



BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: October 8th, 2013

ITEM SUMMARY, JUSTIFICATION &/or SPECIAL CONSIDERATIONS:

The property owners, are proposing to construct a single-family residence (SFR) on the residential property located at 2167 East Desert Garden Drive, within the Pima Canyon Estates Subdivision. The property is located adjacent to Pima wash. Development will impact greater than 1/3 acre Regulated Riparian Habitat (RRH). Because this development will impact Important Riparian Area with underlying Xeroriparian Class B Habitat the applicant is subject to compliance with Chapter 16.30 of the Pima County Floodplain and Erosion Hazard Management Ordinance No. 2010-FC5 (Ordinance). Due to site constraints, the applicants are proposing to perform mitigation partially onsite while contributing an in-lieu fee (ILF) for the remaining amount. Because more than five percent of the regulated riparian habitat mapped on the site will be disturbed and a portion of the disturbance will be mitigated through contribution of an ILF, the mitigation proposal requires Flood Control District Board of Directors (Board) review and approval.

In order to comply with the Ordinance, the applicant is submitting a partial onsite riparian habitat mitigation plan and partial ILF for Board approval. The mitigation proposal must be approved prior to issuance of a Floodplain Use Permit which specifies floodplain and building requirements for the proposed SFR.

CONTRACT NUMBER (If applicable): N/A

STAFF RECOMMENDATION(S):

Conceptually, the combination onsite mitigation plan and in-lieu fee presented conforms to the Ordinance and, as such, can be approved.

CLERK OF BOARD USE ONLY: BOS MTG. _____

ITEM NO. _____

PIMA COUNTY COST: 0.0 and/or REVENUE TO PIMA COUNTY:\$ 1966.80

FUNDING SOURCE(S): N/A
(i.e. General Fund, State Grant Fund, Federal Fund, Stadium D. Fund, etc.)

Advertised Public Hearing:

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YES

☒

NO

Board of Supervisors District:

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All

☐

IMPACT:

IF APPROVED:

Per the plan, habitat mitigation will occur onsite within the specifically designated areas and will be performed in compliance with Board approved mitigation standards with the remaining amount of mitigation contributed to the mitigation bank as an in-lieu fee in the amount of \$1966.80. By performing a combination of onsite and offsite mitigation, the development will be in compliance with the Ordinance.

IF DENIED:

The applicant will not be able to continue with developing the property as currently planned and an alternative mitigation proposal will be required.

DEPARTMENT NAME: Regional Flood Control District

CONTACT PERSON: Eric Shepp/Patricia Gilbert TELEPHONE NO.: 4-4610/4606

DIRECTOR'S SIGNATURE: _____

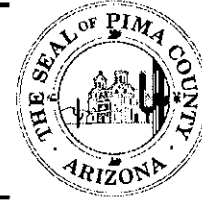


Suzanne Shields, P.E.



MEMORANDUM

Director's Office
Regional Flood Control District



DATE: September 24th, 2013

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E.
Director

SUBJECT: **Approval of a Riparian Habitat Mitigation Proposal for 2167 East Desert Garden Drive, Located within Important Riparian Area with Underlying Xeroriparian Class B Habitat (District 1)**

Background

Chapter 16.30 of the Pima County Floodplain and Erosion Hazard Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation when greater than one third acre Regulated Riparian Habitat (RRH) is disturbed, Flood Control District Board of Directors (Board) review and approval of the Riparian Habitat Mitigation Plan (RHMP) is required when disturbance of Important Riparian Areas (IRA) habitat exceeds 1/3 of an acre and also exceeds five percent of the mapped IRA on the subject parcel.

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*, which govern the type, amount, and location of required mitigation. When onsite mitigation is not feasible, offsite mitigation options become available in accordance with the adopted *Regulated Riparian Habitat Offsite Mitigation Guidelines for Unincorporated Pima County*. All offsite mitigation proposals require Board review and approval.

Report

The owners, Mr. Ebie Varghese and Mrs. Sneha Cheriyan are proposing to construct a single family residence on property located at 2167 East Desert Garden Drive, within Pima Canyon Estates Subdivision, adjacent to Pima Wash (Exhibit A). The property is mapped Important Riparian Area with underlying Xeroriparian Class B (IRA/X B) habitat (Exhibit B).

The owners hired Paul Nzomo to prepare the mitigation proposal. Mr. Nzomo assessed the project site for suitable onsite mitigation areas and determined that completing mitigation entirely onsite is not possible due to the size of the parcel, extent of disturbance, and presence of existing vegetation. Therefore, to achieve compliance with the Ordinance, the owner will install a portion of the mitigation requirement onsite, while converting the remaining acreage to a dollar amount, which will be contributed to the mitigation bank as a fee in-lieu of onsite mitigation.

All onsite mitigation planting will occur per the RHMP (Exhibit C), which shows the type, number, and planting location of vegetation to partially compensate for land disturbance. The mitigation areas are located within existing or disturbed habitat adjacent to the SFR, and are placed either directly downstream of the SFR, to capture increased stormwater runoff from the new development or upstream of the SFR, within low-lying areas where stormwater collects. The remaining disturbed area of 0.24 acres will be compensated for through submittal of an

Attachments:

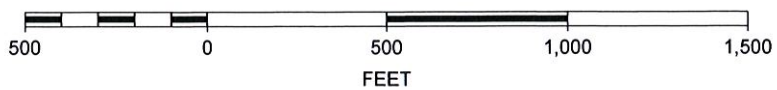
- Exhibit A – Project Location
- Exhibit B – Project Site - Riparian Classification Map
- Exhibit C – Riparian Habitat Mitigation Plan
- Exhibit D – In-Lieu Fee Proposal

Exhibit A



Pima Wash

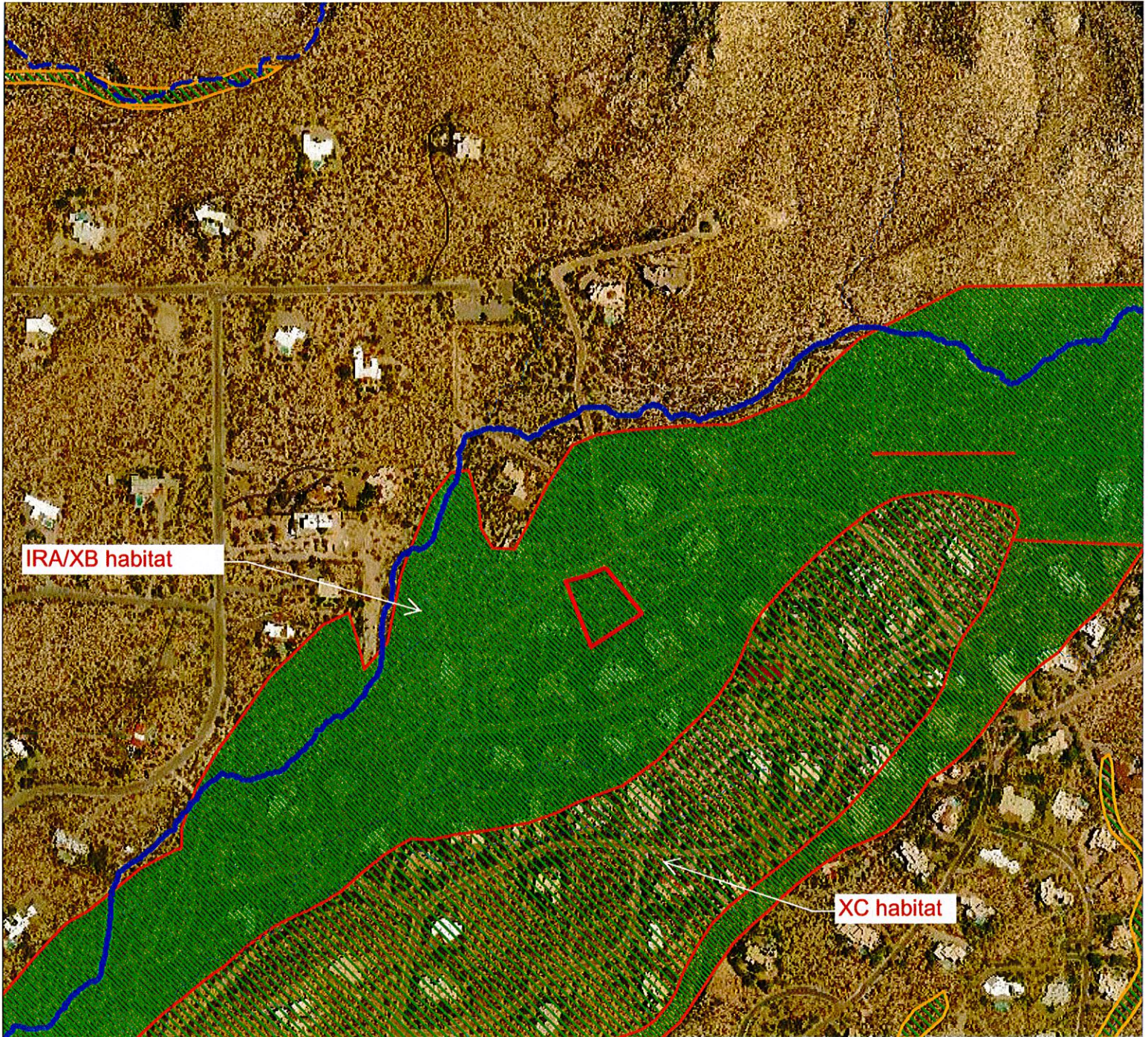
SCALE 1 : 6,000



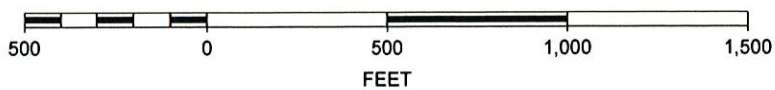
Ebie Varghese and
Sneha Cheriyan's property
2167 E. Desert Garden Dr.
T12SR14ES31
BOS Meeting Date:
October 8, 2013



Exhibit B



SCALE 1 : 6,000



Ebie Varghese and
Sneha Cheriyan's property
2167 E. Desert Garden Dr.
T12SR14ES31
BOS Meeting Date;
October 8, 2013





LEGEND

- PROPERTY LINE
 - - - - - GRADING LIMIT

CALCULATIONS:

THIS SITE CONTAINS IMPORTANT RIPARIAN AREA WITH UNDERLYING CLASS B XERORIPARIAN HABITAT

• TOTAL REGULATED RIAPRAIN HABITAT ON SITE	= 1.03 acres
• AREA OF DISTURBED REGULATED RIPARIAN HABITAT	= 0.478 acres = 20,802 S.F.
• PERCENTAGE OF DISTURBED MAPPED RRH	= 46.4%
• MINIMUM AREA OF MITIGATION = 20,802 S.F. x 1.5	= 0.72 acres
• ACTUAL MITIGATION AREA = 20,939 S.F.	= 0.48 acres
• IN-LIEU MITIGATION AREA	= 0.24 acres
• TOTAL NUMBER OF TREES REQUIRED (60 x .72)	= 43 - 20% FOR ALL 15 GAL = 34
• TOTAL NUMBER OF SHRUBS REQUIRED (80 x .72)	= 58 - 20% FOR ALL 5 GAL. = 46

GENERAL NOTES:

1. MITIGATED AREA WILL BE HYDROSEEDING WITH A MINIMUM OF 12 SPECIES FROM THE APPROVED XERORIPARIAN PLANT LIST FOUND IN APPENDIX A OF THE "REGULATED RIPARIAN HABITAT MITIGATION STANDARDS AND IMPLEMENTATION GUIDELINES". IF PLANT SPECIES LISTED ON THE MITIGATION PLAN ARE UNAVAILABLE, REPLACEMENT SPECIFIED FROM THE APPROVED PANT LIST MAY BE SELECTED BASED UPON AVAILABILITY OF THE 12 SPECIFIED, 4 SHALL BE SHRUBS, 4 SHALL BE ANNUAL/PERENNIALS/VINES, AND 4 SHALL BE GRASSES.
2. MITIGATION PLANTINGS TO BE IRRIGATED USING AN AUTOMATIC DRIP IRRIGATION SYSTEM.
3. MITIGATION PLAN IMPLEMENTATIONS SHALL BE COMPLETED BY THE FIRST GROWING SEASON FOLLOWING COMPLETION OF CONSTRUCTION, WHICH IS PROJECTED TO BE MARCH-MAY 2014.
4. A MONITORING PLAN, IN ACCORDANCE WITH THE GUIDELINES, WILL BE SUBMITTED ANNUALLY FOR A PERIOD OF FIVE (5) YEARS FOLLOWING IMPLEMENTATION OF THE MITIGATION PLAN. ANY CHANGES FROM THE APPROVED MITIGATION PLAN SHALL BE NOTED ON THE MONITORING PLAN SUBMITTAL.

MONITORING PLAN SHALL BE SUBMITTED TO THE RFCD AT:

PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT
 ATTN: WATER RESOURCES DIVISION STAFF
 97 E CONGRESS ST, 2ND FLOOR
 TUCSON, AZ 85701

PLACE THE FPUP NUMBER ON THE ENVELOPE AND MONITORING PLAN SUBMITTAL.

GENERAL NOTES (CONTINUED):

1. THE PROJECT OWNER AND/OR THE OWNERS SUCCESSORS, AGREE TO PRESERVE AND PROTECT THE MITIGATION AREA FOR THE DURATION OF THE PROJECT. FURTHER, THE PROJECT OWNER AND/OR SUCCESSORS AGREE TO ACTIVELY MAINTAIN THE MITIGATED AREAS FOR A PERIOD OF NOT LESS THAN FIVE (5) YEARS MAINTENANCE ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REGULAR OPERATION OF THE IRRIGATION SYSTEM, THE REPLACEMENT OF DEAD TREES AND SHRUBS AND THE REMOVAL OF NOXIOUS AND/OR INVASIVE PLANT SPECIES.
2. MITIGATION AREA(S) TO BE LEFT IN A NATURAL STATE, NO DISTURBANCE SHALL OCCUR WITHIN THE MITIGATION AREA(S) WITHOUT RFCD REVIEW AND APPROVAL. SUCH DISTURBANCE INCLUDED BUT IS NOT LIMITED TO SECONDARY IMPACTS SUCH AS THE PRESENCE OF LIVESTOCK, FENCING, INTENSIVE LANDSCAPING, OUTDOOR PLAY AREAS ETC.
3. ONCE PLANTS HAVE ESTABLISHED (APPRX. 1 - 3 YEARS) SUPPLEMENTAL IRRIGATION WILL BE DECREASED IN ACCORDANCE WITH APPENDIX C OF THE GUIDELINES
4. ALL MITIGATION AREAS WILL BE MAINTAINED ON A REGULAR BASIS UNDER SUPERVISION OF THE PROPERTY OWNER.
5. MAINTENANCE SHALL INCLUDE ACTIVITIES LISTED IN THE "MITIGATION PLANTING MAINTENANCE" SCHEDULE FOUND IN APPENDIX C OF THE GUIDELINES.
6. RIPARIAN HABITAT TO BE PRESERVED SHALL BE FENCED FOR PROTECTION DURING CONSTRUCTION USING MINIMUM 4-FOOT HIGH ORANGE MESH BARRICADE FENCING. PROTECTIVE FENCING MUST REMAIN IN PLACE THROUGHOUT THE CONSTRUCTION AND DEVELOPMENT PROCESS. (THE APPLICANT MAY PROPOSE AN ALTERNATIVE METHOD THAT IS ALSO SUITABLE FOR PROTECTING RIPARIAN HABITAT LEFT UNALTERED).

Riparian Habitat Mitigation In-Lieu Fee Proposal

PROPERTY OWNER: VARGHESE EBIE & CHERIYAN SNEHA
 PROPERTY ADDRESS: 2167 E DESERT GARDEN DR
 PARCEL TAX CODE: 220-20-3490
 FPUP NO: 13-337RP



Coronado Engineering & Development, Inc
 4007 E Paradise Falls Drive, Suite 125, Tucson, AZ 85712
 Phone: (520)622-6041 Fax: (520)722-5394

RIPARIAN HABITAT IN-LIEU FEE PROPOSAL:
PROPERTY OWNER: VARGHESE EBIE AND CHERIYAN SNEHA
2167 E DESERT GARDEN DR. TUCSON, ARIZONA, 85718

SCALE: 1"=100'
 DATE: 09/21/13
 DRAWN BY: KGS
 CHECKED BY: PKN

Job No.
 CE13046

1
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 2

LEGEND

- PROPERTY LINE
- GRADING LIMIT
- MITIGATION AREA
- IMPORTANT RIPARIAN AREA WITH UNDERLING CLASS B XERORIPARIAN HABITAT
- PHOTO MONITORING SITE

MITIGATION AREA		
AREA 1	34 TREES	46 SHRUBS

PLANT SCHEDULE		
TREES	QTY	SIZE
PROSOPIS VELENTINA (VELVET MESQUITE)	12	15 GAL.
	0	5 GAL.
ACACIA GREGII (CATCLAW ACACIA)	11	15 GAL.
	0	5 GAL.
PARKINSONIA FLORIDA (BLUE PALOVERDE)	11	15 GAL.
	0	5 GAL.
SHRUBS	QTY	SIZE
CELTIS PALLIDA (DESERT HACKBERRY)	10	5 GAL.
	0	1 GAL.
ENCELIA FARINOSA (BRITTLE BUSH)	9	5 GAL.
	0	1 GAL.
LARREA TRIDENTATA (CREOSOTE)	9	5 GAL.
	0	1 GAL.
TRIXIS CALIFORNICA (American threefold)	9	5 GAL.
	0	1 GAL.
ZIZIPHUS DBTUSIFOLIA VAR. CANESCENS (Graythorn, lotebush)	9	5 GAL.
	0	1 GAL.

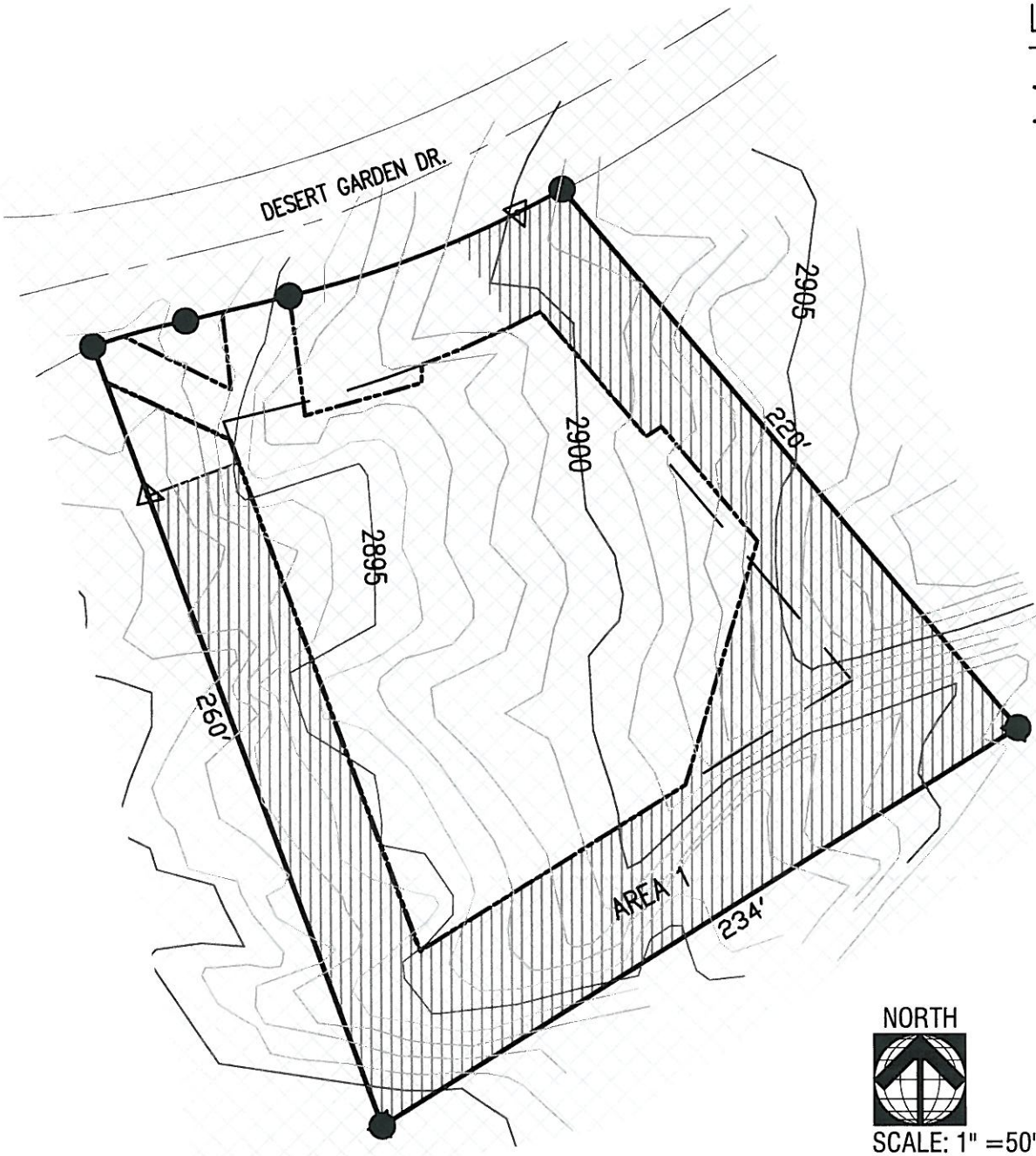
APPROVED SEED MIX SHALL INCLUDE:

ARISTDA PURPUREA – PURPLE THREE = AWN 2.0 LBS/ACRE
ASTER TANACETIFOLIUS – PURPLE ASTER 3.0 LBS/ACRE
BAILEYA MULTIRADIATA – DESERT MARIGOLD 1.5 LBS/ACRES
DISCHLOSTEMMA PULCHELLUM – BLUE DOCS 5.0 LBS/ACRES
ERICAMERIA LACRIFIFOLIA –TURPENTINE BUSH 1.0 LBS/ACRES
ERIGONUM FASCICULATUM –FLAT TIP BKWHEAT 1.0 LBS/ACRES
HYPTIS EMORI – DESERT LAVANDER 4.0 LBS/ACRES
LEPTOCHLOA DUBIA – GREEN SPRANGLETOP 4.0 LBS/ACRES
LYCIUM SPP. – WOLFBERRY 3.0 LBS/ACRES
LARREA TRIDENTATA – CREOSOTE 2.0 LBS/ACRES
NOLINA MICROCARPA – BEARGRASS 3.0 LBS/ACRES
DASYOCHLOA PULCHELLA –FLUFFGRASS 2.0 LBS/ACRES
PENSTEMON PARRYI PENTEMON 4.0 LBS/ACRES
SPHAERALCEA AMBIGUA – GLOBEMALLOW 3.0 LBS/ACRES
SPOROBOLUS CRYPTANDRUS SAND DROPSEED 2.0 LBS/ACRES

The project owner, and/or the Owner's successors, agree to preserve and protect the Mitigation Area for the duration of the project. Further, the project owner and/or their successors agree to actively maintain the mitigated area for a period of not less than five years. Maintenance activities shall include, but not be limited to, the regular operation of the irrigation system, the replacement of dead trees and shrubs, and the removal of noxious and/or invasive plant species.

ILF CALCULATION

15-gallon trees	11	\$880.00
5-gallon shrubs	16	\$368.00
Hydroseed	0.24 acres	\$212.40
Irrigation	0.24 acres	\$360.00
5 year maintance for Xeroriparian	0.24 acres	\$146.40
Total Cost		\$1966.80



NORTH
SCALE: 1" = 50'

Riparian Habitat Mitigation In-Lieu Fee Proposal
PROPERTY OWNER: VARGHESE EBIE & CHERIYAN SNEHA
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SCALE: 1" = 50'
DATE: 09/21/13
DRAWN BY: KGS
CHECKED BY: PKN
Job No. CE13046
2 OF 2

Calculating In-Lieu Fee Costs for Single-lot Development

Shaded fields are editable - Enter value in Acres

IFA w/ Underlying Xeroriparian Class A Habitat (IRAXA)**				
Total mapped habitat onsite				
Area of disturbed RRIH				
% of mapped habitat disturbed				
Area of mitigation				
Total number of trees required (75 trees/ac)				
Total number of shrubs required (90 shrubs/ac)				

IRA w/ Underlying Xeroriparian Class C Habitat (IRAXC)**					
Total mapped habitat onsite					
Area of disturbed R/H					
% of mapped habitat disturbed					
Area of mitigation					
Total number of trees required (45 trees/ac)	45			na	Trees
Total number of shrubs required (70 shrubs/ac)	70			na	Shrubs

ILF Calculation	
15-gallon trees	11
5-gallon trees	
5-gallon shrubs	16
1-gallon shrubs	
Hydroseed	0.24 Acres(s)
Irrigation	0.24 Acres(s)
5-year maintenance for Xeroriparian***	0.24 Acres(s)
5-year maintenance for H***	
Total Cost	\$1,966.80

Average Costs (Costs shown for plants do not include installation costs)	15-gallon tree	5-gallon tree	5-gallon shrub	1-gallon shrub	Seedling (per acre)	Irrigation (per acre)	Class H 5-year maintenance (per acre)	Xerophytic 5-year maintenance (per acre)
	\$80	\$25	\$23	\$6	\$885	\$1,500	\$1,050	\$510 (incl. debt)

*Density determined by onsite plant survey.

^{**}Guideline plant density requirements have been provided. The applicant may choose to perform an on-site plant survey in accordance with TECH-116 to determine plant density. Average cost based on annual plant water requirements, plant replacement @ 5% over five years, and invasive species control (cost for herbicide only).

****Option to basic requirement for Xeroriparian Classes A-D: Reduce total plant quantity by 20% if 100% 15 gallon trees and 100% 5 gallon shrubs are used.

****Option to basic requirement for Class H: Increase total plant quantity by 20% if 50% 15 gallon trees are used and 100% 1 gallon shrubs are used