



BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: January 5, 2016

Title: Riparian Habitat Mitigation Plan for 7549 and 7569 North Artesiano Road

Introduction/Background:

This development will impact Important Riparian Area; therefore the applicant is subject to compliance with Chapter 16.30 of the Floodplain Management Ordinance No. 2010-FC5 (Ordinance). When more than 1/3 of an acre and five percent of the Important Riparian Area habitat mapped on the site is disturbed, the Riparian Habitat Mitigation Plan (RHMP) requires Flood Control District Board of Directors (Board) review and approval.

Discussion:

The owners, Mr. John Guisto and Ms. Janelle White, have applied for a building permit to have solar panels installed at their residence located at 7549 North Artesiano Road (Exhibit A). The property is mapped within Important Riparian Area with underlying Xeroriparian Class C and D habitat (Exhibit B). Upon review of the building permit, the District found the property owners have disturbed more than 1/3 of an acre of the regulated riparian habitat (RRH). The owners hired Greg Shinn, a landscape architect, to prepare the RHMP (Exhibit C). Mr. Shinn found the owners have mitigated for the disturbance and exceeded the requirements. The RHMP shows the location of the mitigation areas and vegetation.

Conclusion:

In order to comply with the Ordinance, the applicant is submitting a RHMP for approval by the Board. The Plan must be approved prior to issuance of a Floodplain Use Permit, which specifies floodplain and building requirements for the proposed single-family residence.

Recommendation:

The RHMP conforms with the Ordinance and, as such, the District recommends approval.

Fiscal Impact:

N/A

Board of Supervisor District:

- 1
- 2
- 3
- 4
- 5
- All

Department: Regional Flood Control District Telephone: 724-4600

Department Director Signature/Date: *S. F. [Signature]*

Deputy County Administrator Signature/Date: *[Signature]* 12/14/15

County Administrator Signature/Date: *C. [Signature]* 12/16/15

OFFICE OF FLOOD CONTROL



DATE: December 14, 2015

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E.
Director

SUBJECT: Riparian Habitat Mitigation Plan Approval for 7549 and 7569 North Artesiano Road, Located within Important Riparian Area with Underlying Xeroriparian Class C and D Habitat (District 3)

Background

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation for disturbance of Regulated Riparian Habitat exceeding 1/3 of an acre. A riparian habitat mitigation plan (RHMP) approved by the Flood Control District Board of Directors (Board) is required for disturbance of Important Riparian Area habitat exceeding 1/3 of an acre that also exceeds 5 percent of this habitat. The adopted *Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines (Guidelines)* govern the type, amount, and location of required mitigation.

Report

The owners, Mr. John Guisto and Ms. Janelle White, have applied for a building permit to have solar panel installed at their residence on located at 7549 and 7569 North Artesiano Road (Exhibit A). The property is mapped within Important Riparian Area with underlying Xeroriparian Class C and D habitat (Exhibit B).

Upon review of the floodplain use permit, staff determined that portions of the property had been previously disturbed. Although most of the disturbance occurred prior to 2005, when the Riparian Classification Maps were adopted by the Board, the amount of habitat disturbed after that date exceeds 1/3 acre. This disturbance, 33,441 square feet (0.77 acres), requires a Riparian Habitat Mitigation Plan.

The owners hired Greg Shinn, a landscape architect, to prepare the RHMP (Exhibit C). Upon inspection, Mr. Shinn found the owners have already planted a significant amount of native vegetation which exceeds the minimum RHMP requirement. The area of required mitigation is 0.81 acres and the mitigation area provided is 0.89 acres. Additionally, the tree and shrub mitigation requirement is 39 trees and 61 shrubs. The owners have planted 76 trees and 76 shrubs, which have been verified by Mr. Shinn as being in good health. All of the mitigation plantings are plant species from the approved plant list contained in the *Guidelines*. The RHMP shows the location of the mitigation areas and vegetation. The owners will hand seed the mitigation areas as required by the *Guidelines*. Any future development will require submittal of a separate mitigation plan.

Riparian Habitat Mitigation Plan Approval for 7549 and 7569 North Artesiano Road, Located within Important Riparian Area with Underlying Xeroriparian Class C and D Habitat (District 3)

December 14, 2015

Disturbance= 33,441 sq. ft.

33,441 x 1.5 x 0.7 = 0.81 acres is the required mitigation area

Required Mitigation by Vegetation Type in Important Riparian Area with Underlying Xeroriparian Class C and D Habitat	Total Plants Required	Total Plants Actual
45 and 30 trees/acre * 1.5	39 trees (100% 15 gal)	76 trees (100% 15 gal)
70 and like density shrubs/acre *1.5	61 shrubs (50% 5 gal, 50% 1 gal)	76 shrubs (50% 5 gal, 50% 1 gal)
Seeding	Seed disturbed and/or mitigated areas using approved seed mix	Mitigated areas to be hydroseeded with a minimum of 12 species from the approved Xeroriparian plant list
Irrigation	To be provided for 5 years	Drip irrigation to be provided for 5 years

Recommendation

The mitigation plan conforms with the Ordinance and associated mitigation standards and guidelines and, as such, can be approved.

- Attachments:
- Exhibit A - Property Location
 - Exhibit B - Project Site - Regulated Classification Map
 - Exhibit C - Riparian Habitat Mitigation Plan

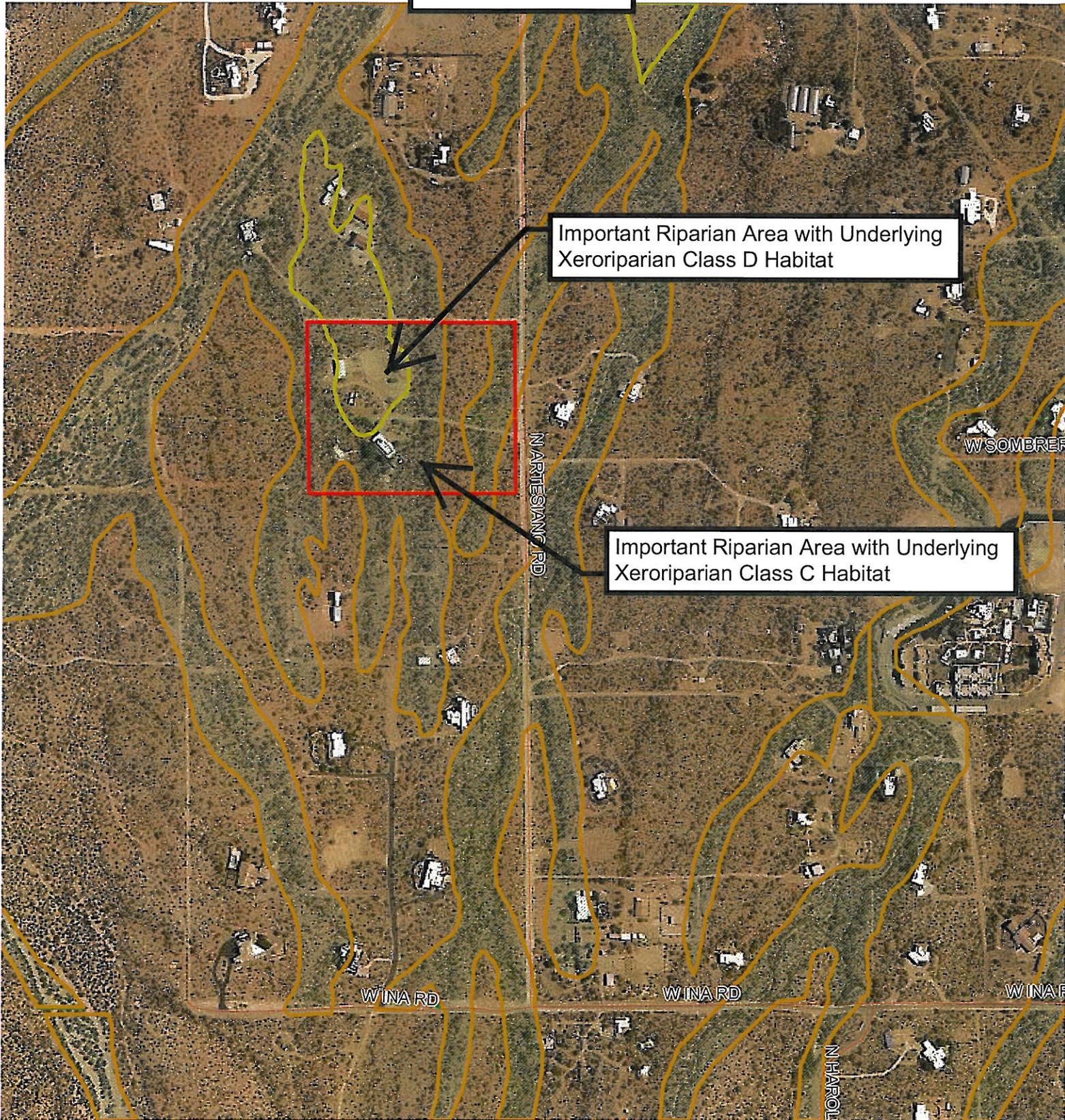
Exhibit A



Mr. John Guisto and Mrs. Janelle White
7549 and 7569 North Artesiano Road
BOS Meeting January 5th, 2016



Exhibit B

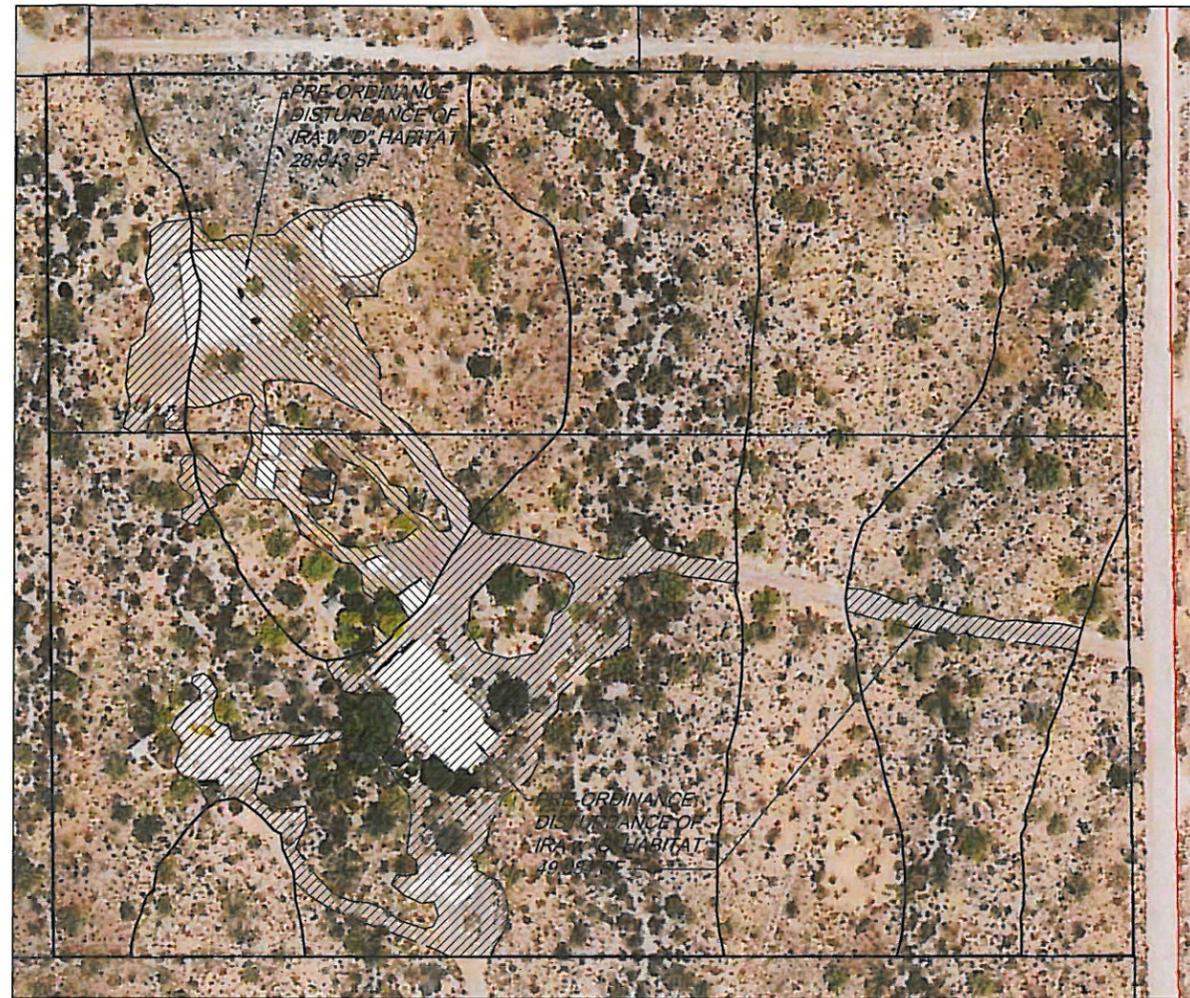


Important Riparian Area with Underlying Xeriparian Class D Habitat

Important Riparian Area with Underlying Xeriparian Class C Habitat

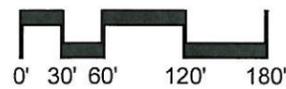
Mr. John Guisto and Mrs. Janelle White
7549 and 7569 North Artesiano Road
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MAP # 1:
PRE-ORDINANCE DISTURBANCE BASED ON 2005 AERIAL

Scale: 1" = 60'



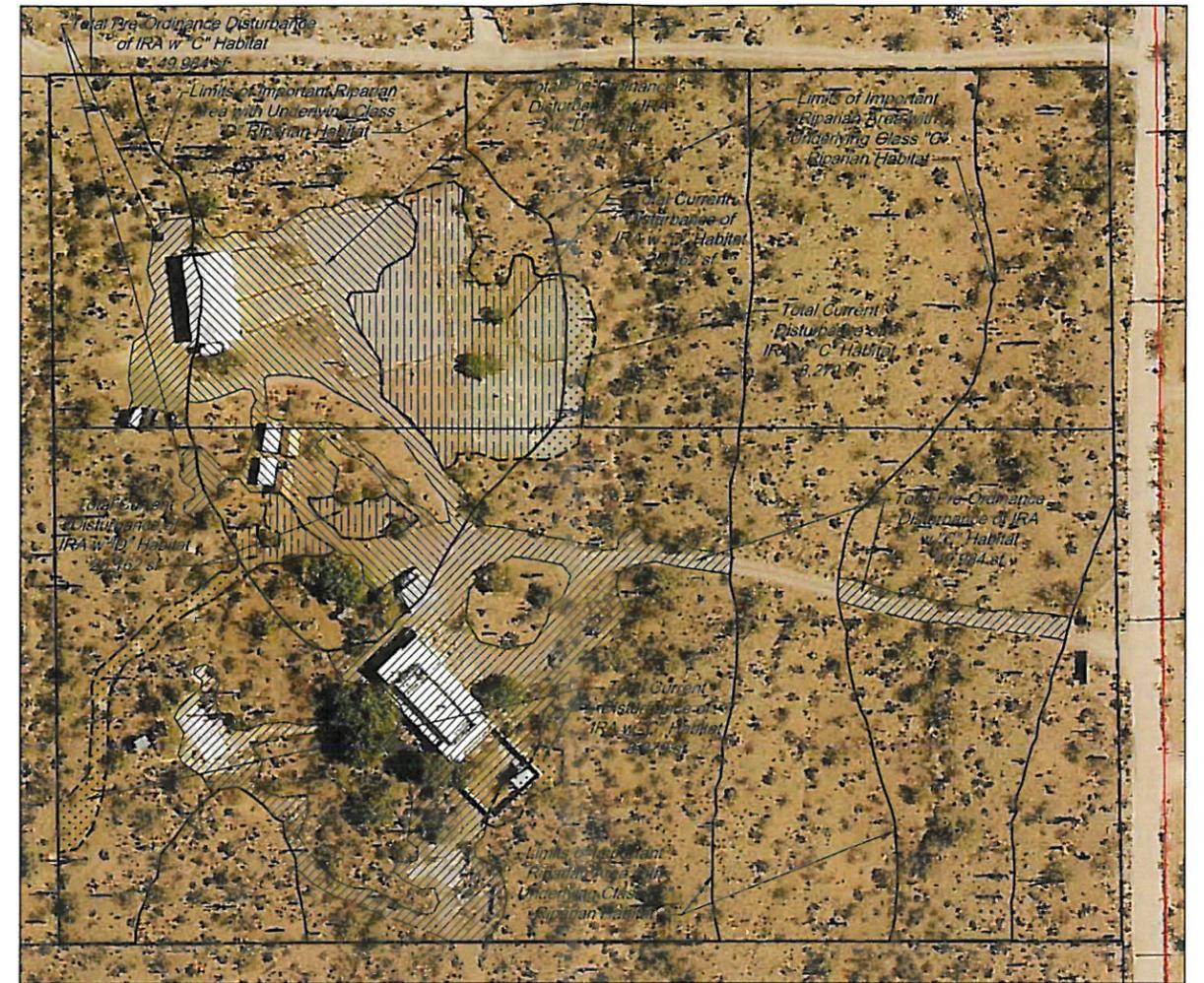
RIPARIAN LEGEND

- Pre-Ordinance Disturbance of IRA with Underlying "C" Habitat
- Pre-Ordinance Disturbance of IRA with Underlying "D" Habitat
- Current Disturbance of IRA with Underlying "C" Habitat
- Current Disturbance of IRA with Underlying "D" Habitat
- Mitigation Area

CALCULATIONS:	
This site contains Important Riparian Area with Underlying "C" and "D" Habitat	
Total Site Area	517,202 sf (11.87 ac)
Total Regulated IRA with underlying "C" Habitat On-Site	303,070 sf (6.96 ac)
Total Regulated IRA with underlying "D" Habitat On-Site	97,099 sf (2.23 ac)
Total Area of Disturbed IRA with underlying "C" Habitat	58,263 sf (1.34 ac)
Pre-Ordinance Disturbance	49,984 sf (1.15 ac)
Current Disturbance, Requiring Mitigation	8,279 sf (0.19 ac)
Total Area of Disturbed IRA with underlying "D" Habitat	54,105 sf (1.24 ac)
Pre-Ordinance Disturbance	28,943 sf (0.66 ac)
Current Disturbance, Requiring Mitigation	25,162 sf (0.58 ac)
Mitigation Area Required (C) = $8,279 \times 1.5 \times 0.7 =$	8,693 sf (0.20 ac)
Total # of Trees Required (C) = $45 \times 0.29 =$	13 Trees
Total # of Shrubs Required (C) = $70 \times 0.29 =$	20 Shrubs
Mitigation Area Required (D) = $25,162 \times 1.5 \times 0.7 =$	26,420 sf (0.61 ac)
Total # of Trees Required (D) = $30 \times 0.87 =$	26 Trees
Total # of Shrubs Required (D) = $47 \times 0.87 =$	41 Shrubs
Riparian Mitigation Area Required for Seeding	35,113 sf (0.81 ac)
Riparian Mitigation Area Provided for Seeding	38,720 sf (0.89 ac)
Total # of Trees Required =	39 Trees
Total Trees Provided on Site (per Inventory)	76 Trees
Total # of Shrubs Required =	61 Shrubs
Total Shrubs Provided on Site (per Inventory)	76 Shrubs

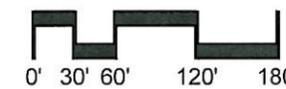
RIPARIAN NOTES

1. Zoning = SR
2. Site Area = 517,202 sf (11.87 ac)
3. Land Use = Residential
4. Area Calculations:
 - a. Total Project Area 517,202 sf (11.87 ac)
 - b. Total Riparian Area On Site (IRA w/Underlying "C" Habitat) 303,070 sf (6.96 acres)
 - c. Total Riparian Area On Site (IRA w/Underlying "D" Habitat) 97,099 sf (2.23 acres)
 - d. Total Natural Open Space 0
 - e. Total Riparian Habitat Disturbance (Pre-Ordinance and Current) 112,368 sf (2.58 ac)
 - f. Total Habitat Disturbance req. Mitigation quantities and Mitigation Area locations 33,441 sf (0.77 acres)



MAP # 2:
TOTAL RIPARIAN DISTURBANCE AREA

Scale: 1" = 60'



XERORIPARIAN DESERT SEED MIX

The hydroseed mix shall consist of the following seeds:

BOTANICAL NAME	COMMON NAME	PLS lbs/ac.
<i>Aristida purpurea</i>	Purple Three-Awn	2.0
<i>Baileya multiradiata</i>	Desert Marigold	1.5
<i>Dischostemma pulchellum</i>	Blue Dicks	5.0
<i>Ericameria laricifolia</i>	Turpentine Bush	1.0
<i>Hyptis emoryi</i>	Desert Lavender	4.0
<i>Lycium spp.</i>	Wolfberry	3.0
<i>Larrea tridentata</i>	Creosote	2.0
<i>Parthenium incanum</i>	Mariola	2.0
<i>Penstemon parryi</i>	Penstemon	4.0
<i>Sphaeralcea ambigua</i>	Globemallow	3.0
<i>Encelia farinosa</i>	Brittlebush	2.0
<i>Ambrosia deltoidea</i>	Triangleleaf Bursage	2.0

METHODOLOGY

This Riparian Habitat Mitigation Plan provides calculations and mitigation for a variety of disturbances accumulated over multiple years. The plan utilizes the onsite mitigation methodology.

1. A portion of the disturbance on this property pre-dates the Riparian Ordinance. Map # 1 utilizes a 2005 aerial photo to identify the pre-ordinance disturbance.
2. Map # 2 and the Calculations on this page determine the amount of "Current Disturbance" requiring mitigation. The calculations show the required shrub, tree and seeding required.
3. Map # 3 shows the proposed mitigation areas.
4. Map # 4 inventories substantial native plantings installed (and irrigated) by the owners that count towards mitigation. These existing, installed plantings exceed the required mitigation.
5. The existing ecosystem contains virtually no native grasses due to the rocky soil conditions. Therefore, the seeding will be accomplished with a hand mix in the mitigation areas.



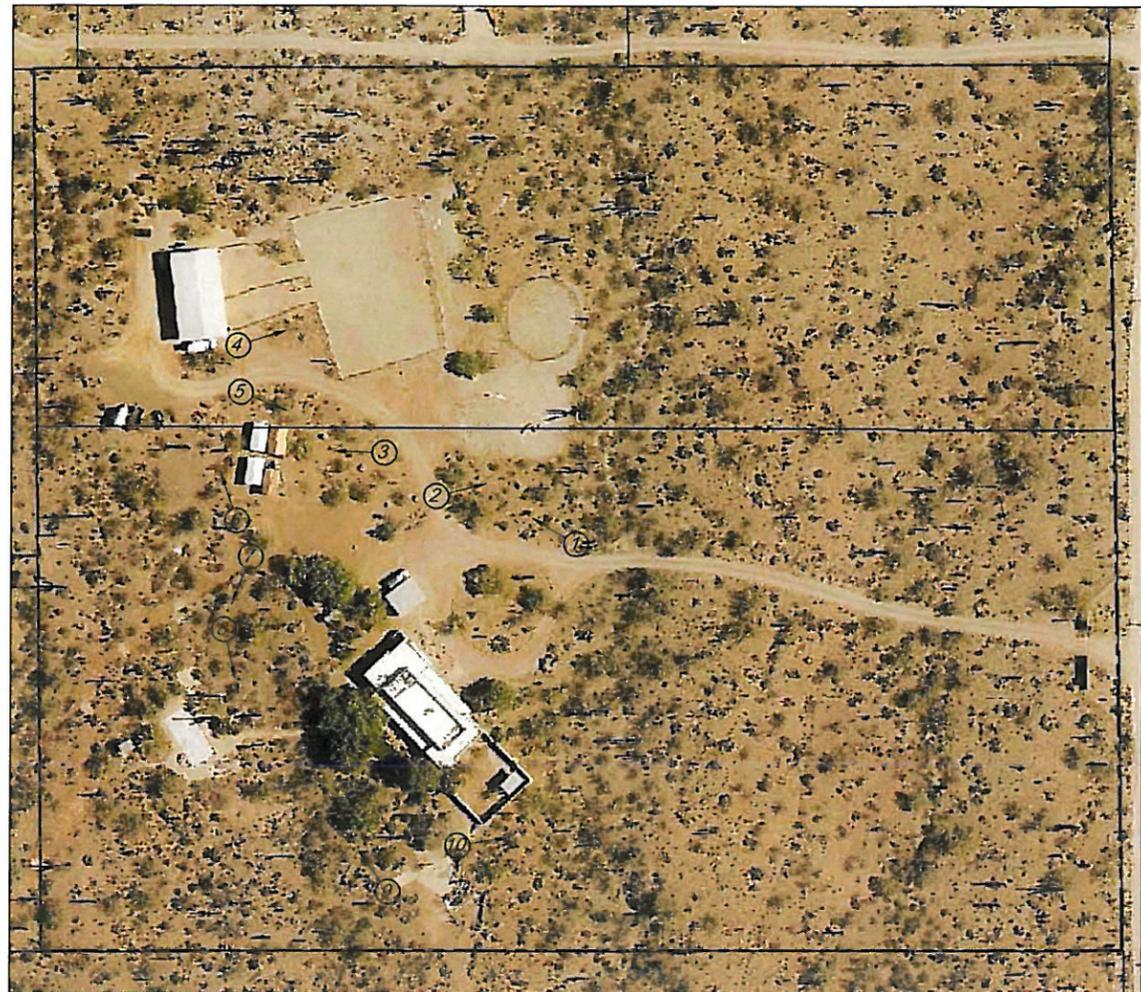
11047 N. Cloud View Place
Tucson, AZ 85737
(520) 877-8037

Date: 12/5/15
Project Number: 15018
Drawn by: LMW
Checked by: GRS

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

GUISTO-WHITE RESIDENCE

Parcels No. 221-28-0012B and C
7549 & 7569 N ARTESIANO RD, TUCSON, AZ 85742
A Portion of Section 33, T-12-S, R-12-E, G&SRM, Pima County, AZ
RIPARIAN HABITAT MITIGATION PLAN
Floodplain Use Permit number:



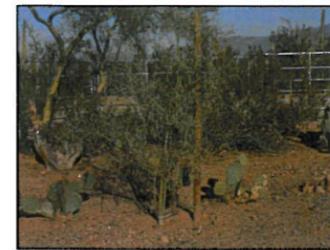
POINT 1



POINT 2



POINT 3



POINT 4



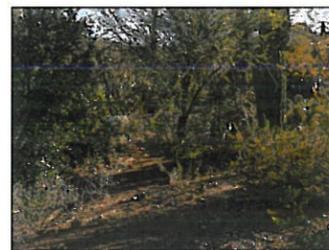
POINT 5



POINT 6



POINT 7



POINT 8



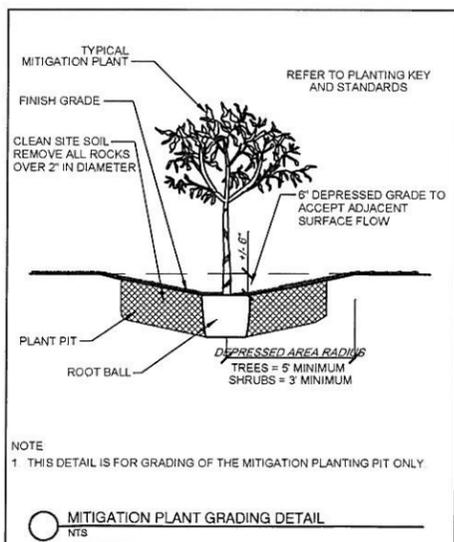
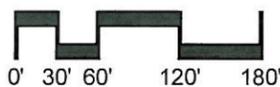
POINT 9



POINT 10

PHOTO MONITORING POINTS

Scale: 1" = 60'



TYPICAL UNDISTURBED VEGETATIVE CONDITIONS ON SITE



TYPICAL EXISTING MITIGATION PLANTINGS



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