



BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: May 13, 2014

ITEM SUMMARY, JUSTIFICATION &/or SPECIAL CONSIDERATIONS:

Rosemont Copper Company applied to the Pima County Regional Flood Control District for a floodplain use permit on November 19, 2013, to install approximately 10.2 miles of water line to serve Rosemont's planned copper mining operation in the Santa Rita Mountains. The applicant is subject to compliance with Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) and the District determined that the proposed water line will impact 7.09 acres of Regulated Riparian Habitat. Chapter 16.30 of the Ordinance requires that the applicant submit a riparian habitat mitigation plan as part to its floodplain use permit application. The applicant has proposed to mitigate the riparian habitat disturbance with a one-time payment of \$145,230.00 (the In-Lieu Fee) in lieu of implementing a habitat mitigation plan which is an allowable alternative under Chapter 16.30.050D of the Ordinance. Chapter 16.30.050 specifies that a habitat mitigation plan or an In-Lieu Fee must be approved by the Flood Control District Board of Directors prior to issuance of the Floodplain Use Permit.

In order to comply with the Ordinance, the applicant is submitting an In-Lieu Fee Proposal for Board approval. If approved, the \$145,230.00 In-Lieu Fee will be deposited in the District's ILF Mitigation Bank and the District's Chief Engineer will issue the Floodplain Use Permit to the applicant.

CONTRACT NUMBER (If applicable): N/A

STAFF RECOMMENDATION(S): Approval of the In –Lieu Fee of \$145,230.00

CLERK OF BOARD USE ONLY: BOS MTG. _____

ITEM NO. _____

PIMA COUNTY COST: 0.0 and/or REVENUE TO PIMA COUNTY:\$ 145,230

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

Advertised Public Hearing:

☐ YES ☒ NO

Board of Supervisors District:

1 ☐ 2 ☒ 3 ☐ 4 ☒ 5 ☐ All ☐

IMPACT:

IF APPROVED:

The In-Lieu Fee of \$ 145,230.00 will be deposited to the District's Mitigation Bank and the Floodplain Use Permit will be issued to the applicant.

IF DENIED:

The Floodplain Use Permit will not be issued until the applicant provides an alternative onsite and/or offsite riparian habitat mitigation plan that satisfies all Ordinance requirements.

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: April 15, 2014

TO: C. H. Huckelberry
County Administrator

FROM: Suzanne Shields, P.E.
Director

A handwritten signature in black ink, appearing to read "S. Shields", written over the printed name of the Director.

SUBJECT: Rosemont Water Line Floodplain Use Permit – April 1, 2014 Board of Supervisors Agenda Item Regarding a Riparian Habitat Mitigation Plan

The Floodplain Use Permit application (FPUP #13-460) for the installation of a water supply line for the Rosemont Copper Mine included a riparian habitat mitigation plan. This Floodplain Use Permit application was submitted on November 19, 2013 and included an engineering analysis and construction plans, prepared by Clint Glass, P.E., with CMG Drainage Engineering, which provided the pipeline's horizontal and vertical location and burial depths necessary to protect it from flood hazards. Mr. Glass submitted the Floodplain Use Permit application, engineering analysis and water plans along with the Riparian Habitat Mitigation Plan prepared by Westland Resources.

The final approved plan for the water line meets Pima County's floodplain management and riparian mitigation regulations and standards. As with any other permit application, when plans are submitted to the Regional Flood Control District for review, state law requires that review and processing occurs within a predetermined period of time as provided in Arizona Revised Statutes (A.R.S.) §11-1605 and §48-3645.

The Pima County authority for floodplain management and issuance of Floodplain Use Permit s extends to the unincorporated areas of Pima County excluding federal lands. As provided in A.R.S. §48-3613, the following activities are exempt from regulation by the District:

- Agricultural activities including dams for watering livestock.
- Construction of tailing dams and waste disposal areas used in connection of mining and metallurgical operations.
- Construction and erection of poles, towers, foundations, support structures, guy wires and other facilities related to power transmission.

The Floodplain Use Permit (FPUP #13-460) is only for the water supply line, which is subject to floodplain regulations as provided in A.R.S. §48-3609.D. Upon approval of the Riparian Habitat Mitigation In-Lieu Fee Plan submitted to the Board of Supervisors, the District will issue Floodplain Use Permit (FPUP #13-460). The permit will contain numerous conditions to ensure that impacts are minimized, including requiring:

- 1) All necessary local, state, or federal permits for construction of the water supply line will be obtained including any permits required under the Clean Water Act prior to the commencement of construction.
- 2) Inspections during construction and the preparation of as-built drawings upon completion.

**Rosemont Water Line Floodplain Use Permit – April 1, 2014 Board of Supervisors
Agenda Item Regarding a Riparian Habitat Mitigation Plan**

April 15, 2014

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- 3) Acknowledgement that proceeding with the proposed construction of the water line is at the risk of the Permittee with no guarantee that the mine will be approved.
- 4) The Permittee shall minimize impacts by:
 - a) Using existing roads for construction and access, where practicable.
 - b) Retaining a qualified biologist to monitor all ground clearing and construction activities.
 - c) Following published guidelines adopted by the Arizona Game and Fish Department (AGFD) and the United States Fish and Wildlife Service (USFWS) with regard to species designated as endangered as well as species of greatest conservation need as designated by AGFD.

The following additional information is being provided to address the questions in your memorandum dated April 1, 2014, regarding questions raised at the Board of Supervisor's meeting concerning the Riparian Habitat Mitigation Plan and in-lieu fee payment.

1. How is the in-lieu fee payment calculated and how are the riparian areas classified?

The delineation of riparian habitat areas and their classifications are based on the Riparian Classification Maps adopted by the Board of Supervisors in 2005. The riparian areas, including Important Riparian Areas, were mapped as part of the development of the Sonoran Desert Conservation Plan and Conservation Lands System.

The in-lieu fee calculation was based on the formula developed as part of the *Regulated Riparian Habitat Off-Site Mitigation Guidelines*. The calculation is based on the type of riparian habitation, area disturbed and the cost to mitigate in place along with costs for five (5) years of irrigation and maintenance. For the purposes of calculating disturbance, the entire easement width was used even though construction plans minimize the disturbance within the easement (see attached plan sheet as an example).

The table used to establish in-lieu fees for each classification of riparian habitat is shown below:

Cost per acre for riparian habitat mitigation based on classification of Xeroriparian Habitat XA, XB, XC, XD; Hydroriparian H; and Important Riparian Habitat by classification, IRA H, IRA XA, IRA XB, IRA XC, and IRA XD.

XA	XB	XC	XD	IRA/H	IRA/XA	IRA/XB	IRA/XC	IRA/XD
\$17,000	\$16,000	\$14,000	\$12,000	\$40,000	\$30,000	\$28,000	\$25,000	\$22,000

The calculations used to determine the in-lieu fee for this project are attached.

2. How is the determination made that there were not sufficient areas for on-site mitigation?

The linear alignment lies within easements on state land and along existing and future roadways such as Santa Rita Road and Country Club. Besides the limited space for onsite

**Rosemont Water Line Floodplain Use Permit – April 1, 2014 Board of Supervisors
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mitigation, there could not be any guarantee that mitigation would be permanent and not disturbed by future land use or roadway development. Finally, access for the transmission line and water line remain clear for maintenance and safety reasons.

3. Can the Board of Supervisors make a conditional approval or delay approval?

The potential impact on riparian habitat is part of every Floodplain Use Permit application review. A Riparian Habitat Mitigation Plan then is not addressed as an independently permitted element, but as a condition of the Floodplain Use Permit. Any conditional approval or delay would apply to the issuance of the Floodplain Use Permit since the related Riparian Habitat Mitigation Plan or the alternative in-lieu fee proposal is one of the conditions of the permit. County Code provisions for Floodplain Use Permits do not allow discretionary delays; however, prior to approval, the Code does allow for a public hearing and review process for Floodplain Use Permits with Riparian Habitat Mitigation Plans for disturbances of Important Riparian Area or proposed in-lieu fees.

Section 16.20.040(A)(1) allows the Chief Engineer to place conditions on a Floodplain Use Permit including the condition that, "All other required state and federal permits have been, or will be, obtained", however, that condition is not meant to suggest that the District can enforce the regulations of other jurisdictions. Floodplain Use Permits typically contain a condition requiring the receipt of any other required local state, or federal permits prior to construction of the improvements subject to the Floodplain Use Permit. This Floodplain Use Permit will do the same regarding the water supply line.

Floodplain Use Permits are administrative permits that require action from the District when an applicant submits a complete and timely application that meets the standards for public safety. Once this is demonstrated, the District is obligated to issue the Floodplain Use Permit.

The decision to issue or deny a Floodplain Use Permit application is delegated to the District's Chief Engineer per County Code, Sections 16.20.030.A and 16.20.050. This decision, considered a written finding of the Chief Engineer, may be appealed to the Flood Control District Board of Directors (16.56.010.D). As a separate matter, the Board of Directors must approve any Riparian Mitigation Plan when Important Riparian Areas are disturbed or when a riparian mitigation in-lieu fee is proposed per Section 16.30.050.

The Board of Supervisors can approve the in-lieu fee for the water line or deny the in-lieu fee and require riparian habitat mitigation in the areas of impact.

4. Why was the request processed now?

The Floodplain Use Permit application for the water supply line, engineering information and riparian habitat impact analysis were submitted on November 19, 2013. The application was determined to be administratively complete and a technical review was then undertaken. The technical information supporting the Floodplain Use Permit (FPUP #13-460), and technical information including riparian habitat impact meet the standard of

C. H. Huckelberry, County Administrator

**Rosemont Water Line Floodplain Use Permit – April 1, 2014 Board of Supervisors
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the Floodplain and Erosion Hazard Management Ordinance.

5. What was the reasoning given by the Arizona Corporation Commission in their conditional approval of the water and power line along the alignment which is now subject to the Riparian Habitat Mitigation Plan?

The Arizona Corporation Commission approved the power line's preferred alignment which follows existing roadway alignments, specifically Santa Rita Road as well as portions of Cortaro Road and County Club Road. The conditional approval did include provisions requiring the construction to comply with federal Fish and Wildlife Service, Arizona Game and Fish.

I have attached information from the Floodplain Use Permit (FPUP #13-460) and permit conditions for the water line. Please let me know if you require any additional information.

SS/tj

Attachments

- c: John Bernal, Deputy County Administrator – Public Works
- Hal Gilbreath, Deputy County Attorney – County Attorney's Office
- Bill Zimmerman, Deputy Director – Regional Flood Control District



DESIGNED BY J. KOTSON
 DRAWN BY K. HUFFSMITH
 SHEET CHK'D BY P. TAURASI
 CROSS CHK'D BY J. KOTSON

CDM Smith
 6000 E. Plumbline Pl. • Suite 100
 Denver, CO 80231 • 303.755.7000

PIPELINE PLAN AND PROFILE 6

CDM Smith all rights reserved.
 or documents. These documents and designs provided by Professional Service Incorporated herein are the property of CDM Smith and are not to be used, in whole or part, for any other project without the written authorization of CDM Smith.

RIPARIAN HABITAT DISTURBANCE CALCULATIONS FOR FPUP #13-640 ROSEMONT WATER SUPPLY LINE					
Crossing of Riparian Area, Disturbances	Plan Sheet	Riparian Habitat	Acres	Cost to Mitigate	Cost Calculated
1	L 1.1	IRA - Xero B	Disturbed 0.55	Per Acre \$28,000	For this Disturbance \$15,400
2	L 1.2 & L 1.3	IRA- Xero C	1.58	\$25,000	\$39,500
3	L 1.4	IRA- Xero C	0.37	\$25,000	\$9,250
4	L 1.5	Xero C	0.6	\$14,000	\$8,400
5	L 1.5	Xero C	0.2	\$14,000	\$2,800
6	L 1.6	Xero C	0.04	\$14,000	\$560
7	L 1.7	Xero C	0.22	\$14,000	\$3,080
8	L 1.8	Xero C	0.28	\$14,000	\$3,920
9	L 1.9	Xero C	0.42	\$14,000	\$5,880
10	L 1.9	Xero C	0.55	\$14,000	\$7,700
11	L 1.10	Xero C	0.23	\$14,000	\$3,220
12	L 1.10	Xero B	0.34	\$16,000	\$5,440
13	L 1.10	IRA - Xero B	0.6	\$28,000	\$16,800
14	L 1.11	Xero B	0.65	\$16,000	\$10,400
15	L 1.12	IRA - Xero B	0.1	\$28,000	\$2,800
16	L 1.12	IRA - Xero B	0.15	\$28,000	\$4,200
17	L 1.12	IRA - Xero B	0.21	\$28,000	\$5,880
		Total Xero B	0.99		\$15,840
		Total Xero C	2.54		\$35,560
		Total IRA - Xero B	1.61		\$45,080
		Total IRA - Xero C	1.95		\$48,750
				Total In-Lieu Fee	\$145,230

Permittee acknowledges that the subject property is located within a Special Study floodplain and/or erosion hazard area as shown in the report: #10, *Lee Moore Wash Basin Management Study* (dated September 2009)

Permit is for a water pipeline as shown on the site plan approved by the District on February 6, 2014. The activity is located within the Lee Moore Wash Basin Management Study.

Permittee acknowledges the risk of constructing the water pipeline prior to approval of the mine it is intended to serve, and that there is no guarantee that the mine will be approved.

Improvements to be performed/constructed in accordance with the engineering study/plan prepared for the permittee by; Clinton M. Glass, P.E., of CMG Drainage Engineering, Inc. dated January 21, 2014. Specifically, the following drainage crossings will be constructed so the top of the proposed pipeline will be at the listed depth below natural ground:

Concentration Point	Lateral Erosion Start Station	Lateral Erosion End Station	Scour Depth +2.0 Feet (ft)	Depth to Top of Water Line (ft)
1*	Undefined	Undefined	5.0	5.0+
4	29+00	40+00	5.0	6.0
5	69+50	74+00	6.4	7.2
6	115+75	121+25	6.5	6.8
7	191+30	197+10	5.3	6.0
8	249+00	250+60	6.9	6.9
9	372+25	374+50	6.2	6.5
10	462+50	467+40	6.3	6.3
11	474+10	476+20	6.9	7.4
12	494+00	494+80	6.9	8.0
13	515+95	518+50	5.8	7.6
14	519+35	525+33	5.8	7.8
15A	532+75	533+30	6.2	8.7
15B	540+00	541+00	6.2	7.0
16	546+23	546+75	5.0	10.6
17	550+01	552+27	8.0	9.5
18	555+53	556+75	5.0	6.0

* Concentration Point 1 is located in a sheet flood area without defined channel banks. Pipeline will remain at least 5.0 feet below natural grade in this area.

Construction inspections shall occur during the construction of the pipeline and an as-built certification letter from an Arizona registered professional civil engineer shall be provided confirming that the improvements were constructed in accordance with the recommendations of the engineer of record as noted on this permit. This certification must be provided within 30 days following completion of the erosion and flood control measures authorized by this permit, or prior to the expiration of this permit, whichever comes first. **A hold on the final building inspection (P2F) will be in place until this Certification is received and approved by the District.**

A Riparian Habitat Mitigation Plan has been approved for FPUP # 13-640 on March 4, 2014 by RFCD (staff) and by the Board of Supervisors on _____, 2014. A fee in-lieu of restoration has been provided. **Any and all work must comply with the approved Riparian Habitat Mitigation Plan. Any additional disturbance shall require a new floodplain use permit and a Riparian Habitat Mitigation Plan.**

It is the responsibility of the permittee to obtain any and all necessary local, state, or federal permits for construction of the water supply line including any permits required by the Clean Water Act prior to construction.

The permittee shall minimize impacts by:

- a) Use existing roads for construction and access where practicable.
- b) Retain a qualified biologist to monitor all ground clearing and construction activities.
- c) Follow published guidelines adopted by AGFD and the United States Fish and Wildlife Service (USFWS) with regard to species designated as endangered as well as species of greatest conservation need as designated by AGFD.

Any additional improvements, including structures, fencing, block walls, swimming pools, etc., shall require a separate Floodplain Use Permit prior to construction. Other than as approved by this permit, natural drainage not to be disturbed.

Patricia Gilbert

From: Kathy Arnold <karnold@rosemontcopper.com>
Sent: Tuesday, March 04, 2014 9:07 AM
To: Patricia Gilbert
Subject: Re: Rosemont Flood Control Mitigation

Thank you Patricia. I will start process the request for the check right now.

Cheers!
Kathy

Kathy Arnold
VP Environmental & Regulatory Affairs
Rosemont Copper
(520) 495-3502

Sent from my iPad

On Mar 4, 2014, at 7:58 AM, "Patricia Gilbert" <Patricia.Gilbert@pima.gov> wrote:

Hi Kathy,

The District has reviewed the Riparian Habitat In-lieu Fee proposal and it has been accepted. When mitigation for disturbance within riparian habitat is through an in-lieu fee, approval from the Board of Supervisor's (BOS) is required. The proposal will be added to the agenda for the next BOS meeting scheduled once the in-lieu fee check is received by the District.

A check for \$145,230 must be received prior to approval of the Floodplain Use Permit FPUP 13-460ERP. The check shall be made out to "Pima County Treasurer" and reference the project name and FPUP 13-460. Please either submit the fee at our office, located at 97 E. Congress Street, 3rd floor or mail to Floodplain Management Riparian Review Staff at the following address:

Pima County Regional Flood Control District
c/o Floodplain Management; Patricia Gilbert
97 E. Congress Street, 2nd Floor
Tucson, AZ 85701

Please feel free to contact me if you have any additional questions.

From: Kathy Arnold [<mailto:karnold@rosemontcopper.com>]
Sent: Wednesday, February 12, 2014 3:49 PM
To: Patricia Gilbert
Subject: Rosemont Flood Control Mitigation

Patricia
As per our conversation this morning, please find my proposal attached.

Regards,

Kathy

Katherine Ann Arnold, P.E. | Vice President Environmental and Regulatory Affairs
Direct: 520.495.3502 | Main: 520.495.3500 | Fax: 520.495.3540
karnold@rosemontcopper.com

Rosemont Copper Company
P.O. Box 35130 | Tucson, AZ 85740-5130
2450 W. Ruthrauff Road, Suite 180 | Tucson, AZ 85705 | www.rosemontcopper.com

PLEASE NOTE: : This e-mail message, including any attachments, is for the sole use of the intended recipients and may contain confidential and/or privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please delete all copies and notify us immediately.

February 12, 2014

Ms. Patricia Gilbert
Principle Hydrologist
Pima County Regional Flood Control District
97 East Congress Street
Tucson, Arizona 85701-1797

Re: Response to February 6, 2014 Letter

Dear Ms. Gilbert:

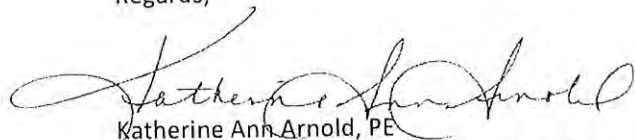
In response to Mr. Graupmann's letter of February 6, 2014 asking for additional detail on our mitigation proposal, Rosemont is providing the following information. As per our conversation this morning, Rosemont wishes to use the Flat fee for mitigation as calculated using Table 2. ILF Development Project Flat Fee Table – Cost per Acre for RRH Disturbance. Using the disturbance as calculated by WestLand and applying the information on the table yields the following:

	Area Impacted (acres)	Cost per Acre (\$)	Total Cost (\$)
XB	0.99	\$ 16,000	\$ 15,840
XC	2.54	\$ 14,000	\$ 35,560
IRA/XB	1.61	\$ 28,000	\$ 45,080
IRA/XC	1.95	\$ 25,000	\$ 48,750
Total	7.09		\$ 145,230

Based on the calculation, once approved, Rosemont would provide \$145,230 to the Regional Flood Control district as mitigation for impacts to the riparian areas associated with the placement of our water line and electrical transmission line.

Please let me know if you require additional information.

Regards,



Katherine Ann Arnold, PE
Vice-President, Environmental and Regulatory Affairs

Doc. No. 009/14-15.10.4.2



PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT
97 EAST CONGRESS STREET, THIRD FLOOR
TUCSON, ARIZONA 85701-1797



SUZANNE SHIELDS, P.E.
DIRECTOR

(520) 243-1800
FAX (520) 243-1821

February 6, 2014

Ms. Kathy Arnold
Rosemont Copper
P.O. Box 35130
Tucson, AZ 85740-5130

**Re: Floodplain Use Permit No. 13-460
Placement of a Water Line and Electrical Distribution Line**

Dear Ms. Arnold:

The Pima County Regional Flood Control District (District) has completed a substantive review of the engineering analysis titled: Addendum to Floodplain Use Permit Application No. 13-460, Rosemont Copper – Water Line and Electric Distribution Line, dated January 21, 2014 and sealed by Clinton M. Glass, P.E. of CMG Drainage Engineering. This Report is the second submitted in support of your application for Floodplain Use Permit (FPUP) No. 13-460 for a water pipeline and electrical distribution line. Upon completion of the review, the hydrology, hydraulics and scour calculations have been accepted by the District and plan set accurately reflects the depth and extent of the lateral migration

However, the District cannot issue the permit until the Riparian Habitat Mitigation Plan is completed. The District has accepted the disturbance calculations that have been provided by WestLand Resources, but has not been informed of or accepted the method of mitigation for this disturbance. The permit will issued upon successful resolution of this last outstanding issue.

The District will proceed with the review of the above project as soon as possible after receiving all of the requested information. Please be advised that there may be additional comments/requirements as a result of the review. Failure to submit the requested information within **90 days** may result in your application becoming void.

If you have any questions or if you would like to schedule a meeting, please contact me at 243-1800.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Graupmann". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jeff Graupmann, PE, CFM
Civil Engineer
Floodplain Management Division

cc: Patricia Gilbert, Principal Hydrologist, RFCD

Mr. Clint Glass, PE
CMG Drainage Engineering, Inc.
P.O. Box 64880
Tucson, AZ 85728



**PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT**
97 EAST CONGRESS STREET, THIRD FLOOR
TUCSON, ARIZONA 85701-1797



**SUZANNE SHIELDS, P.E.
DIRECTOR**

**(520) 724-4600
FAX (520) 724-4621**

December 17, 2013

Ms. Kathy Arnold
Rosemont Copper
P.O. Box 35130
Tucson, AZ 85740-5130

**Re: Notice of Deficiency for Floodplain Use Permit No. 13-460
Placement of a Water Line and Electrical Distribution Line**

Dear Ms. Arnold:

The Pima County Regional Flood Control District (District) has completed a substantive review of the engineering analysis (Report) and site plan submitted in support of your application for Floodplain Use Permit (FPUP) No. 13-460 for placement of a water line and Electrical Distribution Line from the Sanrita West and Sanrita South well sites to the Rosemont Copper mine. The Report is titled: Floodplain Use Permit Application Report for the Rosemont Copper Offsite Water Line and Electrical Distribution Line, is dated November 18, 2013, and was sealed by Clinton M. Glass, P.E. of CMG Drainage Engineering, Inc. This Report was received by the District on November 19, 2013, and is the first submitted in support of your application for Floodplain Use Permit. The Report included reduced copies of the plan and profile sheets provided by CDM Smith dated March 2013. The District's review of the Report and plan set produced the following comments, which must be addressed prior to further action on your application for Floodplain Use Permit.

- 1) The hydrology and hydraulics have been accepted by the District.
- 2) The limits of lateral migration shown on the plan and profile sheets appear to be measured from the centerline of the crossing rather than from the edge of the channel bank. The Report does call out the lateral erosion start and end stations in Table 4. The plan and profile sheets should incorporate this information. Please address.
- 3) Based on field inspection photographs provided by Copper State Engineering, Inc. and on oblique aerial photographs, the dirt road that forms the basis of the pipeline alignment appears to have been graded so that a number of washes have been filled in. The profiles reflect this, as some of the natural channels do not show up along the natural ground line. Because the road may wash out during a regulatory storm event, the depth to the crown of the pipe line should be measured from the bottom of the natural wash that existed before the road was graded. As it may be impossible to determine the exact geometry of the washes prior to the grading, a reasonable approximating using the slopes upstream and downstream of the crossings may be used. Please address.

If you have any questions or if you would like to schedule a meeting, please contact me at 724-4600.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff G.", written over a horizontal line.

Jeff Graupmann, PE, CFM
Floodplain Management Division

cc: Mr. Clint Glass, PE
CMG Drainage Engineering, Inc.
P.O. Box 64880
Tucson, AZ 85728

To: Suzanne Shields P.E. Pima County Regional Flood Control District 97 E. Congress Street, 3 rd Floor Tucson, Arizona 85701	From: Clint Glass	RECEIVED
	Date: 11/19/2013	NOV 19 2013
	CC:	RFCD
	Job No. 12-038	
Re: Floodplain Use Permit Application Report for the Rosemont Copper Offsite Water Line and Electrical Distribution Line		

Item(s) We Are Sending:

Quantity	Description of Item
1	Floodplain Use Permit Application Report for the Rosemont Copper Offsite Water Line and Electrical Distribution Line

Item(s) Are:

☐ For Your Use, As Req. ☐ For Approval ☒ For Review/Comment ☐ Being Returned


Transmitted Via:

☐ Pick-Up ☒ Delivery ☐ E-mail ☐ US Postal Service ☐ Express Mail

Comments:

Suzanne, attached is one copy of the "Floodplain Use Permit Application Report for the Rosemont Copper Offsite Water Line and Electrical Distribution Line". CMG Drainage Engineering, Inc. is submitting this report to RFCD at the request of Rosemont Copper in support of the attached floodplain use permit application. Please let me know if you need anything else.

Received By: _____
Signature Date

Sent By:  11/19/13
Signature Date

PIMA COUNTY FLOODPLAIN USE PERMIT APPLICATION



PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT
97 E. CONGRESS STREET, 3RD FLOOR
TUCSON, ARIZONA 85701-1797
(520) 243-1800



TO BE FILLED OUT BY APPLICANT (PLEASE PRINT CLEARLY):

DS ACTIVITY NUMBER

DATE 11/19/2013	TOWNSHIP 178183	RANGE 14815E	SECTION SEE MAP	TAX CODE NONE
PROPERTY OWNER'S LAST NAME ROSEMONT COPPER		PROPERTY OWNER'S FIRST NAME KATHY ARNOLD		PROPERTY OWNER'S PHONE NUMBER 495-3502
APPLICANT'S LAST NAME CMG DRAINAGE ENGINEERING		APPLICANT'S FIRST NAME CLINT GLASS		APPLICANT'S PHONE NUMBER 882-4244
PROJECT SITE ADDRESS NONE			CITY	STATE
APPLICANT'S MAILING ADDRESS PO BOX 64880			CITY TUCSON	STATE AZ
			ZIP 85728	
SUBDIVISION AND LOT NUMBER OR PARCEL LEGAL DESCRIPTION NONE				

DESCRIPTION OF WORK (A site plan DRAWN TO SCALE and showing ALL proposed work must be attached)
INSTALLATION OF 10.2 MILES OF UNDERGROUND WATER LINE AND ELECTRICAL DISTRIBUTION LINE

DESCRIPTION OF SUPPORTING INFORMATION BEING SUBMITTED
REPORT BY CMG DRAINAGE ENGINEERING, INC. TITLED "FLOODPLAIN USE PERMIT APPLICATION REPORT FOR ROSEMONT COPPER OFFSITE WATER & ELECTRIC"

IF THIS PERMIT IS FOR A STRUCTURE, METHOD OF PROTECTION FROM FLOODING MUST BE INDICATED (CHECK ALL THAT APPLY)
If residence has an attached garage, is the garage FFE below the elevation of the residence? (circle one) Yes No

ELEVATED ON FILL: <input type="checkbox"/>	ELEVATED ON STEM <input type="checkbox"/>	ELEVATED ON PIERS: <input type="checkbox"/>	VENTED AND/OR <input type="checkbox"/>	OTHER (EXPLAIN)
EXTENDS 25 FT FROM STRUCTURE: <input type="checkbox"/>	WALL (DOES NOT INCL. BLOCK SKIRTING): <input type="checkbox"/>	(NOTE PIER TYPE ON PLAN)	FLOODPROOFED	
ENGINEERED <input type="checkbox"/>	BACKFILLED <input type="checkbox"/>	NO SKIRTING <input type="checkbox"/>	BLDG AREA (SQFT):	
ALTERNATIVE: <input type="checkbox"/>	FLOOD-VENTED <input type="checkbox"/>	BREAK-AWAY SKIRTING <input type="checkbox"/>	(SHOW SIZE/LOCATION OF VENTS ON SITE PLAN)	
		BLOCK SKIRTING <input type="checkbox"/>		

By signing this permit application, the undersigned applies for a permit pursuant and subject to the requirements to the FLOODPLAIN AND EROSION HAZARD MANAGEMENT ORDINANCE NO. 2005-FC2 and hereby agrees to abide by all the Covenants, Conditions, and Restrictions contained or referred to herein and to indemnify, defend, and hold harmless Pima County and the Regional Flood Control District and their agents from and against any and all suits, claims, or demands associated with the approval of this application.

APPLICANT SIGNATURE

This application becomes a valid permit only when completed and signed approved by the Regional Flood Control District below and accepted by applicant on reverse. Validated permit is subject to the conditions indicated on the reverse and attachments (if any).

THIS PORTION AND REVERSE TO BE COMPLETED BY PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT

PREP BY	AREA	PERMIT NUMBER	CODE	ZONE	PANEL/DATE	ENGINEERING INCLUDED IN FILE	STATUS	DATE
	4	13-460	UTL	Sheet Flow X	3470L 4/16/11		REC'D	11/19/13
AS BUILT		MH INSTALL. CERTIFICATION	ELEV. CERT OR FLOOD PROOF	COVENANTS R A B S		YES NO		
REQ'D	COMP	REQ'D	COMP	REQ'D	COMP	REQ'D	COMP	RIPARIAN HABITAT
AMOUNT OF RIPARIAN DISTURBANCE (SQ FT):			CUMMULATIVE RIPARIAN DISTURBANCE (SQ FT):			H A B C D N/A		
						IRA? Y/N PLAN? Y/N		
APPROVED						DATE		



MEMORANDUM

Director's Office
Regional Flood Control District



DATE: March 13, 2014

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E.
Director

SUBJECT: Approval of Mitigation Banking Plan for a Water Line and Electrical Distribution Line for Rosemont Copper Located within Important Riparian Area with underlying Class B and C, Xeroriparian B and Xeroriparian C Habitat (District 2 and 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. The water line and electrical distribution line for Rosemont Copper will disturb 7.09 acres of regulated riparian habitat, including 1.61 acres of Important Riparian Area with underlying Xeroriparian Class B (IRA/X B), 1.95 acres of Important Riparian Area with underlying Xeroriparian Class C (IRA/X C), 0.99 acres of Xeroriparian Class B and 2.54 acres of Xeroriparian Class C habitat.

Report

Rosemont Copper is proposing to construct a water delivery system and electrical distribution line in support of the Rosemont Copper Project on property shown on Exhibit A. The property contains Important Riparian Area with underlying Xeroriparian Class B (IRA/X B), Important Riparian Area with underlying Xeroriparian Class C (IRA/X C), Class B and C Xeroriparian habitat. (Exhibit B). The owners hired Westland Resources, to assess the project site for suitable on-site mitigation. As a result of finding none, Rosemont is proposing to contribute \$145,230 in lieu of onsite habitat mitigation. The project site contains 7.09 acres of mapped riparian habitat; all of the habitat will be disturbed by construction of the water line and electrical distribution line.

The ILF has already been submitted to the District, and is awaiting Board action before placement in the mitigation bank.

Approval of Mitigation Banking Plan for a Water Line and Electrical Distribution line for Rosemont Copper Located within Important Riparian Area with underlying Class B and C, Xeroriparian B and Xeroriparian C Habitat (District 2 and 4)

March 13th, 2014

Page 2

ILF Calculation Spreadsheet

Total Riparian Disturbance: 7.09 acres

Disturbance by class;

1.61 acres IRA/X B,

1.95 acres IRA/X C,

0.99 acres of XB, and

2.54 acres of XC.

Flat fee table for Development Review projects

	XA	XB	XC	XD	IRA/H, H	IRA/XA	IRA/XB	IRA/XC	IRA/XD
Cost per Acre	\$17,000	\$16,000	\$14,000	\$12,000	\$40,000	\$30,000	\$28,000	\$25,000	\$22,000

1.61 acres IRA/X B = \$45,080

1.95 acres IRA/X C = \$48,750

0.99 acres of XB = \$15,840

2.54 acres of XC = \$35,560

Total In-lieu Fee = \$145,230

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.

Respectfully submitted,

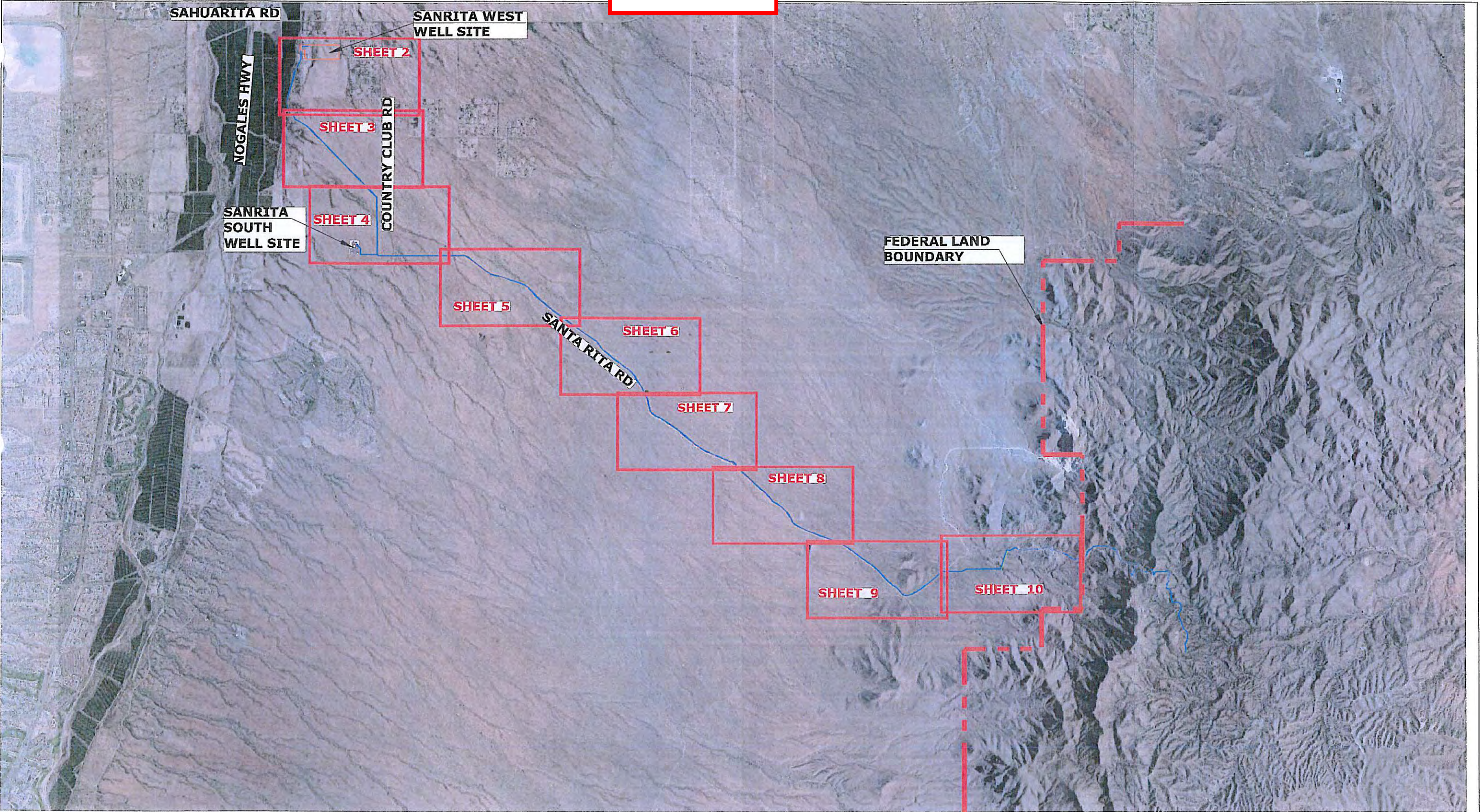
Suzanne Shields, P.E., Director
Pima County Regional Flood Control District

Attachments: Exhibit A – Project Location

95011 / 00097898 / v2

Exhibit B – Riparian Habitat Mitigation Plan

Exhibit A



LEGEND
— PROPOSED ROSEMONT WATER LINE



PROJECT NO.	12-038
DESIGN	CMG
CHECKED	CMG
DRAWN	BJK
DATE	06/13/2013
REV DATE	09/03/2013
REV DATE	
REV DATE	

ROSEMONT COPPER
OFFSITE WATER LINE AND POWER
DISTRIBUTION LINE
INDEX
SHEET 1 OF 10

Exhibit B

ROSEMONT COPPER PROJECT Regulated Riparian Habitat Mitigation Plans

PROJECT DESCRIPTION

Rosemont Copper Company (Rosemont) proposes to construct a new fresh water delivery system (pipeline) in support of the Rosemont Copper Project (Project). As shown on Sheet G 0.1 of the attached plans, this proposed pipeline will extend from east of the Town of Sahuarita to the proposed Project site. The total length of the proposed pipeline is approximately 15 miles and, as illustrated on Sheet G 0.1, it would parallel existing public roads for most of its length. A typical section is provided in Detail 1, Sheet G 0.1.

REGULATED RIPARIAN HABITAT

The Pima County Riparian Habitat Classification Maps (2005) depict four classes of Regulated Riparian Habitat that would be impacted by construction of the proposed pipeline: Xeroriparian Class B (XB), Xeroriparian Class C (XC) and Important Riparian Areas with underlying XB and XC (IRA/XB and IRA/XC). The number of acres of each class that would be disturbed is summarized below in Table 1.

Table 1. Summary of impacts to Pima County-designated Regulated Riparian Habitat resulting from construction of pipeline.

Riparian Classification	Disturbed Acres
XB	0.99
XC	2.54
IRA/XB	1.61
IRA/XC	1.95

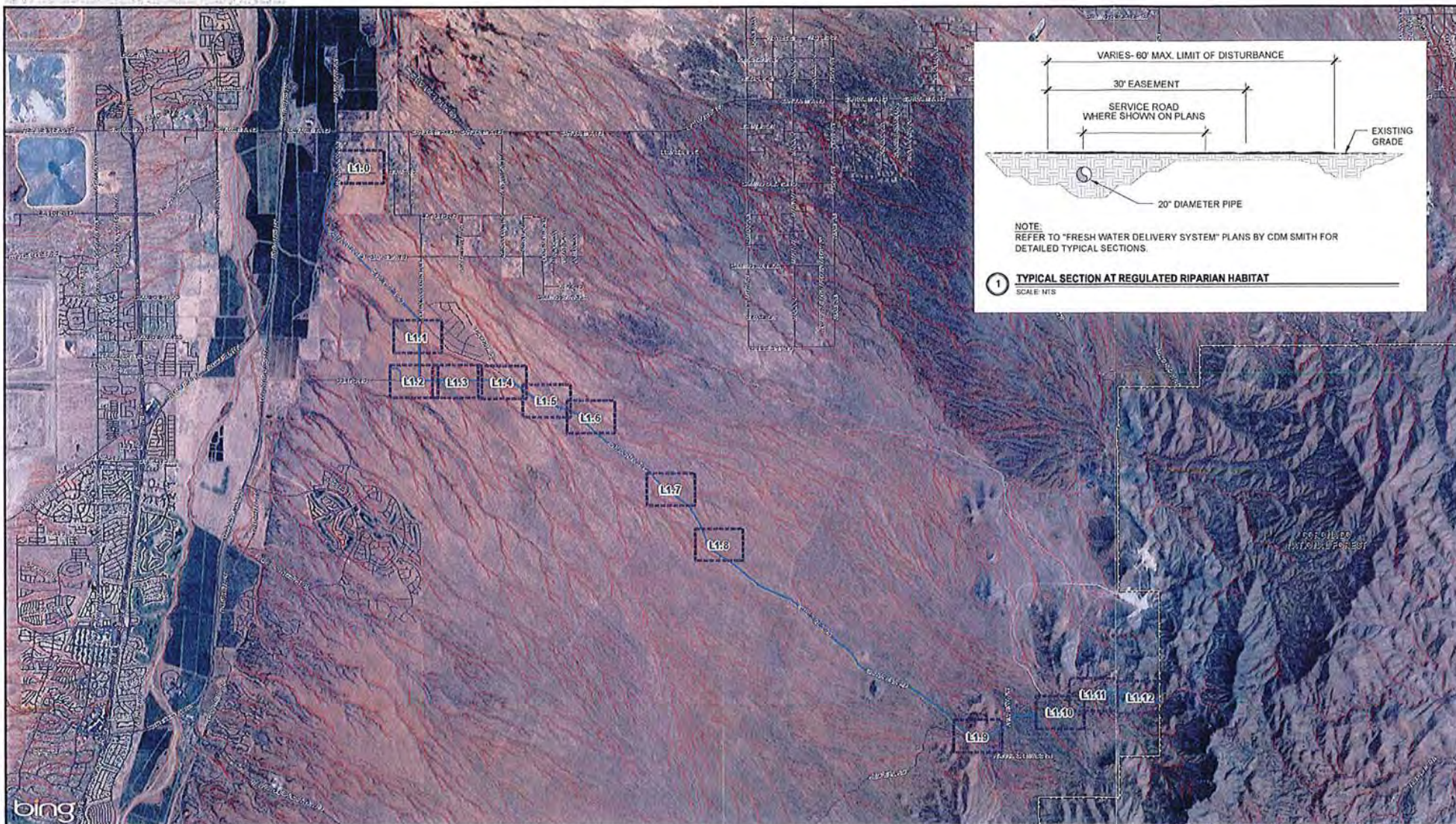
The alignment of the proposed pipeline and the limits of disturbance to the Regulated Riparian Habitats are illustrated in the attached plans. Impacts are only considered up to the boundary of the Coronado National Forest. During December 2012, January 2013, and March 2013, Westland Resources, Inc. (Westland), reviewed the proposed alignment and visited each of the riparian habitats that would be impacted by the proposed construction. Selected photographs from that review are included on the attached plan sheets.

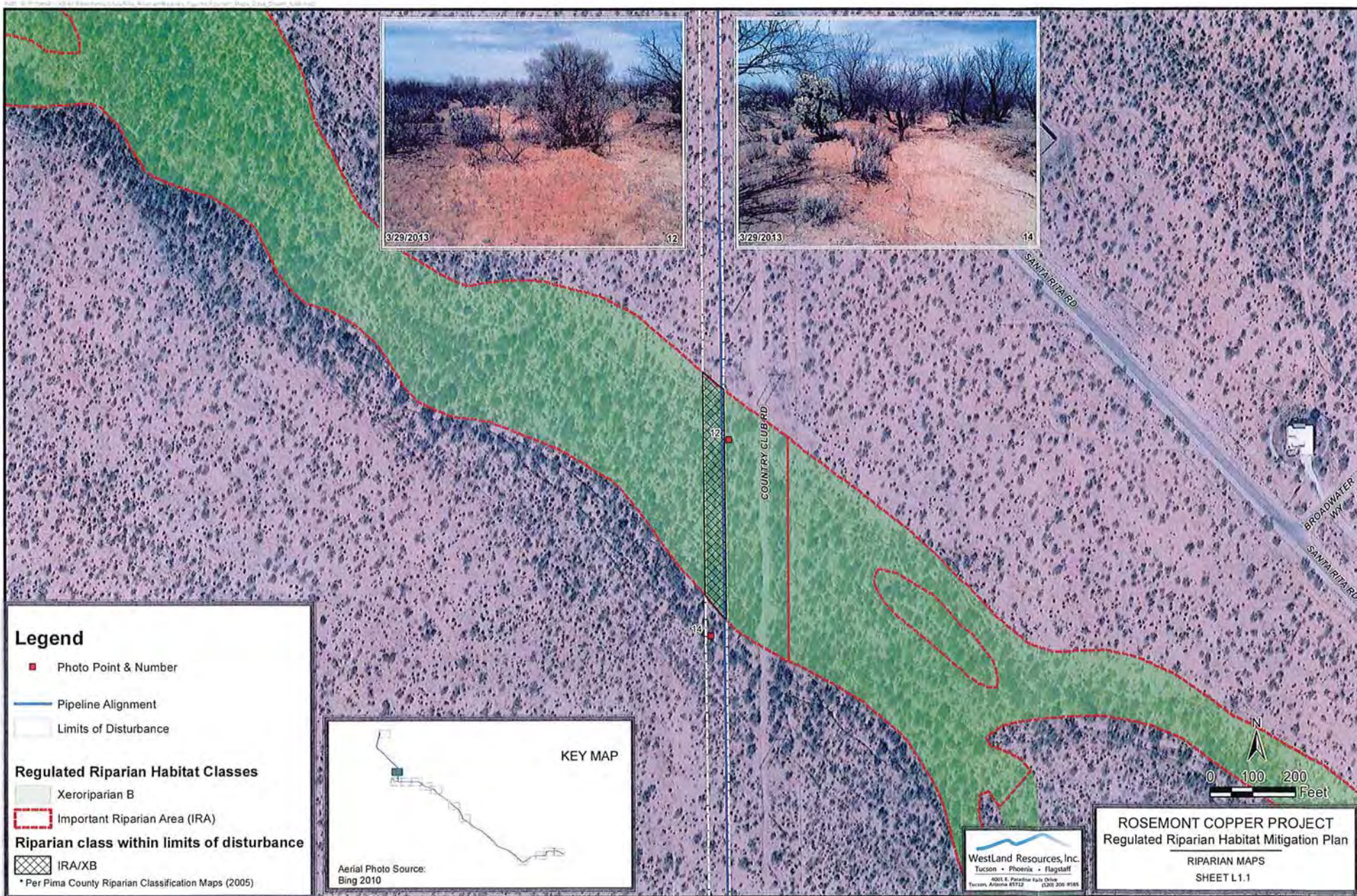
Mitigation for unavoidable impacts of the xeroriparian habitat will be provided through riparian habitat mitigation measures developed for the larger Rosemont Copper Project.

Monitoring for invasive species within the project area will be incorporated into the invasive species monitoring effort for the larger project area. The monitoring of the pipeline project area will continue for five (5) years from the completion of the installation of the pipeline, per the requirements of the Pima County Regional Flood Control District.

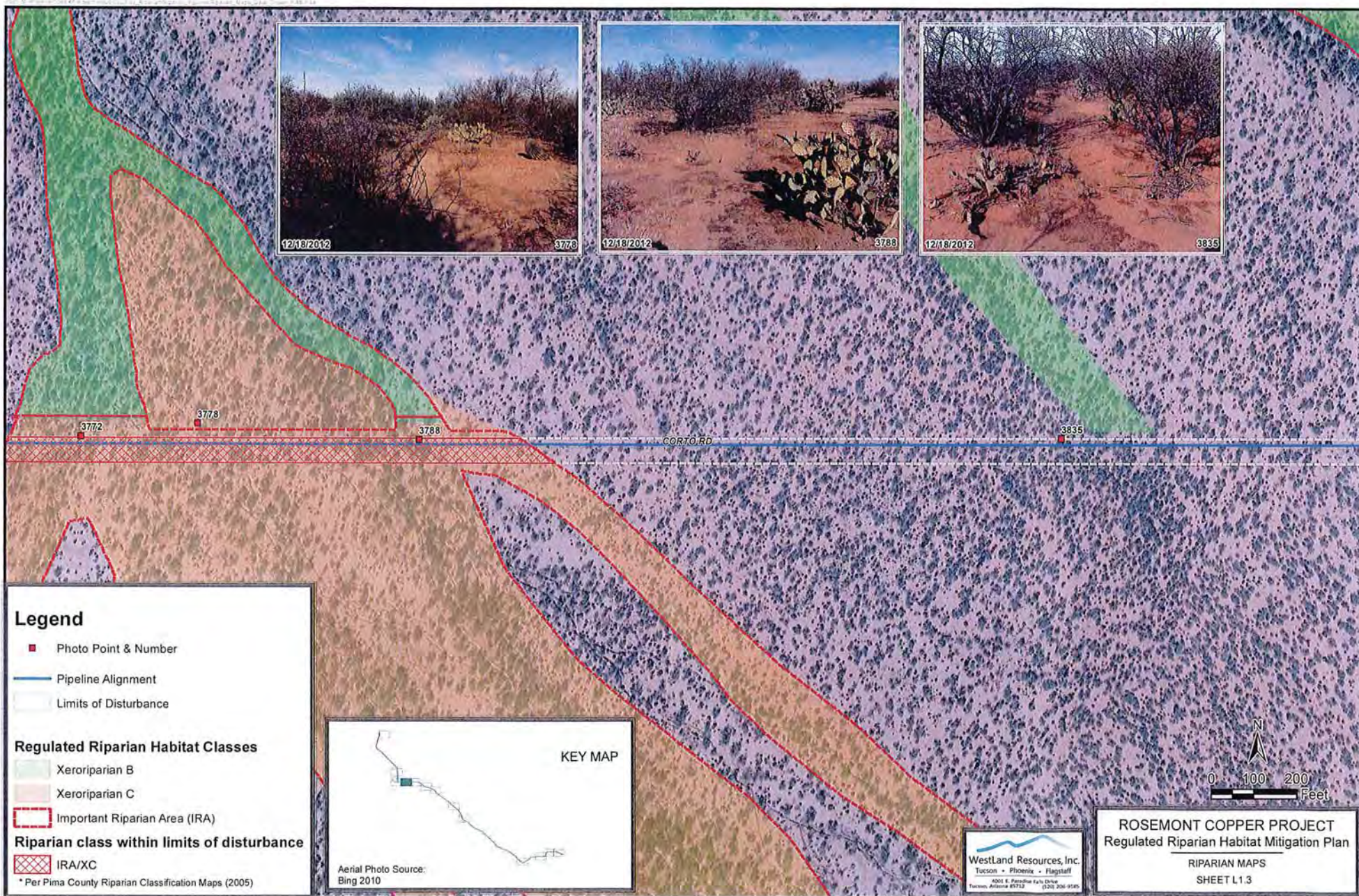


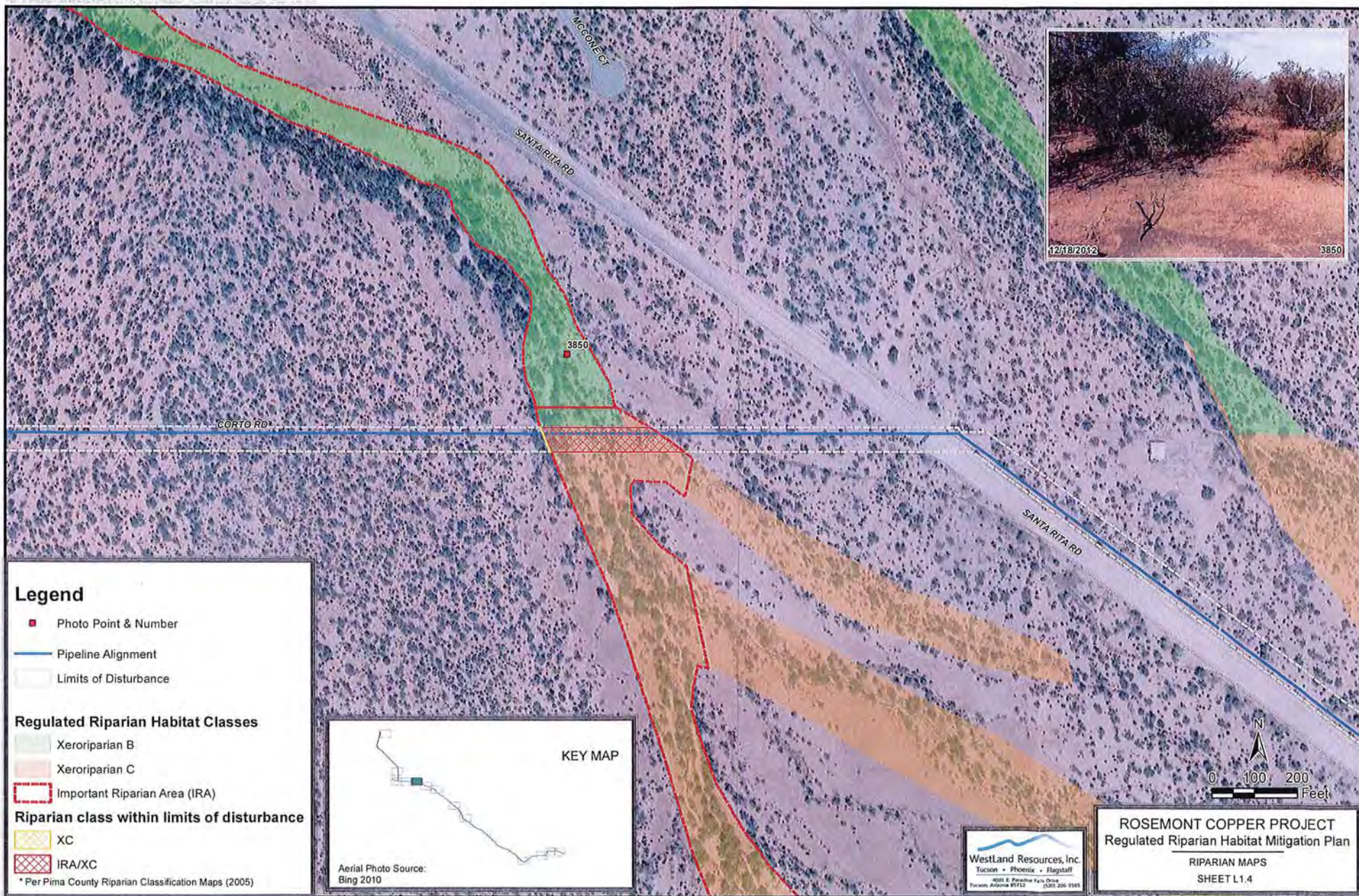
T17S, R14E, Portion of Sections 17-20, 27-29 & 32-35
T18S, R14E, Portion of Sections 1, 2 & 12,
T18S, R15E, Portion of Sections 7, 17, 18 & 20-23
Pima County, Arizona.
Corona de Tucson, Empire Ranch, Helvetia & Sahuarita
USGS 7.5' Quadrangles

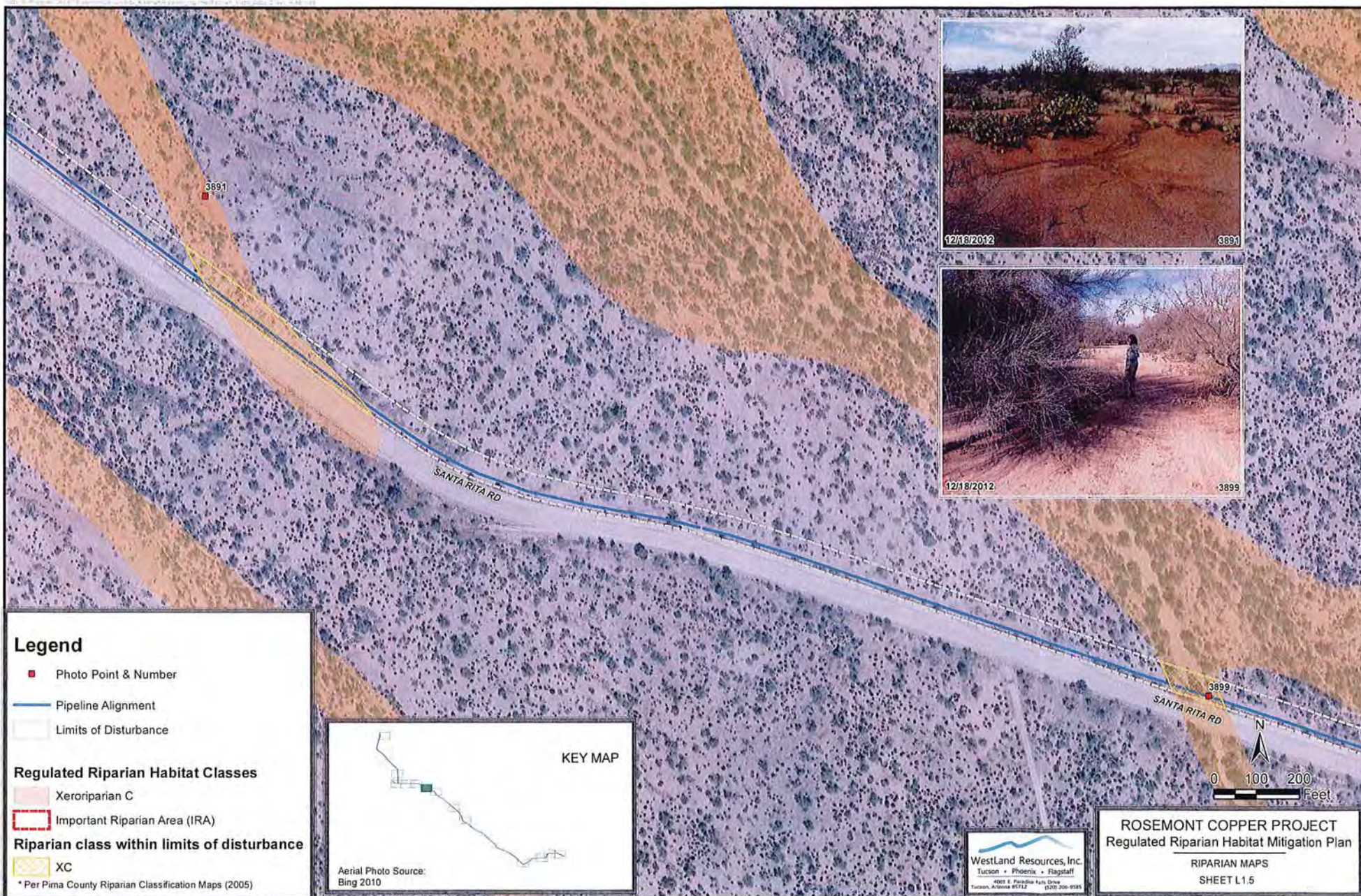


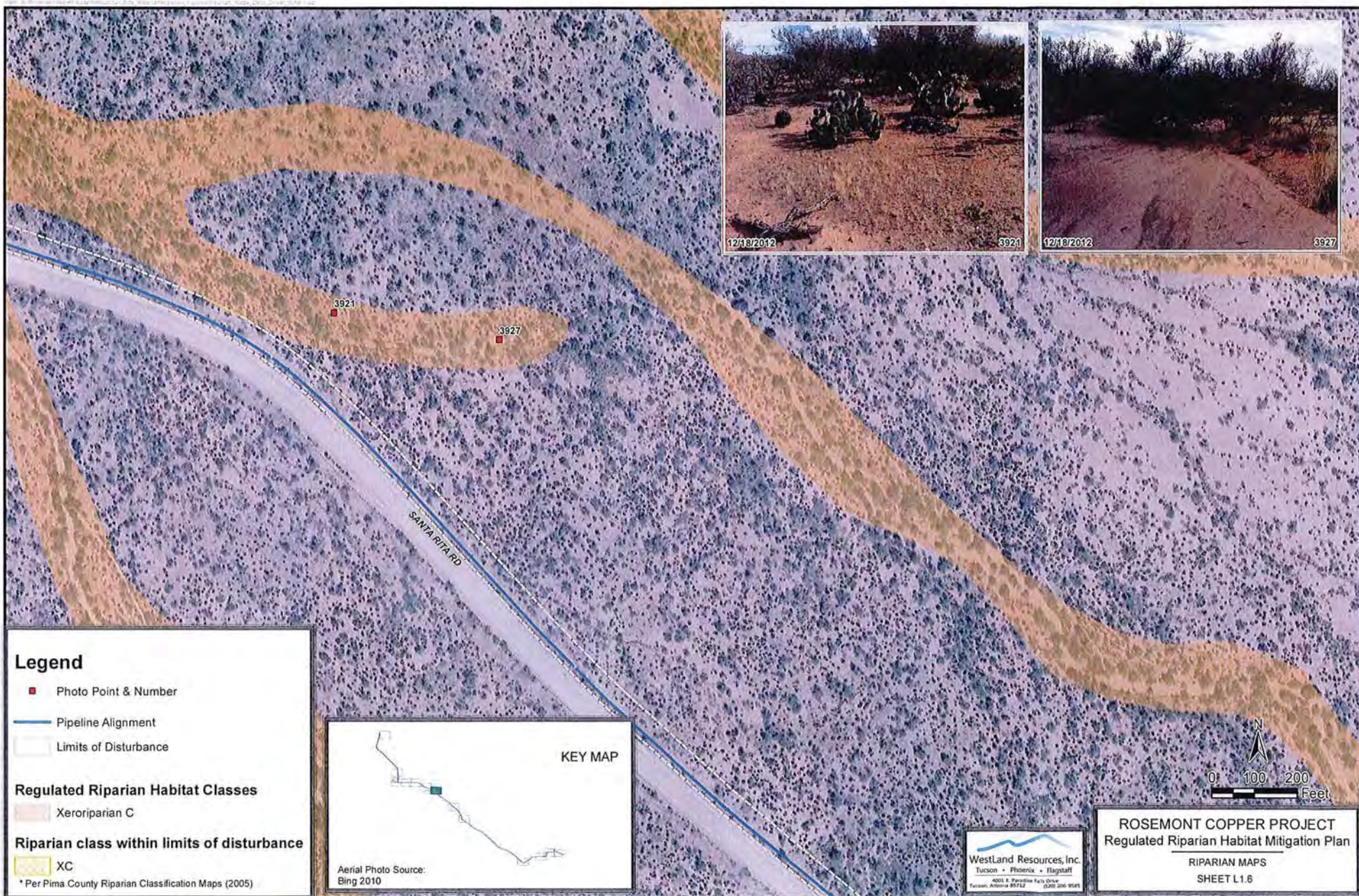


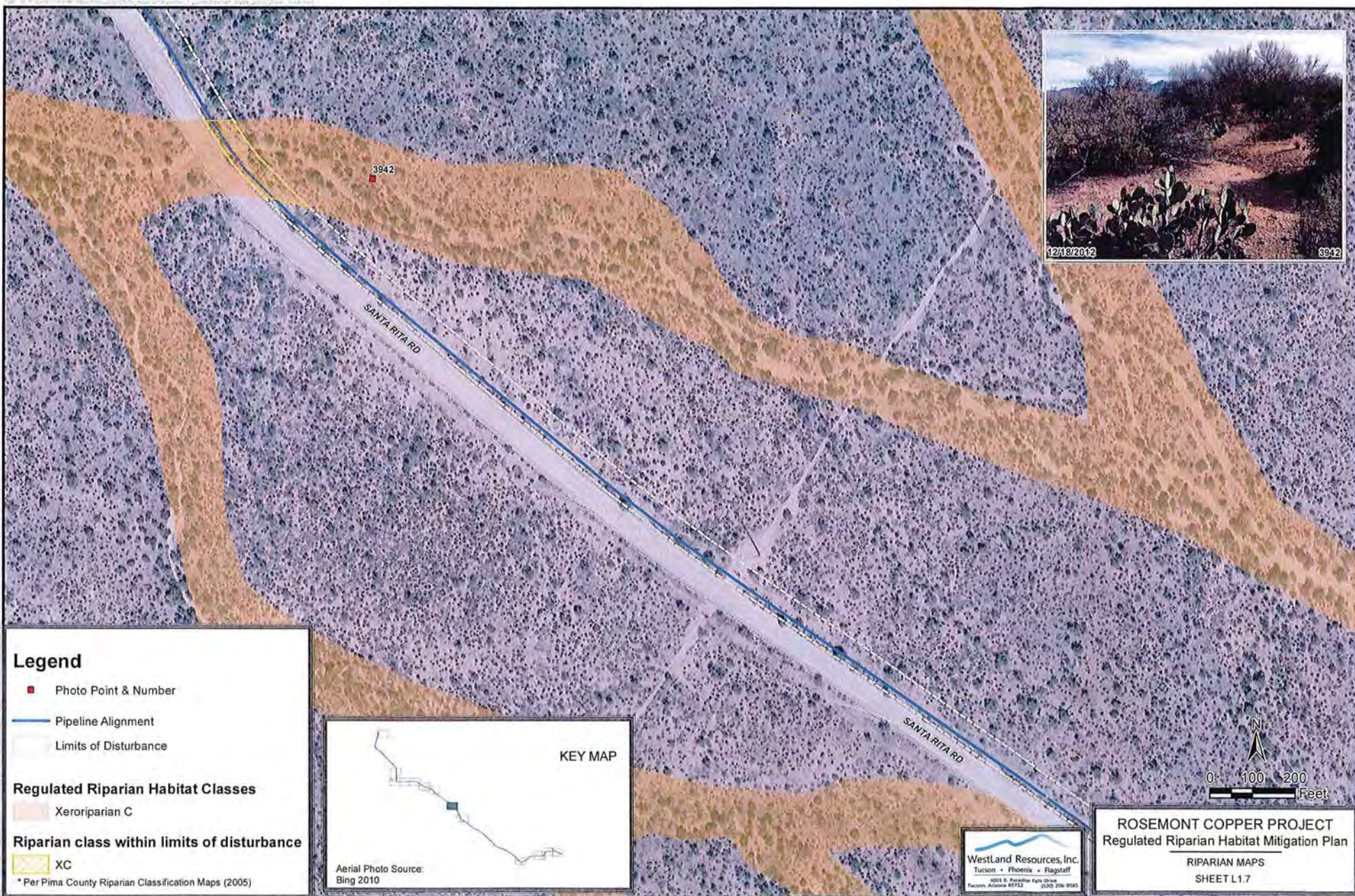


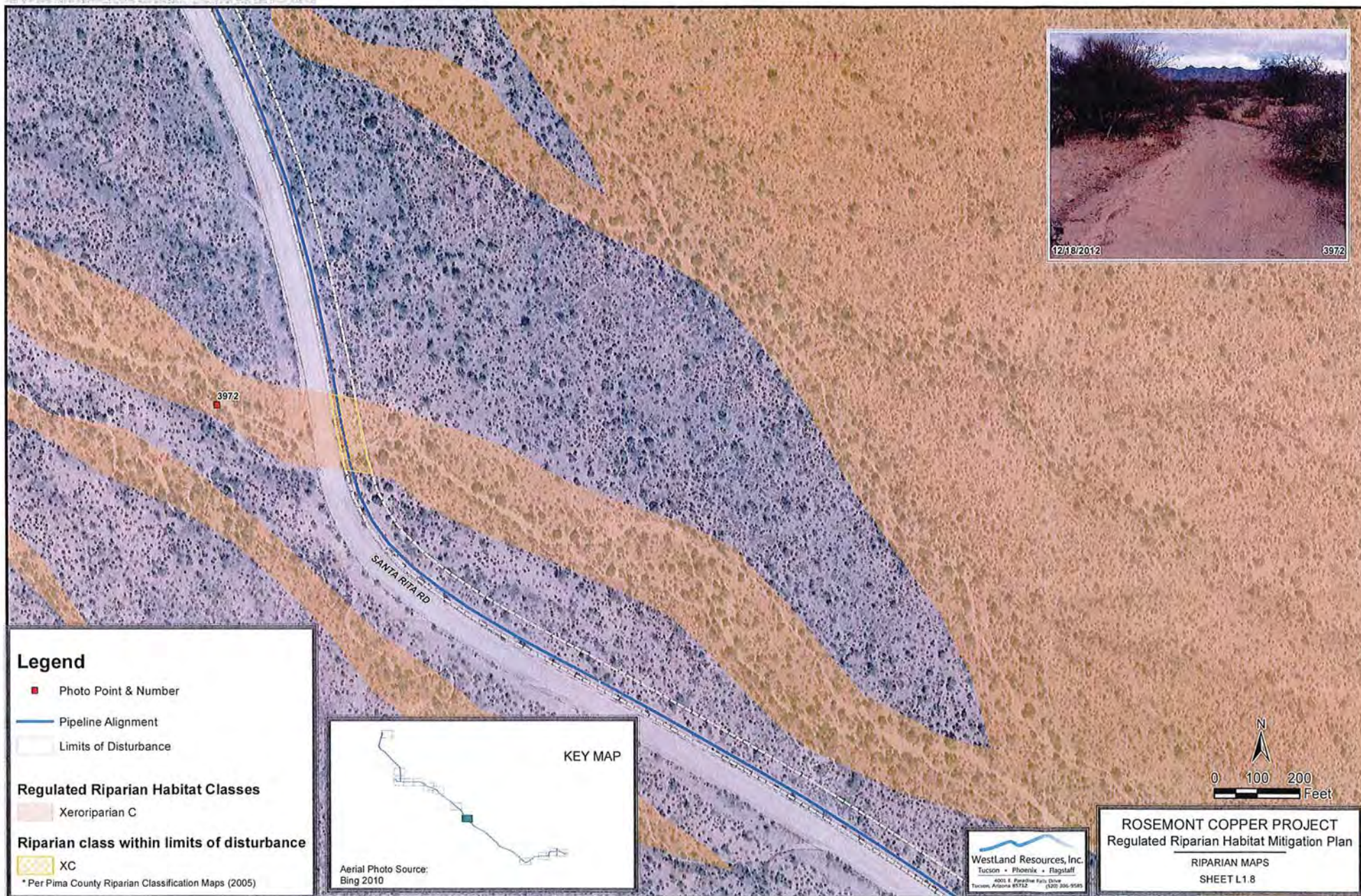


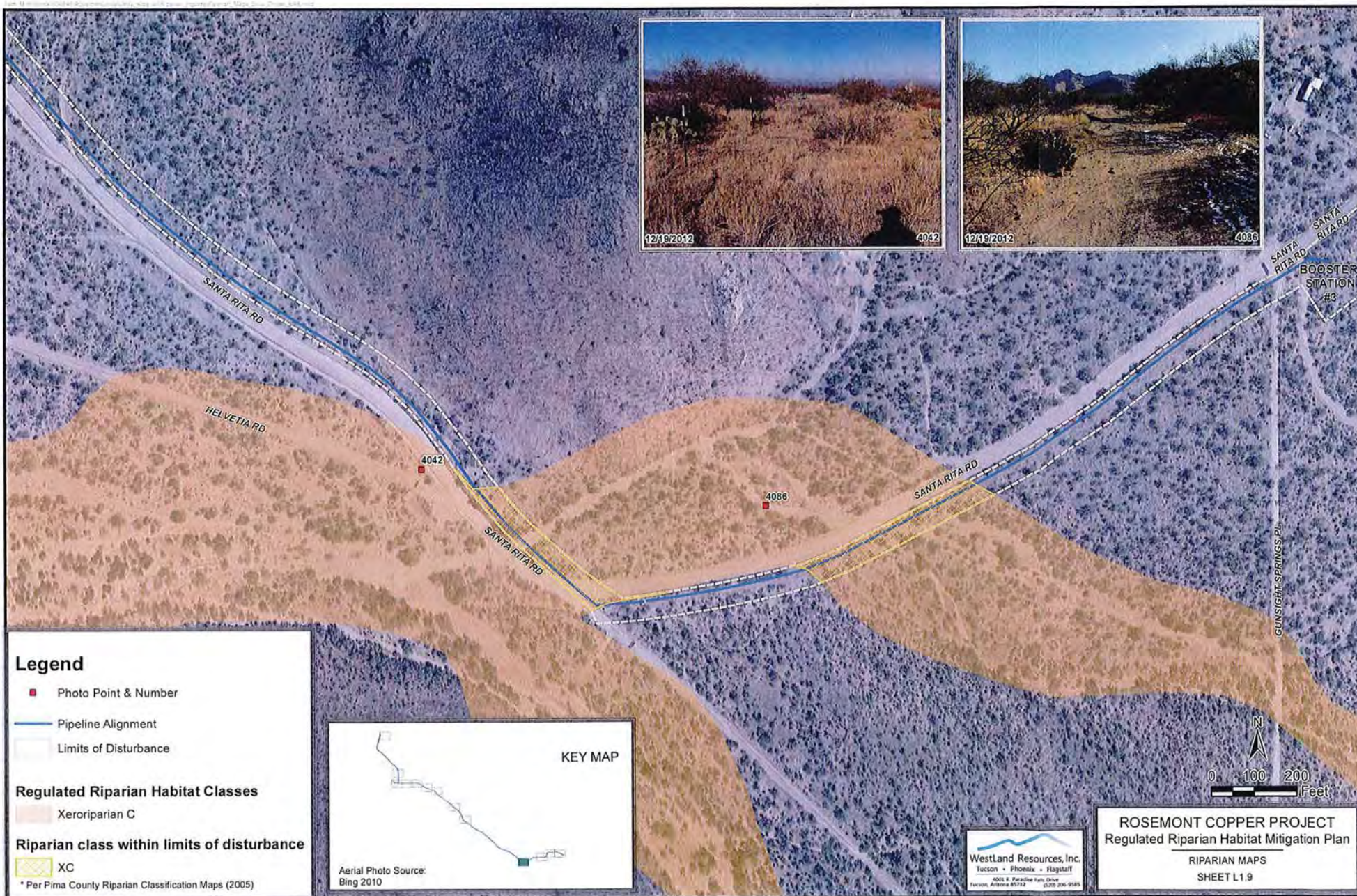












Legend

■ Photo Point & Number

— Pipeline Alignment

--- Limits of Disturbance

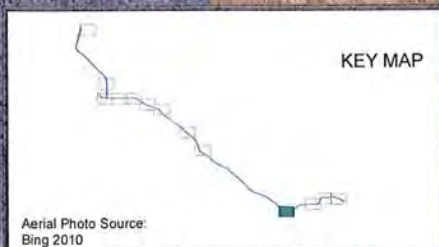
Regulated Riparian Habitat Classes

Xeroriparian C

Riparian class within limits of disturbance

XC

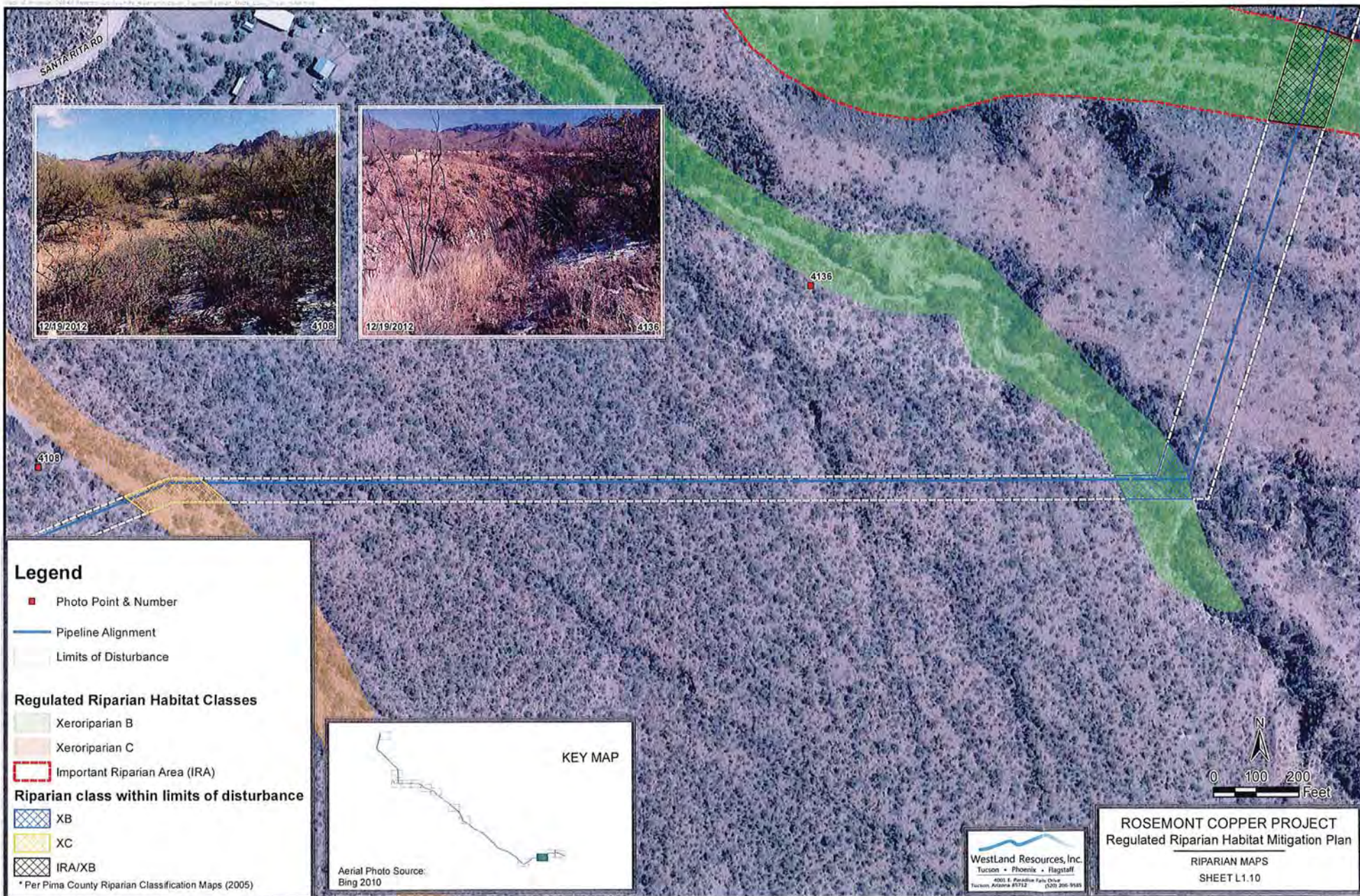
* Per Pima County Riparian Classification Maps (2005)

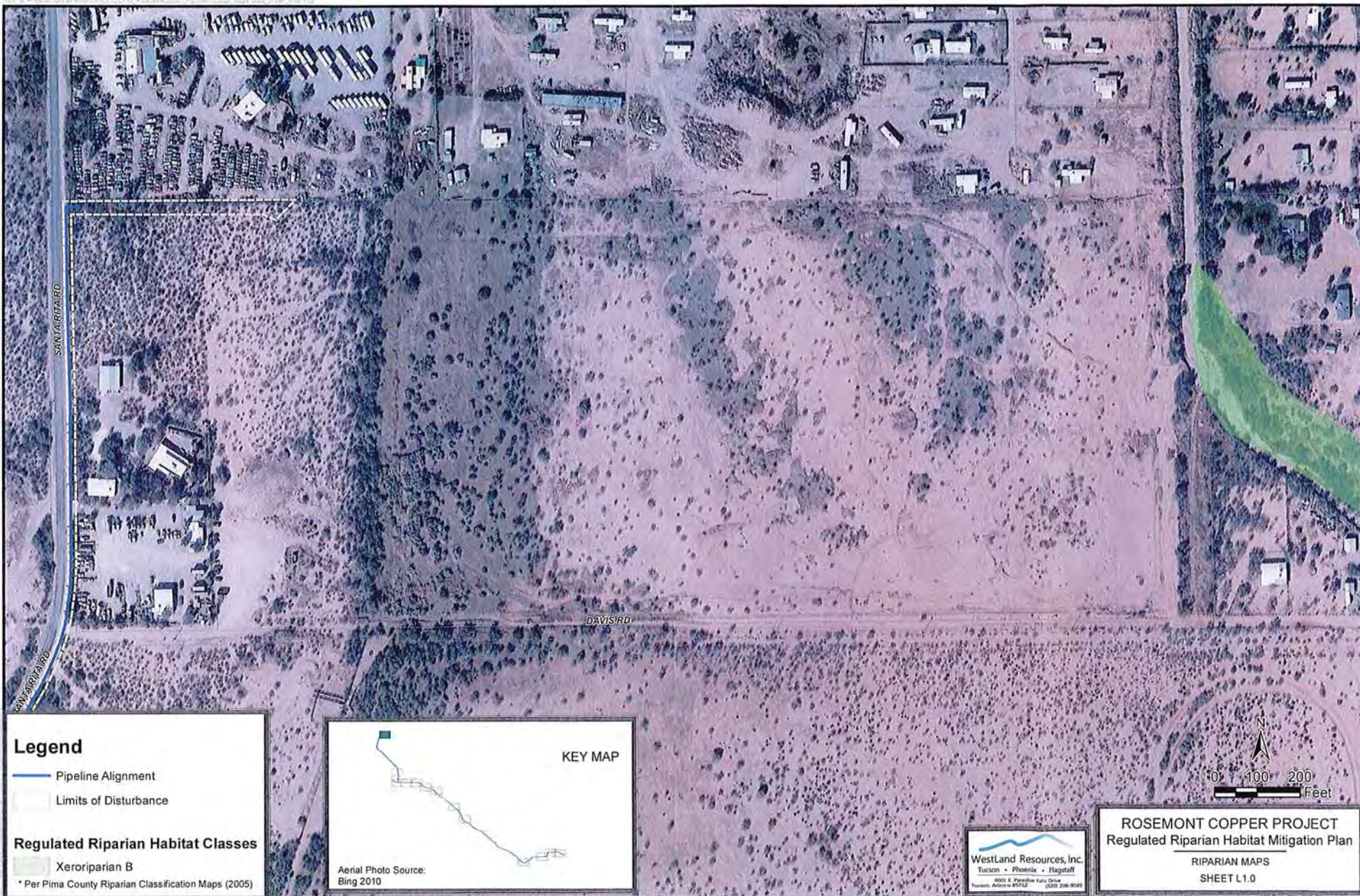


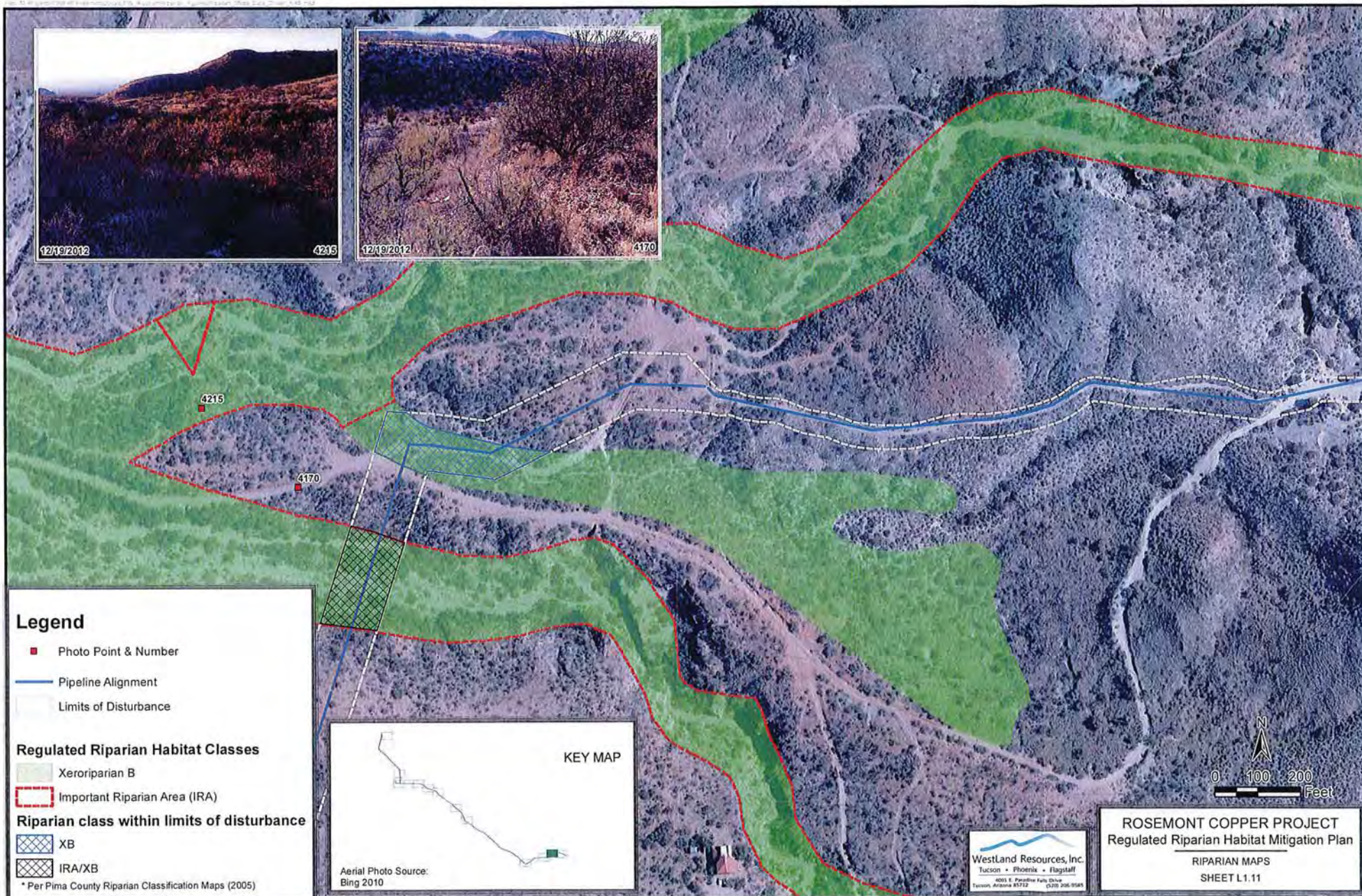
Aerial Photo Source:
Bing 2010

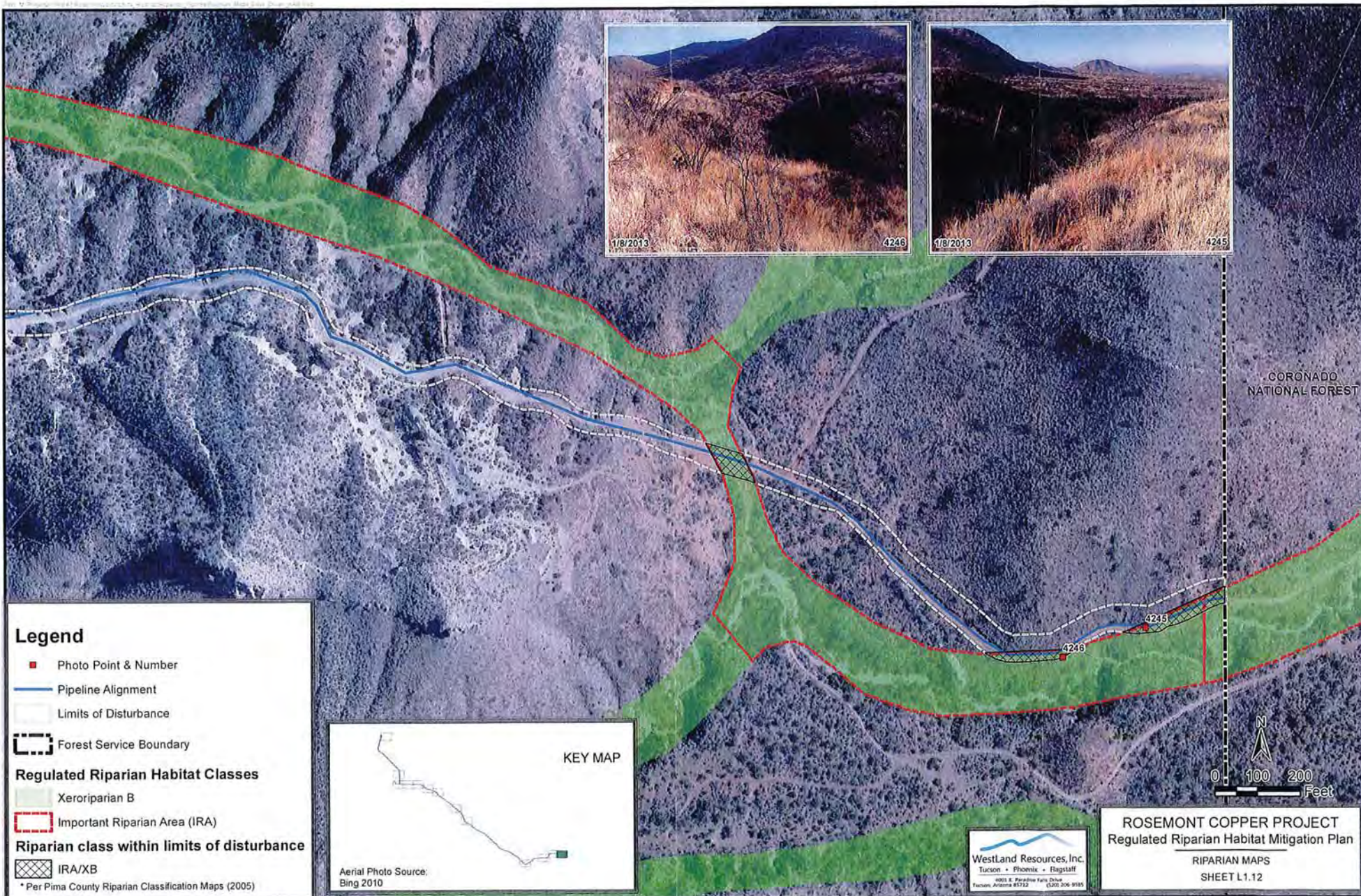


ROSEMONT COPPER PROJECT
Regulated Riparian Habitat Mitigation Plan
RIPARIAN MAPS
SHEET L1.9



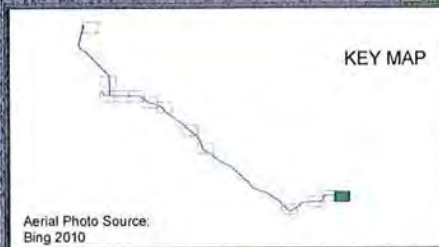






Legend

- Photo Point & Number
 - Pipeline Alignment
 - Limits of Disturbance
 - Forest Service Boundary
 - Regulated Riparian Habitat Classes**
 - Xeroriparian B
 - Important Riparian Area (IRA)
 - Riparian class within limits of disturbance**
 - IRA/XB
- * Per Pima County Riparian Classification Maps (2005)



Aerial Photo Source:
Bing 2010

WestLand Resources, Inc.
Tucson • Phoenix • Flagstaff
4003 E. Paradise Valley Drive
Tucson, Arizona 85712 (520) 296-9191

ROSEMONT COPPER PROJECT
Regulated Riparian Habitat Mitigation Plan
RIPARIAN MAPS
SHEET L1.12