



BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: September 5, 2017

Title: Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal Located at 6650 South Pantano Road within Xeroriparian Class C Habitat (District 4)

Introduction/Background:

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation when cumulative disturbance of more than 1/3 acre of mapped riparian habitat occurs. If a project site contains suitable area(s) for mitigation, restoration, or enhancement, then on-site mitigation is required in accordance with the adopted Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines. The Ordinance contains a provision for mitigation banking when on-site mitigation is not feasible. All off-site mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Discussion:

Southwest Gas (SWG) has applied for a permit to construct a liquefied natural gas (LNG) facility located at 6650 South Pantano Road. The property is mapped within Regulated Riparian Habitat (RRH) classified as Xeroriparian Class C habitat and the proposed construction footprint will disturb 2.36 acres of the RRH. SWG determined that the most effective option for RRH compliance will be to pay the in-lieu fee. The Flat Fee Table was used to calculate the fee. Payment of \$33,040 for removing 2.36 acres of RRH will be applied to the mitigation banking fund in-lieu of on-site mitigation.

Conclusion:

Acceptance of mitigation banking funds in-lieu of on-site mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County.

Recommendation:

The ILF proposal presented conforms with the Ordinance and, as such, the District recommends approval.

Fiscal Impact:


\$33,040

Board of Supervisor District:

1 2 3 4 5 All

Department: Regional Flood Control District Telephone: 724-4600

Contact: Suzanne Shields, P.E. Telephone: 724-4600

Department Director Signature/Date:  8/10/17

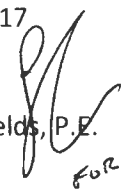
Deputy County Administrator Signature/Date:  8/11/17

County Administrator Signature/Date:  8/11/17

DATE: August 9, 2017

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E.
Director



SUBJECT: **Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal Located at 6650 South Pantano Road within Xeroriparian Class C Habitat (District 4)**

Background

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation for mapped riparian habitat disturbances greater than 1/3 acre. If a project site contains suitable area(s) for riparian restoration, enhancement, or establishment, onsite mitigation occurs in accordance with the adopted *Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines*. The Ordinance contains a provision for mitigation banking, when on-site mitigation is not feasible. All offsite mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Report

Southwest Gas (SWG) has applied for a permit to construct a liquefied natural gas (LNG) facility located at 6650 South Pantano Road (Exhibit A). The project site is approximately 31.43 acres. In addition, an access route will be developed on existing Pima County ROW south of the project. The property is mapped within Regulated Riparian Habitat (RRH) classified as Xeroriparian Class C habitat (Exhibit B) and the project construction footprint will disturb 2.36 acres of the RRH.

SWG has explored the various options available through Pima County for mitigation of the RHH within the site. Construction of the proposed LNG facility will require a large footprint, where the project cannot avoid the RHH in its entirety. The dense vegetation within the parcel makes onsite mitigation difficult to promote successful implementation of on-site mitigation plantings. SWG has determined that the most effective option for RHH compliance will be to pay the in-lieu fee for the RHH that will be removed. Amec Foster Wheeler Environment & Infrastructure, Inc. was hired to prepare a RHMP (Exhibit C). The Flat Fee Table was used to calculate the fee. Payment of \$33,040 for removing 2.36 acres of RRH will be applied to the mitigation banking fund in-lieu of on-site mitigation.

Recommendation

Acceptance of mitigation banking funds in-lieu of onsite mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County

Attachments:

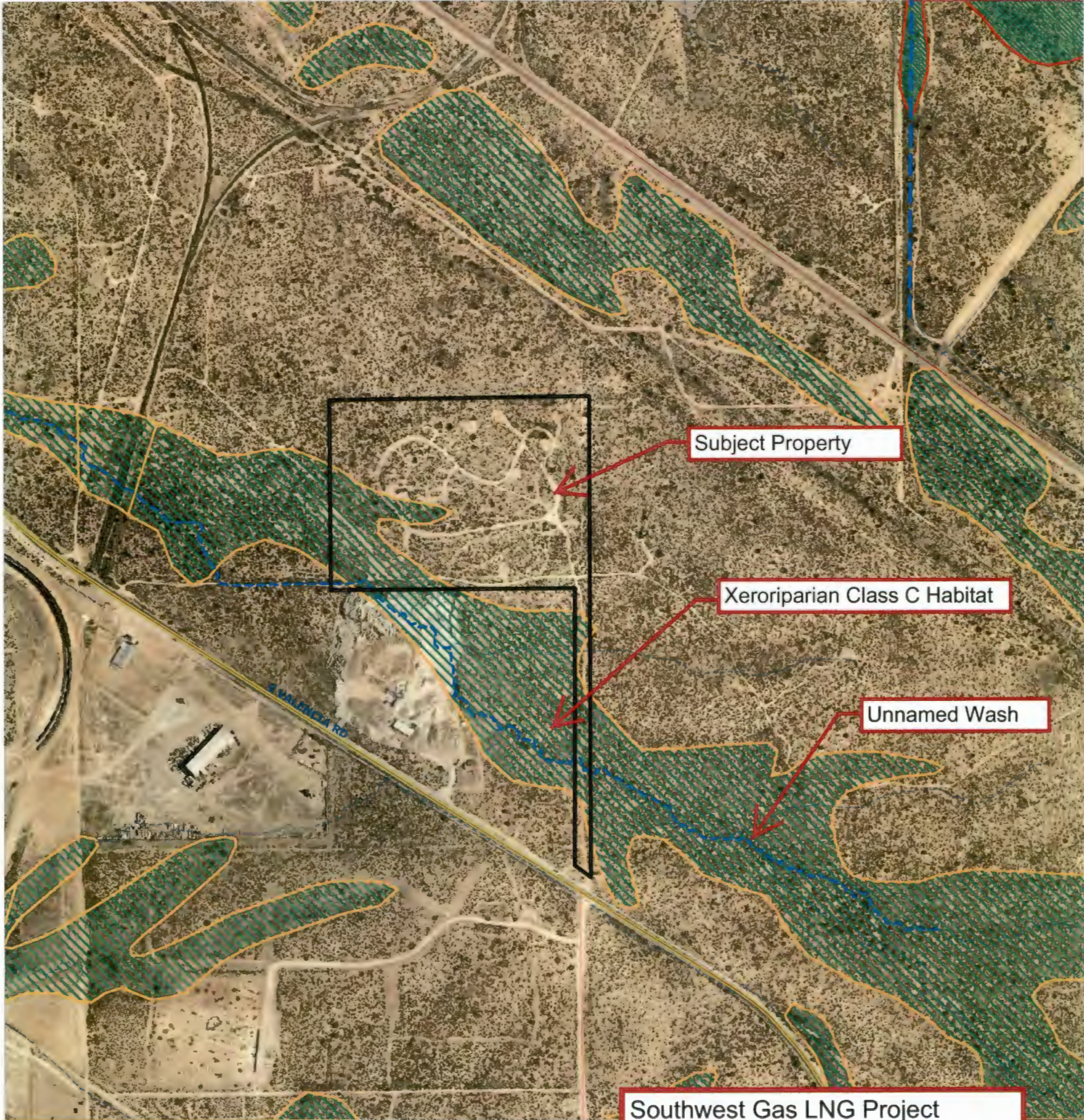
- Exhibit A – Project Location
- Exhibit B – Project Site – Riparian Classification Map
- Exhibit C – Mitigation Banking In-lieu Fee Proposal

Exhibit A



Southwest Gas LNG Project
6650 South Pantano Rd.
BOS Meeting 9.05.17

Exhibit B



Subject Property

Xeroriparian Class C Habitat

Unnamed Wash

Southwest Gas LNG Project
6650 South Pantano Rd.
BOS Meeting 9.05.17

Exhibit C



Riparian Habitat Mitigation Plan For Southwest Gas LNG Project

Site Construction Activity No. P17SC00047

Prepared for:

**Southwest Gas Corporation
PO Box 26500
Tucson, Arizona 85726**

Submitted by:

**Amec Foster Wheeler Environment and Infrastructure
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034**

August 3, 2017

Project No. 14-2015-2038

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1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has provided support to Southwest Gas (SWG) in developing a Riparian Habitat Mitigation Plan (RHMP) for the proposed construction of a liquefied natural gas (LNG) facility (proposed project) by SWG that would disturb native desert vegetation and encroach onto a portion of Pima County Regulated Riparian Habitat (RRH). The proposed project is located on private land and Pima County right-of-way (ROW) at 6650 South Pantano Road, Tucson, Arizona 85747 (**Figure 1**). The site is just outside the City of Tucson limits and within Pima County jurisdiction.

Per Chapter 16.30.050.A of the Pima County Floodplain and Erosion Hazard Management Ordinance No. 2010-FC5, if alteration of over 1/3 acre of RRH cannot reasonably be avoided, an RHMP shall be submitted to Pima County. The RHMP should address how impacts to the RHH would be minimized, rectified, or eliminated over time. This is typically achieved by means of onsite preservation or mitigation; however, when onsite measures are not practical, offsite mitigation may be utilized. Offsite mitigation may be achieved by either:

1. Mitigation involving an offsite parcel owned by the developer.
2. A land transfer
3. Payment of an in-lieu fee for offsite mitigation to Pima County. In this scenario, Pima County would use the payment to fund ongoing riparian preservation efforts.

2.0 PROJECT INFORMATION

2.1 Project Description

SWG is proposing to build a LNG storage facility within the Tucson, Arizona area. The purpose of the storage facility is to have a readily available supply of LNG that can be vaporized and injected into Company's distribution system during supply disruptions or other emergency situations. The facility is initially planned to be operated without gas pre-treatment or liquefaction equipment and will be locally attended and operated.

The primary project site is approximately 31.43 acres on Parcel Number 141-07-019B. In addition, an access route will be developed on the approximately 2.52-acre parcel of existing Pima County ROW south of the site (**Figure 1**). The project would include:

- Construction of a single containment site-fabricated LNG storage tank with a storage capacity of approximately 233,000 thousand cubic feet (MCF) of gas, with all appropriate parking areas, utilities, and fencing.
- Improvement of the primary access route to the site, the Pantano Road alignment, within Pima County ROW.
- Development of a secondary access route to the site on the 36-foot strip of SWG-owned land that forms the western portion of Parcel No. 141-07-019B.

The project site is not located within a Federal Emergency Management Agency designated flood zone. Elevation at the site is approximately 2,835 feet above mean sea level. The primary

developer for the project is SWG and the project manager is Melanie Rice, available at (520) 794-6043 or melanie.rice@swgas.com.

2.2 Regulated Riparian Habitat Description

Amec Foster Wheeler biologists Reed Kraemer and Wanda Bruhns visited the project site, including proposed access roads, on March 30 and 31, 2016. At the time of the site visit, the site was composed of native desert vegetation and areas indicating existing human disturbance (dirt roads, unauthorized camping, etc.). The middle section of the site is bisected by an RHH (Xeroriparian Class C [XC]) as shown on **Figure 1**. Approximately 2.60 acres of RHH are located within the project's construction footprint, 0.24 acre of which is previously disturbed; therefore, approximately **2.36 acres of intact RHH would be disturbed by project activities**, as described in further detail in **Section 4** of this report.

Several plant species were observed within the RHH during the site visit; however the RHH was dominated by small- to medium-sized velvet mesquite (*Prosopis velutina*). Other plants observed in the RHH included yellow paloverde (*Parkinsonia microphylla*), creosote (*Larrea tridentata*), triangle-leaf bursage (*Ambrosia deltoidea*), wolfberry (*Lycium* spp.), lotebush (*Ziziphus obtusifolia*), globemallow (*Sphaeralcea* spp.), fishhook barrel cactus (*Ferocactus wislizeni*), jumping cholla (*Cylindropuntia fulgida*), prickly pear (*Opuntia* spp.), and non-native buffleggrass (*Pennisetum ciliare*). The RRH and surrounding plant communities outside the RRH appeared to be in decent health during the site visit, excluding areas of existing disturbance and the presence of non-native buffleggrass. Photographs of the RHH and surrounding area are included in **Appendix A** of this report.

3.0 AVOIDANCE JUSTIFICATION

SWG has explored the various options available through Pima County for preservation or mitigation of the RHH within the site. Construction of the proposed LNG facility within the available parcel would require a large footprint, which cannot avoid the RHH in its entirety. The limited space of the parcel also makes onsite mitigation relatively impracticable. SWG has therefore determined that the most effective option for RHH compliance would be to preserve existing RHH within the site to the furthest extent practicable, and pay the in-lieu fee for the remaining RHH that would need to be disturbed. To foster this preservation, the footprint of the LNG facility and its associated access roads, pipelines and ground disturbance (i.e. grading) would be kept to the smallest extent practicable. In addition, approximately 30 percent of the site would be set aside as a natural area to comply with Pima County's Native Plant Ordinance (Pima County, Arizona Zoning Code; Chapter 18.72, Native Plant Preservation). This 30 percent set-aside area would prioritize the undisturbed RHH areas within the site. The remaining RHH that is within the construction footprint would be mitigated through payment of the in-lieu fee. This combination would allow much of the RRH within the site to remain intact and promote connectivity for RRH outside of the site.

4.0 IN-LIEU FEE COST ESTIMATE

Pima County has determined a cost per acre for the different classifications of RHH to be utilized for payment of the in-lieu fee (Table 1). As discussed above, the RRH within the project site is entirely XC, which is valued at \$14,000 per acre for compensation. A total of 2.698 acres of RHH would be disturbed by the proposed project. However, this includes 0.239 acre of existing previously disturbed land that should be subtracted from the total because no native vegetation is growing there. As such, a total of **2.36 acres of undisturbed RHH would be disturbed and \$33,040.00 would be the value of in-lieu fee compensation**, as shown in Table 2. Lastly, Table 3 shows the acreages and relative proportions of the site, construction footprint, RHH within the site, RHH to be disturbed, RHH to be preserved, and existing disturbance within the RHH.

Table 1. Flat Fee Table - Cost per Acre for RRH Disturbance

	XA	XB	XC	XD	IRA/H, H	IRA/XA	IRA/XB	IRA/XC	IRA/XD
Cost per Acre Single Lot	\$8,500	\$7,500	\$6,500	\$5,000	\$17,000	\$12,500	\$11,000	\$9,500	\$8,000
Cost per Acre Development Project	\$17,000	\$16,000	\$14,000	\$12,000	\$40,000	\$30,000	\$28,000	\$25,000	\$22,000

XA = Xeroriparian Class A: The most dense Xeroriparian subcategory, XB = Xeroriparian Class B: Moderately dense Xeroriparian subcategory, XC = Xeroriparian Class C: Less Dense Xeroriparian subcategory, XD = Xeroriparian Class D: Less to sparse plant density Xeroriparian subcategory that provides hydrologic connectivity to other riparian habitat areas, IRA = Important Riparian Area, H = Hydroriparian Habitat

Table 2. In-Lieu Fee Cost Estimate

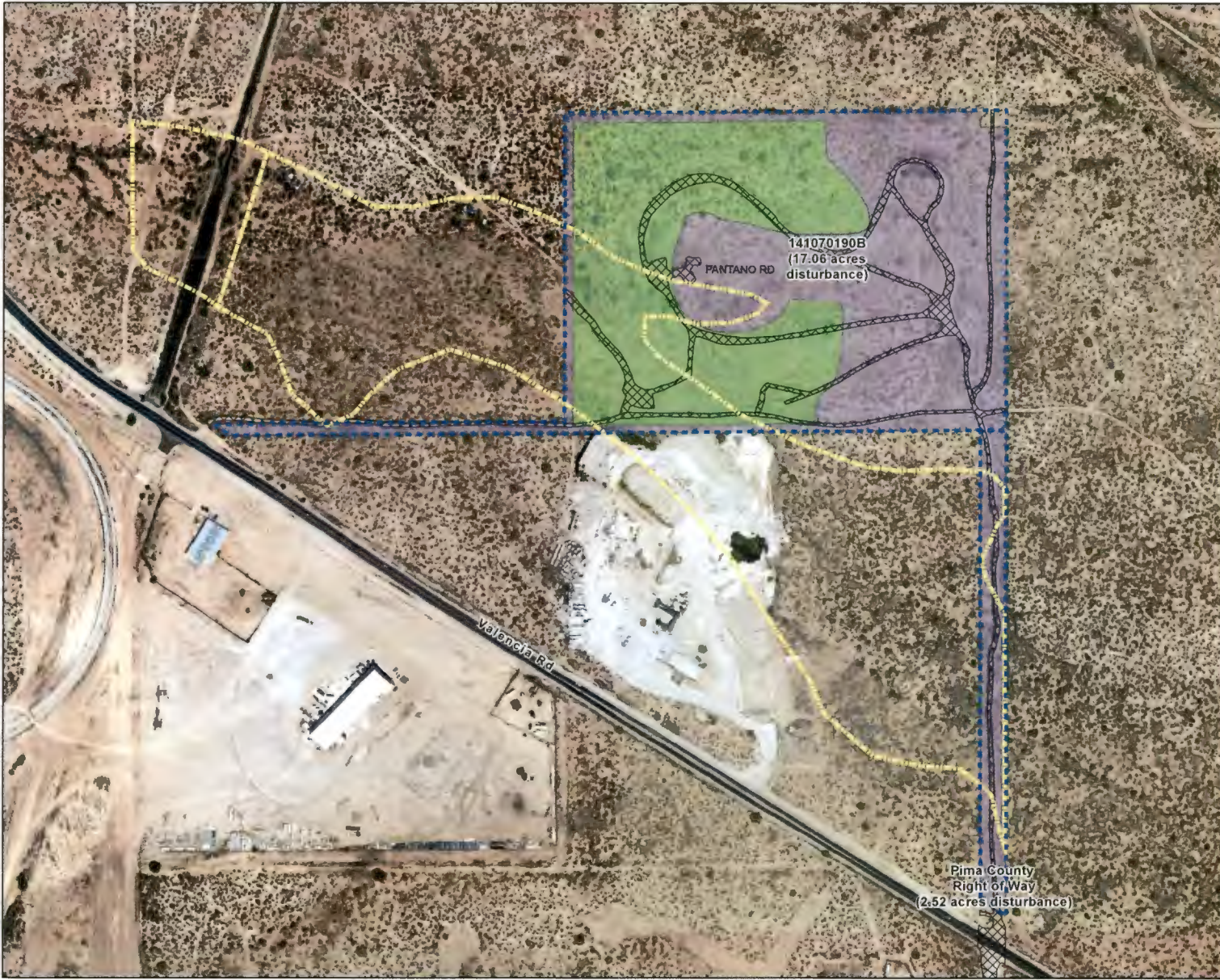
Area	Calculations
Total RRH (XC) disturbed by development	2.60 acres
Existing disturbance within RRH (XC) development area	0.24 acre
Total amount of disturbed RRH (XC)	2.36 acres
Total cost of ILF for disturbed RRH (XC)	2.36 acres x \$14,000 = \$33,040.00

Table 3. Calculations

Area	Acres	% of Site
Project site (including Pima County ROW)	33.95	100.0
Construction footprint	19.58	57.7
RRH (XC) within site	6.44	19.0
RRH (XC) disturbed by development	2.60	7.7
RRH (XC) to be preserved	3.84	11.3
Existing disturbance within RRH (XC)	0.24	0.7



FIGURES



Legend

- Regulated Riparian Habitat
- Parcels
- Existing Disturbance
- Area of Planned Disturbance (19.58 acres)
- Natural Open Space (10.35 acres)



Southwest Gas Corporation
 Southern Arizona Reliability
 (LNG Storage) Project
 Tucson, Arizona

Regulated Riparian Habitat Map

FIGURE 1	Job No.: 14-2016-5000
	PM: RK
	Date: 8/3/2017
	Scale: 1"=300'



This map drawing has been created with all due and reasonable care and is strictly for use with Amec Foster Wheeler Project Number 14-2016-5000. This map has not been verified by a third party surveyor, and any third party use of this map carries without warranties of any kind. Amec Foster Wheeler assumes no liability, direct or indirect, whatsoever for any such third party or subsequent use.



APPENDIX A
PHOTOGRAPHIC LOG



Photograph 1

Existing disturbance from unauthorized camping, in the western portion of the site and within the Regulated Riparian Habitat (RRH). Photo taken facing northeast. Note the un-vegetated swatch of land in the left-hand portion of the photograph. Taken March 31, 2016.



Photograph 2

Example of RRH (Xeroriparian Class C) in the western portion of the site, photo taken facing north. Taken March 31, 2016.



Photograph 3

Example of RRH (Xeroriparian Class C) in the southern portion of the site, facing southwest from the proposed access road. Taken March 31, 2016.



Photograph 4

Detail photograph of general vegetative makeup of RRH within the site. Taken March 31, 2016