
Project	Saguaro Connector Pipeline Project (siting, construction, connection operation and maintenance of the Border Facilities)
ROW	Right-of-Way
Saguaro	Saguaro Connector Pipeline, L.L.C.
SPCC	Spill Prevention, Containment, and Countermeasure
TPWD	Texas Parks and Wildlife Department
U.S.	United States
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

3.0 RESOURCE REPORT 3—FISH, WILDLIFE, AND VEGETATION

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

In accordance with Title 18 of the Code of Federal Regulations Part 380.12(e), Resource Report 3 provides information regarding fisheries, wildlife, and vegetation that may be within the Project workspace. Desktop studies and field surveys were conducted to identify vegetation and wildlife resources, threatened and endangered species, and designated critical habitat that may occur within the vicinity of the Project. Desktop studies included review of aerial imagery, site photographs, U.S. Geological Survey 7.5-minute quadrangle maps, U.S. Fish and Wildlife Service ("USFWS") National Wetlands Inventory ("NWI") maps, USFWS and state fish and wildlife agency websites, and available literature. Copies of relevant agency correspondence are included in Appendix 3A.

3.1 Fisheries Resources

The Project workspace lies within the Rio Grande watershed. The Hydrologic Unit Code-8 sub basin within the Project workspace is the Cibolo-Red Light (Hydrologic Unit Code 13040201). The section of the Rio Grande that is crossed by the Project is a warm-water fishery that is used recreationally.

There are no associated estuaries crossed by the Project workspace. The Rio Grande river in the vicinity of the Project may contain spawning or rearing areas for warm-water fish, although the size of spawning aggregations is likely insignificant due to the width of the river at the pipeline crossing location. Additionally, the Border Facilities will be installed via the Direct Pipe micro-tunneling method as discussed below and will avoid impacts on the Rio Grande river.

3.1.1 Existing Fisheries Resources

As discussed in Resource Reports 1 and 2, the Rio Grande river will be crossed by the Project using the Direct Pipe micro-tunneling method (see Resource Report 1, section 1.4.2). The Rio Grande river is a perennial waterbody that likely supports fisheries habitat year-round. Representative species found within the Rio Grande river include alligator gar (*Atractosteus spatula*), blue tilapia (*Oreochromis aureus*), common carp (*Cyprinus carpio*), freshwater drum (*Aplodinotus grunniens*), striped bass (*Morone saxatilis*), and white crappie (*Pomoxis annularis*; TPWD, 2011).

3.1.2 Fisheries of Special Concern

There is no federally-managed essential fish habitat in the Project workspace (NOAA, 2022). Additionally, there are no state-listed fish species with the potential to occur within the waterbodies crossed by the Project. One federally listed fish species, the Rio Grande silvery minnow (*Hybognathus amarus*)—which is considered an experimental population and non-essential, may be found within the Rio Grande river. Federally listed species are discussed in more detail in section 3.3.

3.1.3 Other Aquatic Resources

No semi-aquatic mammals, primarily aquatic reptiles, or amphibians were identified to have suitable habitat within the portion of the Rio Grande river crossed by the Project; however, freshwater invertebrates such as mussel species could inhabit this portion of the Rio Grande river. Mussel species that could inhabit this section of the Rio Grande river include yellow sandshell (*Lampsilis teres*), southern mapleleaf (*Quadrula apiculate*), and the paper pondshell (*Anodonta imbecilis*), among others (Neck and Metcalf, 1988). None of the species that could inhabit the Project workspace are federally or state protected and the Rio Grande river would be crossed via Direct Pipe, avoiding impacts on these species.

3.1.4 Construction and Operation Project Impacts and Mitigation

The Project would cross the Rio Grande river using the Direct Pipe method, thereby avoiding direct impacts on fishery resources. Potential sources of secondary impacts on fisheries and other aquatic life include the potential for an inadvertent release (see Resource Report 1, section 1.4.2) which would result in the release of bentonite drilling fluid and increased sedimentation in the waterbody. In the event of an inadvertent release, Saguaro will implement the measures specified in the Inadvertent Release Control Plan (see Appendix 1B of Resource Report 1).

To minimize construction impacts on fisheries and other aquatic resources within the Project workspace, Saguaro will implement the measures specified in the Federal Energy Regulatory Commission's ("FERC") *Upland Erosion Control, Revegetation, and Maintenance Plan* ("FERC Plan") and modified *Wetland and Waterbody Construction and Mitigation Procedures* ("FERC Procedures"), as identified in section 1.4.3 of Resource Report 1, to prevent sediment flow into waterbodies in the vicinity of the Project. Additionally, Saguaro will implement the measures in its Spill Prevention, Containment, and Countermeasure ("SPCC") Plan to prevent contamination from spills or leaks of equipment fuels, lubricants, or coolant. As specified in the SPCC Plan, hazardous materials, chemicals, fuels, and lubricating oils will not be stored, nor will concrete coating activities be performed, within 100 feet of any waterbodies and equipment refueling will occur a minimum of 100 feet away from any waterbodies. The SPCC Plan is in Appendix 1C of Resource Report 1. Implementation of the measures specified in the SPCC Plan and Inadvertent Release Control Plan will minimize potential impacts on fisheries and other aquatic resources due to inadvertent releases of fuel, bentonite drilling fluid, or mechanical fluids.

Specific construction procedures that will be used to protect surface water resources are discussed in section 2.2.6 of Resource Report 2. With the implementation of the FERC Procedures and Saguaro's other construction and mitigation plans, the Project is not expected to result in any permanent changes to the water quality or water quality classifications of the waterbodies crossed.

As described in more detail in section 2.2.6 of Resource Report 2, approximately 300,000 to 350,000 gallons of water will be required for hydrostatic testing of the Border Facilities. The hydrostatic test water may be obtained from either a municipal or private source and will be discharged overland in accordance with applicable permits within or along the edges of the construction Right-of-Way ("ROW") using energy dissipation devices to minimize erosion and sedimentation. No chemicals will be added to the water and no impacts on fishery resources are anticipated.

3.2 Vegetation and Wildlife Resources

3.2.1 Existing Resources

The suitability of an area as habitat for wildlife is closely related to the vegetation of that area. For this reason, and in light of the nature of the proposed Project activities, vegetation and wildlife resources are both addressed in this section. The Project is located within the Chihuahuan Deserts U.S. Environmental Protection Agency Level III Ecoregion (EPA, 2013).

Vegetation and land cover type at the Project site consists primarily of big saltbush (*Atriplex lentiformis*) and saltcedar (*Tamarix chinensis*). A majority of the areas impacted by the Project contain native vegetation with non-native species such as saltcedar present throughout. Based on aerial photography and field surveys, the land cover types in the immediate vicinity of the Border Facilities consist of open land, scrub/shrub habitat, and open water. Land use categories are discussed in more detail in Resource Report 8 and acreages of the land cover types affected by the Project are provided in Table 3.2-1. Open water is discussed in more detail in Resource Report 2. Only the vegetation/land use types directly affected by the Project are discussed below.

Table 3.2-1: Vegetation Types Affected by Construction and Operation of the Project (acres)[a]

Facility	Open Land[b]		Wetlands		Total	
	Const.	Oper.	Const.	Oper.	Const.	Oper.
Border Facilities Permanent ROW	1.0	1.0	0.2	0.2	1.2	1.2
Additional Temporary Workspace	14.2	0.0	0.0	0.0	14.2	0.0
Temporary Access Road	19.1	0.0	1.0	0.0	20.1	0.0
PROJECT TOTAL	34.3	1.0	1.2	0.2	35.5	1.2

[a] The subtotals and totals in this table may not reflect the sum of the addends due to rounding.
[b] Includes herbaceous, scrub/shrub, and barren land.

3.2.1.1 Open Land

Open lands within the Project workspace consist of non-forested areas such as grassland, barren land, and scrub/shrub areas. Project construction will affect approximately 34.3 acres of open land—including lands within the permanent ROW (1.0 acres), the additional temporary workspace ("ATWS"; 14.2 acres), and the temporary access road (19.1 acres). Following construction, the permanent ROW, ATWS, and temporary access road will be restored to preconstruction condition and allowed to revert to preconstruction use. Open land may provide habitat for species such as the coyote (*Canis latrans*), black-tailed jackrabbit, and western diamondback rattlesnake (*Crotalus atrox*). The open understory of scrub/shrub habitat may

provide habitat for ungulates such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*), reptiles such as mojave rattlesnake (*Crotalus scutulatus scutulatus*) and zebra-tailed lizard (*Callisaurus draconoides*), and migratory bird species (Arizona Board of Regents, 2022).

3.2.1.2 Wetlands

NWI data shows that wetlands within the Project workspace are located within streambeds and along the banks of streams. Based on the field survey, no wetlands were identified within the ATWS or permanent ROW. Field surveys were not conducted along the entire proposed access road (Indian Hot Spring Road). As such, the Project is not anticipated to result in any impacts on wetlands. Refer to Resource Report 2 for additional information on wetland and waterbody crossings.

3.2.2 Sensitive Habitats

The Project is not located within any sensitive habitats (e.g., natural areas, wildlife refuges, national or state parks, national forests, wildlife management areas; NPS, 2022). No impacts on sensitive habitats are anticipated.

3.2.3 Noxious Weeds

Texas has designated weed species considered noxious and subject to regulation (Texas Administrative Code §19.300). According to regulations in Texas, noxious weeds are defined as species that have the potential to cause serious economic or ecological harm to the state. Noxious and invasive plant species include non-native, undesirable native, or introduced species that are able to exclude and/or out-compete desired native vegetation, thereby decreasing overall species diversity.

Mobilization of construction equipment may contribute to the spread of noxious weeds. The Project site is situated in a scrub/shrub and herbaceous arid habitat and will require limited ground disturbance due to the usage of the Direct Bore installation method.

Site access will be from an existing public road. Therefore, the potential to transfer noxious weeds to and from the site is limited. Disturbed sites will be revegetated in accordance with the FERC Plan and FERC Procedures.

The most dominant noxious weed observed onsite during biological surveys is saltcedar (*Tamarix chinensis*). A majority of the Project workspace is covered in dense saltcedar, especially throughout the riparian areas along the Rio Grande river.

3.2.4 Construction and Operation Project Impacts and Mitigation

Project impacts on vegetation and wildlife will be minimal and short term and the Project will not permanently alter the character of available habitats in the Project workspace. The Project is anticipated to impact a total of approximately 35.5 acres of land for ATWS, the temporary access road, and the permanent ROW. Approximately 1.0 acres of open land and 0.2 acres of wetlands will be retained for operation of the Project. Following construction, the permanent ROW would be restored to preconstruction condition and allowed to revert to preconstruction use.

Construction of the proposed pipeline will require temporary workspaces and a temporary access road as described in Resource Report 1. Work at the Project site will be conducted within open land and wetland vegetation communities. There will be no impact on sensitive natural vegetation communities and no conversion of mature or sensitive wildlife habitats as a result of the Project.

Following completion of Project activities, Saguaro will restore and revegetate disturbed areas in accordance with the FERC Plan, FERC Procedures, and/or landowner requirements. Saguaro has begun consultation with the Natural Resource Conservation Service to acquire a suitable seed mix for revegetation of the Project site (see Resource Report 7, section 7.3.2). The limited area of disturbance at the site and timely restoration of the disturbed areas will minimize disturbance of vegetation and wildlife habitat. As detailed in section 1.4.1 of Resource Report 1, temporary erosion and sediment controls will be installed as appropriate in areas required by the FERC Plan and FERC Procedures. The temporary erosion and sediment controls will be maintained throughout the construction and restoration phases of the Project. In addition, revegetation will provide protection against erosion.

Possible short-term impacts of wildlife include disturbance from noise and human activities and the displacement of individuals of some mobile species to similar, adjacent habitats. Following Project activities, displaced wildlife will be able to return to the area. Scrub/shrub habitat that would be cleared for temporary workspaces and the pipeline permanent ROW could take up to 10 years to successfully revegetate to current site conditions once restoration begins (Gardner 2009).

Movement of equipment and vehicles could result in direct mortality of some small, less mobile mammals, reptiles, and amphibians that are unable to leave the construction area. However, loss of individuals is expected to be minimal due to the nature of the Project workspace and the relatively small size of the workspace. A significant impact on local wildlife populations or habitats is not anticipated.

Access to the Project site would be via an existing temporary access road. No improvements to the existing road would be required; therefore, the habitat this area provides would not be modified by the Project. Impacts to wildlife species resulting from access road use would be increased wildlife mortality from vehicle traffic. However, wildlife are anticipated to be accustomed to vehicle traffic on the existing county road. These impacts will be temporary and are not expected to be significant.

Saguaro will clear acres of dense invasive saltcedar located in the open land habitat throughout the Project workspace. Saguaro will revegetate the land with native species from a Natural Resource Conservation Service-approved seed mix, providing a beneficial impact on the plant species assemblage of the area.

3.3 Threatened and Endangered Species

A review of the USFWS Information, Planning, and Conservation System; aerial imagery; USFWS NWI maps; state websites; and site photographs was conducted and field notes were collected during field surveys to identify federally listed endangered, threatened, proposed, and candidate species and state-listed threatened and endangered species that potentially occur within the Project workspace. There is no federally designated critical habitat in the Project workspace (USFWS, 2022).

3.3.1 Federally Listed Species

The USFWS Austin Ecological Services Field Office identifies six federally listed species with the potential to occur within Hudspeth County, Texas, that should be considered for Project impacts (USFWS, 2022). Federally listed species with the potential to occur in the Project workspace, their habitat, and potential impact discussions are provided in Table 3.3-1. As indicated in the table and in the subsequent subsections, the Project has concluded it will have no effect on federally listed species other than the southwestern willow flycatcher (*Empidonax trailii extimus*).

Table 3.3-1: Federally and State Listed Threatened and Endangered Species

Species	Federal Status	State Status	Suitable Habitat	Discussion of Potential Effect
Birds				
American Peregrine Falcon *(Falco peregrinus anatum)*		T	Year-round resident, local breeder, and migrant in west Texas. Nests in tall cliff eyries. Occupies a wide range of habitats during migration—including urban area, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Mexican Spotted Owl *(Strix occidentalis lucida)*	T		Found in remote, shaded canyons of coniferous mountain woodlands (pine and fir); nocturnal predator of mostly small rodents and insects; day roosts in densely vegetated trees, rocky areas, or caves.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Northern Aplomado Falcon *(Falco femoralis septentrionalis)*	E		Inhabits open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus. Nests in abandoned stick nests of other bird species.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Piping Plover *(Charadrius melodus)*	T		Breed in the northern Great Plains, the shorelines of the Great Lakes, and the Atlantic Coast. Wintering habitat consists of intertidal beaches and mudflats with sparse to no vegetation along the Gulf of Mexico and southern Atlantic coasts of the U.S.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Red Knot *(Calidris canutus rufa)*	T		Migratory shorebirds and one of the longest-distance migrants in the world. Winters on coastal marine and esatuarine habitats with exposed intertidal sediments. Summers on dry, upland tundras with sparse vegetation.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Southwestern Willow Flycatcher *(Empidonax trailii extimus)*	E	E	Inhabits willow dominated or lush vegetation surrounding riparian and wetland habitats in arid regions of the Western U.S. Forages in adjacent upland habitat.	Suitable habitat identified on the site. Project activity *may affect but is not likely to adversely affect* this species.
White Faced Ibis *(Plegadis chihi)*		T	Forage in marshes, swamps, ponds, and rivers. They roost on mudbanks with platforms of dead reeds. In west Texas, they fly long distances to foraging areas from roosting areas.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.
Yellow-billed Cuckoo *(Coccyzus americanus)*	T		Breeds in riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation along with deciduous woodlands with cottonwoods and willows. Dense understory foliage is important for nest site selection. Nests in willow, mesquite, cottonwood, and hackberry. Forages in similar riparian woodlands; breeding season mid-May to late September.	Suitable habitat not identified within Project site. Project activity will have *no effect* on this species.

Potential suitable habitat for the southwestern willow flycatcher is present throughout the densely vegetated riparian scrub/shrub habitat along the Rio Grande river. The dominant species in the riparian scrub/shrub habitat is saltcedar (*Tamarix ramosissima*). No critical habitat is present onsite for this species.

No southwestern willow flycatchers were observed during field surveys during October 2022. Although this species would likely be found in Central and South America during the fall and winter, the species could potentially utilize this habitat in the spring during its breeding season (USFWS, 2021a). The absence of black willows (*Salix nigra*) and the historic use of the property for agriculture indicates that this is likely marginally suitable habitat for this species and that more suitable habitat is located elsewhere.

Impacts on southwestern willow flycatcher suitable habitat would be limited as the Border Facilities would be installed via a trenchless method and, therefore, would reduce ground disturbances. The rest of the Project workspace to be impacted would be from temporary workspaces that would be restored upon completion. The most significant impacts on the southwestern willow flycatcher would occur from temporary noise and lighting resulting from construction activities.

A response to this determination from the USFWS Austin Ecological Field Services Office for these federally listed species was requested on November 21, 2022. Copies of correspondence with the USFWS Austin Ecological Field Services Office are included in Appendix 3A. Any resulting correspondence will be filed with the FERC upon receipt.

3.3.2 State Listed Species

The Texas Parks and Wildlife Department ("TPWD") maintains its own list of protected species, nine of which may occur within Hudspeth County but are not federally listed (TPWD, 2022). These species, their habitat, and potential impact discussions are provided in Appendix 3A.

Comments from the TPWD for these state-listed species were requested on November 21, 2022. Copies of correspondence with the TPWD are included in Appendix 3A. Any resulting correspondence will be filed with FERC upon receipt.

3.4 Migratory Birds

Migratory raptor, game, and songbird species are protected under the Migratory Bird Treaty Act of 1918 ("MBTA"). Activities that occur during the migratory bird breeding season have the potential to impact migratory birds. However, the potential for the Project to impact migratory birds and their habitats is minimal because of the small amount of land that will be disturbed by the proposed Project activities. No herbicide application will occur and no trees will be cleared during the migratory bird nesting season (March to August). If nesting sites are being utilized within areas to be impacted prior to Project activities, coordination with the Division of Migratory Birds for the Southwest Region of the USFWS in Austin, Texas, will occur to avoid impacts on nesting migratory birds.

Although the MBTA provides protection for all migratory birds and their nests, it is standard practice—as noted in Executive Order 13186 and a Memorandum of Understanding between FERC and the USFWS (unless notified otherwise by the USFWS)—to use the Birds of

Conservation Concern ("BCC") list when evaluating the potential impact of a project on migratory birds (USFWS, 2008). This list identifies "species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing" under the Endangered Species Act of 1973.

The USFWS encourages proactive management of these BCC species by state agencies and other partners to prevent the need for listing them as endangered or threatened. Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, recommends BCC lists be consulted as they are intended to stimulate coordinated and collaborative proactive conservation actions among federal, state, tribal, and private partners. The USFWS adopted Bird Conservation Regions as the smallest geographic scale of distinct regions in North America that share similar BCC, habitats, and resource management issues for conservation. The Project facilities will be located across one terrestrial Bird Conservation Region (i.e., Chihuahuan Desert). As shown in Table 3.4-1, 30 bird species and subspecies that may occur in the Project workspace are designated BCC in this region (USFWS, 2021b).

Table 3.4-1: Birds of Conservation Concern that May Occur in the Project Workspace

Species	Suitable Habitat	Peak Nesting Bird Season in West Texas
Clark's grebe *Aechmophorus clarkii*	Freshwater lakes and reservoirs surrounded by emergent vegetation.	Late April through early August
Common nighthawk *Chordeiles minor*	Open areas such as gravel beaches, native grasslands, burned areas, cultivated fields that are unobstructed by trees, or tall shrubs.	Early March to late July
Mexican whip-poor-whil *Antrostomus arizonae*	Humid to semi-arid forest in the southwest U.S. to Central America.	Late March to mid-May
Lucifer hummingbird *Calothorax lucifer*	Variety of habitats including forested dry washes, riparian areas, and semiarid grassland.	May to early August
Broad-tailed hummingbird *Selasphorus platycercus*	Pine-oak woodlands and juniper scrub.	Late March to early April
Mountain plover *Charadrius montanus*	Short-grass prairies, barren areas, and croplands.	Nonbreeder in West Texas
Snowy plover *Charadrius nivosus*	Beaches and sandy shores of large lakes.	Mid-March to mid-May
Long-billed curlew *Numenius americanus*	Short-grass to mid-grass prairies on the High Plains to moist meadowlands and mowed areas in coastal areas.	Nonbreeder in West Texas
Ferruginous Hawk *Buteo regalis*	Nests on trees, cliffs, level ground, windmills, utility poles, farm buildings, and haystacks.	March to July
Flammulated Owl *Psiloscops flammeolus*	Mixed conifer-oak woodlands.	Late March to May
Western Burrowing Owl *Athene cunicularia*	Treeless, short-grass plains and prairies, ideally unbroken by cultivation. Associated with prairie dog towns.	Early April to late July
Black capped vireo *Vireo atricapilla*	Deciduous forests surrounded by grassy areas.	Late March to mid-April
Pinyon jay *Gymnorhinus cyanocephalus*	Pinyon-juniper woodland, sagebrush, scrub oak, and chaparral.	February to March
Woodhouse's Scrub-jay *Aphelocoma woodhouseii*	Open habitats and pinyon-juniper woodlands of the intermountain West.	March to July

Species	Suitable Habitat	Peak Nesting Bird Season in West Texas
Cactus Wren *Campylorhynchus brunneicapillus*	Nests in prickly pear, cholla, mesquite, granjeno, yucca, sumac, catclaw, and red-flowered mistletoe and are occasionally placed on structures of human construction.	Mid-March to Early August
Bendire's Thrasher *Toxostoma bendirei*	Various kinds of dry, semi-open habitats including desert, farmland; cholla, thorny bushes.	Mid-March to mid-June
Sprague's Pipit *Anthus spragueii*	Native mixed-grass prairie, usually in vegetation no more than 6–12 inches tall.	Nonbreeder in West Texas
Evening Grosbeak *Coccothraustes vespertinus*	Coniferous and mixed forests.	May to August
Chestnut-collared Longspur *Calcarius ornatus*	Shortgrass and mixed-grass prairies.	Nonbreeder in West Texas
Thick-billed longspur *Rhynchophanes mccownii*	High-elevation shortgrass prairie.	Nonbreeder in West Texas
Cassin's Sparrow *Peucaea cassinii*	Short-grass prairies with scattered shrubby mesquite, cacti, yucca, or oak.	Early March to August
Black-chinned sparrow *Spizella atrogularis*	Brushy slopes in mountains or canyons.	March to July
Baird's sparrow *Ammodramus bairdii*	Undisturbed mixed grass and tallgrass prairies.	Nonbreeder in West Texas
Eastern meadowlark *Sturnella magna*	Tall grassy meadows and fields as well as savannas with grassy openings between trees.	Mid-March to early August
Scott's oriole *Icterus parisorum*	Arid foothills and mountains down to deserts.	Late April to mid-July
Colima warbler *Oreothlypis crissalis*	Wooded areas with mixtures of oaks, Mexican pinyon, juniper, and Arizona cypress.	Late May to mid-July
Virginia's warbler *Leiothlypis virginiae*	Middle elevations, where coniferous woodland or forest mixes with deciduous shrubs or trees.	April to May
Grace's warbler *Setophaga graciae*	High elevation pine forests.	Mid-May to mid-August
Pyrrhuloxia *Cardinalis sinuatus*	Mesquite trees in groves or grasslands.	Early March to late August
Varied bunting *Passerina versicolor*	Dense, thorny brush, generally on a slope in an arid climate.	Mid-April to mid-July

Source: USFWS, 2021b; Benson and Arnold, 2001.

In addition to the MBTA, bald and golden eagles receive protection under the Bald and Golden Eagle Protection Act (16 United States Code 668-668c). Bald eagle nesting in Texas occurs from October through July (TPWD, 2015). Golden eagle nesting in Texas occurs from February to November and golden eagles are often year-round residents of West Texas. The Project site is located within the known range for bald and golden eagles. No nest sites were documented during field reviews conducted for the Project in October 2022. Additionally, Saguaro obtained data from the Texas Natural Diversity Database regarding bald and golden eagle nests within 1 mile of the Project workspace. No bald or golden eagle occurrences, sightings, or nests were identified by the database.

3.4.1 Construction and Operation Project Impacts and Mitigation

Project construction is planned to occur in the second half of 2024. As discussed in Table 3.4-1, migratory birds could utilize nests within the scrub/shrub habitats of the Project workspace from March to August. As discussed previously, no tree clearing will occur from March to August. If nesting sites are being utilized within the Project workspace, Saguaro will coordinate with the Division of Migratory Birds for the Southwest Region of the USFWS in Austin, Texas, for proper mitigation measures to avoid impacts on nesting migratory birds.

The Project will disturb 35.5 acres of land for ATWS, a temporary access road, and the permanent ROW. Some of the disturbed vegetated areas could provide suitable habitat for migratory birds. It is unlikely that suitable bald or golden eagle habitat is present within the scrub/shrub or herbaceous habitats onsite. Lighting and noise from construction and vehicle use could disturb birds' natural diurnal patterns. However, if migratory bird-suitable habitat is cleared or if migratory birds are disturbed by lighting and noise, then the impacted species would likely use the abundant nearby undisturbed habitat for nesting and foraging.

If a bald eagle nest is discovered within 660 feet of proposed Project activities, then an evaluation will be performed using National Bald Eagle Management Guidelines (USFWS, 2007) to determine whether the Project is likely to disturb nesting bald eagles. If further consultation is deemed necessary, Saguaro will contact the Division of Migratory Birds for the Southwest Region.

Based on the types of activities proposed, the limited duration of activities, the small disturbance footprint associated with the Project site, and the Project's commitment to follow the procedures described above if applicable, the Project is not expected to result in negative impacts on migratory birds or bald or golden eagles.

3.5 References

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APPENDIX 3A AGENCY CORRESPONDENCE

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Ms. Christina Williams
U.S. Fish & Wildlife Service
Austin Field Office
10711 Burnet Road #200
Austin, Texas 78758
Via email: Christina_Williams@fws.gov

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Project, Border Facilities
Hudspeth County, Texas
Informal Consultation Request

Dear Ms. Williams:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). Saguaro respectfully requests your review of our assessment of potential Project impacts on threatened and endangered species protected under section 7 of the Endangered Species Act ("ESA") of 1973 (as amended), the migratory birds protected under the Migratory Bird Treaty Act ("MBTA") (16 United State Code ["USC"] 703-711), and the Bald and Golden Eagle Protection Act ("BGEPA") (16 USC 668-668c).

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres (**Appendix A**). A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

The Project would be subject to review under section 7 of the ESA of 1973 (as amended). Saguaro is preparing to assist the Federal Energy Regulatory Commission ("FERC") in complying with section 7 of the ESA and has retained Environmental Resource Management, Inc. ("ERM") to prepare environmental resource documents for the proposed Project. ERM, on behalf of Saguaro, is contacting your office to initiate the review of the Project. As discussed in more detail below, ERM anticipates that the Project

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

may affect but is unlikely to adversely affect the southwestern willow flycatcher (*Empidonax traillii extimus*) and will have no effect on five federally listed species. We request U.S. Fish and Wildlife ("USFWS") review and provide comments regarding this assessment.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC"). As the applicant for this permit, it is Saguaro's responsibility to contact and request a statement of no objection from the Texas Historical Commission ("THC"), USFWS, USACE, Texas Parks and Wildlife Department ("TPWD"), and the Texas Commission on Environmental Quality ("TCEQ").

Threatened and Endangered Species Review

Federal species information and field habitat observations were reviewed to determine the likely occurrence of federally protected (threatened, endangered, and special concern) species at the proposed Project. Results from the USFWS Impact, Planning and Conservation ("IPaC") indicate that there are six federally protected species, one experimental population, and no critical habitat (50 Code of Federal Regulations ["CFR"] 17) listed for this Project location within Hudspeth County. See results enclosed in **Appendix B**. Below is a table of the species identified.

Table 1: Federally Listed Species Known to Occur Near the Project

Common Name	Scientific Name	Protection Status	Preferred Habitat	Preferred Habitat Observed on Site?
Mexican Spotted Owl	*Strix occidentalis lucida*	FT	Remote, shaded canyons of coniferous mountain woodlands (pine and fir); day roosts in densely vegetated trees, rocky areas, or caves.	No suitable habitat. *No Effect*
Northern Aplomado Falcon	*Falco femoralis septentrionalis*	FE	Inhabits open country, especially savanna and open woodland, and sometimes in very barren areas, grassy plains, and valleys with scattered mesquite, yucca, and cactus.	No suitable habitat. *No Effect*

Common Name	Scientific Name	Protection Status	Preferred Habitat	Preferred Habitat Observed on Site?
Piping Plover	*Charadrius melodus*	FT	Breeds in the northern Great Plains, the shorelines of the Great Lakes, and the Atlantic Coast. Wintering habitat consists of intertidal beaches and mudflats with sparse to no vegetation along the Gulf of Mexico and southern Atlantic coasts of the United States.	No suitable habitat. *No Effect*
Red Knot	*Calidris canutus rufa*	FT	Migratory shorebirds and one of the longest-distance migrants in the world. Winters on coastal marine and estuarine habitats with exposed intertidal sediments. Summers on dry upland tundra with sparse vegetation.	No suitable habitat. *No Effect*
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	FE	Inhabits willow dominated or lush vegetation surrounding riparian and wetland habitats in arid regions of the Western U.S. Forages in adjacent upland habitat.	Yes, suitable habitat present within the densely vegetated riparian shrub-scrub habitat. *May affect, but not likely to adversely affect*
Yellow-billed Cuckoo	*Coccyzus americanus*	FT	Breeds in riparian forested habitats and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation along with deciduous woodlands with cottonwoods and willows. Dense understory foliage is important for nest site selection. Nests in willow, mesquite, cottonwood, and hackberry.	No suitable habitat. *No Effect*
Rio Grande Silvery Minnow	*Hybognathus amarus*	EXPN	Inhabits streams with water depths less than 16 inches and low to moderate stream speed. Commonly found in eddies formed by debris, embankments, shorelines, and submerged vegetation.	Yes, but the only suitable waterbody that will be crossed will use the HDD method, avoiding impacts. *No Effect*
FE=Federally listed Endangered, FT=Federally listed Threatened, EXPN= Experimental Population Non-essential				

Potential suitable habitat for the southwestern willow flycatcher is present throughout the densely vegetated riparian scrub-shrub habitat along the Rio Grande river. The dominant species in the riparian scrub-shrub habitat is saltcedar (*Tamarix ramosissima*). No critical habitat is present within the Project area for this species.

No southwestern willow flycatchers were observed during field surveys during October 2022. Although this species would likely be found in Central and South America during the fall and winter, the species could potentially utilize this habitat during the spring. The absence of black willows (*Salix nigra*) and the historic use of the property for agriculture indicates that this is likely marginally suitable habitat for this species and that more suitable habitat is located elsewhere.

Impacts on southwestern willow flycatcher suitable habitat would be limited as the pipeline would be installed via trenchless methods reducing ground disturbances. The rest of the proposed impacts would be limited to the temporary workspaces that would be restored upon completion.

Considering the lack of suitable habitat for the majority of the listed species and the temporary nature of the Project activities, the Project will have no effect on five federally listed species. See the photographic log in **Appendix C** for photos of the current Project area conditions.

November 18, 2022
Ms. Christina Williams

Saguaro respectfully requests your evaluation of our *No Effect* and *May Affect, but Not Likely to Adversely Affect* findings for federally protected species and any comments or recommendations for the proposed Project. If new or additional data are available for the Project area, Saguaro welcomes the opportunity to review that information and incorporate it into our environmental review. Given Saguaro's findings and determination, Saguaro also requests your reply include a statement of no objection from your agency, which Saguaro will provide to the IBWC in support of Saguaro's Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico.

We look forward to working with you on the Project. Please provide your concurrence, comments, questions, or concerns to me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

If you have no objection, comments, or concerns please sign this letter in the allotted space below.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

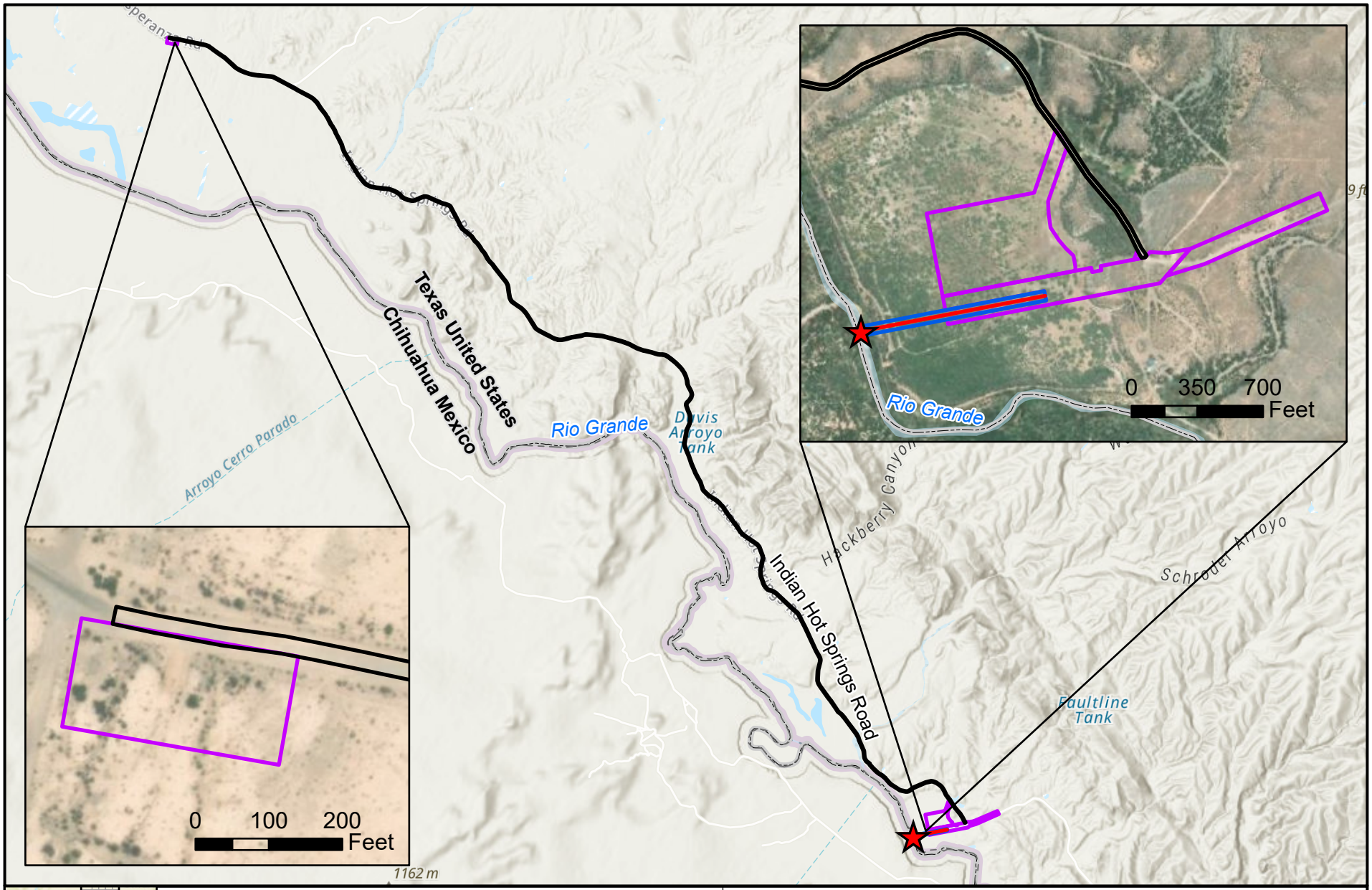
Enclosures: Appendix A - Project Overview Map
Appendix B - Protected Species Information
Appendix C - Photographic Log

Cc: Kelly Brezovar, ERM

I have no objection, comments, or concerns regarding the Project described above:

_____

Appendix A: Project Overview Map



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

MPLS M:\Clients\M-O\ONE\OWT_Extension_Pipeline_ArcGIS\ResourceReports\RR01_Proj_Desc\RR01_Proj_Desc.aprx | REVISED: 11/16/2022 | SCALE: 1:48,000 DRAWN BY: JSS

Appendix B: Protected Species Information

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
Phone: (512) 490-0057 Fax: (512) 490-0974

In Reply Refer To: November 16, 2022
Project Code: 2023-0011846
Project Name: Saguaro Connector Project, Border Facilities

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".

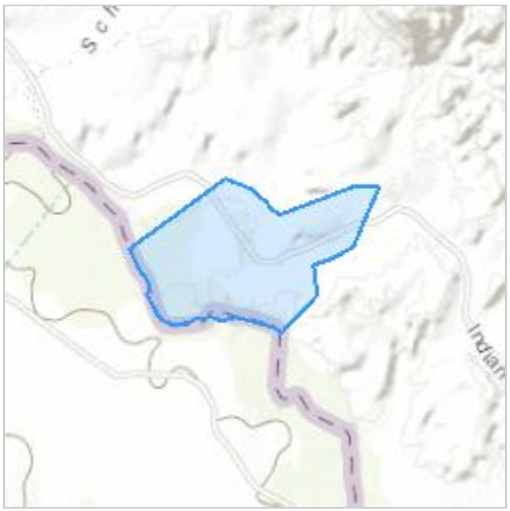
This species list is provided by:

Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
(512) 490-0057

Project Summary

Project Code: 2023-0011846
Project Name: Saguaro Connector Project, Border Facilities
Project Type: Natural Gas Distribution
Project Description: Natural Gas Distribution
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@30.9365305,-105.47269847037174,14z



Counties: Hudspeth County, Texas

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

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

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

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

---

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

Birds

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Northern Aplomado Falcon *Falco femoralis septentrionalis* Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1923	Endangered
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Rio Grande Silvery Minnow *Hybognathus amarus* Population: Rio Grande, from Little Box Canyon to Amistad Dam No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1391	Experimental Population, Non-Essential

Critical habitats

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

IPaC User Contact Information

Agency: ERM
Name: Davis Gray
Address: 840 West Sam Houston Parkway North, Suite 600
City: Houston
State: TX
Zip: 77024
Email davis.gray@erm.com
Phone: 2816382615

Lead Agency Contact Information

Lead Agency: International Boundary and Water Commission

Appendix C: Photographic Log

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
North

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
3	10/25/2022

Direction Photo Taken:
East

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



Photo No.	Date:
4	10/25/2022

Direction Photo Taken:
west

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
5	10/25/2022

Direction Photo Taken:
Northwest

Description:
This is a view of a stream adjacent to suitable habitat for the SW willow flycatcher.



Photo No.	Date:
6	10/25/2022

Direction Photo Taken:
Southeast

Description:
This is a view of a stream surrounded by densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
7	10/25/2022

Direction Photo Taken:
Northwest

Description:
This is a view of the nearby upland habitat that the SW willow flycatcher may use for foraging.



Photo No.	Date:
8	10/25/2022

Direction Photo Taken:
Southeast

Description:
This is a view of the nearby upland habitat that the SW willow flycatcher may use for foraging.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
9	10/25/2022

Direction Photo Taken:
East

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



Photo No.	Date:
10	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat suitable for the SW willow flycatcher.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
11	10/25/2022

Direction Photo Taken:
North

Description:
This is a view of the nearby upland habitat that the SW willow flycatcher may use for foraging.



Photo No.	Date:
12	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the nearby upland habitat that the SW willow flycatcher may use for foraging.



SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Review Request

Dear Texas Parks and Wildlife Department:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). Saguaro respectfully requests your review of the Project to fulfill the requirements under Title 31 Texas Administrative Code ("TAC") §65.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres (**Appendix A**). A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the Federal Energy Regulatory Commission ("FERC") in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

November 18, 2022
Texas Parks and Wildlife Department

Saguaro plans to file a Pre-construction Notification ("PCN") to the U.S. Army Corps of Engineers ("USACE") – Albuquerque District for proposed activities within Waters of the U.S. ("WOTUS"), including wetlands, to comply with section 404 of the Clean Water Act ("CWA") and section 10 of the Rivers and Harbors Act ("RHA"). The Project expects to comply with Nationwide Permit ("NWP") 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission ("IBWC"). As the applicant for this permit, it is Saguaro's responsibility to contact and request a statement of no objection from the Texas Historical Commission ("THC"), USFWS, USACE, Texas Parks and Wildlife Department ("TPWD"), and the Texas Commission on Environmental Quality ("TCEQ").

Saguaro has retained Environmental Resource Management, Inc. ("ERM") to prepare environmental resource documents for the proposed Project. ERM, on behalf of Saguaro, is contacting your office to initiate the review of the Project. To facilitate your review a Wildlife Habitat Assessment Program ("WHAB") form has been prepared and is included in the Enclosures.

As discussed in the attached review request, ERM anticipates that there will be no effect on state listed species from the proposed Project activities. We request TPWD review and provide comments regarding this assessment. Given Saguaro's findings and determination, Saguaro also requests your reply include a statement of no objection from your agency, which Saguaro will provide to the IBWC in support of Saguaro's Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico.

We look forward to working with you on the Project. Please provide your concurrence, comments, questions, or concerns to me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

If you have no objection, comments, or concerns please sign this letter in the allotted space below.

Thank you for your time and assistance with this Project.

Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Wildlife Habitat Assessment Program Form

Cc: Kelly Brezovar, ERM

I have no objection, comments, or concerns regarding the Project described above:

_____

Project Coordination and Review Requests

(Including Threatened and Endangered Species)

EARLY PROJECT COORDINATION

If you are in the information gathering phase of project coordination and assessment, ***in lieu of*** submitting a Project Review form or a letter request, you may obtain information from the following Texas Parks and Wildlife Department (TPWD) sources regarding sensitive resource information for use in your analyses. TPWD recommends you use at least the following two sources of information when analyzing for project impacts to sensitive resources, including before submitting a request for TPWD review and recommendations.

RARE, THREATENED, AND ENDANGERED SPECIES OF TEXAS BY COUNTY - This database includes lists of species known to occur and potentially occurring in Texas at the county level. It can be accessed online at: http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species/ or by contacting our administrative staff at (512) 389-4571. Appropriate use and interpretation of the county level lists are the responsibility of the recipient.

TEXAS NATURAL DIVERSITY DATABASE (TXNDD) – The TXNDD is publicly available location specific data on rare, threatened and endangered species, natural communities and other significant features of conservation concern to TPWD. This information can be obtained by submitting a data request to txndd@tpwd.state.tx.us. Response to a data request will include available TXNDD records, reports, and geographic information system compatible shapefiles of recorded locations for species and other rare resources on the U.S. Geological Survey (USGS) 7.5 minute topographic quadrangle of the project and surrounding area. Responses generally take a maximum of five business days from receipt of the request. Appropriate use and interpretation of TXNDD data are the responsibility of the recipient.

WILDLIFE HABITAT ASSESSMENT (WHAB) PROGRAM REVIEW

PROJECT REVIEW REQUESTS – The WHAB Program can provide a review of your assessment, after your analysis for impacts using the above two data sources. Please complete the WHAB Review Request form (attached; use Word format for fill-in version), or use the form as an outline of information to include with your letter request. The WHAB Program response will provide an evaluation of your environmental assessment for impacts to fish and wildlife and their habitats, including rare, threatened, and endangered species, other significant resources and concerns presently known or potentially occurring in the vicinity of your project. WHAB Program responses generally take 4 to 6 weeks on average from receipt, depending on the size of your request.

The request should include all the information listed on the next two pages and be sent to the address shown on the last page. The more pertinent information you provide, the more customized our review, and the faster our turnaround. Review requests submitted without adequate project detail may cause a delay in our response as we will need to contact you and wait for supplemental information. The potential for adverse impacts to natural resources from project activities varies based on the type of activity; location; season; vegetation; present physical features (both natural and man-made); degree of disturbance; planned avoidance, minimization, mitigation, enhancement, and restoration measures; species-specific tolerance levels; etc. Current color photographs and aerial photographs of the site greatly facilitate the review process. Complete information allows us to more accurately assess the potential for project impacts, as well as, assists us in narrowing the list of rare, threatened, and endangered species and other natural resources that may need to be addressed further.

WILDLIFE HABITAT ASSESSMENT PROGRAM
Review Requests
(Including Threatened and Endangered Species)

Name: **Davis Gray** Date: **11/14/2022**

Your Company: **Environmental Resources Management** Phone: (**281**) **638-2615**

Your Company Address: **840 W Sam Houston Pkwy N #600** Fax: ( )

City, State, Zip: **Houston, TX 77024** E-mail: **davis.gray@erm.com**

Project Title, Number and Site Location: **Saguaro Connector Pipeline** County(ies): **Hudspeth County**

1. Scope of Project:

(a) What regulations will this review help you to comply with? OR, if not regulatory, why is the review being requested? Who is the project sponsor?

FERC Presidential Permit, USACE Clean Water Act permit, and IBWC permit for a new international border crossing between the United States and Mexico on State owned lands.

(b) What and where is the project site? What activities will be conducted at the site? (Especially activity types, extent, boundaries, length & width, waterways, vegetation disturbance, and total acreage of site and acreage of the site that will be disturbed)

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.–Mexico International Boundary at the center of the Rio Grande to a point on the pipeline in Hudspeth County, Texas (Border Facilities). The Border Facilities will be constructed and installed under the Rio Grande using the trenchless Direct Pipe method. Construction activities by Saguaro at the work site will disturb 15.4 acres and be limited to a new 50-foot permanent workspace and Additional Temporary Workspace ("ATWS") acquired for the Project. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies. The Border Facilities would be part of a new, 48 inch diameter pipeline project which would supply natural gas originating at the Waha Hub in Pecos County, Texas.

(c) If this request is for a site investigation or risk assessment, why is the site being investigated? If applicable, what contaminant pathways are being evaluated?

N/A

(d) Schedule of activities – Approximately when (which calendar months, how many years) will the project be active on the site?

Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

2. Vegetation: Species, dominant plants, structure and composition, vegetation layers, height of layers, natural vegetation community types.

Dominant plant species are big saltbush (Atriplex lentiformis) and saltcedar (Tamarix chinensis). Most of the site is located in dense riprian scrub-shrub habitat with scattered sparsely vegeated herbaceous habitat present. Vegetation community type is conisistent with Chihuahan Desert with some invasive species such as salt cedar. Site has a vegetation cover of 50 to 70 percent.

3. Other Natural Resources/Physical Features:

(a) Soils, geology, watercourses, aquifers, flood zones, etc.

Soils: Sandy Loam, well drained.

Geology: Carbonate rocks are present near the surface at the Project; however, large karst features are unlikely to form in semi-arid climates.

Watercourses: Rio Grande river and a few ephemeral streams.

Aquifer: Located within the Rio Grande Aquifer System.

Flood zones: Located partially within the 100-year floodplain.

(b) Habitat, animals, animal assemblages, other sensitive features, etc.

Herbaceous and scrub-shrub habitat, cattle, wetlands, and riparian habitat. Tarantulas, mule deer, javelina, and Audad were also observed witihn and adjacent to the Project area.

4. **Existing Site Development:** Extent of pavement, gravel, shell, or other cover; buildings, landscaped, xeriscaped, drainage system, etc.

   A small group of temporary buildings covering approximately 0.6 acres is present adjacent to the Project area. No new, permanent surface development will occur on site.

5. **Historic Use/Function of Site:** Pasture, forest, urban, row crops, rangeland, wetland, etc. If the request is for a risk assessment, when was, or for how long, has the site been active, inactive? Are cultural resources present on the site or will the project cross or impact state or federal lands, local parklands?

   Disturbed desert grassland, scrubland, and riparian habitat along the Rio Grande river. Historically, the Project area was mostly agricultural land until 2005.

   Four previously recorded archeological sites occur within 1 mile of the Project. Only 1 site, a prehistoric artifiact scatter is located within the area of potential effects. The site number is 41WM447. Coordination with the Texas Historic Commission (THC) is on-going.

   The pipeline will cross State-owned lands along the Rio Grande river.

6. **Has a threatened and endangered species survey or assessment,** wetland delineation, or other biological assessment already been performed? (In general, TPWD recommends an on-site habitat assessment be performed.) ☒ Yes ☐ No

   (a) If yes, provide surveyor name, qualifications, methods or protocols, acreage surveyed, level of effort, weather conditions, time of day, and dates the survey was performed.

   Surveyed by ERM personel. T&E and MBTA surveys conducted along side the wetland delineation. Surveyed approximately 110 acres. Surveys occurred from 8 AM to 5 PM from October 16 to October 21. Weather conditions were clear.

WILDLIFE HABITAT ASSESSMENT PROGRAM
Review Requests (Continued)
(Including Threatened and Endangered Species)

6. (b) If yes, please provide results and copy of survey/assessment report.

7. **Could current on-site or adjacent habitat support rare species?** ☐ Yes ☒ No
Specifically, explain why or why not.

No vegetation communities that support state listed T&E species and no rodent burrows were identified for Texas horned lizard habitat. There is potential habitat for the southwestern willow flycatcher within the dense riprian scrub-shrub habitat on site. The southwestern willow flycatcher is a federally endangered species with USFWS coordination on-going.

8. **Provide a description of potential negative direct and indirect impacts** from proposed project activities or former and current site activities, such as types of habitat and acreage to be degraded or lost, temporarily and permanently. Also, describe cumulative effects that could be anticipated from the project on the natural environment.

Ground disturbance and vegetation clearing from pipeline installation. Most of the Project would be installed by Direct Pipe avoiding open trench impacts within and adjacent to the Rio Grande river. Pipe installation may result in increased noise impacts, but they would be temporary and unlikely to cause significant impacts. Approximately 11.6 acres will be used as temporary workspaces that would be restored and revegetated. Approximately 3.8 acres will be maintained as herbaceous habitat for a permanent right-of-way.

9. **Provide a description of planned beneficial mitigation and enhancements** or restoration efforts. Be sure to note the avoidance, minimization, and compensatory mitigation measures planned to address the threat of negative impacts (e.g. which erosion control measures will be used, what will site restoration activities encompass, etc.).

Area will be restored according to FERC Plans and Procedures. These plans and procedures can be viewed at the following link: https://www.ferc.gov/sites/default/files/2020-04/upland-erosion-control-revegetation-maintenance-plan.pdf

10. **Include copies of coordination with other agencies** relevant to impacts or enhancements of natural resources for this project, or agency & contact name.

11. **Clearly delineate exact location of site and its boundaries** using an applicable USGS quad (most preferable) as the base layer or best map available. The topographic map citation should include the USGS quad name. The map must contain identifiable features and a scale that allows us to find your site **and** accurately pinpoint your site boundaries. When using internet maps, provide both a location map (zoomed out for highway reference) and a layout map (zoomed in for site features, boundaries, and neighboring street reference)

12. **Originals or color-copy photographs** of site and surrounding area with captions or narratives.

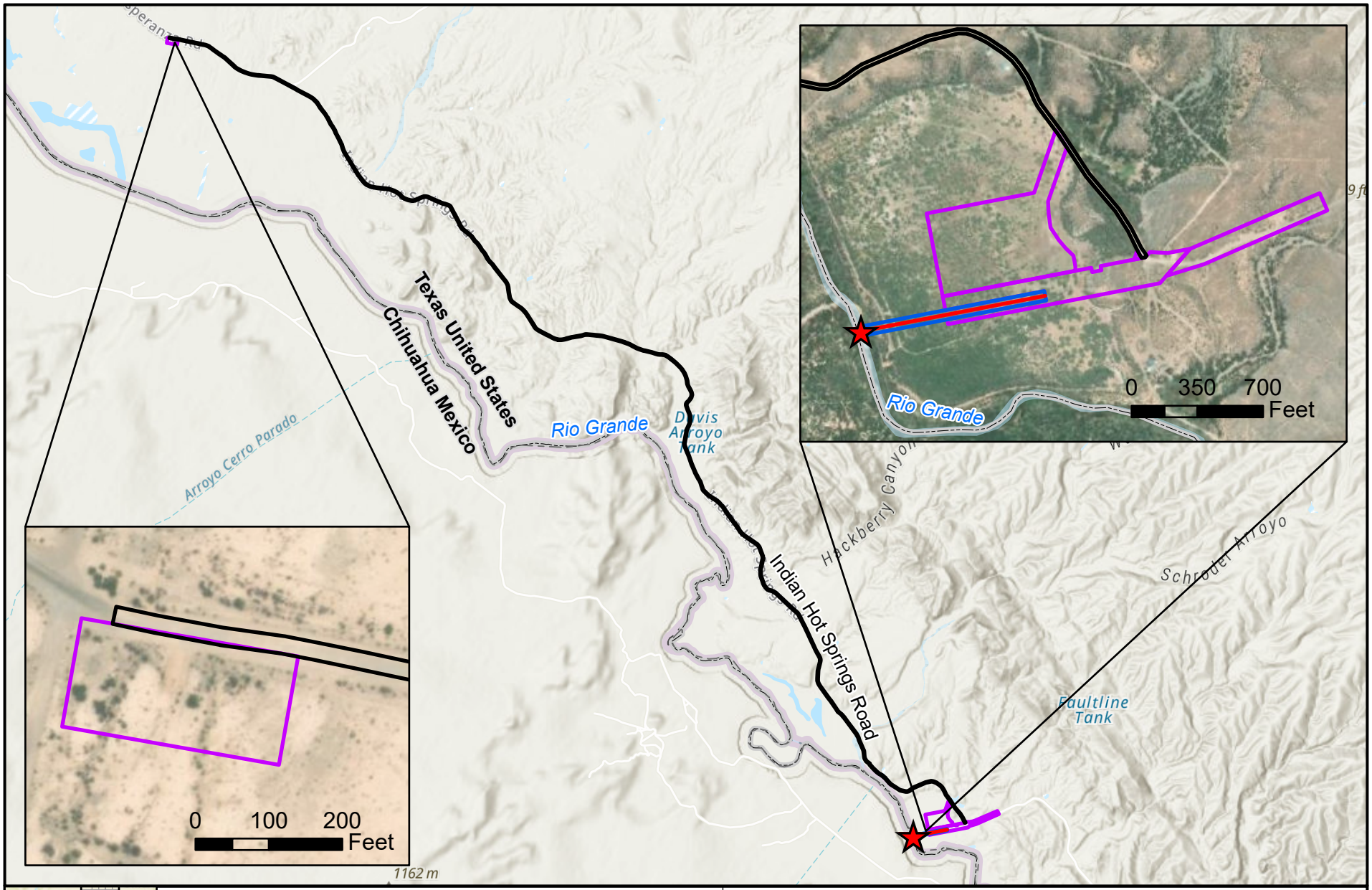
13. **Aerial photographs with pertinent features labeled**. Aerials should show the year photograph was taken.

Send completed form to:

Texas Parks and Wildlife Department
Wildlife Division
Wildlife Habitat Assessment Program
4200 Smith School Road
Austin, Texas 78744-3291

(512) 389-4571 (Phone) (512) 389-4599 (Fax)

Texas Parks and Wildlife Department maintains the information collected through this form. With few exceptions, you are entitled to be informed about the information we collect. Under Sections 552.021 and 552.023 of the Texas Government Code, you are also entitled to receive and review the information. Under Section 559.004, you are also entitled to have this information corrected.



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

MPLS M:\Clients\M-O\ONE\OWT_Extension_Pipeline_ArcGIS\ResourceReports\RR01_Proj_Desc\RR01_Proj_Desc.aprx | REVISED: 11/16/2022 | SCALE: 1:48,000 DRAWN BY: JSS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
1	10/25/2022

Direction Photo Taken:
North

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



Photo No.	Date:
2	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
3	10/25/2022

Direction Photo Taken:
East

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



Photo No.	Date:
4	10/25/2022

Direction Photo Taken:
west

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
5	10/25/2022

Direction Photo Taken:
Northwest

Description:
This is a view of a stream within the study area.



Photo No.	Date:
6	10/25/2022

Direction Photo Taken:
Southeast

Description:
This is a view of a stream surrounded by densely vegetated riparian scrub-shrub habitat.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
7	10/25/2022

Direction Photo Taken:
Northwest

Description:
This is a view of the nearby upland habitat.



Photo No.	Date:
8	10/25/2022

Direction Photo Taken:
Southeast

Description:
This is a view of the nearby upland habitat.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
9	10/25/2022

Direction Photo Taken:
East

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



Photo No.	Date:
10	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the densely vegetated riparian scrub-shrub habitat.



PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Saguaro Connector Pipeline, LLC	Saguaro Connector Pipeline	0662464

Photo No.	Date:
11	10/25/2022

Direction Photo Taken:
North

Description:
This is a view of the nearby upland habitat.



Photo No.	Date:
12	10/25/2022

Direction Photo Taken:
South

Description:
This is a view of the nearby upland habitat.



SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 4
Cultural Resources

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 4—CULTURAL RESOURCES

Minimum Filing Requirements for Environmental Reports:	**Addressed In:**
1. Resource Report 4 must contain: i. Documentation of the applicant's initial cultural resources consultation, including consultations with Native Americans and other interested persons (if appropriate); ii. Overview and Survey Reports, as appropriate; iii. Evaluation Report, as appropriate; iv. Treatment Plan, as appropriate; and v. Written comments from State Historic Preservation Officer(s) (SHPO), Tribal Historic Preservation Officers (THPO), as appropriate, and applicable land-managing agencies on the reports in paragraphs (f)(1)(i)-(iv) of this section. – 18 CFR § 380.12 (f)(1)	Sections 4.4.3 and 4.5 and Appendices 4A and 4B
2. Initial filing requirements. The initial application must include the documentation of initial cultural resource consultation, the Overview and Survey Reports, if required, and written comments from SHPOs, THPOs and land-managing agencies, if available. The initial cultural resources consultations should establish the need for surveys. If surveys are deemed necessary by the consultation with the SHPO/THPO, the survey report must be filed with the application. i. If the comments of the SHPOs, THPOs, or land-management agencies are not available at the time the application is filed, they may be filed separately, but they must be filed before a final certificate is issued. ii. If landowners deny access to private property and certain areas are not surveyed, the unsurveyed area must be identified by mileposts, and supplemental surveys or evaluations shall be conducted after access is granted. In such circumstances, reports, and treatment plans, if necessary, for those inaccessible lands may be filed after a certificate is issued. – 18 CFR § 380.12 (f)(2)	Sections 4.4.3 and 4.5 and Appendices 4A and 4B
3. The Evaluation Report and Treatment Plan, if required, for the entire project must be filed before a final certificate is issued. i. The Evaluation Report may be combined in a single synthetic report with the Overview and Survey Reports if the SHPOs, THPOs, and land-management agencies allow and if it is available at the time the application is filed. ii. In preparing the Treatment Plan, the applicant must consult with the Commission staff, the SHPO, and any applicable THPO and land-management agencies. iii. Authorization to implement the Treatment Plan will occur only after the final certificate is issued. – 18 CFR § 380.12 (f)(3)	This information will be provided in a future supplemental filing if required.
4. Applicant must request privileged treatment for all material filed with the Commission containing location, character, and ownership information about cultural resources in accordance with §388.112 of this chapter. The cover and relevant pages or portions of the report should be clearly labeled in bold lettering: "CONTAINS PRIVILEGED INFORMATION—DO NOT RELEASE." – 18 CFR § 380.12 (f)(4)	Reports containing location, character, and ownership information about cultural resources will be filed as privileged.
5. Except as specified in a final Commission order, or by the Director of the Office of Energy Projects, construction may not begin until all cultural resource reports and plans have been approved. – 18 CFR § 380.12 (f)(5)	Acknowledged.
Additional Information:	
1. Identify the project area and the project's impacts in terms of direct and indirect effects on cultural resources.	Section 4.2
2. Provide a project map with mileposts clearly showing boundaries of all survey areas (right-of-way, extra work areas, access roads, etc.); ensure that you mark mileposts, clearly specify survey corridor widths, and clearly indicate where you have not completed surveys.	This information will be provided in a future supplemental filing anticipated by March 31, 2023.
3. Provide documentation of consultation with applicable SHPOs, THPOs, and land-managing agencies regarding the need for and required extent of cultural resource surveys.	This information will be provided in a future supplemental filing anticipated in Q1 2023.

4. Provide a narrative summary of overview results, cultural resource surveys completed, identified cultural resources, and any cultural resource issues.	This information will be provided in a future supplemental filing, anticipated by March 31, 2023. See section 4.4.3.
5. Provide a project-specific Ethnographic Analysis (can be part of Overview/Survey Report).	This information will be provided in a future supplemental filing, anticipated by March 31, 2023. See section 4.4.3.
6. Identify by mileposts any areas requiring survey where the landowner denied access.	Section 4.4.1
7. Provide written comments on the Overview and Survey Reports from the applicable SHPOs, THPOs, and land-managing agencies, if available.	This information will be provided in a future supplemental filing anticipated in Q2 2023.
8. Provide a Summary Table of completion status of cultural resource surveys, and SHPO or THPO and land-managing agency comments on the reports.	This information will be provided in future supplemental filings, anticipated in Q1 and Q2 2023.
9. Provide a Summary Table of identified cultural resources, and SHPO or THPO and land managing agency comments on the eligibility recommendations for those resources.	This information will be provided in a future supplemental filing, anticipated in Q2 2023.
10. Provide a brief summary of the status of contact with federally recognized Indian tribes, including copies of all related correspondence and records of verbal communications.	Section 4.5.2 and Appendix 4B
11. Provide a brief summary of comments received from stakeholders regarding cultural resources.	This information will be provided in a future supplemental filing, anticipated in Q2 2023.
12. Provide a schedule for completing any outstanding cultural resource studies.	Section 4.4.2
13. Provide an Unanticipated Discoveries Plan for the project area, referencing appropriate state statutes.	Section 4.6 and Appendix 4C

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 4—CULTURAL RESOURCES

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APPENDICES

Appendix 4A	Correspondence with the State Historic Preservation Office
Appendix 4B	Correspondence with Native American Tribes
Appendix 4C	Plan for the Unanticipated Discovery of Cultural Resources or Human Remains During Construction

ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effects
Border Facilities	approximately 1,000 feet of 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river that is approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas
FERC	Federal Energy Regulatory Commission
GLO	Texas General Land Office
Mexico	Estados Unidos Mexicanos (United Mexican States)
NHPA	National Historic Preservation Act of 1966
NRHP	National Register of Historic Places
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
SHPO	State Historic Preservation Office
SOW	Scope of Work
UDP	Plan for the Unanticipated Discovery of Cultural Resources or Human Remains During Construction

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

4.0 RESOURCE REPORT 4—CULTURAL RESOURCES

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Resource Report 4 describes the extent and types of cultural resources, including any historic properties that may be affected by the construction and operation of the Project. Resource Report 1 provides a detailed Project description.

4.1 INTRODUCTION

Section 106 of the National Historic Preservation Act (“NHPA”) of 1966, as amended, requires federal agencies to account for the effects of their undertakings (including issuing permits) on historic properties that are listed on, or eligible for listing on, the National Register of Historic Places (“NRHP”) and to afford the Advisory Council on Historic Preservation an opportunity to comment. Historic properties are defined as prehistoric or historic districts, sites, buildings, structures, or objects listed in or eligible for listing in the NRHP (36 Code of Federal Regulations Part 60).

The Advisory Council on Historic Preservation regulations for implementing Section 106 of the NHPA (found at 36 Code of Federal Regulations Part 800) require federal agencies to complete the following:

- consult with the State Historic Preservation Office (“SHPO”), Native American tribes, and other consulting parties for undertakings with potential to affect historic properties;
- identify any historic properties that may be affected by an undertaking; and
- avoid, minimize, or mitigate adverse effects on historic properties.

The information provided in this resource report is intended to assist the Federal Energy Regulatory Commission (“FERC”) in complying with its responsibilities under Section 106 of the NHPA. Saguaro is assisting FERC in meeting this obligation by providing information on cultural resources within the proposed construction areas for the Project.

4.2 AREA OF POTENTIAL EFFECTS

By definition, the area of potential effects ("APE") is the geographic area in which an undertaking may directly or indirectly alter the character or use of historic properties. This includes the construction footprint or direct APE and the indirect APE that could be affected by the introduction of visual or atmospheric and, in some cases, physical elements that would alter a property's setting and feeling.

The Project's APE for direct effects is limited to the area where ground disturbance will or could take place. This includes the proposed permanent right-of-way, additional temporary workspace, and the existing and temporary access road. The Project's APE for indirect effects includes an area in which historic structures are in a direct line of sight to the Project. To encompass potential offsite viewshed impacts, the APE for indirect effects is a 0.5-mile-wide buffer from the Project.

4.3 BACKGROUND RESEARCH

In accordance with Texas SHPO[1] requirements, a background literature search was conducted to gather information about previous cultural resource investigations, known archaeological sites, and known historic structures. This review included previous investigations, archaeological sites, and historic architectural resources within 1.0 mile of the Border Facilities.

The results of the literature search are summarized below and will be discussed in the survey reports and submitted to FERC as Controlled Unclassified Information/Privileged and marked "CUI//PRIV – Do Not Release" when they are finalized.

On October 10, 2022, and November 8, 2022, Environmental Resources Management, on behalf of the Project, completed a review of the Texas Archaeological and Historic Sites Atlas to identify any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the NRHP within the Project area.

4.3.1 Previously Recorded Surveys

Environmental Resources Management identified four previously conducted surveys within 1.0 mile of the Project. These investigations are listed in Table 4.3-1.

Table 4.3-1: Previous Cultural Resource Surveys within 1.0 Mile of the Project

Site Number and/or Project Sponsor	Year	Report Title
Site 41HZ11 (no project sponsor)	1948	**
International Boundary and Water Commission	1976	**
Lyndon Baines Johnson School of Public Affairs	1981	**
Sites 41HZ446 and 41HZ447/Texas Historical Commission*	1988	**

* Reconnaissance survey conducted; Phase I survey not required.

** Report titles not found within Texas Historical Commission and Texas Archeological Research Laboratory records.

[1] The Texas Historical Commission is the SHPO in the State of Texas.

4.3.2 Previously Recorded Archaeological Sites

The literature search identified five archaeological sites within 1.0 mile of the Project. One unevaluated prehistoric site is located within the Project APE. Table 4.3-2 lists these previously recorded sites.

Table 4.3-2: Previously Recorded Archaeological Sites within 1.0 Mile of the Project

Site Number	Site Type	NRHP Status	Within Direct APE	Within Indirect APE
41HZ11	Prehistoric open camp	Unknown	No	No
41HZ281	Historic standing structure (house)	Unknown	No	No
41HZ282	Prehistoric open camp	Unknown	No	No
41HZ446	Historic standing structure (Schroeder School)	Recommended Eligible	No	TBD
41HZ447	Prehistoric artifact scatter with groundstone	Unknown	Yes	No

4.3.3 Previously Recorded Historic Architectural Resources

The literature search did not identify any previously recorded architectural resources within 1.0 mile of the Border Facilities.

4.3.4 Previously Recorded Cemeteries

The literature search did not identify any previously recorded cemeteries within 1.0 mile of the Border Facilities.

4.4 CULTURAL RESOURCE SURVEYS

4.4.1 Methodology

The archaeological and historic architectural survey methodology for the Project will follow the standards outlined in the *Council of Texas Archaeologists Intensive Terrestrial Survey Guidelines* (2020) and described in the Scope of Work ("SOW") for the Phase I Archaeological Survey. The majority of the Project workspace is located on land owned by the State of Texas and managed by the Texas General Land Office ("GLO"). Saguaro submitted a Texas Antiquities Permit application to the Texas GLO on December 2, 2022, for the Phase 1 cultural resources investigations to be conducted on those portions of the Project located on state land. The Texas GLO is currently reviewing the permit application and the SOW; once these are approved, they will be submitted to the Texas SHPO for concurrence and the final SOW and associated correspondence will be filed with FERC in a subsequent filing. Cultural resource surveys will begin promptly upon approval of the SOW and issuance of the Texas Antiquities Permit by the Texas SHPO.

Geomorphological Investigations

The objective of the geomorphological research is to identify sensitive segments of the survey corridor for buried cultural deposits at depths below 75 to 80 centimeters, which is the effective depth of near-surface investigation through shovel testing.

Saguaro will consult with the Texas SHPO and provide the results of the geomorphological investigations to determine if, and where, deep subsurface investigations may be required. A description of geomorphological investigations that complies with the Deep Prospection Standards in the Intensive Terrestrial Survey Standards (Council of Texas Archaeologists, 2020) is included in the SOW. The SOW will be submitted to the Texas SHPO for concurrence after it is approved by the Texas GLO and the final SOW will be filed with FERC in a subsequent filing.

4.4.2 Cultural Resource Survey Status

Saguaro will promptly commence cultural field survey activities on all Project workspaces after the Texas SHPO provides concurrence on the SOW and issues the Texas Antiquities Permit. Cultural resource surveys are anticipated to occur in January 2023.

4.4.3 Cultural Resource Survey Results

Survey reports documenting the results of the cultural resource surveys will be provided to the SHPO for comment upon completion and will be submitted to FERC as Controlled Unclassified Information/Privileged and marked "CUI//PRIV – Do Not Release" when they are finalized. Saguaro plans to provide the cultural resource survey report to FERC by March 31, 2023.

4.5 AGENCY AND TRIBAL CONSULTATION

4.5.1 Texas State Agencies

4.5.1.1 State Historic Preservation Office

On December 13, 2022, Saguaro sent a Project introduction letter to the Texas SHPO. Copies of correspondence with the Texas SHPO are provided in Appendix 4A. Future correspondence with the Texas SHPO will be submitted to FERC in a subsequent filing.

The SOW for Phase I Archaeological Survey and the Plan For The Unanticipated Discovery of Cultural Resources or Human Remains During Construction ("UDP") will be provided to the Texas SHPO once approval is received from the Texas GLO.

4.5.1.2 Texas General Land Office

Saguaro submitted a Texas Antiquities Permit application to the Texas GLO on December 2, 2022. Future correspondence with the Texas GLO will be submitted to FERC in a subsequent filing.

4.5.2 Native American Tribes

Copies of communications with the Tribes are provided in Appendix 4B. Table 4.5-1 shows the status of tribal communications. Copies of future correspondence with Native American tribes will be submitted to FERC in a subsequent filing.

Table 4.5-1: Summary of Communications with Native American Tribes

Tribe and Contact	Date	Summary
Alabama-Coushatta Tribe of Texas		
Ricky Sylestine, Chairman	November 21, 2022	Project introduction letter.
Nita Battise, Vice Chairperson	November 21, 2022	Project introduction letter.
Apache Tribe of Oklahoma		
Durell Cooper, Chairman	November 21, 2022	Project introduction letter.
Comanche Nation of Oklahoma		
Mark Woommavovah, Chairman	November 21, 2022	Project introduction letter.
Martina Minthorn, THPO	November 21, 2022	Project introduction letter.
Mescalero Apache Tribe		
President	November 21, 2022	Project introduction letter.
Holly Houghten, THPO	November 21, 2022	Project introduction letter.
Tonkawa Tribe of Indians of Oklahoma		
Russell Martin, President	November 21, 2022	Project introduction letter.
Lauren Normen-Brown, NAGPRA Coordinator	November 21, 2022	Project introduction letter.
Wichita and Affiliated Tribes		
Terri Parton, President	November 21, 2022	Project introduction letter.
Gary McAdams, Cultural Program Planner	November 21, 2022	Project introduction letter.
Ysleta Del Sur Pueblo		
E. Michael Silvas, Governor	November 21, 2022	Project introduction letter.
Rick Quezada, Director of Cultural Preservation	November 21, 2022	Project introduction letter.

On November 21, 2022, Saguaro sent a Project introduction letter to the following Native American tribes whose traditional or ancestral territory may coincide with the Project area. The purpose of these letters was to solicit comments on the Project.

- Alabama-Coushatta Tribe of Texas
- Apache Tribe of Oklahoma
- Comanche Nation of Oklahoma
- Mescalero Apache Tribe
- Tonkawa Tribe of Indians of Oklahoma
- Wichita and Affiliated Tribes
- Ysleta Del Sur Pueblo

4.6 UNANTICIPATED DISCOVERY PLAN

Saguaro developed a Project-specific UDP, which includes procedures to follow in the event that previously unreported cultural resources and/or human remains are encountered during construction. Saguaro will submit the draft UDP to the Texas SHPO for review and comment. The draft UDP is provided in Appendix 4C. A copy of the final UDP will be onsite during construction and field management staff will be trained on its contents.

4.7 REFERENCES

Council of Texas Archaeologists. 2020. Intensive Terrestrial Survey Guidelines. Available online: https://www.thc.texas.gov/public/upload/publications/CTA-Intensive-Survey-Standards-2020.pdf. Accessed: September 2022.

APPENDIX 4A CORRESPONDENCE WITH THE STATE HISTORIC PRESERVATION OFFICE

ERM

840 West Sam Houston Parkway North
Suite 600
Houston, Texas
77024

Telephone: +1 504 846 9270
Fax: +1 504 407 2098
www.erm.com

December 13, 2022

Mr. Drew Sitters
Archeology Division
Texas Historical Commission
P.O. Box 12276 – Capitol Station
Austin, Texas 78711

Subject: **Saguaro Connector Pipeline, L.L.C.**
Saguaro Connector Pipeline, Border Facilities
Hudspeth County, Texas
Project Introduction Letter

Dear Mr. Sitters,

Saguaro Connector Pipeline, L.L.C. (”Saguaro”), a subsidiary of ONEOK, Inc. (“ONEOK”), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States (“U.S.”) and the Estados Unidos Mexicanos (“United Mexican States”) (“Mexico”) approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas (“the Project” or “Project”). Saguaro respectfully requests your review of the Project to fulfill the requirements under Title 31 Texas Administrative Code (“TAC”) §65.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas (“Border Facilities”). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres (**Appendix A**). A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate 48-inch-diameter pipeline.

Saguaro plans to submit an application to the Federal Energy Regulatory Commission (“FERC”) in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC’s regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the United States and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

Saguaro plans to file a Pre-construction Notification (“PCN”) to the U.S. Army Corps of Engineers (“USACE”) – Albuquerque District for proposed activities within Waters of the U.S. (“WOTUS”), including wetlands, to comply with section 404 of the Clean Water Act (“CWA”) and section 10 of the

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Rivers and Harbors Act (“RHA”). The Project expects to comply with Nationwide Permit (“NWP”) 12 for Oil and Gas Pipeline Activities.

The proposed Project is also required to obtain an Outgrant Permit for the Border Facilities at the International Boundary between the U.S. and Mexico from the International Boundary and Water Commission (“IBWC”). As the applicant for this permit, it is Saguaro’s responsibility to contact and request a statement of no objection from the Texas Historical Commission (“THC”).

Environmental Resources Management, Inc. (“ERM”), on behalf of Saguaro, respectfully submits this letter to the THC to serve as notification of the proposed Border Facilities, and ERM’s intention to submit to your office in the upcoming days a Phase I cultural resources survey scope of work and Texas Antiquities Permit application for the Project in support of Saguaro’s Section 106 and Antiquities Code of Texas (“ACT”) compliance. The Project consists of 60 percent of property owned and managed by the General Land Office ("GLO"). Once we receive authorization on the survey scope of work from the GLO, the executed Texas Antiquities Permit will be immediately submitted to the THC.

Should you require additional information or have any questions regarding the Project, please contact me by telephone at (512) 481-8012 or by email at Brandon.Young@erm.com.

Sincerely,



Brandon. S. Young, M.A., RPA
Senior Consultant

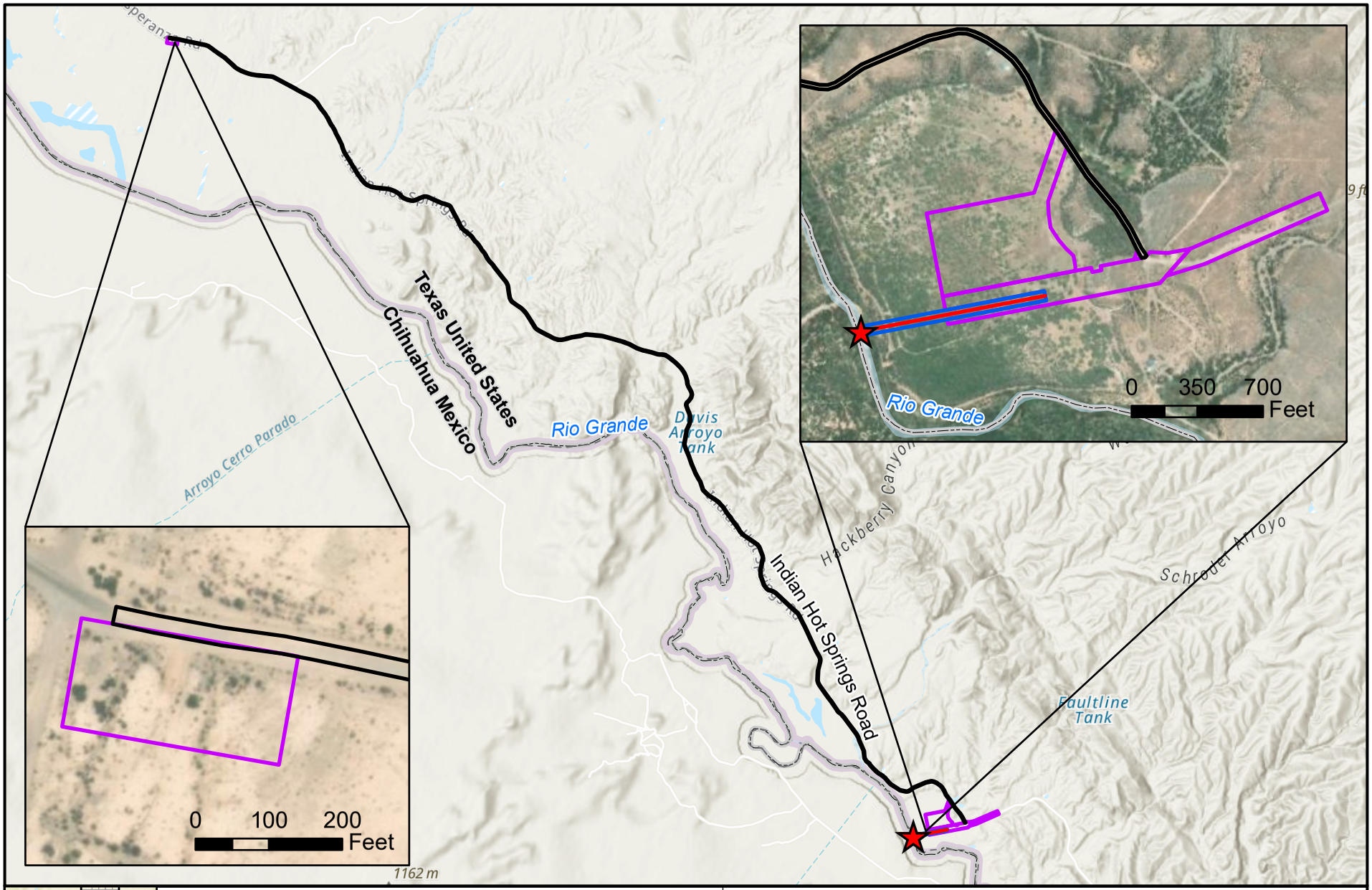
Cc: Beth Ludwig, ONEOK
Kelly Brezovar, ERM

ERM

840 West Sam Houston Parkway North
Suite 600
Houston, Texas
77024

Telephone: +1 504 846 9270
Fax: +1 504 407 2098
www.erm.com

APPENDIX A



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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Review Request Confirmation

Your request for consultation has been successfully submitted to the Texas Historical Commission.

Project Name
Saguaro Connector Pipeline Border Facilitiy

Track Number
202303245

Date Received
12/13/2022 10:00:48 AM

Due Date:
1/12/2023 10:00:48 AM (30 Days)

Thank you!

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APPENDIX 4B CORRESPONDENCE WITH NATIVE AMERICAN TRIBES

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Rick Sylestine, Chairman
Alabama-Coushatta Tribe of Texas
571 State Park Road 56
Livingston, TX 77351

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Chairman Sylestine:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande River to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new, non-Federal Energy Regulatory Commission ("FERC") jurisdictional, intrastate 48-inch-diameter pipeline that is being further refined.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

The Project is subject to review by the FERC under Section 106 of the National Historic Preservation Act of 1966 ("NHPA"; 54 U.S.C. § 300101) and the implementing regulations at 36 CFR 800. Section 106 requires federal agencies like the FERC to consider impacts on cultural resource sites in agency decision making. To facilitate the FERC's review of the Project, Saguaro is gathering information on the locations of cultural resource sites which may be affected by construction of the Border Facilities.

Saguaro recognizes the importance of engaging tribes during the early stages of a project and respectfully requests your input regarding the potential of the Project to affect archaeological sites, burials, and traditional cultural properties of concern. While the regulations for implementing Section 106 allow companies like Saguaro (and their consultants) to gather information, the FERC is responsible for complying with the NHPA. Additionally, the FERC, not Saguaro, is responsible for government-to-government consultations with Indian tribes. After the

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

initiation of the FERC's involvement in the Project, the FERC will contact you through a *Notice of Intent to Produce an Environmental Document* and/or an individual Project letter.

Saguaro has retained Environmental Resource Management, Inc. ("ERM") to provide environmental support services for the Project. If you have any questions, comments, or concerns about the Project, or information on the locations of cultural resource sites within the proposed Project areas, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com. Any comments or information you provide will be sent to the FERC.

Thank you for your time and assistance with this Project.

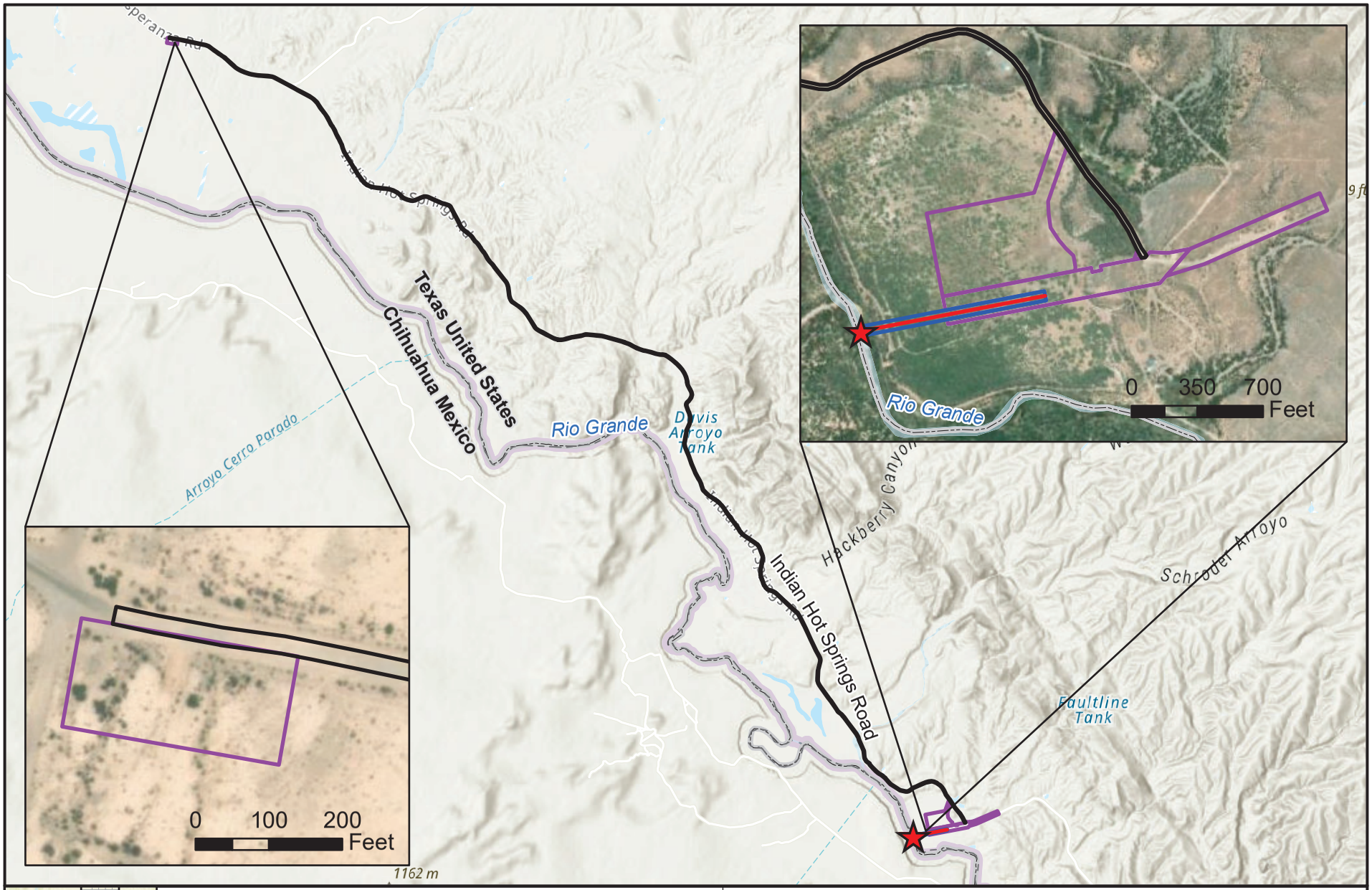
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Bryant Celestine, Alabama-Coushatta Tribe of Texas
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Nita Battise, Vice Chairperson
Alabama-Coushatta Tribe of Texas
571 State Park Road 56
Livingston, TX 77351

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Ms. Battise:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande river to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new, non-Federal Energy Regulatory Commission ("FERC") jurisdictional, intrastate 48-inch-diameter pipeline that is being further refined.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

The Project is subject to review by the FERC under Section 106 of the National Historic Preservation Act of 1966 ("NHPA"; 54 U.S.C. § 300101) and the implementing regulations at 36 CFR 800. Section 106 requires federal agencies like the FERC to consider impacts on cultural resource sites in agency decision making. To facilitate the FERC's review of the Project, Saguaro is gathering information on the locations of cultural resource sites which may be affected by construction of the Border Facilities.

Saguaro recognizes the importance of engaging tribes during the early stages of a project and respectfully requests your input regarding the potential of the Project to affect archaeological sites, burials, and traditional cultural properties of concern. While the regulations for implementing Section 106 allow companies like Saguaro (and their consultants) to gather information, the FERC is responsible for complying with the NHPA. Additionally, the FERC, not Saguaro, is responsible for government-to-government consultations with Indian tribes. After the

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

initiation of the FERC's involvement in the Project, the FERC will contact you through a *Notice of Intent to Produce an Environmental Document* and/or an individual Project letter.

Saguaro has retained Environmental Resource Management, Inc. ("ERM") to provide environmental support services for the Project. If you have any questions, comments, or concerns about the Project, or information on the locations of cultural resource sites within the proposed Project areas, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com. Any comments or information you provide will be sent to the FERC.

Thank you for your time and assistance with this Project.

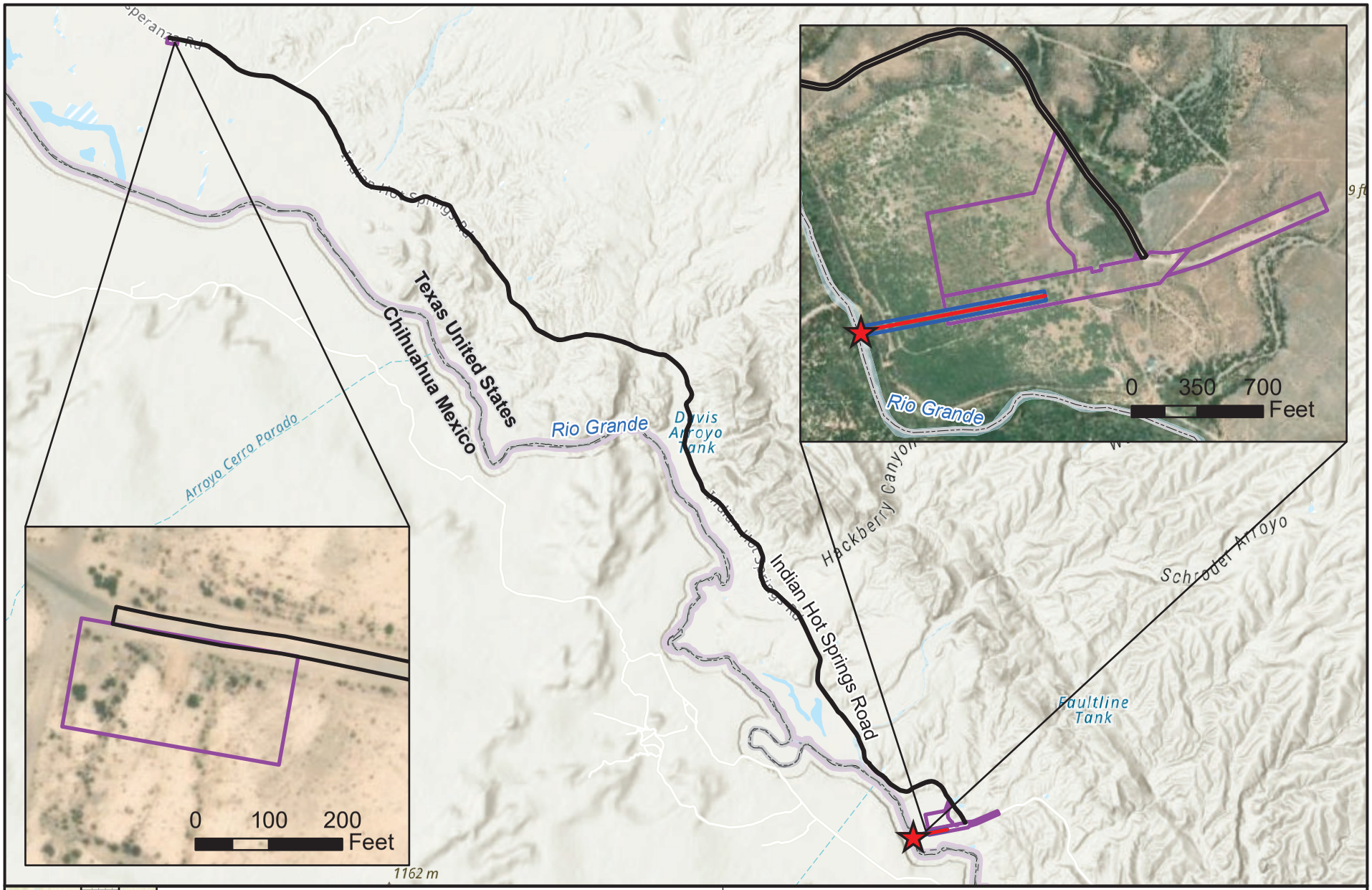
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Rick Sylestine, Alabama-Coushatta Tribe of Texas
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Durell Cooper, Chairman
Apache Tribe of Oklahoma
PO Box 1330
Anadarko, OK73005

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Chairman Cooper:

Saguaro Connector Pipeline, L.L.C. (”Saguaro”), a subsidiary of ONEOK, Inc. (“ONEOK”), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States (“U.S.”) and the Estados Unidos Mexicanos (“United Mexican States”) (“Mexico”) approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas (“the Project” or “Project”).

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The Project is subject to review by the FERC under Section 106 of the National Historic Preservation Act of 1966 (“NHPA”; 54 U.S.C. § 300101) and the implementing regulations at 36 CFR 800. Section 106 requires federal agencies like the FERC to consider impacts on cultural resource sites in agency decision making. To facilitate the FERC’s review of the Project, Saguaro is gathering information on the locations of cultural resource sites which may be affected by construction of the Border Facilities.

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100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

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Thank you for your time and assistance with this Project.

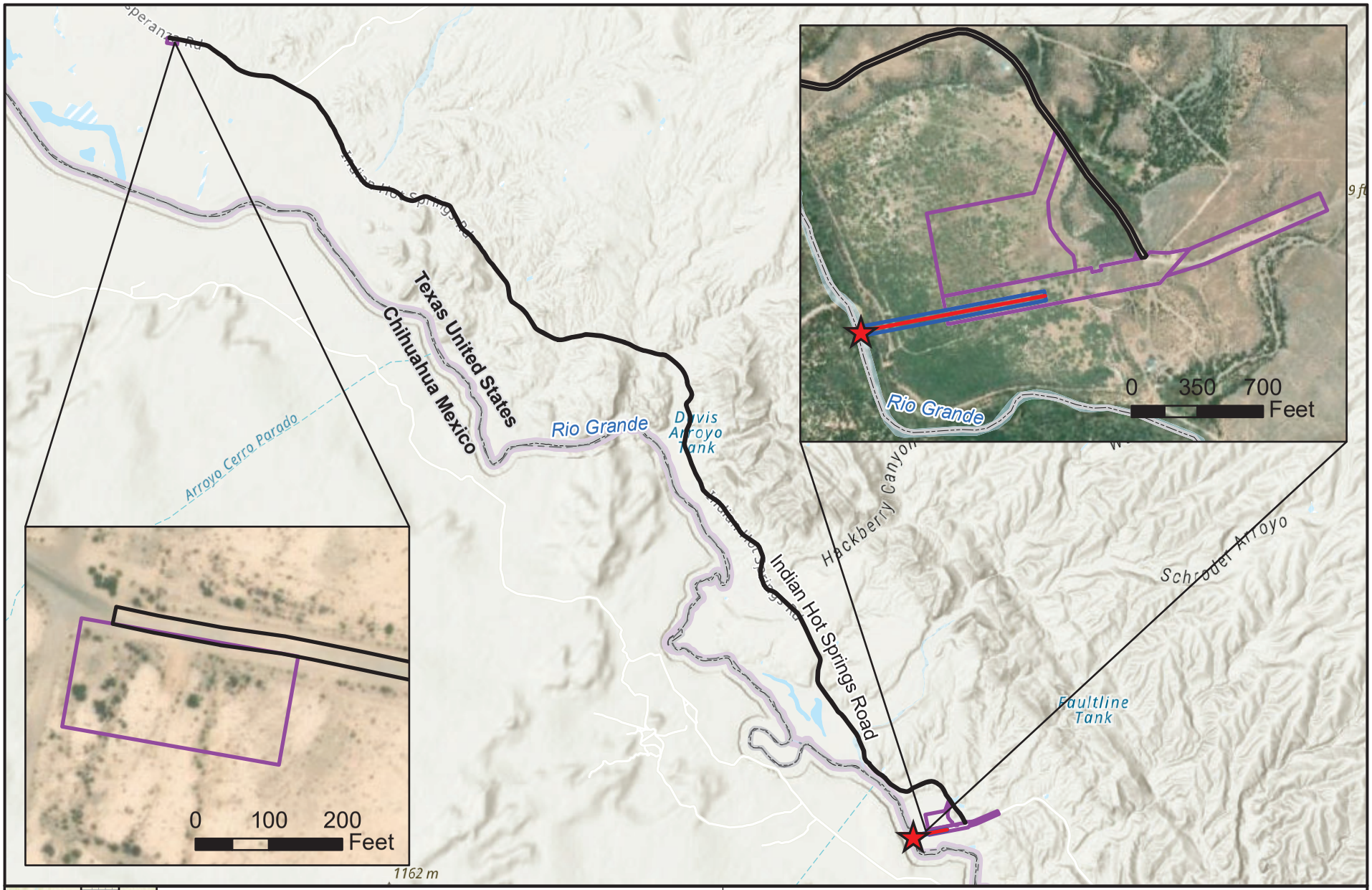
Sincerely

DocuSigned by:
Beth Ludwig
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Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Mark Woommavovah, Chairman
Comanche Nation
2025 South Gordon Cooper Dr.
Shawnee, OK 74801

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Chairman Woommavovah:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

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100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

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Saguaro has retained Environmental Resource Management, Inc. ("ERM") to provide environmental support services for the Project. If you have any questions, comments, or concerns about the Project, or information on the locations of cultural resource sites within the proposed Project areas, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com. Any comments or information you provide will be sent to the FERC.

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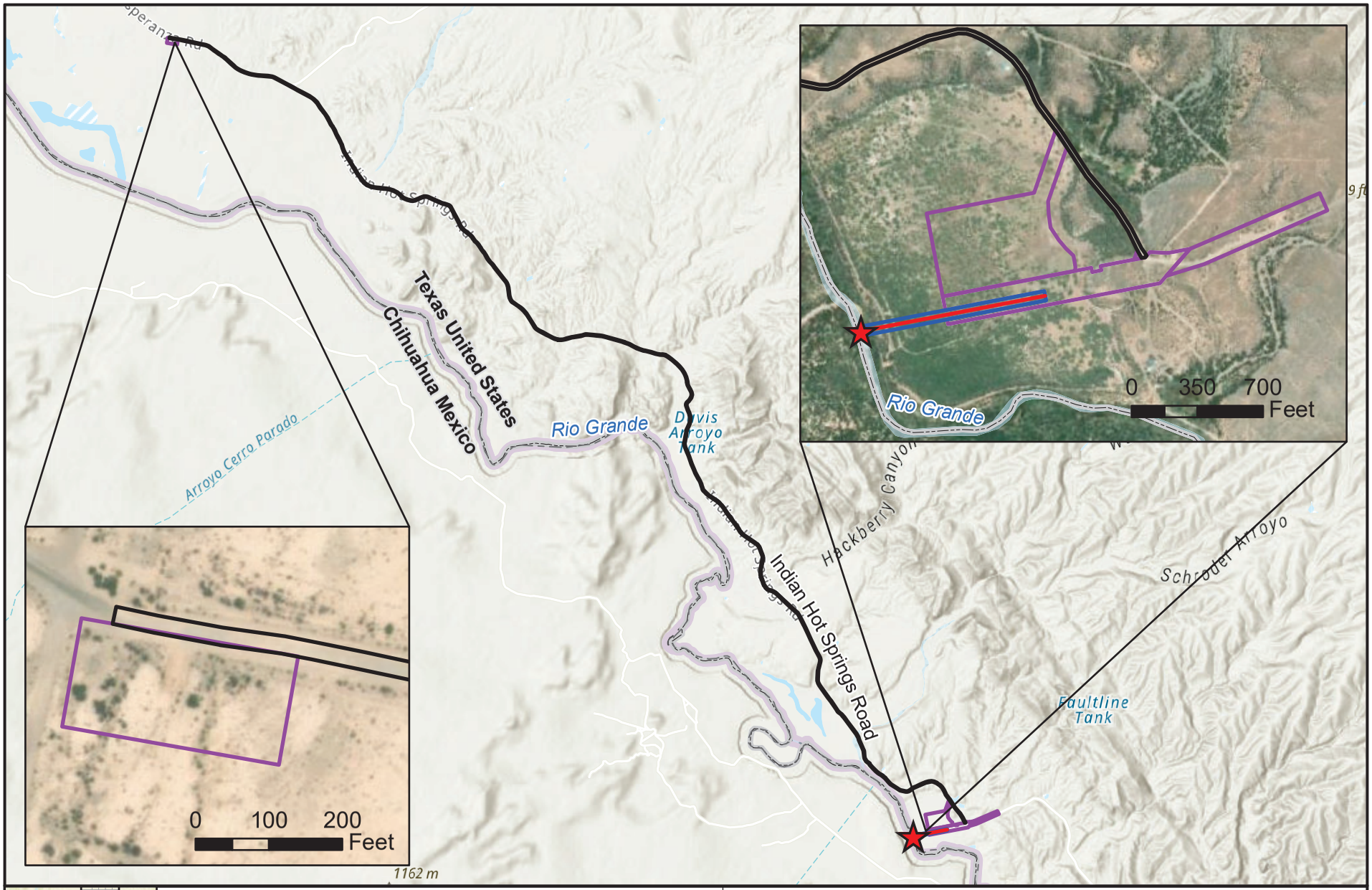
Sincerely

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Martina Minthorn, Comanche Nation
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Martina Minthorn, THPO
Comanche Nation
PO Box 908
Lawton, OK 73502

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Ms. Minthorn:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

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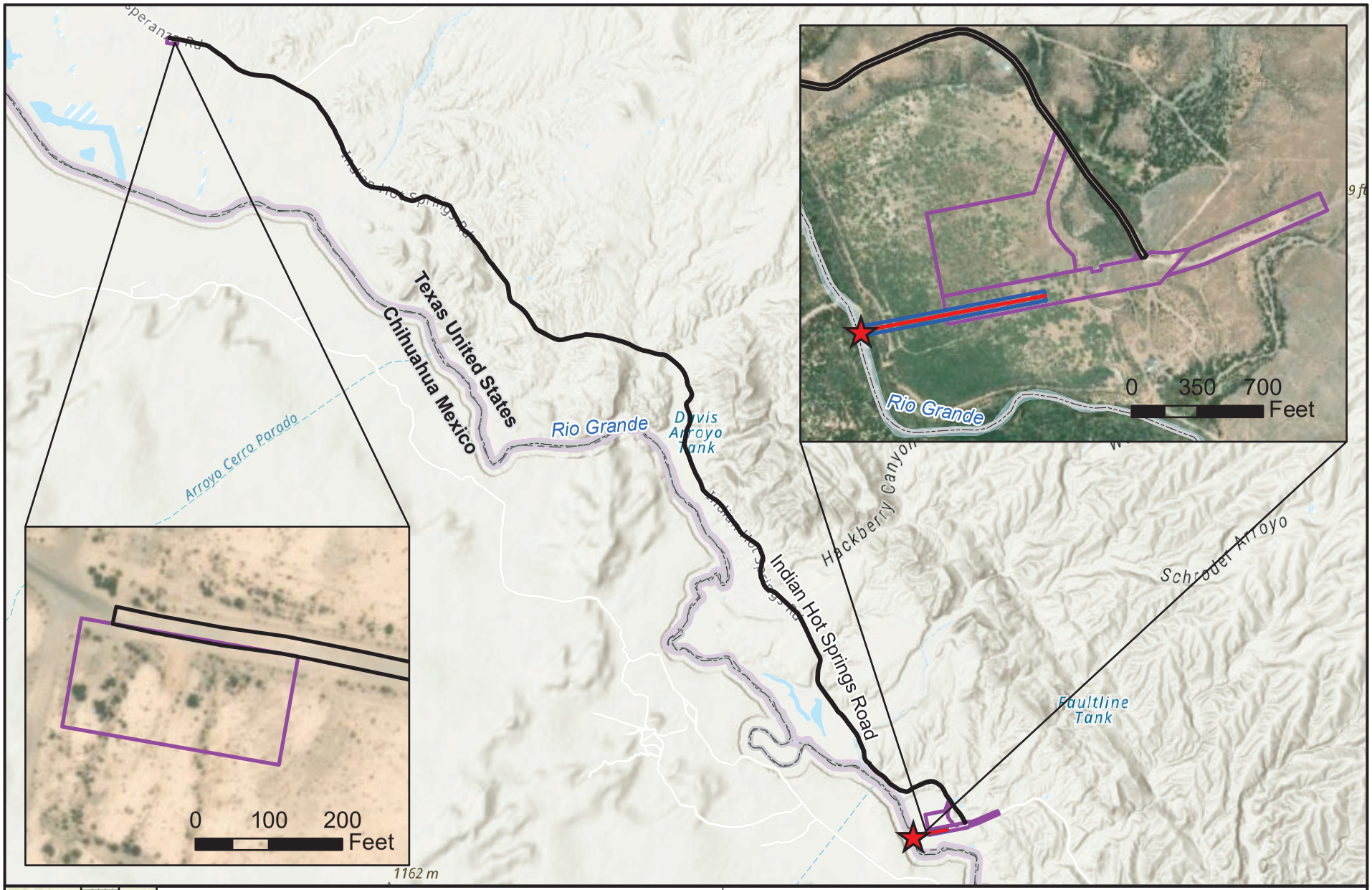
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Mark Woommavovah, Comanche Nation
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

President
Mescalero Apache Tribe of the Mescalero Reservation
PO Box 227
Mescalero, NM 88340-0227

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear President:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande river to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new, non-Federal Energy Regulatory Commission ("FERC") jurisdictional, intrastate 48-inch-diameter pipeline that is being further refined.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

The Project is subject to review by the FERC under Section 106 of the National Historic Preservation Act of 1966 ("NHPA"; 54 U.S.C. § 300101) and the implementing regulations at 36 CFR 800. Section 106 requires federal agencies like the FERC to consider impacts on cultural resource sites in agency decision making. To facilitate the FERC's review of the Project, Saguaro is gathering information on the locations of cultural resource sites which may be affected by construction of the Border Facilities.

Saguaro recognizes the importance of engaging tribes during the early stages of a project and respectfully requests your input regarding the potential of the Project to affect archaeological sites, burials, and traditional cultural properties of concern. While the regulations for implementing Section 106 allow companies like Saguaro (and their consultants) to gather information, the FERC is responsible for complying with the NHPA. Additionally, the FERC, not Saguaro, is responsible for government-to-government consultations with Indian tribes. After the

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

initiation of the FERC's involvement in the Project, the FERC will contact you through a *Notice of Intent to Produce an Environmental Document* and/or an individual Project letter.

Saguaro has retained Environmental Resource Management, Inc. ("ERM") to provide environmental support services for the Project. If you have any questions, comments, or concerns about the Project, or information on the locations of cultural resource sites within the proposed Project areas, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com. Any comments or information you provide will be sent to the FERC.

Thank you for your time and assistance with this Project.

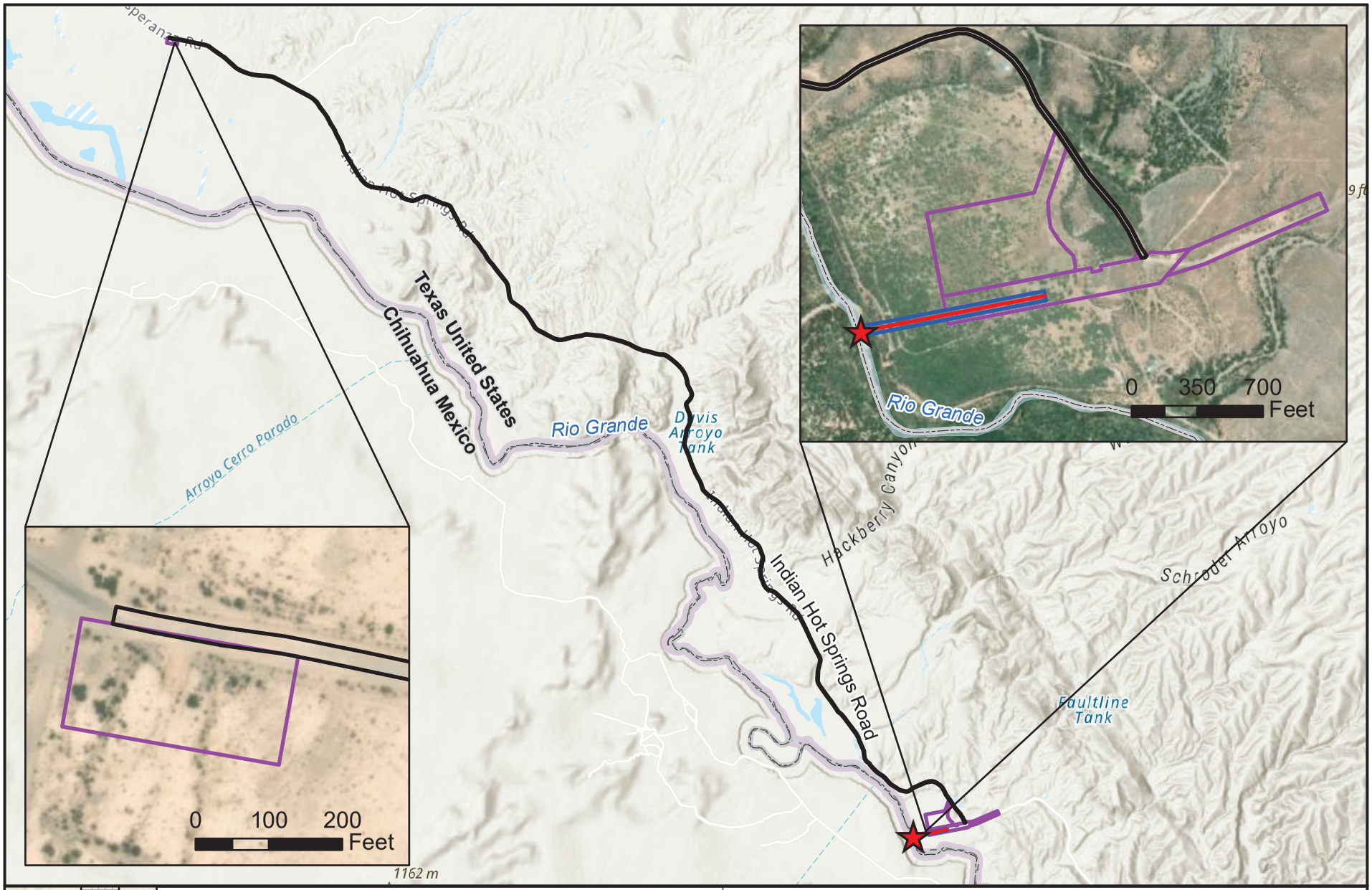
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Holly Houghten, Mescalero Apache Tribe of the Mescalero Reservation
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Holly Houghten, THPO
Mescalero Apache Tribe of the Mescalero Reservation
PO Box 227
Mescalero, NM 88340-0227

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Ms. Houghten:

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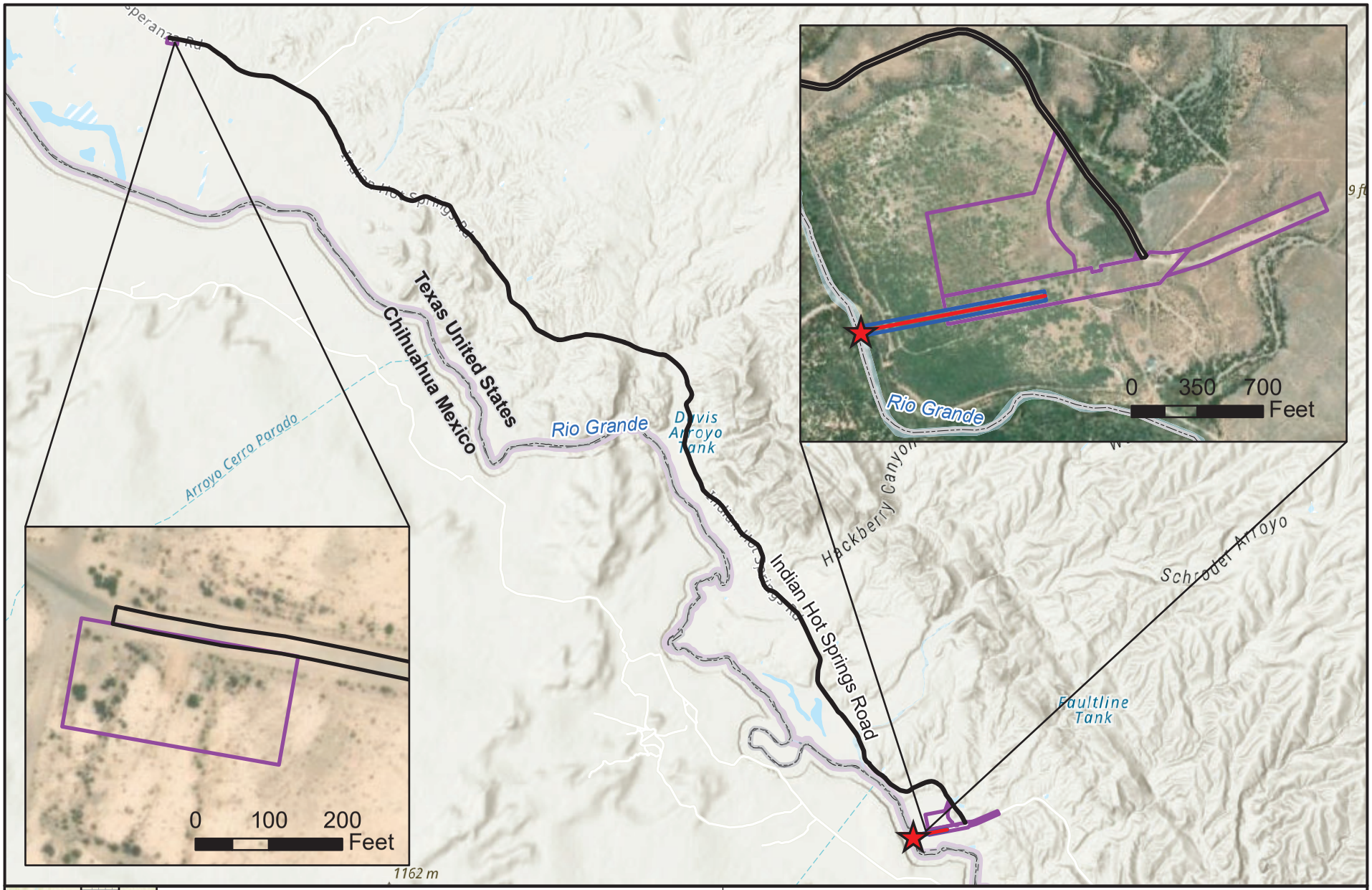
Sincerely

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: President, Mescalero Apache Tribe of the Mescalero Reservation
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Russell Martin, President
Tonkawa Tribe of Oklahoma
1 Rush Buffalo Road
Tonkawa, OK 74653-4449

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear President Martin:

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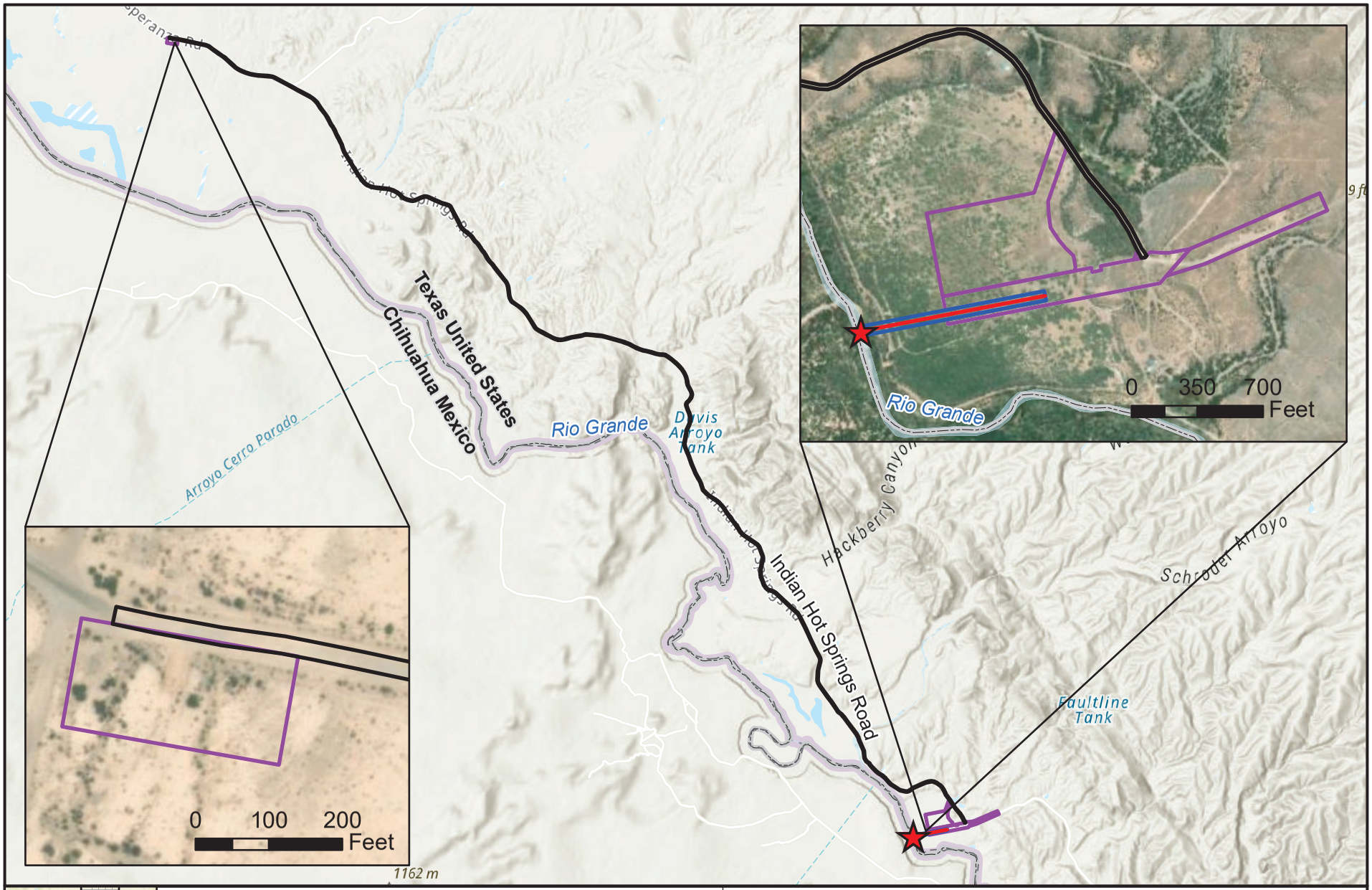
Sincerely

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Lauren Norman-Brown, Tonkawa Tribe of Oklahoma
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Lauren Norman-Brown, NAGPRA Coordinator
Tonkawa Tribe of Oklahoma
1 Rush Buffalo Road
Tonkawa, OK 74653-4449

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Ms. Norman-Brown:

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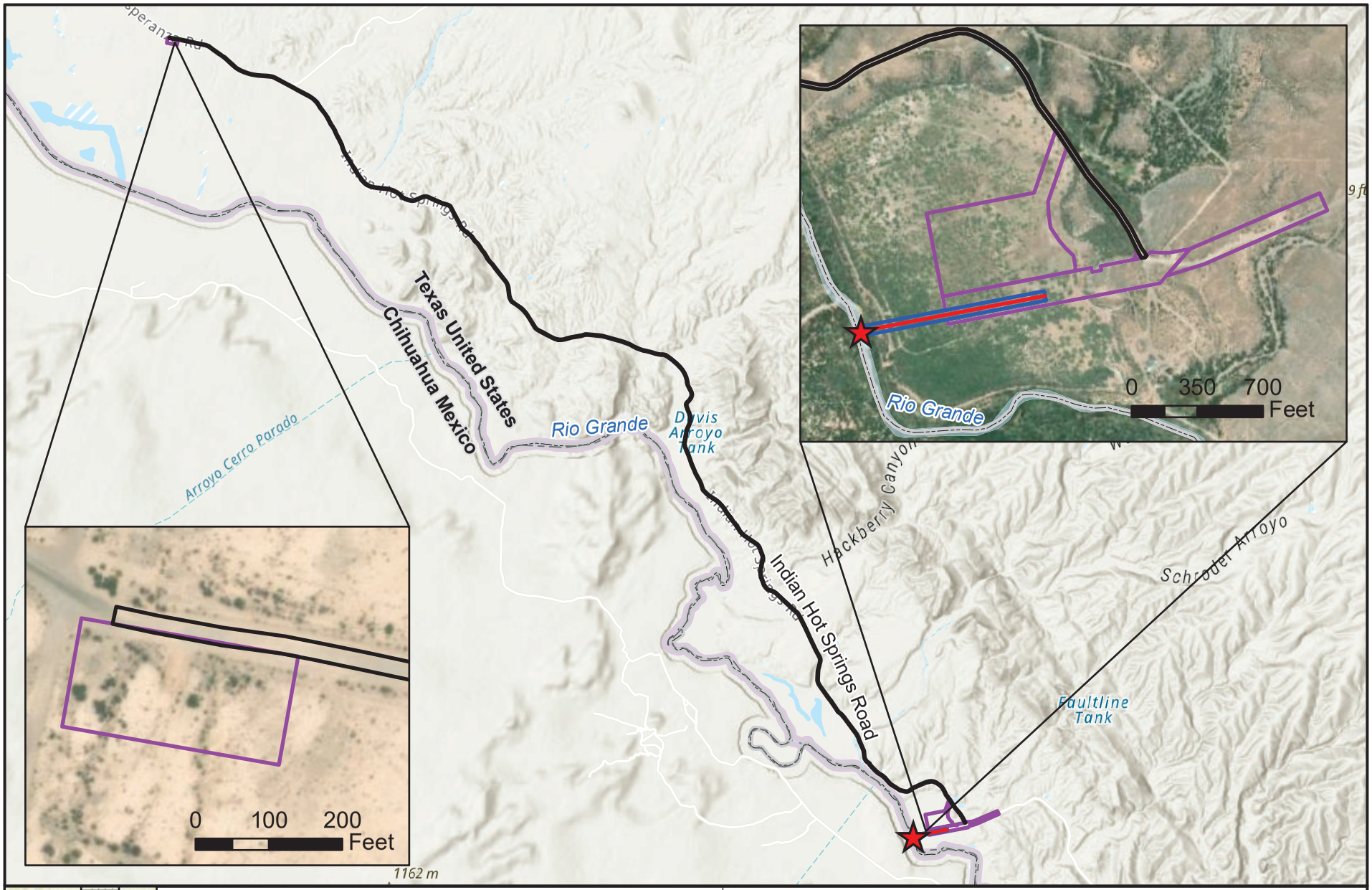
Sincerely,

DocuSigned by:
Beth Ludwig
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Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Russell Martin, Tonkawa Tribe of Oklahoma
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Terri Parton, President
Wichita and Affiliated Tribes
PO Box 729
Anadarko, OK 73005-0729

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear President Parton:

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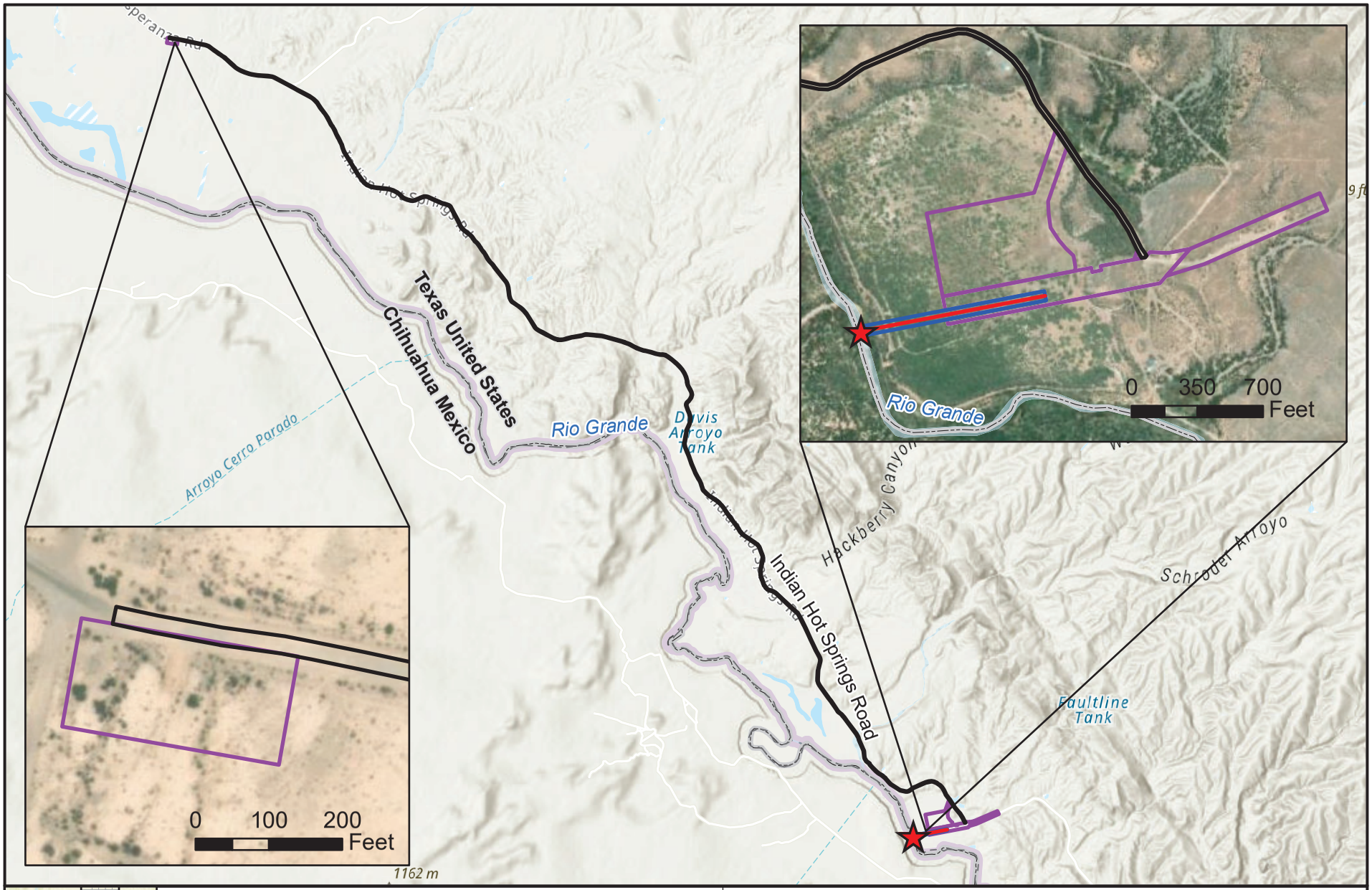
Sincerely,

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Environmental Project Manager

Enclosures: Project Overview Map

Cc: Gary McAdams, Wichita and Affiliated Tribes
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Gary McAdams, Cultural Program Planner
Wichita and Affiliated Tribes
PO Box 729
Anadarko, OK 73005-0729

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

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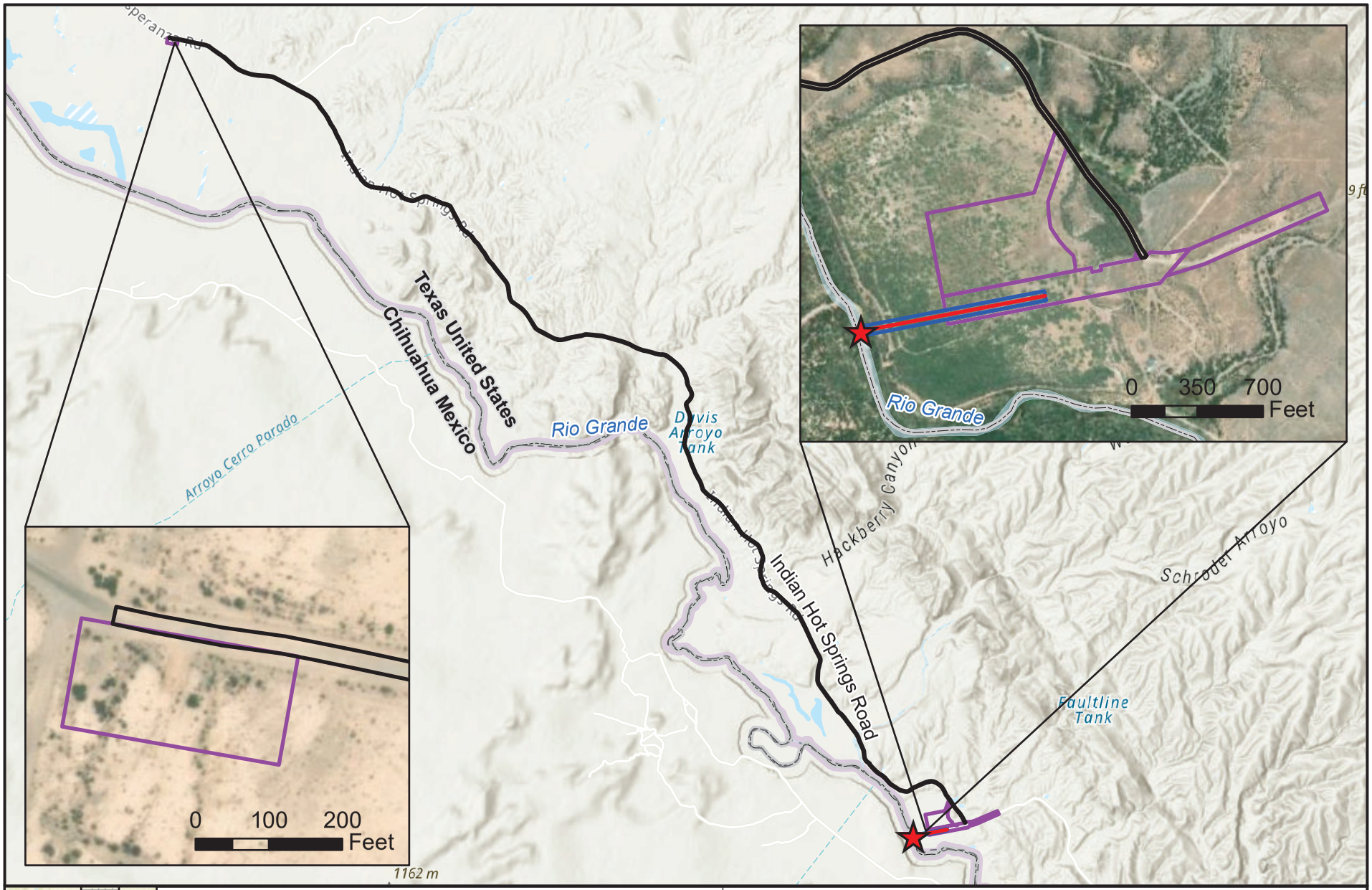
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Cc: Terri Parton, Wichita and Affiliated Tribes
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SAGUARO CONNECTOR PIPELINE

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

E. Michael Silvas, Governor
Ysleta Del Sur Pueblo
119 S. Old Pueblo Road
El Paso, TX 79917

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
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Dear Governor Silvas:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande river to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new, non-Federal Energy Regulatory Commission ("FERC") jurisdictional, intrastate 48-inch-diameter pipeline that is being further refined.

Saguaro plans to submit an application to the FERC in December 2022 for the Border Facilities pursuant to section 3 of the Natural Gas Act, as amended, and Part 153 of the FERC's regulations, requesting approval for a Presidential Permit for a new International Boundary crossing between the U.S. and Mexico. Saguaro anticipates receiving a Presidential Permit for the new International Boundary crossing from the FERC in 2023. Construction of the International Boundary crossing is proposed to begin in 2024, and the International Boundary crossing is proposed to become operational in 2025.

The Project is subject to review by the FERC under Section 106 of the National Historic Preservation Act of 1966 ("NHPA"; 54 U.S.C. § 300101) and the implementing regulations at 36 CFR 800. Section 106 requires federal agencies like the FERC to consider impacts on cultural resource sites in agency decision making. To facilitate the FERC's review of the Project, Saguaro is gathering information on the locations of cultural resource sites which may be affected by construction of the Border Facilities.

Saguaro recognizes the importance of engaging tribes during the early stages of a project and respectfully requests your input regarding the potential of the Project to affect archaeological sites, burials, and traditional cultural properties of concern. While the regulations for implementing Section 106 allow companies like Saguaro (and their consultants) to gather information, the FERC is responsible for complying with the NHPA. Additionally, the FERC, not Saguaro, is responsible for government-to-government consultations with Indian tribes. After the

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

initiation of the FERC's involvement in the Project, the FERC will contact you through a *Notice of Intent to Produce an Environmental Document* and/or an individual Project letter.

Saguaro has retained Environmental Resource Management, Inc. ("ERM") to provide environmental support services for the Project. If you have any questions, comments, or concerns about the Project, or information on the locations of cultural resource sites within the proposed Project areas, please contact me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com. Any comments or information you provide will be sent to the FERC.

Thank you for your time and assistance with this Project.

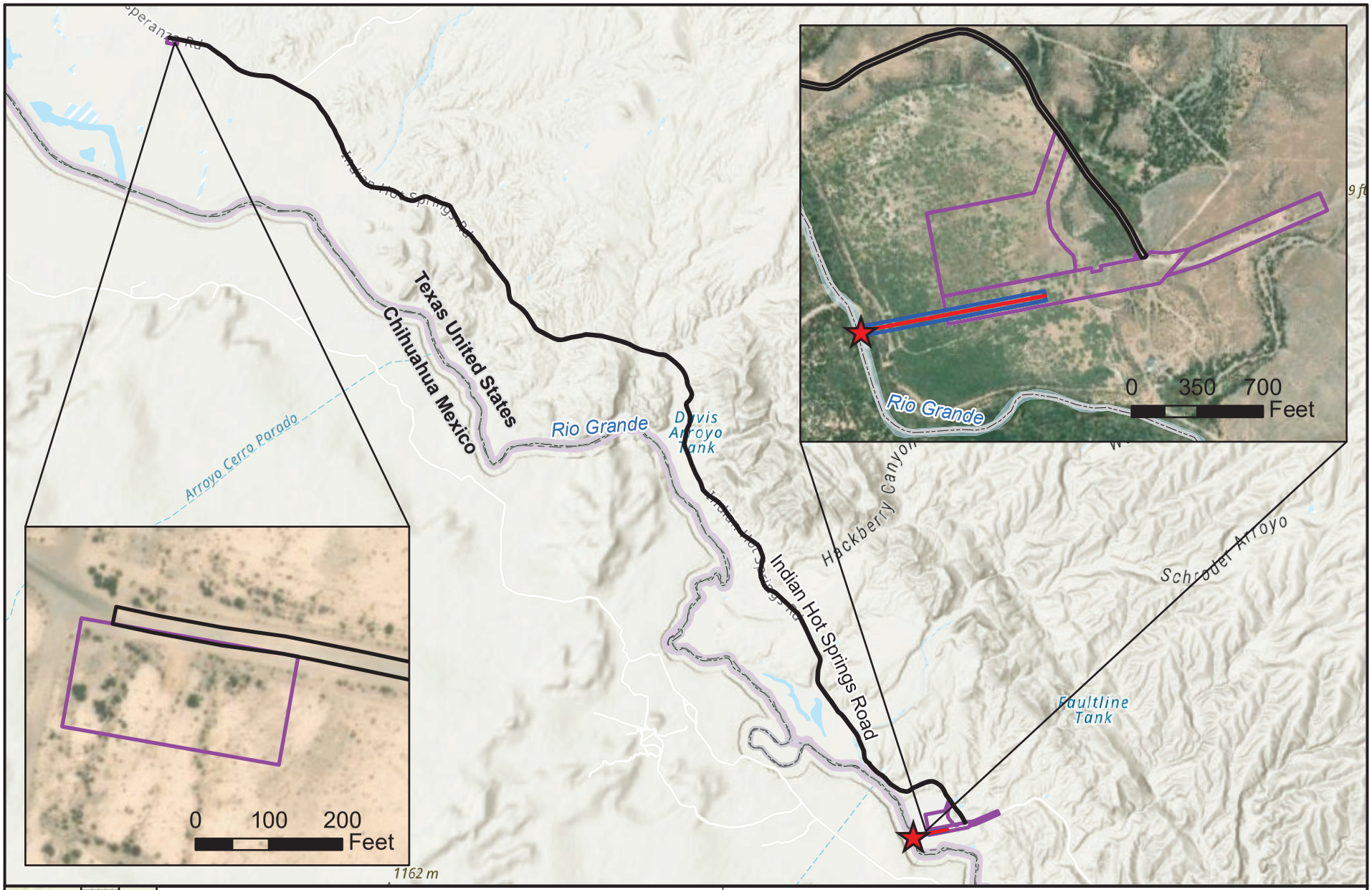
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: Rick Quezada, Ysleta Del Sur Pueblo
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Rick Quezada, Director of Cultural
Preservation
Ysleta Del Sur Pueblo
119 S. Old Pueblo Road
El Paso, TX 79917

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Information Request for Cultural Resource Sites

Dear Mr. Quezada:

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project").

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande river to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new, non-Federal Energy Regulatory Commission ("FERC") jurisdictional, intrastate 48-inch-diameter pipeline that is being further refined.

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Thank you for your time and assistance with this Project.

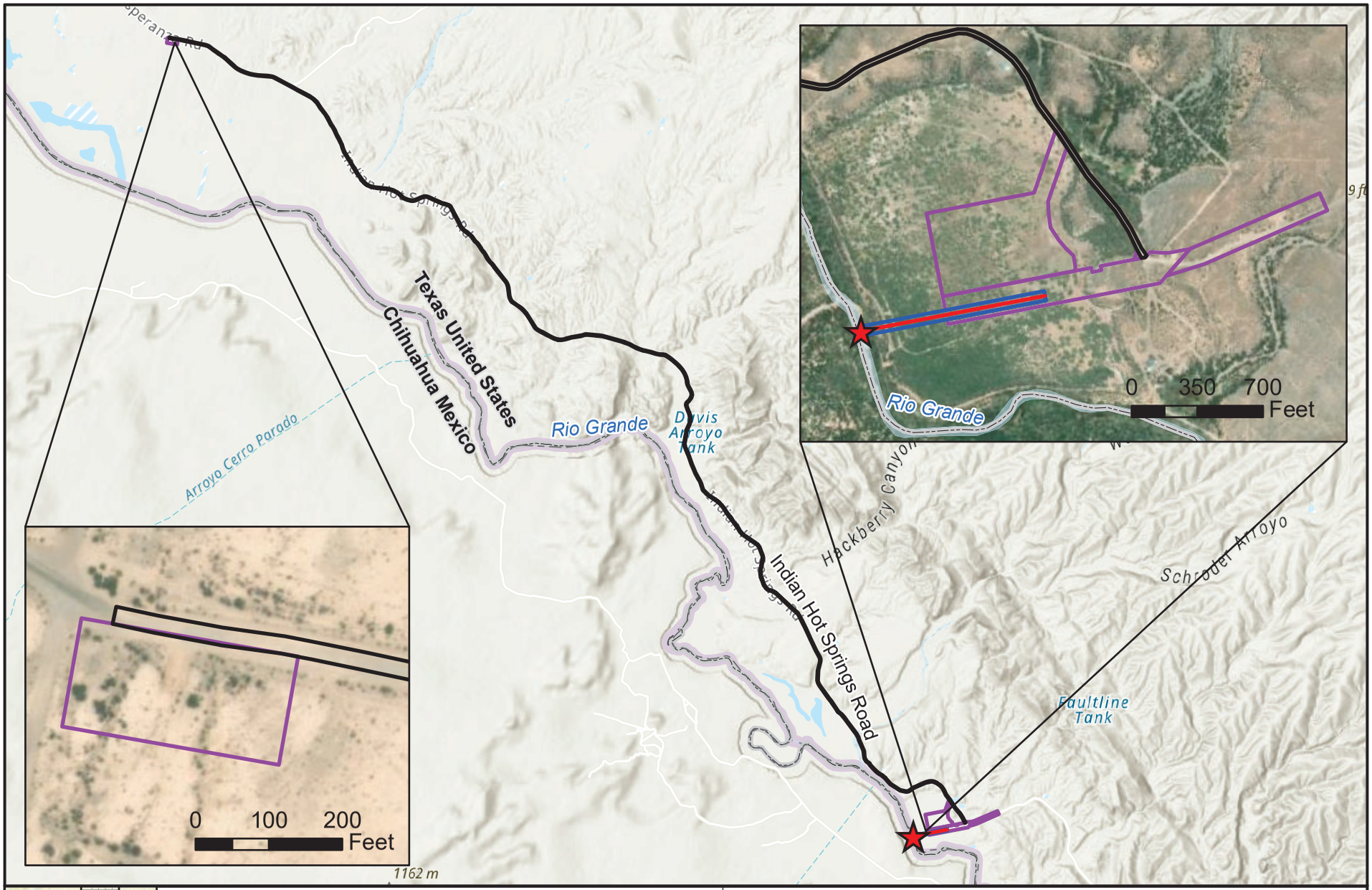
Sincerely,

DocuSigned by:
Beth Ludwig
C0B464BD3CAC4E7...

Beth Ludwig
Environmental Project Manager

Enclosures: Project Overview Map

Cc: E. Michael Silvas, Ysleta Del Sur Pueblo
Kelly Brezovar, ERM



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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APPENDIX 4C PLAN FOR THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES OR HUMAN REMAINS DURING CONSTRUCTION

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Plan for the Unanticipated Discovery of Cultural Resources or Human Remains During Construction

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
PLAN FOR THE UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES OR HUMAN REMAINS DURING CONSTRUCTION

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ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
EI	Environmental Inspector
FERC	Federal Energy Regulatory Commission
Project	Saguaro Pipeline Connector Project (siting, construction, connection operation and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
SHPO	State Historic Preservation Officer
THC	Texas Historical Commission

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

1.0 INTRODUCTION

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), has established the following procedures for recovery of previously unreported cultural resources and human remains found during construction of the proposed Saguaro Connector Pipeline Project ("Project"). This plan identifies procedures to be implemented in the event that previously unreported and unanticipated cultural materials or human remains are found during construction of the Project.

2.0 TRAINING

Prior to the commencement of construction, Saguaro will ensure that Project personnel and contractor personnel receive environmental training. This training will include review of the procedures set forth in this Unanticipated Discovery Plan of Cultural Resources or Human Remains During Construction and the procedures to follow in the event of an unanticipated discovery.

2.1 Cultural Resources

Cultural resources include all landscapes, buildings, sites, districts, structures, or objects that have been created by, or are associated with, humans and are considered to have historical or cultural value—including historic properties. Historic properties encompass prehistoric archaeological sites and districts, historic buildings and districts, and structures or objects included in, or eligible for inclusion in, the National Register of Historic Places.

Personnel involved in Project construction shall be instructed to stop work immediately in the vicinity of a cultural resources find and report any cultural materials encountered (including historic and prehistoric period items such as building remnants, structures, projectile points, ceramic shards, prehistoric hearths, or other remnants of human activity) that are not shown on Project drawings and/or were not evident during previous cultural resources surveys to the Environmental Project Manager. This plan outlines the specific procedures to be followed after such materials are found. These procedures meet or exceed the Policy Statement Regarding Treatment of Cultural Resources set forth by the National Historic Preservation Act (Public Law 89-665), its implementing regulations entitled "Protection of Historic and Cultural Properties" (36 Code of Federal Regulations ["CFR"] Part 800), and the Antiquities Code of Texas (Texas Natural Resource, Title 9, Chapter 191).

If the Environmental Project Manager believes that an unanticipated discovery has been made, the Environmental Project Manager shall protect and secure the cultural materials in place by delineating the find with flagging or fencing and shall minimize movement of vehicles in the area immediately surrounding the discovery.

Saguaro, or their representative, shall arrange for the discovery to be evaluated by an archaeologist that meets the Secretary of Interior's Professional Qualification Standards (36 CFR 61). The archaeologist shall evaluate the remains, request input from Tribes who have expressed an interest in being notified of Project finds during construction, and provide recommendations on how to manage the resource under Texas's Statewide Historic Preservation Plan.

2.2 Human Remains

Saguaro seeks to treat all human interments with respect in accordance with state and federal law as it applies to human remains. Personnel shall be provided with a description of human bones and common funerary objects to identify these finds during construction. Personnel shall be instructed that, upon encountering any evidence of human remains, construction is to be immediately stopped, the area is to be cordoned off to protect the find from further construction-related impacts, and the Environmental Project Manager or Environmental Inspector ("EI") is to be notified.

This plan outlines the specific procedures to be followed in the event that human remains are encountered. These procedures meet or exceed the Advisory Council on Historic Preservation's Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects and will comply with the following regulations:

- National Historic Preservation Act (Public Law 89-665) and its implementing regulations entitled "Protection of Historic and Cultural Properties" (36 CFR Part 800.13);
- Native American Grave and Repatriation Act (43 CFR Part 10);
- Procedures for the Protection of Historic Properties (33 CFR 325 Appendix C);
- Archaeological and Historic Preservation Act;
- Consultation and Coordination with Indian Tribal Governments (EO 13175);
- Antiquities Code of Texas (Texas Natural Resource, Title 9, Chapter 191);
- Texas Health and Safety Code Provisions Relating to Cemeteries (Title 8, Chapters 711–715); and
- Federal Energy Regulatory Commission ("FERC") Guidelines for Reporting on Cultural Resources (2017, Part 5.0).

All activities that might disturb the remains shall cease immediately and may not resume until authorized by appropriate law enforcement officials or the State Archaeologist. Any human remains, burial sites, or burial-related materials that are discovered during construction shall at all times be treated with dignity and respect.

3.0 UNANTICIPATED DISCOVERY OF CULTURAL MATERIALS OR HUMAN REMAINS

If any unreported and unanticipated prehistoric or historic-aged cultural materials identified during construction, the following procedures will be followed.

1. The Contractor will stop work in the area of the find to protect the integrity of the find.
2. The Contractor will notify the EI of the find. The Contractor will not restart work in the area of the find until approved by the EI.

3. The EI will notify the Project's Cultural Resource Coordinator, who will coordinate with archaeological staff to travel to the location of the find and conduct a preliminary evaluation of the significance of the find. The Cultural Resource Coordinator also will notify the Environmental Project Manager of the find.

4. Following the investigation by archaeological staff, the Cultural Resource Coordinator will notify the Environmental Project Manager by telephone regarding the preliminary evaluation of the significance of the find.

5. If the materials found are human remains, the procedure identified in section 3.2 will be implemented. Otherwise, the procedures identified in section 3.1 will be implemented.

3.1 Discovery of Cultural Materials

1. The Cultural Resource Coordinator will notify the EI to flag or fence off the site.

2. The Environmental Project Manager will direct the Cultural Resource Coordinator in conjunction with archaeological staff to begin a more detailed assessment of the significance of the find and the potential effect of construction on the site.

3. Archaeological staff will assess and document the find within two days of the discovery. If the find is determined to be non-cultural, then the archaeological staff will notify the Cultural Resources Coordinator (who in turn will notify the Environmental Project Manager) that construction can proceed in the vicinity of the find without additional action. If the find is a cultural resource, a brief assessment report on the find will be provided for review to FERC and the Texas Historical Commission ("THC") within seven days of its discovery.

4. Upon discovery of cultural materials, the Cultural Resource Coordinator or the Environmental Project Manager will notify the FERC Archaeologist, the Texas State Historic Preservation Officer ("SHPO"), and any tribes that requested to be notified of the find.

5. The Cultural Resource Coordinator or the Environmental Project Manager will notify other parties of the find as directed by the SHPO and FERC.

6. If the find is determined to be significant and continuing construction may damage more of the site, then the Environmental Project Manager or the Cultural Resource Coordinator will request recommendations from the SHPO, FERC, and any parties recommended by the SHPO and FERC regarding measures for site treatment, which may include the following:

    i. variance request to re-route around the site;

    ii. visits to the site by the SHPO, FERC, and other parties;

    iii. preparation of a mitigation plan for approval by the SHPO and FERC;

iv. implementation of the mitigation plan and approval to resume construction following completion of the fieldwork component of the mitigation plan.

7. If the find is determined to lack significance, then the Environmental Project Manager or the Cultural Resources Coordinator will request approval to resume construction from FERC.

8. The Project Representative will notify the EI who will grant clearance to the Contractor to start work.

3.2 Discovery of Human Remains

1. If an unmarked human burial or any skeletal remains are encountered during construction activities, the EI will immediately notify the Cultural Resources Coordinator. The Cultural Resources Coordinator will immediately notify the Hudspeth County Sheriff's office of the discovery as stipulated in Chapter 192 of the Texas Natural Resources Code (Section 192.001 to 192.009). This code also stipulates that the law enforcement office will promptly notify the landowner and the county medical examiner as to the discovery of human remains.

2. The Cultural Resource Coordinator will notify the EI to flag or fence off the site.

3. The Cultural Resource Coordinator also will notify the Environmental Project Manager and the SHPO of the find.

4. The Environmental Project Manager or the Cultural Resource Coordinator will notify FERC of the find.

5. If the Hudspeth County Sheriff determines that the remains are not modern or do not reflect a crime scene and/or if they otherwise relinquish their jurisdiction over the remains, consultation with appropriate parties (e.g., FERC, the THC, and/or the landowner) will occur regarding additional steps to be followed.

6. If it is determined that the remains have affinity to a federally recognized American Indian tribe, a reasonable effort will be made to identify, locate, and notify the tribe.

7. The measures to protect the remains and any associated artifacts will remain in effect until they have been fully evaluated and the appropriate treatment of the discovery (if applicable) has been completed and the Project has received notice from FERC to proceed with construction at the site of the discovery.

8. The Environmental Project Manager will notify the EI who will grant clearance to the Contractor to resume work in the vicinity of the find.

4.0 CONTACTS FOR THE DISCOVERY OF UNANTICIPATED CULTURAL RESOURCES AND/OR HUMAN REMAINS

In the event of the discovery and/or disturbance of unanticipated cultural resources and/or human remains, communications between Saguaro, FERC, and the THC will involve the following personnel. Federally recognized tribal organizations who have expressed interest in the Project will also be contacted.

Saguaro Connector Pipeline, L.L.C.:

Beth Ludwig
Environmental Project Manager
100 W. Fifth Street
Tulsa, OK 74103
(918) 588-7257
beth.ludwig@oneok.com

[To Be Determined]
Cultural Resource Coordinator
PHONE
EMAIL

[To Be Determined]
Environmental Inspector
PHONE
EMAIL

FERC:

[To Be Determined]
Project Manager, Division of Gas-Environmental and Engineering
Office of Energy Projects
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426
PHONE
EMAIL

[To Be Determined]
Archaeologist, Division of Gas-Environmental and Engineering
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426
PHONE
EMAIL

Tribes: (To be determined—will be added upon request)

Texas Historical Commission:

Mark Wolfe

State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711
Telephone: (512) 936-4323
Email: mark.wolfe@thc.texas.gov

THC Contact – Hudspeth County
Drew Sitters
Texas Historical Commission
1511 Colorado St.
Austin, Texas 78701
Phone: (512) 463-6252
Email: Drew.Sitters@thc.texas.gov

Hudspeth County Sheriff:

Sheriff Arvin West
525 Brown St
Sierra Blanca, TX 79851
Phone: (915) 369-2161

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 5
Socioeconomics

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 5—SOCIOECONOMICS

Minimum Filing Requirements for Environmental Reports:	**Addressed In:**
This report is required only for applications involving significant above-ground facilities, including, among others, conditioning or liquefied natural gas (LNG) plants.	
1. Describe the socioeconomic impact area.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
2. Evaluate the impact of any substantial immigration of people on governmental facilities and services and plans to reduce the impact on the local infrastructure.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
3. Describe on-site manpower requirements and payroll during construction and operation, including the number of construction personnel who currently reside within the impact area, will commute daily to the site from outside the impact area, or will relocate temporarily within the impact area.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
4. Determine whether existing housing within the impact area is sufficient to meet the needs of the additional population.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
5. Describe the number and types of residences and businesses that will be displaced by the project, procedures to be used to acquire these properties, and types and amounts of relocation assistance payments.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
6. Conduct a fiscal impact analysis evaluating incremental local government expenditures in relation to incremental local government revenues that will result from construction of the project. Incremental expenditures include, but are not limited to, school operating costs, road maintenance and repair, public safety, and public utility costs.	Not Applicable – RR 5 is not required for Projects without aboveground facilities
Additional Information:	
1. Evaluate the effects of the project on minority and low-income populations in consideration of Executive Order 12898.	Section 5.1
2. Provide a table of racial, ethnic, and poverty statistics for each block group within 1 mile of proposed aboveground facilities and proposed crossings by the permanent pipeline right-of-way. The table should include the following information from the U. S. Census Bureau for each state, county, and block group (American Community Survey 2017 data should be used for this information): a. total population; b. percentage of each racial and ethnic group (White Alone Not Hispanic, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, some other race, two or more races, Hispanic or Latino origin [of any race]); c. total minority population including individuals of Hispanic or Latino origin (percentage of total population); and d. percentage of total population below poverty level.	Section 5.1
3. Using the data obtained in response to item 2 above, identify potential Environmental Justice populations by block group. For minority populations, use the **50 percent** and the **meaningfully greater analysis methods**. If the minority population of the block groups in the affected area exceeds 50 percent OR the minority population in the block group affected is 10 percentage points higher than the minority population percentage in the county, then an environmental justice community is present. For low-income populations, use the **low-income threshold criteria** method. If the percent low-income population in the identified block group is equal to or greater than that of the county, then an environmental justice community is present.	Section 5.1
4. Provide a discussion regarding impacts on Environmental Justices communities (if any exist) for all resources that would be affected by the project, and whether any of those impacts would be disproportionately high and adverse.	Section 5.1
5. For any identified environmental justice communities that would be affected by the project, provide the distance to the nearest residences and describe any existing screening between the project restoration activity locations and the residences.	Section 5.1
6. For any identified environmental justice communities that would be affected by the project, provide the distance to the nearest commercial locations, schools, daycare centers, churches, or other sensitive receptors.	Section 5.1

7.	Identify any non-English speaking groups that would be affected by the project. Describe efforts to identify and communicate with these groups and individuals and the measures used to avoid and minimize project impacts.	Sections 5.1
8.	For any identified environmental justice communities that would be affected by the project, describe outreach efforts to identify and communicate with these groups and individuals and the measures used to avoid and minimize project impacts. Also, identify any outreach efforts to continue reaching out to environmental justice communities, including efforts to provide notices and information project materials, including at places which are frequently visited community locations.	Section 5.1
9.	Provide two separate maps depicting the project facilities in relation to minority and low-income populations (using block group data) near the Project areas.	Section 5.1

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 5—SOCIOECONOMICS

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ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
CBG	Census Block Group
CEQ	Council on Environmental Quality
EPA	United States Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
Mexico	Estados Unidos Mexicanos (United Mexican States)
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

5.0 RESOURCE REPORT 5—SOCIOECONOMICS

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

According to the Federal Energy Regulatory Commission's ("FERC") Minimum Filing Requirements Regulations (18 Code of Federal Regulations 380.12(g)), Resource Report 5 is required only for applications involving significant aboveground facilities. The Project does not involve any aboveground facilities; thus, Resource Report 5 is not required. However, Saguaro recognizes the value of assessing impacts on Environmental Justice communities and, accordingly, is providing an abbreviated Resource Report 5 to address the relevant information regarding environmental justice.

This resource report examines the Project's potential impacts on Environmental Justice communities and assesses potential cumulative impacts. The evaluations presented in this section are based on the most current publicly available data published by a variety of federal and state agencies, including the United States Department of Commerce, the United States Bureau of Labor Statistics, and the United States Census Bureau.

5.1 Environmental Justice

Executive Order 12898 on Environmental Justice recognizes the importance of using the National Environmental Policy Act process to identify and address, as appropriate, any disproportionately high and adverse health or environmental effects of its programs, policies, and activities on minority and low-income populations. Consistent with Executive Order 12898, the Council for Environmental Quality ("CEQ") called on federal agencies to actively scrutinize the following issues with respect to environmental justice (CEQ, 1997):

- the racial and economic composition of affected communities;
- health-related issues that may amplify project effects on minority or low-income individuals; and
- public participation strategies, including community or tribal participation in the process.

The United States Environmental Protection Agency's ("EPA") Environmental Justice Policies focus on enhancing opportunities for residents to participate in the decision-making

process. The EPA (2014) states that environmental justice involves meaningful involvement so that: "(1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contributions can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected."

One of the major goals of this process is to increase public awareness and encourage public input regarding every aspect of the Project before an application is filed. In support of the process, Saguaro began conversations with community leaders and representatives in mid-October 2022. Stakeholder engagement efforts will be adapted based on community feedback and recommendations. Saguaro also initiated outreach with federally-recognized Native American tribes (see Resource Report 4).

Saguaro's filing of this resource report and of other resource reports is also part of the process and provides more opportunities for public engagement. This resource report and other Saguaro filings will be posted on the FERC e-library website, which is available for public viewing and is consistent with a core aspect of Executive Order 12898 on Environmental Justice that public documents, notices, and meetings should be made readily available to the public during review of a project.

5.1.1 Environmental Justice Demographic Data

In accordance with federal guidelines, this Environmental Justice assessment utilizes demographic and poverty-level data for the geographic area potentially affected directly by the Project to determine if minority and low-income populations are present. The United States Census Bureau 2020 Decennial Census data were used as the source for this information.

Individuals who identify as any race other than white and/or list their ethnicity as Hispanic or Latino are considered minority (EPA, 2019). According to federal guidelines, an area where the minority population exceeds 50 percent of the total population or where the minority population percentage is "meaningfully greater" than the minority population of an appropriate unit of geographic analysis—referred to as a reference population—is determined to be an Environmental Justice population (CEQ, 1997). Low income is defined by the EPA as households where the income is less than or equal to twice the federal poverty level (EPA, 2019). The designation of a low-income Environmental Justice community is contingent on the poverty levels for the community being equal to, or higher than, the poverty level of a reference population.

To define an analysis area and identify potentially impacted Environmental Justice populations, federal guidance advises using an "appropriate unit of geographic analysis" that does not "artificially dilute or inflate" the population (CEQ, 1997). The selected area may be a neighborhood census tract or block group, a governing body's jurisdiction, or another similar geographic unit. The census block group ("CBG") is the smallest geographic unit for which United States Census Bureau demographic data are available. This assessment includes the CBG where the Project is located. The chosen reference population is the respective county within which the CBG is located.

The "Meaningfully Greater Analysis" and the "Fifty Percent Analysis" methodologies are used for identifying minority populations. The Meaningfully Greater Analysis involves the use of a reasonable, subjective threshold in comparing the affected area to a reference population and

the guidelines suggest that 10 to 20 percent greater than the reference is within the reasonable threshold. For this resource report, we have set Meaningfully Greater as 10 percent above the reference population.

The Fifty Percent analysis involves determining if minorities comprise more than 50 percent of the area's population and can be conducted initially to identify the extent to which minority populations reside within a specific area. An aggregate of minority populations over 50 percent for the area raises Environmental Justice concerns and increased scrutiny may be necessary. In addition, identifying possible areas of Environmental Justice concern requires consideration of whether the impacts on these minority populations are disproportionately high and adverse.

Federal guidelines outline the Low-Income Threshold Criteria Analysis for identifying low-income populations, which involves selecting an appropriate measure of poverty and threshold for comparison—similar to the Meaningfully Greater Analysis.

Figure 5.1-1 depicts the CBG and minority and low-income populations crossed by the proposed Border Facilities. Table 5.1-1 provides demographic statistics and economic data for Texas, the county affected by the Project, and the CBG within 1 mile of the Border Facilities. Table 5.1-2 includes language and age data.

Based on the Fifty Percent and "Meaningfully Greater" analysis method, the CBG—Census Tract 9503.00 Block Group 1—in Hudspeth County is an Environmental Justice community based on race with 92.2 percent of the population recorded as non-white. Most of the population is Hispanic or Latino, which mirrors Hudspeth County. The Low-Income population is less than the county population and, therefore, the CBG is not an Environmental Justice community based on income. This CBG is large enough that it comprises about one third of the area of Hudspeth County and has a population density of less than one person per square mile.

Where the decision-making agency's public participation approach for a project is to communicate only in English, there is potential for linguistic isolation and exclusion of individuals whose English-language proficiency is low. The Census data indicate that 48.1 percent of the population within the CBG speak Spanish and limited English. For this reason, Saguaro is performing outreach activities in Spanish and English.

The CBG also has population percentages of those under age 5 and over age 64, which are higher than Hudspeth County's percentages.

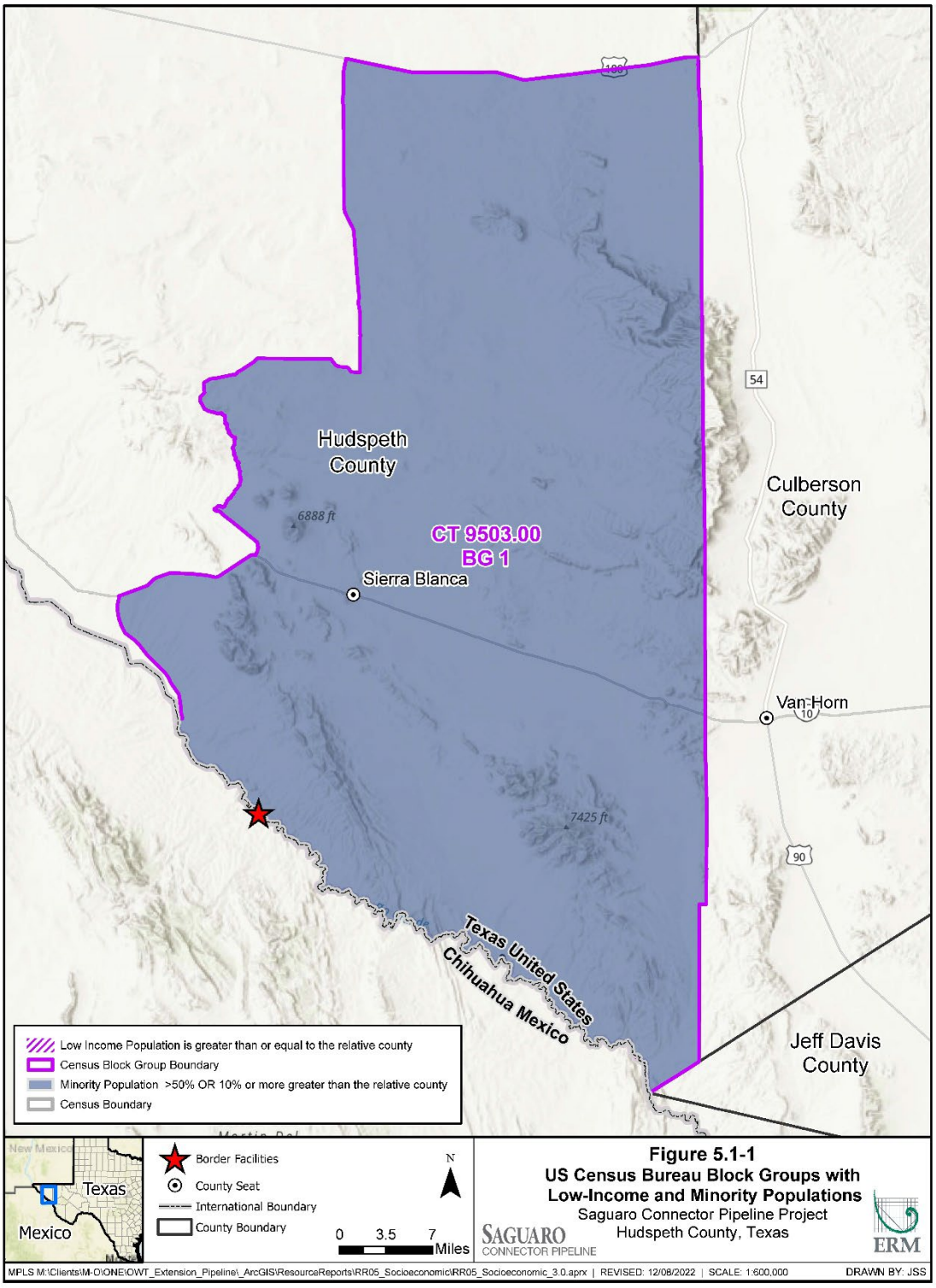


Figure 5.1-1
US Census Bureau Block Groups with Low-Income and Minority Populations
Saguaro Connector Pipeline Project
Hudspeth County, Texas

Table 5.1-1: Minority Populations by Race[a] and Low-Income Populations in the Project Area

LOCATION	RACE COLUMNS										LOW-INCOMECOLUMN
State/ County/ Tract/ Block Group	White (Not Hispanic) (%)	Black or African American (%)	Asian (%)	American Indian and Alaskan Native (%)	Native Hawaiian and Other Pacific Islander (%)	Some other race (%)	Two or more races (%)	Hispanicor Latino (%)	Total Minority[b] (%)		Total Population Below PovertyLevel[b] (%)
State of Texas	41.4	11.8	4.9	0.2	0.1	0.2	2.0	39.4	58.6		13.4
Hudspeth County	16.8	1.1	1.3	0.0	0.0	0.0	3.0	77.7	83.2		30.0
Census Tract 9503.00 *Block Group 1*	7.8	2.5	2.7	0.0	0.0	0.0	3.7	83.4	**92.2**		12.4

Source: American Community Survey, 2016-2020, File # B01017 and File # B03002.

[a] "Minority" refers to people who reported their ethnicity and race as something other than non-Hispanic White.

[b] Minority or low-income populations exceeding the established thresholds are indicated in bold type and green shading. Due to rounding differences in the dataset, the totals may not reflect the sum of the addends.

Table 5.1-2: Age Groups and Languages Spoken in the Project Area

LOCATION	AGE COLUMNS		LANGUAGE COLUMNS				
State/ County/Tract/ Block Group	Under Age 5 (Percent)	Over Age 64 (Percent	Spanish (Percent)	Indo-European (Percent)	Asian and Pacific Islands (Percent)	Other (Percent	Total Limited English (Percent
State of Texas	7.0	12.5	6.2	0.2	0.5	0.1	7.0
Hudspeth County	4.3	13.8	32.0	0	0.8	0	32.0
Census Tract 9503.00 *Block Group 1*	**5.3**	**16.6**	48.1	0	0	0	**48.1**

Source: American Community Survey, 2016-2020, File # B01001 and File # B16004

5.1.1.1 Sensitive receptors

The Project workspace is in an extremely rural region with a population density of less than one person per square mile. No residences were identified within a 3-mile radius of the Border Facilities or within 1 mile of the Project workspace[1]. Sensitive receptors such as schools, playgrounds, churches, and health facilities appear in Table 5.1-3. The nearest sensitive receptor is the Sierra Blanca Public Park, which is located 18.8 miles northeast of the Project. Table 5.1-3 maps the sensitive receptors.

Table 5.1-3: Sensitive Receptors and Distances to Project Components

Facility	Address	Distance (miles)	Direction
Sierra Blanca Public Park	201-259 N Williams Ave, Sierra Blanca, TX 79851	18.18	NE
Sierra Blanca School	500 Sierra Blanca Dr, Sierra Blanca, TX 79851	18.42	NE
Sierra Blanca Head Start	504 N Cammack Ave, Sierra Blanca, TX 79851	18.43	NE
Sierra Blanca Independent School District	500 Sierra Blanca Ave. Sierra Blanca, TX 79851	29.36	N

[1] The structure located approximately 620 feet north of the northernmost end of the temporary access road is abandoned.

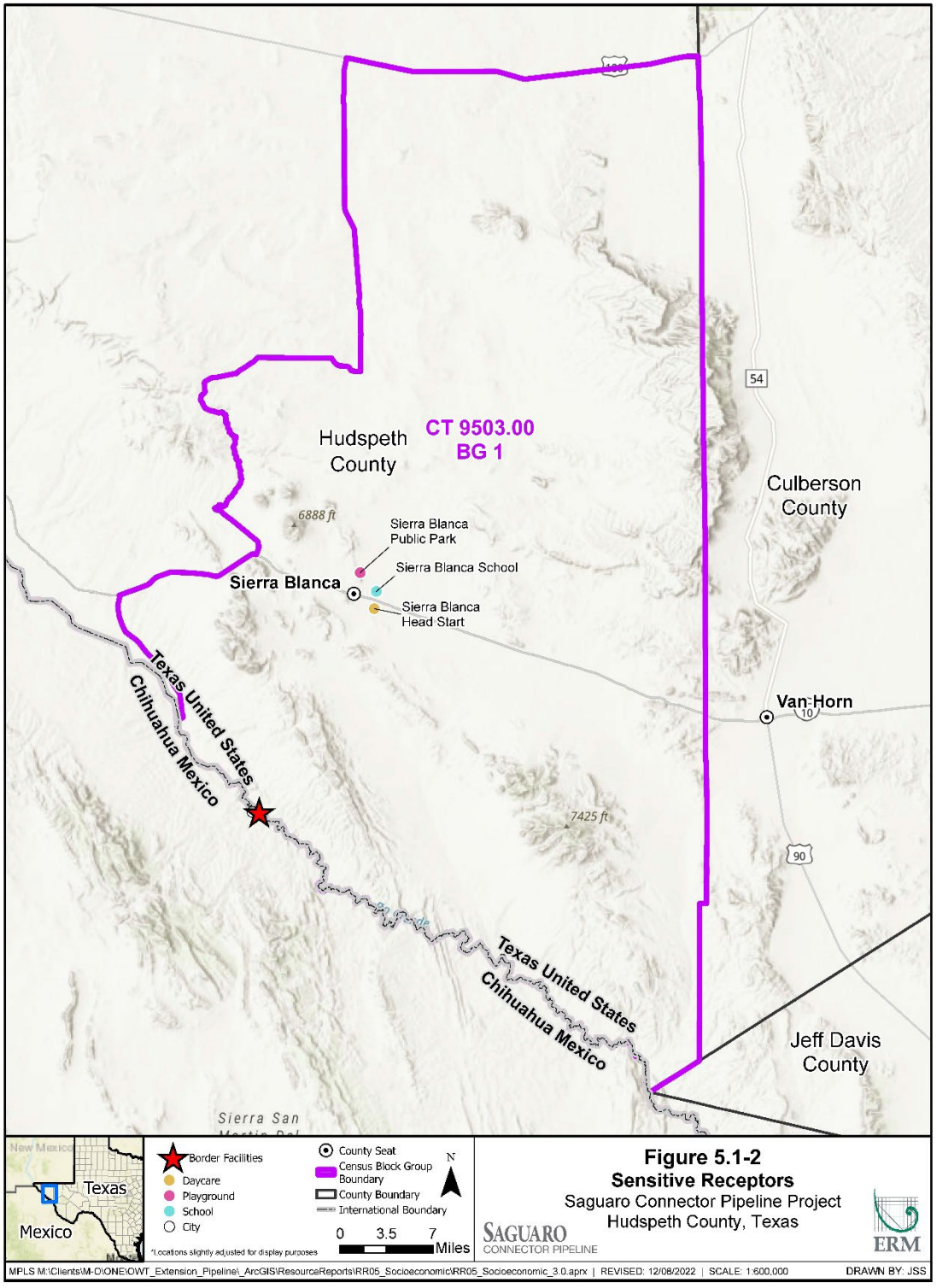


Figure 5.1-2
Sensitive Receptors
Saguaro Connector Pipeline Project
Hudspeth County, Texas

5.1.1.2 Impact Assessment

Overall, although the Project is in a CBG designated as an Environmental Justice community, no residences, schools, hospitals, commercial services, or other sensitive receptors would be crossed by, bordered by, or within 3 miles of the Border Facilities. It is not expected that any visual, noise, air quality, or traffic issues would impact these communities. As such, Environmental Justice impacts are not anticipated to result from the Project.

5.1.2 Environmental Justice Engagement

Saguaro's early outreach began with one-on-one conversations and listening sessions with local officials in Hudspeth County and relevant State and Federal officials in October 2022. Letters with a Project fact sheet (in English and Spanish languages) were mailed to Hudspeth County stakeholders on December 8, 2022. Project staff have personally reached out to food banks in Hudspeth County to begin a dialogue on potential outreach and to inform them of the Project. All community outreach activities will continue to be conducted with a Spanish language option included.

Although Saguaro's connecting intrastate pipeline is not under FERC's jurisdiction, Saguaro is assessing the presence of Environmental Justice communities along the non-jurisdictional intrastate pipeline route. Saguaro representatives are engaging landowners and stakeholders along the non-jurisdictional intrastate pipeline route with consideration of community needs. Additional outreach and investments will be considered based on the initial outreach conversations and could include donations and involvement in programs supporting food security, water, healthcare needs, and education.

5.2 References

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SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 6
Geological Resources

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 6—GEOLOGICAL RESOURCES

Minimum Filing Requirements for Environmental Reports:	**Addressed In:**
1. Describe, by milepost, mineral resources that are currently or potentially exploitable —Title 18 Code of Federal Regulations (CFR) part (§) 380.12 (h)(1).	Section 6.3
2. Describe, by milepost, existing and potential geological hazards and areas of nonroutine geotechnical concern, such as high seismicity areas, active faults, and areas susceptible to soil liquefaction; planned, active, and abandoned mines; karst terrain; and areas of potential ground failure, such as subsidence, slumping, and landsliding. Discuss the hazards posed to the facility from each one —18 CFR § 380.12 (h)(2).	Sections 6.3 and 6.4
3. Describe how the project would be located or designed to avoid or minimize adverse effects to the resources or risk to itself, including geotechnical investigations and monitoring that would be conducted before, during, and after construction. Discuss also the potential for blasting to affect structures, and the measures to be taken to remedy such effects —18 CFR § 380.12 (h)(3).	Sections 6.6 and 6.7
4. Specify methods to be used to prevent project-induced contamination from surface mines or from mine tailings along the right-of-way and whether the project would hinder mine reclamation or expansion efforts —18 CFR § 380.12 (h)(4).	Not Applicable
5. If the application involves a liquefied natural gas facility located in zones 2, 3, or 4 of the Uniform Building Code's Seismic Risk Map, or where there is potential for surface faulting or liquefaction, prepare a report on earthquake hazards and engineering in conformance with "Data Requirements for the Seismic Review of liquefied natural gas facilities." National Bureau of Standards Information Report 84-2833. This document may be obtained from the Commission staff —18 CFR § 380.12 (h)(5).	Not Applicable
6. If the application is for underground storage facilities: i. Describe how the applicant would control and monitor the drilling activity of others within the field and buffer zone; ii. Describe how the applicant would monitor potential effects of the operation of adjacent storage or production facilities on the proposed facility, and vice versa; iii. Describe measures taken to locate and determine the condition of old wells within the field and buffer zone and how the applicant would reduce risk from failure of known an undiscovered wells; and iv. Identify and discuss safety and environmental safeguards required by state and federal drilling regulations. —18 CFR § 380.12 (h)(6).	Not Applicable
Additional Information:	
1. Identify any sensitive paleontological resource areas crossed by the proposed facilities.	Section 6.5
2. Briefly summarize the physiography and bedrock geology of the project.	Sections 6.1 and 6.2
3. If a proposed pipeline crosses active drilling areas, describe the plan for coordinating with drillers to ensure early identification of other companies' planned new wells, gathering lines, and aboveground facilities.	Not Applicable
4. Provide a table that identifies areas of steep slopes that would be crossed by the project. Include the following in the table: i. start milepost (of steep slope crossing); ii. end milepost (of steep slope crossing); and iii. the range of slope for each crossing location (i.e., 15–30 percent slopes, 30–50 percent slopes, 50–70 percent slopes, and greater than 70 percent).	Section 6.4.3 provides a statement clarifying that the Project workspace does not cross any steep slopes.

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 6—GEOLOGICAL RESOURCES

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APPENDICES

Appendix 6A Geotechnical Engineering Report dated December 9, 2022, prepared by Professional Service Industries, Inc.

Appendix 6B Plan for Unanticipated Discovery of Paleontological Resources During Construction

ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
bgs	below ground surface
Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
Direct Pipe	Direct Pipe micro-tunneling
g	gravity
Mexico	Estados Unidos Mexicanos (United Mexican States)
PGA	peak ground acceleration
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
U.S.	United States
USGS	U.S. Geological Survey

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

6.0 RESOURCE REPORT 6—GEOLOGICAL RESOURCES

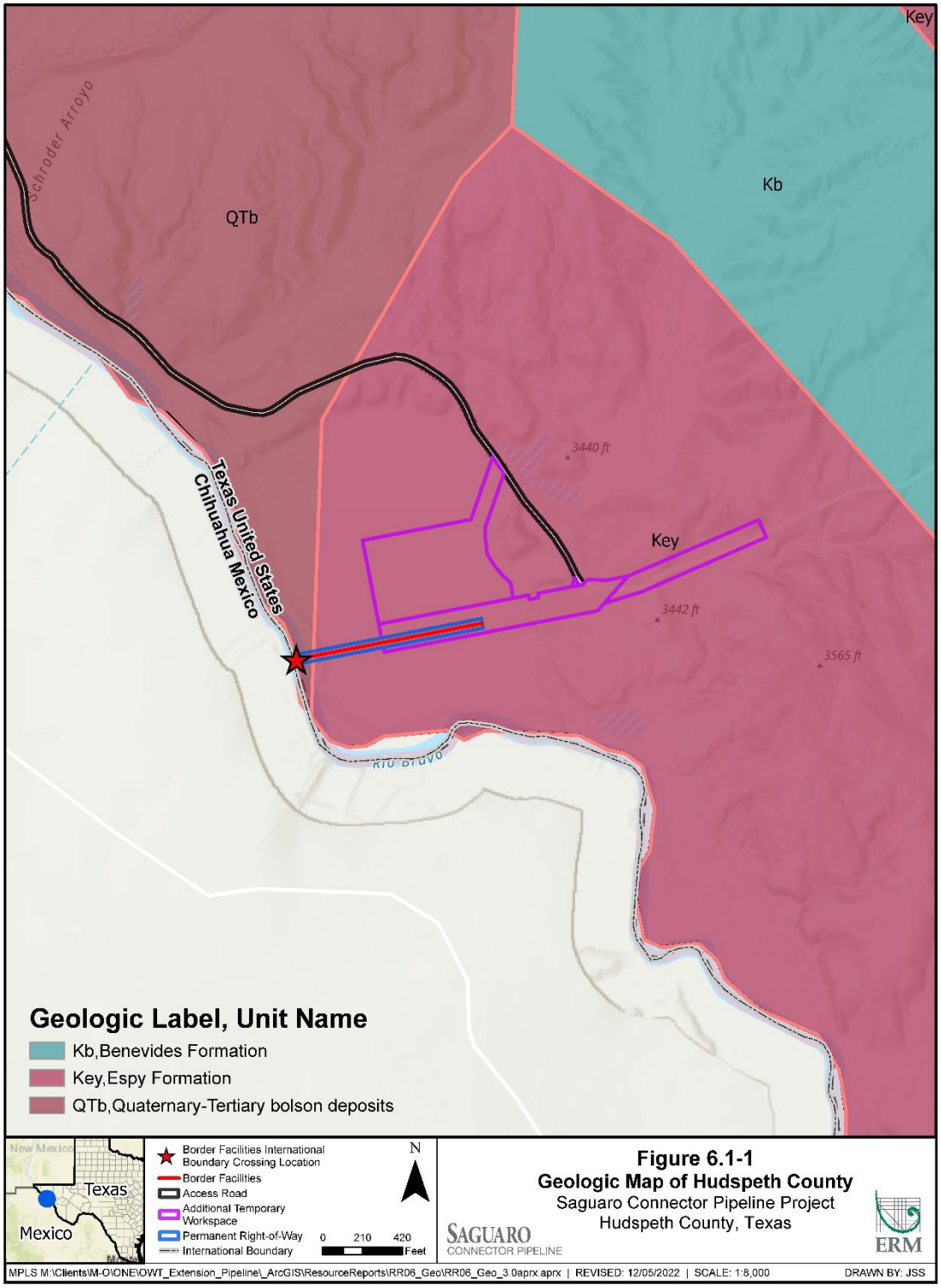
Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Resource Report 6 describes the geological setting of the proposed Project area, identifies potential mineral resources within the area, discusses geologic hazards that may impact the proposed Project, and details measures to avoid or mitigate the impact on resources and from potential hazards. Resource Report 1 provides a detailed Project description.

6.1 GEOLOGIC SETTING

The proposed Project is located in the Basin and Range physiographic region in Hudspeth County, Texas. The Basin and Range province is described further in section 6.2, Physiographic Setting and Topography. The Project workspace is underlain by Quaternary-age (less than 2.6 million years old) alluvium that consists of Rio Grande flood plain deposits of silty sand and channel deposits of rounded pebbles, cobbles, and boulders (USGS and Texas Water Science Center, 2018). The bedrock underlying the Quaternary surficial deposits along the majority of the Project area is referred to as the Espy formation, which dates to the Early Cretaceous period (145 to 100 million years ago) and consists of a lower section of limestone with interbedded shale and sandy shale, a middle section of white limestone, and an upper section of buff limestone and brown sandstone with interbedded shale beds (USGS, 2022a). The western end of the Project workspace overlies the Quaternary-Tertiary bolson deposits, which consist of unconsolidated sedimentary layers of clay, silt, sandstone, and conglomerate that reaches thicknesses up to 2,000 feet (USGS, 2022b). Figure 6.1-1, below, shows the Project workspace on a geologic map.

Figure 6.1-1: Geologic Map of Hudspeth County



Numerous periods of tectonism over more than a billion years shaped the topography and geology of Trans-Pecos (i.e., western) Texas, including Hudspeth County. In the Precambrian era (about 1.45 million years ago), current-day Texas experienced rifting and became part of a passive continental margin. Repeated sea level rise and fall cycles deposited marine carbonates and siliciclastics on a shallow platform, which formed the deposits of the Espy formation described above. In the Late Cretaceous period (about 65 million years ago), deformation associated with the Laramide uplift occurred in the region, which included thrust faulting, folding, and monoclinal warping of Cretaceous and older rocks. Following the Laramide-age thrust faulting, widespread volcanism occurred in the region. About 31 million years ago, the regional stress orientations changed from compression to extension, setting the stage for Basin and Range faulting. The extensional forces in the region pulled the Earth's crust apart, creating the north-trending Rio Grande rift. Continuous erosion of higher topography and deposition in low elevations began to fill in the rifts and formed basins across the region (George et al., 2005).

Saguaro commissioned Intertek Professional Service Industries, Inc. to perform a geotechnical study for the Project in November 2022. The geotechnical report is provided in Appendix 6A. The geotechnical investigation involved advancing one geotechnical boring to a terminal depth of 118.7 feet below ground surface ("bgs") near the eastern end of the Project. A detailed soil boring log is provided in Appendix A and a generalized subsurface profile based on the soil boring is summarized in Table 6.1-1 below. Overall, the profile consisted of layers of clay, silt, sand, and gravel in the uppermost 60 feet, which are underlain by weathered limestone and mudstone and thin intercalated layers of shale and sandy shale. This generalized subsurface profile is consistent with the description of Quaternary alluvium deposits (i.e., clay, silt, sand, and gravel) overlying the Espy formation (i.e., weathered limestone, mudstone, and shale).

Table 6.1-1: Generalized Subsurface Profile

Depth Range (feet bgs)	Description
0.0–6.0	Soft, lean clay
6.0–8.5	Medium stiff, fat clay
8.5–13.5	Soft to medium stiff, silt with sand
13.5–26.0	Loose to dense, silty sand
26.0–48.5	Dense to very dense, silty sand
48.5–53.5	Very dense, silty gravel with sand
53.5–58.5	Very dense, silty sand with gravel
58.5–78.5	Interbedded layers of very dense, weathered limestone and mudstone
78.5–118.7	Shale

6.2 PHYSIOGRAPHIC SETTING AND TOPOGRAPHY

Physiographic provinces are distinguished by characteristic geologic structure, rock units, soil types, and vegetation that reflect a unified climatic and geological history. The elevations and shapes of landforms of each province are significantly different from those in adjacent provinces. The Project workspace is entirely located within the Basin and Range physiographic province (Texas State Historical Association, 2015).

The Basin and Range region includes parts of Mexico, Texas, New Mexico, Arizona, California, Nevada, Utah, Oregon, and Idaho. This region stretches from the Wasatch Fault along

the Wasatch Mountains in central Utah to the Sierra Nevada in eastern California and includes nearly 15,000 feet in vertical relief. The extent of the Basin and Range province in Texas is shown in Figure 6.2-1 below. The Basin and Range province exhibits variable topography consisting of numerous small, roughly parallel mountain ranges (trending north to south) separated by nearly flat desert plains or basins (Encyclopedia Britannica, 2015).

The Basin and Range Province is divided into five sub-provinces of unequal size. The project area is located with the Mexican Highland sub-province. Specifically, the Project is located in the Trans-Pecos area of the Upper Rio Grande Basin of western Texas, which is part of the Mexican Highland sub-province. The Mexican Highland sub-province is generally characterized by northwest to southeast trending discontinuous block-faulted ranges separated by broad alluvial valleys (Fenneman, 1931).

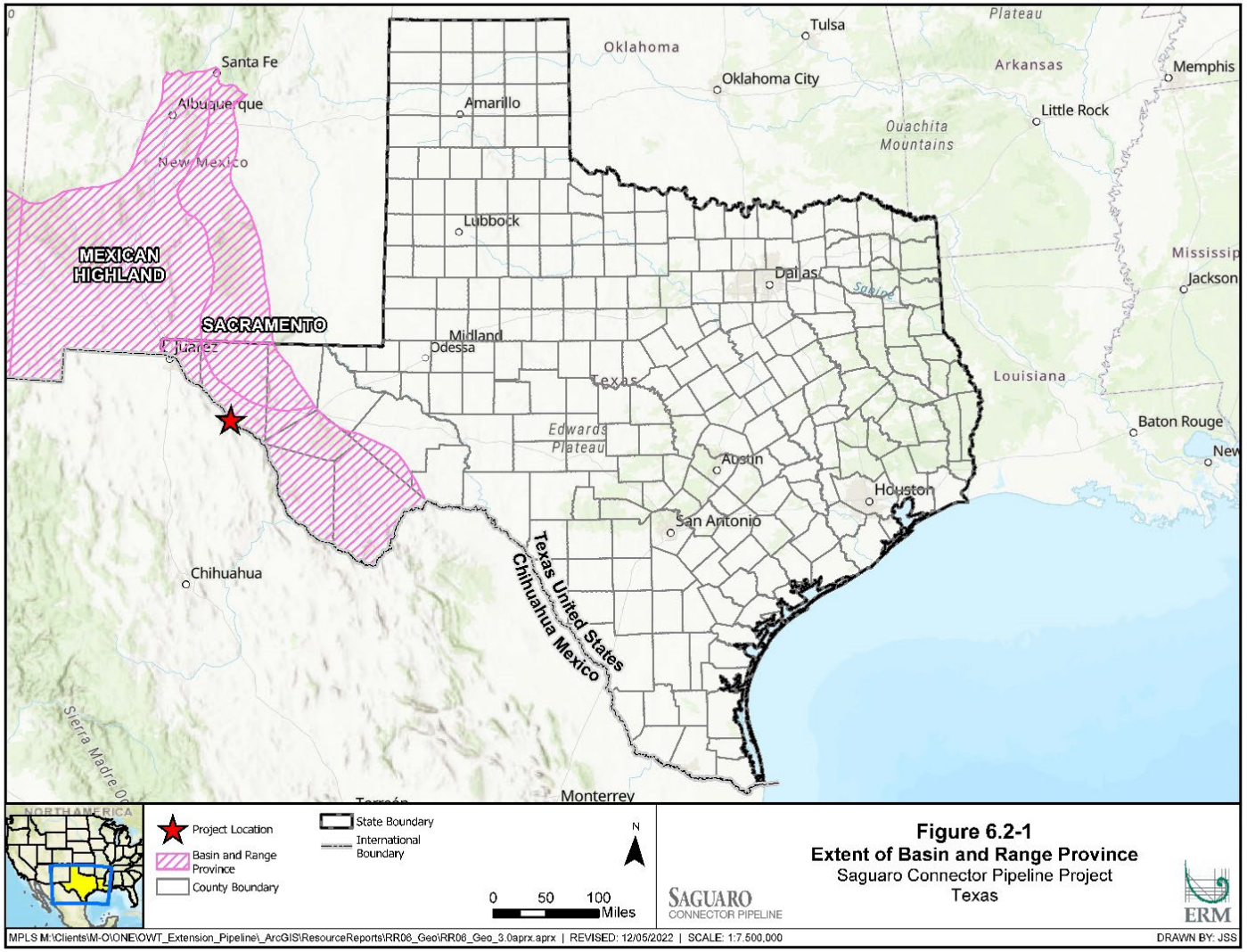
The topography of the Basin and Range province consists of higher elevations and greater local relief than can be found anywhere else in Texas. Although most of the state is relatively flat and less than 2,500 feet above mean sea level ("amsl"), the Trans-Pecos basins rise up to an elevation of about 4,000 feet amsl and are bounded by numerous widely spaced mountain ranges that rise an additional 2,000 to 3,000 feet amsl. The Project area is generally flat, with a slight slope to the southwest toward the Rio Grande river and has an average elevation of 3,440 feet amsl. Refer to Figure 1.1-2 in Resource Report 1 for a topographic map of the Project area.

6.3 MINERAL RESOURCES

Historically, the Trans-Pecos region has not been known for its mineral production, though economically valuable deposits of various minerals are scattered throughout the region. The oilfields of West Texas extend across the Pecos river and sulfur, talc, fluorspar, and silver are among the minerals that either are being worked at the present time or have been produced in significant quantities in the recent past (Kyle and Becker, 2011). Based on review of the Texas Mineral Resources Map (Bureau of Economic Geology, 2021), the closest mineral prospect is a silver, gold, and uranium prospect located approximately 6 miles northeast of the Project workspace in the Quitman Mountains and there are no known planned, active, or abandoned mines within 1.0 mile of the Project. There are no known oil and gas wells within 0.25 mile of the proposed Project workspace (Railroad Commission of Texas, 2022).

Given the small footprint and localized area of work, the proposed Project would not impact or hinder access to any known mineral or geological resources.

Figure 6.2-1: Extent of Basin and Range Province



6.4 GEOLOGIC HAZARDS

Geological hazards include geologic conditions capable of causing damage or loss of property and life. These hazards include seismic events and earthquakes, mass wasting (avalanches, landslides, and slump/debris/mud flows), and land subsidence/collapse. Potential geologic hazards in the region are described below.

6.4.1 Seismic-Related Hazards

Seismicity refers to the geographic distribution, intensity, and frequency of earthquakes within a given area. Primary seismic-related hazards consist of strong ground motions (earthquakes) and surface faulting; secondary effects may include soil liquefaction and related slope failures. Earthquakes are caused by stress building up along a fault until a critical limit is reached at which time stress is released through sudden movement along the fault and manifests as traveling ground waves. Hazards associated with seismicity and faulting include ground shaking, surface rupture of faults, and offset along normal, reverse, or strike-slip faults. Faulting can be hazardous to linear, rigid structures such as pipelines because the ground could move in differing distances or directions at the fault.

Seismic activity can be described in terms of magnitude and intensity, where magnitude characterizes the total energy released and intensity describes impacts on a site-specific basis. The magnitude of a seismic event is most commonly measured by the Richter magnitude scale, where the magnitude of the event is expressed in whole numbers and decimals on a logarithmic scape. The scale runs from 1.0 to 8.0+ and each single number increase represents a 31 times increase in energy released. Events with a magnitude less than 3.0 are generally considered imperceptible to most people and in most situations (USGS, 2022c).

Seismic risk can be quantified by the motions experienced by the ground surface or structures during an earthquake. The U.S. Geological Survey (“USGS”) Hazard Mapping Program produced probabilistic seismic hazard maps that show an estimate of the probability that ground motion would exceed a certain value, the peak ground acceleration (“PGA”), in 50 years (Rukstales and Peterson, 2019). The PGA, or the force caused by shaking, is expressed as a percentage of gravity (“g”). Low percentage g values reflect low ground acceleration values and are generally associated with low seismic risk. According to the USGS, probabilistic hazard maps for the Project area indicate a 10 percent probability of experiencing an earthquake with an effective PGA of between 5 and 7 percent g in a 50-year period and a 2 percent probability of experiencing an earthquake within an effective PGA of 14 to 20 percent g in a 50-year period (Rukstales and Peterson, 2019). These PGA values are generally considered to be associated with a perceived moderate to strong shaking and very light to light potential damage (Wald et al., 2006).

Based on a review of historical earthquakes, two recorded seismic events greater than magnitude 2.5 occurred within 15 miles of the Project between 1973 and October 2022 (USGS, 2022d). These events included a 2.8-magnitude earthquake in 2022 with an epicenter located in Mexico, approximately 8 miles southwest of the Project workspace, and a 3.0-magnitude earthquake in 2011 with an epicenter located near the Texas-Mexico International Boundary, approximately 13 miles southeast of the Project workspace.

The USGS Quaternary fault and fold database (USGS, 2022e) indicates the presence of a middle to late Quaternary-age northwest to southeast trending fault, the terminus of which is

located approximately 1.6 miles southeast of the Project area. Due to the age of the last activity along the fault (i.e., evidence of activity in the last 750,000 years), it is unlikely that the fault would impact the Project workspace.

Due to the relatively low risk of a significant seismic event and soil characteristics in the Project workspace, the potential hazards caused by seismic events—such as earthquakes, faulting, or soil liquefaction—are unlikely to impact the Project.

6.4.2 Karst Topography

Karst features are geologic areas containing distinctive surficial and subterranean features—such as sinkholes, caves, fissures, tubes, and caverns—that can form as a result of the long-term action of groundwater on soluble carbonate rocks (e.g., limestone, dolomite, and marble). Hudspeth County is located within the Block-faulted Ranges karst region of western Texas. Several carbonate rock units are exposed in many of the mountainous, block-faulted ranges and are, thus, bounded by steep, near-vertical, normal faults (Texas Speleological Survey, 2014). Carbonate rocks are exposed at the surface in the uplifted Quitman Mountains; however, no karst features were identified in the Rio Grande flood plain where the Project is located (Weary and Doctor, 2014). Thus, it is unlikely that subsidence associated with karst topography would impact the Project.

6.4.3 Landslides

Landslides are defined as the downslope movement of soil, rock, and organic materials induced by g and include, but are not limited to, rock falls, debris flows, and slumps. Common landslide triggers include earthquakes, heavy rains, volcanic eruptions, erosion, or human activities. Landslides are more likely to occur in areas of steep slopes and soils that shrink or swell due to changes in moisture content.

Based on review of the Landslide Overview Map of the Conterminous United States (USGS, 1978), the Project area has a low landslide incidence rate and low landslide susceptibility. A Google Earth elevation profile of the Project workspace and Figure 1.1-2 in Resource Report 1 demonstrate that there are no steep slopes (greater than 15 percent) across the Project workspace. As the ground surface near the Project is relatively flat with a gentle slope, it is not anticipated that landslides would affect the Project.

6.4.4 Flooding

The Federal Emergency Management Agency has selected flood events of a magnitude that is expected to be equaled or exceeded once on average during any 10-, 50-, 100-, or 500-year period (recurrence interval) as having special significance for floodplain management and for flood insurance rates. These events—commonly termed the 10-, 50-, 100-, and 500-year floods—have a 10, 2, 1, and 0.2 percent chance, respectively, of being equaled or exceeded during any year. To provide a national standard without regional discrimination, the Federal Emergency Management Agency has adopted the 1 percent annual chance flood (100-year recurrence interval) as the base flood for flood plain management purposes.

The Project involves an underground crossing of the Rio Grande river; as such, the Project pipeline will be located beneath the 100-year flood plain associated with the river. The Flood Insurance Rate Maps indicate that the Project workspace on the east bank of the river is located

within the 100-year flood plain, which is classified as flood zone A (FEMA, 1985). Because detailed hydraulic analyses have not been performed, no Base Flood Elevations or flood depths are shown. Mandatory flood insurance purchase requirements and flood plain management standards apply (FEMA, 2022).

6.5 PALEONTOLOGICAL RESOURCES

Significant fossils of Tertiary mammals were discovered in the rocks of the Trans-Pecos region by J.A. Wilson in the 1960s. The most significant of these mammals was an evolutionary link between the modern-day monkey and lemur groups. Numerous other mammalian fossils have been discovered in this region—including rodents, rhinoceroses, carnivores, and various species with no known modern counterparts. Reptiles dating to the Cretaceous period have also been discovered in the Trans-Pecos region, including enormous crocodiles and the largest known pterosaur (Dalquest, 1995). In addition to these vertebrates, there are also various species of marine invertebrate fossils in Paleozoic and Mesozoic marine sediment layers. The Espy Formation has produced various fossils such as bivalves and ammonites (New Mexico Geological Society, 1980).

Given the small, localized construction footprint and the location in Quaternary alluvium within the Rio Grande flood plain, the Project is not expected to impact paleontological resources. If paleontological resources are encountered during Project activities, Project personnel will follow the procedures described in the *Plan for Unanticipated Discovery of Paleontological Resources During Construction* (Appendix 6B).

6.6 BLASTING

No blasting will be required during construction of the Border Facilities because the footprint is underlain by unconsolidated sediments to depths greater than the depth needed to construct the Border Facilities.

6.7 AVOIDANCE AND MINIMIZATION OF ADVERSE EFFECTS

No adverse effects on mineral resources or impacts from geological hazards were identified for the Project area. The Border Facilities will be designed and installed in accordance with U.S. Department of Transportation standards (49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*), which will minimize or avoid potential impacts on the Border Facilities from potential geological hazards. Under these regulations, pipelines must be designed and constructed to provide adequate protection from washouts, floods, unstable soils, landslides, or other hazards that may cause the pipe to move or sustain abnormal loads.

Saguaro conducted geotechnical investigations to inform the Direct Pipe micro-tunneling ("Direct Pipe") crossing of the Rio Grande river associated with the Project. As described in section 6.1, the generalized subsurface profile at one boring location near the eastern end of the Project consisted of clay, silt, sand, and gravel to a depth of approximately 60 feet bgs; these strata were underlain by weathered limestone, mudstone, and shale to the terminal depth of 118.7 feet bgs. Refer to Appendix 2C for the drilling plan profile and geotechnical boring locations. Geotechnical investigation was completed at boring location B-5. Scrub/shrub vegetation currently prevents access to proposed boring locations B-1, B-2, and B-4 and Saguaro will complete the geotechnical investigation prior to construction, following receipt of required

approvals to clear vegetation[1]. More information regarding the Direct Pipe method is provided in section 1.4.2 of Resource Report 1. Saguaro will employ a qualified Direct Pipe contractor to complete the Direct Pipe operations. The Direct Pipe contractor will minimize risks by being prepared with the proper equipment, tools, and supplies prior to drilling and by closely adhering to the measures described in Saguaro*'s Inadvertent Release Control Plan* (Appendix 1B) to monitor drill activities and immediately respond to any abnormal conditions or inadvertent returns.

[1] Saguaro is investigating the feasibility to perform a geotechnical investigation at proposed boring location B-3 on the Mexico side of the International Boundary.

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APPENDIX 6A GEOTECHNICAL ENGINEERING REPORT DATED DECEMBER 9, 2022, PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC.

GEOTECHNICAL ENGINEERING REPORT

ONEOK Saguaro Connector Pipeline –
Rio Grande River Crossing
West Texas Area
PSI Project No. 06252724

PREPARED FOR:

Tetra Tech-Rooney
115 Inverness Drive East, Suite 300
Englewood, CO 80112

December 9, 2022

BY:

PROFESSIONAL SERVICE INDUSTRIES, INC.
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December 9, 2022

Tetra Tech-Rooney
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Englewood, CO 80112

Attn: Mr. Mark Johnke
Mark.Johnke@rooney-eng.com

Re: **Geotechnical Data Report**
ONEOK SAGUARO CONNECTOR PIPELINE – RIO GRANDE RIVER CROSSING
WEST TEXAS AREA
PSI Project No. 06252410

Professional Service Industries, Inc. (PSI), an Intertek company, is pleased to submit our Geotechnical Data Report for the referenced project. This report includes the results from the field exploration and laboratory testing for this project.

PSI appreciates the opportunity to provide this Geotechnical Data Report and looks forward to continuing participation during the design and construction phases of this project. PSI also has great interest in providing materials testing and inspection services during the construction of this project and will be glad to meet with you to further discuss how we can be of assistance as the project advances.

If there are questions pertaining to this report, or if PSI may be of further service, please contact us at your convenience.

Respectfully submitted,
Professional Services Industries, Inc.

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1.0 PROJECT INFORMATION

1.1 PROJECT AUTHORIZATION

Professional Service Industries, Inc. (PSI), an Intertek company, has completed a Geotechnical Data Report for the proposed ONEOK Saguaro Connector Pipeline – Rio Grande River Crossing project near Sierra Blanca, Texas. Our services were authorized by Mr. Troy Pierantoni, President with Rooney Engineering, Inc. through the Tetra Tech Rooney Engineer Subcontractor Services Agreement dated July 20, 2022, between Tetra Tech-Rooney and Intertek PSI and by issuing Exhibit A "Statement of Work" dated November 4, 2022.

1.2 SITE LOCATION

The project site is located approximately 17.8 miles south of Sierra Blanca, Texas. Figure 1 of this report presents a Vicinity Map showing the site of the requested boring. The approximate boring location is provided in the table below.

TABLE 1.1: BORING INFORMATION

Boring No.	Boring Depth (ft.)	Boring Location	Adjacent Property
B5	118.7	Lat: 30.935909° Long: -105.472987°	Undeveloped land to the north, south, east, and west.

1.3 PROJECT DESCRIPTION

Based on information provided, PSI understands that Tetra Tech-Rooney is working along with ONEOK for a pipeline expansion. No further information was provided to PSI.

As requested, PSI drilled and sampled one (1) soil test boring to a depth of approximately 118.7 feet below the existing ground surface at the approximate requested locations.

If any of the noted information is incorrect, please inform PSI in writing so that we may amend the data presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its data when it is not notified of changes in the project.

1.4 PURPOSE AND SCOPE OF SERVICES

The purpose of this Geotechnical Data Report is to describe the subsurface conditions observed at one (1) soil boring drilled for the proposed pipeline and present the results of laboratory testing of soil samples.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. A geologic fault study to evaluate the possibility of surface faulting at this site was beyond the scope of this investigation. Should you desire a detailed fault study, please contact PSI.

2.0 GEOTECHNICAL EXPLORATION PROGRAM

2.1 FIELD EXPLORATION

As requested, the subsurface conditions for this project were explored by drilling and sampling one (1) soil boring to a depth of 118.7 feet below the existing ground surface. The boring was advanced at the location specified by the client. Figure 2 of this report shows the Boring Location Plan.

The borings were located in the field using the coordinates provided by Tetra Tech-Rooney and a handheld GPS device. The borings were drilled with a truck-mounted drill rig using hollow stem auger drilling methods.

Drilling and sampling techniques were accomplished in general accordance with ASTM procedures. The soils were sampled using split-barrel sampling procedures in general accordance with ASTM D1586.

The samples obtained from the borings were identified by boring number and depth. The samples were transported to PSI's laboratory for further observation, classification and testing. After the completion of drilling operations, the borehole was backfilled with soil cuttings.

2.2 LABORATORY TESTING

Laboratory testing of selected soil samples was performed and included the following:

- Classification of Soil (ASTM D 2487/D 2488)
- Moisture Content (ASTM D 2216)
- Percent Passing No. 200 Sieve (ASTM D 1140)
- Atterberg Limits (ASTM D 4318)
- Sieve Analysis (ASTM D6913)
- One-Dimensional Consolidation (ASTM D2435)

The samples that were not altered by laboratory testing will be retained for 60 days from the date of this report and then will be discarded without further notice.

Laboratory test data along with detailed descriptions of the subsurface conditions can be found on the Logs of Boring, located in the Appendix of this report. Grain Size Distribution curves and data, and a key to terms and symbols used on the logs are presented in Appendix of this report.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 SOIL PROFILE

Based on the soil boring and laboratory test results, a generalized subsurface profile with anticipated soil properties was developed and is summarized in Table 3.1.

TABLE 3.1: GENERALIZED SUBSURFACE PROFILE

Depth Range (feet)	Description	Wet Soil Unit Weight, γ (pcf)	Internal Friction Angle, ϕ (degrees)	Cohesion (psf)
0 - 6	Soft, Lean CLAY (CL)	105	--	500
6 - 8½	Medium stiff, Fat CLAY (CH)	105*	--	560
8½ - 13½	Soft to medium stiff, SILT with Sand (ML)	105*	--	--
13½ - 26	Loose to dense, Silty SAND (SM)	115*	28	--
26 - 48½	Dense to very dense, Silty SAND (SM)	120*	32	--
48½ - 53½	Very dense, Silty GRAVEL with Sand (GM)	125*	36	--
53½ - 58½	Very dense, Silty SAND with Gravel (SM)	120*	34	--
58½ - 78½	Interbedded layers of Very dense, weathered LIMESTONE and MUDSTONE	125*	--	8,000
78½ - 118	Shale	125	--	8,000

***Use buoyant unit weight when saturated and below the GWT**

The above soil profile is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring log included in the Appendix should be reviewed for specific information at individual boring location. These records include soil descriptions, stratification, locations of the samples, and laboratory test data. The stratification shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between and away from boring locations. The stratification represents the approximate boundary between subsurface materials and the actual transition may be more distinct or gradual. Water level observations made during field operations are shown on the boring logs where encountered.

3.2 SITE GEOLOGY

Based on the USGS, the site is located on the early cretaceous Epsy Formation of Washita Group. The soils mainly consist of layers of clay and sands in the upper 80 feet underlain by lentils and thin intercalated layers of shale and sandy shale. This formation is approximately 12,000 feet thick and is part of the Quitman Mountains that extend from Sierra Blanca, Texas into northern New Mexico.

3.3 GROUNDWATER INFORMATION

Groundwater was encountered at depths ranging from 5 to 8.5 feet at the boring location during drilling and at the time of completion of drilling activities. As such, groundwater is expected to be in encountered during the proposed construction.

Groundwater levels fluctuate seasonally as a function of rainfall, proximity to creeks, rivers and lakes, the infiltration rate of the soil, seasonal and climatic variations and land usage. In relatively pervious soils, such as sandy soils, the indicated depths are a relatively reliable indicator of groundwater levels. In relatively impervious soils, water levels observed in the borings may not provide a reliable indication of groundwater elevations, even after several days. If a detailed water level evaluation is required, observation wells or piezometers can be installed at the site to monitor water levels.

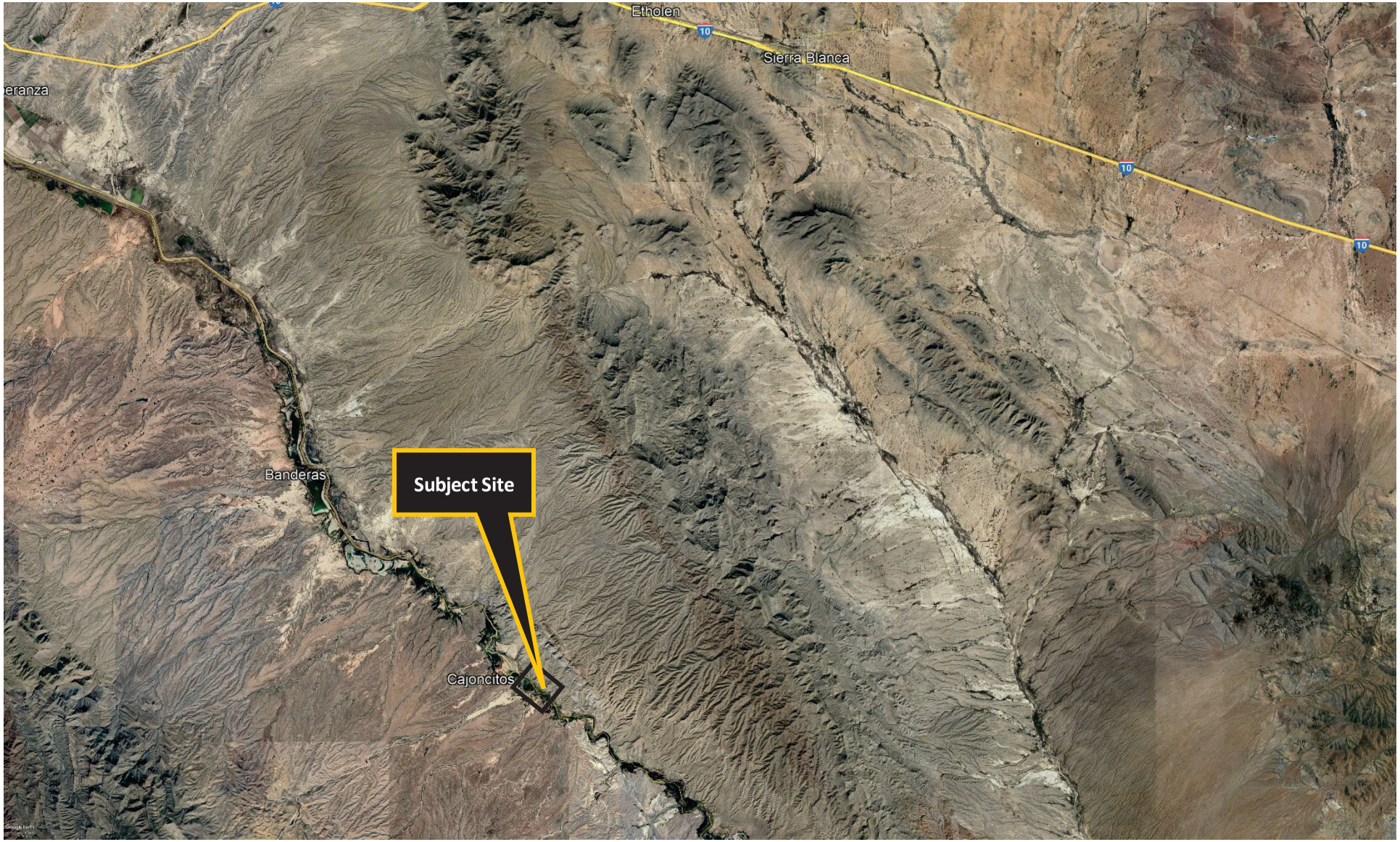
The groundwater levels presented in this report were measured at the time of PSI field activities. The contractor should determine the actual groundwater levels at the site before construction activities.

4.0 GEOTECHNICAL RISK AND REPORT LIMITATIONS

The data submitted in this report is based on the available subsurface information obtained by PSI and design details furnished by the client for the proposed construction. The Geotechnical Engineer warrants that the findings contained herein have been made in accordance with generally accepted professional Geotechnical Engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the Geotechnical Engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our findings have been properly incorporated in the design documents. This report has been prepared for the exclusive use of Tetra Tech-Rooney for the specific application to the ONEOK Saguaro Connector Pipeline project located approximately 17.8 miles south of Sierra Blanca, Texas at the Rio Grande River Crossing.

FIGURES



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Figure 1
SITE VICINITY MAP
PSI Project No. 06252724

ONEOK Saguaro Connector Pipeline -Rio Grande River Crossing

West Texas



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Figure 2
BORING LOCATION PLAN
PSI Project No. 06252724

ONEOK Saguaro Connector Pipeline -Rio Grande River Crossing

West Texas

APPENDIX A

Field Exploration & Laboratory Testing Program

FIELD EXPLORATION PROGRAM

PSI conducted the field exploration for the project site in November 8-10, 2022. Field activities consisted of drilling one (1) boring to a depth of approximately 118.7 feet bgs. A representative from PSI's office observed the drilling and prepared borings logs of the conditions encountered. It should be noted that the subsurface conditions presented on the boring logs are representative of the conditions at the specific locations drilled. Variations may occur and should be expected across the site. The soil morphology represents the approximate boundary between subsurface materials and the transitions may be gradual and indistinct. Elevations referenced were obtained from the provided Master Grading Plan and should be considered approximations.

HOLLOW-STEM AUGER BORINGS

The hollow-stem auger borings were advanced using a CME-85 truck-mounted drill rig owned and operated by PSI, Inc. Soil samples were recovered at selected depths during drilling using a standard Split Spoon Sampler driven by a 140-lb weight free falling 30 inches. The number of blows required to drive the sampler 12 inches is designated as the penetration resistance (N-value, blows per foot) and provides an indication of the consistency of cohesive soils and the relative density of granular materials.

FIELD CLASSIFICATION

Soil samples were initially classified visually in the field by PSI personnel. Consistency, color, relative moisture, degree of plasticity, and other distinguishing characteristics of the soil samples were noted. The terminology used in the soil classifications and other modifiers are depicted in the General Notes and Soil Classification Chart.

LABORATORY TESTING PROGRAM AND PROCEDURES

Soil samples obtained during the field explorations were examined in our laboratory. The physical characteristics of the samples were noted, and the field classifications were modified, where necessary. Representative samples were selected during the examination for further testing.

MOISTURE CONTENT

Natural moisture content determinations were made on selected soil samples in general accordance with ASTM D2216. The natural moisture content is defined as the ratio of the weight of water to the dry weight of soil, expressed as a percentage.

VISUAL-MANUAL CLASSIFICATION

The soil samples were classified in general accordance with guidelines presented in ASTM D2487. Certain terminology incorporating current local engineering practice, as provided in the Soil Classification Chart, included with, or in lieu of, ASTM terminology. The term which best described the major portion of the sample was used in determining the soil type (i.e., gravel, sand, silt or clay).

SIEVE ANALYSIS BY WASHING

The determination of the amount of material finer than the U.S. Standard No. 200 (75-µm) sieve was made on selected soil samples in general accordance with ASTM D1140. In general, the sample was dried in an oven and then washed with water over the No. 200 sieve. The mass retained on the No. 200 sieve was dried in an oven, and the dry weight recorded. Results from this test procedure assist in determining the fraction, by weight, of coarse-grained and fine-grained soils in the sample.

The determination of the gradation curve of the coarse-grained material was made on selected soil samples in general accordance with ASTM D6913. In general, the oven dried mass retained on the No. 200 sieve is passed over progressively smaller sieve openings, by agitating the sieves by hand or by a mechanical apparatus. The mass retained on each sieve is recorded as a fraction of the total sample, including the percent passing the No. 200 sieve.

ATTERBERG LIMITS

The Atterberg Limits are defined by the liquid limit (LL) and plastic limit (PL) states of a given soil. These tests are performed in general accordance with ASTM D4318. These limits are used to determine the moisture content limits where the soil characteristics change from behaving more like a fluid on the liquid limit end to where the soil behaves more like individual soil particles on the plastic limit end. The plasticity index (PI) is the difference between the liquid limit and the plastic limit. The plasticity index is used in conjunction with the liquid limit to assess if the material will behave like a silt or clay.

BORING B5

DATE STARTED:	4/8/22	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	4/10/22	**DRILLER:** AR	**LOGGED BY:** AR/JH
COMPLETION DEPTH	118.7 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	30.9355°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-105.4725°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	Ruben Barrientos, Jr., PE

REMARKS: None

Water		
	While Drilling	8.5 feet
	Upon Completion	5 feet
	Delay	N/A

BORING LOCATION:
See attached Boring Location Plan

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ Moisture × PL ◪ LL ✚ (0, 25, 50) STRENGTH, tsf Qu ▲ Qp ✳ (0, 2.0, 4.0)	Additional Remarks
	0		SS	SS1	18	**LEAN CLAY** - brown, soft, moist	CL	2-2-2 N=4	28	LL = 36 PL = 21	Fines=95.2%
	5		SH	SH2	24	Groundwater table encountered at 5 feet upon completion				>>	
			SS	SS3	18	**FAT CLAY** - brown, firm, moist	CH	2-2-3 N=5	42	LL = 63 PL = 23	Fines=97.0%
						Groundwater table encountered at 7.5 feet					
	10		SS	SS4	18	**SILT** - with Sand, brown, firm, water bearing	ML	2-2-3 N=5			
			SS	SS5	18	Groundwater table encountered at 8.5 feet while drilling soft		2-2-2 N=4	29		Fines=71.2%
	15		SS	SS6	18	**SILTY SAND** - brown, loose, water bearing	SM	2-3-3 N=6	22		Fines=17.1%
			SS	SS7	18	medium dense		4-5-7 N=12			
	20		SS	SS8	18			6-7-6 N=13			
			SS	SS9	18			6-8-10 N=18	22		Fines=19.1%
	25		SS	SS10	18			5-11-15 N=26			
			SS	SS11	18	dense		11-11-25 N=36			
	30		SS	SS12	18			12-13-25 N=38			
			SS	SS13	18			5-12-23 N=35	21		Fines=13.8%
	35		SS	SS14	18			11-23-24 N=47	20		Fines=15.7%
			SS	SS15	18			10-20-24 N=44			
	40		SS	SS16	18			14-17-19 N=36			
			SS	SS17	18	medium dense		5-4-20 N=24			
	45		SS	SS18	18	with Gravel		5-6-12 N=18	17		Fines=12.2%
			SS	SS19	16	very dense		4-27-50/4			
	50		SS	SS20	18	**SILTY GRAVEL** - with Sand, multicolored, very dense, moist	GM	25-45-16 N=61	8		Fines=12.3%
			SS	SS21	11			12-50/5		>>	
	55		SS	SS22	12		SM	20-50/6	9	>>	Fines=22.3%

Continued Next Page

intertek psi
Professional Service Industries, Inc.
5044 Doniphan Drive, Bldg D
El Paso, TX 79932
Telephone: (915) 584-1317

PROJECT NO.: 06252724
PROJECT: Saguaro Conector Pipeline / ONEOK
LOCATION: Rio Grande River Crossing
Sierra Blanca, Texas

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B5

DATE STARTED:	4/8/22	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	4/10/22	**DRILLER:** AR	**LOGGED BY:** AR/JH
COMPLETION DEPTH	118.7 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	30.9355°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-105.4725°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	Ruben Barrientos, Jr., PE

REMARKS: None

Water		
	While Drilling	8.5 feet
	Upon Completion	5 feet
	Delay	N/A

BORING LOCATION:
See attached Boring Location Plan

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ◪ PL ✚ LL (0 25 50) STRENGTH, tsf ▲ Qu ✳ Qp (0 2.0 4.0)	Additional Remarks
	55					**SILTY SAND** - with Gravel, brown, very dense, moist	SM				
	60			SS23	1	**LIMESTONE** - weathered, light gray to tan, very dense		50/1		>>◎	
	65			SS24	8			5-50/2	2	× ◪ ✚ >>◎	LL = 29 PL = 15 Fines=59.3%
	70			SS25	3	**MUDSTONE** - weathered, light brown to tan, very dense		50/3		>>◎	
	75			SS26	9	**LIMESTONE** - weathered with mudstone seams, light gray to tan, very dense		38-50/3	1	× ◪ ✚ >>◎	LL = 23 PL = 13 Fines=64.8%
	80			SS27	6	**SHALE** - dark gray, very dense, moist, with Clay lenses		38-50/0		>>◎	
	85			SS28	4			50/4	4	× >>◎	Fines=27.5%
	90			SS29	4			50/4		>>◎	
	95			SS30	5			50/5	7	× >>◎	
	100			SS31	4			50/4		>>◎	
	105			SS32	3			50/3	5	× ◪ ✚ >>◎	LL = 34 PL = 17 Fines=39.0%
	110			SS33	11			38-50/5		>>◎	

Continued Next Page

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PROJECT NO.: 06252724
PROJECT: Saguaro Conector Pipeline / ONEOK
LOCATION: Rio Grande River Crossing
Sierra Blanca, Texas

The stratification lines represent approximate boundaries. The transition may be gradual.

BORING B5

DATE STARTED:	4/8/22	**DRILL COMPANY:**	PSI, Inc.
DATE COMPLETED:	4/10/22	**DRILLER:** AR	**LOGGED BY:** AR/JH
COMPLETION DEPTH	118.7 ft	**DRILL RIG:**	CME-85
BENCHMARK:	N/A	**DRILLING METHOD:**	Hollow Stem Auger
ELEVATION:	N/A	**SAMPLING METHOD:**	2-in SS
LATITUDE:	30.9355°	**HAMMER TYPE:**	Automatic
LONGITUDE:	-105.4725°	**EFFICIENCY**	N/A
STATION: N/A	**OFFSET:** N/A	**REVIEWED BY:**	Ruben Barrientos, Jr., PE

REMARKS: None

Water

While Drilling	8.5 feet
Upon Completion	5 feet
Delay	N/A

BORING LOCATION:
See attached Boring Location Plan

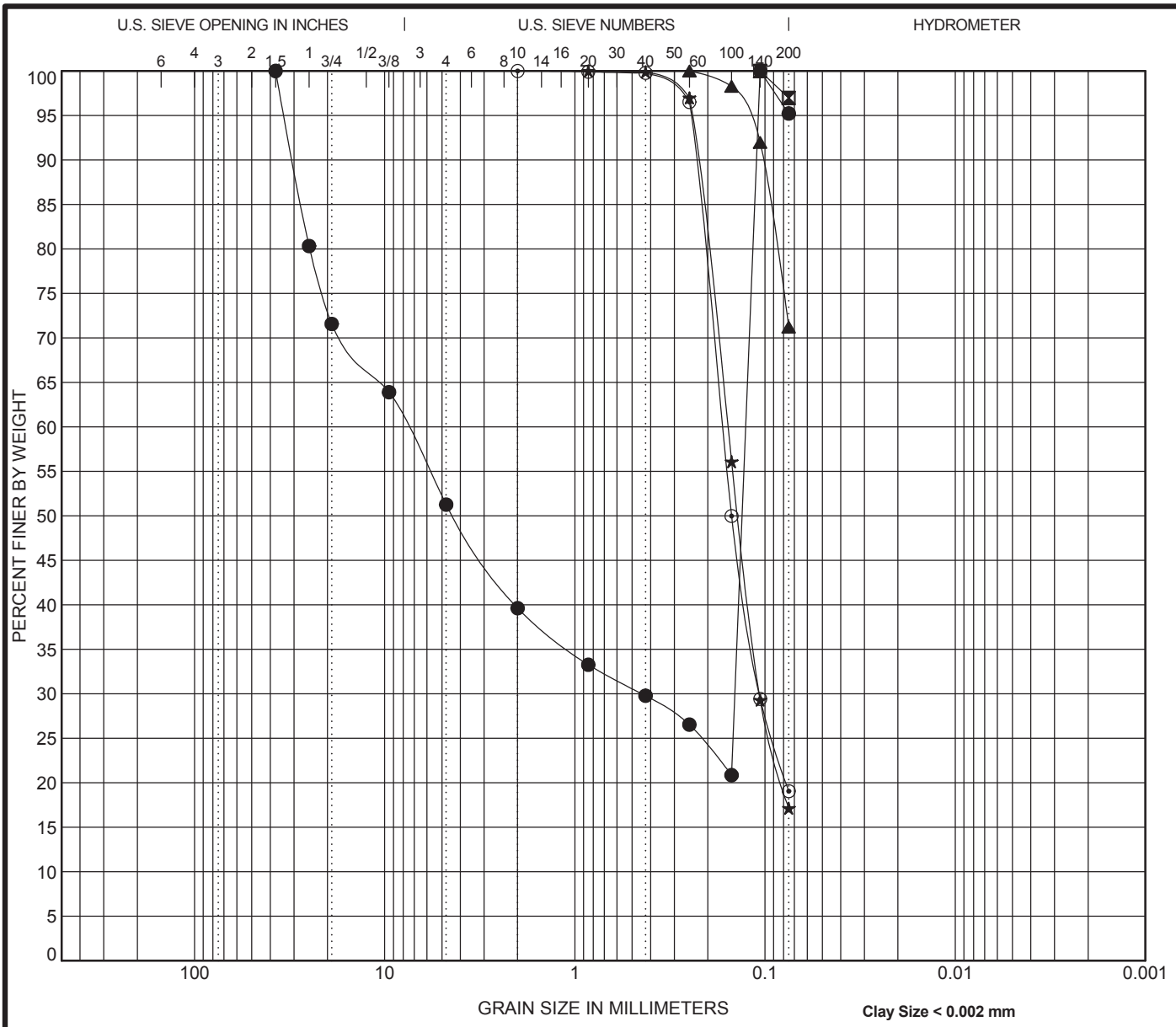
Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ / STRENGTH, tsf	Additional Remarks
	110					**SHALE** - dark gray, very dense, moist, with Clay lenses					
			SS	SS34	5			50/5	41	× >>◎	
	115										
			SS	SS35	2			50/2		>>◎	
						Boring terminated at 118.7 feet					

Moisture: × PL: ◪ LL: ✚ (0 / 25 / 50)
STRENGTH, tsf: ▲ Qu ✳ Qp (0 / 2.0 / 4.0)

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PROJECT NO.: 06252724
PROJECT: Saguaro Conector Pipeline / ONEOK
LOCATION: Rio Grande River Crossing
Sierra Blanca, Texas

The stratification lines represent approximate boundaries. The transition may be gradual.



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

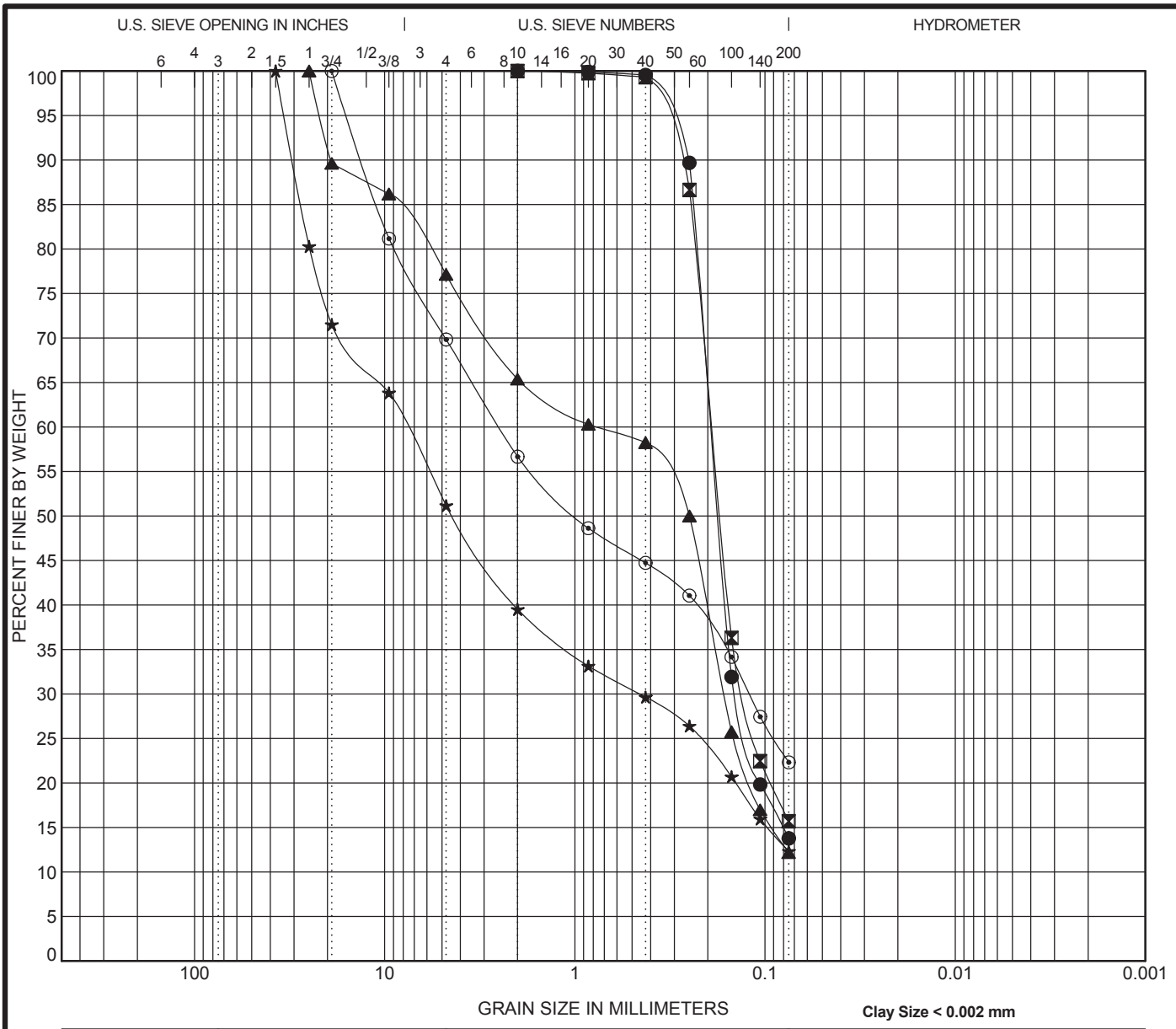
	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	B5	1.0	Lean Clay (CL)	36	21	15		
⊠	B5	6.0	Fat Clay (CH)	63	23	40		
▲	B5	11.0	Silt with Sand (ML)					
★	B5	13.5	Silty Sand (SM)					
⊙	B5	21.0	Silty Sand (SM)					

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B5	1.0	37.5	7.671	0.444		48.7	-44.0	95.2	
⊠	B5	6.0	0.106				0.0	3.0	97.0	
▲	B5	11.0	0.25				0.0	28.8	71.2	
★	B5	13.5	0.85	0.157	0.107		0.0	82.9	17.1	
⊙	B5	21.0	2	0.167	0.107		0.0	80.9	19.1	

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GRAIN SIZE DISTRIBUTION

Project: Saguaro Conector Pipeline / ONEOK
PSI Job No.: 06252724
Location: Rio Grande River Crossing
Sierra Blanca, Texas



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

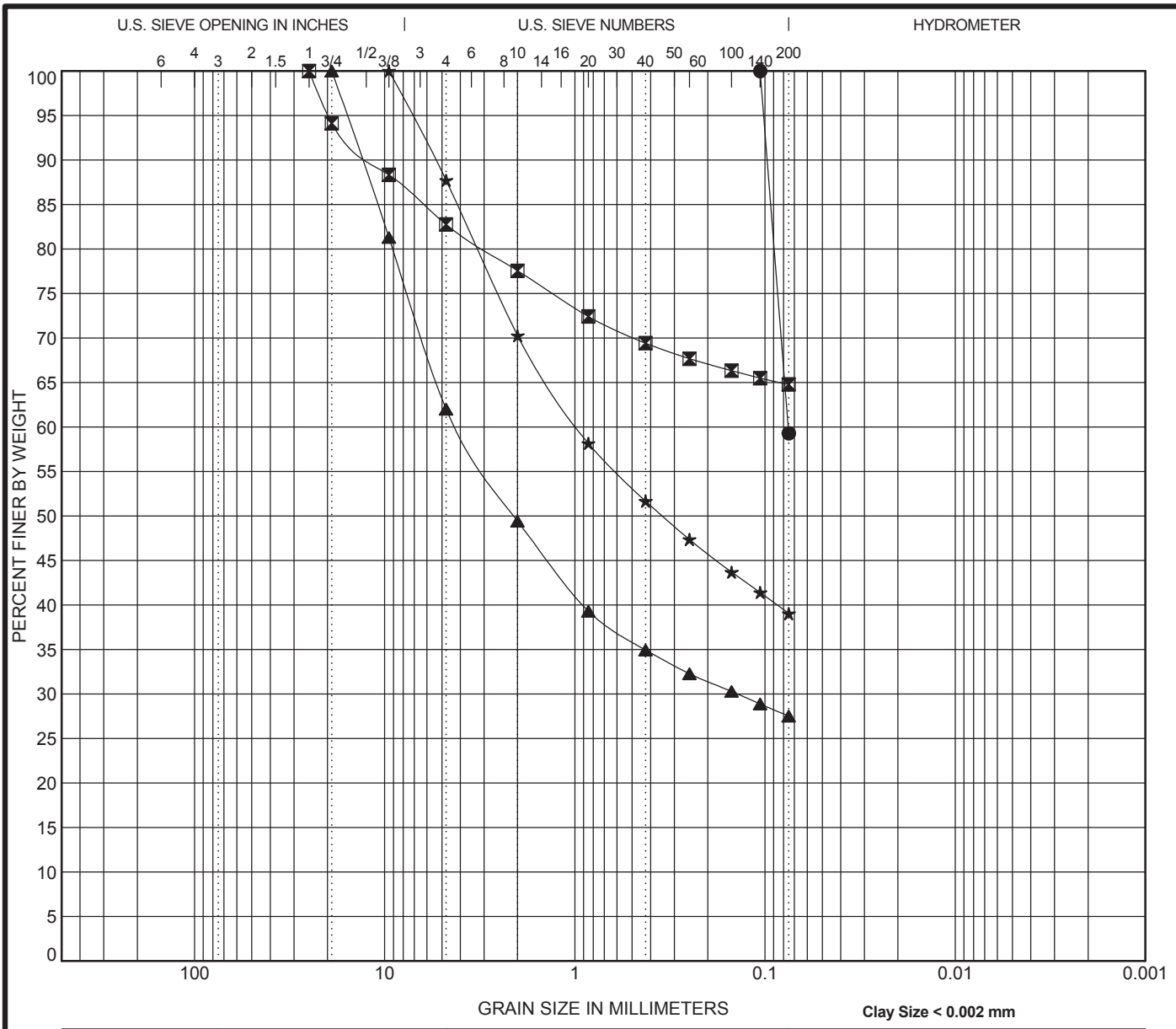
	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	B5	31.0	Silty Sand (SM)					
⊠	B5	33.5	Silty Sand (SM)					
▲	B5	43.5	Silty Sand (SM)				0.54	11.99
★	B5	48.5	Silty Sand (SM)				0.45	128.46
⊙	B5	53.5	Silty Gravel (GM)					

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B5	31.0	2	0.192	0.142		0.0	86.2	13.8	
⊠	B5	33.5	2	0.191	0.128		0.0	84.3	15.7	
▲	B5	43.5	25	0.77	0.164		22.9	65.0	12.2	
★	B5	48.5	37.5	7.701	0.455		48.8	38.8	12.3	
⊙	B5	53.5	19	2.49	0.121		30.2	47.5	22.3	

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GRAIN SIZE DISTRIBUTION

Project: Saguaro Conector Pipeline / ONEOK
PSI Job No.: 06252724
Location: Rio Grande River Crossing
Sierra Blanca, Texas



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

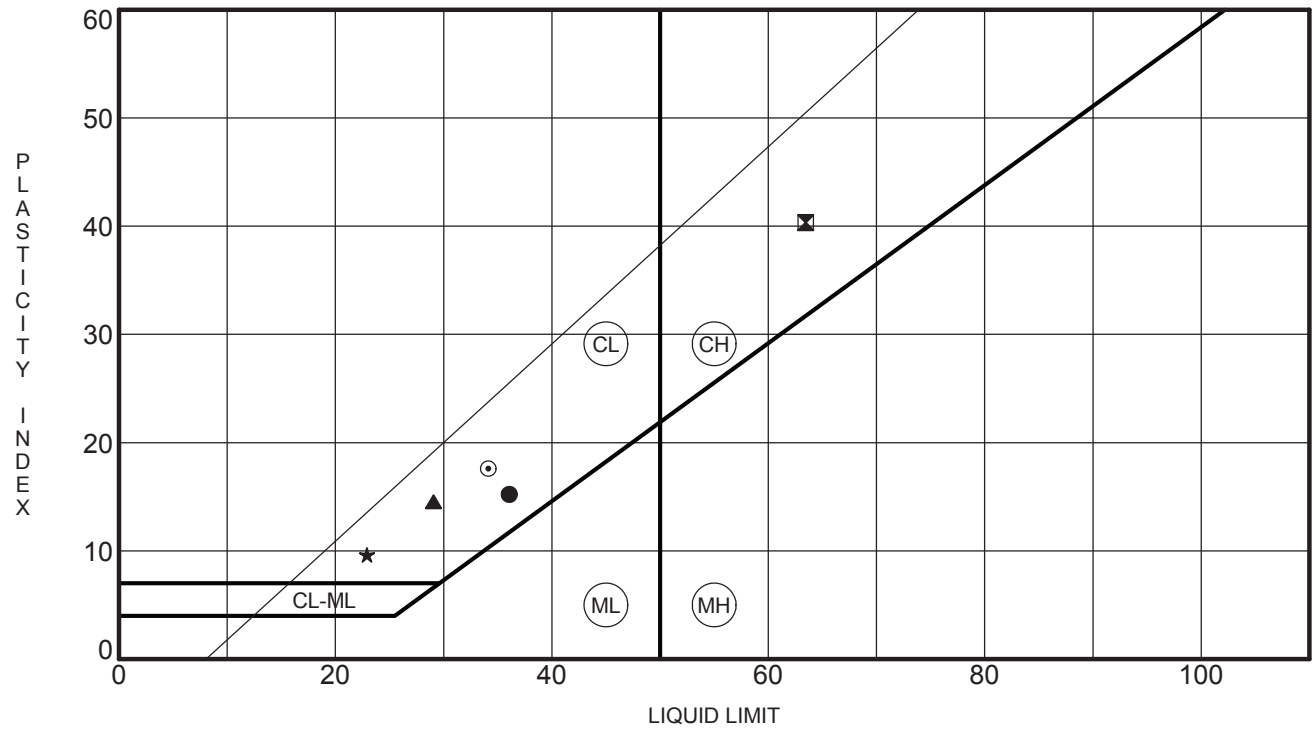
	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	B5	63.5	Weathered Limestone	29	15	14		
⊠	B5	73.5	Limestone with Mudstone seams	23	13	10		
▲	B5	83.0	Shale					
★	B5	103.5	Shale	34	17	17		

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	B5	63.5	0.106	0.075			0.0	40.7	59.3	
⊠	B5	73.5	25				17.3	18.0	64.8	
▲	B5	83.0	19	4.141	0.14		38.0	34.5	27.5	
★	B5	103.5	9.5	0.968			12.3	48.7	39.0	

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GRAIN SIZE DISTRIBUTION

Project: Saguaro Conector Pipeline / ONEOK
PSI Job No.: 06252724
Location: Rio Grande River Crossing
Sierra Blanca, Texas



	Boring	Depth (ft)	LL	PL	PI	Fines	Classification (*Visual)
●	B5	1.0	36	21	15	95.2	Lean Clay (CL)
⊠	B5	6.0	63	23	40	97.0	Fat Clay (CH)
▲	B5	63.5	29	15	14	59.3	Weathered Limestone
★	B5	73.5	23	13	10	64.8	Limestone with Mudstone seams
⊙	B5	103.5	34	17	17	39.0	Shale

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ATTERBERG LIMIT RESULTS

PSI Job No.: 06252724
Project: Saguaro Conector Pipeline / ONEOK
Location: Rio Grande River Crossing
Sierra Blanca, Texas

KEY TO TERMS AND SYMBOLS USED ON LOGS

ROCK CLASSIFICATION

RECOVERY

DESCRIPTION OF RECOVERY	% CORE RECOVERY
Incompetent	< 40
Competent	40 TO 70
Fairly Continuous	70 TO 90
Continuous	90 TO 100

ROCK QUALITY DESIGNATION (RQD)

DESCRIPTION OF ROCK QUALITY	RQD
Very Poor (VPo)	0 TO 25
Poor (Po)	25 TO 50
Fair (F)	50 TO 75
Good (Gd)	75 TO 90
Excellent (ExInt)	90 TO 100

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	N-VALUE (Blows/Foot)	SHEAR STRENGTH (tsf)	HAND PEN VALUE (tsf)
Very Soft	0 TO 2	0 TO 0.125	0 TO 0.25
Soft	2 TO 4	0.125 TO 0.25	0.25 TO 0.5
Firm	4 TO 8	0.25 TO 0.5	0.5 TO 1.0
Stiff	8 TO 15	0.5 TO 1.0	1.0 TO 2.0
Very Stiff	15 TO 30	1.0 TO 2.0	2.0 TO 4.0
Hard	>30	>2.0 OR 2.0+	>4.0 OR 4.0+

SOIL DENSITY OR CONSISTENCY

DENSITY (GRANULAR)	CONSISTENCY (COHESIVE)	THD (BLOWS/FT)	FIELD IDENTIFICATION
Very Loose (VLo)	Very Soft (VSo)	0 TO 8	Core (height twice diameter) sags under own weight
Loose (Lo)	Soft (So)	8 TO 20	Core can be pinched or imprinted easily with finger
Slightly Compact (SlCmpt)	Stiff (St)	20 TO 40	Core can be imprinted with considerable pressure
Compact (Cmpt)	Very Stiff (VSt)	40 TO 80	Core can only be imprinted slightly with fingers
Dense (De)	Hard (H)	80 TO 5"/100	Core cannot be imprinted with fingers but can be penetrated with pencil
Very Dense (VDe)	Very Hard (VH)	5"/100 to 0"/100	Core cannot be penetrated with pencil

DEGREE OF PLASTICITY OF COHESIVE SOILS

DEGREE OF PLASTICITY	PLASTICITY INDEX (PI)	SWELL POTENTIAL
None or Slight	0 to 4	None
Low	4 to 20	Low
Medium	20 to 30	Medium
High	30 to 40	High
Very High	>40	Very High

BEDROCK HARDNESS

MORHS' SCALE	CHARACTERISTICS	EXAMPLES	APPROXIMATE THD PEN TEST	
5.5 to 10	Rock will scratch knife	Sandstone, Chert, Schist, Granite, Gneiss, some Limestone	Very Hard (VH)	0" to 2"/100
3 to 5.5	Rock can be scratched with knife blade	Siltstone, Shale, Iron Deposits, most Limestone	Hard (H)	1" to 5"/100
1 to 3	Rock can be scratched with fingernail	Gypsum, Calcite, Evaporites, Chalk, some Shale	Soft (So)	4" to 6"/100

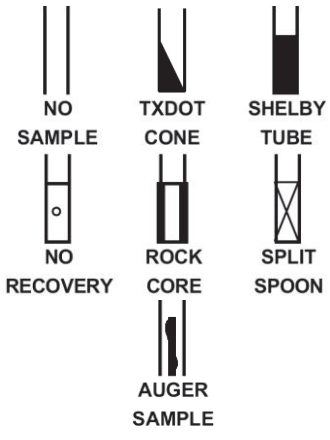
MOISTURE CONDITION OF COHESIVE SOILS

DESCRIPTION	CONDITION
Absence of moisture, dusty, dry to touch	DRY
Damp but no visible water	MOIST
Visible free water	WET

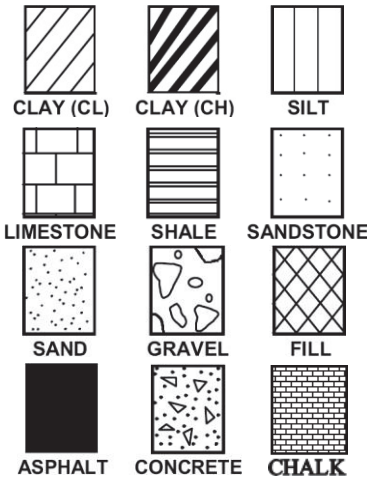
RELATIVE DENSITY FOR GRANULAR SOILS

APPARENT DESNITY	SPT (BLOWS/FT)	CALIFORNIA SAMPLER (BLOWS/FT)	MODIFIED CA. SMAPLER (BLOWS/FT)	RELATIVE DENSITY (%)
Very Loose	0 to 4	0 to 5	0 to 4	0 to 15
Loose	4 to 10	5 to 15	5 to 12	15 to 35
Medium Dense	10 to 30	15 to 40	12 to 35	35 to 65
Dense	30 to 50	40 to 70	35 to 60	65 to 85
Very Dense	>50	>70	>60	85 to 100

SAMPLER TYPES



SOIL TYPES



ABBREVIATIONS

PL – Plastic Limit
LL – Liquid Limit
WC – Percent Moisture

Q_P – Hand Penetrometer
Q_U – Unconfined Compression Test
UU – Unconsolidated Undrained Triaxial

Note: Plot Indicates Shear Strength as Obtained By Above Tests

WATER SEEPAGE

WATER LEVEL AT END OF DRILLING

CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

	6"	3"	3/4"	4	10	40	200		
BOULDERS	COBBLES	GRAVEL		SAND				SILT OR CLAY	CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE			
	152	76.2	19.1	4.76	2.0	0.42	0.074		0.002

APPENDIX 6B PLAN FOR UNANTICIPATED DISCOVERY OF PALEONTOLOGICAL RESOURCES DURING CONSTRUCTION

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Plan for Unanticipated Discovery of Paleontological Resources During Construction

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
Plan for Unanticipated Discovery of Paleontological Resources During Construction

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SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

1.0 INTRODUCTION

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States to the Estados Unidos Mexicanos (United Mexican States) referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point on the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. This Plan for Unanticipated Discovery of Paleontological Resources During Construction identifies procedures to be implemented in the event that previously unreported and unanticipated paleontological resources are found during construction.

2.0 TRAINING

Prior to the commencement of construction, Saguaro will ensure that Project personnel and contractor personnel will receive environmental training. This training will include review of the procedures set forth in this Plan for Unanticipated Discovery of Paleontological Resources During Construction and the procedures to follow in the event of an unanticipated discovery.

3.0 UNANTICIPATED DISCOVERY OF PALEONTOLOGICAL RESOURCES

Paleontological resources would be expected to be in the form of fossils. In situ, fossils are usually found within layers of geologically old sediments and rocks where the creature lived, died, and became fossilized. However, through geologic, hydrologic, and marine activity, many fossils and parts of fossils have been carried into younger geologic areas. Excavation associated with the Project will be limited to the drill rig set up and Direct Pipe installation activity. This material is sufficiently young geologically that it is unlikely to contain fossils. However, the following procedures will be followed if fossils are encountered during construction.

1. The Contractor will stop work in the immediate area of the find to protect the integrity of the find.

2. The Contractor will notify the Project's onsite Environmental Inspector of the find. The Contractor will not restart work in the immediate area of the find until approved by the Environmental Inspector.

3. The Environmental Inspector will notify the Cultural Resource Coordinator, who in turn will notify the Project Representative and the Federal Energy Regulatory Commission Geologist of the find.

4. The Environmental Inspector will confirm the presence of paleontological remains. Upon confirmation, the Environmental Inspector will photograph representative specimens of fossils identified at the site. The Environmental Inspector will prepare a brief written description which identifies the location of the potential fossil material

along the route, the depth and apparent thickness of the stratum containing the fossil material, local topography, and other pertinent conditions or observations.

5. Once documentation of the find is completed, the Project Representative will direct the Environmental Inspector to grant clearance to the Contractor to resume work in the vicinity of the site.

6. The Project Manager will promptly notify the Vertebrate Paleontology Laboratory at the University of Texas Austin and, upon request, provide copied of the written and photographic documentation of the potential paleontological materials.

Contact:	Matthew Brown Director
Email:	matthewbrown@utexas.edu
Telephone:	(512) 232-5515
Fax:	(512) 232-5518
Address:	Vertebrate Paleontology Laboratory J. J. Pickle Research Campus 10100 Burnet Road PRC 6-VPL, R7600 Austin, Texas 78758

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 7
Soil Resources

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 7—SOIL RESOURCES

Minimum Filing Requirements:	**Addressed in:**
1. List, by milepost, the soil associations that would be crossed and describe the erosion potential, fertility, and drainage characteristics of each association. – Title 18 of the Code of Federal Regulations ("CFR") Part (§) 380.12(i)(1)	Due to the limited amount of pipe associated with the Project, soil impacts are presented as acreages instead of by milepost. Soil map units crossed by the Project are provided in Table 7.2-1. Acres of soil characteristics affected by the Project are provided in Table 7.3-1.
2. If an aboveground facility site is greater than 5 acres: i. List the soil series within the property and the percentage of the property comprised of each series; ii. List the percentage of each series which would be permanently disturbed; iii. Describe the characteristics of each soil series; and iv. Indicate which are classified as prime or unique farmland by the United States Department of Agriculture, Natural Resources Conservation Service. – 18 CFR § 380.12(i)(2)	Not Applicable
3. Identify, by milepost, potential impact from: Soil erosion due to water, wind, or loss of vegetation; soil compaction and damage to soil structure resulting from movement of construction vehicles; wet soils and soils with poor drainage that are especially prone to structural damage; damage to drainage tile systems due to movement of construction vehicles and trenching activities; and interference with the operation of agricultural equipment due to the probability of large stones or blasted rock occurring on or near the surface as a result of construction. – 18 CFR § 380.12(i)(3)	Due to the limited amount of pipe associated with the Project, soil impacts are presented as acreages instead of by milepost. Soil map units crossed by the Project are provided in Table 7.2-1. Acres of soil characteristics affected by the Project are provided in Table 7.3-1.
4. Identify, by milepost, cropland and residential areas where loss of soil fertility due to trenching and backfilling could occur. – 18 CFR § 380.12(i)(4)	Not Applicable
5. Describe proposed mitigation measures to reduce the potential for adverse impact to soils or agricultural productivity. Compare proposed mitigation measures with the staff's current "Upland Erosion Control, Revegetation, and Maintenance Plan," which is available from the Commission Internet home page or from the Commission staff, and explain how proposed mitigation measures provide equivalent or greater protections to the environment. – 18 CFR § 380.12(i)(5)	Section 7.3
Additional Information:	
1. If the applicant generally proposes to adopt the Federal Energy Regulatory Commission staff's *Upland Erosion Control, Revegetation, and Maintenance Plan* except at certain locations, identify on a site-specific basis locations where alternative measures are proposed, and describe the alternative measures that will ensure an equal or greater level of protection.	Not Applicable
2. Provide documentation of consultation with the U.S. Department of Agriculture's Natural Resources Conservation Service or other applicable agencies regarding seed mixes, erosion control, and invasive species/noxious weeds.	Section 7.3.1; Appendix 7A

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 7—SOIL RESOURCES

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APPENDICES

Appendix 7A Natural Resource Conservation Service Consultation Documentation

ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
FERC	Federal Energy Regulatory Commission
FERC Plan	FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan*
Mexico	Estados Unidos Mexicanos (United Mexican States)
MLRA	Major Land Resource Area
NRCS	Natural Resources Conservation Service
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
SSURGO	Natural Resources Conservation Service's (NRCS) Soil Survey Geographic
U.S.	United States
USDA	U.S. Department of Agriculture
WEG	Wind Erodibility Group

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

7.0 RESOURCE REPORT 7—SOIL RESOURCES

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Resource Report 7 describes the existing soils, the activities of construction and operations that will affect the soils, the impact of construction and operation on soils, and, where appropriate, mitigating measures that will be included in construction and operation to minimize effects on soils. Resource Report 1 provides a detailed Project description.

7.1 BACKGROUND AND METHODOLOGY

Soil characteristics at the Project site were identified and assessed using the U.S. Department of Agriculture ("USDA") Natural Resources Conservation Service's ("NRCS") Soil Survey Geographic ("SSURGO") database. This database is a digital version of the original county soil surveys developed by the NRCS and can be readily used with geographic information systems. It provides the most detailed level of soils information for natural resource planning and management. The SSURGO system is linked to an attribute database that gives the proportionate extent of the component soils and their properties for each soil map unit.

The NRCS uses soil map units to describe and depict soil characteristics for a particular area. Soil map units are made of one or more soil components (i.e., soil series) to display soil information for management and land use decisions. In general, soils that exhibit similar horizon composition, thickness, and arrangement make up a series.

SSURGO attribute data consist of physical properties, chemical properties, and interpretive groupings. Attribute data can apply to the whole soil (e.g., hydric soils, prime farmland soils, and slope class) or to layer data for soil horizons (e.g., texture and permeability). The soil attribute data can be used in conjunction with spatial data to describe soils in a particular area.

The SSURGO database was queried for attribute data pertaining to prime farmland, hydric soils, compaction prone soils, water and wind erodible soils, revegetation potential, stony/rocky soils, and shallow bedrock, as described below. These are designations and characteristics that present potential construction limitations as discussed further in section 7.3.

7.1.1 Prime Farmland

The USDA defines prime farmland as land that has physical and chemical characteristics best suited for producing food, feed, forage, fiber, and oilseed crops and must also be available for these uses (Soil Survey Division Staff, 2017). This designation includes cultivated land, pastureland, woodland, or other lands that are either used for food or fiber crops or are available for these uses. Urbanized land and open water are excluded from prime farmland. Prime farmland typically contains few or no rocks, is permeable to water and air, is not excessively erodible or saturated with water for long periods, and is not subject to frequent, prolonged flooding during the growing season. Soils that do not meet the above criteria may be considered prime farmland if the limiting factor is mitigated (e.g., if a flooding tendency is mitigated by artificial drainage). In some areas, land that does not meet the criteria for prime farmland is considered farmland of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. The appropriate state agencies determine the criteria for defining and delineating farmland of statewide importance, which generally includes areas that economically produce high yields of crops when treated and managed according to acceptable farming methods. Impacts on prime farmland are of general concern because of the potential for decreases in long-term agricultural productivity.

Prime farmland designations are direct attributes in the SSURGO database. Percentages and acreages of prime farmland were determined by a simple query of the database.

7.1.2 Hydric Soils

Hydric soils are soils that formed under conditions of saturation for enough time during the growing season to develop anaerobic conditions in the upper layer of the soil column. Soils that are artificially drained or protected from flooding (e.g., by drain tiles) are still considered hydric if the soil in its undisturbed state would meet the definition of a hydric soil. Generally, hydric soils are those soils that are classified as poorly drained or very poorly drained.

Hydric soil designations are direct attributes in the SSURGO database. Percentages and acreages of hydric soils were determined by a simple query of the database.

7.1.3 Compact Prone Soils

Soil compaction modifies the structure and reduces the porosity and moisture-holding capacity of soils. Construction equipment traveling over wet soils could disrupt the soil structure, reduce pore space, increase runoff potential, or cause rutting. The degree of compaction depends on moisture content and soil texture. Fine-textured soils with poor internal drainage, and/or that are moist or saturated during construction, are most susceptible to compaction and rutting.

Compaction-prone soils were identified by querying the SSURGO database for soil components that have: (1) a surface texture of sandy clay loam or finer; and (2) a drainage class of somewhat poorly, poorly, or very poorly drained.

7.1.4 Highly Erodible Soils

Erosion is a continuing natural process that can be accelerated by human disturbance. Factors that influence the degree of erosion include soil texture, structure, length and percent of

slope, vegetation cover, and rainfall or wind intensity. Soils most susceptible to erosion by water are typified by bare or sparse vegetation cover, non-cohesive soil particles with low infiltration rates, and moderate to steep slopes. Wind erosion processes are less affected by slope angles and are more affected by grain size. Medium-textured soils (very fine sandy loams, fine sandy loams, and silt loams) are most susceptible to wind erosion. Topsoil removal, clearing, grading, and equipment movement could accelerate the erosion process and, without adequate protection, result in discharge of sediment to waterbodies and wetlands. Soil loss due to erosion could also reduce soil fertility and impair revegetation.

Highly erodible soils were identified based on three soil parameters present in the SSURGO database that are directly related to the susceptibility of a soil to erosion by water and wind: land capability class, slope, and wind erodibility group ("WEG"). Highly water-erodible soils are classified as having a land capability class of 4e through 8e, which are considered to have severe to extreme erosion limitations for agricultural use and an average slope of greater than 8 percent.

A separate grouping for wind erosion was developed because management and construction mitigation techniques used to minimize wind erosion hazards are different from those used to minimize water erosion. Wind erodibility was assessed based on WEG designations. A WEG is a grouping of soils that have similar surface-soil properties affecting their resistance to soil blowing—including texture, organic matter content, and aggregate stability. Soils in WEG 1 and WEG 2 include sandy-textured soils with poor aggregation that are particularly susceptible to wind erosion.

7.1.5 Revegetation Concerns

Droughty soils that have a coarse surface texture, and which are somewhat-excessively and excessively drained, may prove to be difficult to revegetate. Drier soils have less water to aid in the germination and eventual establishment of new vegetation. Coarser-textured soils also have a lower water-holding capacity following precipitation, which could result in moisture deficiencies in the root zone creating unfavorable conditions for many plants. In addition, steep slopes within the temporary workspace may make the establishment of vegetation difficult. Poor revegetation can occur when construction activities affect topsoil quality, water-holding capacity, salinity, acidity, or soil drainage.

Soils with revegetation concerns were identified by querying the SSURGO database for soil components that have: 1) a surface texture of sandy loam or courser; 2) are moderately well to excessively drained; and 3) an average slope greater than or equal to 9 percent.

7.1.6 Rocky Soils and Shallow Bedrock

Introducing stones or rocks to surface soil layers may reduce soil moisture-holding capacity, resulting in a reduction of soil productivity. Additionally, some agricultural equipment may be damaged by contact with large rocks and stones. Rock fragments and stones at the surface and in the surface layer may be encountered during excavation, foundation placement, station piping tie-in connections, and backfilling.

Soils with significant quantities of rock were identified by querying the SSURGO database for soils that: 1) have a cobbley, stony, boulder, shaley, very gravelly, or extremely gravelly

modifier to the textural class; or 2) contain greater than 5 percent (by weight) of rocks larger than 3 inches.

Shallow-to-bedrock soils were identified by querying the SSURGO database for soil components that have bedrock within 60 inches of the soil surface. The analysis also identified whether the near surface bedrock is lithic (unweathered) or paralithic (weathered). Should excavation be required in an area with shallow bedrock, lithic bedrock may require blasting to excavate while paralithic bedrock can likely be ripped and excavated without blasting.

7.2 EXISTING SOIL RESOURCES

Soil interpretations at the broadest scale in the U.S. are based on Major Land Resource Areas ("MLRA"). The Project workspace is located within the Southern Desertic Plains Basins and Mountains MLRA (USDA NRCS, 2006). The Southern Desertic Plains Basins and Mountains MLRA is characterized as desert basins and broad valleys. Soils within this MLRA are characterized as moderately deep to very deep, well drained, and loamy or clayey in texture formed in alluvium or eolian deposits. Some of the soils are shallow or very shallow over a hardpan or bedrock. Table 7.2-1 presents a descriptive profile of the mapped soil units.

Table 7.2-1: Selected Physical and Interpretive Characteristics within the Project Workspace

Map Unit Symbol	Map Unit Name	Component Name	Component Percent	Percent Slope		Surface Texture	Drainage Class	Permeability	Taxonomy	Parent Material	Geomorphology
				Low	High						
BAC	Baviza loamy fine sand, 1 to 8 percent slopes	Baviza	100%	1	8	Loamy fine sand	Excessively drained	Very Rapid	Mixed, hyperthermic Ustic Torripsamments	Sandy alluvium derived from igneous rock	Fan skirts, piedmont slopes
CBA	Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded	Castolon	18%	0	1	Silty Clay Loam	Well drained	Moderately Slow	Fine-silty, mixed, superactive, calcareous, hyperthermic Ustic Torrifluvents	Loamy alluvium derived from igneous and sedimentary rock	Flood plains, river valleys
		Gadsden	29%	0	1	Clay	Moderately well drained	Slow	Fine, mixed, superactive, calcareous, hyperthermic Ustic Torrifluvents	Clayey alluvium	Flood plains, river valleys
		Lomapelona	53%	0	1	Sandy loam	Well drained	Moderate	Coarse-loamy, mixed, superactive, calcareous, hyperthermic Ustic Torrifluvents	Loamy alluvium derived from igneous and sedimentary rock	Flood plains, river valleys
CIB	Chillon extremely gravelly sandy loam, 1 to 3 percent slopes	Chillon	100%	1	3	Extremely gravelly sandy loam	Well drained	Moderately Rapid	Loamy-skeletal, mixed, superactive, hyperthermic Ustic Haplocambids	Gravelly alluvium derived from igneous and sedimentary rock	Intermontane basins, stream terraces
OCB	Ojinaga-Corazones complex, 1 to 5 percent slopes	Corazones	33%	1	5	Gravelly fine sandy loam	Well drained	Moderately Rapid	Loamy-skeletal, mixed, superactive, hyperthermic Ustic Haplocalcids	Gravelly alluvium derived from mixed	Fan remnants, intermontane basins
		Ojinaga	67%	1	5	Gravelly Loam	Well drained	Moderately Rapid	Loamy-skeletal, mixed, superactive, hyperthermic, shallow Calcic Petrocalcids	Gravelly alluvium derived from mixed	Fan remnants, intermontane basins
PRA	Pantera-Riverwash complex, 0 to 2 percent slopes, frequently flooded	Pantera	74%	0	2	Gravelly loamy coarse sand	Well drained	Rapid	Sandy-skeletal, mixed, hyperthermic Ustic Torrifluvents	Sandy and gravelly alluvium derived from igneous and sedimentary rock	Arroyos, basin floors

Map Unit Symbol	Map Unit Name	Component Name	Component Percent	Percent Slope		Surface Texture	Drainage Class	Permeability	Taxonomy	Parent Material	Geomorphology
				Low	High						
RDG	Redlight and Terlingua soils and Rock outcrop, 35 to 65 percent slopes	Redlight	54%	35	65	Extremely cobbley sandy loam	Well drained	Moderate	Loamy-skeletal, mixed, superactive, hyperthermic Lithic Ustic Haplocalcids	Gravelly colluvium derived from limestone over gravelly residuum weathered from limestone	Hills, mountains
		Rock outcrop	29%	35	65	Bedrock	NULL	Very Slow	NULL	Igneous rock, limestone	Hills, mountains
		Terlingua	17%	35	65	Extremely cobbley sandy loam	Well drained	Moderate	Loamy-skeletal, mixed, superactive, calcareous, hyperthermic Lithic Ustic Torriorthents	Gravelly residuum weathered from igneous rock	Hills, mountains
TCE	Terlingua-Corazones complex, 10 to 30 percent slopes	Corazones	29%	10	30	Gravelly sandy loam	Well drained	Moderately Rapid	Loamy-skeletal, mixed, superactive, hyperthermic Ustic Haplocalcids	Gravelly alluvium derived from mixed	Fan remnants, intermontane basins
		Terlingua	71%	10	20	Very cobbely fine sandy loam	Well drained	Moderate	Loamy-skeletal, mixed, superactive, calcareous, hyperthermic Lithic Ustic Torriorthents	Gravelly slope alluvium derived from conglomerate and/or gravelly residuum weathered from conglomerate	Fan remnants, intermontane basins, low hills
TOA	Tornillo very fine sandy loam, 0 to 2 percent slopes, rarely flooded	Tornillo	100%	0	2	Very fine sandy loam	Well drained	Moderate	Fine-loamy, mixed, superactive, hyperthermic Ustifluventic Haplocambids	Loamy alluvium derived from igneous and sedimentary rock	Flood-plain steps, intermontane basins

Source: Soil Survey Staff, 2022.

7.3 CONSTRUCTION IMPACTS AND MITIGATION

Construction activities that have the potential to temporarily affect soils and revegetation efforts include vegetation clearing, topsoil stripping, grading, excavation, backfilling, and restoration and the potential impacts to soil include the following:

- loss of soil due to water or wind erosion;
- reduction of soil quality by mixing of topsoil with subsoil;
- bringing excess rocks to the surface; and
- disruption of surface and subsurface drainage systems.

In addition, the presence of certain soil conditions (e.g., droughty soils) could result in poor revegetation, including a potential increase in invasive plant species. Due to the nature of the Project activities, which will be limited to a relatively small work area, impacts on soils are expected to be minimal. To minimize or avoid impacts on soils, the Project will implement the Federal Energy Regulatory Commission's ("FERC") *Upland Erosion Control, Revegetation, and Maintenance Plan* ("FERC Plan"), FERC's *Wetland and Waterbody Construction and Mitigation Procedures* modified as described in section 1.4.3 of Resource Report 1, and the Project-specific Spill Prevention, Containment, and Countermeasure Plan.

Acres of soil characteristics affected by the Project are provided in Table 7.3-1.

Table 7.3-1: Acres of Soil Characteristics Affected by the Project

Activity	Area (acres) [a]	Prime Farmland [b]	Hydric Soils [b]	Compact Prone [c]	Highly Erodible		Revegetation Concerns [f]	Rocky Profile [g]	Shallow Bedrock [h]
					Water [d]	Wind [e]			
Border Facilities permanent ROW	1.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Additional Temporary Workspaces (ATWS)	14.2	0.0	0.0	0.0	0.0	0.0	6.6	0.7	0.0
Temporary access roads	20.1	0.0	0.0	0.0	6.9	1.9	12.5	13.7	5.3
TOTAL	**35.5**	**0.0**	**0.0**	**0.0**	**6.9**	**1.9**	**19.7**	**14.4**	**5.3**

Source: Soil Survey Staff, 2022.

[a] The numbers in this table have been rounded for presentation purposes. The values in each row do not add up to the total acreage for each county because soils may occur in more than one characteristic class or may not occur in any class listed in the table.

[b] As designated by the NRCS. Prime farmland includes farmland that would be considered prime farmland with limiting factors mitigated for farmland of state-wide importance and unique farmland. Hydric soils are soils with poor to very poor drainage class.

[c] Includes soils in somewhat poor to very poor drainage classes with surface textures of sandy clay loam and finer.

[d] Includes soils in land capability subclasses 4E through 8E and soils with an average slope greater than 8 percent.

[e] Includes soils with a WEG classification of 1 or 2.

[f] Includes soils with a surface texture of sandy loam or coarser that are moderately well to excessively drained and soils with an average slope greater than 8 percent.

[g] Includes soils with one or more horizons that have a cobbley, stony, bouldery, channery, flaggy, very gravelly, or extremely gravelly modifier to the textural class and/or contain greater than 5 percent by weight of rocks larger than 3 inches.

[h] Includes soils that have bedrock within 60 inches of the soil surface.

7.3.1 Highly Erodible Soils

Approximately 6.9 acres (19 percent) of soils affected by construction activities are prone to erosion by water and approximately 1.9 acres (5 percent) of soils affected by construction activities are prone to erosion by wind. To minimize or avoid potential impacts of soil erosion and sedimentation, Saguaro will implement the measures in the FERC Plan and applicable permits, including the following:

- installing sediment barriers (e.g., silt fences, straw bales, straw logs) to protect surface waters and roadways by controlling the movement of sediment on the Project workspace and by preventing the transport of sediment off of the site;
- applying mulch consisting of straw, hay, erosion control fabric, or other equivalent to protect the soil surface from wind erosion and optimize soil moisture for successful revegetation; and
- spraying water to exposed work areas to control wind erosion and fugitive dust emissions.

Temporary erosion controls will be installed prior to initial ground disturbance and maintained throughout construction. Saguaro will attempt to complete final cleanup and installation of permanent erosion control measures in an area within 20 days after final grading in that area, weather and soil conditions permitting. In no case will restoration of an area be delayed beyond the next available seeding season.

During construction, the effectiveness of temporary erosion control devices will be monitored. Following successful revegetation of construction areas, temporary erosion control devices will be removed.

7.3.2 Revegetation Concerns

Approximately 19.7 acres (55 percent) of soils within the Project workspace have been identified as having poor revegetation potential. Successful restoration and revegetation are important for maintaining soil productivity and to protect the underlying soil from potential loss through erosion. Droughty soils, which have a coarse surface texture and are somewhat excessively or excessively drained, may prove to be difficult to revegetate. The drier soils have less water to aid in the germination and eventual establishment of new vegetation. The coarser textured soils also have a lower water holding capacity following precipitation, which could result in moisture deficiencies in the root zone creating unfavorable conditions for many plants.

Construction of the Border Facilities will result in the temporary loss of vegetation and will require that the disturbed areas be re-seeded to restore vegetative growth. Following construction of the Border Facilities, all construction debris from the Project workspace will be removed, original contours and drainages will be restored, seedbed will be prepared (where necessary), and the construction area will be revegetated. Implementation of proper topsoil segregation will help ensure post-construction revegetation success, thereby minimizing the potential for long-term erosion due to lack of vegetative cover. Project restoration and revegetation will be accomplished in accordance with the FERC Plan. Saguaro will conduct post-construction monitoring to ensure that revegetation is successful. Revegetation will be considered successful

when plant density and cover within the proposed Project workspace is similar to adjacent undisturbed areas.

The Project workspace is located on land owned by the State of Texas, which is managed by the Texas General Land Office. The Texas General Land Office does not have existing guidance and did not provide Saguaro with Project-specific guidance on seed mixes for restoration or noxious weed management. Saguaro has begun consultation with the NRCS regarding seed mixes and invasive species/noxious weeds management. Documentation of consultation with the NRCS is included in Attachment 7A.

7.3.3 Stony/Rocky Soils and Shallow Bedrock

Approximately 14.4 acres (41 percent) of soils within the Project workspace have been identified as having significant quantities of rock. Excavation and grading activities could result in the introduction of rock into the topsoil layer. Introducing stones or rocks to the topsoil layer may reduce soil moisture-holding capacity resulting in a reduction of soil productivity, which in turn could affect revegetation. To prevent mixing of the soil horizons and the incorporation of additional rock into the topsoil, topsoil segregation will be performed in areas to be revegetated. Where topsoil segregation is conducted, topsoil will be segregated from the subsoil and replaced in the proper order during final grading. Implementation of proper topsoil segregation will help promote post-construction revegetation success, thereby minimizing loss of vegetative productivity and the potential for long-term problems with erosion.

Approximately 5.3 acres (15 percent) of the soils within the Project workspace have been identified as having shallow bedrock. Workspace where shallow bedrock may be encountered includes the temporary access road, which will not be excavated. Therefore, the need for blasting is not anticipated.

7.4 REFERENCES

Soil Survey Division Staff. 2017. Soil Survey Manual. C. Ditzler, K. Scheffe, and H.C. Monger (eds.). USDA Handbook 18. Government Printing Office, Washington, D.C.

Soil Survey Staff. 2022. Web Soil Survey. Natural Resources Conservation Service, U.S. Department of Agriculture. Available online: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed: December 2022.

U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin.* U.S. Department of Agriculture Handbook 296. Available online: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050898.pdf. Accessed: November 2022.

APPENDIX 7A NATURAL RESOURCE CONSERVATION SERVICE CONSULTATION DOCUMENTATION

SAGUARO
CONNECTOR PIPELINE

November 18, 2022

Mr. Rode Mills
Rangeland Management Specialist
USDA Alpine Service Center
1805 State Hwy 118 North
Alpine, TX 79830
rode.mills@usda.gov

Subject: Saguaro Connector Pipeline, L.L.C.
Saguaro Connector Pipeline Project, Border Facilities
Hudspeth County, Texas
Project Review Request

Dear Mr. Mills,

Saguaro Connector Pipeline, L.L.C. ("Saguaro"), a subsidiary of ONEOK, Inc. ("ONEOK"), an intrastate pipeline in the State of Texas under the jurisdiction of the Railroad Commission of Texas, has a project under development to construct, connect, operate, and maintain natural gas pipeline facilities to export natural gas at a point on the International Boundary between the United States ("U.S.") and the Estados Unidos Mexicanos ("United Mexican States") ("Mexico") approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas ("the Project" or "Project"). Saguaro requests recommendation of seed mixes for use during restoration and comment on invasive species concerns in the Project area.

Saguaro is proposing to construct and operate approximately 1,000 feet of 48-inch-diameter pipeline from the U.S.– Mexico International Boundary at the center of the Rio Grande to a point on the intrastate pipeline in Hudspeth County, Texas ("Border Facilities"). As depicted on the enclosed figure, construction activities by Saguaro at the work site will disturb 15.4 acres. A 6.9-mile-long existing access road will also be utilized.

The Border Facilities would allow a new interconnection at the International Boundary and the transport and export of natural gas supplies from the Waha Hub in Pecos County, Texas via a new intrastate non-Federal Energy Regulatory Commission (FERC) jurisdictional, intrastate 48-inch-diameter pipeline.

A review of the Soil Survey Geologic Database indicates the Project area is crossed by eight soil maps units:

- Baviza loamy fine sand, 1 to 8 percent slopes;
- Castolon, Gadsden and Lomapelona soils, 0 to 1 percent slopes, occasionally flooded;
- Chillon extremely gravelly sandy loam, 1 to 3 percent slopes;
- Ojinaga-Corazones complex, 1 to 5 percent slopes; .
- Pantera-Riverwash complex, 0 to 2 percent slopes, frequently flooded;
- Redlight and Terlingua soils and Rock outcrop, 35 to 65 percent slopes;
- Terlingua-Corazones complex, 10 to 30 percent slopes; and
- Tornillo very fine sandy loam, 0 to 2 percent slopes, rarely flooded.

The soils crossed are predominately deep, well drained soils with gravelly sandy loam or clay texture. Vegetation species identified during biological field surveys indicate the Project area is dominated by big saltbush (*Atriplex lentiformis*), honey mesquite (*Prosopis glandulosa*), saltcedar (*Tamarix chinensis*), and creosote bush (*Larrea tridentate*).

Saguaro will implement FERC's Upland Erosion Control, Revegetation, and Maintenance Plan and Wetland and Waterbody Construction and Mitigation Procedures. Final cleanup will begin after pipeline construction is complete, and as soon as weather and site conditions permit. Every reasonable effort will be made to complete final cleanup (including final grading and installation of permanent erosion control devices) within 20 days after tie-in. Contours will be restored to pre-existing conditions, as closely as possible. If seeding cannot be completed within recommended seeding dates, temporary stabilization measures will be implemented, including but not limited to temporary seeding. Segregated topsoil will be spread over the surface of the right-of-way.

We look forward to working with you on the Project. Please provide your concurrence, comments, questions, or concerns to me by telephone at (918) 588-7257, by email at beth.ludwig@oneok.com, and/or Kelly Brezovar by telephone at (281) 600-1000 or by email at kelly.brezovar@erm.com.

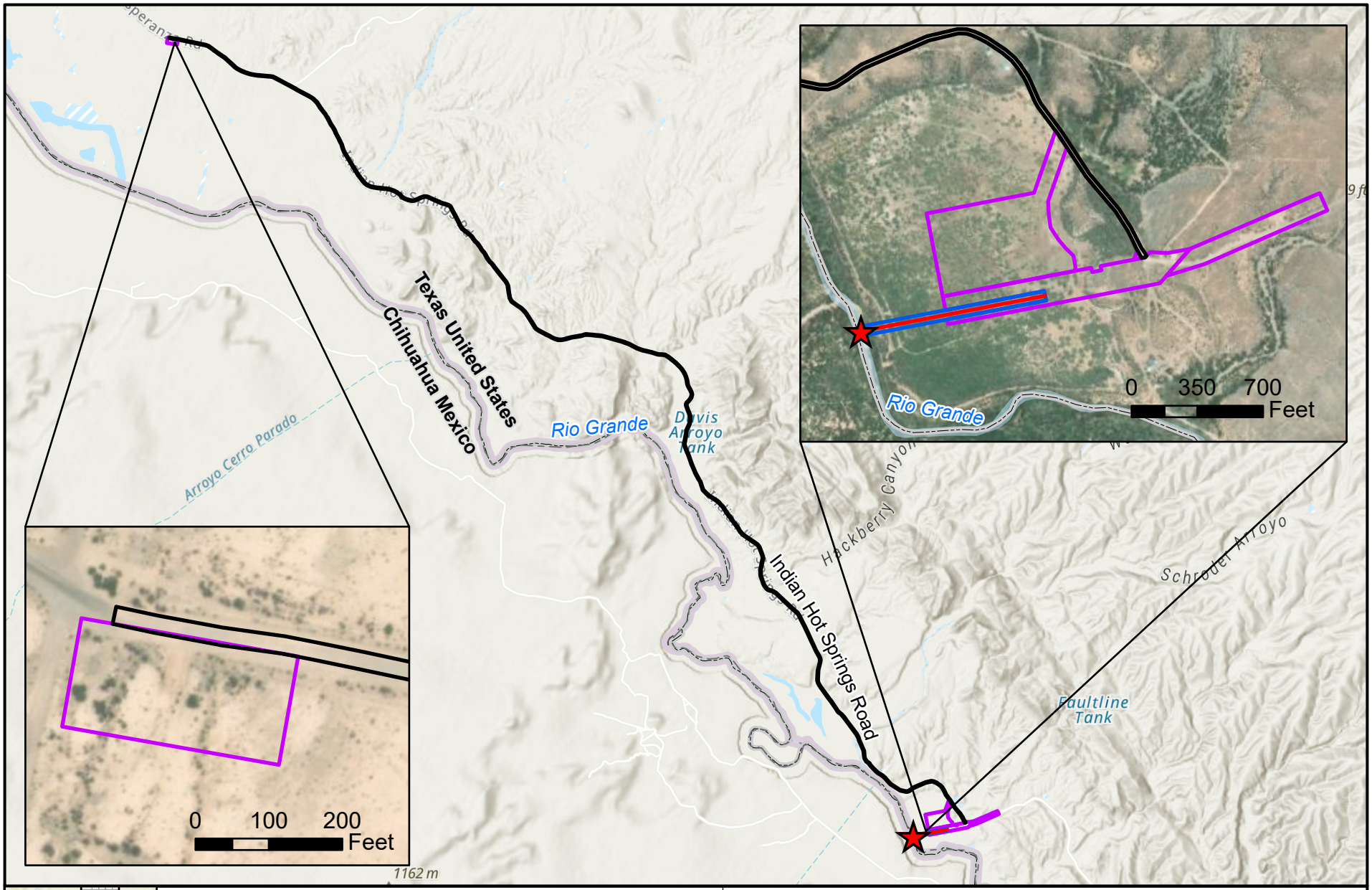
Sincerely,

DocuSigned by:
Beth Ludwig
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Beth Ludwig
Environmental Project Manager

Cc: Kelly Brezovar, ERM
Destiny Kerr, ERM

Enclosure: Figure 1: Project Overview Mapping



SAGUARO CONNECTOR PIPELINE

Figure 1
Project Overview Map
Saguaro Connector Pipeline
Hudspeth County, Texas

ERM

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SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 8
Land Use, Recreation, and Aesthetics

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 8—LAND USE, RECREATION, AND AESTHETICS

Minimum Filing Requirements for Environmental Reports:	Addressed In:
1. Describe the width and acreage requirements of all construction and permanent rights-of- way and the acreage required for each proposed plant and operational site, including injection or withdrawal wells. i. List, by milepost, locations where the proposed right-of-way would be adjacent to existing rights-of-way of any kind. ii. Identify, preferably by diagrams, existing rights-of-way that would be used for a portion of the construction or operational right-of-way, the overlap and how much additional width would be required. iii. Identify the total amount of land to be purchased or leased for each aboveground facility, the amount of land that would be disturbed for construction and operation of the facility, and the use of the remaining land not required for project operation. iv. Identify the size of typical staging areas and expanded work areas, such as those at railroad, road, and waterbody crossings, and the size and location of all pipe storage yards and access roads — 18 Code of Federal Regulations ("CFR") § 380.12(j)(1).	Sections 8.1 and 8.2
2. Identify, by milepost, the existing use of lands crossed by the proposed pipeline, or on or adjacent to each proposed plant and operational site —18 CFR § 380.12(j)(2).	Sections 8.2 and 8.3
3. Describe planned development on land crossed or within 0.25 mile of proposed facilities, the time frame (if available) for such development, and proposed coordination to minimize impacts on land use. Planned development means development which is included in a master plan or is on file with the local planning board or the county —18 CFR § 380.12(j)(3).	Section 8.4
4. Identify, by milepost and length of crossing, the area of direct effect of each proposed facility and operational site on sugar maple stands, orchards and nurseries, landfills, operating mines, hazardous waste sites, state wild and scenic rivers, state or local designated trails, nature preserves, game management areas, remnant prairie, old-growth forest, national or state forests, parks, golf courses, designated natural, recreational or scenic areas, or registered natural landmarks, Native American religious sites and traditional cultural properties to the extent they are known to the public at large, and reservations, lands identified under the Special Area Management Plan of the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, and lands owned or controlled by federal or state agencies or private preservation groups. Also identify if any of those areas are located within 0.25 mile of any proposed facility —18 CFR § 380.12(j)(4).	Sections 8.5 and 8.6
5. Identify, by milepost, all residences and buildings within 50 feet of the proposed pipeline construction right-of-way and the distance of the residence or building from the right-of-way. Provide survey drawings or alignment sheets to illustrate the location of the facilities in relation to the buildings —18 CFR § 380.12(j)(5).	Section 8.4
6. Describe any areas crossed by or within 0.25 mile of the proposed pipeline or plant and operational sites which are included in, or are designated for study for, inclusion in: The National Wild and Scenic Rivers System (Title 16 United States Code part 1271); The National Trails System (16 United States Code 1241); or a wilderness area designated under the Wilderness Act (16 United States Code 1132) —18 CFR § 380.12(j)(6).	Section 8.6
7. For facilities within a designated coastal zone management area, provide a consistency determination or evidence that the applicant has requested a consistency determination from the state's coastal zone management program —18 CFR § 380.12(j)(7).	Not Applicable
8. Describe the impact the project will have on present uses of the affected area as identified above, including commercial uses, mineral resources, recreational areas, public health and safety, and the aesthetic value of the land and its features.	Sections 8.6 and 8.7

Describe any temporary or permanent restrictions on land use resulting from the project —18 CFR § 380.12(j)(8).	
9. Describe mitigation measures intended for all special use areas identified under paragraphs (j) (2) through (6) of this section —18 CFR § 380.12(j)(9).	Not Applicable
10. Describe proposed typical mitigation measures for each residence that is within 50 feet of the edge of the pipeline construction right-of-way, as well as any proposed residence-specific mitigation. Describe how residential property, including for example, fences, driveways, stone walls, sidewalks, water supply, and septic systems, would be restored. Describe compensation plans for temporary and permanent rights-of-way and the eminent domain process for the affected areas —18 CFR § 380.12(j)(10).	Not Applicable
11. Describe measures proposed to mitigate the aesthetic impact of the facilities especially for aboveground facilities such as compressor or meter stations —18 CFR § 380.12(j)(11).	Not Applicable. The Project does not include any aboveground facilities.
12. Demonstrate that applications for rights-of-way or other proposed land use have been or soon will be filed with federal land-managing agencies with jurisdiction over land that would be affected by the project —18 CFR § 380.12(j)(12).	Section 8.3
Additional Information:	
1. Identify all buildings within 50 feet of the construction right-of-way or extra work areas.	Not Applicable. There are no buildings within 50 feet of the construction workspace.
2. Describe the management and use of all public lands that would be crossed	Sections 8.3 and 8.6
3. Provide a list of landowners by milepost or tract number that corresponds to information on alignment sheets	Resource Report 1, Appendix 1E (Volume II)
4. Provide a site-specific construction plan for residences within 25 feet of construction or as requested by Federal Energy Regulatory Commission staff	Not Applicable

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RESOURCE REPORT 8—LAND USE, RECREATION, AND AESTHETICS

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Table 8.1-1: Land Uses Affected by the Construction and Operation of the Project (in acres)[a]8-2

ACRONYMS AND ABBREVIATIONS

ATWS	additional temporary workspace
Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
Mexico	Estados Unidos Mexicanos (United Mexican States)
MRLC	Multi-Resolution Land Characteristics
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
ROW	Right-of-Way
Saguaro	Saguaro Connector Pipeline, L.L.C.

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

8.0 RESOURCE REPORT 8—LAND USE, RECREATION, AND AESTHETICS

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

In accordance with Title 18 of the Code of Federal Regulations Part 380.12(j), Resource Report 8 addresses land use affected by construction and operation of the proposed Project through characterization of, and quantifying, land use types and identifying recreational and visual resources. Impacts on these resources are analyzed and mitigation measures are proposed to minimize these impacts. Land use data in this resource report was compiled using a variety of sources—including environmental field surveys, aerial imagery, and Multi-Resolution Land Characteristics (“MRLC”) Consortium national land cover data and quadrangle maps. Refer to Resource Report 1 for a detailed Project description.

8.1 Land Use Classifications

Land uses in the proposed Project workspace are classified based on information obtained from the 2019 MRLC Consortium national land cover database and review of current digital aerial photography and ground surveys. Land use types within the Project workspace are divided into the following categories:

- open land—non-forested areas such as grassland, shrubland, and barren land; and
- open water—standing surface waters and seasonal wetlands.

Existing land uses within the construction and operational footprint of the Project—including the permanent Right-of-Way (“ROW”), the additional temporary workspace (“ATWS”), and an existing temporary access road—are summarized in Table 8.1-1. The Project will impact approximately 35.5 acres of land in total. Approximately 1.1 acres of this land will be located within the permanent ROW of the pipeline. Most of this land (over 97 percent) is open land.

Table 8.1-1: Land Uses Affected by the Construction and Operation of the Project (in acres)[a]

Facility	Open Land[b]		Open Water		Total	
	Const.	Oper.	Const.	Oper.	Const.	Oper.
Border Facilities Permanent ROW	1.0	1.0	0.2	0.2	1.2	1.2
ATWS	14.2	0.0	0.0	0.0	14.2	0.0
Temporary Access Road	19.1	0.0	1.0	0.0	20.1	0.0
PROJECT TOTAL	34.3	1.0	1.2	0.2	35.5	1.2

[a] The subtotals and totals in this table may not reflect the sum of the addends due to rounding.
[b] Includes herbaceous land, scrub/shrub, and barren land.

8.1.1 Construction Area

As shown in Table 8.1-1, the construction workspace (including the permanent ROW and ATWS) for the proposed pipeline will require approximately 15.2 acres of land—including approximately 15.2 acres of open land (99 percent) and approximately 0.2 acres of open water (1 percent). All 14.2 acres of ATWS for the Project is composed of open land. Following construction, Saguaro will retain a 50-foot-wide permanent ROW for operation of the pipeline. All areas will revert to preconstruction condition and use; however, 1.2 acres will be encumbered by a permanent ROW including approximately 1.0 acres of open land (84 percent) and 0.2 acre of open water (16 percent). Impacts on land use will be temporary during construction.

8.1.2 Contractor Yards

The Project construction workspace will be used instead of a contractor or storage yard for the Project (i.e., no additional contractor yard is proposed for use by the Project).

8.1.3 Access Roads

Temporary access to the Project site will be via one existing graveled public road (Indian Hot Spring Road). Minor improvements including pothole and culvert repair to the proposed temporary access road are anticipated to be required. Approximately 20.1 acres of land will be required for use of the temporary access road.

The temporary access road land uses based on the MRLC Consortium national land cover data comprise a mixture of open lands and open water. The temporary access road will be restored to preconstruction conditions or better.

Saguaro does not propose any permanent access roads for the Project.

8.2 Land Use Impacts and Mitigation

8.2.1 Agricultural Lands

There are no agricultural lands, prime farmland, or specialty/organic crops in the Project workspace. Some of the construction workspace was previously used to farm cotton, but has not been used for agricultural purposes since the 1960s.

No irrigation systems or agricultural drain tiles have been identified within the Project workspace. If either of these structures are identified and damaged by construction, Saguaro will restore the structures and facilities to preconstruction condition as stipulated in the Federal Energy Regulatory Commission's *Erosion Control, Revegetation, and Maintenance Plan* or in accordance with landowner agreements.

8.2.2 Open Land

Open land in the Project workspace consists of non-forested areas such as grassland and shrubland, barren land, and scrub/shrub areas and is the major land use type affected by the proposed Project. Construction will affect approximately 34.3 acres of open land—including lands within the pipeline permanent ROW (1.0 acres), ATWS (14.2 acres), and access road (19.1 acres). Following construction, the temporary workspaces will be restored to preconstruction condition and allowed to revert to preconstruction use.

Approximately 1.0 acre of open land will be located within the permanent footprint for the Project and retained for operation of the Border Facilities. Following construction, the permanent ROW would be restored to preconstruction condition and allowed to revert to preconstruction use.

8.2.3 Forested Land

There is no forested land within the Project workspace.

8.2.4 Developed Land

There is no developed land within the Project workspace.

8.2.5 Open Water

Open water within the Project workspace consists of woody wetlands land-use cover. Construction of the proposed Border Facilities will affect approximately 1.2 acres of open water area, of which 0.2 acre is within the Direct Pipe micro-tunneling path for the proposed crossing of the Rio Grande river and 1.0 acre is within the temporary access road. Impacts on this land use will only be during active construction; therefore, impacts on open water in the Project workspace will be minor and temporary. See Resource Report 2 for additional information on wetland and waterbody crossings.

8.3 Land Ownership

The majority of the Project workspace is located on land owned by the State of Texas, which is managed by the Texas General Land Office. Applications for ROWs and construction workspace have not been filed with the Texas General Land Office, but are currently under development. A list of affected landowners is provided in Appendix 1E in Resource Report 1. Saguaro will comply with the landowner notification requirements set forth in section 157.6(d) of the Federal Energy Regulatory Commission's regulations, 18 Code of Federal Regulations § 157.6(d). Additionally, all landowners adjacent to the Project site will be notified of the facilities to be constructed.

8.4 Existing Residences and Planned Developments

The Project workspace does not encompass any residential areas and is not located within 50 feet of any residences or other existing structures. Additionally, no residences were identified within a 3-mile radius of the Border Facilities or within 1 mile of the Project workspace[1].

Planned developments are projects that are permitted and not yet constructed or permit applications that have been filed but not yet approved. No planned developments have been identified within 0.25 mile of the Project workspace.

8.5 Landfills and Hazardous Waste Sites

There are no landfills, operating mines, or hazardous waste sites located within 0.25 mile of the Project workspace (The Diggins, 2022). The Sierra Blanca landfill is located approximately 14.6 miles northeast of the Project workspace. If an unknown site is discovered during construction activities, Saguaro will pause work and the site will be further evaluated. Any identified hazards will be properly disposed of in accordance with applicable state and federal regulations.

8.6 Recreation and Special Interest Areas

The Border Facilities will be constructed on lands owned by the State of Texas and administered by the Texas General Land Office and some tracts owned by the State of Texas are currently being leased. Saguaro is actively coordinating with both the Texas General Land Office and tenants (as applicable) to obtain workspace for construction activities and a permanent pipeline ROW and has not encountered objection to the location of the Border Facilities. None of the lands within the Project workspace are used by the public as a recreational area.

Saguaro reviewed a number of digital datasets and maps to identify recreation and special interest areas within, or in the immediate vicinity (i.e., within 0.25 mile) of, the Project workspace. Based on this review, the proposed Border Facilities will not cross, or pass within 0.25 mile of, any of the following recreation or special interest areas: sugar maple stands, orchards, and nurseries; state wild and scenic rivers; state and local designated trails; nature preserves; game management areas; remnant prairie; old-growth, national, and state forests; parks; golf courses; designated natural, recreational, and scenic areas; or registered natural landmarks, Native American religious sites and traditional cultural properties to the extent they are known to the public at large, and reservations—lands identified under the Special Area Management Plan of the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration. Therefore, the Project will have no impact on these types of recreation or special interest areas.

8.7 Visual Resources

There are no aboveground facilities associated with the Project. Impacts on visual resources will generally be limited to the time of active construction. After completing construction of the Border Facilities, the landscape will be recontoured to as near preconstruction conditions as possible. Areas outside of the permanent pipeline ROW will be allowed to revert to

[1] The residence located approximately 620 feet north of the northernmost end of the temporary access road is abandoned.

preconstruction uses and condition. The proposed Project will affect primarily open land and does not cross any designated scenic areas.

8.8 References

The Diggins. 2022. Mining in Hudspeth County. Available online: https://thediggings.com/usa/texas/hudspeth-tx229. Accessed: October 2022.

Texas Commission on Environmental Quality (TCEQ). 2022. Data on Municipal Solid Waste Facilities in Texas. Available online: https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data#mapviewer. Accessed: October 2022.

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 9
Air Quality and Noise

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 9—AIR QUALITY AND NOISE

Minimum Filing Requirements for Environmental Reports:	**Addressed in:**
1. Describe the existing air quality, including background levels of nitrogen dioxide and other criteria pollutants which may be emitted above United States Environmental Protection Agency-identified significance levels. – Title 18 of the Code of Federal Regulations (CFR) Part § 380.12(k)(1)	Section 9.1.2
2. Quantitatively describe existing noise levels at noise sensitive areas, such as schools, hospitals, or residences and include any areas covered by relevant state or local noise ordinances. (i) Report existing noise levels as the equivalent sound level (day), equivalent sound level (night), and day-night sound level and include the basis for the data or estimates. (ii) For existing compressor stations, include the results of a sound level survey at the site property line and nearby noise sensitive areas while the compressors are operated at full load. (iii) For proposed new compressor station sites, measure or estimate the existing ambient sound environment based on current land uses and activities. (iv) Include a plot plan that identifies the locations and duration of noise measurements, the time of day, weather conditions, wind speed and direction, engine load, and other noise sources present during each measurement. - 18 CFR § 380.12(k)(2)	Section 9.2.3
3. Estimate the impact of the project on air quality, including how existing regulatory standards would be met. (i) Provide the emission rate of nitrogen oxides from existing and proposed facilities, expressed in pounds per hour and tons per year for maximum operating conditions, include supporting calculations, emission factors, fuel consumption rates, and annual hours of operation. (ii) For major sources of air emissions (as defined by the United States Environmental Protection Agency), provide copies of applications for permits to construct (and operate, if applicable) or for applicability determinations under regulations for the prevention of significant air quality deterioration and subsequent determinations. - 18 CFR § 380.12(k)(3)	Section 9.1.4
4. Provide a quantitative estimate of the impact of the project on noise levels at noise sensitive areas, such as schools, hospitals, or residences. (i) Include step-by-step supporting calculations or identify the computer program used to model the noise levels, the input and raw output data and all assumptions made when running the model, far-field sound level data for maximum facility operation, and the source of the data. (ii) Include sound pressure levels for unmuffled engine inlets and exhausts, engine casings, and cooling equipment; dynamic insertion loss for all mufflers; sound transmission loss for all compressor building components, including walls, roof, doors, windows, and ventilation openings; sound attenuation from the station to nearby noise-sensitive areas; the manufacturer's name, the model number, and the performance rating; and a description of each noise source and noise control component to be employed at the proposed compressor station. For proposed compressors, the initial filing must include at least the proposed horsepower, type of compression, and energy source for the compressor. (iii) Far-field sound level data measured from similar units in service elsewhere, when available, may be substituted for manufacturer's far-field sound level data. (iv) If specific noise control equipment has not been chosen, include a schedule for submitting the data prior to certification. (v) The estimate must demonstrate that the project will comply with applicable noise regulations and show how the facility will meet the following requirements: (A) The noise attributable to any new compressor station, compression added to an existing station, or any modification, upgrade or update of an existing station, must not exceed a day-night sound level of 55 decibels on the A-weighted scale at any pre-existing noise-sensitive area (such as schools, hospitals, or residences). (B) New compressor stations or modifications of existing stations shall not result in a perceptible increase in vibration at any noise-sensitive area. – 18 CFR § 380.12(k)(4)	Section 9.2.4

5. Describe measures and manufacturer's specifications for equipment proposed to mitigate impact to air and noise quality, including emission control systems, installation of filters, mufflers, or insulation of piping and buildings, and orientation of equipment away from noise-sensitive areas. – 18 CFR § 380.12(k)(5)	Not Applicable
Additional Information:	**Addressed in:**
1. Provide copies of application for state air permits and agency determinations, as appropriate.	Not Applicable
2. For major sources of air emissions (as defined by the USEPA), provide copies of applications for permits to construct (and operate, if applicable) or for applicability determinations under regulations for the prevention of significant air quality deterioration and subsequent determinations	Not Applicable
3. Identify any nearby noise-sensitive areas by distance and direction from the proposed compressor unit building/enclosure or meter station.	Section 9.2.3
4. Identify any applicable state or local noise regulations. Specify how the facility will meet the regulations	Section 9.2.2

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 9—AIR QUALITY AND NOISE

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Appendix 9A Construction Emissions Calculations
Appendix 9B Fugitive Dust Control Plan

ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
dB	decibels
dBA	decibels on the A-weighted scale
Direct Pipe	Direct Pipe micro-tunneling
EPA	U.S. Environmental Protection Agency
Mexico	Estados Unidos Mexicanos (United Mexican States)
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
GWP	global warming potential
HAP	Hazardous Air Pollutants
L_{dn}	day-night noise level
L_{eq}	equivalent sound level
NO_2	nitrogen dioxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSA	noise sensitive area
NSPS	New Source Performance Standards
PM_{10}	particulate matter (10 micrometers or less)
$PM_{2.5}$	particulate matter (2.5 micrometers or less)
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
PSD	Prevention of Significant Deterioration
Saguaro	Saguaro Connector Pipeline, L.L.C.
SO_2	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
tpy	tons per year
U.S.	United States

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

9.0 RESOURCE REPORT 9—AIR QUALITY AND NOISE

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

According to the Federal Energy Regulatory Commission's ("FERC") Minimum Filing Requirements Regulations (18 Code of Federal Regulations ["CFR"] § 380.12(k)), Resource Report 9 is required only for applications involving compressor facilities at new or existing stations and for all new liquefied natural gas facilities. The Project does not involve any compression, liquefied natural gas facilities, or any aboveground facilities and, thus, Resource Report 9 is not required. However, Saguaro understands FERC's responsibilities under the U.S. Environmental Protection Agency's ("EPA") General Conformity regulations implementing the Clean Air Act ("CAA") and recognizes the value of assessing noise impacts related to nighttime construction activities. Accordingly, Saguaro is providing this Resource Report 9 to assist FERC in meeting its National Environmental Policy Act obligations.

9.1 Air Quality

9.1.1 Local Climate

The Project includes proposed facilities in Hudspeth County, Texas. The Project area is located in a desert climate, which is generally categorized as being arid and dry with higher temperatures during the day and colder temperatures at night throughout the year.

The Project area receives an annual average of 8.8 inches of rain. February is typically the driest month of the year with an annual mean of 0.1 inch of rain, whereas September tends to be the wettest month with an annual mean of 1.5 inches of rain. Temperatures range from an average high of 98.7 degrees Fahrenheit in June to an average low of 27.3 degrees Fahrenheit in January (National Oceanic and Atmospheric Administration, 2022).

9.1.2 Existing Air Quality

The CAA of 1970, as amended, is the primary federal statute governing air pollution. The CAA has granted the EPA authority to establish National Ambient Air Quality Standards ("NAAQS"). The NAAQS were established to protect public health (primary standards) and public welfare (secondary standards). The EPA set NAAQS for the following air contaminants designated as criteria pollutants: carbon monoxide ("CO"), lead, nitrogen dioxide ("NO_2"), ozone, particulate matter less than or equal to 10 microns in aerodynamic diameter ("PM_{10}"), particulate

matter less than or equal to 2.5 microns in aerodynamic diameter ("$PM_{2.5}$"), and sulfur dioxide ("SO_2"). The NAAQS are listed in Table 9.1-1.

Table 9.1-1: National Ambient Air Quality Standards

Criteria Pollutant	Primary/Secondary	Averaging Time	Level	Form
CO	Primary	8-Hour 1-Hour	9 ppm 35 ppm	Not to be exceeded more than once per year
Pb	Primary and Secondary	Rolling 3-Month Average	0.15 µg/m^3 [a]	Not to be exceeded
NO_2	Primary	1-Hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and Secondary	Annual	53 ppb [b]	Annual mean
O_3	Primary and Secondary	8-Hour	0.070 ppm [c]	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
PM_{10}	Primary and Secondary	24-Hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
$PM_{2.5}$	Primary	Annual	12 µg/m^3	Annual mean, averaged over 3 years
	Secondary	Annual	15 µg/m^3	Annual mean, averaged over 3 years
	Primary and Secondary	24-Hour	35 µg/m^3	98th percentile, averaged over 3 years
SO_2	Primary	1-Hour	75 ppb [d]	99th percentile of 1-hour daily maximum concentrations in a calendar year, averaged over 3 years
	Secondary	3-Hour	0.5 ppm	Not to be exceeded more than once per calendar year

Source: EPA, 2022a.

[a] In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m^3 as a calendar quarter average) also remain in effect.

[b] The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

[c] Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards.

[d] The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a State Implementation Plan call under the previous SO_2 standards (40 CFR 50.4(3)). A State Implementation Plan call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

µg/m^3 = micrograms per cubic meter
O_3 = ozone
Pb = lead
ppb = parts per billion
ppm = parts per million

States have the authority to adopt ambient air quality standards if they are more stringent than the NAAQS. No state-level ambient air quality standards have been adopted in Texas.

The CAA requires states and the EPA to identify areas of the country which meet and do not meet the NAAQS. Areas meeting the NAAQS are called "attainment areas," areas not meeting the NAAQS are called "nonattainment areas," and areas previously designated as nonattainment and upgraded to attainment based on a State Implementation Plan are called

"maintenance areas." The designation of an area is made on a pollutant-by-pollutant basis. The EPA maintains a list of attainment/nonattainment designations areas for all criteria pollutants on their "Green Book" website (EPA, 2021a).

The Project is located in Hudspeth County, Texas. All of Hudspeth County is considered in attainment or unclassified with respect to all criteria pollutants.

9.1.3 Regulatory Requirements

The CAA of 1970, as amended in 1977 and 1990, is the basic federal statute governing air quality. The provisions of the CAA that are potentially applicable to construction and operation of the proposed natural gas pipeline project are as follows:

- New Source Review / Prevention of Significant Deterioration ("PSD");
- Title V Operating Permits;
- Federal Class I Area Protection;
- New Source Performance Standards ("NSPS");
- National Emission Standards for Hazardous Air Pollutants ("NESHAP");
- Conformity of General Federal Actions; and
- Greenhouse Gas ("GHG") Emissions.

The Texas Commission on Environmental Quality ("TCEQ") is the lead air permitting authority for the Project facilities in Texas. The TCEQ's air quality regulations are codified in Title 30 of the Texas Administrative Code Part 1 Chapters 1 through 351.

The following sections contain a brief description of the federal and state regulations and requirements and their applicability to the Project.

9.1.3.1 New Source Review and Title V Permitting

The PSD permitting program applies to new major sources or major modifications at existing sources located in attainment areas or in areas that are unclassifiable. PSD is intended to keep new air emission sources from causing the existing air quality to deteriorate beyond acceptable levels. Under PSD, any new major source or major modification of an existing source of air pollutants is required to obtain an air quality permit before beginning construction (see 40 CFR § 52.21). If emissions exceed any major source or major modification threshold for criteria pollutants, then various PSD requirements would apply.

In Texas, the EPA has delegated their 40 CFR Part 70 Operating Permit Program authority to issue Title V permits to the TCEQ, which has incorporated the program in Title 30 Texas Administrative Code Chapter 122. The threshold levels for determining the applicability for a Title V permit are as follows:

- 100 tons per year ("tpy") of any criteria air pollutant;
- 10 tpy of any individual Hazardous Air Pollutants ("HAP"); or
- 25 tpy of any combination of HAPs.

The Project does not involve any new or modified aboveground stationary emission sources; therefore, PSD and Title V Permitting requirements do not apply to the Project.

9.1.3.2 Federal Class I Area Protection

The U.S. Congress designated certain lands as Mandatory Federal Class I areas in 1977. Class I areas were designated because the air quality was considered a special feature of the area (e.g., in national parks or wilderness areas). These Class I areas, and any other areas that have been re-designated Class I since 1977, are given special protection under the PSD program. The PSD program establishes air pollution increment increases that are allowed by new or modified air emission sources. If the new source is a major PSD source and is near a Class I area, the source is required to determine its impacts on the Class I area. The source is also required to notify the appropriate federal land manager for the nearby Class I area.

The standard range for determining impacts on Class I areas is a 100-kilometer radius from the area in question. The Project is not located within 100 kilometers of any Class I areas. The Project also does not include the installation or modification of aboveground stationary sources; therefore, an impact assessment on Class I areas is not required. Furthermore, based upon the nature of the Project, air quality impacts are expected to be localized and short-term and are not expected to affect Class I areas.

9.1.3.3 New Source Performance Standards

Section 111 of the CAA authorized the EPA to develop technology-based standards, which apply to specific categories of stationary sources. These standards, referred to as NSPS, are found in 40 CFR Part 60. The NSPS apply to new, modified, and reconstructed and affected facilities in specific source categories. The Project does not include the construction and operation of any new sources of emissions that would be subject to NSPS.

9.1.3.4 National Emission Standards for Hazardous Air Pollutants

The NESHAP, codified in 40 CFR Parts 61 and 63, regulate the emissions of HAPs from new and existing sources. The 1990 CAA Amendments established a list of 189 HAPs, resulting in the promulgation of Part 63, also known as the Maximum Achievable Control Technology standards. Part 63 regulates HAPs from major sources of HAPs and specific source categories emitting HAPs. Some NESHAPs may apply to non-major sources (area sources) of HAPs. Major source thresholds for NESHAPs are 10 tpy of any single HAP or 25 tpy of total HAPs. The Project does not include the construction and operation of sources of emissions that would be subject to NESHAP.

9.1.3.5 General Conformity

A General Conformity applicability analysis is required for any part of the Project occurring in nonattainment or maintenance areas for criteria pollutants. Section 176(c) of the CAA requires federal agencies to ensure that federally approved or funded projects conform to the applicable approved State Implementation Plan and such activities must not:

1. cause or contribute to any new violation of any standard in any area;

2. increase the frequency or severity of any existing violation of any standard in any area; or

3. delay timely attainment of any standard or any required interim emission reductions.

The entire Project area is classified as in attainment for all criteria pollutant standards; therefore, General Conformity requirements do not apply.

9.1.3.6 Greenhouse Gases Emissions

In April 2007, the U.S. Supreme Court ruled that GHGs fall within the CAA's definition of "air pollutant." The EPA identified the following six well-mixed GHGs in the atmosphere:

- carbon dioxide ("CO_2");
- methane;
- nitrous oxide;
- hydrofluorocarbons;
- perfluorocarbons; and
- sulfur hexafluoride.

GHGs are often represented by an aggregate number expressed in units of carbon dioxide equivalent ("CO_2e"). A global warming potential ("GWP") factor has been determined by the EPA for each GHG, which is a relative measure of a GHG's ability to absorb solar radiation and its residence time in the atmosphere in comparison to that of CO_2. For example, CO_2 has a GWP of 1, whereas methane has a GWP of 25 and nitrous oxide has a GWP of 298.

On November 8, 2010, the EPA signed a rule that finalizes reporting requirements for the petroleum and natural gas industry under 40 CFR Part 98. Subpart W of 40 CFR Part 98 requires petroleum and natural gas facilities that emit 25,000 metric tons or more of CO_2e per year to report annual emissions of specified GHGs from various processes within the facility. As is presented in section 9.1.4.2 below, the proposed Project GHG emissions are estimated to not exceed the 25,000 metric tpy threshold of CO_2e emissions. Therefore, the Project would not be subject to the rule.

9.1.3.7 State Regulations

The only TCEQ regulation applicable to the Project is Rule 111.145, which requires that construction activities that take place on more than 1 acre of land utilize listed methods of dust suppression to control visible emissions and emissions of particulate matter. Per the Rule, the Project will be required to use water or other suitable oil or chemical for the control of dust during construction operations.

The TCEQ has permitting requirement thresholds for projects dependent upon estimated project emission levels. There will be no applicable sources of emissions during operation of the Border Facilities; therefore, no other TCEQ permitting or other air quality regulations apply.

9.1.4 Air Emissions Impacts and Mitigation

9.1.4.1 Construction Emissions

Emissions during construction of the Border Facilities are expected to be generated from the workers' daily commutes to and from the construction site(s), diesel and gasoline-fired construction equipment operation, and the generation of fugitive dust from the use of unpaved roads and construction areas. Overall construction of the Border Facilities is expected to occur

in 2024 and 2025 and will last approximately 160 workdays, of which construction using the Direct Pipe micro-tunneling ("Direct Pipe") method will last approximately 45 days.

Anticipated Project construction emissions are summarized below in Table 9.1-2. Detailed emissions calculations have been provided in Appendix 9A. The air emissions potentially resulting from construction of the Border Facilities as presented in this resource report represent worst-case scenarios based on currently available technology and equipment.

Table 9.1-2: Total Construction-Related Emissions for the Project

Construction Activity	Emissions (tpy)							
	CO	NO_X	VOC	PM_{10}	$PM_{2.5}$	SO_2	HAP	CO_2e
Total Construction 2025 Emissions								
Diesel non-road equipment	5.05	11.4	1.21	1.03	1.00	0.02	0.60	7,117
Diesel and gas on-road equipment	3.81	0.27	0.03	0.00	0.00	0.00	0.01	455
Construction activity fugitive dust	-	-	-	4.38	0.66	-	-	-
Roadway fugitive dust	-	-	-	4.23	0.33	-	-	-
Subtotal	***8.87***	***11.7***	***1.25***	***9.65***	***2.00***	***0.02***	***0.61***	***7,572***

NO_x = oxides of nitrogen
VOC = volatile organic compound

Emissions from construction equipment will depend on the duration and type of construction activity, together with the number and type of vehicles and engine-powered equipment in use at any point in time. Earth-moving equipment and other mobile sources may be powered by diesel or gasoline engines that are sources of combustion-related emissions including oxides of nitrogen, CO, volatile organic compounds, SO_2, PM_{10}, $PM_{2.5}$, and minimal amounts of HAPs. Emissions from equipment associated with the pipeline system will be short term and localized in an area as equipment and activities move throughout the construction workspace. Construction equipment will be operated on an as-needed basis. Emissions from diesel- and gasoline-fired construction equipment will be minimized by maintaining the equipment in accordance with the manufacturer's recommendations.

Fugitive dust emissions may result from vehicular traffic and soil disruption from excavation and backfilling activities, but such emissions are expected to be minimal based on the short duration of the construction activities. The amount of fugitive dust generated will depend on a variety of factors, including the duration and type of construction activity, moisture content and types of soils that will be disturbed, wind speed and frequency of precipitation, area of disturbance, and the number and types of vehicles traveling over the construction areas. Fugitive dust emissions during construction will be mitigated in accordance with the Project's Fugitive Dust Control Plan (see Appendix 9B).

The construction GHG emissions from the Project's construction activities will be minimal and will represent an insignificant increase in national GHG emissions. The 2020 net national GHG emissions was 5.2 billion metric tons (inclusive of CO_2e sources and sinks; EPA, 2022c), whereas the anticipated construction GHG emissions from the Project will be 6,869 metric tons.

9.1.4.2 Operational Emissions

There are no stationary combustion sources, pig launchers and receivers, pneumatic devices, or aboveground facilities associated with the Project; therefore, there are no points at which the Project would require natural gas blowdowns or result in other fugitive emissions. Additionally, fugitive leaks from the pipeline itself would not be material enough to quantify due to the short length of pipeline proposed for the Border Facilities. Overall, there would be no quantifiable operational emissions resulting from the Project.

9.2 Noise

9.2.1 Principles of Noise

Sound is a sequence of waves of pressure that propagates through compressible media such as air or water. When sound becomes excessive, annoying, or unwanted, it is often referred to as noise.

The ambient sound level of a region is defined by the total noise generated within the specific environment and usually comprises natural and man-made sounds. At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of a day and throughout the year. This variation may be caused in part by changing weather conditions and seasonal changes in vegetative cover.

Sound levels, measured in decibels ("dB"), are perceived differently depending on the length of exposure and time of day. Two measurements used to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level ("L_{eq}") and the day-night sound level ("L_{dn}"). L_{eq} is a sound level over a specific time period corresponding to the same sound energy as measured for an instantaneous sound level, assuming it is a constant noise source. L_{dn} is a sound level that takes into account the duration and time the noise is encountered. Specifically, in the calculation of the L_{dn}, late night (after 10:00 p.m.) and early morning (prior to 7:00 a.m.) noise levels are penalized by adding 10 dB to account for people's greater sensitivity to sound during nighttime hours. To account for the human ear being less sensitive to low and high frequencies than to mid-range frequencies, dB levels are corrected using the A-weighted scale ("dBA"). A 3 dB change of sound level is threshold of a perceptible change by the human ear. A 6 dB change of sound level is considered clearly noticeable and a 10 dB change is perceived as if the sound level has doubled or halved.

Table 9.2-1 demonstrates the relative dBA levels of common sounds measured in the environment and industry and their loudness relative to the sound level associated with a conversation at a distance of 3 feet.

Table 9.2-1: Sound Levels (dBA) and Relative Loudness

Description of Sound	Sound Level (dBA)	Relative Loudness
Threshold of pain	140	256
Jet taking off (200 feet away)	130	128
Operating heavy equipment	120	64
Night club (with music)	110	32
Construction site	100	16
Boiler room	90	8
Freight train (100 feet away)	80	4

Description of Sound	Sound Level (dBA)	Relative Loudness
Classroom chatter	70	2
Conversation (3 feet away)	60	1
Urban residence	50	1/2
Soft whisper (5 feet away)	40	1/4
North rim of grand canyon	30	1/8
Silent study room	20	1/16
Threshold of human hearing (1,000 Hertz)	0	1/64

Source: United States Department of Labor, 2016.

9.2.2 Noise Regulations

9.2.2.1 Federal Regulations

In 1974, the EPA published a document entitled *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin on Safety* (EPA, 1974). This publication evaluated the effects of environmental noise with respect to health and safety. As set forth in that publication, the EPA has determined that noise levels should not exceed an L_{dn} of 55 dBA, which is the level that protects the public from indoor and outdoor activity interference. This noise level has been useful for state and federal agencies to establish noise limitations for various noise sources. A 55 dBA L_{dn} noise level equates to a L_{eq} of 48.6 dBA (i.e., a facility that does not exceed a continuous noise impact of 48.6 dBA will not exceed 55 dBA L_{dn}). FERC has adopted the 55 dBA criterion for determining impacts on noise sensitive areas ("NSA") from operating sources of noise and nighttime construction activities.

9.2.2.2 State and Local Regulations

There are no state-level noise regulations applicable to the Project. In Texas, the Legislature has not conferred upon counties the authority to regulate noise in their unincorporated areas. There are no local-level noise regulations applicable to the Project.

9.2.3 Existing Noise Levels

The Project does not involve new aboveground facilities or permanent operating noise sources. The Border Facilities will be constructed using the Direct Pipe trenchless construction technique that will require extended 24-hour construction activities, with an entry location on the U.S. side of the Rio Grande river. However, there are no NSAs within 0.5 mile of the Direct Pipe entry location. Therefore, ambient noise surveys were not completed at NSAs in proximity to the Project area.

9.2.4 Construction and Operational Noise Impacts and Mitigation

Project construction will be temporary and short term in nature. Construction will consist of earth work (e.g., site grading, clearing, and grubbing) and use of the Direct Pipe crossing method. Table 9.2-2 provides estimated noise levels for construction equipment that will be used during the various construction phases of the Project.

Table 9.2-2: Construction Equipment Noise Levels

Equipment Type	Power Rating/Capacity (hp)	Estimated dBA at 50 feet
Backhoe Loader	102	73
Vacuum Truck	510	85
Pipelayer Side Boom	366	108
Fuel Trucks	530	103
Water Truck	270	75
Welding Trucks	350	75
X-ray Trucks	350	75
Padding Machine	440	118
Excavator	424	108
Dozer	487	116
Motor Grader	535	115
Direct Pipe® Trenchless Boring Machine Power Pack	440	80
Direct Pipe® Trenchless Cleaning System Generator Set	440	80
Compact Track Loader	110	104

[a] Based on engineering estimates.

Construction is anticipated to occur 24 hours per day during use of the Direct Pipe method. All other construction activities will take place between the hours of approximately 5:00 a.m. to 9:00 p.m. and will not have an impact on nighttime sounds levels. Because there are no NSAs within 0.5 mile of the Direct Pipe location (the nearest NSA is over 3 miles from the Direct Pipe location), the use of the Direct Pipe method will have no nighttime noise impact on NSAs.

The Project does not involve new aboveground facilities with continuous noise sources. Therefore, the Project will not result in any operational noise impacts.

9.3 References

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APPENDIX 9A CONSTRUCTION EMISSIONS CALCULATIONS

Project: ONEOK
Subject: Constructions Emissions Calculations
Hudspeth County,TX
2025

ONROAD

Total Emissions	Pollutant (TPY)										
	VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	CO_2e	HAP
Combination Short-haul Truck	0.00	0.06	0.11	0.00	0.00	0.00	114.46	0.00	0.00	114.52	0.00
Passenger Truck	0.03	3.76	0.15	0.00	0.00	0.00	339.48	0.01	0.00	340.10	0.01
Total Emissions	0.03	3.81	0.27	0.00	0.00	0.00	453.95	0.01	0.00	455	0.01

NONROAD

Total Emissions	Pollutant (TPY)										
	VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	CO_2e	HAP
CAT 420 XE Backhoe Loader	0.15	0.57	1.02	0.13	0.12	1.07E-03	360.25	9.43E-03	3.45E-04	360.59	0.08
Vermeer VXT600 Vacuum Truck (Kenworth T880-PACCAR MX-13 Diesel Engine)	0.06	0.44	0.94	0.07	0.07	1.15E-03	386.12	4.00E-03	4.32E-04	386.35	0.03
CAT PL87 Pipelayer Side Boom	0.06	0.37	0.96	0.07	0.06	3.04E-03	1108.73	5.07E-03	1.24E-03	1109.22	0.03
Oilmens Fuel Trucks (Kenworth T680 PACCAR MX-13 Engine)	8.87E-03	0.03	0.12	7.23E-03	7.01E-03	1.06E-03	401.42	4.78E-04	4.49E-04	4.02E+02	3.50E-03
C.W. Machine WorX Water Truck (Ford F750-6.7L 200 HP Diesel)	4.52E-03	0.01	0.06	3.68E-03	3.57E-03	5.41E-04	204.50	2.44E-04	2.29E-04	2.05E+02	1.78E-03
Welding Trucks (Ford F550 XL 6.7L Diesel)	0.02	0.08	0.31	0.02	0.02	2.81E-03	1060.35	1.26E-03	1.19E-03	1.06E+03	9.23E-03
X-ray Trucks (Ford F550 XL 6.7L Diesel)	0.02	0.08	0.31	0.02	0.02	2.81E-03	1060.35	1.26E-03	1.19E-03	1.06E+03	9.23E-03
Superior SPD-450 Padding Machine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAT 352 Excavator	0.63	2.36	4.22	0.53	0.52	4.47E-03	1497.51	0.04	1.44E-03	1498.92	0.32
CAT D9 Dozer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAT 24 Motor Grader	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Herren Knecht Direct Pipe® Trenchless Boring Machine Power Pack (Model AVN1000DP); CAT C13 Power Unit	0.07	0.31	1.01	0.05	0.05	8.55E-04	277.98	3.05E-03	3.14E-04	278.15	0.03
Herren Knecht Direct Pipe® Trenchless Cleaning System Generator Set; CAT C18 Generator Set	0.12	0.57	2.08	0.08	0.08	1.98E-03	659.02	6.95E-03	7.45E-04	659.41	0.06
CAT 299D3 XE Compact Track Loader (Skid Steer)	0.06	0.23	0.38	0.05	0.05	2.98E-04	97.06	2.74E-03	9.31E-05	97.16	0.03
Total Emissions	1.21	5.05	11.40	1.03	1.00	0.02	7113	0.07	0.01	7117	0.60
Subtotal Overall Emissions	**1.25**	**8.87**	**11.7**	**1.03**	**1.00**	**0.02**	**7567.24**	**0.08**	**0.01**	**7572**	**0.61**

Estimated Construction Blowdowns

Total Emissions	Pollutant (TPY)										
	VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	HAP	CO_2e
Total Construction Blowdowns	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Estimated Emissions:	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Estimated Operation Blowdowns

Total Emissions	Pollutant (TPY)										
	VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	HAP	CO_2e
Total Operation Blowdowns	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Estimated Emissions:	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Estimated Fugitive Dust Emissions

	Emissions (tons)

Process	PM_{10}	$PM_{2.5}$
Site Clearing, Excavation, & Filling[a]	4.38	0.66
Paved Roads	0.99	0.01
Unpaved Roads	3.24	0.32
Fugitive Dust Estimated Totals	**8.62**	**1.00**
Subtotal Overall Emissions	**9.65**	**2.00**

Project: ONEOK
Subject: Constructions Emissions Calculations
Hudspeth County,TX
2025

ONROAD

Equipment Type	MOVES Regulatory Class ID	Fuel Type	Quantity[1]	Total Miles[1]	Emission Factors (g/mile)									
					VOCs	CO	NOx	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O	HAP
Combination Short-haul Truck	Class 6 and 7 Trucks (19,500 lbs. < GVWR < =33,000 lbs.)	Diesel	5	14400	0.047445788	0.735652	1.445402	0.028944	0.026628	0.004821	1442.221	0.008376	0.001664	0.008352
Passenger Truck	Light Duty Trucks	Gasoline	60	14400	0.029644053	3.944107	0.16161	0.0026	0.0023	0.002368	356.4523	0.00962	0.001355	0.008112

[1] Total Miles were estimated based on estimated miles traveled for each piece of equipment and the construction operation schedule provided by ONEOK.

[2] **Emission Factors come from MOVES3 Emission Runs for Hudspeth County, TX for the year 2025. All emission factors were calculated using the sum of running exhaust processes. All roads are assumed to be rural unrestricted.**

NONROAD

Equipment Type	MOVES Equipment Category	Fuel Type	Engine Rating[1] (hp)	Quantity	Operating Hours[1]	Emission Factors (g/hp-hr)									
						VOCs	CO	NOx	PM_{10}	$PM_{2.5}$	SO_2	CO_2	CH_4	N_2O[3]	HAP
CAT 420 XE Backhoe Loader	Tractors/Loaders/Backhoes	Diesel	102	2	2560	0.263691	0.985872	1.764743	0.222675	0.215995	0.001867	625.7934	0.016377	0.0006	0.13327
Vermeer VXT600 Vacuum Truck (Kenworth T880-PACCAR MX-13 Diesel Engine)	Other Construction Equipment	Diesel	510	1	1280	0.08473	0.606632	1.303281	0.097889	0.094952	0.001601	536.5881	0.005553	0.0006	0.042247
CAT PL87 Pipelayer Side Boom	Crawler Tractor/Dozers	Diesel	366	2	2560	0.029093	0.180519	0.466637	0.032424	0.031451	0.001471	536.7469	0.002452	0.0006	0.014383
Oilmens Fuel Trucks (Kenworth T680 PACCAR MX-13 Engine)	Off-highway Trucks	Diesel	530	1	1280	0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064	0.0006	0.004675
C.W. Machine WorX Water Truck (Ford F750-6.7L 200 HP Diesel)	Off-highway Trucks	Diesel	270	1	1280	0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064	0.0006	0.004675
Welding Trucks (Ford F550 XL 6.7L Diesel)	Off-highway Trucks	Diesel	350	2	2560	0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064	0.0006	0.004675
X-ray Trucks (Ford F550 XL 6.7L Diesel)	Off-highway Trucks	Diesel	350	2	2560	0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064	0.0006	0.004675
Superior SPD-450 Padding Machine	Other Construction Equipment	Diesel	440	0	0	0.08473	0.606632	1.303281	0.097889	0.094952	0.001601	536.5881	0.005553	0.0006	0.042247
CAT 352 Excavator	Tractors/Loaders/Backhoes	Diesel	424	2	2560	0.263691	0.985872	1.764743	0.222675	0.215995	0.001867	625.7934	0.016377	0.0006	0.13327
CAT D9 Dozer	Crawler Tractor/Dozers	Diesel	487	0	0	0.029093	0.180519	0.466637	0.032424	0.031451	0.001471	536.7469	0.002452	0.0006	0.014383
CAT 24 Motor Grader	Graders	Diesel	535	0	0	0.027629	0.168557	0.439742	0.030587	0.029669	0.001467	536.7505	0.002321	0.0006	0.013582
Herren Knecht Direct Pipe® Trenchless Boring Machine Power Pack (Model AVN1000DP); CAT C13 Power Unit	Bore/Drill Rigs	Diesel	440	1	1080	0.125915	0.600818	1.935096	0.094866	0.09202	0.001632	530.6794	0.005831	0.0006	0.059188
Herren Knecht Direct Pipe® Trenchless Cleaning System Generator Set; CAT C18 Generator Set	Generator Sets	Diesel	440	1	2560	0.096314	0.461453	1.674516	0.065867	0.063891	0.001592	530.7631	0.005595	0.0006	0.046274
CAT 299D3 XE Compact Track Loader (Skid Steer)	Skid Steer Loaders	Diesel	110	1	1280	0.4113	1.467844	2.443408	0.301905	0.292848	0.001922	625.3609	0.017654	0.0006	0.19382

[1] Total operating hours, equipment, and equipment horsepower estimates provided by ONEOK.

[2] **Emission Factors come from MOVES3 Emission Runs for Hudspeth County, TX. For the year 2025. All emission factors were calculated using the sum of running exhaust processes.**

[3] 40 CFR Part 98 Table C-2

Equipment	MOVES Equipment Category	Fuel Type	MOVES HP Class	HP (actual)	Quantity	Hours Per Day of Operation	Days Per Week of Operation	Weeks of Construction	Total Operating Hours	Weight	VMT	Multiplier
CAT 420 XE Backhoe Loader	Tractors/Loaders/Backhoes	Diesel	100 < hp <= 175	102	2	16	6	26.66666667	2560	12.1	320	3872
Vermeer VXT600 Vacuum Truck (Kenworth T880-PACCAR MX-13 Diesel Engine)	Other Construction Equipment	Diesel	300 < hp <= 600	510	1	8	6	26.66666667	1280	39.5	160	6320
CAT PL87 Pipelayer Side Boom	Crawler Tractor/Dozers	Diesel	300 < hp <= 600	366	2	16	6	26.66666667	2560	60.9	320	19488
Oilmens Fuel Trucks (Kenworth T680 PACCAR MX-13 Engine)	Off-highway Trucks	Diesel	300 < hp <= 600	530	1	8	6	26.66666667	1280	26	160	4160
C.W. Machine WorX Water Truck (Ford F750-6.7L 200 HP Diesel)	Off-highway Trucks	Diesel	175 < hp <= 300	270	1	8	6	26.66666667	1280	18.5	160	2960
Welding Trucks (Ford F550 XL 6.7L Diesel)	Off-highway Trucks	Diesel	300 < hp <= 600	350	2	16	6	26.66666667	2560	3.7	320	1184
X-ray Trucks (Ford F550 XL 6.7L Diesel)	Off-highway Trucks	Diesel	300 < hp <= 600	350	2	16	6	26.66666667	2560	3.7	320	1184
Superior SPD-450 Padding Machine	Other Construction Equipment	Diesel	300 < hp <= 600	440	0				0	0	0	0
CAT 352 Excavator	Tractors/Loaders/Backhoes	Diesel	300 < hp <= 600	424	2	16	6	26.66666667	2560	55.25	320	17680
CAT D9 Dozer	Crawler Tractor/Dozers	Diesel	300 < hp <= 600	487	0				0	0	0	0
CAT 24 Motor Grader	Graders	Diesel	300 < hp <= 600	535	0				0	0	0	0
Herren Knecht Direct Pipe® Trenchless Boring Machine Power Pack (Model AVN1000DP); CAT C13 Power Unit	Bore/Drill Rigs	Diesel	300 < hp <= 600	440	1	24	7	6.428571429	1080	0	0	0
Herren Knecht Direct Pipe® Trenchless Cleaning System Generator Set; CAT C18 Generator Set	Generator Sets	Diesel	300 < hp <= 600	440	1	16	6	26.66666667	2560	0	0	0
CAT 299D3 XE Compact Track Loader (Skid Steer)	Skid Steer Loaders	Diesel	100 < hp <= 175	110	1	8	6	26.66666667	1280	5.9	160	944

Equipment	MOVES Equipment Category	MOVES Regulatory Class ID	Fuel Type	Quantity	Distance Traveled Per Day (miles)	Days Per Week of Construction	Weeks of Construction	Total Miles
Construction & Delivery/Removal Vehicles	Combination Short-ha	Class 6 and 7 Trucks (19,500 lbs. < GVWR < =33,000 lbs.)	Diesel	5	90	6	26.66666667	14400
Workers Commuter Vehicles	Passenger Truck	Light Duty Trucks	Gasoline	60	90	6	26.66666667	14400
								0
								0
								0

Assumptions and Conversions

Conversions

Value 1	Unit 1		Value 2	Unit 2
1	grams	->	0.001	kg
1	kg	->	2.20	lbs
1	lb	->	0.0005	ton
1	ton	->	0.907	Mt
1	acre-foot	->	1613.33	yd^3

Fugitive Dust Assumptions

Site Grading, Excavation & Filling

Equations:

Materials Handling *(AP-42 Section 13.2.4 (11/2006 version))*

$\mathbf{E} = k(0.0032)*[(U/5)^{1.3}/(M/2)^{1.4}]$

Where: E= particulate emission factor (lb/Ton)
k = particle size multiplier
U= mean wind speed, (miles per hour [mph])
M = material moisture content (%)

Fugitives from Dozer *(AP-42 Section 11.9 (10/1998 version))*

$\mathbf{E_{(PM10)}} = 0.75*[1.0(s)^{1.5} / (M)^{1.4}]$

$\mathbf{E_{(PM2.5)}} = 0.105*[5.7(s)^{1.2} / (M)^{1.3}]$

E= particulate emission factor (lb/hr)
s = material silt content (%)
M = material moisture content (%)

	PM_{10}	$PM_{2.5}$	Notes
k factor	0.35	0.053	AP-42 Section 13.2.4.3
U factor	16.17	mph	2021 Mean Wind Speed for Hudspeth county
M factor	7.9	%	AP-42 Table 11.9-3

s factor	6.9	%	AP-42 Table 11.9-3		
M factor	7.9	%	AP-42 Table 11.9-3		

$\mathbf{E_{(PM10)}}$ =	7.527E-04	lb/ton	$\mathbf{E_{(PM10)}}$ =	0.75	lb/hr
$\mathbf{E_{(PM2.5)}}$ =	1.140E-04	lb/ton	$\mathbf{E_{(PM2.5)}}$ =	0.41	lb/hr

	Site Grading			
Area of Clearing:	1.1	acres	5324 Sq yards	*Workspace for Border Facilities
Depth of Clearing:	6	feet	2 yards	

Soil Density: 2187 lb/cu. yd *Average density based on local soil types
Tons of Excavation 5823.981

Paved Roads

Equation:

$\mathbf{E}= k(sL)^{0.91} * (W)^{1.02}$ *AP-42 Section 13.2.1.3 (1/2011)*

Where: E= particulate emission factor (lb/VMT)
k = particle size multiplier (lb/VMT)
sL= road surface silt loading (g/m^2)
W = average weight (tons) of the vehicles traveling the road

	PM_{10}	$PM_{2.5}$	Notes
k factor	0.0022	0.00054	AP-42: Table 13.2.1-1 (lb/VMT)
Silt Loading, sL	0.2	0.2	AP-42: Table 13.2.1-2 (500-5,000 ubiquitous baseline)
	Site Grading		
W factor	4.04		

Vehicle Weight Assumptions

Vehicle Type	Class	Weight (tons)	Miles Traveled	Quantity
Worker Commute Vehicles	Class 1	3	14400	60
Haul Truck Vehicles	Class 8A	16.5	14400	5

	Site Grading	
$\mathbf{E_{(PM10)}}$ =	2.11E-03	lb/VMT
$\mathbf{E_{(PM2.5)}}$ =	5.18E-04	lb/VMT

Unpaved Roads

Equation:

E= $k(s/12)^a * (W/3)^b$ *AP-42 Section 13.2.2.1 (11/2006)*

Where: E= size-specific emission factor (lb/VMT)
k = particle size multiplier (lb/VMT)
s = surface material silt content (%)
W = mean vehicle weight (tons)

	PM_{10}	$PM_{2.5}$	Notes
k factor	1.5	0.15	Table 13.2.2-2 (lb/VMT)
s factor	8.5	8.5	Table 13.2.2-1: Construction Site "Geometric Mean" Silt Content
a factor	0.9	0.9	Table 13.2.2-2
b factor	0.45	0.45	Table 13.2.2-2

	Site Grading
W factor	26

Vehicle Weight Assumptions

Equipment Type	VMT[1]	Weight (tons)
All	See non-road tab	See non-road tab

[1] Assumes 1 mile of travel per day per equipment

	Site Grading	
$E_{(PM10)}$ =	2.90	lb/VMT
$E_{(PM2.5)}$ =	0.29	lb/VMT

ONROAD (g/mile)

VOCs	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N2O	1,3-Butadi	2,2,4-Trim	Acetaldeh	Acrolein	Benzene	Ethyl Benz	Formaldeh	Hexane	Propionalc	Styrene	Toluene	Xylene
0.047446	0.735652	1.445402	0.028944	0.026628	0.004821	1442.221	0.008376	0.001664	9.07E-05	0.000138	0.001849	0.000276	0.000266	0.000261	0.003234	8.47E-05	0.000192	4.00E-05	0.000466	0.001455
0.029644	3.944107	0.16161	0.0026	0.0023	0.002368	356.4523	0.00962	0.001355	9.51E-05	0.000474	0.00029	2.04E-05	0.001205	0.00054	0.000419	0.000629	2.17E-05	2.71E-05	0.002422	0.001968

NONROAD (g/hp-hr)

VOCs	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N2O	1,3-Butadi	2,2,4-Trim	Acetaldeh	Acrolein	Benzene	Ethyl Benz	Formaldeh	Hexane	Propionalc	Styrene	Toluene	Xylene
0.263691	0.985872	1.764743	0.222675	0.215995	0.001867	625.7934	0.016377		0.000488	0.002028	0.024825	0.005165	0.011155	0.001313	0.069689	0.000244	0.00645	0	0.008097	0.003816
0.125915	0.600818	1.935096	0.094866	0.09202	0.001632	530.6794	0.005831		0.000229	0.000971	0.011019	0.002755	0.004395	0.000783	0.030655	0.00017	0.00275	0	0.003195	0.002267
0.125915	0.600818	1.935096	0.094866	0.09202	0.001632	530.6794	0.005831		0.000229	0.000971	0.011019	0.002755	0.004395	0.000783	0.030655	0.00017	0.00275	0	0.003195	0.002267
0.125915	0.600818	1.935096	0.094866	0.09202	0.001632	530.6794	0.005831		0.000229	0.000971	0.011019	0.002755	0.004395	0.000783	0.030655	0.00017	0.00275	0	0.003195	0.002267
0.08473	0.606632	1.303281	0.097889	0.094952	0.001601	536.5881	0.005553		0.000151	0.000647	0.007897	0.001651	0.003552	0.000455	0.021896	6.94E-05	0.001901	0	0.002599	0.001429
0.029093	0.180519	0.466637	0.032424	0.031451	0.001471	536.7469	0.002452		4.55E-05	0.000212	0.002717	0.000472	0.001294	0.00016	0.007239	8.14E-06	0.000564	0	0.000997	0.000674
0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064		1.22E-05	7.53E-05	0.000904	0.000142	0.000355	9.06E-05	0.002063	5.04E-06	0.000159	0	0.000345	0.000524
0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064		1.22E-05	7.53E-05	0.000904	0.000142	0.000355	9.06E-05	0.002063	5.04E-06	0.000159	0	0.000345	0.000524
0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064		1.22E-05	7.53E-05	0.000904	0.000142	0.000355	9.06E-05	0.002063	5.04E-06	0.000159	0	0.000345	0.000524
0.011861	0.039133	0.154587	0.009664	0.009375	0.001421	536.7952	0.00064		1.22E-05	7.53E-05	0.000904	0.000142	0.000355	9.06E-05	0.002063	5.04E-06	0.000159	0	0.000345	0.000524
0.08473	0.606632	1.303281	0.097889	0.094952	0.001601	536.5881	0.005553		0.000151	0.000647	0.007897	0.001651	0.003552	0.000455	0.021896	6.94E-05	0.001901	0	0.002599	0.001429
0.263691	0.985872	1.764743	0.222675	0.215995	0.001867	625.7934	0.016377		0.000488	0.002028	0.024825	0.005165	0.011155	0.001313	0.069689	0.000244	0.00645	0	0.008097	0.003816
0.029093	0.180519	0.466637	0.032424	0.031451	0.001471	536.7469	0.002452		4.55E-05	0.000212	0.002717	0.000472	0.001294	0.00016	0.007239	8.14E-06	0.000564	0	0.000997	0.000674
0.027629	0.168557	0.439742	0.030587	0.029669	0.001467	536.7505	0.002321		4.27E-05	0.000201	0.002568	0.000445	0.00122	0.000154	0.006814	7.43E-06	0.000527	0	0.000945	0.000659
0.125915	0.600818	1.935096	0.094866	0.09202	0.001632	530.6794	0.005831		0.000229	0.000971	0.011019	0.002755	0.004395	0.000783	0.030655	0.00017	0.00275	0	0.003195	0.002267
0.096314	0.461453	1.674516	0.065867	0.063891	0.001592	530.7631	0.005595		0.000174	0.000736	0.008617	0.001969	0.003589	0.00055	0.023977	0.000117	0.00221	0	0.002653	0.001683
0.4113	1.467844	2.443408	0.301905	0.292848	0.001922	625.3609	0.017654		0.000763	0.00317	0.03596	0.008905	0.014115	0.002422	0.100894	0.000615	0.009811	0	0.010323	0.006842

APPENDIX 9B FUGITIVE DUST CONTROL PLAN

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Fugitive Dust Control Plan

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
Fugitive Dust Control Plan

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SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

1.0 PURPOSE AND NEED

Saguaro Connector Pipeline, L.L.C. ("Saguaro") proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States ("U.S.") to the Estados Unidos Mexicanos (United Mexican States) ("Mexico") referred to as the Saguaro Connector Pipeline Project ("Project"). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river ("Border Facilities"). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas.

Construction of the Project will involve land disturbing activities, which can increase the susceptibility of soils to erosion caused by wind and water. Wind erosion can damage the productivity of the land by reducing soil moisture, altering soil structure, and carrying away soil nutrients and topsoil. A small amount of soil loss from wind erosion occurs naturally; however, human activity, such as pipeline construction, can dramatically increase soil loss due to wind erosion (fugitive dust) and potentially create conditions that could be detrimental to air quality and safety. Fugitive dust is a type of non-point source air pollution that can cause respiratory distress for construction workers and nearby residents and wildlife. Additionally, fugitive dust can create a safety hazard by obscuring visibility for equipment operators, construction personnel, and traffic on public roads near the Project.

This Fugitive Dust Control Plan will serve as a guide for construction and field personnel on implementation of appropriate measures to minimize and control the generation of fugitive dust during construction activities associated with the Project. It will be the responsibility of the Project contractors, working with Saguaro's field representatives, to identify activities that are generating dust and to control airborne dust levels during construction activities to acceptable levels that are in compliance with any applicable standards—including those established by the federal, state, and local regulatory agencies.

2.0 FUGITIVE DUST SOURCES

Saguaro has attempted to identify the primary potential sources of fugitive dust applicable to the Project, which include the following:

- Vegetation clearing activities;
- Initial grading of topsoil and subsoil;
- Excavation;
- Grading associated with reestablishing contours and restoring segregated topsoil;
- Vehicle and equipment travel through the Project construction workspace and access roads; and

- Open-bodied trucks hauling sand, soil, gravel, or other materials.

Saguaro will identify activities that are generating fugitive dust, implement feasible dust abatement techniques or Best Management Practices to control dust, and maintain compliance with applicable fugitive dust regulations.

3.0 FUGITIVE DUST CONTROL MEASURES

The Project is located in a rural part of Texas, with no residences identified within a 3-mile radius of the Border Facilities or within 1 mile of the Project workspace[1]. Dust suppression measures will be employed as necessary to control fugitive dust emissions where dust from construction activities could compromise safety or become a public nuisance. This shall also apply to the temporary access road (an existing public road) where dust raised by construction vehicles could compromise safety or become a public nuisance. To minimize wind erosion and fugitive dust emissions during construction, Saguaro will implement the following reasonably available control measures:

- Disturb no more earth than required for construction to occur.

- Use dust abatement techniques (i.e., applying water or Saguaro approved nontoxic chemical dust suppressants) on unpaved or un-vegetated areas or other areas susceptible to wind erosion, including the Project workspace, approved work areas, and unpaved roads at least daily in areas of active construction. Application of dust suppressants will be repeated as necessary and as determined by the Environmental Inspector or Saguaro representative.

- Water for dust control will be obtained from either private wells or municipal sources where the necessary water purchase agreements and permits required by federal, state, and local agencies for the procurement of water have been secured. No unapproved water sources may be used for Project activities including dust control.

- Temporarily stockpiled soils (topsoil and spoil) will be sprayed with water or approved chemical dust suppressant to create a semi-hard protective layer to minimize wind erosion, if necessary, and as determined by the Environmental Inspector or Saguaro representative.

- Emissions from construction equipment combustion, open burning, and temporary fuel transfer systems and associated tanks will be controlled to the extent required by state and local agencies through the permitting process.

- Project-related traffic speeds will be controlled on the construction workspace on unpaved access roads. Additional speed limit restrictions may be required by the property owner/tenant on private lands or by the county on public roads (e.g., posted speed limits). Speed limits will be decreased when excessive winds prevail.

[1] The residence located approximately 620 feet north of the northernmost end of the temporary access road is abandoned.

- Open-bodied trucks carrying sand, soil, gravel, or other materials will be covered where necessary to prevent such materials from being expelled.

- Construction entrance/exit access locations onto paved roads will be cleaned at a minimum of once every 48 hours, or as needed, if materials are observed to be accumulating on the road surface.

- Other dust control measures, such as the use of wind fences or berms, may also be implemented as needed.

The frequency of water application will largely depend on weather conditions. Additionally, Saguaro will attempt to begin cleanup and rough grading within 72 hours after completion of backfill activity, and complete cleanup within 20 days after completion of backfill activity, weather and soil conditions permitting. If seasonal or other weather conditions prevent compliance with the time frames, the contractor shall stabilize the construction workspaces and maintain erosion and sediment control measures until cleanup can be conducted. Disturbed areas will be permanently revegetated in accordance with applicable permit conditions and landowner requirements.

4.0 REGULATORY APPLICABILITY

This Fugitive Dust Control Plan has been developed to meet the regulatory requirements of the Texas Commission on Environmental Quality (Texas Administrative Code, Title 30, Part I, Chapter 111, Subchapter A, Division 4, Section 111.145).

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 10
Alternatives

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 10—ALTERNATIVES

Minimum Filing Requirements:	Addressed in Section:
1. Discuss the "no-action" alternative and the potential for accomplishing the proposed objectives through the use of other systems and/or energy conservation. Provide an analysis of the relative environmental benefits and costs for each alternative. —18 CFR §380.12(l)(1)	Section 10.1
2. Describe alternative routes or locations considered for each facility during the initial screening for the project. (i) For alternative routes considered in the initial screening for the project but eliminated, describe the environmental characteristics of each route or site, and the reasons for rejecting it. Identify the location of such alternatives on maps of sufficient scale to depict their location and relationship to the proposed action, and the relationship of the pipeline to existing rights-of-way. (ii) For alternative routes or locations considered for more in-depth consideration, describe the environmental characteristics of each route or site and the reasons for rejecting it. Provide comparative tables showing the differences in environmental characteristics for the alternative and proposed action. The location of any alternatives in this paragraph shall be provided on maps equivalent to those required in paragraph (c)(2) of this section. —18 CFR §380.12(l)(2)	Section 10.3

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 10—ALTERNATIVES

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ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
Direct Pipe	Direct Pipe micro-tunneling
HDD	horizontal directional drilling
Mexico	Estados Unidos Mexicanos (United Mexican States)
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
U.S.	United States

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

10.0 RESOURCE REPORT 10—ALTERNATIVES

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States (“U.S.”) to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Resource Report 10 describes alternatives that Saguaro evaluated to determine whether they would be reasonable and environmentally preferable to the proposed Project. Alternatives considered include the no-action alternative, system alternatives, route alternatives, and construction method alternatives.

To be considered preferable to the proposed Project, an alternative must provide a significant environmental advantage over the Project, meet the objectives and timeframes of the Project, and be technically and economically feasible and practicable. As discussed in Resource Report 1, the primary objective of the Project is to site, construct, connect, operate, and maintain a new international boundary crossing between the U.S. and Mexico to supply natural gas sourced from the Waha Hub in Pecos County, Texas, to a receipt point in Mexico.

10.1 No-Action Alternative

Under the no-action alternative, the proposed Border Facilities would not be constructed and the environmental impacts associated with the Project would not occur. However, the no-action alternative would not accomplish the Project’s objectives of supplying natural gas sourced from the Waha Hub in Pecos County, Texas, to an interconnect with a pipeline under development in Mexico. The market need exists in Mexico for natural gas in the area, Saguaro’s customers will be responsible for it’s Department of Energy Natural Gas Act Section 3 authorization, and the proposed Border Facilities will allow for transportation service of natural gas to Mexico from the Waha Hub in Pecos County, Texas. Implementation of the no-action alternative would prevent these benefits and would not meet the Project’s purpose and need. Therefore, the no-action alternative is not a viable alternative for the proposed Project.

10.2 System Alternative

There are no system alternatives to the Project that would make use of other existing, modified, or proposed pipeline systems to meet the requirements as stated in the objectives of the Project. The Project customers’ requirements included the proposed location of the Rio Grande river crossing to connect to pipeline facilities of the customers’ transporter in Mexico.

10.3 Route Alternative

The proposed installation is to accommodate an International Boundary crossing facility to interconnect to a planned transmission pipeline commencing in Mexico, the location of which

has been assessed and aligned by the Mexican proponent. The location of the International Boundary crossing facility was determined to align with the interconnect location inside Mexico. No alternative crossing points exist due to the interconnect location being dictated by the preferred alignment for the pipeline inside Mexico. Based upon the results of the field assessments performed for sensitive resources, the proposed crossing location is environmentally benign and lacks issues that would prompt consideration of the crossing point relocation. Temporary impacts may occur only during active construction in wetlands, waterbodies, and vegetated wildlife habitat, but will be restored upon completion. There are no permanent impacts or adverse effects anticipated on these resources for the Project as described in Resource Report 2 and Resource Report 3.

10.4 Construction Method Alternative

Two trenchless construction methods were considered for installation of this Project: the Direct Pipe micro-tunneling ("Direct Pipe") trenchless construction method (Proposed Method) and the horizontal directional drilling ("HDD") method (Alternative Method). Installation via the Direct Pipe method will result in a pipeline that is installed beneath the ground surface via a single stage, where after fabrication of the pipeline, or pipe string, a micro tunneling head is affixed to the front of the pipe string. The pipe string and the micro tunneling head is then "jacked" or pushed along the planned profile by remote control of the micro tunneling head. Installation via the HDD method would be carried out in three stages: (i) directional drilling of a pilot hole; (ii) enlarging the pilot hole by reaming passes; and (iii) pulling the prefabricated pipeline into the bore hole. Both methods are significantly less disturbing to the existing environment than conventional open trench methods.

The Direct Pipe method (Proposed Method) will require additional temporary workspace at the entry point of the drill on the U.S. side of the Rio Grande river to prefabricate the 48-inch-diameter pipeline into one continuous section in preparation for the drill string push. Once assembled with the cutting head affixed to the drilling end of the pipe string, the pipeline is placed on pipe rollers to convey it into the drill hole during the push operation. The fabricated pipe will be hydrostatically tested prior to installation. Upon completion of pipeline construction, the entire pipe will again be hydrostatically tested from the U.S. side of the International Boundary. The Direct Pipe method will require 14.2 acres of permanent and additional temporary workspace during construction on the U.S. side. The proposed workspace and alignment for the Direct Pipe method are illustrated in Appendix 1A of Resource Report 1.

The HDD method (Alternative Method) would require additional temporary workspace on the Mexico side of the Rio Grande river at the exit point of the pilot-hole drill (entry point for the pre-fabricated pipe string) to prefabricate the 48-inch-diameter pipeline into one continuous section in preparation for the pullback. Once assembled, the pipeline would be placed on pipe rollers to convey it into the drill hole during the pullback operation. The fabricated pipe would be hydrostatically tested prior to pullback. Once reaming has been completed, the prefabricated pipeline would be attached to the drill string at the exit point and drawn back toward the drilling rig at the entry location on the U.S. side. Upon completion of pipeline construction, the entire pipe would again be hydrostatically tested from the U.S. side of the International Boundary. The HDD method would require 14.2 acres of permanent and additional temporary workspace during construction on the U.S. side. The workspace and alignment necessary for HDD are illustrated on Figure 10.4-1.

Both methods have similar temporary and permanent impacts. A geotechnical survey was conducted for the Project (refer to Resource Report 6) in November 2022. It was determined that

the soil in the Project site is conducive to the Direct Pipe method and the HDD method. The Direct Pipe method would allow for the majority of the equipment and materials to remain on the U.S. side of the International Boundary, whereas the HDD method would likely require that pipe be transported to the Mexico side of the International Boundary for stringing and pullback. Additionally, the Direct Pipe method only requires setup on the rig side, requires less time to complete than HDD, and does not require back reaming or extra support for boreholes. Therefore, the Direct Pipe method would provide a more efficient and qualitative advantage to the HDD method. The Direct Pipe method is considered the preferable construction method alternative for the Project.

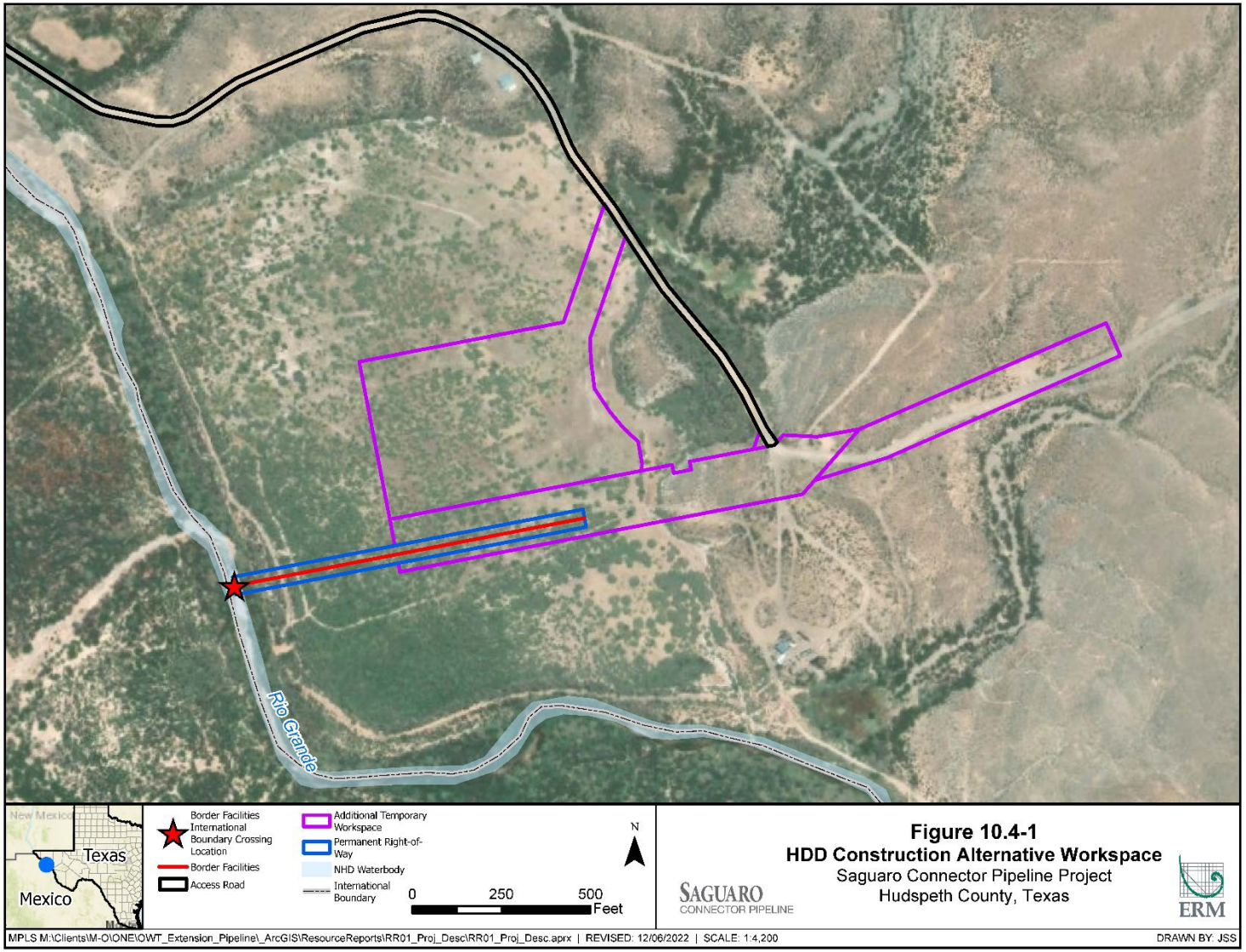


Figure 10.4-1
HDD Construction Alternative Workspace
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 11
Reliability and Safety

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 11—RELIABILITY AND SAFETY

Minimum Filing Requirements for Environmental Reports:	**Addressed In:**
This report is required for applications involving new or recommissioned liquefied natural gas facilities.	
1. Describe measures proposed to protect the public from failure of the proposed facilities (including coordination with local agencies) —18 Code of Federal Regulations (CFR) § 380.12 (m)(1).	Not applicable, the Project does not involve liquefied natural gas facilities.
2. Discuss hazards, the environmental impact, and service interruptions which could reasonably ensue from failure of the proposed facilities —18 CFR § 380.12 (m)(2).	Not applicable, the Project does not involve liquefied natural gas facilities.
3. Discuss design and operational measures to avoid or reduce risk —18 CFR § 380.12 (m)(3).	Not applicable, the Project does not involve liquefied natural gas facilities.
4. Discuss contingency plans for maintaining service or reducing downtime —18 CFR § 380.12 (m)(4).	Not applicable, the Project does not involve liquefied natural gas facilities.
5. Describe measures used to exclude the public from hazardous areas. Discuss measures used to minimize problems arising from malfunctions and accidents (with estimates of probability of occurrence) and identify standard procedures for protecting services and public safety during maintenance and breakdowns —18 CFR § 380.12 (m)(5).	Not applicable, the Project does not involve liquefied natural gas facilities.
Additional Information	
1. Describe how the project facilities would be designed, constructed, operated, and maintained to minimize potential hazard to the public from the failure of project components as a result of accidents or natural catastrophes.	Sections 11.2 and 11.3

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RESOURCE REPORT 11—RELIABILITY AND SAFETY

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ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
CFR	Code of Federal Regulations
HCA	high consequence area
IMP	integrity management program
MCA	moderate consequence area
Mexico	Estados Unidos Mexicanos (United Mexican States)
PHMSA	Pipeline and Hazardous Materials Safety Administration
Project	Saguaro Connector Pipeline Project (siting, construction, connection, operation, and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.
SCADA	Supervisory, Control, and Data Acquisition System
U.S.	United States
U.S. DOT	United States Department of Transportation

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

11.0 RESOURCE REPORT 11—RELIABILITY AND SAFETY

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States (“U.S.”) to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Per the Federal Energy Regulatory Commission’s minimum filing requirements and regulations, Resource Report 11 is required for new or recommissioned liquefied natural gas facilities. The Project does not involve new or recommissioned liquefied natural gas facilities; therefore, Resource Report 11 is not required. However, Saguaro understands the value of addressing reliability and safety even for pipeline infrastructure and includes this Resource Report 11 to address the safety regulations applicable to the Project.

In accordance with Title 18 of the Code of Federal Regulations (“CFR”) section 380.12(m), Resource Report 11 provides a discussion of the reliability and safety aspects of Saguaro’s proposed Project. Saguaro will maintain and operate its facilities pursuant to federal safety standards and company policies and procedures.

11.1 NATURAL GAS TRANSMISSION PIPELINE SAFETY STANDARDS

Most natural gas used in the U.S. is delivered to consumers through approximately 301,524 miles of transmission pipelines, providing about 25 percent of the total energy consumption in the U.S. (U.S. DOT, PHMSA, 2018; 2021). Because of the critical role that transmission pipelines play in supplying a large portion of the country’s energy needs, it is imperative that they are safe and reliable. Pipelines and related facilities are designed and maintained with strict adherence to Pipeline and Hazardous Materials Safety Administration (“PHMSA”) regulations, which are intended to provide public safety and reliability and to minimize the risk of system failure.

The natural gas transmission industry has an excellent record of public safety and reliability. Nevertheless, the transportation of natural gas by pipeline involves some risk to the public in the event of an accidental release of natural gas. The Border Facilities will transport natural gas that primarily contains methane, but also contains smaller amounts of ethane, propane, and higher hydrocarbon gases such as butane. This product is a colorless and practically odorless gas. If natural gas is breathed in high concentrations, oxygen deficiency can occur—resulting in serious injury or suffocation. Natural gas has an auto-ignition temperature of approximately 1,000 degrees Fahrenheit and is flammable at methane concentrations between 5 and 15 percent in air. These concentrations can be reached when natural gas is in a confined space and could result in a hazard in the presence of an ignition source. Unconfined mixtures of

natural gas and air become highly diluted and are not usually explosive. Lighter components of natural gas, such as methane, are buoyant at atmospheric temperatures and, if released, rise and disperse rapidly in air. Higher hydrocarbon components of natural gas, such as propane, are heavier than air and, although unlikely, may form a potentially flammable cloud near the ground until sufficiently dispersed in air.

The PHMSA administers the national regulatory program to provide for the safe transportation of natural gas and other hazardous materials by pipeline. Safety regulations and other approaches to risk management provide for safety in the design, construction, testing, operation, and maintenance of pipeline facilities. These standards are specified in 49 CFR Part 192.

11.1.1 Pipeline Design, Construction, and Operating Standards

Saguaro is committed to protecting the safety of those living or working near its pipeline system and to work proactively to keep its system operating safely and effectively. Accordingly, the Border Facilities will be designed, constructed, modified, tested, operated, inspected, and maintained to meet or exceed the U.S. Department of Transportation's ("U.S. DOT") Minimum Federal Safety Standards specified in 49 CFR Part 192. These regulations are intended to ensure adequate protection of the public from natural gas pipeline facility accidents and failures; in addition, 49 CFR Part 192 specifies the minimum material, design, welding, construction, testing, protection from corrosion, operations, maintenance, and personnel qualifications for pipelines. Further, Subpart O requires each pipeline operator to have a detailed integrity management program ("IMP"). As a part of the IMP, the following activities are periodically performed on the line to assess the pipe for any features requiring remediation (e.g., corrosion, dents, and gouges): high-resolution, in-line inspection tools (i.e., smart pigs); pressure tests; or direct assessments.

The U.S. DOT's regulations in 49 CFR Part 192 define area classifications (called class location units) based on population density in the vicinity of a pipeline and specify more rigorous safety requirements for populated areas. Part 192 specifies pipe wall thickness, hydrostatic test pressures, inspection, testing of welds, spacing of mainline valves, depth of cover, and frequency of pipeline/facility patrols and leak surveys based on class location. Each class location unit covers the area extending 220 yards on either side of the centerline of any continuous 1-mile length of pipeline. The Border Facilities will fall under a Class 1 designation for the entire 1,000-foot length, which is specified as any class location unit that has 10 or fewer buildings intended for human occupancy.

Saguaro will monitor population changes in the vicinity over the life of the Border Facilities. If an increase in population density adjacent to the right-of-way is detected, Saguaro will evaluate whether a change in class location is required and, if required, will reduce the maximum allowable operating pressure or replace the segment with pipe of sufficient grade and wall thickness, if necessary, to meet the requirements of 49 CFR Part 192.

The U.S. DOT's regulations (49 CFR Part 192, Subpart O) also specify how pipeline operators must identify, prioritize, assess, evaluate, repair, and validate the integrity of natural gas transmission pipelines that could affect high consequence areas ("HCA") in the event of a leak or failure. The regulations require pipeline operators to develop and follow a written IMP that contains all the elements described in 49 CFR Part 192.911 and that addresses the risks on each covered segment of the transmission pipeline. Class 3 and Class 4 locations are, by definition, HCAs. In addition, HCAs include any area within a Class 1 or Class 2 location where the potential

impact radius from a pipeline incident is greater than 660 feet (200 meters) and the area within the potential impact circle contains 20 or more buildings intended for human occupancy, or any area within a potential impact circle that contains an identified site.[1] The potential impact radius for the proposed pipeline is 1,275 feet.

No HCAs have been identified within 18 miles of the proposed Border Facilities. However, Saguaro will develop an IMP and will use the following criteria to determine HCA locations within the potential impact circle if conditions change in the area:

- identification of a site with 20 or more buildings intended for human occupancy; or
- location of an identified site.

On October 1, 2019, the PHMSA issued a final rule amending the Federal Pipeline Safety Regulations in 49 CFR Parts 191 and 192 to address integrity management requirements and to improve the safety of onshore gas transmission lines (84 Federal Register 52180). The amendments, which became effective July 1, 2020, focus on reconfirmation of the maximum allowable operating pressure for existing pipelines and the expansion of assessment requirements for pipelines in areas not designated as HCAs. The criteria for a moderate consequence area ("MCA"), as defined in the new amendments, is an area that is within the potential impact circle of the pipeline that contains five or more buildings intended for human occupancy, or any portion of the paved surface—including shoulders of a designated interstate, freeway, expressway, or any other principal arterial roadway with four or more lanes—that lies within the potential impact circle.

No MCAs have been identified within 18 miles of the proposed Border Facilities. However, Saguaro will develop an IMP and will use the following criteria to determine MCA locations within the potential impact circle if conditions change along the Border Facilities:

- identification of a site with five or more buildings intended for human occupancy; or

- identification of any portion of the paved surface including shoulders of a designated interstate, freeway, expressway, or any other principal arterial roadway with four or more lanes.

11.2 OPERATING AND EMERGENCY RESPONSE MEASURES TO PROTECT THE PUBLIC

Saguaro will develop operating policies and procedures that will be periodically reviewed by the U.S. DOT. The policies will provide specific directions in regular preventive maintenance and vigilant patrols of facilities and provide procedures to follow in the event of an accident or natural catastrophe. All operating personnel will be trained to perform operations and maintenance activities in accordance with these policies and procedures. Further, periodic training sessions will be conducted for operations employees to review typical operating and emergency response procedures or to update employees on changes in procedures. This training will include safe operation of pipeline facilities, hazardous material handling procedures,

[1] An identified site is defined as an outside area or open structure that is occupied by 20 or more persons on at least 50 days in any 12-month period; a building that is occupied by 20 or more persons on at least five days a week for any 10 weeks in any 12-month period; or a facility that is occupied by persons who are confined, are of impaired mobility, or would be difficult to evacuate.

firefighting, public liaison, and general operating procedures. The Border Facilities will be operated and maintained in accordance with each of these policies and procedures.

11.2.1 Line Patrols

Saguaro will inspect the Border Facilities periodically on foot, by all-terrain vehicle, or by other vehicle—as required by applicable regulatory requirements—to identify potential concerns that may affect the safety and operation of the Border Facilities. Field personnel will advise the appropriate operations personnel of new construction along or near the Border Facilities. Issues identified will be investigated and appropriately remediated based on risk assessment.

11.2.2 Integrity Management

The Border Facilities will be hydrostatically strength and leak tested throughout its entire length before it is put into service. In this procedure, water or test media is introduced into the pipeline and pressurized to a specified magnitude above the maximum allowable operating pressure for a specified amount of time. This test is used to confirm that the facility will operate safely at the designed pressure.

Saguaro will also conduct a baseline assessment using in-line inspection of the Border Facilities to check for damage, deformities, or other factors that could affect the integrity of the Border Facilities. If potential problems are identified, repairs will be made to the affected segment of pipe.

11.2.3 System Control

The Border Facilities will be incorporated into a Supervisory, Control, and Data Acquisition System ("SCADA"). The Gas Control Center will be located at Saguaro's headquarters in Oklahoma and is staffed 24 hours a day, 365 days a year. Gas controllers use SCADA to monitor the pipeline system, which includes a wide range of activities such as monitoring the gas pressures and flows along the pipeline and monitoring the operating system valves along the pipeline.

Data acquisition occurs at many locations along a pipeline. This data is transmitted to Gas Control through SCADA. If system parameters fall outside a predetermined range, an alarm is activated at Gas Control and corrective action is taken by the gas controller as needed. Local operations personnel are dispatched in response to these alarms if intervention is required outside of Gas Control.

11.2.4 Corrosion and Cathodic Protection

The minimum requirements for the protection of metallic pipelines from external, internal, and atmospheric corrosion are prescribed in 49 CFR Part 192, Subpart I. Line pipe used to construct the Border Facilities will be externally coated at the pipe mill with fusion bond epoxy. A compatible coating will be applied in the field over circumferential welds and assembly piping will be coated with epoxy-based or tape-style coatings.

In accordance with PHMSA requirements, Saguaro will install cathodic protection systems at various points along the connecting non-Federal Energy Regulatory Commission-jurisdictional pipeline to inhibit external corrosion of the underground facilities. This cathodic protection system

will impart a low-voltage current to the pipeline to offset natural soil corrosion potential should the coating become damaged over the life of the pipeline.

11.2.5 Emergency Preparedness and Procedures

The U.S. DOT's regulations prescribe the minimum standards for operating and maintaining pipeline facilities, including a requirement to establish a written plan governing these activities. Additionally, pipeline operators are required to establish an emergency plan that identifies procedures to minimize hazards in a natural gas pipeline emergency to protect the public and the environment. Key elements of the plan include procedures for the following tasks:

- receiving, identifying, and classifying emergency events, gas leakage, fires, explosions, and natural disasters;
- establishing and maintaining communications with local fire, police, and public officials and coordinating emergency response;
- emergency system shutdown and safe restoration of service;
- making personnel, equipment, tools, and materials available at the scene of an emergency; and
- protecting people first and protecting property subsequently and making both safe from actual or potential hazards.

Saguaro will develop an emergency response plan for the Border Facilities in accordance with the U.S. DOT's regulations. The emergency response plan will be made available prior to, and during, construction and will contain the appropriate emergency contacts (e.g., names and telephone numbers). To date, no emergency responders have identified any needs for additional equipment.

11.2.6 Liaison with Local Authorities

The U.S. DOT requires that pipeline operators establish and maintain liaison with local fire, police, and other emergency responders to plan for, and coordinate, emergency response efforts in the event of an incident during construction or operation of the proposed facilities. Each operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and to report it to the appropriate public officials. Saguaro will work with the local public officials and emergency responders in these counties and will provide appropriate training to responders.

11.2.7 Public Awareness

Saguaro will develop a public awareness program for the Border Facilities. Saguaro's public awareness program will provide information to excavators and the affected public, emergency officials, and public officials. The messaging will include, but is not limited to, the following:

- pipeline purpose and reliability;

- awareness of hazards and prevention measures undertaken;
- emergency preparedness communications;
- damage prevention awareness;
- one-call requirements;
- leak recognition and response;
- pipeline location and operator information;
- National Pipeline Mapping System information; and
- how to get additional information.

11.2.8 Damage Prevention

Saguaro will be a member of "One Call" and related pre-excavation notification organizations in the State of Texas. Through One Call, contractors or private individuals provide notification of proposed excavations to a central agency that, in turn, will notify company representatives of the excavation locations. If Saguaro facilities are located in the area of proposed excavation, company representatives will mark the pipeline location, consult with the excavator as needed, and observe the excavation as necessary to prevent damage to the pipeline.

11.3 NATURAL GAS PIPELINE SAFETY OVERVIEW

11.3.1 Pipeline Safety Incident Data

The U.S. DOT requires operators of natural gas transmission pipelines to notify the PHMSA and submit a written report to the PHMSA as soon as practicable but not more than 30 days after detection of a reportable incident. Saguaro is subject to the PHMSA's incident reporting requirements.

The PHMSA has a comprehensive website to make accident data available to the public, including data on significant incidents. Table 11.3-1 summarizes significant incidents reported by operators of natural gas transmission pipelines to the PHMSA during the 20-year period from 2002 to 2021. As shown in the table, the largest numbers of incidents are caused by material/weld/equipment failure (30.2 percent) and corrosion (20.4 percent) and the largest numbers of fatalities have been caused by excavation damage and all other causes (miscellaneous or unknown causes). The pipelines included in the dataset used to compile these statistics vary in age, outside diameter, and the level of corrosion control—each of which influences the frequency of significant incidents.

Table 11.3-1: Significant Incident Summary by Cause from 2002 through 2021

Cause of Incident	Number of Incidents	Percent of Total	Fatalities	Injuries
Corrosion	1,179	20.4	7	53
Excavation Damage [a]	940	16.3	73	285
Incorrect Operation	491	8.5	26	173
Material/Weld/Equipment Failure	1,745	30.2	27	156
Natural Force Damage [b]	484	8.4	26	89
Other Outside Force Damage [c]	530	9.2	48	183
All Other Causes [d]	415	7.2	53	170
TOTALS	5,784	100	260	1,109

Source: U.S. DOT, PHMSA, 2022; Significant Pipeline Incidents By Cause.

[a] Includes third-party damage.

[b] Includes earth movement, heavy rain/floods, and lightning.

[c] Includes vehicle damage, fire, explosion, previous damage, and intentional damage.

[d] Miscellaneous or unknown causes.

Incident data and trends are assessed by the PHMSA and influence pipeline regulatory program priorities. In the last decade, for example, rules imposing standards of expectation for state One Call systems, state efforts to strengthen damage prevention programs, the PHMSA pipeline integrity management rules, operator qualification standards, pipeline control system and SCADA standards, and accident reporting guidelines have helped drive federal regulators, state partners, and the pipeline industry to improve technology and practices to reduce the number and consequences of accidents.

11.3.2 Impact on Public Safety

The significant incident data summarized in Table 11.3-1 includes pipeline failures of all magnitudes with widely varying consequences. These incidents collectively resulted in a total of 36 fatalities that occurred on natural gas transmission lines over the 20-year period between 2002 and 2021 for an average of 1.8 fatalities per year.

To provide a measure of the relative safety of natural gas pipelines, Table 11.3-2 below identifies annual fatality rates for accidents and other hazards. Direct comparisons between the categories are not practical because individual exposures to hazards and/or accidents are not uniform; the data, nonetheless, indicate a low risk of death due to incidents involving natural gas transmission pipelines compared to the other categories.

Table 11.3-2: Accidental Deaths per year by Cause

Type of Accident	Number of Fatalities
All injuries (unintentional) [a]	173,040
Motor vehicle accident [a]	37,595
Poisoning/exposure to noxious chemicals (unintentional) [a]	65,773
Falls (unintentional) [a]	39,443
Suffocation (unintentional) [a]	7,076
Drowning (unintentional) [a]	3,692
Fire/flame (unintentional) [a]	2,692
Floods [b]	88
Tornado [b]	71
Lightning [b]	37
Natural gas transmission pipelines [c]	2

[a] HHS, CDC, 2021.
[b] NOAA, National Weather Service, 2021; 30 Year Average (1992 to 2021).
[c] U.S. DOT, PHMSA, 2021; Serious Pipeline Incidents By Cause 20 Year Average (2001 to 2020). This number has been rounded up.

11.4 REFERENCES

Electronic Code of Federal Regulations. 2021. Part 191—Transportation of Natural and Other Gas by Pipeline, Annual Reports, Incident Reports, and Safety-Related Condition Reports. Available online: https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-D/part-191. Accessed: October 2022.

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SAGUARO
CONNECTOR PIPELINE

SAGUARO CONNECTOR PIPELINE, L.L.C.

Saguaro Connector Pipeline Project

Resource Report 12
PCB Contamination

Docket No.
CP23-___-000

December 2022

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 12—PCB CONTAMINATION

Minimum Filing Requirements for Environmental Reports:	Addressed In:
This report is required for applications involving the replacement, abandonment by removal, or abandonment in place of pipeline facilities determined to have polychlorinated biphenyls in excess of 50 parts per million in pipeline liquids.	
1. Provide a statement that activities would comply with an approved EPA disposal permit, with the dates of issuance and expiration specified, or with the requirements of the Toxic Substances Control Act—18 Code of Federal Regulations § 380.12 (n)(1).	Not Applicable
2. For compressor station modification on sites that have been determined to have soils contaminated with polychlorinated biphenyls, describe the status of remediation efforts completed to date—18 Code of Federal Regulations § 380.12 (n)(2).	Not Applicable

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT
RESOURCE REPORT 12—PCB CONTAMINATION

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12.0 RESOURCE REPORT 12—PCB CONTAMINATION 12-1

ACRONYMS AND ABBREVIATIONS

Border Facilities	48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river
Mexico	Estados Unidos Mexicanos (United Mexican States)
Project	Saguaro Pipeline Connector Project (siting, construction, connection operation and maintenance of the Border Facilities)
Saguaro	Saguaro Connector Pipeline, L.L.C.

SAGUARO CONNECTOR PIPELINE, L.L.C.
SAGUARO CONNECTOR PIPELINE PROJECT

12.0 RESOURCE REPORT 12—PCB CONTAMINATION

Saguaro Connector Pipeline, L.L.C. (”Saguaro”) proposes to site, construct, connect, operate, and maintain a new International Boundary crossing for the export of natural gas from the United States (“U.S.”) to the Estados Unidos Mexicanos (United Mexican States) (“Mexico”) referred to as the Saguaro Connector Pipeline Project (“Project”). The Project comprises the siting, construction, connection, operation, and maintenance of a 48-inch-diameter pipeline from the International Boundary at the center of the Rio Grande river to a point along the pipeline approximately 1,000 feet inland from the river (“Border Facilities”). The Border Facilities are located approximately 18 miles southwest of Sierra Blanca in Hudspeth County, Texas. Figure 1.1-1 in Appendix 1A of Resource Report 1 provides a regional overview map depicting the proposed Project.

Resource Report 12 addresses the replacement, abandonment by removal, or abandonment in place of pipeline facilities determined to contain liquids having concentrations of polychlorinated biphenyls of more than 50 parts per million. The Project involves the construction of new facilities and Saguaro does not plan to abandon or replace any existing facilities as part of the Project. Therefore, no polychlorinated biphenyl handling or disposal is anticipated or will be required for the Project.

SAGUARO CONNECTOR PIPELINE, L.L.C.

Map of Border Facilities

Exhibit G

Geographic Map of Border Facilities

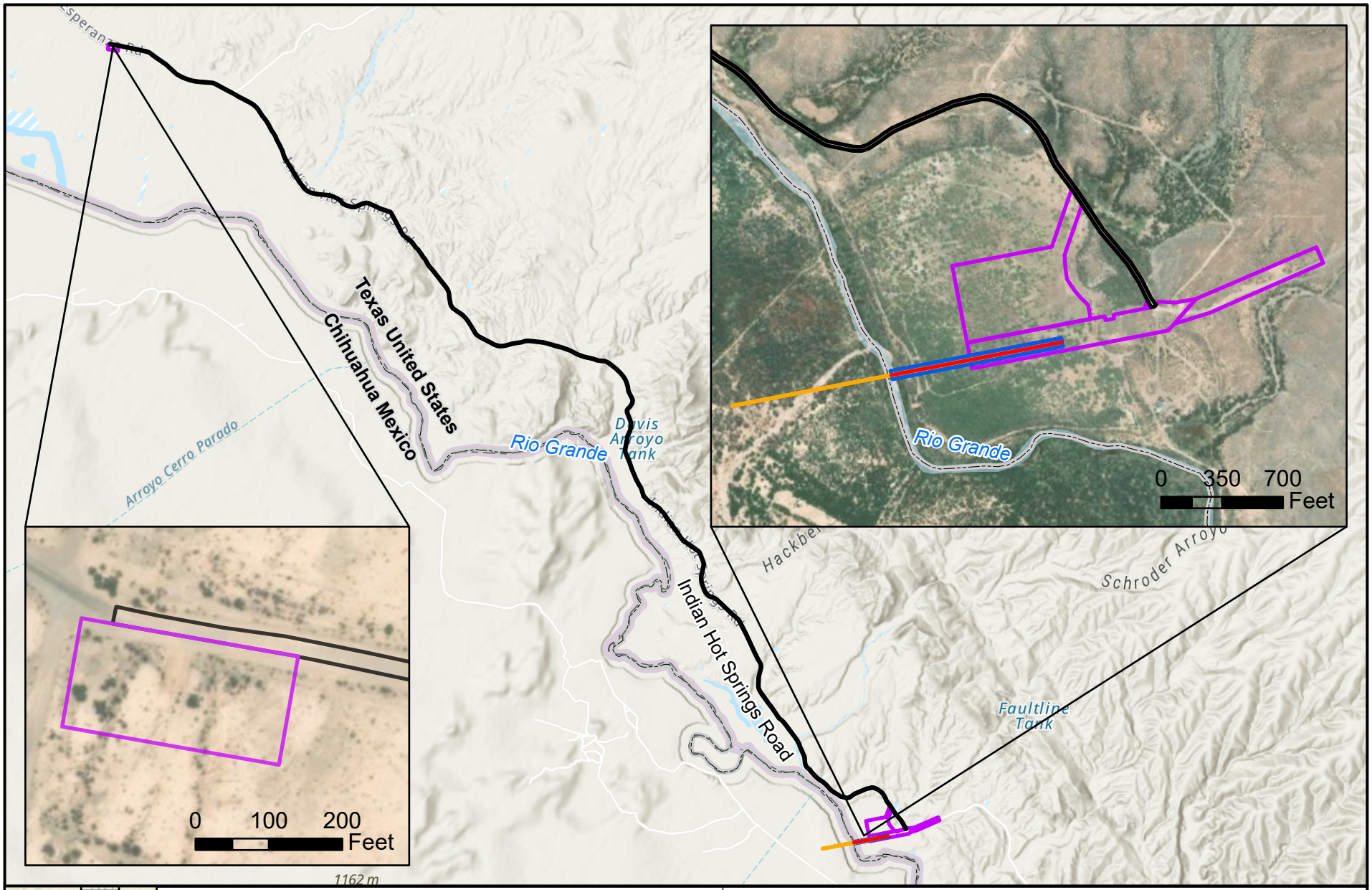


Exhibit G
Project Overview Map
Saguaro Connector Pipeline Project
Hudspeth County, Texas

SAGUARO CONNECTOR PIPELINE

ERM

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SAGUARO CONNECTOR PIPELINE, L.L.C.

Border Facilities

Exhibit H

Required Federal Authorizations

Submitted herewith in Exhibit F, Environmental Report, Resource Report 1, Table 1.8-1 is a list of all federal and state permits required for the Border Facilities.