



BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: 2/18/2025

*= Mandatory, information must be provided

Click or tap the boxes to enter text. If not applicable, indicate "N/A".

***Title:**

Quarterly Report of Riparian Mitigation Plans Approved by the Regional Flood Control District Chief Engineer

***Introduction/Background:**

Section 16.30.050(B) of the Floodplain Management Ordinance requires:
"The Chief Engineer shall provide a quarterly report to the Board that states the number of Riparian Habitat Mitigation Plans that the Chief Engineer approved during the previous quarter. The quarterly report must include the number of approved plans that used mitigation banking and the number of approved plans that disturbed more than 5% of Important Riparian Area on a property."

***Discussion:**

The attached report describes the District's actions to approve Riparian Habitat Mitigation Plans as well as the District's actions to utilize the In-lieu Fee revenue.

***Conclusion:**

NA

***Recommendation:**

This item is for the Board's information and no vote or discussion is requested.

***Fiscal Impact:**

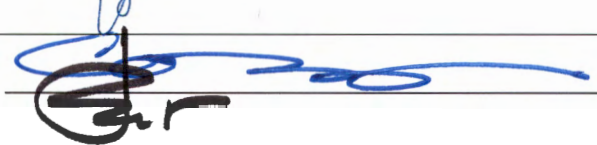
None

***Board of Supervisor District:**

1 2 3 4 5 All

Department: Regional Flood Control District Telephone: 520-724-4600


Contact: Patricia Gilbert Telephone: 520-724-4606

Department Director Signature: _____		Date: 1/22/2025
Deputy County Administrator Signature: _____		Date: 1/27/2025
County Administrator Signature: _____		Date: 1/27/2025

DATE: January 22, 2025

TO: Board of Directors
Regional Flood Control District

FROM: Eric Shepp, P.E.
Director



SUBJECT: Quarterly Report of Riparian Habitat Mitigation Plans Approved by the Pima County Regional Flood Control District Chief Engineer for the Fourth Quarter of 2024

Section 16.30.050(B) of the Floodplain Management Ordinance to requires:

“The chief engineer shall provide a quarterly report to the board that states the number of riparian habitat mitigation plans that the chief engineer approved during the previous quarter. The quarterly report must include the number of approved plans that used mitigation banking and the number of approved plans that disturbed more than 5% of important riparian area on a property.”

I am submitting the following Quarterly Report of riparian mitigation plans approved during the fourth quarter of 2024. Attached are the riparian habitat mitigation plans as Exhibit A - F to the report. This report also includes a summary of the District’s use of in-lieu fees during the quarter.

Mitigation Plans Approved by the Chief Engineer for the Fourth Quarter of 2024

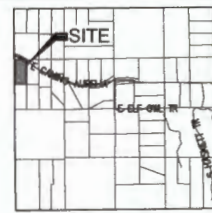
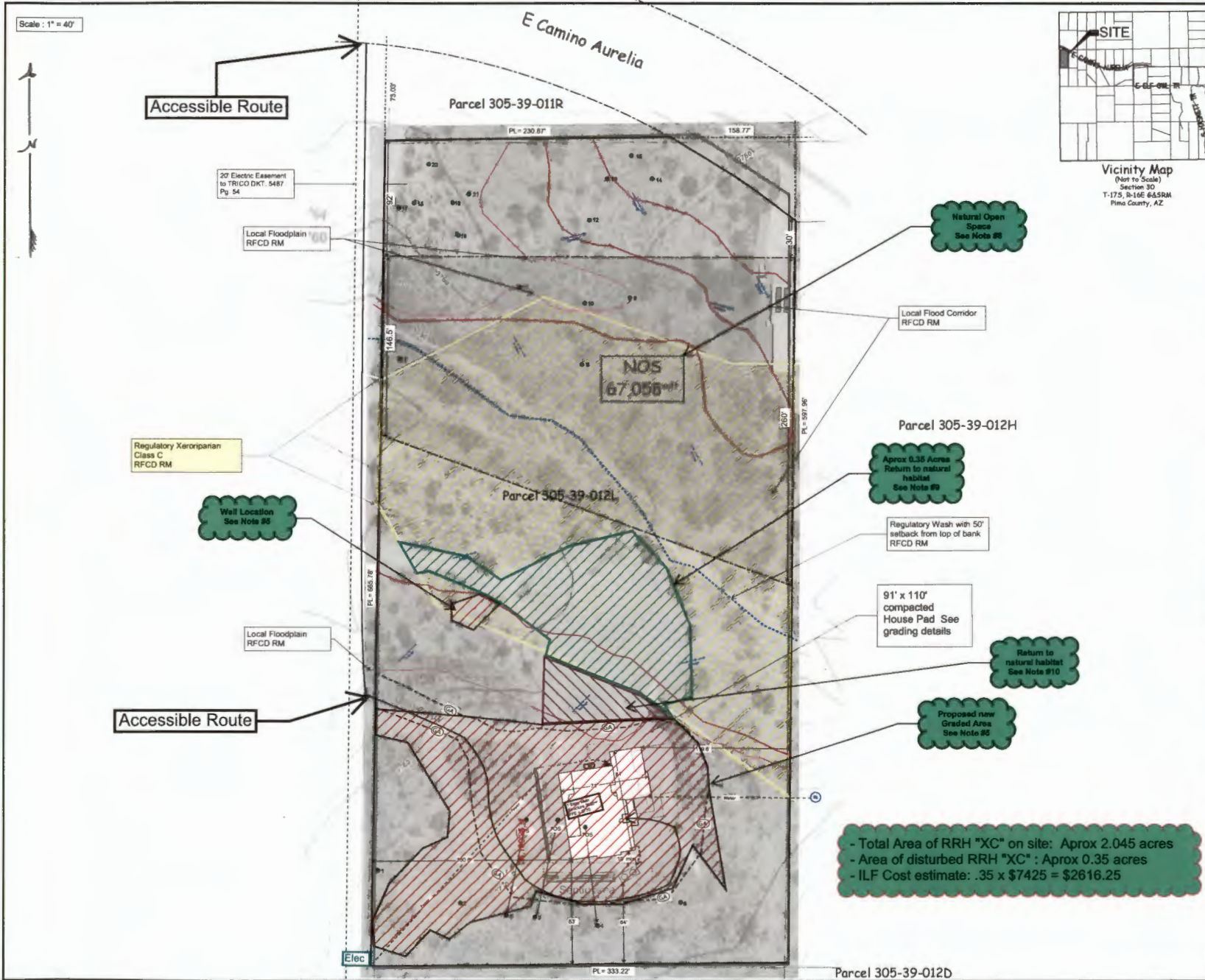
Approval	District	Record	Location	Disturbance (ac)	IRA	On-Site Mitigation	ILF Amount	Exhibit
10/1/2024	4	P24FC00621	11120 E Camino Aurelia	0.35	NO	NO	\$2,616	A
12/2/2024	2	P24SC00151	303-09-002B Blk G/H	0.59	NO	NO	\$8,268	B
12/2/2024	2	P24SC00152	303-09-002B Blk I	2.99	YES	NO	\$74,652	C
12/6/2024	2	P24SC00108	Verano Water Distribution	1.57	YES	NO	\$61,353	D
12/12/2024	4	P24FC00918	12765 E Cabeza de Vaca	0.66	YES	NO	\$12,903	E
12/30/2024	4	P24FC00575	2035 N. Conestoga Ave	3.63	YES	NO	\$13,751	F

Use of In-Lieu Fees During the Fourth Quarter of 2024

During the fourth quarter, the District spent or encumbered approximately \$54,000 on restoration activities primarily on invasive species removal by Tucson Audubon Society, and fencing to secure District open space properties on the Los Robles Wash.

P24FC00621 "Riparian Habitat Mitigation In-Lieu Fee Proposal"
 11120 E. Camino Aurelia
 Parcel 305-39-012L

Exhibit A



Vicinity Map
 (Not to Scale)
 Section 30
 T-17S, R-16E 64SRM
 Pima County, AZ

Tony Lamb
 4849 S. Jovina Tree Dr.
 Tucson Az 85730

Pima County
 Parcel #, 305-39-9012L

Riparian Habitat Mitigation In-Lieu
 Fee Proposal"
 Mountain Sky Building & Design

Grading:
 Lot Size = 218,226sqft
 House pad (compacted):
 91 x 101 = 9191 sqft
 Driveway (Gravel) included in total
 Septic Grading included in total.
 Well Site: Grading = 750 sqft
Total Grading Area: = 36,301 sqft

Graded areas identified from there are not anticipated to be steeper than 3:1 and will be naturally re-vegetated. Slopes steeper than 3:1 but shallower than 2:1 will be stabilized rip-rap over fabric. Slopes 2:1 and steeper shall have grouted rip-rap or retaining walls as appropriate.

- The structure will be set back from all slopes at least the distance equivalent to the the adjacent slope height with a minimum setback of five feet.
- Compacted pad will extend a minimum of 10' out from structure.
- Graded areas identified from the pad out are not anticipated to be steeper than 3:1 and will be naturally re-vegetated using a hydro-seed process.
- In the event that any slope becomes steeper than 3:1 but less than 1.5:1 will be stabilized with a minimum 6' diameter rip-rap.
- Area was graded to allow for well drilling. 750 sqft added to grading total
- Total graded area original estimation of 26,433 sqft has increased to 37,051 sqft
- Septic plan designed by others. Minimum 50' from property line. Minimum 10' from structure.
- Natural Open Space (NOS):**
 NOS area moved 100' to the north
 67,058 sqft / 218,226 sqft
 % NOS = 30.73%
- Aprox .35 Acres RRH Xeroriparian Class C, accidentally disturbed during initial grading. Area will be returned to natural slope and contour as much as possible and area will be hydro-seeded with natural species of grass and allowed to return to a state of natural vegetation.
- Area graded in error. Area will be returned to natural grade and contour. The area will be hydro-seeded with natural species of grass and allowed to return to a state of natural vegetation.

- Total Area of RRH "XC" on site: Aprox 2.045 acres
 - Area of disturbed RRH "XC" : Aprox 0.35 acres
 - ILF Cost estimate: .35 x \$7425 = \$2616.25

PROJECT# P24FC00621 11120 Camino Aurelia Vail AZ 85730 Pima County Parcel #, 305-39-012L.
Legal Description N80S 78' W333.22' SW44 NW4 5.01 AC SEC 30-17-16
DRAWING NUMBER: 22-09-ILF 3 Brown Dog Drawings Rich Donner 757 619-7341

Exhibit B

VERANO RIPARIAN IN-LIEU FEE PLAN

Field work performed by Novak Environmental, Inc. found that plant densities in the Regulated Riparian Areas are similar to Pima County's "standard plant densities for each classification of Regulated Riparian Habitat (RRH) The Master Developer intends to use the "In-Lieu" Fee option to mitigate impacts to RRH based on Pima County's published rates for Developer In-Lieu Fees.

In-Lieu Fee amounts shown here are estimates only. Final In-Lieu Fees will be determined at the time of Tentative Plot for each parcel based on grading limits and paid prior to the issuance of a Site Construction Permits for each phase. The final disturbance area may vary. The In-Lieu fee will be calculated at the rate shown in the plan.



Area #	Class	SF	Acres
P1	C	80306.0	2.32
P2	B	141242.0	3.25
P3	D	442238.0	10.15
P4	B	280824.0	6.45
P5	C	429291.0	9.85
P6	C	120272.0	2.89
P7	IRA-C	1410558.0	32.52
P8	C	148275.0	3.40
P9	B	144151.0	3.29
P10	B	272386.0	6.25
P11	D	52254.0	1.27
P12	B	34406.0	0.79
TOTAL			72.77

Class	MAPPED		PRESERVED		IMPACTED	
	Acres	Acres	Acres	Acres	Acres	Acres
Xeroriparian IRA-C	141898	37.03	141056	32.52	135488.00	4.49
Xeroriparian B	479206	10.99	802950	18.43	679206.00	1.56
Xeroriparian C	1020945	23.43	453471	10.43	388474.00	0.89
Xeroriparian D	1480151	34.21	472945	11.42	692951.00	1.59
TOTAL	3146.1	72.77	TOTAL	72.77	TOTAL	41.84



- PRESERVED XERORIPARIAN HABITAT**
- XERORIPARIAN - CLASS B
 - XERORIPARIAN - CLASS IRA-C
 - XERORIPARIAN - CLASS C
 - XERORIPARIAN - CLASS D

- DISTURBED XERORIPARIAN HABITAT**
- DISTURBED XERORIPARIAN CLASS-B
 - DISTURBED XERORIPARIAN CLASS IRA-C
 - DISTURBED XERORIPARIAN CLASS C
 - DISTURBED XERORIPARIAN CLASS D

- PRESERVED UPLAND NATURAL OPEN SPACE**
-

Estimated Mitigation In-Lieu Fee (Cost per Parcel)

Area #	CLASS	SF	Acres	Fee/Acre	In-Lieu Fee	PER PARCEL	PARCEL
A1	D	1197	0.09	\$12,000	\$320.75		
A2	B	8812	0.20	\$16,000	\$3,053.00		
A3	C	13111	0.30	\$14,000	\$3,044.14	\$4,407	A
B1	C	79678	1.83	\$14,000	\$9,513.34	\$9,513	B
C1	D	480451	11.09	\$12,000	\$132,905.85		
C2	C	88024	2.02	\$14,000	\$28,292.54	\$381,661	C
D1	B	5681	0.13	\$14,000	\$2,068.00	\$2,067	D
E1	C	101886	2.32	\$14,000	\$3,267.31	\$3,267	E
F1	C	305086	6.93	\$14,000	\$98,859.96	\$98,860	F
G/H1	C	25725	0.59	\$14,000	\$8,267.91	\$8,268	G/H
I1	IRA-C	130074	2.99	\$25,000	\$74,652.38	\$74,653	I
J	No Impact						
K	No Impact						
L1	B	8802	0.20	\$16,000	\$3,231.06		
L2	D	37247	0.83	\$12,000	\$7,506.06	\$18,789	L
M1	IRA-C	64624	1.50	\$25,000	\$37,548.31	\$37,549	M
N	No Impact						
O1	C	25248	0.58	\$14,000	\$8,114.60	\$8,115	O
P1	C	72388	1.65	\$14,000	\$23,194.49		
P2	D	118234	2.71	\$12,000	\$32,543.05	\$32,543	P
Q1	D	86242	1.97	\$12,000	\$98,889.87		
Q2	B	15820	0.36	\$16,000	\$5,730.05	\$185,638	Q
R1	C	9195	0.21	\$14,000	\$2,955.23		
R2	B	20227	0.46	\$16,000	\$7,429.57	\$18,985	R
S1	B	8598	0.19	\$16,000	\$3,241.58		
S2	D	38229	0.87	\$12,000	\$984.44		
S3	B	5886	0.13	\$16,000	\$2,088.52	\$4,945	S
U1	C	1347	0.09	\$14,000	\$432.92	\$489	U
TOTAL ACRES 41.84				TOTAL COST	\$592,668		

Class	Acres	\$ per Acre	Total Fee by Class
Xeroriparian IRA-C*	4.49	\$25,000	\$112,300
Xeroriparian B	1.56	\$14,000	\$21,840
Xeroriparian C	11.09	\$14,000	\$155,260
Xeroriparian D	22.79	\$12,000	\$273,468
TOTAL ACRES 41.84	TOTAL FEE		\$592,668

ADDRESS: Southwest of the Intersection of S. Swan Rd. & E. Singing Cactus Ln

Novak Environmental, Inc.
4574 North First Avenue #100 • Tucson, AZ 85718
Phone 520.358.0091 Fax 520.882.3006

Landscaping Architecture • Natural Resources • Planning • Mitigation

VERANO HABITAT CONSERVATION PLAN
RIPARIAN MITIGATION PLAN

TOWNSHIP 10S, RANGE 14E, SECTION 10, TUCSON SW, PIMA COUNTY, ARIZONA

NO.	REVISION	DATE	REVISIONS:	DATE:	DRAWN:	CHECKED:	SHEET
1	BUY OWNERS PER 1-21-23 PIMA COUNTY WEIRING AND PERMITS	1-21-23			RA	RA	HCP-2
2	CONFORMANCE TO 2023 PERMITS	1-20-23					
3	RECALCULATE PERMITS AND RECALCULATE PERMITS TO NORTHERN HALF OF THE SITE PLAN	1-19-24					

FEB. 27, 2024

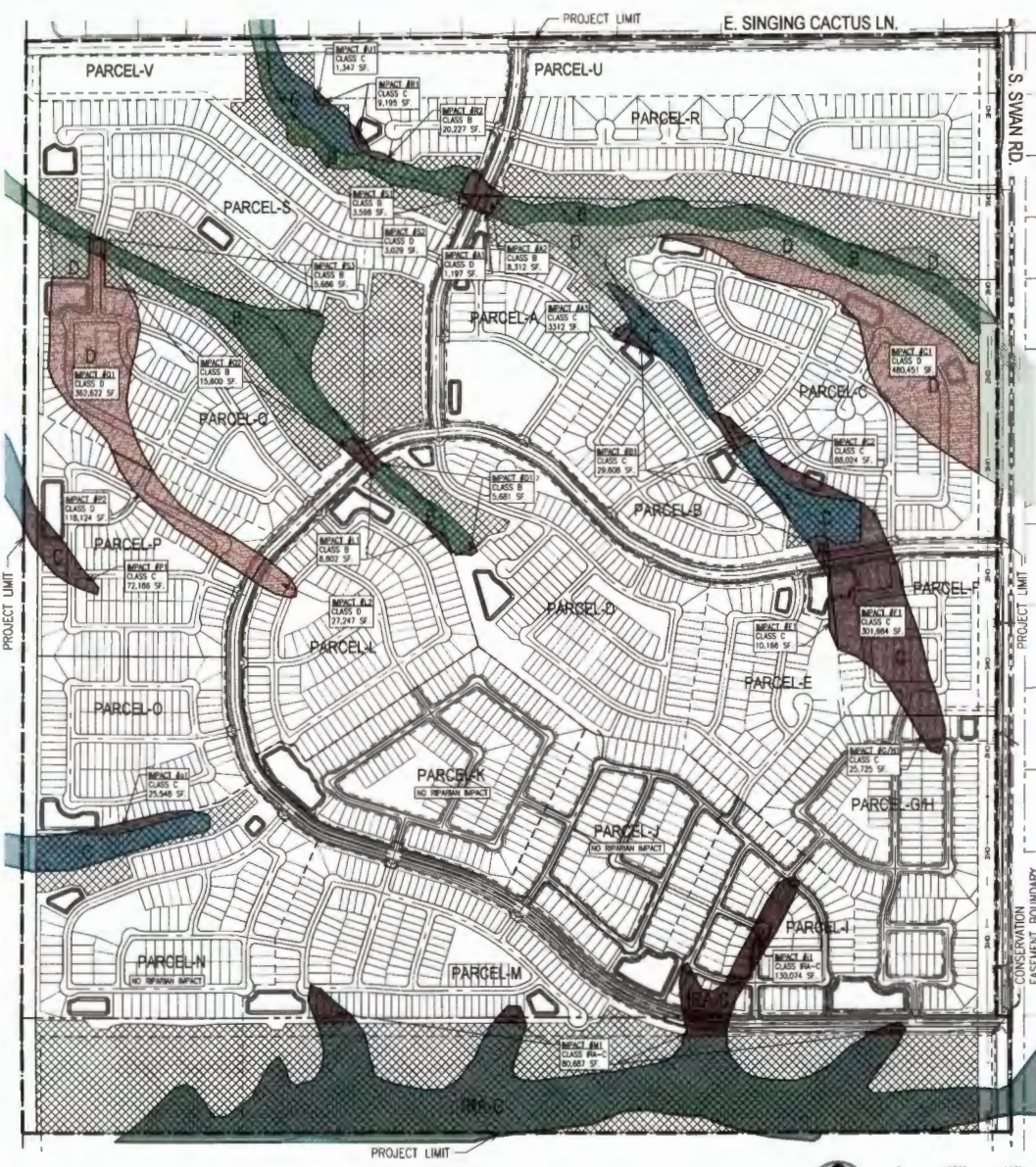
PROJECT NO.: 24018

SCALE: SEE PLAN

2 of 2

DATE: 02/27/2024 10:45 AM. DRAWN BY: J. HARRIS. CHECKED BY: J. HARRIS. PROJECT NO.: 24018. SHEET NO.: HCP-2 OF 2. SCALE: 1"=300'. TYPICAL LOT AREA: 10,000 SF. TOTAL LOT AREA: 418,400 SF. TOTAL IMPACT AREA: 1,100,000 SF. TOTAL PRESERVED AREA: 1,100,000 SF. TOTAL DISTURBED AREA: 1,100,000 SF. TOTAL OPEN SPACE: 1,100,000 SF. TOTAL RIPARIAN AREA: 1,100,000 SF. TOTAL UPLAND NATURAL OPEN SPACE: 1,100,000 SF.

Exhibit C



VERANO RIPARIAN IN-LIEU FEE PLAN

Field work performed by Novak Environmental, Inc. found that plant densities in the Regulated Riparian Areas are similar to Pima County's "standard" plant densities for each classification of Regulated Riparian Habitat (RRH). The Master Developer intends to use the "In-Lieu" Fee option to mitigate impacts to RRH based on Pima County's published rates for Developer In-Lieu Fees.

In-Lieu Fee amounts shown here are estimates only. Final In-Lieu Fees will be determined at the time of Tentative Plat for each parcel based on grading limits and paid prior to the issuance of a Site Construction Permits for each phase. The final disturbance area may vary. The In-Lieu Fee will be calculated at the rate shown in the plan.

Area #	Class	SF	Acres
P1	C	101080.0	2.32
P2	B	241542.0	5.55
P3	D	462218.0	10.55
P4	B	288824.0	6.60
P5	C	429151.0	9.80
P6	C	125272.0	2.88
P7	IRA-C	248958.0	5.72
P8	C	348975.0	8.00
P9	B	84451.0	1.93
P10	B	272386.0	6.25
P11	D	52294.0	1.27
P12	B	34406.0	0.79
TOTAL			72.77

Area	MAAPPED		PRESERVED		IMPACTED	
	SF	Acres	SF	Acres	SF	Acres
Xeroriparian IRA-C	1421980	32.03	1416300	32.52	135488.00	4.49
Xeroriparian B	870561	19.89	802880	18.43	67906.00	1.55
Xeroriparian C	1010940	23.41	433471	9.93	586214.00	13.50
Xeroriparian D	1488111	34.21	677461	15.42	810630.00	23.79
TOTAL	3146.1	72.77	2937.64	66.88	1537.34	4.49

Estimated Mitigation In-Lieu Fee (Cost per Parcel)

Area #	CLASS	SF	Acres	Fee/Acre	In-Lieu Fee	IN-LIEU FEE	
						PER PARCEL	PARCEL
A1	D	11887	0.27	\$12,000	\$329.75		
A2	B	8317	0.19	\$16,000	\$3,024.00		
A3	C	17111	0.39	\$14,000	\$5,084.14	\$4,407.00	
B1	C	29806	0.68	\$14,000	\$9,515.34	\$8,813.00	
C1	D	48045	1.10	\$12,000	\$132,855.40		
C2	C	88824	2.02	\$14,000	\$26,292.54	\$26,848.00	
D1	B	5681	0.13	\$16,000	\$2,088.68	\$1,891.00	
E1	C	10186	0.23	\$14,000	\$5,267.31	\$3,267.00	
F1	C	30184	0.69	\$14,000	\$96,928.96	\$86,880.00	
G/H/I	D	25775	0.59	\$14,000	\$8,287.91	\$8,288.00	
J	IRA-C	148284	3.40	\$25,000	\$74,682.00	\$74,682.00	
K	No Impact						
L1	B	8802	0.20	\$16,000	\$1,328.00		
L2	D	27247	0.63	\$12,000	\$7,506.00	\$28,739.00	
M1	IRA-C	66424	1.50	\$25,000	\$17,548.21	\$87,648.00	
N	No Impact						
o1	C	25348	0.58	\$14,000	\$8,114.60	\$8,113.00	
P1	C	72169	1.65	\$14,000	\$23,194.49		
P2	D	118824	2.71	\$12,000	\$14,261.06	\$8,736.00	
Q1	D	162822	3.72	\$12,000	\$99,885.87		
Q2	B	15000	0.34	\$16,000	\$5,780.00	\$35,636.00	
R1	C	8950	0.21	\$14,000	\$2,950.23		
R2	C	35277	0.80	\$16,000	\$7,429.57	\$10,885.00	
S1	B	8588	0.20	\$16,000	\$1,321.68		
S2	D	8239	0.19	\$12,000	\$824.44		
S3	B	9886	0.23	\$16,000	\$1,088.52	\$4,245.00	
U1	C	1347	0.03	\$14,000	\$432.93	\$429.00	
TOTAL ACRES		41.84		TOTAL COST	\$592,668		

- LEGEND**
- PROPOSED ROADS
 - LOT LINES
 - PROPERTY LIMIT
 - PARCEL LINE

- PRESERVED XERORIPARIAN HABITAT**
- XERORIPARIAN - CLASS B
 - XERORIPARIAN - CLASS IRA-C
 - XERORIPARIAN - CLASS C
 - XERORIPARIAN - CLASS D

- DISTURBED XERORIPARIAN HABITAT**
- DISTURBED XERORIPARIAN CLASS-B
 - DISTURBED XERORIPARIAN CLASS IRA-C
 - DISTURBED XERORIPARIAN CLASS C
 - DISTURBED XERORIPARIAN CLASS D

- PRESERVED UPLAND NATURAL OPEN SPACE**
-

Class	Acres	\$ per Acre	Total Fee by Class
Xeroriparian IRA-C	4.49	\$25,000	\$112,250.00
Xeroriparian B	1.56	\$16,000	\$24,960.00
Xeroriparian C	13.00	\$14,000	\$182,000.00
Xeroriparian D	22.79	\$12,000	\$273,460.00
TOTAL ACRES	41.84	TOTAL FEE	\$592,668

ADDRESS: Southwest of the Intersection of S. Swan Rd. & E. Singing Cactus Ln



Novak Environmental, Inc.
 4574 North First Avenue #100 • Tucson, AZ 85718
 Phone 520.288.0591 Fax 520.882.3000

Landscaping Architects • Natural Resources • Planning • Mitigation

VERANO HABITAT CONSERVATION PLAN RIPARIAN MITIGATION PLAN

NO	REVISION	DATE	DESCRIPTION	DRAWN	CHECKED	SCALE	SHEET
1	REVISED PER 1-10-23 PIMA COUNTY RESOLUTION AND JUDICIAL ORDER	01-10-23		RA	RA	KC	HCP-2
2	REVISED PER 1-10-23 PIMA COUNTY RESOLUTION AND JUDICIAL ORDER	01-10-23		RA	RA	SCALE	2 of 2
3	REVISED PER 1-10-23 PIMA COUNTY RESOLUTION AND JUDICIAL ORDER	01-10-23		RA	RA	SCALE	2 of 2

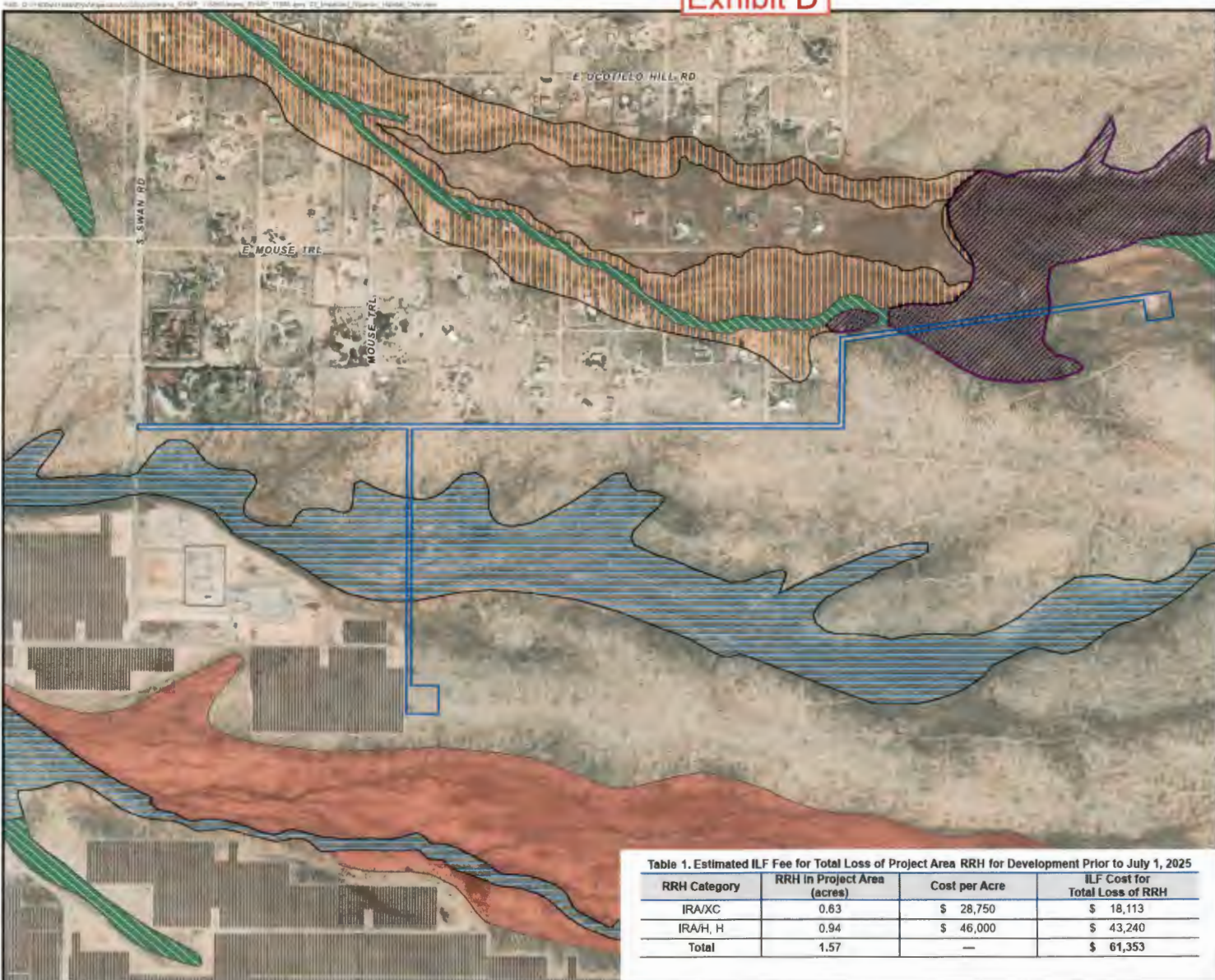
TOWNSHIP 11S, RANGE 14E, SECTION 10, TUCSON SHE. PIMA COUNTY, ARIZONA

FEB. 27, 2024

24018 SEE PLAN

DATE OF DRAWING: 02/27/2024. THE DRAWING IS A PRELIMINARY DESIGN AND SHOULD NOT BE USED FOR CONSTRUCTION. THE DRAWING IS THE PROPERTY OF NOVAK ENVIRONMENTAL, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION OF NOVAK ENVIRONMENTAL, INC. THIS DRAWING IS NOT TO BE USED FOR ANY OTHER PROJECT.

Exhibit D

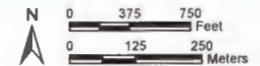


T16S, R14E, Portions of Sections 11-15,
Pima County, Arizona
Projection: NAD 1983 UTM Zone 12N
Riparian Classification: Pima County 2015
Image Source: Maxar 2/9/2024

11500 S. Wilmot Rd. Tucson, AZ
Pima County Assessor's Parcel Numbers:
30309003D, 30309003E, 30309003B
Project Owner: Global Water Resources, Inc.

- Legend**
- Project Area
 - Riparian Classification**
 - Xeroriparian C
 - Xeroriparian D
 - Class H habitat
 - Important Riparian Area Xeroriparian C
 - Important Riparian Area Xeroriparian D

The location of the utilities within the easement leaves no opportunity to preserve or mitigate the RRH within the Project Area.



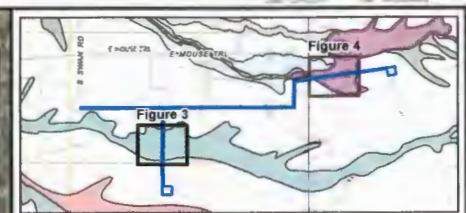
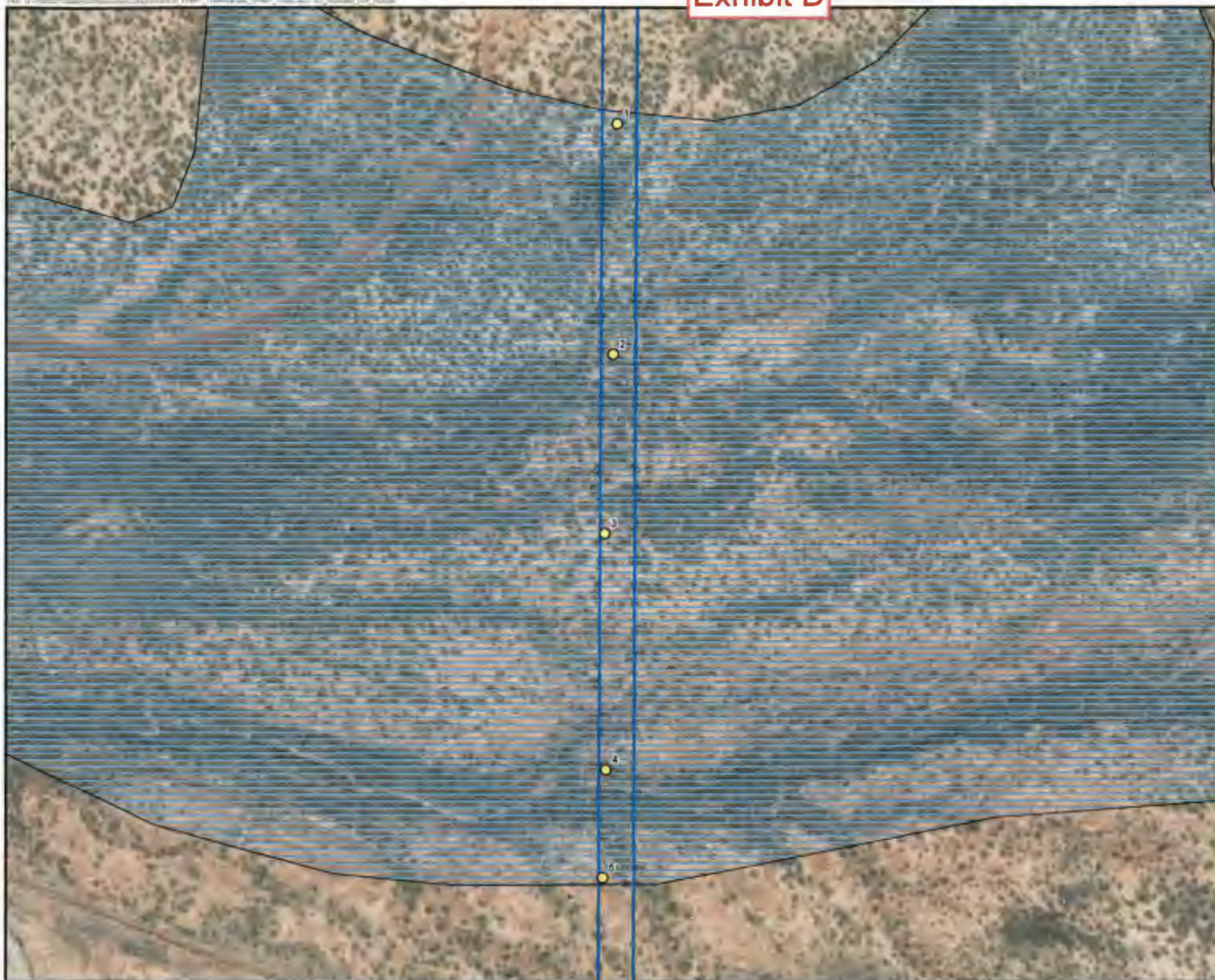
WestLand Engineering & Environmental Services

VERANO LOWER ZONE
TRANSMISSION MAIN
Riparian Habitat Mitigation
In-Lieu Fee Proposal
Pima County P24SC00108 and
P24SC00109
IMPACTED RIPARIAN HABITAT OVERVIEW
Figure 2

Table 1. Estimated ILF Fee for Total Loss of Project Area RRH for Development Prior to July 1, 2025

RRH Category	RRH in Project Area (acres)	Cost per Acre	ILF Cost for Total Loss of RRH
IRA/XC	0.63	\$ 28,750	\$ 18,113
IRA/H, H	0.94	\$ 46,000	\$ 43,240
Total	1.57	—	\$ 61,353

Exhibit D



T19S, R14E, a Portion of Section 14,
 Pima County, Arizona
 Tucson SE and Tucson SW
 USGS 7.5' Quadrangles (2021)
 Projection: NAD 1983 UTM Zone 12N
 Riparian Classification: Pima County 2015
 Image Source: Maxar 2/9/2024

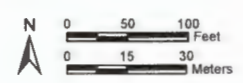
- Legend**
- Photo Point
 - ▬ Project Area
 - Riparian Classification
 - ▬ Important Riparian Area
 - ▬ Xeroriparian C

Important Riparian Area (IRA) Class C (Xeroriparian C) Habitat

Total RRH in Project Area:
 IRA Class C = 0.63 acres

Area of Disturbed RRH:
 IRA Class C = 0.63 acres

Percent of Total Mapped RRH Disturbed:
 IRA Class C = 100 percent



**VERANO LOWER ZONE
 TRANSMISSION MAIN
 Riparian Habitat Mitigation
 In-Lieu Fee Proposal
 Pima County P24SC00108 and
 P24SC00109**

**IMPACTED IRA CLASS C HABITAT
 Figure 3**

Exhibit D



Photo 1. Representative photo of IRA with underlying Xeroriparian C Regulated Riparian Habitat, northern portion of the habitat.



Photo 3. Representative photo of IRA with underlying Xeroriparian C Regulated Riparian Habitat, central portion of the habitat.



Photo 2. Representative photo of IRA with underlying Xeroriparian C Regulated Riparian Habitat, north central portion of the habitat.



Photo 4. Representative photo of IRA with underlying Xeroriparian C Regulated Riparian Habitat, south central portion of the habitat.

Exhibit D



Photo 5. Representative photo of Class H (Hydro/Mesoriparian) Regulated Riparian Habitat, western portion of the habitat.



Photo 7. Representative photo of Class H (Hydro/Mesoriparian) Regulated Riparian Habitat, east central portion of the habitat.

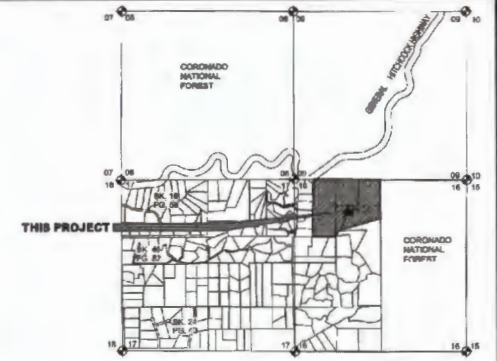
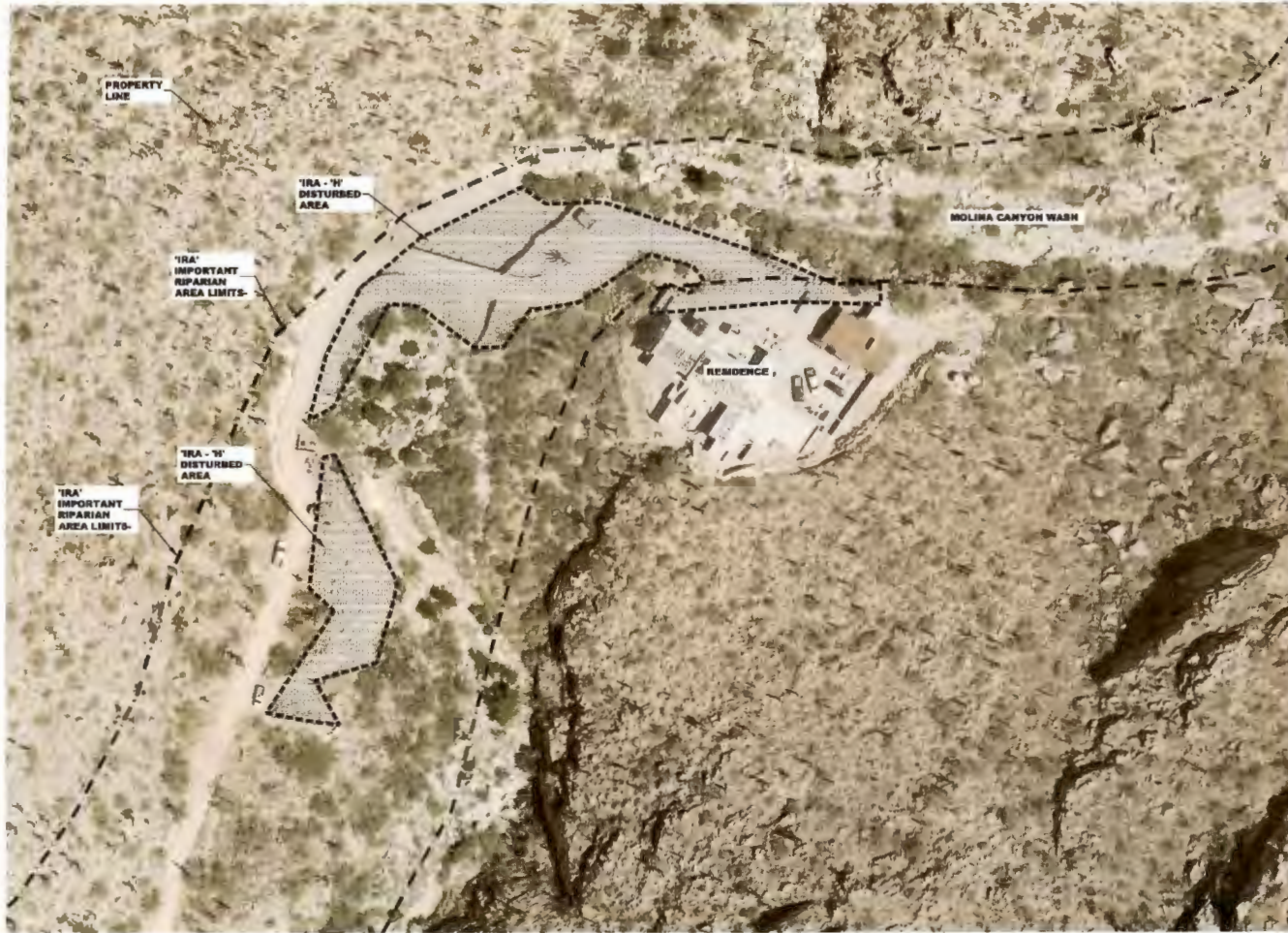


Photo 6. Representative photo of Class H (Hydro/Mesoriparian) Regulated Riparian Habitat, west central portion of the habitat.



Photo 8. Representative photo of Class H (Hydro/Mesoriparian) Regulated Riparian Habitat, eastern portion of the habitat.

Exhibit E



LOCATION MAP
SECTION 18 TOWNSHIP 13 SOUTH RANGE 16 EAST
GILA & SALT RIVER MERIDIAN
PIMA COUNTY, ARIZONA
2 1/4 MILE

NOTES
2024 AERIAL PHOTO FROM PIMA MAPS - ORTHOPHOTO IMAGERY
TOTAL AREA OF EXISTING REGULATED RIPARIAN HABITAT DISTURBED
IRA - XERORIPARIAN 'N' = 0.86 ACRES
DRIVEWAY DISTURBED PRIOR TO THE RIPARIAN ORDINANCE

JUSTIFICATION FOR DISTURBANCE TO REGULATED RIPARIAN HABITAT
THE REGULATED RIPARIAN HABITAT HAS BEEN DISTURBED DURING CONSTRUCTION FOR THE CONSTRUCTION OF THE HOME.

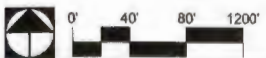
CALCULATION FOR THE PROPOSAL
TOTAL AREA OF EXISTING REGULATED RIPARIAN HABITAT DISTURBED
IRA - XERORIPARIAN 'N' = 0.86 ACRES
TOTAL AREA OF EXISTING REGULATED RIPARIAN HABITAT TO BE MITIGATED FOR AS AN IN-LIEU FEE.
IRA - XERORIPARIAN 'N' = 0.86 ACRES x (\$19,950) = \$17,200
IN-LIEU FEE CALCULATION PER THE FLAT FEE TABLE OPTION FOR A DEVELOPMENT PROJECT. = \$12,900

OWNER / DEVELOPER
MOLINA CANYON PARTNERSHIP
570 8TH AVE
ALTOONA PA 16602
ATTENTION: LOU SHEETZ

LANDSCAPE ARCHITECT
THE WLB GROUP, INC.
4444 E. BROADWAY BLVD.
TUCSON, AZ 85711
PHONE: (520) 881-7480
ATTENTION: GARY GRIZZLE
GGRIZZLE@WLB.GRUP.COM

DISTURBED REGULATED RIPARIAN HABITAT
IRA - CLASS 'N'
AS TAKEN FROM NRH DISTURBANCE EXHIBIT FROM IRENE CASTILLO (11-13-2024)

**REGULATED RIPARIAN HABITAT
RIPARIAN HABITAT MITIGATION IN-LIEU FEE PROPOSAL
MOLINA CANYON
12785 E. CABEZA DE VACA
PARCEL # 20529001J**
LOCATED IN SECTION 18 TOWNSHIP 13 SOUTH, RANGE 16 EAST
GILA & SALT RIVER MERIDIAN
PIMA COUNTY, ARIZONA



The WLB Group **WLB**
Engineering Planning Surveying
Landscape Architecture Urban Design
Office located in Tucson, Pima and
Pinal Counties and San Diego, California
4444 E. BROADWAY BLVD
TUCSON, ARIZONA 85711
(520) 881-7480

MOLINA CANYON - 20529001J
12785 E. CABEZA DE VACA
PIMA COUNTY, ARIZONA 85749

Sheet No. **REGULATED RIPARIAN HABITAT
RIPARIAN HABITAT MITIGATION IN-LIEU FEE PROPOSAL**






Date	11/13/2024	Scale	1" = 40'
Job No.	1900234001	Job Title	REGULATED RIPARIAN HABITAT MITIGATION IN-LIEU FEE PROPOSAL
Issue	NOVEMBER 2024	Drawn by	CG
Checked by	CG	Reviewed by	CG



Sheet	1
Total	1

Exhibit F

RIPARIAN LEGEND

-  Gross Site Area
-  Xeroriparian Class "H" and IRA-H (Entire Site)
-  Pre-Ordinance Disturbance Within the Property Line



RIPARIAN NOTES

1. Zoning = GR
2. Gross Site Area = 782,518 sf (17.86 acres)
3. Land Use = Residential
4. Area Calculations:
 - a. Gross Site Area = 782,518 sf (17.86 acres)
 - b. Total Xeroriparian Class "H" and IRA-H on Site = Entire Site 782,518 sf (17.86 acres)
 - c. Pre-Ordinance Disturbance Within the Property = 340,402 sf (7.81 acres)
 - d. Previously Accepted Regrowth Area = 70,238 sf (1.61 acres)
 - e. New Disturbance to be Mitigated = 150,487 sf (3.45 acres)
5. Mitigation will be per in-lieu fees.

RIPARIAN METHODOLOGY

Calculation of Ground Plain Disturbance
 1. This property contained disturbance prior to the Riparian Ordinance. This disturbance has been mapped on a 2005 Aerial and included on the plan. The total Pre-Ordinance Disturbance, located within the limits of this project, is 340,402 sf.
 2. Total Current Disturbance (Pre-Ordinance Disturbance plus New Disturbance) has been measured to be 490,898 sf.
 3. New Disturbance requiring mitigation is Current Disturbance minus Pre-Ordinance Disturbance for a total of 150,487 sf of disturbance.
 4. The southwest portion of the site has regrown and is considered a regrowth area. Therefore, this area was removed from the calculation of New Disturbance.
 5. Special note: The property lines shown on the Pima Maps Aerials are not in alignment with the on-site indicators and survey stakes of property line locations. The boundaries have been modified to show the actual property lines evident on site.

Tree Disturbance
 1. Tree disturbance is difficult to calculate due to seasonal variations and photographic variations in the available aerial photos. To overcome this issue, we relied on the 2005 Pima County Aerial, the 2022 Pima County Aerial and the 1-28-2024 Near Maps Aerial.
 2. A 30' grid was placed over each of the aerials and evaluated for changes in tree population.
 3. Net changes in tree population per square were recorded and are presented on Sheets 3 and 4. These changes were evaluated between the 2005 and 2022 aerials, then evaluated between the 2022 and 2024 aerials. The changes were recorded within each grid square.
 4. Total tree changes, based on the grid analysis indicate a total of 51 trees were removed.

Shrub Disturbance
 1. An evaluation of nearby undisturbed areas displaying similar aerial coloration and density shows that shrubs are not a part of this ecosystem. Most likely, the shrubs do not have sufficient sunlight to grow under the dense coverage of the mesquite bosque.
 2. No shrubs were impacted by the disturbance.

Mitigation
 1. The Owner elects to provide mitigation by the In Lieu Fee Methodology.
 2. A calculation of the In Lieu Fee is provided on Sheet 1.

**2005 PIMA COUNTY AERIAL
(with Adjusted Property Line)**

RIPARIAN IN LIEU FEE NOTES

- This site contains Class H and IRA Class H Riparian Habitat.
1. **Total Ground Plain Disturbance**
 In accordance with Pima County Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines, Mitigation of ground plain within Class H and IRA Class H equals:
 Disturbed Acreage x 1.5 x 0.7
 For this property, 150,487 sf x 1.5 x 0.7 = 158,021 sf (3.63 acres)
 3.63 acres x \$1018 per acre = \$3695.34
 The cost of seeding is per Ordinance 2023-FC1 and is fixed at \$1018.00 per acre.
 2. **Tree Disturbance**
 In accordance with Pima County Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines, Mitigation of ground plain within Class H and IRA Class H equals:
 Total Trees Disturbed x 1.5 = 77 Trees
 77 Trees x \$97.50 per tree = \$7507.50
 3. **Maintenance for 5 years:**
 Maintenance costs calculated at a 5 year cost of \$702.00 per acre x 3.63 acres.
 The 5 year cost of maintenance is per Ordinance 2023-FC1 and is fixed at \$702.00 per acre.
 4. **Water Cost:**
 Because the property is on a well, water costs were calculated at \$0.00 per year = \$0.00
- Total In Lieu Fee = \$13751.10

Scale: 1" = 75'



35974 S. Desert Sun Drive
 Tucson, AZ 85739
 (520) 909-4678
 greg@grslandscapesearchitects.com

Date: 12/9/24
 Drawn by: LMW
 Checked by: GRS

Design Review
 Construction Documents
 Agency Submittal
 Conservation Dist
 Not for Construction

2035 N CONESTOGA AVE
 2035 N. Conestoga Ave., Tucson, AZ
 G&SRM, Pima County, AZ

RIPARIAN HABITAT MITIGATION PLAN

P ___ R-1 1-4

Exhibit F



2022 PIMA COUNTY AERIAL
(with Adjusted Property Line)

RIPARIAN LEGEND

	Gross Site Area
	Xeroriparian Class "F" and RA-H (Entire Site)
	Pre-Ordinance Disturbance Within the Property Line
	Previously Accepted Regrowth Area
	New Disturbance to be Mitigated

Photo Locations of Regrowth Area

Scale: 1" = 75'



35974 S. Desert Sun Drive
Tucson, AZ 85739
(520) 908-4678
greg@grslandscapearchitects.com

Date: 12/9/24
 Design Review: Design Review
 Construction Documents: Construction Documents
 Drawn by: LMW
 Agency Submitted: Agency Submitted
 Construction Set: Construction Set
 Checked by: GRS
 Not for Construction: Not for Construction



PHOTO #1



PHOTO #2

2035 N CONESTOGA AVE
 2035 N. Conestoga Ave., Tucson, AZ
 G&SRM, Pima County, AZ

RIPARIAN HABITAT MITIGATION PLAN

P ____ R-2 2 of 4

Exhibit F




2005 PIMA COUNTY AERIAL



2022 PIMA COUNTY AERIAL

AERIAL COMPARISONS LEGEND

-  Property Line
-  Evaluated Squares with No Change
-  Net Change in Mesquite Trees

SUMMARY OF TREES LOST 2005 to PRESENT:
 Sheet 1 = 29 TREES
 Sheet 2 = 22 TREES
 TOTAL TREES LOST = 51 TREES

THIS SHEET
AREA #1



KEY MAP - No Scale

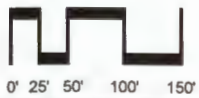


2022 PIMA COUNTY AERIAL



1-29-24 NEAR MAPS AERIAL

Scale: 1" = 50'



35974 S. Desert Sun Drive
 Tucson, AZ 85739
 (520) 909-4678
 greg@grslandscapearchitects.com

Date: 12/9/24
 Drawn by: LMW
 Checked by: GRS

- Design Review
- Construction Documents
- Agency Submittal
- Construction Set
- Not for Construction

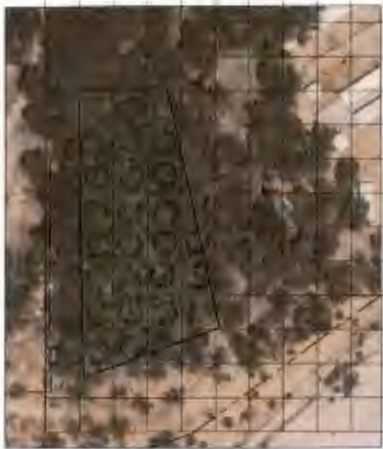
2035 N CONESTOGA AVE

2035 N. Conestoga Ave., Tucson, AZ
 G&SRM, Pima County, AZ

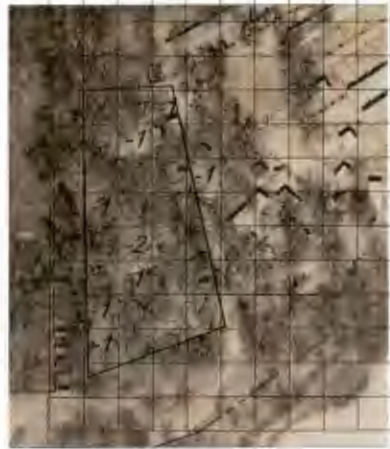
**AERIAL COMPARISONS
 TREE EVALUATION AREA #1**

P ____ TE-1 3-4

Exhibit F






2005 PIMA COUNTY AERIAL



2022 PIMA COUNTY AERIAL

AERIAL COMPARISONS LEGEND

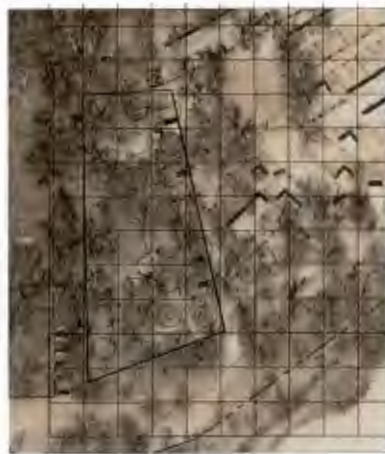
-  Property Line
-  Evaluated Squares with No Change
-  Net Change in Mesquite Trees

SUMMARY OF TREES LOST 2005 to PRESENT:
 Sheet 1 = 29 TREES
 Sheet 2 = 22 TREES
 TOTAL TREES LOST = 51 TREES

THIS SHEET
AREA #2



KEY MAP - No Scale

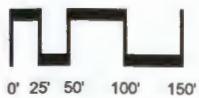


2022 PIMA COUNTY AERIAL



1-29-24 NEAR MAPS AERIAL

Scale: 1" = 50'



35974 S. Desert Sun Drive
 Tucson, AZ 85739
 (520) 908-4678
 greg@grslandscapearchitects.com

Date: 12/9/24
 Drawn by: LMW
 Checked by: GRS

- Design Review
- Construction Documents
- Agency Submitted
- Construction Set
- Not for Construction

2035 N CONESTOGA AVE

2035 N. Conestoga Ave., Tucson, AZ
 G&SRM, Pima County, AZ

**AERIAL COMPARISONS
 TREE EVALUATION AREA #2**

P _____

TE-2 4-4