PIMA COUNT FLOODPLAIN USE PERMIT PPLICATION

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

DS ACTIVITY NUMBER

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

DATE	TOWNSHIP	RANGE	SECTION	TAX CODE
4-12-07	T17S	R17E	19 & 30	306-15-0550 (19) 306-15-0370 (30

PROPERTY OWNER'S LAST NAME	PROPERTY OWNER'S FIRST NAME	PROPERTY OWNER'S PHONE NUMBER
CALIFORNIA PORTLAND CEMENT Co	STATE OF ARIZONA UNDER LEASE FROM	626-691-2227
APPLICANT'S LAST NAME	APPLICANT'S FIRST NAME	APPLICANT'S PHONE NUMBER
HARRISON	EDWARD	626-691-2227

PROJECT SITE ADDRESS	CITY	STATE	ZIP
APPLICANT'S MAILING ADDRESS	CITY	STATE	ZIP
11115 N. CASA GRANDE Hwy	RILLITO	AZ	85654

SUBDIVISION AND LOT NUMBER OR PARCEL LEGAL DESCRIPTION

DESCRIPTION OF WORK (A site plan DRAWN TO SCALE and showing ALL proposed work must be attached)
ROADWAY ACCESS THROUGH DAVIDSON CANYON WASH TO MINERAL LEASE. ACCESS ROAD WOULD BE 50ft WIDE.

DESCRIPTION OF SUPPORTING INFORMATION BEING SUBMITTED
05-736R

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

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: E Harrison

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
AL	C1	07-243R	MS5	A	3475K 2-8-99	

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): 12,920	CUMMULATIVE RIPARIAN DISTURBANCE (SQ FT): 12,920	H A B C D N/A IRA? Y/N PLAN? Y/N
APPROVED	DATE 7/25/08	

STATUS	DATE
REC'D	4-12-07
Walt	11-5-07
RLWD	3-18-08
APPR	7/25/08
Issued	7/29/08

12/15/2006

GENERAL CONDITIONS (applicable to all floodplain use permits)

Applicant agrees to comply with all conditions and restrictions as stated in Pima County Floodplain and Erosion Hazard Management Ordinance No. 2005-FC2 (hereafter Title 16 of the Pima County Code), as recorded in the office of the Pima County, Recorder, Pima County, Arizona, as Title 16 at Docket 12643, Pages 825 - 891.

This permit shall be valid for a period of one (1) year from the date of approval. This permit can be revoked subject to the provisions of Title 16 at 16.20.060.

Applicant assumes responsibility for engineering, design, construction, inspection and maintenance associated with all improvements and facilities covered by this permit and hereby certifies that any and all federal, state, and other local permits required for the activity covered by this permit, including but not limited to any and all permits required under the Clean Water Act, have been obtained. Natural drainage shall not be altered, disturbed or obstructed, other than as allowed under this permit.

By the issuance of this permit, Pima County Regional Flood Control makes no representation regarding applicant's authority or permission to enter into and upon the lands of third parties. It is the responsibility of the applicant to obtain any and all rights of entry or easements from any or all third party landowners, which may be necessary to effectuate the conditions of this permit.

Uses allowed under this permit shall be confined to those described in the application on reverse and shall conform to the limits shown on the plot plan, EXHIBIT A, attached hereto and incorporated by reference herein.

Special conditions for Floodplain Use Permit No. 07-243R (Page 1 of 1)

Permittee acknowledges that a portion of the subject property is located in a Special Flood Hazard Area (SFHA), Zone A as shown on the Flood Insurance Rate Map (FIRM), Community-Panel No. 040073-04019C-3475K , effective date 2/8/99. Federal law requires that a flood insurance policy be obtained as a condition of a federally-backed mortgage or loan that is secured by a building located within a SFHA.

Permit is for a haul road as shown on the site plan. The activity is located within the FEMA Zone A flood hazard area.

Permittee acknowledges that this parcel contains Important Riparian Areas, as shown on the *Riparian Habitat Classification Maps*, 2005. A cumulative disturbance of one third of one acre, 14,520 square feet, or more of this habitat, will require a Floodplain Use Permit, a Mitigation Plan, and may require Board of Supervisors approval per Chapter 16.30 of the Ordinance. The disturbance calculated for this permit is 12,920 sf. [The cumulative disturbance for this property is 12,920 s.f.] All work performed on this parcel shall comply with the requirements of the Riparian Habitat Ordinance, Chapter 16.30 of the Floodplain and Erosion Hazard Management Ordinance No. 2005-FC2, Title 16 of the Pima County Code.

Drive to be constructed at grade only. No culvert crossings without review/approval by Floodplain Management.

It is the responsibility of the permittee to obtain any and all other necessary permits including but not limited to Pima County Zoning Permits and COE 404 Clean Water Act permits.

Any additional improvements, including structures, fencing, block walls, swimming pools, etc., shall require a separate Floodplain Use Permit prior to construction. Natural drainage not to be disturbed.

APPLICANT ACCEPTANCE SIGNATURE	Elevation Certificate Received? (NA)	DATE 7/29/08

Carla Danforth

From: Carla Danforth
Sent: Wednesday, November 19, 2008 2:49 PM
To: Tammy Jorde; Diana Durazo
Cc: Eric Shepp; Greg Saxe; Tom Helfrich; Marisa Rice
Subject: RE: constituent call

I spoke with Elizabeth Webb and (after speaking with me, Eric, Greg, and Carolyn Campbell) she understands the riparian mapping methodology, scale, rectification issues, FPMO ordinance/adoption process, and importance of viewing the maps "in the big picture" and not discounting the validity of the mapping because of polygon boundaries in one location.

She has many other concerns over the project, monitoring/enforcement, and particularly with state and Federal agency review process and permitting. If she has more concerns regarding habitat disturbance and monitoring or mitigation , I will be happy to talk with her or Carolyn.

-Carla Danforth
243-1852

From: Tammy Jorde
Sent: Tuesday, November 18, 2008 3:41 PM
To: Diana Durazo; Carla Danforth
Subject: RE: constituent call

Carla Danforth should be able to handle this one.

Tamara Jorde, Special Staff Assistant
Office of the Director and Chief Engineer
Pima County Regional Flood Control District
97 E. Congress Street, 3rd Floor
Tucson, AZ 85701
(520) 243-1880

From: Diana Durazo
Sent: Tuesday, November 18, 2008 3:36 PM
To: Tammy Jorde
Subject: constituent call

Hi Tammy,

We just received a call from Elizabeth Webb, 247-3838, asking about Important Riparian Areas and Davidson Canyon. She mentioned that portions of Davidson Canyon are no longer considered Important Riparian Areas, when a few years ago they were. She would like some information on this. Can you forward to the appropriate staff for response? Not sure who she should talk to. Also, can he/she let me know too?

Thanks!
Diana

Suzanne Shields

From: Nicole Fyffe
Sent: Wednesday, July 23, 2008 10:44 AM
To: Suzanne Shields
Cc: Tammy Jorde; Akitsu Kimoto; Evan Canfield; Eric Shepp; Julia Fonseca
Subject: FW: Davidson Canyon Floodplain Use Permit

Hi Suzanne. Before this permit is issued, please review with Chuck. Thanks.

-Nicole

-----Original Message-----
From: Chuck Huckelberry
Sent: Wednesday, July 23, 2008 10:37 AM
To: Nicole Fyffe
Subject: Re: Davidson Canyon Floodplain Use Permit

Tell suzanne I would like to review.

-----Original Message-----
From: Nicole Fyffe
To: Chuck Huckelberry
Sent: Wed Jul 23 10:34:40 2008
Subject: FW: Davidson Canyon Floodplain Use Permit

Chuck, fyi, CalPort has submitted all the necessary info for a floodplain use permit to cross wash, so FCD will be issuing permit shortly. Will find out shortly if they need a 404 permit.

-Nicole

From: Akitsu Kimoto
Sent: Wednesday, July 23, 2008 10:25 AM
To: 'marjorie.e.blaine@usace.army.mil'
Cc: Evan Canfield; Eric Shepp; Nicole Fyffe; Julia Fonseca
Subject: Davidson Canyon Floodplain Use Permit

Hello Marjorie,

I've been working on a Floodplain use permit for Davidson Canyon. We've just received a letter sending to you from Mr. Craig Douglas about the 404 permit. That is the last piece of information we required for our permit (floodplain use permit). Therefore, we will be ready to issue a floodplain use permit for the road crossing in Davidson Canyon.

We noticed that the road crossing they are talking on the letter looks narrower and shorter, comapred to the plan they submitted to us. We are not sure if they are talking about the same road crossing or not. However, we thought you may be interested in our finding.

For your information, I attached the letter we received.

Please feel free to contact me if you have questions.

Thank you very much,

AKITSU KIMOTO

Pima County Regional Flood Control District

<<Blaine ltr 7.21.08 CPC Empire 404 - PDF (00046761).PDF>>

Suzanne Shields

From: Nicole Fyffe
Sent: Wednesday, July 23, 2008 1:16 PM
To: Eric Shepp; Akitsu Kimoto
Cc: Evan Canfield; Julia Fonseca
Subject: RE: Davidson Canyon FPUP

Got it, thanks Eric. -N

From: Eric Shepp
Sent: Wednesday, July 23, 2008 1:07 PM
To: Akitsu Kimoto
Cc: Evan Canfield; Nicole Fyffe; Julia Fonseca
Subject: RE: Davidson Canyon FPUP

Nicole,

The Floodplain Ordinance requires that permits are requested from (but not issued by) other governmental agencies, the excerpt of our rule is provided:

16.20.020.D. The Chief Engineer shall review the proposed development to assure that all necessary permits have been requested from those governmental agencies from which approval is required by federal or state law including Section 404 of the Federal Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1134.

Historically, this has meant correspondence to the Corps regarding the proposed development. It is then between the Corps and the applicant to discuss the details or appropriateness of coverage under any of the Nationwides or need for individual permit, as well as any ramifications for commencement of construction without have secured the appropriate federal permits.....In this case, I think they claim coverage under Nationwide 14, with no pre-construction notification due to the limited disturbance of jurisdictional waters. For our part, we wanted the Corps to have the plan we reviewed to make sure that we are all reviewing the same thing. The Corps will make any final determinations, but at least we made sure that they know.

We also required a copy of the SWPPP as required for compliance with Section 402 of the Act.

When conditions for the permit have been completed, they'll be sent to you for review. Our conditions will be very basic, as it is an at-grade haul road, not alot of actual floodplain impacts.

Please let me know if there are thing you'd like included in the permit as conditions, legal authority permitting.

Eric

From: Akitsu Kimoto
Sent: Wednesday, July 23, 2008 12:49 PM
To: Eric Shepp
Cc: Evan Canfield; Nicole Fyffe; Julia Fonseca
Subject: RE: Davidson Canyon FPUP

Eric,

I am not sure if we need to wait for Majorie. My understanding is a letter to Corps is enough to meet our requirement, but I may be wrong. Could you answer to Nicole's question for me ?

Thank you,

AKITSU

From: Nicole Fyffe
Sent: Wednesday, July 23, 2008 12:42 PM
To: Akitsu Kimoto; Julia Fonseca
Cc: Evan Canfield
Subject: RE: Davidson Canyon FPUP

Akitsu, was the required information just a letter to Corps, or do we need to wait for Majorie to give an opinion as to whether she agrees an individual 404 permit won't be needed? Thanks.

-Nicole

From: Akitsu Kimoto
Sent: Wednesday, July 23, 2008 9:58 AM
To: Julia Fonseca; Nicole Fyffe
Cc: Evan Canfield
Subject: FW: Davidson Canyon FPUP

Julia and Nicole,

Julia, thank you for sending me the email address.

We sent out the letter to the applicant on April 21, 2008, asking 1. Mitigation plan if the disturbance exceeds 1/3 acre, and 2. a permit application to Army Corps. They modified the plan so that the disturbance is less than 1/3 acre, and they just provided the letter suggesting the application of a permit.

Evan and I spoke to Eric this morning. Our decision is we need to issue the FPUP because basically they provided us all the required information.

I will contact Majorie at Corps to let her know we are ready to issue the permit and the plan they are talking on their letter looks different than the plan we have (the crossing road sounds smaller than the one on the plan we have). They may talk about different plans, but we do not know.

For your information, I attached the letter we received. I will work on the permit condition tomorrow.

Let me know if you have questions.

Thank you,

AKITSU

From: Evan Canfield
Sent: Monday, July 21, 2008 12:21 PM
To: Akitsu Kimoto

Subject: FW: Davidson Canyon FPUP

From: Mike Daly [mailto:mdaly@psomas.com]
Sent: Monday, July 21, 2008 11:31 AM
To: Evan Canfield
Subject: Davidson Canyon FPUP

Evan:

Attached is a letter to the Corps (Marjorie Blaine) which provides information previously requested by the Corps and which will make the file active again. Per your last comment letter, this documentation should be the last piece of information required in support of the FPUP. Please call me if you have any questions or concerns. Thanks.

Mike Daly, PE
PSOMAS | *Balancing the Natural and Built Environment*
Water Resources Manager
520.292.2300
www.psomas.com

JURISDICTIONAL DETERMINATION
U.S. Army Corps of Engineers

Revised 8/13/04

DISTRICT OFFICE: CESPL
FILE NUMBER: 2004-01399 -MB

PROJECT LOCATION INFORMATION:
State: Arizona
County: Pima
Center coordinates of site (latitude/longitude): 31-75-25N/110-38-49W
Approximate size of area (parcel) reviewed, including uplands: 139.24 acres.
Name of nearest waterway: unnamed washes and Davidson Canyon Wash
Name of watershed: Cienega Creek

JURISDICTIONAL DETERMINATION
Completed: Desktop determination ☒ Date: 12 Jun 2006
Site visit(s) ☐ Date(s):

Jurisdictional Determination (JD):

☐ Preliminary JD - Based on available information, ☐ *there appear to be* (or) ☐ *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).

☒ Approved JD – An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:

☐ *There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: .

☒ *There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: 5.18 acres.

☐ *There are "isolated, non-navigable, intra-state* waters or wetlands" within the reviewed area.
☐ Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":
☐ The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":
☐ (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
☐ (2) The presence of interstate waters including interstate wetlands[1].
☐ (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
☐ (4) Impoundments of waters otherwise defined as waters of the US.
☒ (5) The presence of a tributary to a water identified in (1) – (4) above.
☐ (6) The presence of territorial seas.
☐ (7) The presence of wetlands adjacent[2] to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination:* The proposed project is a marble quarry SW of Tucson, AZ; project impacts will primarily be road crossings to access the quarry. The unnamed washes are tributary to Davidson Canyon Wash, tributary to Cienega Creek, tributary to Pantano Wash, tributary to the Rillito River, tributary to the Santa Cruz River, tributary to the Gila River, tributary to the Colorado River which is a navigable water of the U.S. as defined in 33 CFR 329.

SMITH, ROBERTSON, ELLIOTT, GLEN, KLEIN & BELL, L.L.P.

SMITH|ROBERTSON
Attorneys at Law

CRAIG M. DOUGLAS
PARTNER

Direct Line 512.225.5806 • Direct Fax 512.225.5826
Email cdouglas@smith-robertson.com

21 July 2008

Ms. Marjorie Blaine
U.S. Army Corps of Engineers
Regulatory Branch, Tucson Project Office
5205 E. Comanche Street
Davis-Monthan Air Force Base
Tucson, Arizona 85707

VIA CERTIFIED U.S. MAIL
RETURN RECEIPT REQUESTED
No. 7008 0150 0000 7676 4535

RE: Empire Mountain Quarries, Pima County, Arizona

Dear Marjorie:

Our firm is legal counsel to California Portland Cement ("CPC") and its subsidiary, Arizona Portland Cement ("APC"), in connection with the Empire Mountain Quarries in southeastern Pima County, Arizona. As you know, these quarries were the subjects of a Department of the Army permit application that was originally submitted by APC on 1 August 2007, but later withdrawn. During the pendency of the application, Fred Brost of Mining & Environmental Consultants, Inc. was acting as APC's agent. CPC subsequently retained SWCA Environmental Consultants, Inc. ("SWCA") and our firm to re-evaluate regulatory compliance options for the APC quarries. All communications regarding this matter should be directed to my attention.

As discussed below, we believe that the vast majority of APC's activities consist of excavation that does not require a permit under section 404 of the Clean Water Act ("CWA"), 33 U.S.C. § 1344. The access road for the West Quarry will cross three ephemeral washes delineated as jurisdictional by the Corps in June 2006 (File No. 2004-01399-MB). Each of these three separate crossings will impact less than 1/10th acre and may be constructed in full compliance with the terms and conditions of Nationwide Permit 14, including all general and regional conditions. Accordingly, we believe that it will be unnecessary to submit pre-construction notifications ("PCNs") for these crossings. The same can be said for the ultimate extension of that access road into the East Quarry, which also entails four separate crossings of less than 1/10th-acre each. In addition, the improvements associated with utilization of the existing at-grade crossing of Davidson Canyon Wash are outside of the ordinary high water mark and beyond the scope of CWA jurisdiction.

CPC is certainly aware that the Empire Mountain Quarries remain a subject of public discussion and debate. For this reason, CPC elected to advise the Corps of its plan to achieve CWA compliance and explain the basis for its position. CPC

221 West Sixth Street, Suite 1100 • Austin, Texas 78701 • Main Line 512.225.5800 • Main Fax 512.225.5838 • www.smith-robertson.com

welcomes the opportunity to discuss any questions or concerns the Corps may have after reviewing these materials.

In addition to this letter, we are also providing the following materials prepared by SWCA: (1) a technical memorandum with an overview of the NWP qualifications and the existing Corps jurisdictional delineation ("JD"); (2) a Biological Evaluation ("BE") that covers the entirety of the western and eastern leases; and (3) a cultural resource survey that also covers the entirety of the western and eastern leases.

I.
THE EMPIRE MOUNTAIN QUARRIES—RELEVANT BACKGROUND

A. Location of the West and East Quarries and the Related State Leases

The Empire Mountain Quarries consist of two quarries—the West Quarry and the East Quarry—each of which is capable of existing as a stand-alone project with independent utility. Generally speaking, the quarries are located approximately 30 miles southeast of Tucson and seven miles south of I-10 near the Old Sonoita Highway. More specifically, the quarries are approximately 0.8 miles north of the intersection of Old Sonoita Highway and State Route 83, near Vail. *See* SWCA Tech Memo, Figs. 1 and 2.

The West Quarry will ultimately contain approximately 28 acres of mined pit area within two State Leases acquired by CPC: #11-111605 and #11-34966.[1] The East Quarry will contain approximately 18 acres of pit area within State Lease #11-111606. *See* SWCA Tech Memo, Fig. 2. The East Quarry may be expanded northward to encompass certain federal Bureau of Land Management Claims (the "BLM Claims"), but APC will mine the State Leases in the West and East Quarries irrespective of whether or not CPC is able to acquire the BLM Claims and obtain the related approvals.[2]

B. The Corps' 2006 JD

In 2004, APC made application to the Corps for a delineation of jurisdictional waters within the areas covered by the western and eastern leases. That JD, which was verified in 2006, delineated approximately 20 ephemeral washes and two livestock tanks as jurisdictional under the CWA.[3] *See* SWCA Tech. Mem. At p.4 and

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[1] A portion of the West Quarry was mined several years ago by another owner/operator.

[2] CPC holds the leases, and APC will operate the Empire Mountain Quarries.

[3] At least as of last month, these livestock tanks were completely dry.

Apdx. D. As a pre-*Rapanos* JD,[4] the Corps was not required to perform an analysis to determine if these washes have a "significant effect" on the "chemical, physical and biological integrity of a [downstream] traditional navigable water."[5] As the Corps post-Rapanos guidance states, "[a]s the distance from the tributary to the navigable water increases, it will become increasingly important to document whether the tributary and its adjacent wetlands have a significant nexus rather than a speculative or insubstantial nexus with a traditional navigable water."[6] We also note that, with the lone possible exception of Davidson Canyon Wash, the ephemeral washes within the West and East Quarries appear to fit the description of the kind of erosional features that, according to the Corps guidance, are generally not considered waters of the United States.[7]

We're aware that the Los Angeles District has withdrawn a memorandum designating two reaches of the Santa Cruz River as a "traditional navigable water" ("TNW") for § 404 regulatory purposes. However, even if the District's prior designation were to be reinstated—or a federal court were to ultimately conclude that the Santa Cruz is a TNW—the washes within both the West and East Quarry areas are at least 43 miles away from the Santa Cruz. Given the distance, the low flow conditions and other factors, we believe as a legal matter it would be difficult to establish that these washes have a significant nexus to a downstream TNW under current law.

Although CPC specifically reserves the right to challenge Corps jurisdiction over these washes, it nevertheless determined that its activities could be conducted in compliance with the CWA even if the JD were to remain legally valid. Put another way, even if a court were to conclude that those washes are jurisdictional, APC believes that its activities will be in compliance with the CWA.

II.
EXCAVATION ACTIVITIES AND SECTION 404 OF THE CLEAN WATER ACT

A. Legal Background

The scope of the Corps' authority to regulate activities that consist only of excavation has been heavily litigated. In 2007, a federal court enjoined the Corps

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[4] The JD appears to have been verified by the Corps on 13 June 2006.

[5] Rapanos Guidance at 8-10.

[6] *Id.* at 10.

[7] *Id.* at 11.

from further application of the rule utilized to regulate excavation because it exceeded the scope of authority granted by the CWA. Following is a brief review of the legal background.

In 1986, the Corps and EPA issued a regulation defining the term of "discharge of dredged material" to mean "any addition of dredged material in the waters of the United States," but expressly excluding "de minimis, incidental soil movement occurring during the normal dredging operations." *Final Rule for Regulatory Programs of the Corps of Engineers,* 51 Fed.Reg. 41206, 41232 (Nov. 13, 1986). In 1993, the Corps and EPA issued the rule amendments commonly known as "Tulloch I," which removed the de minimis exception provided in the 1986 definitions. 58 Fed. Reg. 45,008 (Aug. 25, 1993). Thus under Tulloch I, if during the course of *removing* material from waters of the United States, some of the removed material fell back to the place from which it was taken, it then became an *addition* and subject to Corps' regulation. Since Tulloch I broadened the Corps' authority to include incidental fallback, virtually all excavation fell under CWA Section 404 regulations.

In 1998, the D.C. Circuit invalidated Tulloch I and enjoined the Corps from enforcing its provisions. *National Mining Association v. United States Army Corps of Engineers,* 145 F.3d 1399 (D.C. Cir. 1998). The D.C. Circuit rejected the Corps' interpretation that all redeposits are considered an "addition of dredged material in to the waters of the United States." This interpretation was found to be a disingenuous interpretation of "addition," and impermissibly broadened the scope of the Corps' authority beyond the intended limits of the CWA.[8] In 2001, the Corps and EPA revised the regulations in response to the *National Mining* case by issuing what came to be known as Tulloch II. *Further Revisions to the Clean Water Act Regulatory Definition of Discharge of Dredged Material; Final Rule,* 66 Fed. Reg. 4550 (Jan. 17, 2001). Tulloch II did two things: First, it established a rebuttable presumption that the use of mechanized earth-moving equipment results in an "addition of dredged material in the waters of the United States." Second, it defined "incidental fallback" to mean "the redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the United States when such material falls back to substantially the same place as the initial removal." Thus under Tulloch II, excavation may not be regulated if it is demonstrated that only incidental fallback will result from the activity.

Last year, however, Tulloch II met the same fate as Tulloch I when a federal district court in Washington D.C. held that the rule was an invalid interpretation of

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[8] Craig M. Douglas, *Partial Deregulation of Excavation and Dredging in Wetlands After National Mining v. U.S. Army Corps of Engineers: Reconsideration of the Regulatory Boundary,* ENVIRONMENTAL LAWYER (Feb. 1999)

the agencies' authority under the CWA and enjoined the Corps and EPA from attempting to enforce its provisions. *National Association of Homebuilders v. U.S. Army Corps of Engineers*, 2007 WL 259944 (D.D.C. 2007). The court rejected the notion that volume is relevant in determining whether a material qualifies as "incidental fallback" and concluded that in order for any attempt to re-define "incidental fallback" to be consistent with the statute, it must (1) address how long the material is held before being re-deposited and (2) the distance between the location of the collection of material and the location of its redeposition.[9] The court also noted that the Corps' attempt to establish a presumption that mechanized earth-moving equipment will result in a discharge while denying that the presumption effectively shifted the legal burden "reflects a degree of official recalcitrance that is unworthy of the Corps."[10]

To date the Corps has not issued a new definition of "incidental fallback" nor has it addressed whether or how it will attempt to regulate excavation activities under the Clean Water Act. Nevertheless, some certainty can be derived from the caselaw. First, there is no longer a rebuttable presumption in favor of a regulated discharge. Second, it is highly unlikely that excavation activities constitute regulated discharges as long as (a) any redeposition incidental to excavation—irrespective of volume—occurs relatively contemporaneously with the extraction; and (b) the distance between the location of original extraction and the location of incidental redeposition is also relatively short.

B. Excavation Activities at the Empire Mountain Quarries

APC and SWCA estimate that 0.396 acres of wash will be excavated in connection with the development of the West Quarry (reaches C [0.039 ac.], E [0.298 ac.] and J [0.059 ac.]). Development of the East Quarry entails excavation of approximately 0.221 acres of wash (reaches A [0.059 ac.], A1 [0.011 ac.], A2 [0.055 ac.] and B1 [0.096 ac.]).

Excavation will be accomplished by traditional limestone mining methods. The access road, as described below, will be constructed first. Operations in the pit will then commence with the removal of any existing overburden, which is confined to areas outside the washes. This will be followed by bench preparation and initial blasting in areas below the delineated washes. This will enable APC to excavate gradually from the bottom elevation of the initial extraction, essentially collapsing

[9] *Id.* at 4.

[10] *National Association of Homebuilders*, 2007 WL 25994 at 3-4.

the area in front of it, then immediately loading and hauling off site. No limestone processing will occur at either the West or East Quarries.

III.
ACCESS ROAD CROSSINGS

A. Use of Nationwide Permit 14

NWP 14 authorizes "activities required for the construction, expansion, modification, or improvement of linear transportation crossings" in waters of the United States. To qualify for Nationwide Permit 14, the crossing must be a "single and complete crossing" and not result in the discharge of greater than 1/2-acre of waters of the United States. *Reissuance of Nationwide Permits; Notice, 72* Fed. Reg. 11092, 11183 (March 12, 2007). Where a project transverses a single waterbody several times at separate and distinct locations, each crossing will be considered a "single and complete project." 33 CFR 330.2(i). A PCN is automatically required if the jurisdictional discharge exceeds 1/10 of an acre.

B. Crossings for Empire Quarries Do Not Require Submission of PCN

As described in the SWCA Technical Memorandum, each of the proposed crossings qualifies for authorization under NWP 14. According to the 2006 JD, the four crossings traverse different waterbodies, and thus each crossing constitutes a single and complete crossing. Each crossing will result in less than 1/10th-acre of impact as follows:

Table 1. Summary of 2006 Delineated Drainages and Road Crossings Impacts

Jurisdictional Drainage ID	Total Length in Project Area (ft)	Average Width (ft)	Total Jurisdictional Area (ac)	Area Impacted by Access Road (ac)
B	400	5.0	0.046	0.007
B1	900	6.0	0.124	0.008
C	650	4.5	0.067	0.017
E	1520	11.0	0.383	0.061
J	800	5.0	0.091	0.062
Total			0.711	0.155

In addition, SWCA's resource reviews establish that the crossings also satisfy general and regional NWP terms and conditions including (without limitation) General Conditions 17 and 18. Specifically, the crossings will have no effect on listed threatened or endangered species or designated critical habitat (see Appendix B to

SWCA memo), and will have no impact on cultural resources (see Appendix C to SWCA memo).

In closing, I hope this information is helpful to the Corps. If you have any questions or would like to meet to discuss the Empire Mountain Quarries, please let me know. Thank you for your time and attention to this matter.

Sincerely,

Craig M. Douglas

Enclosures

Cc: Mr. David Castanon (Corps of Engineers, Los Angeles) *(w/o enclosures)*
Ms. Cindy Lester (Corps of Engineers, Phoenix)
Mr. Edward Harrison (Chief Mining Engineer, CPC)
Renee Benjamin, Esq. (Senior Counsel, CPC)
Mr. Ken Houser (SWCA/Phoenix)
Mr. Russell Waldron (SWCA/Tucson)
Brooke Marcus, Esq. *(Firm)*

PSOMAS

TECHNICAL MEMORANDUM

To: Pima County Regional Flood Control District

Cc: Ed Harrison (California Portland Cement)

From: Mike Daly, P.E.

Date: March 06, 2008

Subject: Davidson Canyon BMP Assessment

Job #: 07232-01

This purpose of this memorandum is to discuss the results of a site investigation along the proposed haul road to the APCC Empire Mountains Limestone Quarry. This investigation was conducted in response to comments from Pima County Regional Flood Control District (PCRFCD) expressing concern that there is insufficient soil to meet the proposed staking requirements for the silt fences and hay bales as shown in the existing project SWPPP. The procedures as well as the results of the investigation are summarized below.

Prior to the field visit, a representative from California Portland Cement staked the centerline of the proposed haul road every 50 feet beginning at Station 5+00, where the alignment left the existing roadway and ending at Station 47+50.

The investigation by John Oliver of Psomas was performed on February 01, 2008. The SWPPP details call out a required depth of 12" below the surface for stabilization of straw bales and silt fence using wooden stakes or rebar. An attempt was made at driving both rebar and wooden stakes into the ground to a depth of 12" at approximately 200 foot intervals. Photographs were taken at each interval where stakes were driven into the ground to document whether or not a wooden stake or rebar could be driven to the required depth. Photographs were also taken at irregular intervals to document surface conditions at locations where attempts were not made to drive a stake or rebar into the ground.

The investigation began at Station 34+50 and continued Up-Station to the last marked flag at Station 47+50. Photographs within this range of stations were taken generally facing Up-Station (generally facing towards the southeast). The investigation was then continued at Station 34+00 and conducted Down-Station until reaching the first marked flag at Station 5+00. Photos within this range of station were generally taken facing Down-Station (generally facing towards the northwest, west and southwest). Attempts to drive in stakes and rebar were made at two additional locations along the side of the existing roadway at what is estimated to be approximately Station 3+00 and 2+00, however these stations were not marked since they were on the existing roadway alignment. A summary of the results of each attempt at driving the rebar and wooden stakes into the ground is provided in the following table.

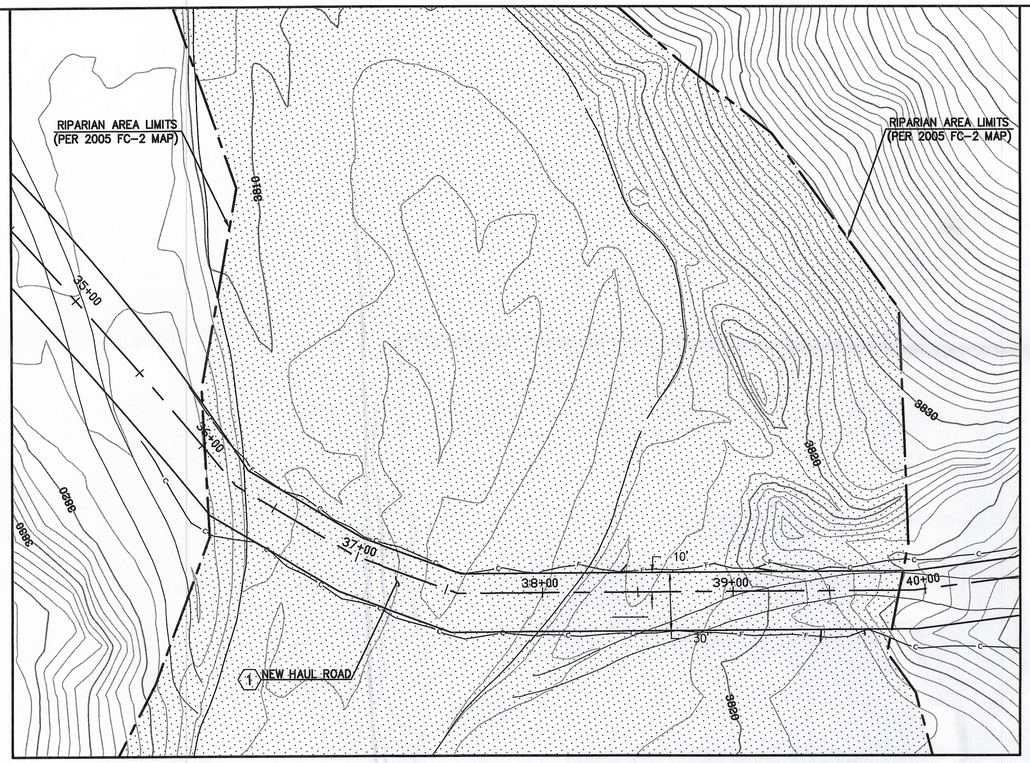
March 06, 2008

Station	Able To Drive Rebar 12" into Ground	Able to Drive Wooden Stake 12" into Ground	Comments
Approximately 2+00	Yes	No	Only able to drive the wooden stake in approximately 4"
Approximately 3+00	No	No	Only able to drive both in approximately 6"
5+00	Yes	No	Only able to drive in wooden stake approximately 11" Located at top bank of small existing channel
7+00	No	No	Only able to drive both in approximately 11" before hitting rock
9+00	No	No	Only able to drive either in approximately 1"-2"
11+00	No	No	Able to drive the rebar approximately 9" and the wooden stake 1"
13+00	No	No	Only able to drive either in < 1"
15+00	Yes	No	Able to drive wooden stake in approximately 11"
17+00	Yes	Yes	None
19+00	No	No	Unable to drive 12" due to rock
21+00	Yes	Yes	Loose soil
23+00	Yes	Yes	Loose Soil
25+00	Yes	Yes	None
27+00	Yes	Yes	Loose soil near toe of slope
29+00	No	No	Able to pound in rebar approximately 10"
31+00	Yes	Yes	None
33+00	Yes	Yes	None
34+50	Yes	No	None
36+50	Yes	No	None
38+50	Yes	Yes	Located on island between braids of a wash
41+00 (labeled as but should be 40+50)	Yes	Yes	Located on the side of a hill
42+00	Yes	Yes	None
44+00	No	No	Hit rock at approximately 1"
46+00	Yes	No	None

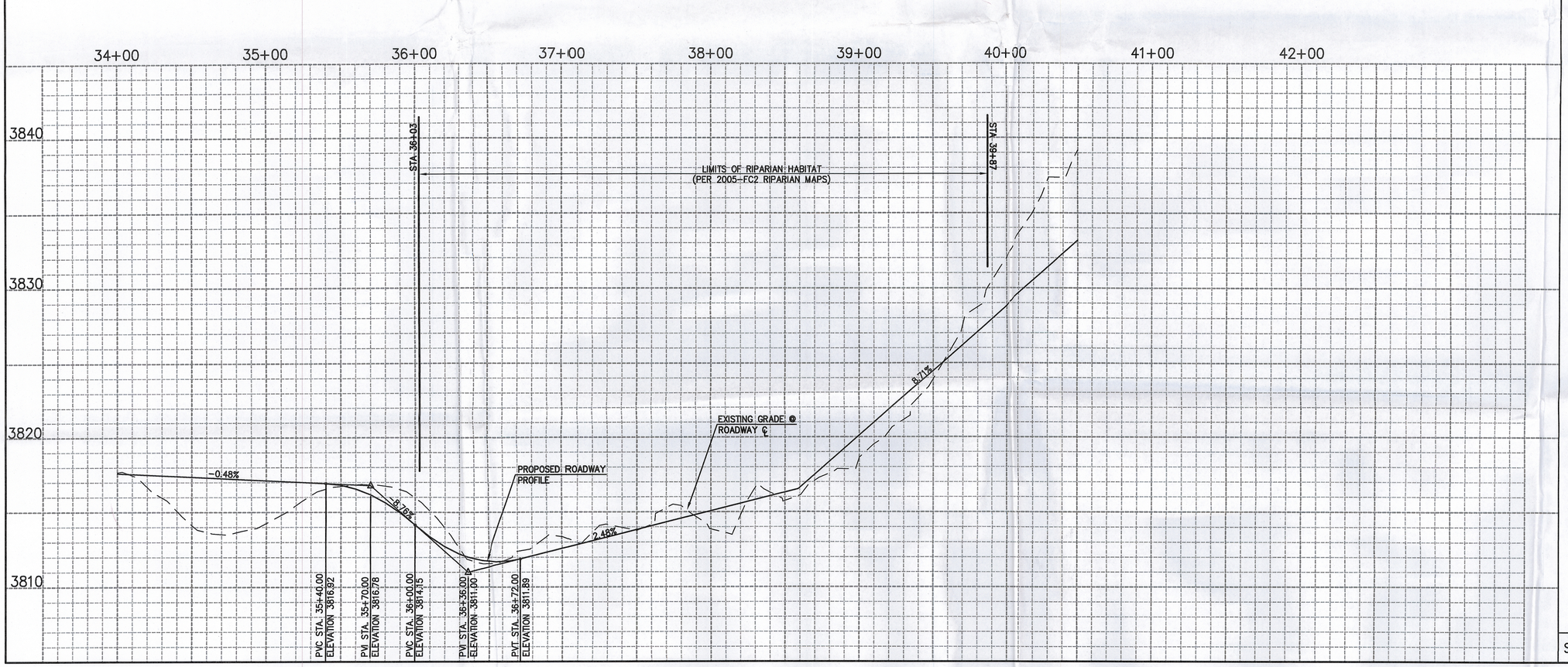
The attempts to drive the stakes and rebar into the proposed haul road were offset from the centerline station marker to account for the roadway width and fill slopes. Soil conditions varied greatly throughout the site. At many locations, the ground consisted of solid rock at both the inverts of existing channels, and at the top of hills. Gravel varying in size from diameters less than one inch to diameters of several inches was apparent at the surface as well as under the surface throughout the site. The presence of this larger gravel under the surface often prevented the stakes and rebar from reaching the minimum depth of 12" required for installation of hay bales and silt fence. Several of the stations were also located in washes or

canyon inverts, where the soils is considerably loose and allows for the stake to be easily inserted to the required depth.

As can be seen in the summary table, and throughout the photo journal, the conditions of the site vary throughout the project limits. While there are sections of the proposed roadway that silt fence and or hay bales can be installed properly, there are also many sections where it cannot. The exact locations everywhere along the roadway where silt fence and hay bales can be used is unknown, but can be estimated from the site investigation. Where determined in the field that those BMPs cannot be used another suitable method must be selected. Such methods could include, but are not limited to, a sediment control berm, hydroseeding and mulching, soil roughening and gravel bag berms. These methods may be used as the primary methods of erosion control, and may be easier to install and maintain than silt fence and hay bales. Specific methods of stabilization and sediment control shall be defined in the SWPPP for the project.



1 ROADWAY TO BE COMPACTED EARTH OR FILL, MAINTAINED AS NEEDED TO PROVIDE A DRIVEABLE SURFACE



OLD PLAN
THIS IS VOID

Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue Stake Center
CALL COLLECT

SCALES: HORIZ. 1" = 40'
VERT. 1" = 4'

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

		DATE
DESIGNED:		
DRAWN:	MED	02/08
CHECKED:	WKM	02/08
PROJ. ENG.:	MED	02/08

PSOMAS
800 E. Whitmore Road, Suite 110, Tucson, AZ 85719
tel (520) 202-2330 (800) 441-4005
fax (520) 202-1290
www.psomas-psomas.com

CALIFORNIA PORTLAND CEMENT

HAUL ROAD GRADING PLAN
THROUGH DESIGNATED RIPARIAN LIMITS
FOR
DAVIDSON CANYON

SHEET 1 OF 1

Station 34+50
Able to Pound in Rebar
Unable to pound in Wooden Stake

Station 36+50
Able to pound in Rebar
Unable to pound in Wooden Stake

Station 38+50
Able To pound in both Rebar and Wooden Stake
Note that this location is located on an "island" in a braided wash

Station (labeled 41+00) Should be 40+50
Able to pound in both Rebar and Wooden Stake

Station (labeled 41+00) Should be 40+50

Note that just missed a large rock when pounding Rebar. As is the case in many locations, this can prevent minimum 1' insertion of the Wooden Stake or Rebar.

Station 42+00
Able to pound in both Rebar and Wooden Stake

Station 43+00
Note that the ground in the vicinity is largely solid rock

Station 44+00
Unable to pound Rebar or Wooden Stake into ground

Station 46+00
Able to pound in Rebar
Unable to pound in Wooden Stake

Station 46+00
Notice the ground at the top of bank is solid rock.

Station 46+50
Another example of the top of bank being solid rock

Station 47+00
Note that the surface contains many large rocks that are also present underground.

Station 47+50 (end station)
Ground is essentially solid rock

Station 33+00
Able to pound in both Rebar and Wooden Stake

Station 32+00
Note that the surface is covered in large rocks that are likely present underground.

Station 31+00
Able to pound in both Rebar and Wooden Stake

Station 29+00
Unable to pound in Rebar
Unable to pound in Wooden Stake

Station 27+00
Able to pound in both Rebar and Wooden Stake
Note that this station is in the bottom of canyon and the soil in this area is very soft

Station 25+00
Able to pound in both Rebar and Wooden Stake

Station 23+00
Able to pound in both Rebar and Wooden Stake.

Station 21+00
Able to pound in both Rebar and Wooden Stake

Station 19+00
Unable to pound in Rebar or Wooden Stake.

Station 18+50
Note that the surface is almost solid rock

Station 18+00
Note that the surface is almost entirely solid rock

Station 17+00
Able to pound in both Rebar and Wooden Stake
Note that there some large rocks under the surface and may need to try more than one location to drive stake in 1'

Station 15+00
Unable to pound in the Wooden stake

Station 15+00
Able to pound in the Rebar

Station 13+50
Note that the sides of the wash are essentially solid rock

Station 13+00
Unable to pound Rebar or Wooden Stake into ground

Station 11+00
Unable to pound in Wooden Stake

Station 11+00
Unable to pound in Rebar

Station 9+00
Unable to pound in Wooden Stake

Station 9+00
Unable to pound in Rebar

Station 7+00
Unable to pound in Wooden Stake to a depth of 1' before hitting rock

Station 7+00
Unable to pound in Rebar to a depth of 1' before hitting rock

Station 5+00
Unable to pound in Wooden Stake

Station 5+00
Able to pound in Rebar

Station (unmarked, but approximately Station 3+00)
Unable to pound in Rebar or Wooden Stake

Station (Unmarked but approximately 2+00)
Able to pound in Rebar
Unable to pound in Wooden Stake

Summary

Station 0+00 to 4+50 Unlikely to obtain 1' depth
Station 4+50 to 7+50 Likely to obtain 1' depth (may take more than 1 try at a location)
Station 7+50 to 14+00 Unlikely to obtain 1 Depth
Station 14+00 to 18+00 Likely to obtain 1' depth (may take more than 1 try at a location)
Station 18+00 to 20+00 Unlikely to obtain 1' depth (may take more than 1 try at a location)
Station 20+00 to 2700 Likely to obtain 1' depth
Station 27+00 to 29+00 unlikely to obtain 1' depth
Station 29+00 to 43+00 Likely to obtain 1' depth
Station 43+00 to 47+50 Unlikely to obtain 1' depth

1950' Unlikely
2800' Likely

PSOMAS

May 12, 2008

Evan Canfield, PhD., P.E.
Chief Hydrologist
Pima County Regional Flood Control District
97 E. Congress, 3rd Floor
Tucson, AZ 85701

RE: Davidson Canyon Haul Road
FPUP No. 07-243R
California Portland Cement

Dear Evan:

This letter provides comments responses and backup data in response to your comment letter dated April 21, 2008.

Comment #1
The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more that 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. The disturbance of riparian area for the proposed improvement appears to exceed this threshold, based on the main map provided (1"=100'). The letter dated on March 18, 2008 stated that the disturbance is 0.297 acres. It appears that the disturbance was calculated using the 1"=40' map, however the 1"=40' map does not show the limits of disturbance, or the gravel bag berm, which are clearly marked on the 1"=100' map. Please show the grading limit and limits of disturbance, including the disturbance by the gravel bag berm, on the 1"=40' map and recalculate the disturbance of Riparian habitat.

If the disturbance exceeds 1/3 acre of mapped Riparian area, a mitigation plan is required. Please submit a mitigation plan that conforms to the requirements of 16.30.050. Please be advised that since the proposed improvements are within an Important Riparian Area, and the disturbance is also more than 5% of the mapped habitat on the property, approval of the habitat mitigation plan by the Pima County Board of Supervisors is required, so please account for the additional time required for final approval, which averages 3-4 weeks. The schedule for BOS regular session meetings as well as the Clerk of the Board (COB) deadline for agenda submittals may be viewed at www.pima.gov/cob/schedule.htm. Please provide the mitigation plan submittal to RFCD staff one week prior to the COB deadline to allow for review and administrative processing.

800 E. Wetmore Road
Suite 110
Tucson, AZ 85719
520.292.2300
520.292.1290 Fax
www.psomas.com

Response:

No gravel bag berm is proposed within the riparian limits. Therefore, the shown cut/fill lines represent the limits of disturbance and were the basis for the 0.297 acre calculation. The roadway will remain as dirt, to be maintained as-needed to provide a drivable surface, and is at-grade through the riparian limits. We have revised the SWPPP developed conditions figure to more accurately reflect the actual limits of disturbance within the riparian limits. We have included a copy of the revised figure to add to the previously submitted SWPPP, and request that you discard its predecessor.

As the limits of disturbance are less than 1/3-acre, no mitigation plan should be required, regardless of the percent acreage disturbed.

Comment #2

Section 16.20.020 D of the Ordinance states that documentation is required to show that all necessary permits have been requested. It appears that the permit application for Section 404 of the Clean Water Act was withdrawn on January 2, 2008. Please submit written correspondence from the U.S. Army Corps of Engineers that a permit request has been completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes compliant with Section 404 of the Clean Water Act.

Response:

The permit application for the project was withdrawn by the local Corps representative as part of a request to California Portland Cement for additional information. Once this information in received, processing of the application should resume.

Thank you for your assistance with this project and please call me should you have any questions.

Sincerely,

PSOMAS

Mike Daly, P.E.
Water Resources Manager

Cc: Ed Harrison, California Portland Cement

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

April 21, 2008

Mike Daly, P.E.
Psomas
800 E Wetmore Rd. Suite 110,
Tucson, AZ 85719

Re: Floodplain Use Permit No. 07-243R for Davidson Canyon, T17S, R17E, Sections 19 and 30 Placement of a Haul Road

Dear Mr. Daly:

The Regional Flood Control District (District) has received your application for a Floodplain Use Permit (FPUP) dated 4/12/2007, for placement of a Haul Road at the above-referenced property.

Upon substantive review of the application and the associated site plan, the District has determined that all of the information required pursuant Section 16.20.020 of the Floodplain and Erosion Hazard Management Ordinance No. 2005-FC2 (Ordinance) has not been submitted. As such, the District cannot proceed with processing the FPUP until the following documents, additions, or revisions are submitted:

1) The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more than 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. The disturbance of riparian area for the proposed improvement appears to exceed this threshold, based on the map provided (1"=100'). The letter dated on March 18, 2008 stated that the disturbance is 0.297 acres. It appears that the disturbance was calculated using the 1"=40'map, however the 1"=40' map does not show the limits of disturbance, or the gravel bag berm, which are clearly marked on the 1"=100' map. Please show the grading limit and limits of disturbance, including the disturbance by the gravel bag berm, on the 1"=40' map and. recalculate the disturbance of Riparian habitat.

   If the disturbance exceeds 1/3 acre of mapped Riparian area, a mitigation plan is required. Please submit a mitigation plan that conforms to the requirements of 16.30.050. Please be advised that since the proposed improvements are within an Important Riparian Area, and the disturbance is also more than 5% of the mapped habitat on the property, approval of the habitat mitigation plan by the Pima County Board of Supervisors is required, so please account for the additional time required for final approval, which averages 3-4 weeks. The schedule for BOS regular session meetings as well as the Clerk of the Board (COB) deadline for agenda submittals may be viewed at www.pima.gov/cob/schedule.htm. Please provide the mitigation plan submittal to RFCD staff one week prior to the COB deadline to allow for review and administrative processing.

2) Section 16.20.020 D of the Ordinance states that documentation is required to show that all necessary permits have been requested. It appears that the permit application for Section 404 of the Clean Water Act was withdrawn on January 2, 2008. Please submit written correspondence

from the U.S. Army Corps of Engineers that a permit request has been completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes compliant with Section 404 of the Clean Water Act.

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 substantive review of the application. 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 (520) 243-1800.

Sincerely,

Evan Canfield, PhD., P.E.
Chief Hydrologist
Planning & Development Division

ak/ec

cc: Edward Harrison, California Portland Cement Co., 11115 N. Casa Grande Hwy. Rillito, AZ 85654

Pima County Regional
FLOOD CONTROL
DISTRICT

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

Requirements for Revised Site Plans

Please ensure that Zoning approves any substantial revisions such as a change in location or orientation of the proposed improvement prior to re-submittal to the District. If revisions of your site plan are necessary, the following steps must be taken:

1. **PICK UP YOUR SITE PLAN(S) FROM THE DISTRICT.** Retrieve your original site plan(s) and Development Services Activity Permit from the District located at 97 E. Congress St., 3rd Floor, Tucson, AZ 85701. Copies will be made and kept by the District.

2. **Take the original site plan(s), original Activity Permit, and the revised site plan(s) to Zoning located at 201 N. Stone Ave., 1st Floor, Tucson, AZ 85701 for re-approval. Zoning will not review and approve revised plans without the originals.**

3. If other departments reviewed and approved the original site plan(s), take the original site plan(s), original Activity Permit, and the revised site plan(s) to each department for re-approval.

4. Bring the re-approved Activity Permit and revised site plan containing Zoning approval to the District.

5. Inform the customer service counter hydrologist that you are re-submitting a site plan or other information for an existing Floodplain Use Permit. Please bring the comment letter that was sent to you, as it will help the District to more quickly assist you.

Upon the receipt of all requested information, District staff will resume the review of the Floodplain Use Permit. The specific location of improvements relative to floodprone and/or erosion hazard areas determine, in part, which requirements and permit conditions are applicable. For this reason, in most cases, you will not be able to get your Floodplain Use Permit at the time that you re-submit your site plan or other information. District staff must review the more accurate site plan information to ensure compliance with the Ordinance.

Please be advised that a substantive review of the revised information may warrant additional requirements.

You are encouraged to contact the hydrologist working on your permit with any questions you may have regarding the permit requirements to avoid unnecessary delays.

PSOMAS

March 18, 2008

Evan Canfield, PhD., P.E.
Chief Hydrologist
Pima County Regional Flood Control District
97 E. Congress, 3rd Floor
Tucson, AZ 85701

RE: Davidson Canyon Haul Road
FPUP No. 07-243R
California Portland Cement

Dear Evan:

This letter provides comments responses and backup data in response to your comment letter dated November 5, 2007.

Board of Supervisors

Comment #1

The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more than 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. It appears that the site plan does not accurately reflect the riparian limit. The riparian habitat limits, as shown on the site plan shall be shifted 130 feet to the north to align accurately with the 2005- FC2 riparian habitat maps and the on-site riparian habitat. Please recalculate the disturbance of the riparian habitat once the riparian habitat limits have been shifted, and place a total disturbance calculation on a new site plan. Please be advised that previous disturbance, prior to mapping of the riparian area is not to be included in the calculation of new disturbance (please see the enclosed map).

Response:

The riparian limits have been shifted to accurately represent those shown on the effective County riparian habitat maps. The actual area of disturbance based on the proposed grading limits from the haul road grading plan has been recalculated as 0.297 acres.

Comment #2

The submitted site plan is too small to determine the disturbance of the riparian area. In addition, in accordance with Section 16.42.010 of the Ordinance, the Grading Design Manual, prepared pursuant to Chapter 18.81 of the zoning code shall be used to prepare proposed works. Please provide a larger map to show all the proposed activities (excavation, road construction, structural and non-structural control works, equipment staging area construction, etc.) using the Grading Design Manual. Please be advised that grading limits, topography, wash line, the

800 E. Wetmore Road,
Suite 110
Tucson, AZ 85719
520.292.2300
520.292.1290 Fax
www.psomas.com

watershed boundaries for all the basins (West Quarry Basin, East Quarry Basin, and so on), and riparian habitat limits to be shown on a modified plan.

Response:
A 1"= 40' scale plan and profile providing the details covered in the Grading Design Manual has been completed and provided with this letter. Watershed boundaries were not shown on this map due to scale, but have been shown on the larger figure provided with the project SWPPP.

Comment #3
In accordance with Section 16.20.020 C 5 of the Ordinance, an engineering study prepared and sealed by an Arizona registered profession civil engineer shall be required. The Storm Water Pollution Prevention Plan submitted did not identify watershed drainage areas or calculate discharges. Without this information we cannot assess the viability of the proposed pollution control measures. As such, the following information is required;

a. *Hydrologic analysis to present an existing condition, and to address the impacts of haul road construction, pit excavation, structural and non-structural controls and their impacts on surface water discharge, water quality in a perennial wash and on groundwater recharge. An engineering study shall be prepared and sealed by an Arizona registered professional civil engineer.*

Response:
Psomas requested clarification on this comment during the previous project meeting with PCRFCD staff on December 12, 2008. It was agreed that the analysis should only include watersheds which contribute to the regulatory wash and are directly impacted by the proposed haul road. It was also agreed that based on the proposed site plan and existing topography, the actual pit excavations would not impact the wash, and therefore an analysis of adjacent watersheds would not be required. Watershed delineation and peak discharge analysis was completed for the relevant contributing areas and this data has been provided on the revised SWPPP figures.

Comment #4
In accordance with Section 16.42.020 of the Ordinance, the methods to control erosion and sedimentation must be demonstrated to minimize the loss of soil through erosion from rainfall or storm water flow. Also, in accordance with Section 16.42.030 of the Ordinance, methods to control erosion and sedimentation must be demonstrated to be appropriate. A report shall be prepared and sealed by an Arizona registered professional civil engineer. Please provide the following information;

a. *The plan submitted indicates that stake or rebar for silt fences and hay bales will be installed at 12 inches below the ground surface. It appears that there is insufficient soil to meet this proposed method stabilizing fences and hay bales. Please modify the plan or submit a report to demonstrate that the proposed measures will be appropriate. The person who prepares the report should be knowledgeable in science as well as the regulatory process and management objectives.*

b. *Soil investigation report to determine the erosive properties of the areas to be disturbed. The report shall be prepared by qualified a soil scientist, certified engineer, and/or a geomorphologist. The person who prepares the report should be knowledgeable in soil science.*

Response:
During the project meeting on December 12, 2007, PCRFCD staff indicated that more detail regarding exactly where specific Best Management Practices (BMPs) are to be used should be shown in the SWPPP maps. The main concern is that the document must have sufficient information to demonstrate that the proposed BMPs are appropriate for the location at which they are proposed.

Psomas requested clarification regarding the "soil investigation report" being requested to support the SWPPP. It was agreed that what is really being requested is a site investigation along the proposed haul road alignment to verify that site conditions are consistent with the proposed BMPs to be shown on the SWPPP maps. No soil sampling or geotechnical analysis would be required.

A site investigation was completed along the entire length of the proposed haul road alignment which included a photographic log and the results of attempts to drive stakes similar to those used to secure standard BMPs to the required 12" depth. The results of the investigation did indicate difficulty or complete refusal while attempting to drive stakes at numerous locations along the proposed haul road alignment. As a result, the project SWPPP was modified to include accepted BMPs which do not require securing by means of driven stakes. The SWPPP was also updated to more clearly show where specific BMP are proposed, and also to meet the new ADEQ requirements which became effective on March 1, 2008. A copy of the revised SWPPP has been provided.

Comment #5
In accordance with Section 16.52 of the Ordinance, the mining reclamation plan shall show in sufficient detail the actions that are proposed for the excavated areas so that all adverse effects of extraction are mitigated. The District cannot find the information. Please provide a timetable for accomplishing reclamation.

Response:
PCRFCD acknowledged during the December 12, 2007 meeting that the referenced Ordinance was not pertinent to the proposed project as no extraction is proposed in the regulated watercourse. As it is not a requirement, California Portland Cement has indicated they will not be providing this document in support of FPUP approval.

Comment #6
You may want to contact the office of Dam Safety and Flood Mitigation, Arizona Department of Water Resources about the design, construction and maintenance of the proposed work. Some of the embankments, such as those on pages 6 and 7 of plan sheets may be regulated by the Dam Safety and Flood Mitigation office

Response:
No response required.

Comment #6
Please submit written correspondence from the U.S. Army Corps of Engineers that the work to be completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes is compliant with Section 404 of the Clean Water Act.

Response:

PCRFCD staff acknowledged during the December 12, 2007 meeting that by Ordinance 16.20.020.D they can only request documentation that the required permits for Section 404 compliance have been requested, and that they cannot deny or hold-up issuance of an FPUP pending approval of these permits. Documentation of correspondence with the U.S. Army Corps of Engineers was provided with the previous FPUP submittal.

If you have any questions or comments, please contact Mike Daly at (520)-292-2300.

Sincerely,
PSOMAS

Mike Daly, P.E.
Water Resources Manager

Cc: Ed Harrison, California Portland Cement

Pima County Regional
FLOOD CONTROL
DISTRICT

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

November 5, 2007

Edward Harrison
California Portland Cement Co.
11115 N. Casa Grande Hwy.
Rillito, AZ 85654

Re: Floodplain Use Permit No. 07-243R for Davidson Canyon, T17S, R17E, Sections 19 and 30 Placement of a Haul Road

Dear Mr. Harrison:

The Regional Flood Control District (District) has received your application for a Floodplain Use Permit (FPUP) dated 4/12/2007, for placement of a Haul Road at the above-referenced property.

Upon substantive review of the application and the associated site plan, the District has determined that all of the information required pursuant Section 16.20.020 of the Floodplain and Erosion Hazard Management Ordinance No. 2005-FC2 (Ordinance) has not been submitted. As such, the District cannot proceed with processing the FPUP until the following documents, additions, or revisions are submitted:

1) The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more than 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. It appears that the site plan does not accurately reflect the riparian limit. The riparian habitat limits, as shown on the site plan shall be shifted 130 feet to the north to align accurately with the 2005-FC2 riparian habitat maps and the on-site riparian habitat. Please recalculate the disturbance of the riparian habitat once the riparian habitat limits have been shifted, and place a total disturbance calculation on a new site plan. Please be advised that previous disturbance, prior to mapping of the riparian area is not to be included in the calculation of new disturbance (please see the enclosed map).

2) The submitted site plan is too small to determine the disturbance of the riparian area. In addition, in accordance with Section 16.42.010 of the Ordinance, the Grading Design Manual, prepared pursuant to Chapter 18.81 of the zoning code shall be used to prepare proposed works. Please provide a larger map to show all the proposed activities (excavation, road construction, structural and non-structural control works, equipment staging area construction, etc.) using the Grading Design Manual. Please be advised that grading limits, topography, wash line, the watershed boundaries for all the basins (West Quarry Basin, East Quarry Basin, and so on), and riparian habitat limits to be shown on a modified plan.

PSOMAS

March 18, 2008

Evan Canfield, PhD., P.E.
Chief Hydrologist
Pima County Regional Flood Control District
97 E. Congress, 3rd Floor
Tucson, AZ 85701

RE: Davidson Canyon Haul Road
FPUP No. 07-243R
California Portland Cement

Dear Evan:

This letter provides comments responses and backup data in response to your comment letter dated November 5, 2007.

Board of Supervisors

Comment #1

The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more than 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. It appears that the site plan does not accurately reflect the riparian limit. The riparian habitat limits, as shown on the site plan shall be shifted 130 feet to the north to align accurately with the 2005- FC2 riparian habitat maps and the on-site riparian habitat. Please recalculate the disturbance of the riparian habitat once the riparian habitat limits have been shifted, and place a total disturbance calculation on a new site plan. Please be advised that previous disturbance, prior to mapping of the riparian area is not to be included in the calculation of new disturbance (please see the enclosed map).

Response:

The riparian limits have been shifted to accurately represent those shown on the effective County riparian habitat maps. The actual area of disturbance based on the proposed grading limits from the haul road grading plan has been recalculated as 0.297 acres.

Comment #2

The submitted site plan is too small to determine the disturbance of the riparian area. In addition, in accordance with Section 16.42.010 of the Ordinance, the Grading Design Manual, prepared pursuant to Chapter 18.81 of the zoning code shall be used to prepare proposed works. Please provide a larger map to show all the proposed activities (excavation, road construction, structural and non-structural control works, equipment staging area construction, etc.) using the Grading Design Manual. Please be advised that grading limits, topography, wash line, the

800 E. Wetmore Road,
Suite 110
Tucson, AZ 85719
520.292.2300
520.292.1290 Fax
www.psomas.com

watershed boundaries for all the basins (West Quarry Basin, East Quarry Basin, and so on), and riparian habitat limits to be shown on a modified plan.

Response:
A 1"= 40' scale plan and profile providing the details covered in the Grading Design Manual has been completed and provided with this letter. Watershed boundaries were not shown on this map due to scale, but have been shown on the larger figure provided with the project SWPPP.

Comment #3
In accordance with Section 16.20.020 C 5 of the Ordinance, an engineering study prepared and sealed by an Arizona registered profession civil engineer shall be required. The Storm Water Pollution Prevention Plan submitted did not identify watershed drainage areas or calculate discharges. Without this information we cannot assess the viability of the proposed pollution control measures. As such, the following information is required;

a. *Hydrologic analysis to present an existing condition, and to address the impacts of haul road construction, pit excavation, structural and non-structural controls and their impacts on surface water discharge, water quality in a perennial wash and on groundwater recharge. An engineering study shall be prepared and sealed by an Arizona registered professional civil engineer.*

Response:
Psomas requested clarification on this comment during the previous project meeting with PCRFCD staff on December 12, 2008. It was agreed that the analysis should only include watersheds which contribute to the regulatory wash and are directly impacted by the proposed haul road. It was also agreed that based on the proposed site plan and existing topography, the actual pit excavations would not impact the wash, and therefore an analysis of adjacent watersheds would not be required. Watershed delineation and peak discharge analysis was completed for the relevant contributing areas and this data has been provided on the revised SWPPP figures.

Comment #4
In accordance with Section 16.42.020 of the Ordinance, the methods to control erosion and sedimentation must be demonstrated to minimize the loss of soil through erosion from rainfall or storm water flow. Also, in accordance with Section 16.42.030 of the Ordinance, methods to control erosion and sedimentation must be demonstrated to be appropriate. A report shall be prepared and sealed by an Arizona registered professional civil engineer. Please provide the following information;

a. *The plan submitted indicates that stake or rebar for silt fences and hay bales will be installed at 12 inches below the ground surface. It appears that there is insufficient soil to meet this proposed method stabilizing fences and hay bales. Please modify the plan or submit a report to demonstrate that the proposed measures will be appropriate. The person who prepares the report should be knowledgeable in science as well as the regulatory process and management objectives.*

b. *Soil investigation report to determine the erosive properties of the areas to be disturbed. The report shall be prepared by qualified a soil scientist, certified engineer, and/or a geomorphologist. The person who prepares the report should be knowledgeable in soil science.*

Response:
During the project meeting on December 12, 2007, PCRFCD staff indicated that more detail regarding exactly where specific Best Management Practices (BMPs) are to be used should be shown in the SWPPP maps. The main concern is that the document must have sufficient information to demonstrate that the proposed BMPs are appropriate for the location at which they are proposed.

Psomas requested clarification regarding the "soil investigation report" being requested to support the SWPPP. It was agreed that what is really being requested is a site investigation along the proposed haul road alignment to verify that site conditions are consistent with the proposed BMPs to be shown on the SWPPP maps. No soil sampling or geotechnical analysis would be required.

A site investigation was completed along the entire length of the proposed haul road alignment which included a photographic log and the results of attempts to drive stakes similar to those used to secure standard BMPs to the required 12" depth. The results of the investigation did indicate difficulty or complete refusal while attempting to drive stakes at numerous locations along the proposed haul road alignment. As a result, the project SWPPP was modified to include accepted BMPs which do not require securing by means of driven stakes. The SWPPP was also updated to more clearly show where specific BMP are proposed, and also to meet the new ADEQ requirements which became effective on March 1, 2008. A copy of the revised SWPPP has been provided.

Comment #5
In accordance with Section 16.52 of the Ordinance, the mining reclamation plan shall show in sufficient detail the actions that are proposed for the excavated areas so that all adverse effects of extraction are mitigated. The District cannot find the information. Please provide a timetable for accomplishing reclamation.

Response:
PCRFCD acknowledged during the December 12, 2007 meeting that the referenced Ordinance was not pertinent to the proposed project as no extraction is proposed in the regulated watercourse. As it is not a requirement, California Portland Cement has indicated they will not be providing this document in support of FPUP approval.

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Response:
No response required.

Comment #6
Please submit written correspondence from the U.S. Army Corps of Engineers that the work to be completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes is compliant with Section 404 of the Clean Water Act.

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If you have any questions or comments, please contact Mike Daly at (520)-292-2300.

Sincerely,
PSOMAS

Mike Daly, P.E.
Water Resources Manager

Cc: Ed Harrison, California Portland Cement

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(520) 243-1800
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November 5, 2007

Edward Harrison
California Portland Cement Co.
11115 N. Casa Grande Hwy.
Rillito, AZ 85654

Re: Floodplain Use Permit No. 07-243R for Davidson Canyon, T17S, R17E, Sections 19 and 30 Placement of a Haul Road

Dear Mr. Harrison:

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    a. Hydrologic analysis to present an existing condition, and to address the impacts of haul road construction, pit excavation, structural and non-structural controls and their impacts on surface water discharge, water quality in a perennial wash and on groundwater recharge. An engineering study shall be prepared and sealed by an Arizona registered professional civil engineer.

4) In accordance with Section 16.42.020 of the Ordinance, the methods to control erosion and sedimentation must be demonstrated to minimize the loss of soil through erosion from rainfall or storm water flow. Also, in accordance with Section 16.42.030 of the Ordinance, methods to control erosion and sedimentation must be demonstrated to be appropriate. A report shall be prepared and sealed by an Arizona registered professional civil engineer. Please provide the following information;

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7) Please submit written correspondence from the U.S. Army Corps of Engineers that the work to be completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes is compliant with Section 404 of the Clean Water Act.

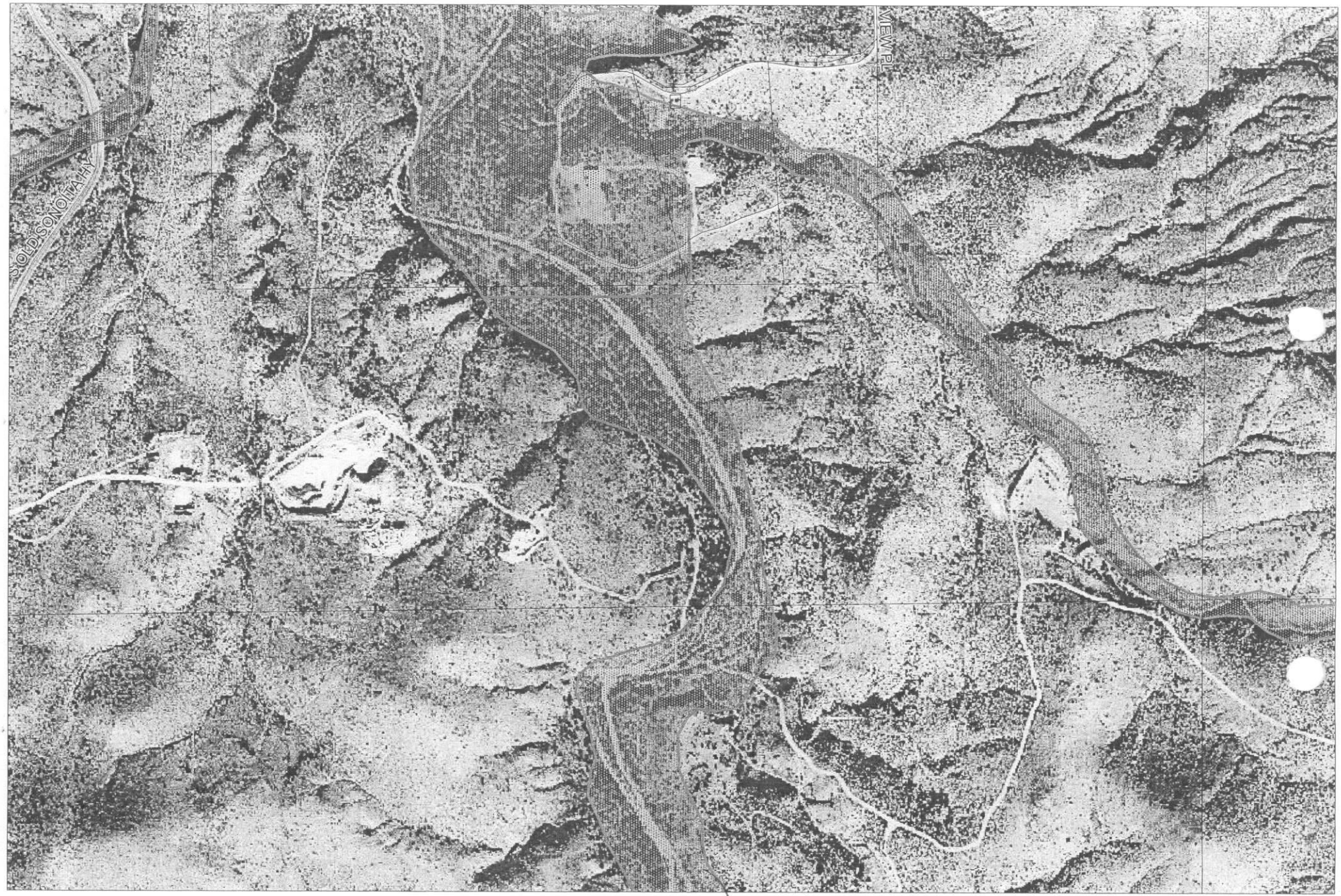
The District will proceed with the review of the above project as soon as possible after receiving all of the requested information. Please be advised that there may be additional comments/requirements as a result of the substantive review of the application. Failure to submit the requested information 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 (520) 243-1800.

Sincerely,

Evan Canfield, PhD., P.E.
Chief Hydrologist
Planning & Development Division

ak/ec
Enclosure *Map of the limit of riparian area*



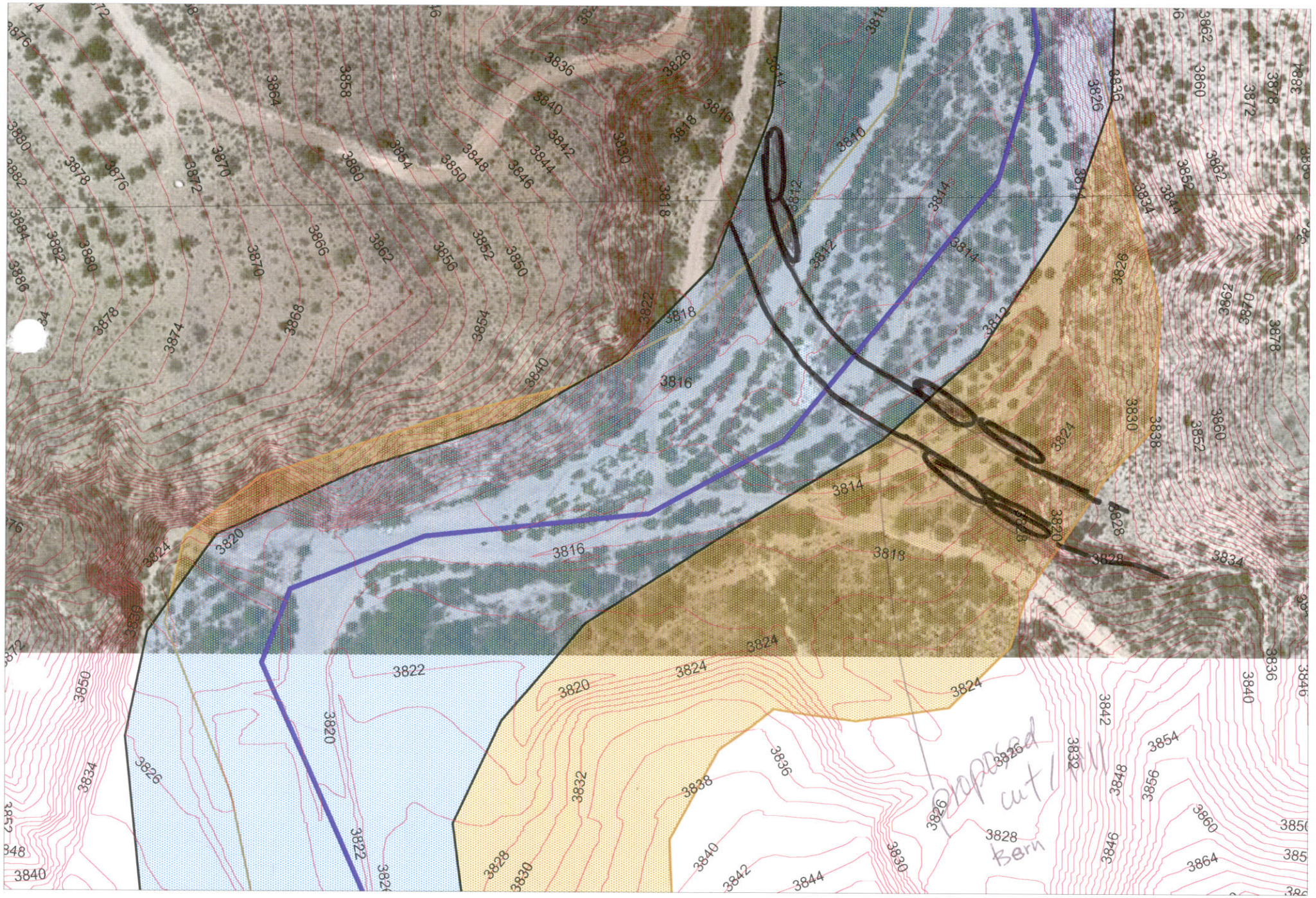
SCALE 1 : 6,000

500 0 500 1,000 1,500

FEET

Important Riparian Area

N



SCALE 1 : 1,200

100 0 100 200 300

FEET

N

Date: September 24, 2007
To: Julia Fonseca, German Yusufov, Nicole Fyffe
Cc: Bill Zimmerman
From: Evan Canfield
Subject: AZ Portland Proposed Lease Site – Field Visit 7-21-07

Background:

Bill Zimmerman and I went to the proposed Arizona Portland Cement (APC) mine site. The following is a summary of our observations.

The location of the proposed lease sites were added to the air photo (approximate locations only for preliminary evaluation, the USGS topographic map in the mine feasibility study and current air photos do not align with parcel base. I suspect the problem is with the USGS map).

Summary:

Our concerns can be summarized in three categories as follows:

1.) **Thin/No soil on most of the landscape:** Except for some alluvial soils on the western edge of Davidson Creek (which are not differentiated on the soils map), soils are extremely thin (photo 66).

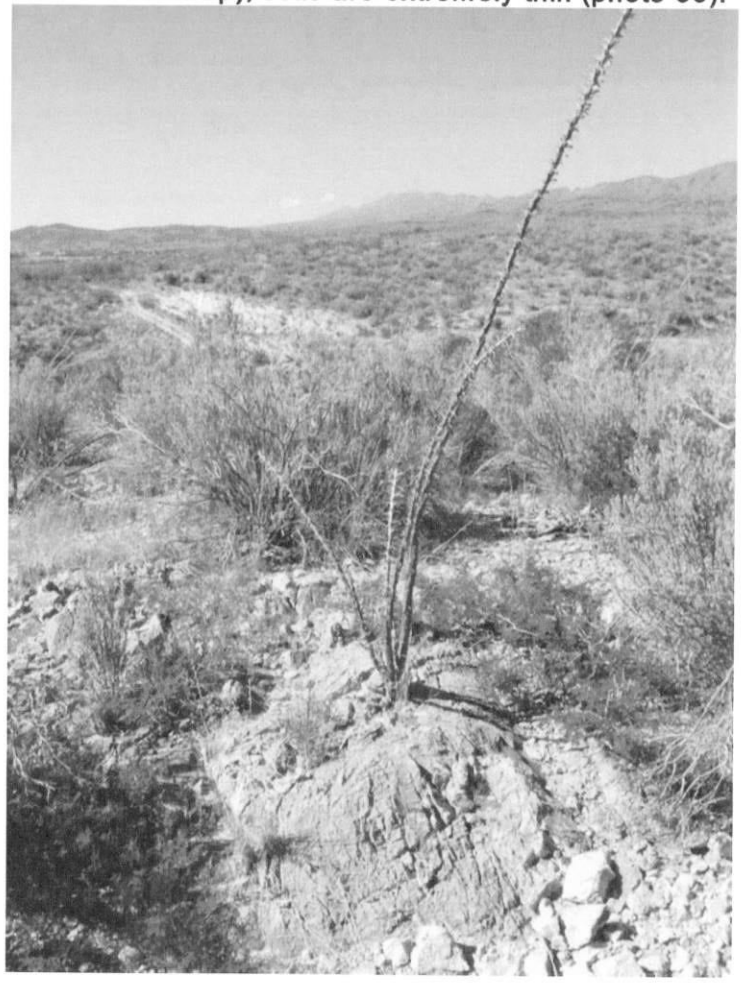


Photo 66 Ocotillo growing out of rock and other vegetation on thin soil over rock.

The soils map recognizes the entire upland as soils with high runoff producing potential (Soil Group: D (100%), MABRAY-DELORO-ROCK OUTCROP COMPLEX, 20 TO 65 PERCENT SLOPES). With the thin soils, any erosion at all will limit the potential for reclaimation of the site. As long as vegetation remains in place, accelerated erosion should not occur. However, removal of vegetation during mining may enhance the potential for runoff and erosion.

Where hillsides have previously been disturbed, vegetation has not recovered to previous conditions (photo 62).

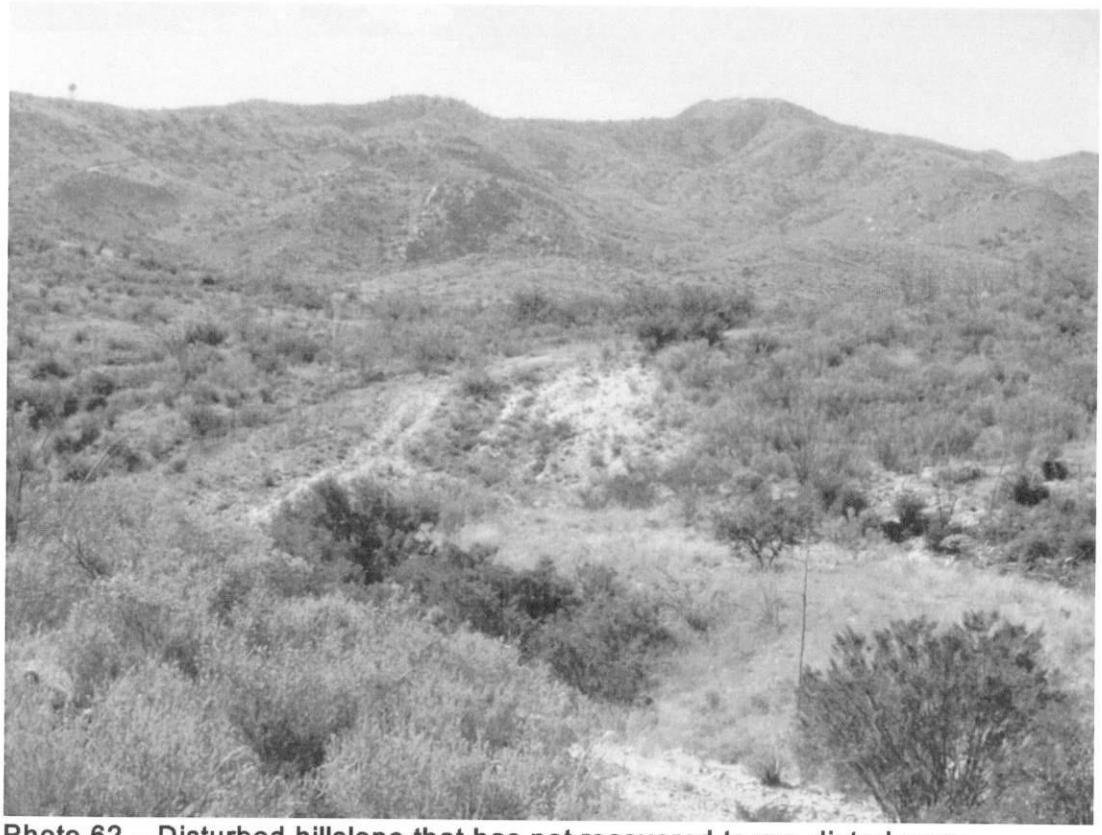
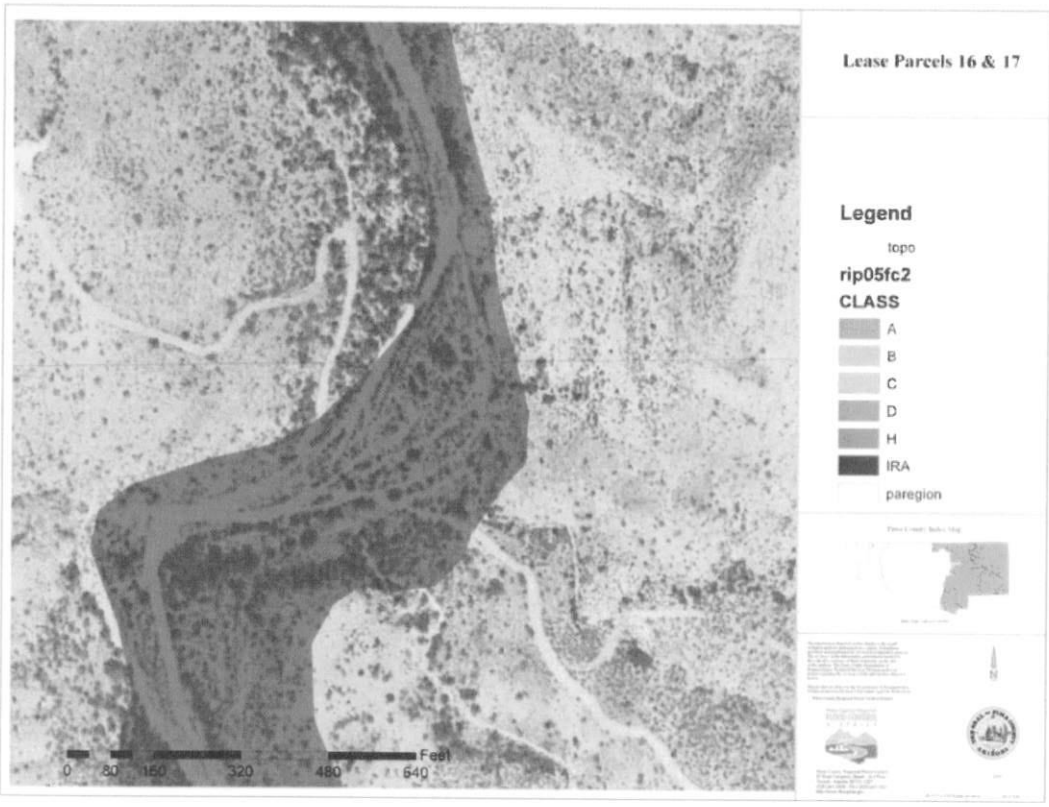


Photo 62 – Disturbed hillslope that has not recovered to pre-disturbance conditions.

Therefore any disturbance of the upland has the potential to destabilize the thin soil resulting in a degraded hillside that will not recover to current conditions.

2.) **Dense Riparian areas that will be impacted at the crossing.** The crossing itself will directly impact Davidson Canyon. The area is mapped as Important Riparian Area (IRA). It appears that much of the current road on the West Side of the Canyon is in IRA, though it is not mapped that way.



It is unclear what APC will do about the crossing. Apparently they have proposed an at-grade crossing in their FPUP application. The last e-mail from the Corp implied culverts. The crossing itself is a concern as are the roads into (photo 55) and out (photo 58) of the Canyon.

Photo 55 – Gullying of road on west side of Davidson Canyon

Photo 58 – Gullying of road on east side of Davidson Canyon. Gully is into weathered bedrock.

Both of these roads are steep with poor drainage design, which results in gullying. These are currently pathways for delivery of sediment from the

hillslope to the channel. The fact that erosion occurs in both soil and rock suggests that erosion will accelerate when the road is more actively used with erosion occurring even into the rock. Likewise any sediment resulting from the mining activities could be delivered down into the canyon along this road alignment.

3.) **Well-defined drainages on the Western Lease plots that drain directly into Davidson Canyon.** Steep drainages on the Western Leases (16 & 17) dissect the proposed lease properties resulting in potential to deliver any eroded materials and mine spoils directly to Davidson Creek.

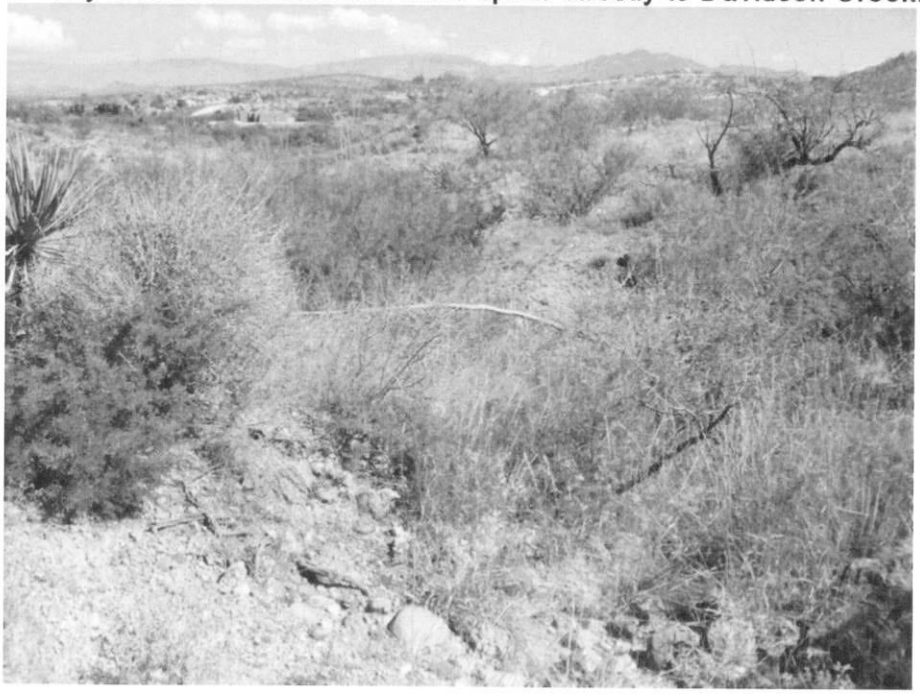


Photo 72 – Incised drainage into Davidson Canyon.

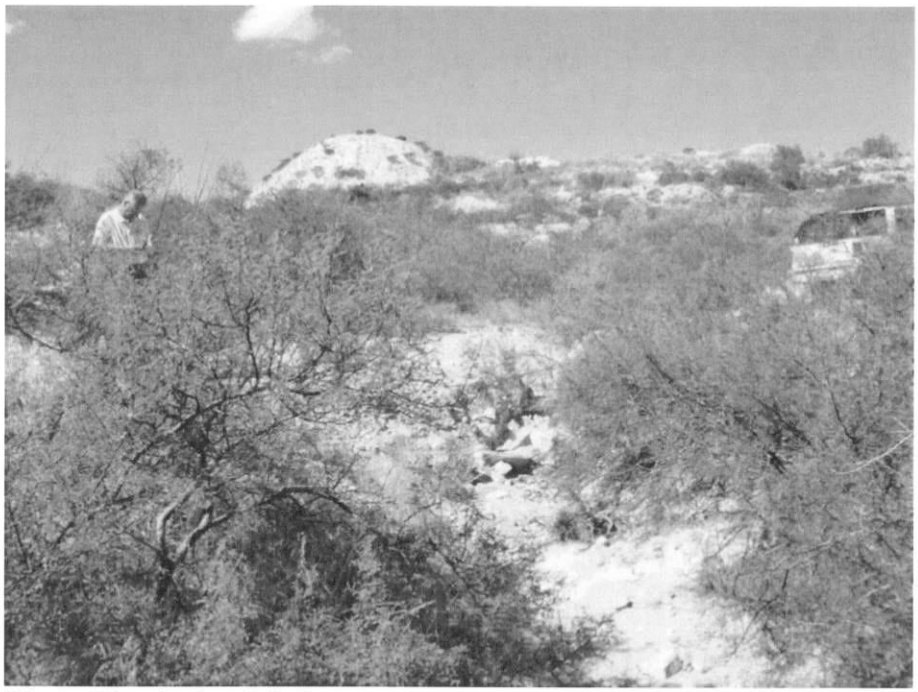
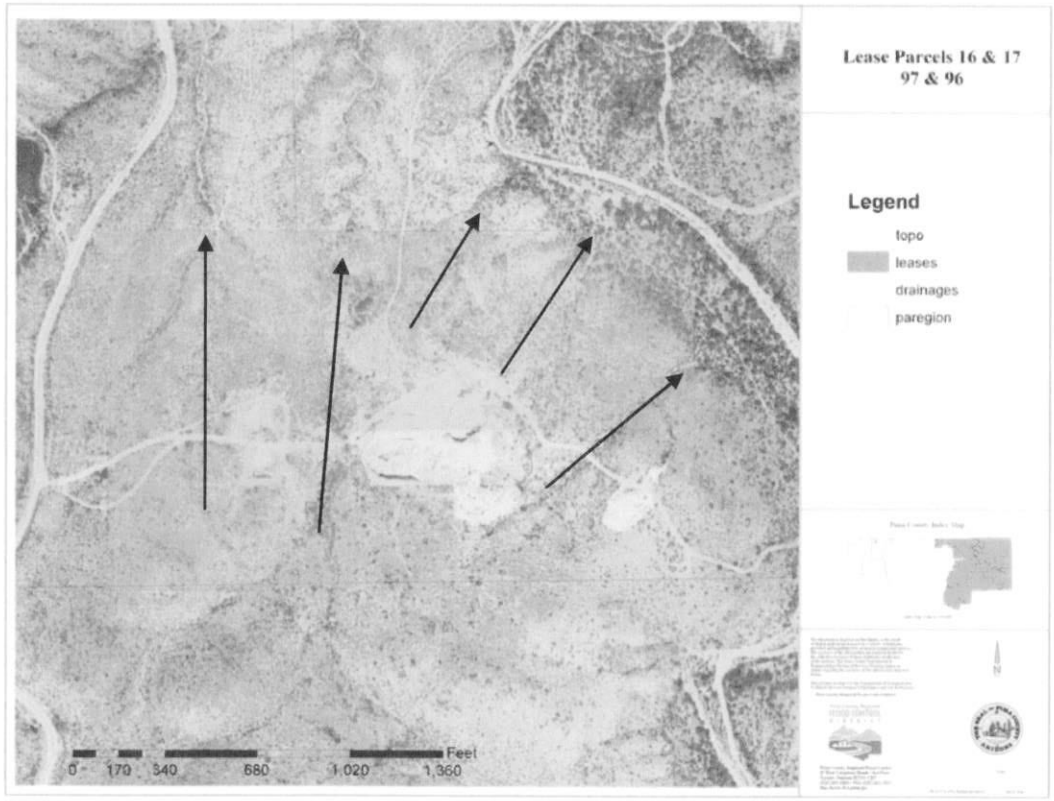
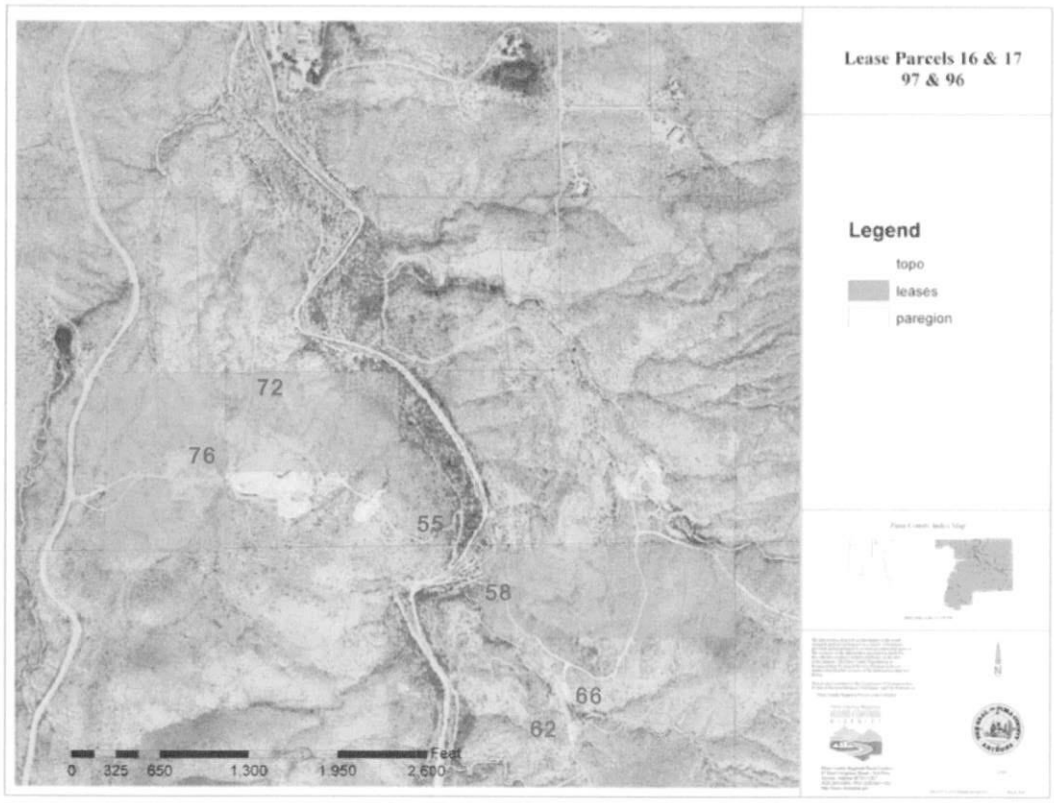


Photo 76 – Incised drainage showing mine spoils from previous mining



Location of Photos:



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TUCSON, ARIZONA 85701-1797

SUZANNE SHIELDS, P.E.
DIRECTOR

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

June 13, 2007

Edward Harrison
California Portland Cement Co.
11115 N. Casa Grande Hwy.
Rillito, AZ 85654

Re: Floodplain Use Permit No. 07-243R for Davidson Canyon, T17S, R17E, Sections 19 and 30 Placement of a Haul Road

Dear Mr. Harrison:

The Regional Flood Control District (District) has received your application for a Floodplain Use Permit (FPUP) dated 04/12/2007, for placement of a haul road at the above-referenced property.

Upon substantive review of the application and the associated site plan, the District has determined that all of the information required pursuant Section 16.20.020 of the Floodplain and Erosion Hazard Management Ordinance No. 2005-FC2 (Ordinance) has not been submitted. As such, the District cannot proceed with processing the FPUP until the following documents, additions, or revisions are submitted:

1) The subject property contains mapped Important Riparian Habitat. In accordance with Chapter 16.30.040 of the Ordinance, when the disturbance of more than 1/3 acre of mapped Riparian Habitat is proposed, a Habitat Mitigation Plan is required and must be approved by the District. The disturbance of riparian area for the proposed improvement (18,605 sq. ft.) appears to exceed this threshold; therefore, a mitigation plan is required along with a demonstration that riparian impacts have already been avoided or minimized to the maximum extent practicable. Please submit a mitigation plan that conforms to the requirements of 16.30.050. The Riparian Mitigation Plan must be approved prior to issuance of any FPUP for the subject property. Submittal requirements for the Riparian Mitigation Plan may be obtained from the District office or on-line at: http://rfcd.pima.gov/riparian/mitigat/MitStand.pdf.

   Please ensure that that the mitigation plan includes a plan to monitor for invasive plant and animal species, describes measures to limit non-native species invasion into the area, and describes appropriate corrective measures, if non-native invasive species are found.

2) Please submit written correspondence from the U.S. Army Corps of Engineers that the work to be completed for the portion of the haul road traversing the Davidson Canyon Wash and other jurisdictional washes is compliant with Section 404 of the Clean Water Act.

3) Please submit a drainage report which identifies appropriate steps that will be taken to control runoff, minimize erosion, maintain water quality, and otherwise prevent adverse impacts on perennial surface flow to the construction, maintenance and of the haul road through regulatory washes, including the 10-15 foot cut in slope required to enter Davidson Canyon.

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 substantive review of the application. 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,

Eric Shepp, Manager
Floodplain Management Division

MEMORANDUM

PUBLIC WORKS - DEVELOPMENT SERVICES - PLANNING DIVISION

TO: Diana Durazo, Special Staff Assistant to the County Administrator

FROM: Arlan Colton, FAICP, Planning Official, Development Services

DATE: April 12, 2007

SUBJECT: **Empire Mountains Quarry Mining and Reclamation Plan**

Pima County has compiled the following comments regarding the above-mentioned application:

Request of ARIZONA PORTLAND CEMENT COMPANY for Mining and Reclamation Plan on State-owned land in Pima County. This project is located in sections 19 and 30, T17S, R17E, in Pima County about 25 miles southeast of Tucson. Parcel numbers **#306-15-0550** and **#306-15-0370** in the RH zone.

TRANSPORTATION REPORT

Staff has reviewed this project and has the following comments:

A. Clarification of haul route, per Section 2.1 of the plan. Applicant indicates access for 0.75 miles south on Old Sonoita Highway, the only portion of haul route that is county maintained. Will access be at State Route 83 in T17S, 16E, Section 25? Permit should define haul route.

B. Arizona Department of Transportation (ADOT) approval of access to State Route 83.

C. Improvements to ADOT and Pima County intersections and roadways prior to beginning of project.

D. Trucks entering or crossing signs may need to be installed at the intersection of the dirt road at Old Sonoita Highway in Section 19/Section 30.

E. The applicant/owner shall provide improvements to Old Sonoita Highway, from the dirt road south to State Route 83 (or north if that is the route) since the existing road surface is inadequate to handle 20 years of truckload traffic of up to 48 loads per day with up to 25 tons each load.

F. No truck traffic shall be allowed on Old Sonoita Highway unless improvements to Old Sonoita Highway are reviewed and approved by Development Services Department or Department of Transportation.

14. Staff disagrees with the characterization of Davidson Canyon as an ephemeral stream. At times, stream flow persists for weeks or even months, and there is a shallow water table with riparian vegetation.
15. No fuel storage should occur on site. Where will this activity occur?
16. No vehicular maintenance should occur on site. Where will this activity occur?
17. The plan specifies that the mining operations will obtain water from the Vail Water Company. However, the plan does not identify the exact location of the water source – they state from a site north of I-10/SR 83 interchange or other site. The plan does specify use of up to 12,000 gallons per day, which may be of concern, depending on the loction of the well. Impacts cannot be analyzed without knowing where the alternative water supply comes from.
18. The plan states that there will be no discharge of surface water from the quarry. As with other mines in this region, the surface water runoff will most likely be captured in collection ponds in the quarry. Although these ponds can be beneficial for keeping fine sediment out of the watercourses and provide water to neighboring wildlife, they also provide habitat for non-native species such as bullfrogs and tamarisk. Non-native species can be highly damaging to native ecosystems and wildlife. The district would like to see actions whereby permanent ponds are not created.
19. The Arizona Game and Fish Department may be able to assist in the design of a program to monitor and control non-native animal species in these areas.
20. The site will be restricted from most public uses after operations cease due to the installation of fencing, construction of berms, and placement of large boulders along the perimeter of the quarry.
21. The mine will reduce the quality of public recreation in the surrounding areas. Mining traffic would strongly deter, if not completely eliminate, public access to State Lands east of the quarry. The combination of mining traffic, blasting and earthworks would impair the aesthetic values of the surrounding areas for recreation (i.e., hiking, horseback riding, and mountain biking along the Arizona Trail).

COMPREHENSIVE PLANNING REPORT

The above-referenced proposed mining site lies within the Rincon Southeast/Santa Rita Subregion of the Pima County Comprehensive Plan, in portions of Sections 19 and 20 of T17S, R17E, east of Old Sonoita Highway, southeast of Tucson. The zoning of the proposed mining site is Rural Homestead (RH) which conforms to the site's plan designations of Low Intensity Rural (LIR) and Resource Transition (RT).

The purpose of LIR is to designate areas for residential uses at densities consistent with rural and resource-based characteristics. This designation is accurate based on the residential ranching operations prevalent in this rural area.

The purpose of RT is to designate private land with environmentally sensitive characteristics that include wildlife corridors, natural washes, floodplains, peaks and ridges, buffers to public preserves and other environmentally sensitive areas. Development of such land shall emphasis design that blends with the natural landscape and supports environmentally sensitive linkages in developing areas. This designation relates to linked washes which run generally south to north through the site.
Regional Plan Policies related to the Conservation Lands System (CLS) designations of Biological Core over the entire site except for a linear Important Riparian Area related to washes would dictate that the site area be mostly conserved as natural open space if the site was the subject of a rezoning. Comprehensive Plan staff defers to Environmental Planning staff regarding any further comments related to the CLS.

Regional Plan Policy S-19, Trail Access, Rural Equestrian Routes, National Historic Trail, appears to apply to the area of the proposed mining site as symbolized by the dotted Equestrian Trail shown in the drawn triangle on the attached map portion of the Rincon Southeast/Santa Rita Subregion. If the site

FLOOD CONTROL DEPARTMENT REPORT

The Pima County Regional Flood Control District (District) has reviewed the plan and has identified the following issues:

1. The plan identifies the federal floodplains associated with the Davidson Canyon wash. The plan states that a Floodplain Use Permit (FPUP) will be required for the road crossing and includes as an appendix a FPUP application. This FPUP application has been voided due to lack of response from the applicant to questions raised by the District. This includes the fact that the road may also cross several locally regulated floodplains, which have not been delineated. The FPUP for the road crossing will need to address all regulated floodplains.

2. Furthermore the quarry itself, as well as overburden pile, may be within locally regulated floodplains. Floodplain delineation must be conducted and compared to proposed development to fully assess the project impacts on floodplains and the potential for up and downstream impact. The statement that the overburden pile will be placed on uplands is incomplete in that Figure 4 depicting the pile clearly indicates that it is adjacent to locally regulated washes. These washes are characterized in the application as "normally-dry" although rainfall is more frequent here than in the lower desert and a spring exists immediately downstream of this location as well as a cattle pond immediately adjacent to and upstream of the proposed pit.

3. The proposed three-year reclamation monitoring is insufficient to ensure integrity of flood and erosion control structures. A maintenance plan and funding for lifetime monitoring and maintenance may be appropriate.

4. It is not clear on the drawing provided with the plan how drainage will be controlled during operations and after reclamation. Creation of a lake at the quarry bottom for wildlife may not be an appropriate remediation goal given it would require careful design to avoid downstream impacts, due to the fact is it adjacent to and within regulated washes. Furthermore in the five registered wells found within a mile groundwater is found at 5' feet in two, about 50' in one, and 110' in the last.

5. The County has designated the Davidson Canyon Wash and many of its tributaries as Important Riparian Area. This location in particular represents a continuous thread of riparian habitat which connects the Madrean forests and grasslands associated with the ranges of southern Arizona and northern Mexico to the Sonoran Desert, sky islands and in fact the Rocky Mountain chain. Geographically the Empire Mountains and this watershed are extremely important. This is the only link above 4000 feet between the Sierra Madres and the Rockies. This reviewer has spotted a mountain lion where Davidson Canyon Wash crosses Route 83 just upstream of this site. Anecdotes aside, much of the County's attractiveness as a location for tourism, retirement, and second homes is due to the existence of this ecological feature combined with the unique geography, and resultant climate. While the direct biologic, hydraulic, and hydrologic effects will be evaluated as permits are sought, the economic implications of changes in habitat have not been addressed in the operational or reclamation aspects of the plan. Furthermore, the fact reported in the plan that depth to ground water in wells is as little as five feet belies the applicant's description of the washes as normally dry and suggests the value of the watershed and potential severity of impacts. Disturbance of Important Riparian Areas requires Board of Supervisors approval and will require a mitigation plan.

6. The Plan proposes up to 48 loads a day carried by heavy dump trucks. This does not include estimates of maintenance and operational personnel, and movement of heavy equipment and supply delivery. Potential impacts include those associated with normal operations as well as accidents and floods. The materials to be hauled have the potential to accumulate in the washes. Loads should be covered at all times. Dust control on the road itself will be very important, as the applicant is not proposing to pave the road. The potential impacts of dust control agents on riparian flora and fauna should also be evaluated. Floodplain resources and public safety would best be protected by a bridge providing all weather access and erosion control. Crossing improvement plans have not been provided in any detail. The County/District should have the opportunity to review and comment on the Stormwater Pollution Prevention Plan. Spills or "releases" which are to be reported to EPA should also be reported to the County.

7. The Plan states that the proposed activities are exempt from County regulation. The District enforces federal floodplain law and as such the above requirements apply.

In conclusion the plan is lacking adequate consideration of regulated resources, details on how impacts will be mitigated and grossly understates environmental and economic impacts. Further review of proposed flood control and mitigation plans will be required.

CULTURAL RESOURCES DEPARTMENT REPORT

The Empire Mountains Quarry Mining and Reclamation Plan include parcels 306-15-0550 (193.89 acres) and 306-15-0370 (632.17 acres), and are located on state-owned land in Pima County, Township 17 South, Range 17 East, Sections 19 and 30. The federal government is also involved due to their managing of the mineral rights in the project area. Staff has reviewed the Empire Mountains Quarry Mining and Reclamation Plan and has some comments regarding cultural resources issues pertaining to the plan.

1. There is a copy of an archaeological survey done by P.A.S.T. in 1994 included in Appendix C of the report, and even though it's over ten years old, the survey was completed by today's survey standards. There were no National Register eligible sites found on the subject property.

2. Since there are both ASLD land and a Federal nexus involved (BLM), the project proponent will be required to comply with Section 106 of the National Historic Preservation Act (NHPA) and 36 CFR 800 in addition to federal regulations and State Antiquity Laws.

Cultural resource compliance must be concluded prior to any land disturbance on parcels 306-15-0550 and 306-15-0370. The Pima County Cultural Resources Office wishes to be copied on any correspondence or reports regarding Section 106 compliance.

ENVIRONMENTAL PLANNING REPORT

1. The proposed quarry is located on land designated as Biological Core within Pima County's Conservation Land System. Biological Core Areas have a very high biological importance distinguished by high potential habitat for five or more priority vulnerable species (plants and wildlife that are most vulnerable to extinction because of human-related stresses) and special elements (e.g., caves, perennial streams, cottonwood forests). The County's focus regarding land use and management within these areas is on conservation, restoration and enhancement of the natural communities, with provision for other land uses consistent with improvement of conditions for native species, soils and native vegetation. Mineral mining is not considered to be a land use that would fit in with this goal.

2. The area has a high occurrence of limestone outcrops (hence the reason for the mining claims) that are recognized by the County as a "special element" because of their contribution to species richness and their potential to harbor species with restricted distribution, such as cave invertebrates, bats and rare plants. Limestone outcrops are locally important locations of aquifer recharge due to their fractured and porous nature. The deep fractures can store moisture for woody plants with deep roots and provide moisture to ground-dwelling animals. In addition, the physical characteristics of limestone may provide thermal amelioration during episodes of extreme cold, which allows some plants and insects to extend their distributional limits.
3. Davidson Canyon is an important wildlife movement corridor between the Rincon, Santa Rita and Empire Mountain ranges. The bridge over Davidson Canyon is one of the few areas along Interstate 10 used by large mammal species (e.g., mountain lion). The significant amount of vehicle traffic proposed for mining operations would deter usage of Davidson Canyon by these species. Actual wildlife tracking data have been collected along Davidson by Sky Island Alliance.
4. Needle-spined cactus surveys have not be conducted. This species is found in particularly high densities along Davidson Canyon north of here, and is considered a Priority Vulnerable Species due to the disproportionate losses relative to its range of occurrence. Special effort is needed to avoid, minimize and mitigate impacts upon this species.
5. Financial assurances should be provided to BLM prior to the start of operations.
6. Soil and overburden materials that are stockpiled on-site should be kept out of erosion hazard zones to prevent materials from being washed into Davidson Canyon. The stockpile is proposed along a watercourse that feeds into Davidson Canyon at a point that is approximately 3.9 miles upstream of a Unique Water Designation. Fine-grained sediment that is washed from the stockpile into the tributary watercourse will eventually make its way downstream into Davidson Canyon, which could negatively impact (or impair) the water quality in this stream at the Unique Water designation. Increased sediment loads could also negatively impact unique biological resources that exist in Davidson Canyon, including a perennial spring that is home to native fish (longfin dace) and a good site for the management and restoration of lowland leopard frog habitat.
7. Seeding the stockpiles with native grasses is a good action, however, the seed source should contain species that are consistent with the Pima County native plant ordinance AND with the native species of plants that occur in the area. Selection of revegetation species should follow the prohibited plant list utilized by Pima County Development Services. I highly recommend they use a qualified consultant at this stage to insure quality of the product and for post- reclamation monitoring and applying remedial measures. Plant species found in this area are described at: http://www.pima.gov/cmo/sdcp/species/TRspeciesListing.html.
8. As for the schedule for reclamation activities, we agree with timing the reseeding activity to take advantage of winter rains.
9. Staff does not believe review of aerial photography should be the sole method to measure the establishment of native ground cover during post-reclamation activities. The plan also mentions using line intercept methods, but I have no idea what these are. Studies on the ground by trained botanists using plots or transects are most likely going to provide the best overall assessment of how reclamation activities are performing.
10. Staff recommends that the access road be restored to at least pre-mining conditions.
11. The plan does state that mining will be stopped once the ground water level is reached, but there are no measures to prevent a permanent water source from forming on the site during mine operations and anytime in the near future.
12. The current water levels appear to be around 3780 feet (mine depth is 3776 feet) and water was encountered in drill holes located within the quarry according to the plan. The economic and hydrologic feasibility of mining must be analyzed, given the shallow water table.
13. Given the proximity of the water table, aquifer contamination is highly likely. An aquifer protection permit should be required by Bureau of Land Management.

14. Staff disagrees with the characterization of Davidson Canyon as an ephemeral stream. At times, stream flow persists for weeks or even months, and there is a shallow water table with riparian vegetation.
15. No fuel storage should occur on site. Where will this activity occur?
16. No vehicular maintenance should occur on site. Where will this activity occur?
17. The plan specifies that the mining operations will obtain water from the Vail Water Company. However, the plan does not identify the exact location of the water source – they state from a site north of I-10/SR 83 interchange or other site. The plan does specify use of up to 12,000 gallons per day, which may be of concern, depending on the loction of the well. Impacts cannot be analyzed without knowing where the alternative water supply comes from.
18. The plan states that there will be no discharge of surface water from the quarry. As with other mines in this region, the surface water runoff will most likely be captured in collection ponds in the quarry. Although these ponds can be beneficial for keeping fine sediment out of the watercourses and provide water to neighboring wildlife, they also provide habitat for non-native species such as bullfrogs and tamarisk. Non-native species can be highly damaging to native ecosystems and wildlife. The district would like to see actions whereby permanent ponds are not created.
19. The Arizona Game and Fish Department may be able to assist in the design of a program to monitor and control non-native animal species in these areas.
20. The site will be restricted from most public uses after operations cease due to the installation of fencing, construction of berms, and placement of large boulders along the perimeter of the quarry.
21. The mine will reduce the quality of public recreation in the surrounding areas. Mining traffic would strongly deter, if not completely eliminate, public access to State Lands east of the quarry. The combination of mining traffic, blasting and earthworks would impair the aesthetic values of the surrounding areas for recreation (i.e., hiking, horseback riding, and mountain biking along the Arizona Trail).

COMPREHENSIVE PLANNING REPORT

The above-referenced proposed mining site lies within the Rincon Southeast/Santa Rita Subregion of the Pima County Comprehensive Plan, in portions of Sections 19 and 20 of T17S, R17E, east of Old Sonoita Highway, southeast of Tucson. The zoning of the proposed mining site is Rural Homestead (RH) which conforms to the site's plan designations of Low Intensity Rural (LIR) and Resource Transition (RT).

The purpose of LIR is to designate areas for residential uses at densities consistent with rural and resource-based characteristics. This designation is accurate based on the residential ranching operations prevalent in this rural area.

The purpose of RT is to designate private land with environmentally sensitive characteristics that include wildlife corridors, natural washes, floodplains, peaks and ridges, buffers to public preserves and other environmentally sensitive areas. Development of such land shall emphasis design that blends with the natural landscape and supports environmentally sensitive linkages in developing areas. This designation relates to linked washes which run generally south to north through the site.
Regional Plan Policies related to the Conservation Lands System (CLS) designations of Biological Core over the entire site except for a linear Important Riparian Area related to washes would dictate that the site area be mostly conserved as natural open space if the site was the subject of a rezoning. Comprehensive Plan staff defers to Environmental Planning staff regarding any further comments related to the CLS.

Regional Plan Policy S-19, Trail Access, Rural Equestrian Routes, National Historic Trail, appears to apply to the area of the proposed mining site as symbolized by the dotted Equestrian Trail shown in the drawn triangle on the attached map portion of the Rincon Southeast/Santa Rita Subregion. If the site

was the subject of a rezoning, the rezoning site analysis would have to include an evaluation of the impact of the proposed development on the trail resources; and, dedication of trail resources would possibly be a condition of rezoning.

DEPARTMENT OF ENVIRONMENTAL QUALITY

The Department has provided the following:

A. Prior to the commencement of construction of any grading, land clearing, or earthmoving of more than one (1) acre, any road construction of more than fifty (50) feet, or any trenching of more than three hundred (300) feet, an Air Quality Permit shall be obtained.

B. Prior to the commencement of construction of any project that results in the disturbance of one (1) or more acres of land or that results in the disturbance of less than one (1) acre of land, but that is part of a larger common plan of development or sale that disturbs one (1) or more acres of land, a Notice of Intent (NOI) shall be submitted to ADEQ and Pima County DEQ, and the required Storm Water Pollution Prevention Plan (SWPPP) must be developed, implemented throughout, and retained on-site during the execution of these construction activities.

C. This development may be required to obtain coverage under the Arizona Pollution Discharge Elimination System (AZPDES) Multi-Sector General Permit program for the commercial activity that is proposed on the property. To obtain coverage a Notice of Intent to Discharge must be filed with ADEQ that demonstrates that steps have been taken to minimize that transport of pollutants off of the property during a storm event. Steps include both structural devices (e.g. impoundments) and work practices. Prior to the commencement of any construction activity at this site the applicant shall demonstrate that coverage has been obtained or demonstrate that coverage is not necessary.

D. This development may require an Aquifer Protection Plan to be submitted to ADEQ. Prior to the commencement of any construction activity at this site the applicant shall demonstrate that the plan has been approved or demonstrate that such a plan is not necessary.

DEPARTMENT OF AIR QUALITY CONTROL DISTRICT REPORT

The Department's Air Quality Control District requires that air quality activity permits be secured by the developer or prime contractor before constructing, operating or engaging in an activity which may cause or contribute to air pollution.

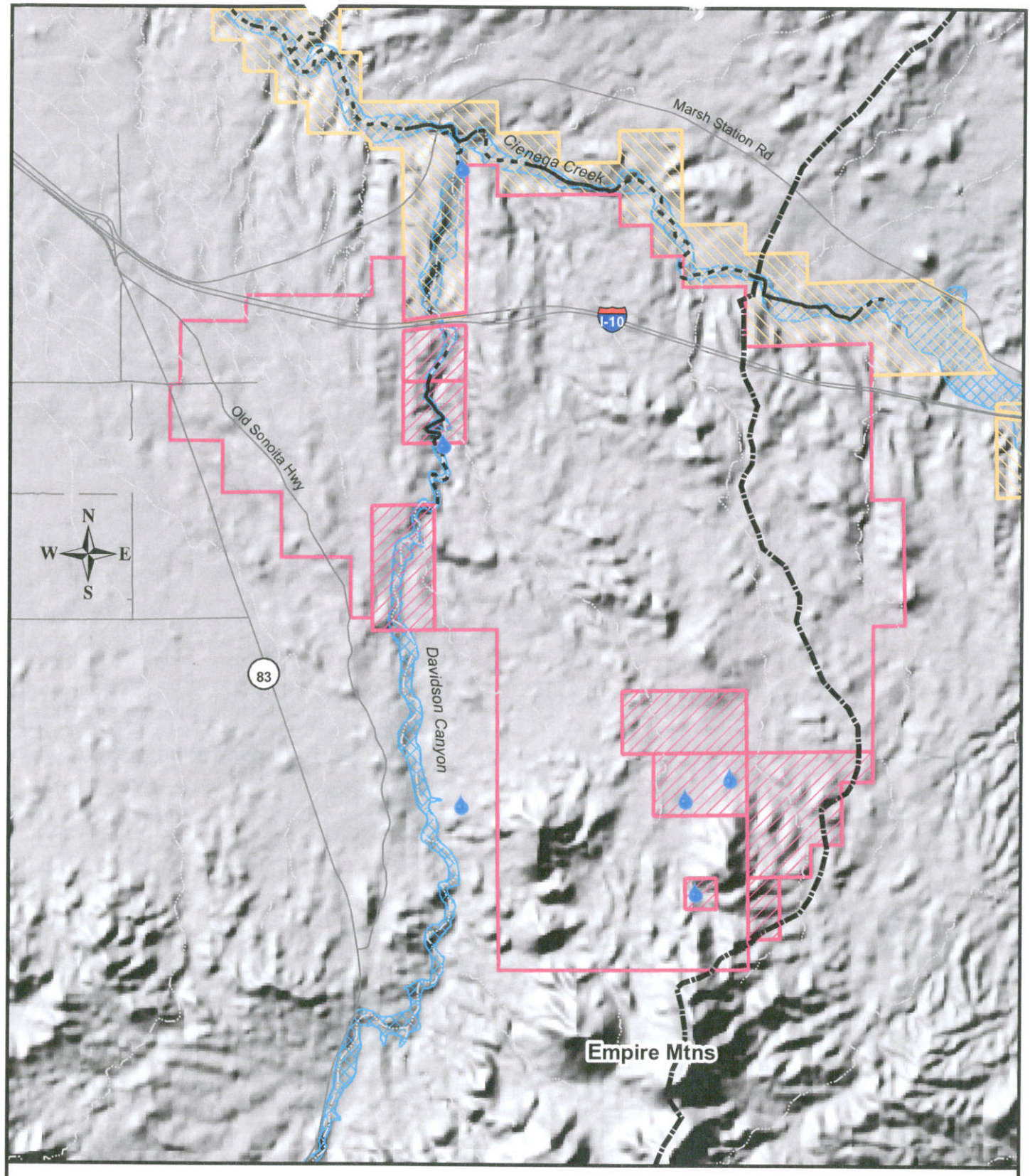
WASTEWATER MANAGEMENT DEPARTMENT REPORT

The subject area is outside of the area currently served by Pima County's public sewer system. There are no existing or proposed public sewers that can be reached by gravity within several miles of the property boundaries.

CONCLUSION

Due to several flood control issues, the department recommends denial of the proposed permit.

CC: C. H. Huckleberry, County Administrator
Julia Fonseca, Environmental Planning Manager, Regional Flood Control District



Spring
Intermittent Stream Reach
Perennial Stream Reach
Shallow Groundwater Area (<50 feet below land surface)
Bar V Ranch -- State Lands
Bar V Ranch -- Private Lands
Cienega Creek Natural Preserve
Tucson AMA Boundary
Major Street or Highway
Watercourse

0 1 2 Miles

Figure created by PAG, December 2004.
Hillshade backdrop shows area topography.

CALIFORNIA PORTLAND CEMENT COMPANY

2025 E. FINANCIAL WAY, GLENDORA, CA 91741 / TEL. (626) 852-6200

Pima County Regional Flood Control District
97 East Congress, 3rd floor
Tucson, AZ
85701

April 11, 2007

Subject: Haul road crossing at Davidson Canyon Wash, T17S, R17E, Sections 19 & 30.

To Whom It May Concern:

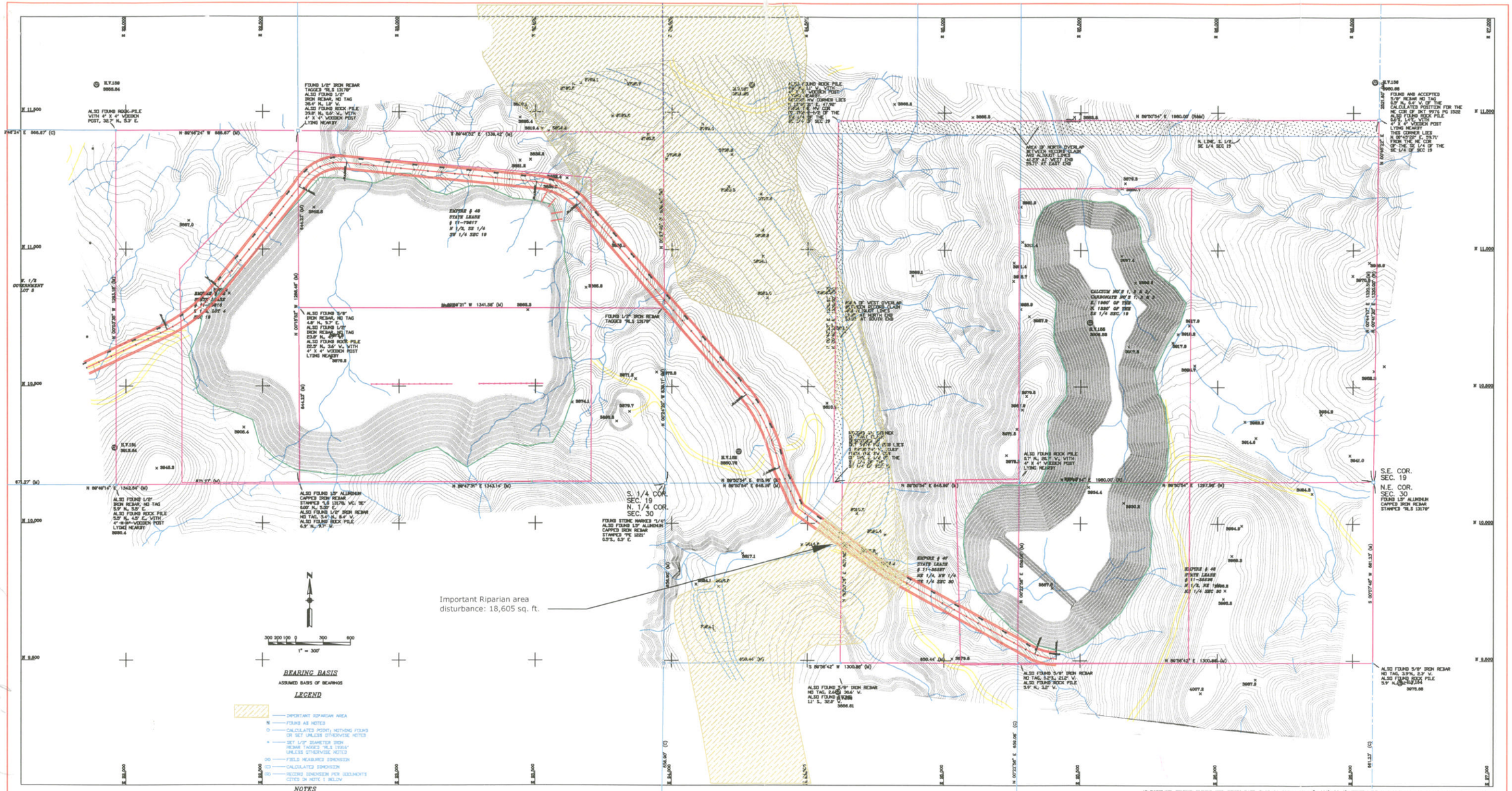
This is in regards to a voided floodplain permit (Permit #05-736R) applied for on 10-25-05. Due to unforeseen circumstances the permit was not completed and the permit was cancelled. I would like to reapply for the permit and submit the information that was previously requested by PCFC. Attached is the letter sent by PCFC regarding the previous permit.

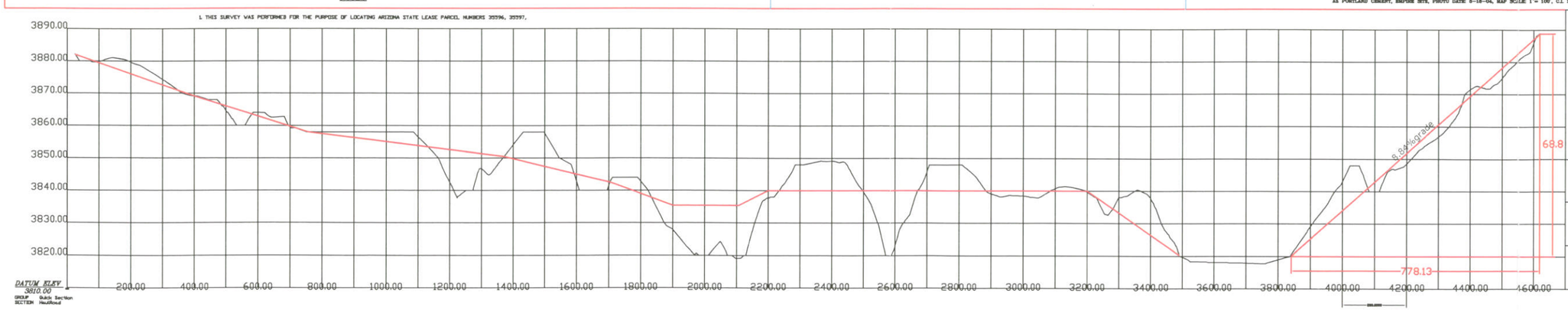
California Portland Cement proposes a roadway for access to the quarries on the property leased by CPCC. The roadway is approximately 4620ft in length and 50 ft wide (40ft wide plus 10 feet for berms where required). The roadway crosses the Davidson Canyon wash and travels through a designated Important Riparian Area for approx 368ft, creating a total disturbed area of 18,605 sq. ft. (measured on topographic map).

The responses to the previous requests are as follows:

1. An application for a 404 permit is in the process with the Army Corps of Engineers for the crossing in Davidson Canyon and other regulated washes that will be disturbed by the mining operations. The western pit will remove the unnamed regulatory wash and any storm water that would fall with the upper watershed will drain into the pit. Water inside the pit will drain into the fractures and also evaporate. No water will be pumped from the pit into any wash or other drainage.
2. Total area disturbed by the roadway in the Important Riparian Area is 18,605 square feet. Although it should be noted that the roadway in the Important Riparian area will not contain fill. The wash will be bladed when necessary to allow truck passage.
3. There will not be any cuts or fills located within the Riparian area or in the FEMA Zone A floodplain. The roadway will enter the wash at grade and the cuts required to enter the

Old site plan (revised for FRUS)





Description:

This drawing is the conceptual pit and road access design for the State Leases and Federal Claims located in the Davidson Canyon Area

VOID OLD SITE PLAN

Empire Mountain Access	
California Portland Cement Company	
April 2, 2007	Edward Harrison

COUNTY ADMINISTRATOR'S OFFICE

PIMA COUNTY GOVERNMENTAL CENTER
130 W. CONGRESS, TUCSON, AZ 85701-1317
(520) 740-8661 FAX (520) 740-8171

C. H. HUCKELBERRY
County Administrator

January 2, 2007

Jamie Hogue
Deputy Commissioner
Arizona State Land Department
1616 West Adams Street
Phoenix, Arizona 85007

Re: Decision and Order No. 134-2006/2007

Dear Ms. Hogue:

As we discussed at the December 20, 2006 meeting, Pima County is appealing the State Land Commissioner's decision to approve the Portland Cement leases along Davidson Canyon. If the decision does stand, I would still like you to consider the addition of certain language in the leases. Since you are unwilling to release the actual draft lease language, our additions are based on the 18 conditions listed in the Decision and Order. The language is included below. Additions are capitalized and bolded.

(3) The Lessee shall accomplish appropriate and complete reclamation as determined by the Department during the term of the leases with the final reclamation to be completed by one hundred and twenty days following the end of the lease term. Reclamation shall include minimization of visual impacts from scenic roads/highways, including contouring and landscaping tailings to ~~match~~ **REPLICATE IN A NATURAL MANNER** the surrounding native landscape and land forms. **RECLAMATION SHALL BE MONITORED BY AN INDEPENDENT INSPECTOR RETAINED BY THE DEPARTMENT, BUT PAID FOR BY THE LESSEE.**

(8) Lessee shall conduct **PLANT AND ANIMAL** invasive species monitoring during mining operations and Lessee shall implement measures to limit non-native species invasion into the area as determined by the department. In the event non-native invasive species are introduced into the area, Lessee shall undertake appropriate corrective and/or mitigation measures as determined by the **ARIZONA GAME AND FISH DEPARTMENT, IF ANIMALS, OR ARIZONA STATE LAND** Department, **IF PLANTS. AT NO TIME WILL A PERMANENT BODY OF WATER (QUARRY PIT LAKE) BE MAINTIANED ON THE SITE.**

(11) Lessee shall prepare a drainage report which identifies appropriate steps that will be taken to control runoff, minimize erosion, maintain water quality and otherwise prevents any adverse impacts on perennial surface flow, **FOR REVIEW BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY.** (Note that ADEQ and ASLD already have MOU in place for such services).

(12) The department is concerned about depletion of groundwater resources in the area of the mining leases. Lessee shall not develop any groundwater on the leased land. Lessee has represented that it intends to acquire water needed for its operation from commercial off-site sources. **OFF SITE SOURCES SHALL NOT INCLUDE GROUNDWATER FROM WITHIN THE DAVIDSON CANYON WATERSHED.** Lessee water use on-site shall be restricted to no more than an annual average maximum of 12,000 gallons per day.

I am still unaware of the size of the reclamation bond that you'll be requiring prior to the issuance of the leases. This is of great concern due to Arizona Portland Cement's history of environmental enforcement action in Pima County. Attached is a summary of actions that took place in 1992, 2003, and 2004. The Arizona Department of Environmental Quality should be able to provide you with the particulars. I recommend that specific dates be written into the lease with regard to when reviews of the reclamation bond amount will take place, as well as making sure that any necessary increases in bond amounts be enforceable.

We have been working with a neighborhood preservation and conservation advocacy-based group called the Empire-Fagan Coalition regarding this issue. This organization is made up of area residents and has been active in sending comments to the Arizona State Land Department regarding this and other mineral leases. Attached are their comments on additional lease language.

It was a pleasure to meet you and I hope that we can continue to work towards outcomes that benefit the Trust as well as the residents of Pima County.

Sincerely,

C. Huckelberry

C.H. Huckelberry
County Administrator

CHH/dr

Attachments

c: Nicole Fyffe, Executive Assistant to the County Administrator

MEMORANDUM

PIMA COUNTY ENVIRONMENTAL QUALITY

DATE: December 11, 2006

TO: Nicole Fyffe
Executive Assistant to the County Administrator

FROM: Ursula Kramer
Director

RE: **Arizona Portland Cement (APC) Environmental Enforcement Actions**

In response to your request for information regarding Arizona Portland Cement (APC) environmental enforcement actions, the Pima County Department of Environmental Quality (PDEQ) has collected the attached information. There have been three significant enforcement actions taken against APC.

In 1992, PDEQ and the Arizona Department of Environmental Quality (ADEQ) began joint enforcement for hazardous waste and air quality violations. The enforcement actions were settled in 1993 and a fine of $367,840 was levied against the facility. In 1996, the Hess Oil Virgin Islands Company (HOVIC) settled enforcement action with the U.S. Department of Justice. The HOVIC shipped hazardous waste to APC in 1992. Because the case originally began at APC with PDEQ's enforcement actions, the Department of Justice awarded Pima County $1,000,000 for the County's efforts.

In 2003, the U.S. Environmental Protection Agency (EPA) issued a Notice of Violation to APC for violating Clean Air Act provisions. APC had begun construction at the Rillito facility without obtaining the necessary permits. This case has not been resolved with EPA.

During 2004, ADEQ issued 8 air quality violations to APC. The violations centered around required testing for hazardous air pollutants. ADEQ has settled the violations with APC with a fine of $300,000, a requirement that the company purchase air purifiers for homes within the Rillito community, a requirement that the company purchase an air conditioning unit for the Rillito Community Center, and a requirement that the company apply dust suppressants on Contractors Way.

Attached is detailed information on each case. If you would like additional information or have questions on this material, I am available to meet at your convenience.

UK/RG/vlb

cc: John Bernal, Deputy County Administrator
Richard Grimaldi, Deputy Director for PDEQ

12/27/06

Suggestions from Empire-Fagan Coalition for Comments on the 18 Conditions:

1. Condition #4 – should be more specific, e.g. request a percentage of net profit annually and any amounts not used be used for another purpose to benefit the State.
2. Condition #5 – add more stringent dust control standards (e.g. require them to put down gravel on the roads). Also, do not allow them to use any non-biodegradable chemicals on the roads that might impact groundwater.
3. Condition #9 – do not allow them to create additional roadways accessing the site or modify existing roadways or signage. Local and tourist traffic on Sonoita Highway and Old Sonoita Highway should take priority over and not be impeded by mining traffic. APC should have to pay for any road repairs that result from their activities.
4. Condition #12 – "Lessee's water usage on-site shall be restricted to no more than an annual average maximum of 12,000 gallons per day." This should include any groundwater they may strike that fills the pits.
5. Condition #14 – should be modified to include neighbors within a 2 mile radius of the operation. Neighbors should be given individual notice by mail or at a minimum, "reasonable notice" should be defined more clearly.
6. Condition #15 – Lessee should also be required to protect wildlife such as building a fence with a fine mesh at the base around the operation to protect small mammals and reptiles. Measures should also be taken to protect native and migrating birds.

Also, how about something specifying that APC must pay for any damage to neighboring homes and wells that result from their activity?

Contact information for Empire-Fagan Coalition:
Mary Kidwell mary@empirefagan.org 762-0533
Kim Kolba Kim@empirefagan.org

Pima County Regional
FLOOD CONTROL
DISTRICT

PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT
201 NORTH STONE AVENUE, FOURTH FLOOR
TUCSON, ARIZONA 85701-1207

SUZANNE SHIELDS, P.E.
DIRECTOR

(520) 740-6350
FAX (520) 740-6749

November 10, 2005

Edward Harrison
Arizona Portland Cement
11115 N. Casa Grande Hwy
Rillito, AZ 85654

Subject: Haul Road Crossing at Davidson Canyon Wash, T17S, R17E, Sections 19 and 30, Floodplain Use Permit #05-736R.

Dear Mr. Harrison:

This letter is in response to your Floodplain Use Application for the placement and maintenance of a haul road across the Davidson Canyon Wash for access to the easternmost State Mineral Leases 11-35596 and 35597. After further research, it was found that the proposed road crosses two regulatory washes, the Davidson Canyon Wash and one additional unnamed wash located between Davidson Canyon Wash and Old Sonoita Highway. In addition to the regulatory washes mentioned above, the road will cross a Special Flood Hazard Area (SFHA), Zone A, as shown on the Flood Insurance Rate Map (FIRM), Community-Panel No. 040073-04019C-3475K and a mapped Important Riparian Area, as shown on the *Riparian Habitat Classification Maps*, October, 2005. In order to continue processing your permit, Pima County Regional Flood Control District will require the following additional information:

1. Written approval from the U.S. Army Corps of Engineers that the work to be completed for the portion of the haul road traversing the Davidson Canyon Wash does not require a Section 404 permit.
2. Grading limits of the road with an assessment of the amount, in square feet, of Important Riparian Habitat that will be disturbed.
3. Location and dimensions of any cuts and fill for the portion of the road that traverses the regulatory washes and FEMA Zone A floodplain.
4. A roadway profile depicting the existing and proposed grades of the wash crossings, which include the wash channel, banks and an additional fifty feet beyond the banks of the wash.
5. A description of the proposed maintenance schedule.
6. A description of the roadway material, covering or treatment.

If you have any questions concerning our request, please contact our office at (520) 740-6350. Thank you.

Sincerely,

Marisa Trevino

Marisa Trevino, Hydrologist
Floodplain Management Section

MT/vr/ap

Attachments: Locations of regulatory washes, Riparian Habitat map, FEMA Zone A floodplain map

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(520) 740-8661 FAX (520) 740-8171

C. H. HUCKELBERRY
County Administrator

April 4, 2006

Ron Ruziska, Director
Southern Arizona Office
Arizona State Land Department
177 North Church, Suite 1100
Tucson, Arizona 85701

Re: **Application for Renewal of Mineral Lease 11-023880**

Dear Mr. Ruziska:

This letter is in response to your request for a list of specific conditions Pima County would like to see met regarding the renewal of Mineral Lease 11-023880. Attached is a letter dated September 1, 2005 from Suzanne Shields, Director of the Pima County Regional Flood Control District in response to your first request for comments. County Administrator Chuck Huckelberry has also submitted comments on this and other mineral lease requests in the area in a consolidated letter dated January 11, 2005. Pima County continues to object to mineral extraction in this area of the County, the Cienega Corridor, as stated in the attached Resolution approved by the Board of Supervisors in June 7, 2005. Mineral extraction is not consistent with the County and other public and private entities efforts to conserve the unique habitats and important riparian areas found in this corridor.

That said, you are still considering approving the renewal of Mineral Lease 11-023880. Therefore, below are specific conditions Pima County would like to see applied to such a renewal:

1. Disturbance should be restricted to the existing area of disturbance.

2. Require the applicants to submit a plan to the State Land Department developed in consultation with the Arizona Game and Fish Department to control non-native

species, such as bullfrogs and Tamarisk, that are associated with collection ponds within the quarry.

3. A reclamation plan should be developed by the applicant, circulated for review and public comment before approval by the State Land Department, and financial assurances posted by the applicant sufficient to fully fund the reclamation plan.

Thank you for the opportunity to continue to comment on this and other leases associated with the State Land Department.

Sincerely,

Nicole Fyffe
Executive Assistant to the County Administrator

NF/dr

Attachments

c: C.H. Huckelberry, County Administrator
John Bernal, Deputy County Administrator – Public Works
Suzanne Shields, Director, Flood Control District
Julia Fonseca, Program Manager, Flood Control District

PIMA COUNTY
REGIONAL FLOOD CONTROL DISTRICT
201 NORTH STONE AVENUE, FOURTH FLOOR
TUCSON, ARIZONA 85701-1207

SUZANNE SHIELDS
DIRECTOR

PHONE: (520) 740-6350
FAX: (520) 740-6749

September 1, 2005

Mr. Richard Ahern
Arizona State Land Department
Minerals Section, Natural Resources Div.
1616 W. Adams Street
Phoenix, Arizona 85007

Re: Application for Renewal of Mineral Lease 11-023880 (120 Acres) by California Portland Cement Company

Dear Mr. Ahern,

Thank you for the opportunity to comment on the referenced application by the California Portland Cement Company for the purposes of mining lands located within Sections 14 and 23 of Township 16 South, Range 17 East in Pima County, Arizona. As in their review of other recent applications for mineral leases in nearby areas, Pima County (County) staff is opposed to any new or renewed mining activities within the Cienega Creek watershed. Much of the County's concerns were highlighted in a letter, dated January 11, 2005, that was sent by the County Administrator to Mr. Michael Rice and yourself. In regards to its review of the subject application, County staff provides the following comments:

1. The proposed mining activity occurs on State Lands that are identified in the 2004 Pima County Open Space Bond Program as a secondary priority for protection. Protection could occur directly though acquisition of the land using the bond program or indirectly thought the State Land Reform Act. Based on this designation, the County would prefer to see low-intensity uses (e.g., grazing) on this property as opposed to high-intensity uses, such as mining, which permanently impair the landscape. Noting that this particular property is already scarred by past mining activity, the continuance of allowing mining on the site will only help to further the degradation of the land and make future restoration efforts much more costly. If renewed mining activities, including roads, were

restricted to the existing footprint, then this could protect adjacent natural cover and still allow for some mineral extraction. However, the lease does not appear to restrict the mine to the existing disturbed area.

2. The entire subject parcel is designated as Biological Core within Pima County's Conservation Land System. Biological core areas have a very high importance that is distinguished by high potential habitat for five or more priority vulnerable species (plants and wildlife that are most vulnerable to extinction because of human-related stresses) and special elements (e.g., caves, perennial streams, cottonwood forests). The County's focus regarding land use and management within these areas is on conservation, restoration and enhancement of the natural communities, with provision for other land uses consistent with improvement of conditions for native species, soils and native vegetation. Expansion of the mining area is not considered to be a land use that would fit in with this goal.

3. The subject parcel is located within Priority Conservation Areas (PCAs) designated for seven species listed as priority vulnerable species in Pima County's Sonoran Desert Conservation Plan: Lowland leopard frog (1), Bell's vireo (1), cactus ferruginous pygmy-owl (1), Swainson's hawk (1), lesser long-nosed bat (2), Pale Townsend's big-eared bat (1), and Mexican long-tongued bat (1). Priority Conservation Areas are specific areas designated by the local science community as significant for the conservation of the listed priority vulnerable species. The number in parenthesis represents one of the six tiers of PCAs: (1) indicating areas the contain populations that must be included in the reserve system and (2) indicating areas that would be of value to the reserve system.

4. The referenced mineral lease is within the channels of and/or adjacent to a couple of tributary streams to Cienega Creek. Cienega Creek is designated as a Unique Water of the State of Arizona. Under Arizona Administrative Code R18-11-107D, the water quality of unique waters are to be maintained and protected; limited degradation is not allowed. Mining activity has the high potential of increasing sediment loads in the two tributary streams, which will eventually reach the main channel of Cienega Creek and increase the risk of impairing its water quality.

5. As with the other mining proposals, it would appear that much of the water runoff on the disturbed areas will be captured in collection ponds within the quarry. Although these ponds are beneficial for keeping fine sediment out of the watercourses and can provide water to neighboring wildlife, they also provide habitat for non-native, invasive species such as bullfrogs and tamarisk. These species are highly damaging to native ecosystems and wildlife, and have been noted by County personnel within other mining sites in the area. We would like

to see actions whereby permanent ponds are not created or are managed to be periodically drained. Alternatively, the pits should be filled. The Arizona Game and Fish Department may be able to assist in the design of a program to control non-native species in these areas.

The County appreciates the opportunity to provide comments on the subject application for a mineral lease renewal on State Trust lands. Please contact me at 520-740-6350 if you have any comments or concerns.

Sincerely,

David Scalero

David Scalero, Senior Hydrologist
Water Resources Division

DS/jf

cc: C. H. Huckelberrry, County Administrator
John Bernal, Deputy County Administrator
Suzanne Shields, Director, Regional Flood Control District
Thomas J. Helfrich, Division Manager, Water Resources
Julia Fonseca, Environmental Planning Manager
Greg Hagen, Parks and Recreation Planner

RESOLUTION NO. 2005-124
PIMA COUNTY
RESOLUTION IN OPPOSITION TO MINING EFFORTS IN PIMA COUNTY RESERVES AND BIOLOGICALLY VALUABLE LANDS

WHEREAS, the Arizona State Land Department is considering an application to renew a mineral lease (Seel Application, Lease 11-003227) that would result in a new calcium carbonate mine (limestone quarry) in the Empire Mountains within the County's Bar V Ranch State grazing lease holdings, and within the drainage of Pima County's proposed Davidson Canyon Preserve; and

WHEREAS, the Arizona State Land Department is considering an application for a Special Land Use Permit (W. H. Henderson/Andrada Quarry Application, Permit # 23-109779) and the Bureau of Land Management is considering a draft plan of operations for three mining claims (W. H. Henderson/Andrada Quarry, portions of GAMACO#1, GAMACO#2 and WRH-PRO-ONE placer mining claims) that would result in renewed mining of calcium carbonate (limestone) at Wentworth and Sahuarita Roads, as well as renewed processing and crushing on adjacent private lands, within Pima County designated Priority Conservation Areas for six Priority Vulnerable Species and adjacent to residential development; and

WHEREAS, the Arizona State Land Department is considering an application to renew mineral leases (Portland Cement Application, Leases 11-035596, 11-035597, 11-079816, 11-079817) that would result in two new limestone quarries on either side of Davidson Canyon and construction of a road across Davidson Canyon, a nominated Unique Waters of the State containing federally endangered species; and

WHEREAS, the Arizona State Land Department is considering an application to renew mineral leases (Portland Cement Application, Lease 11-23880) adjacent to Agua Verde Creek, which is designated as an important riparian area within the County's Conservation Land System and Sonoran Desert Conservation Plan; and

WHEREAS, the Arizona State Land Department is considering an application to renew mineral leases (Phoenix Brickyard Application, Leases 11-908, 11-1022, 11-1456, 11-1457) and an application for new mineral leases (Phoenix Brickyard Application, Leases, 11-98753, 11-98754, 11-98755, 11-98756) that would result in the continued removal of clay adjacent to the County's Cienega Creek Natural Preserve and Unique Waters of the State containing federally endangered species; and

WHEREAS, the Bureau of Land Management is considering a draft plan of operations for mining claims (Rancho Seco Project and Arizona/Breccia Mines, Plans of Operations 3809 (AZ420) AZA 33072) that would result in mineral exploration on Pima County-owed lands within Rancho Seco - a recent acquisition funded with sale of voter-approved bonds for the purpose of preserving the lands consistent with conservation ranching practices, for the benefit of the public interest; and

WHEREAS, the mining activities listed above are located in Pima County's Conceptual Cienega Valley and Cerro Colorado Reserves as outlined in Pima County's February 2005

Draft II Multi-Species Conservation Plan, with the exception of the W. H. Henderson/Andrada Quarry Application that is located west of the Cienega Valley Reserve within the Cienega Valley watershed in an area of high biological value; and

WHEREAS, the Pima County Board of Supervisors and Arizona Department of Environmental Quality have agreed that the flows of Cienega Creek constitute a Unique Water of the State of Arizona, meriting the state's highest level of protection against the degradation of water quality; and

WHEREAS, the Cienega watershed provides the Tucson Basin with up to 20% of its groundwater underflow; and

WHEREAS, hydrologic studies of Davidson Canyon have indicated its importance as a tributary of surface and groundwater flows to Cienega Creek, supporting the nomination of Davidson Canyon as a Unique Water of the State; and

WHEREAS, these areas have very high biological importance and have therefore been designated Biological Core within the Conservation Land System as adopted by the Pima County Board of Supervisors in December 2001, and as recommended by the Steering Committee for the Sonoran Desert Conservation Plan; and

WHEREAS, theseparcels have been identified as Habitat Protection Priorities to guide acquisition or preservation of biologically important lands through the 2004 Bond Implementation Plan, as authorized by voters in May 2004; and

WHEREAS, the Cienega Valley received national recognition in 2004 as one of seven "Endangered Cultural Landscapes" in America; and

WHEREAS, these areas are where different peoples have lived for thousands of years resulting in numerous archaeological and historical sites, and culturally significant places that are eligible for listing on the National and State Registers of Historic Places;

WHEREAS, the economy and quality of life of the citizens of Pima County and southern Arizona are heavily dependent upon recreation and tourism and hence on abundant nearby public land; and

WHEREAS, numerous trails listed on the Eastern Pima County Trail System Master Plan pass through the Cienega Valley Reserve, including the Davidson Canyon Trail; and

WHEREAS, these areas are the best areas in Pima County to preserve large open landscapes for ranch conservation, the preservation of scenic views, recreational opportunities, historic and cultural resources, and biological values; and

WHEREAS, almost $50 million has already been expended by Pima County in acquiring and preserving lands in these unique reserves, of which approximately $3.6 million ran to the benefit of the State Trust via the acquisition of State Trust lands; and

WHEREAS, mining on these lands will permanently preclude many alternative future

uses and revenues from these lands; and

WHEREAS, the long term revenues to the State Trust from future land sales for conservation purposes will far exceed the short term revenues from these mining activities.

NOW, THEREFORE, BE IT RESOLVED, that Pima County opposes new mineral leases, mineral lease renewals, and mining claims in the County's Conceptual Cienega Valley and Cerro Colorado Reserves, as well as those that would negatively impact the Reserves by degrading the biological and economic values of lands adjacent to the reserves.

Passed by the Board of Supervisors of Pima County, this 7th day of June, 2005.

Chair, Pima County Board of Supervisors

JUN 0 7 2005

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

Deputy County Attorney

N
Previous disturbance
Limits of Previous Area
SCALE 1 : 2,400
600
400
200
FEET
0
200

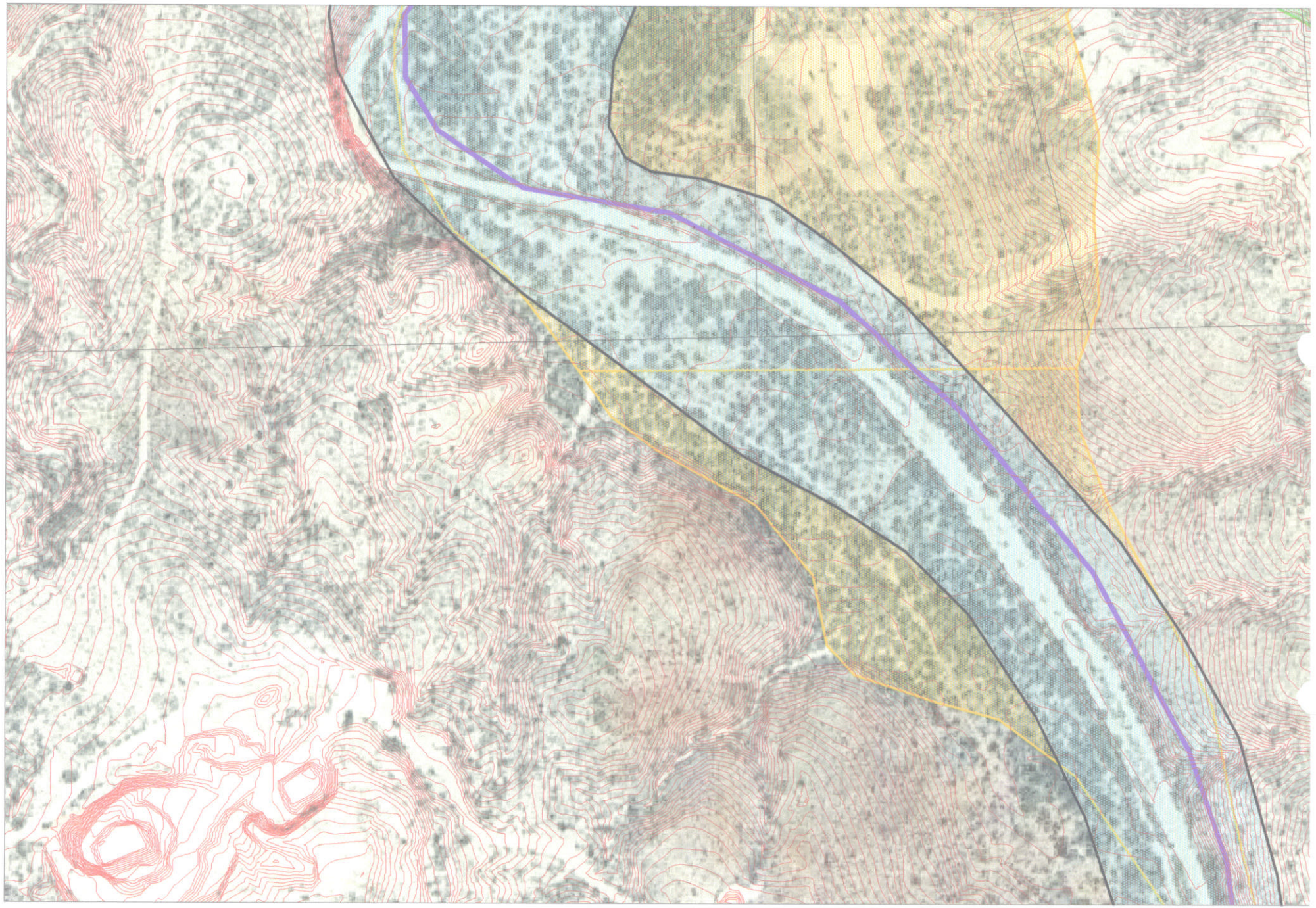
1996-97

N

≈ 1,900' wide
20'

2006

N

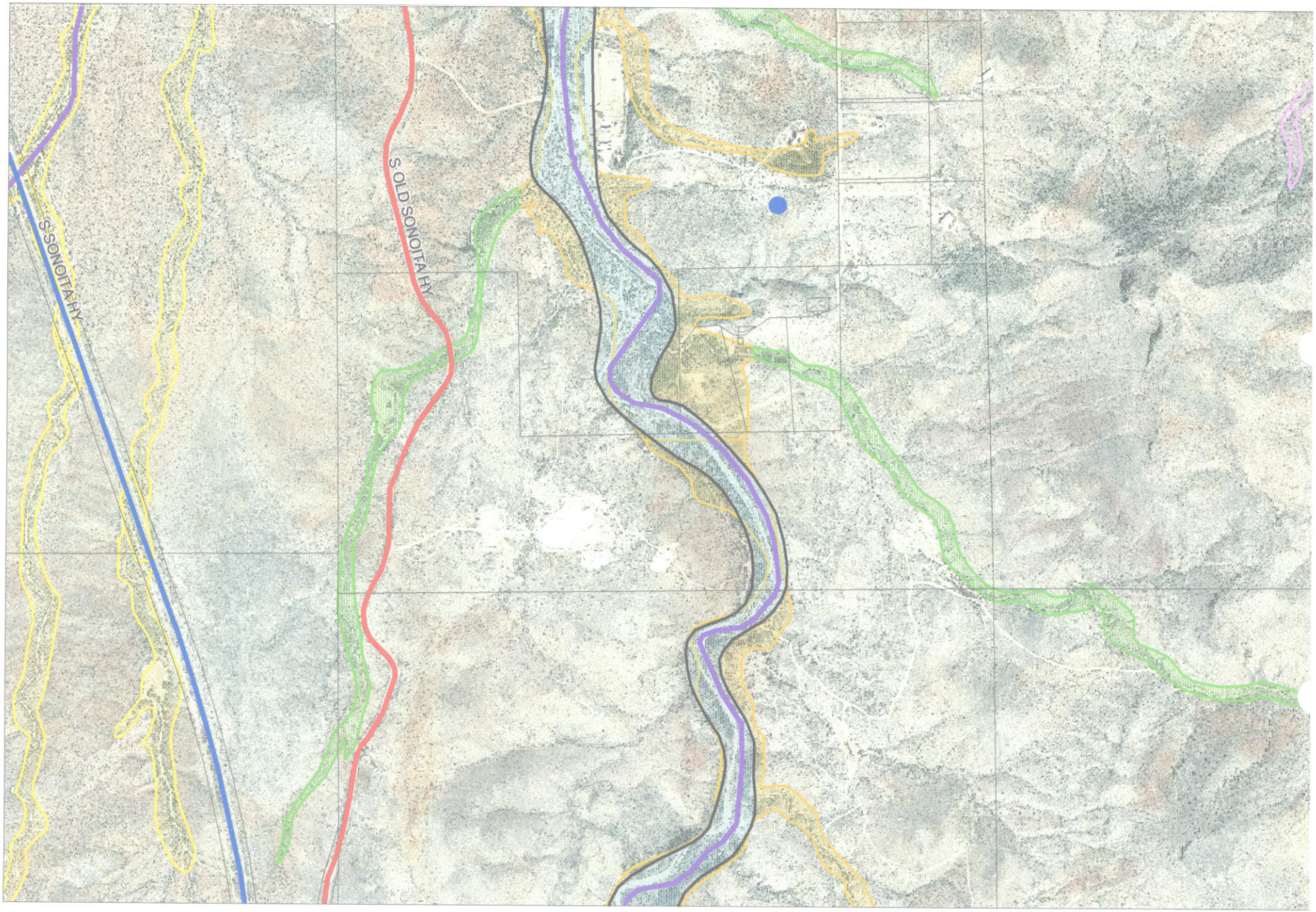


SCALE 1 : 2,400

200 0 200 400 600

FEET

N

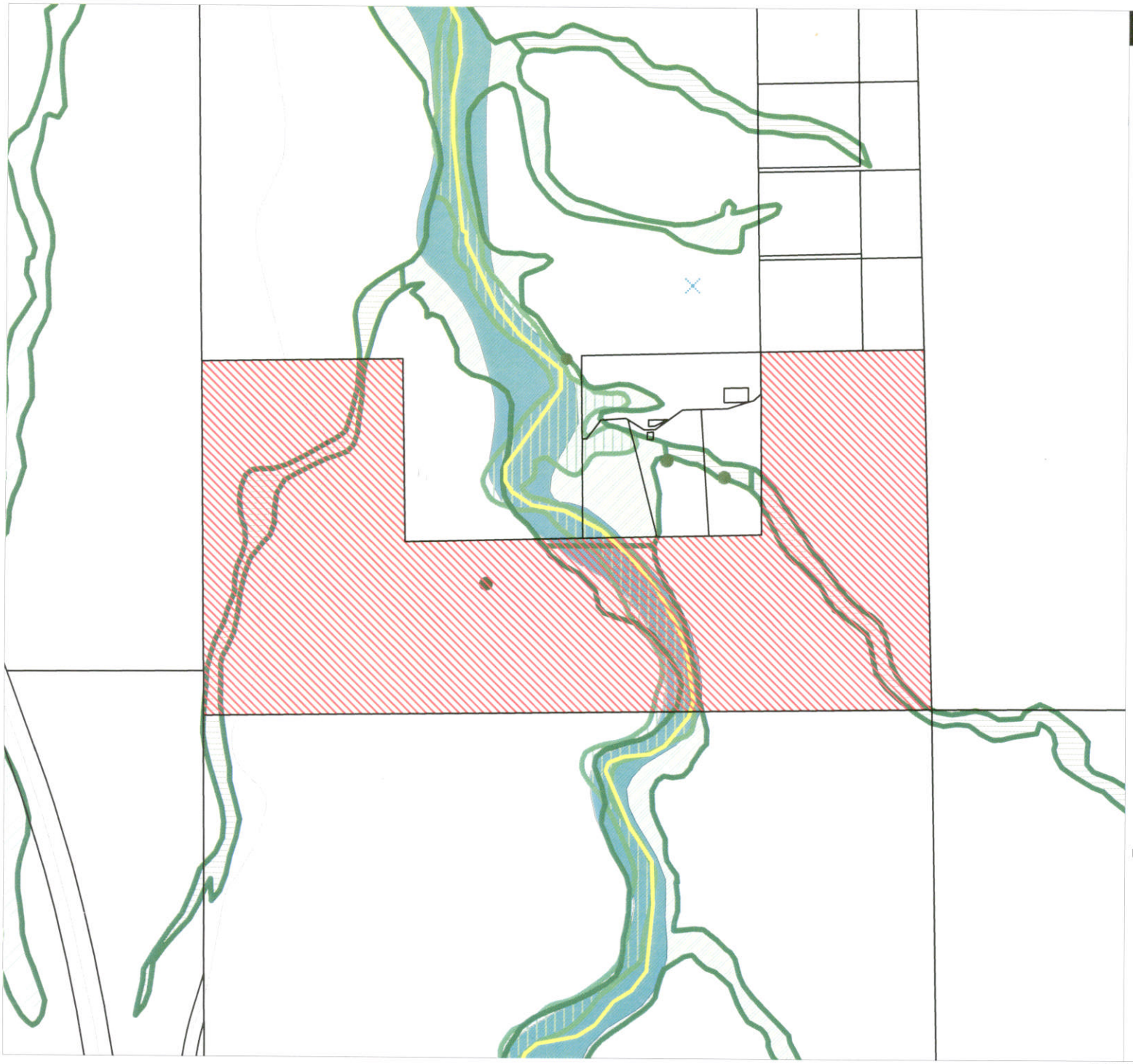


SCALE 1 : 12,000

1,000 0 1,000 2,000 3,000

FEET

N



PIMA COUNTY

PARCEL QUERY SYSTEM

DRAFT

1"= 1000.00 feet

FCD ANALYSIS RESULTS
Parcel: 306150550
Owner: STATE OF ARIZONA
Address: 0
Legal1: LOTS 3 & 4 & SE4 SW4 & SW4 SE4 & E2 SE4 239.
FIRM Boundaries: 04019C3475 K
Section Boundaries: 17S17E19
FEMA Zone(s): ZONE A, ZONE X,
1999 Riparian Habitiats: B
2005 Riparian Habitiats: IRA B
Corporate Limits: PIMA COUNTY
None
Special Study Area: None
Photo Ref: 1998 25-11 43, 15

Plot date: Apr 16, 2007; C:\GISComplaints\complaints.apr

STATE LAND DEPARTMENT OF THE STATE OF ARIZONA
BEFORE THE STATE LAND COMMISSIONER

IN THE MATTER OF MINERAL LEASE RENEWAL APPLICATIONS FOR LANDS DESCRIBED AS: N2NENE EMPIRE NO. 46 (LEASE NO. 11-35596), NENWNE EMPIRE NO. 47 (LEASE NO. 11-35597), BOTH IN SECTION 30. E2L4 EMPIRE NO. 48 (LEASE NO. 11-79816), N2SESW EMPIRE NO. 49 (LEASE NO. 11-79817), BOTH IN SECTION 19. ALL IN TOWNSHIP 17 SOUTH, RANGE 17 EAST, 69.93 TOTAL ACRES, PIMA COUNTY, ARIZONA. APPLICANT: CALIFORNIA PORTLAND CEMENT CO.	ORDER NO. 134-2006/2007 DECISION AND ORDER

Arizona State Land Department
1616 WEST ADAMS
PHOENIX, ARIZONA 85007

FINDINGS OF FACT

The records of the Arizona State Land Department (the "Department") reflect the following facts:

1. California Portland Cement Co. filed renewal applications for the following mineral leases located in Pima County: 11-35596, 11-35597, 11-79816 and 11-79817.

2. Lease No.'s 11-35596 and 11-35597 expired in January of 1996. Lease No.'s 11-79816 and 11-79817 expired in July of 2000.

3. Under prior mineral leases 11-35596, 11-35597 and 11-79817, there was no reported mineral production by the lessee, and under lease 11-79816, there were only two months of production.

4. The Department, because of lack of human resources and other reasons, had not until more recently, processed the mineral lease renewal applications. The applications, as renewal applications, are stale and the issuance of leases as renewal leases under A.R.S. § 27-233, does not advance the interests of the Trust, however a valuable mineral deposit exists to support issuance of mineral leases under A.R.S. § 27-254.

5. The issuance of the mineral leases and the mining of the property has the potential to generate up to two million dollars for the Trust, while preserving the land for future uses.

6. The Applicant has indicated an intention to accomplish removal of the mineral resource within a fifteen year term.

7. The conduct of mining is an activity that involves disturbance of the surface and the Department will require that appropriate reclamation be assured.

8. The Applicant's proposed operation and reclamation plans are detailed in the Applicant's Draft Mineral Development Report submitted to the Department.

9. The Department has received numerous comments regarding the proposed mining operations, including comments from Pima County. Subsequently the State Land Commissioner (the "Commissioner") asked the County to elaborate on its concerns and suggest recommendations. The County delivered letters dated June 30, 2006 and July 28, 2006, setting forth specific concerns and recommendations. The Commissioner shared the County's letters with the Applicant and encouraged the Applicant to respond to and address the expressed concerns. The Applicant did deliver letters dated July 13, 2006 and August 13, 2006, responding to the County's concerns. The Minerals Section of the Department has evaluated the comments and concluded that the most significant concerns that have been raised in the comments can be addressed. The Minerals Section has recommended that the Department issue the mining leases, subject to addressing the most significant concerns.

CONCLUSIONS

There are valuable minerals present on the lands that have been applied for by California Portland Cement Co. that meet the statutory criteria for issuance of mineral leases. The Trust interest is served by assuring timely mining development that secures revenue to the Trust, but results in appropriate reclamation at the end of the mineral leases. The Trust interest is served by concurrent reclamation to the extent practicable so that the reclamation obligation is fulfilled in a timely manner. The leases should contain provisions that the leases would be terminated if mining production is not achieved by the end of the second year. The leases should include a provision that requires payment of a minimum guaranteed annual royalty to secure revenues to the Trust. The leases should contain requirements to address a number of significant concerns that have been raised regarding the mining operations, which will require amendments to the Mineral Development Report which includes the general mining plan.

RECOMMENDATIONS

Leases on the property applied for should be granted for a term of 15 years from the transmission of the leases without renewal rights. The leases should contain conditions to address operation, production, royalties and reclamation and other matters including the following:

(1) Lessee shall have no right to renew the leases.

(2) While engaging in mining operations, the Lessee shall conduct concurrent reclamation in a manner satisfactory to the Department.

(3) The Lessee shall accomplish appropriate and complete reclamation as determined by the Department during the term of the leases with the final reclamation to be completed by one hundred and twenty days following the end of the lease term. Reclamation shall include minimization of visual impacts from scenic roads/highways, including contouring and landscaping tailings to match the surrounding native landscape and land forms.

(4) The Lessee shall provide the Department financial assurances for reclamation prior to issuance of the leases in an amount to be determined by the Department. The Department shall have the right to periodically review the financial assurances to adjust the amount upward or downward as deemed necessary by the Department.

(5) Lessee must comply with applicable regulatory requirements, including an ADEQ Stormwater Pollution Prevention Plan, and permitting requirements (including AZPDES General Permit, NPDES Storm Water Multi-Sector General Permit, Pima County Air Quality Permit), and any other applicable state, federal or local laws. Lessee shall comply with Pima County's lighting codes (dark sky codes).

(6) Lessee shall pay a minimum annual royalty of $60,000.00. The advance royalties shall first be a credit for Lessee against royalties due to Lessor for material used or removed, however the entire portion of advance royalties unused upon the termination or expiration of the Leases shall be the sole property of Lessor. Lessee shall pay said advance royalties each year regardless of use or removal of materials. The advance royalties shall be a continuing credit during the entire term of the Leases.

(7) If there is no production by the end of the second year of the Leases, the Leases shall terminate.

(8) Lessee shall conduct invasive species monitoring during mining operations and Lessee shall implement measures to limit non-native species invasion into the area as determined by the Department. In the event non-native invasive species are introduced into the area, Lessee shall undertake appropriate corrective and/or mitigation measures as determined by the Department.

(9) Lessee shall follow, and assure that its agents and subcontractors follow, applicable transportation laws and ordinances pertaining to operation of trucks on roadways and Lessee shall consult with Arizona Department of Transportation to address safety issues.

(10) Overburden piles from mining shall be placed and maintained (with riprap if necessary) to prevent erosion sediment from entering washes that drain into Davidson Canyon.

(11) Lessee shall prepare a drainage report which identifies appropriate steps that will be taken to control runoff, minimize erosion, maintain water quality and otherwise prevents any adverse impacts on perennial surface flow.

(12) The Department is concerned about depletion of groundwater resources in the area of the mining leases. Lessee shall not develop any groundwater on the leased land. Lessee has represented that it intends to acquire water needed for its operation from commercial off-site sources. Lessee's water usage on-site shall be restricted to no more than an annual average maximum of 12,000 gallons per day.

(13) A siren shall be sounded prior to all blasting. Notice of siren sequences will be posted at the quarry site and distributed to residences in the vicinity.

(14) Lessee shall provide reasonable notice to residents in the area in advance of all blasting.

(15) Lessee shall fence the quarry sites and a cattle guard will be installed at the entrance to the quarry to prevent livestock from entering the mined area.

(16) Lessee shall monitor the first production shot with sensors set at positions determined by Lessee to measure seismic impact upon structures in the area and provide the information from this monitoring effort to the Department.

(17) Lessee shall conduct blasting pursuant to all applicable regulations and laws, multiple delays will be employed so that not more than one hole goes off at a time and a noiseless trunk line shall be used to minimize noise.

(18) Lessee shall submit a more detailed reclamation plan as directed by the Department staff subsequent to issuance of the Mining Plan of Operation and before reclamation activities commence.

Additionally, other conditions relating to operations will be finalized prior to offering the leases.

ORDER

Upon consideration of the facts and recommendations listed above, it is ORDERED that California Portland Cement be granted mineral leases on the lands covered by Renewal Application No.'s 11-35596, 11-35597, 11-79816 and 11-79817, each for a term of fifteen years, subject to the inclusion in the leases of the conditions contained in the Recommendations of this Decision and other conditions deemed necessary by the Department.

This Order is effective immediately.

GIVEN under my hand and the official seal of the Arizona State Land Department this 22nd day of November, 2006.

(SEAL)

MARK WINKLEMAN
State Land Commissioner

by:

Copy of the foregoing mailed/ delivered this 22nd day of November, 2006, to:

Certified No. 91 7108 2133 3931 8305 9518 CALIFORNIA PORTLAND CEMENT COMPANY
2025 E FINANCIAL WAY STE 200
GLENDORA CA 91741

Certified No. 91 7108 2133 3931 8305 9525 DECONCINI MCDONALD YETWIN & LACY PC
c/o JOHN LACY & MICHAEL URMAN
2525 E BROADWAY BLVD STE 200
TUCSON AZ 85716 5300

Copy to: Attorney General's Office, Natural Resources Section/attn: Theresa Craig
Natural Resource Division/Minerals Section/attn: Mike Rice
File No. 11-35596
File No. 11-35597
File No. 11-79816
File No. 11-79817

10% - above ≈ 5000 ft² AZ State Code

Historical Note
Adopted effective February 18, 1992 (Supp. 92-1). Amended effective April 24, 1996 (Supp. 96-2). Amended by final rulemaking at 8 A.A.R. 1264, effective March 8, 2002 (Supp. 02-1).

R18-11-112. Unique Waters

A. The Director shall classify a surface water as a unique water by rule. The Director shall consider nominations to classify a surface water as a unique water during the triennial review of water quality standards for surface waters.

B. The Director may adopt, by rule, site-specific water quality standards to maintain and protect existing water quality in a unique water.

C. Any person may nominate a surface water for classification as a unique water by filing a nomination with the Department. The nomination to classify a surface water as a unique water shall include:
1. A map and a description of the surface water;
2. A written statement in support of the nomination, including specific reference to the applicable criteria for unique water classification prescribed in subsection (D);
3. Supporting evidence demonstrating that the applicable unique water criteria prescribed in subsection (D) are met; and
4. Available water quality data relevant to establishing the baseline water quality of the proposed unique water.

D. The Director may classify a surface water as a unique water upon finding that the surface water is an outstanding state resource water based upon the following criteria:
1. The surface water is a perennial water;
2. The surface water is in a free-flowing condition. For purposes of this subsection, "in a free-flowing condition" means that a surface water does not have an impoundment, diversion, channelization, rip-rapping or other bank armor, or another hydrological modification within the reach nominated for unique water classification;
3. The surface water has good water quality. For purposes of this subsection, "good water quality" means that the surface water has water quality that meets or exceeds applicable surface water quality standards. A surface water that is listed as impaired under § 303(d) of the Clean Water Act (33 U.S.C. § 1313) is ineligible for unique waters classification; and
4. The surface water meets one or both of the following conditions:
   a. The surface water is of exceptional recreational or ecological significance because of its unique attributes, including but not limited to, attributes related to the geology, flora, fauna, water quality, aesthetic values, or the wilderness characteristics of the surface water.
   b. Threatened or endangered species are known to be associated with the surface water and the existing water quality is essential to the maintenance and propagation of a threatened or endangered species or the surface water provides critical habitat for a threatened or endangered species. Endangered or threatened species are identified in Endangered and Threatened Wildlife and Plants, 50 CFR § 17.11 and § 17.12 (revised as of October 1, 2000) which is incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.

E. The following surface waters are classified as unique waters:
1. The West Fork of the Little Colorado River, above Government Springs;
2. Oak Creek, including the West Fork of Oak Creek;
3. Peoples Canyon Creek, tributary to the Santa Maria River;
4. Burro Creek, above its confluence with Boulder Creek;
5. Francis Creek, in Mohave and Yavapai counties;
6. Bonita Creek, tributary to the upper Gila River;
7. Cienega Creek, from confluence with Gardner Canyon and Spring Water Canyon at R18E T17S to USGS gaging station at 32°02'09" / 110°40'34", in Pima County;
8. Aravaipa Creek, from its confluence with Stowe Gulch to the downstream boundary of Aravaipa Canyon Wilderness Area;
9. Cave Creek and the South Fork of Cave Creek (Chircahua Mountains), from the headwaters to the Coronado National Forest boundary;
10. Buehman Canyon Creek, from its headwaters (Lat. 32°24'55.5" N, Long. 110°39'43.5"W) to approximately 9.8 miles downstream (Lat. 32°24'31.5" N, Long. 10° 32'08" W);
11. Lee Valley Creek, from its headwaters to Lee Valley Reservoir;
12. Bear Wallow Creek, from its headwaters to the boundary of the San Carlos Indian Reservation;
13. North Fork of Bear Wallow Creek, from its headwaters to Bear Wallow Creek;
14. South Fork of Bear Wallow Creek, from its headwaters to Bear Wallow Creek;
15. Snake Creek, from its headwaters to its confluence with Black River;
17. Hay Creek, from its headwaters to its confluence with the West Fork of the Black River;
18. Stinky Creek, from the Fort Apache Indian Reservation boundary to its confluence with the West Fork of the Black River; and
19. KP Creek, from its headwaters to its confluence with the Blue River.

F. The Department shall hold at least one public meeting in the local area of a nominated unique water to solicit public comment on the nomination.

G. The Director may consider the following factors when making a decision whether to classify a nominated surface water as a unique water:
1. Whether there is the ability to manage the unique water and its watershed to maintain and protect existing water quality;
2. The social and economic impact of Tier 3 antidegradation protection;
3. The public comments in support or opposition to a unique waters classification;
4. The support or opposition of federal and state land management and natural resources agencies to a nomination;
5. Agency resource constraints;
6. The timing of the unique water nomination relative to the triennial review of surface water quality standards;
7. The consistency of a unique water classification with applicable water quality management plans (for example, § 208 water quality management plans); and
8. Whether the nominated surface water is located within a national or state park, national monument, national recreation area, wilderness area, riparian conservation area, area of critical environmental concern, or it has another special use designation (for example, Wild and Scenic River designation).

H. The following water quality standards apply to the listed unique waters. Water quality standards prescribed in this subsection supplement the water quality standards prescribed by this Article.

1. The West Fork of the Little Colorado River, above Government Springs:

Parameter	Standard
pH (standard units)	No change due to discharge
Temperature	No increase due to discharge
Dissolved oxygen	No decrease due to discharge
Total dissolved solids	No increase due to discharge
Chromium (as Cr)(D)	10 µg/L

2. Oak Creek, including the West Fork of Oak Creek:

Parameter	Standard
pH (standard units)	No change due to discharge
Nitrogen (T)	1.00 mg / L (annual mean)
	1.50 mg / L (90th percentile)
	2.50 mg / L (single sample max.)
Phosphorus (T)	0.10 mg/L (annual mean)
	0.25 mg/L (90th percentile)
	0.30 mg/ L (single sample max.)
Chromium (as Cr) (D)	5 µg/L
Turbidity change due to discharge	3 NTUs

3. Peoples Canyon Creek, tributary to the Santa Maria River:

Parameter	Standard
Temperature	No increase due to discharge
Dissolved oxygen	No decrease due to discharge
Turbidity change due to discharge	5 NTUs
Arsenic (T)	20 µg/L

Manganese (T)	500 µg/L

4. Burro Creek, above its confluence with Boulder Creek:

Parameter	Standard
Manganese (T)	500 µg/L

5. Francis Creek, in Mohave and Yavapai counties:

Parameter	Standard
Manganese (T)	500 µg/L

6. Cienega Creek, from its confluence with Gardner Canyon and Spring Water Canyon at R18E T17S to Del Lago Dam, in Pima County:

Parameter	Standard
pH	No change due to discharge
Temperature	No increase due to discharge
Dissolved oxygen	No decrease due to discharge
Total dissolved solids	No increase due to discharge
Turbidity	10 NTUs

7. Bonita Creek, tributary to the Upper Gila River:

Parameter	Standard
pH	No change due to discharge
Temperature	No increase due to discharge
Dissolved oxygen	No decrease due to discharge
Total dissolved solids	No increase due to discharge
Turbidity	15 NTUs

Abbreviations:
"(D)" means dissolved fraction
"(T)" means total recoverable
"NTUs" means nephelometric turbidity units
"mg / L" means milligrams per liter
"µg / L" means micrograms per liter

Historical Note

Adopted effective February 18, 1992 (Supp. 92-1). Amended effective April 24, 1996 (Supp. 96-2). Added "water quality standards" to R18-11-112, previously omitted in error (Supp. 96-3). Amended by final rulemaking at 8 A.A.R. 1264, effective March 8, 2002 (Supp. 02-1).

Historical Note

Adopted effective February 18, 1992 (Supp. 92-1). Amended effective April 24, 1996 (Supp. 96-2). Amended by final rulemaking at 8 A.A.R. 1264, effective March 8, 2002 (Supp. 02-1).

R18-11-105. Tributaries; Designated Uses

The following water quality standards apply to a surface water that is not listed in Appendix B but that is a tributary to a listed surface water.

1. The aquatic and wildlife (ephemeral) and partial-body contact standards apply to an unlisted tributary that is an ephemeral water.
2. The aquatic and wildlife (cold water), full-body contact, and fish consumption standards apply to an unlisted tributary that is a perennial or intermittent surface water and is above 5000 feet in elevation.
3. The aquatic and wildlife (warm water), full-body contact, and fish consumption standards apply to an unlisted tributary that is a perennial or intermittent surface water and is below 5000 feet in elevation.

2007 Pima County Assessor Property Inquiry

Search Parcel2008 Parcel2006 History Tax Summary Genealogy PRC

Parcel 306150550 Go

Book-Map-Parcel: 306-15-0550

TaxArea: 2000 **TaxYear: 2007**

TaxPayer Information

STATE OF ARIZONA

00000 0000

Recording Information

Docket Page Date

Miscellaneous

Section 19 **Twn** 17.0 **S Rng** 17.0 **E**

Map&Plat 0 / 0 **LandMeasure** 239.59 A

MarketArea: (610)

Rule B District:

Description

LOTS 3 & 4 & SE4 SW4 & SW4 SE4 & E2 SE4 239.59 AC

SEC 19-17-17

Tract Block Lot **GroupCode** 000

CensusTract 4102 **UseCode** 9500 **File-Id** 1

Date of Last Change Jul-12-2005

STATE VACANT LAND

Secondary Valuation Data	Legislative Class	Full Cash	Percentage	Assessed
Land	VACANT/AG (4 0)	$239,590	16.0	$38,334
Improvements	VACANT/AG (0 0)	$0	0.0	$0
2007 Personal Property				
Gross Value Totals		$239,590		$38,334
2007 LMTD/SCND Exemptions				
Net Value Totals		$239,590		$38,334

PriorLimitedValue: $239,590 **CurrentLimitedValue:** $239,590

Areas	**Condo Market**	**SFR District**
	SFR Neighborhood	
	MFR Neighborhood	
	DOR Market	

Map Selection(s) 2501D.TIF

Partnering
Planning
Projecting

Pima Association of Governments
177 N. Church Avenue, Suite 405
Tucson AZ 85701

MEMORANDUM - DRAFT

TO:	Julia Fonseca, Pima County Regional Flood Control District
FROM:	Mead Mier
SUBJECT:	Fiscal Year 2006-2007 Cienega Creek Natural Preserve Surface Water and Groundwater Monitoring Results
DATE:	OCT 15, 2007

Background and Updates

Pima Association of Governments (PAG) has been monitoring the hydrology of the Cienega Creek Natural Preserve since 1989. PAG staff continued to monitor surface water and groundwater at the Preserve during the 2006-2007 Fiscal Year, July 2006 to June 2007. Stream discharge and groundwater monitoring methods and locations remained the same as in years past, with some exceptions explained in this memo. Please refer to previous year-end reports and the 1998 comprehensive report for background and methodology information on discharge and groundwater level monitoring. Documentation of methods, forms and metadata was created during our transition of staffing during FY06-07.

This work was completed under PAG's 2006-2007 Overall Work Program, which includes monitoring in Cienega Creek and other areas with priority aquatic and riparian resources. The locations of the monitoring sites are shown on Figure 1. Data tables and figures showing results from the 2006-2007 monitoring year are attached. Some of the figures and tables also include data from previous fiscal years for comparison purposes. New efforts this year water quality measurements, repeat photography site establishment, and monitoring plans for a head cut study.

Streamflow

Methods

Monthly streamflow measurements were taken at the Tilted Beds site and the Marsh Station site. A USGS Pygmy Flow Meter was used for all streamflow measurements taken this fiscal year, except for August 2006 when frequent rains prohibited field work for base flow measurement. All stream discharge measurements reflect base flow conditions; measurements were not taken during or immediately after heavy rain storms. When heavy rainfall did occur at the Preserve or in the surrounding area, staff allowed at least three consecutive days of dry weather to occur before measuring streamflow.

Streamflow data are shown on Table 1, and on Figures 2 and 3. Figure 2 shows the streamflow trends for this monitoring year and for FY05-06. Figure 3 shows discharge data from 1993 to the present.

Marsh Station

Stream discharge at the Marsh Station site ranged from less than 0.18 cfs (July 2006) to 2.82 cfs (September 2006), same high and low months as in the previous year. The annual average base discharge at Marsh Station was 1.05 cfs, which is higher than the previous year's average of 0.71 cfs (Table 1). FY05-06 flows were also higher than the year prior to that. . In general, the rise-and-fall patterns of streamflow during the last two years returned to a more peaked seasonal pattern than the two years prior which were less peaked than in years past. This was may indicate a change in recharge events and/and or snow pack in the surrounding mountains.

Tilted Beds

The Tilted Beds site was dry (zero cfs) during every monthly visit this monitoring year, except for a trickle flow too small to measure in September 2006 . This was the third consecutive year when no base flow was observed at this site for the entire monitoring year

Groundwater Levels

Methods

Depths to groundwater were measured on a monthly basis at seven wells: Empirita 2, O'Leary Windmill, Jungle, Cienega, Del Lago 1, PS-1 and PN-2. The Davidson 2 well is a well at which monitoring was re-begun in January 2006, which was monitored in the past during the years of 1981-1994. For FY06-07, Davidson 2 was switched to a quarterly monitoring schedule. PS1 and PN2 wells are now monitored hourly by transducers and available on-line with ADWR (http://www.azwater.gov/web_trans/transdll.dll/EXEC/0/0ctp45l054j31y140tm3f0t5inyh) under the names D-16-16 14CAC and D-16-16 15ABD respectively. The O'Leary well had a pump installed in June 2007 which may influence subsequent water levels.

Annual Change

Water level data for the seven monitoring wells are included on Table 2. Figure 4 shows water level data for this monitoring year and the previous year, while Figure 5 shows water level data from 1994 to the present. As seen on Table 2, in, all wells rose in water depth in FY06-07 with an average groundwater level 7.5 feet more than the average in FY05-06. In FY05-06, the water levels declined but within one foot of the average in FY04-05. PN-2 remained the fastest declining well this year with its general depth to water lower than all other wells possibly due to bedrock surface elevation.

Seasonal Change

Seasonal variations in water levels were observed at most monitoring wells during this monitoring year. Water levels at Davidson 2 continued to behave similarly to water levels in wells along Cienega Creek, gradually declining through the winter and spring months of 2007. September and August remained the major months revealing recharge at all wells with another smaller increase in January or February at most wells. The two wells downstream of the dam, PS-1 and PN-2, had the largest response to seasonal change. The water levels at the Del Lago well have returned to a generally quick response to recharge events, after remaining fairly stable throughout FY04-06. The Jungle well, Empirita 2, and O'Leary well experience the most gradual change.

Extent of Surface Flow

Methods

The extents of surface flow were monitored by mapping the flows of Cienega Creek in the Preserve during walk throughs. Annual walk-throughs were conducted during the month of June from 1999 to 2001; the current quarterly walk-through monitoring program began during the 2001-2002 monitoring year. The Cienega Creek walk throughs begin at Jungle Rd. and continue to the Pantano diversion dam (a distance of about 8 miles), and along Davidson Canyon near its confluence with Cienega Creek. In addition, since 2005, PAG has mapped streamflow in Upper Davidson Canyon, which is south of Interstate 10 on the county's recently acquired Bar V property. The walk-throughs were conducted on a quarterly basis during the months of September, December, March, and June. The walk-through effort is completed by walking the length of the creek and marking on an aerial photograph the locations of beginning and end of flow for each flowing stream reach. The results were then digitized into a GIS by clipping the Cienega stream flow line to fit the flow start and end points. GPSed flow lines available through Don Carter, at Pima County Pima County Natural Resources, Parks & Recreation, for verification.

Outreach and Coordination

We continued coordination with the Bureau of Land Management (BLM) and The Nature Conservancy on methods of surface flow mapping to ensure that their hydrologic monitoring programs are consistent with the PAG/Pima County monitoring program. The BLM and TNC manage and monitor the upper reaches of Cienega Creek within the Las Cienegas National Conservation Area. We are also in correspondence with the BLM and TNC in regard to the head cut study on vegetation and habitat survey methods.

Outside agency staff and other interested individuals were invited to accompany PAG staff on these quarterly walk-throughs to provide an opportunity for them to learn about Cienega Creek and Davidson Canyon and to become more familiar with some of the management issues that face the Preserve and the surrounding region. The invited agencies include Pima County Regional Flood Control District, Pima County Natural Resources, Arizona Game and Fish Department, Arizona Department of Environmental Quality, U.S. Fish and Wildlife Service, The Nature Conservancy, Sonoran Institute, University of Arizona, Cienega Corridor Conservation Council and the Master Watershed Stewards program.

This year, 2006-2007, Cienega wet/dry walks continued be a good avenue for outreach and were attended by 5-9 people each time. This included six different agencies and several members of the public for a total of 16 different people whom we coordinated with this year. The agencies that attended include Pima County Parks and Rec., Pima County Regional Flood Control District, the Sonoran Institute, the Rincon Institute, and Tucson Herpetological Society. Walkers were interested in our work and in areas related to their profession such as GIS/remote sensing, wildlife biology, hydrology, entomology, conservation, and public outreach. Several members of the public were invited through PAG networks, the Cienega Corridor Conservation Council, or Pima County contacts. A few guests came because they live in the area and were interested in their local watershed. PAG was also able to expand the program within our own organization by inviting our graphic designer for photography and involvement in PAG publications as well as fellow Watershed Planning staff.

Cienega Flow Lengths Annual and Perennial Change

As seen on Table 3, the total length of streamflow within the Preserve during this monitoring year ranged from 3.0 miles (June 2007) to 6.1 miles (September 2006). This is more variation than last FY which only differed seasonally from 2.3 miles to 3.5 miles and flowed for less length over all. Figure 8 shows the lengths of flow in Cienega Creek since 1984. This figure illustrates the increased seasonal variation recorded since 2001 as well as over all decreased length over time. The average flowing length annually since 2001 is 3.9 miles where as from 1989 to 1999 it was 7.7 miles.

The summer months (May, June, and July) represent the driest time of the year in the Preserve. As seen in Figure 7, the total length of flow in the Preserve is consistently lowest in the summer (June). The largest change (decline) in streamflow extent generally occurs between the months of March and June, which coincides with the time period when evapo-transpiration rates increase and recharge rates decrease. Mapping stream flow during this time of the year conservatively identifies the perennial reaches in the Preserve. Dryer years and seasons generally have intermittent segments and shorter stream reaches around the perennial segments as seen in Figure 6.

Table 4 presents lengths of flows during summer months from 1984 to 2006; data were not collected from 1993 through 1998. This gradual drying trend seen in Table 4 is probably the results of the current drought. Summer flow extents have declined substantially since the 1980s. In July 1984, the creek flowed continuously from I-10 to the Pantano Dam; a distance of 9.5 miles. In contrast, in June 2007, the creek flowed for 3.0 miles and was segmented into several short flowing reaches separated by dry reaches. Flow in June was longer this year than in recent past years (.4 miles more than the average since 1999) probably due to rains received in mid May 2007. Refer to the FY04-05 year-end memorandum (dated July 22, 2005) for a description of the historic data collected by Errol L. Montgomery & Associates.

Upper Davidson Canyon

Upper Davidson Canyon, located south of Interstate 10, is outside the Cienega Creek Natural Preserve and therefore its flowing reaches are discussed separately from Cienega Creek and Lower Davidson Canyon in this memorandum. The lengths of flowing reaches in Upper Davidson Canyon are shown on Table 5 and in Figure 6. While streamflow along this reach has been recorded during earlier PAG studies, this was the second year that surface flows were systematically mapped. Streamflow is generally associated with a spring at a bedrock outcrop. Native fish and frogs have been observed in this reach in the past. However, the channel and pools completely dried out during the summer of 2005 and no native fish have been seen there since that time. Lowland leopard frogs are still present along the reach. This reach of the creek is currently under stress from off-road vehicle and cattle use, but the county has made efforts to exclude these activities from the riparian area and channel including new signage and fencing. Although Table 5 shows that flows were longer in every quarter this year than last, since 2003 PAG staff observed that the extent of streamflow in Upper Davidson Canyon has declined substantially. During the past two monitoring year, the channel was dry at the location where PAG collected surface water samples on a quarterly basis in 2002 and 2003, a distance of about three-quarters of a mile downstream from the current flow extent.

Repeat Photography

In September 2006, PAG established 17 photo stops in FY06-07 based on frequently photographed locations with a history of digital photographs and documented location. We photograph these sites quarterly during walk throughs. Site locations are shown in Figure 1. Photos are stored digitally at PAG. New aspects of photography include the documentation of photograph locations by description and GPS, field notes on photos, and regularity of photo repetition.

Water Chemistry:

PAG re-began monitoring water quality in January 2007 partially due to ADEQ's inclusion of Davidson Canyon in their proposal for Outstanding Arizona Waters. Past PAG studies consisted of quarterly samples in 2002 to 2003 in the Davidson Cienega Study and a single sample in 2005 for the Davidson Unique Waters study. This year's monitoring will serve as additional baseline data should the creek be impacted by mining development. Limestone mines can affect pH because the rock is alkaline. If magnesium and sodium combine they will create gypsum that may show up in TDS readings. We use an Ultrameter to get quarterly measurements of TDS, temperature, conductivity, and pH at four sites. In addition to the data readings we are gathering, water quality was assessed in more detail in the past. The 2002-2003 water quality monitoring looked at isotopes, chemistry, and constituents. In 2005, metals were sampled as well.

The FY06-07 monitoring sites are the same locations as was samples as in past and are displayed in Figure 1. All sites are measured quarterly during walk-throughs at Davidson Canyon. The site below the confluence on Cienega Creek is measured monthly during streamflow monitoring in addition to quarterly readings. Water quality is only gathered during base flow with clear water.

- Davidson Site 1 is located S of I-10, upstream of the PC ALERT stream gage, at a perennial site.
- Davidson Site 2 is located within 1000 feet up Davidson Canyon from the Cienega confluence at an intermittent site.
- Davidson Site 3 is a replacement for Davidson Site 2 where it is now dry. Davidson Site 3 is located at a waterfall dust downstream of a fence crossing.
- Cienega Site 1 is upstream of the Davidson confluence on Cienega Creek within a few hundred feet at a perennial site.
- Cienega Site 2 is at Marsh Station Bridge near the stream flow monitoring site where ADEQ had over 10 years of data. This is a perennial site.

Water quality data from FY06-07 is located in the reports for the studies listed above and new data is shown in Tables. No major changes were detected, but no major analysis had been completed on the new data shown on Tables 6 through 9. Davison canyon had lower conductivity and TDS than Cienega Creek this year, possibly contributing to lower conductivity at the Cienega site downstream of the Davidson confluence versus the site upstream (Figures 9 and 11). The pH is compared between the sites in Figure 10. Temperature increased at all sites as summer approached and fluctuated with the seasonal change most in Davidson Canyon (Figure 12) When comparing this years minimal data with historic data, conductivity increased slightly at all sites but more dramatically at Cienega Sites (Figures 13 through 16).

Head Cut Study

The Water Protection Fund approved a PAG grant to begin a two year monitoring program on the headcutting erosion feature that is migrating upstream through the preserve. Some headcut observations are included in this memo, with the actual monitoring program to begin in October 2007. The formation and migration of headcuts were first identified during the quarterly streamflow mapping exercises in 1999. Between July 2005 and September 2005, the large headcut at the railroad horseshoe reach migrated approximately about 400 feet upstream and expanded in width. This presumably occurred during the large flood flows in mid-August. In 2006-07 the headcut continued to migrate several hundred feet through the marshlands at the horseshoe and grew from a depth of five feet deep to at least 10 feet deep. This suggests that the creek is out of equilibrium and is going through a period of entrenchment. The impacts these headcuts are having on the resources of the Preserve are unknown. PAG will continue to observe these features to gain a better understanding of the situation. Groundwater levels will be monitored through piezometers, headcut changes will be measured in more detail, and habitat will be assed through riffle/pool ratios. If you have any questions or comments about the monitoring data or monitoring plan, please feel free to contact Claire Zucker by phone at 792-1093 or by email at czucker@pagnet.org.

Wildlife Observations

Pools were present at various locations along Cienega Creek during each quarterly walk-through this year. Native fish and frogs were commonly seen in most flowing stream reaches and pools. Gila topminnows were present in the railroad horseshoe reach and the Davidson Confluence/Marsh Station reach; gila chub and red spotted toads were present in pools in the railroad horseshoe reach. Dace were seen just downstream of Tilted Beds. Fish were also observed in the Lower Davidson reach.

Other wildlife, such as coati, javalina, hawks, herons, owls, deer, turkey vulture, king fisher, mallards, pocket gopher, whip tail snakes, rattle snakes, coyote, and mud turtles were also commonly seen along the creek. In March 2007, a mountain lion was seen at the Horseshoe and Bobcat tracks were seen in September 2006. In July 2006, we followed bear tracks from the Davidson confluence up to the most perennial reach upstream. Some cottonwoods were observed to be spotting and dying off possibly due to disease or other stress.

Activities Observed

Human related activities reported during this fiscal year included cattle in the stream bed, down fences, ATC track throughout, hikers, skeet, fire pits, bird surveyors from the University, Sky Island monitoring , hikers, a American Rivers stream clean-up, and tamarisk removal efforts. Activities are reported in monthly memos to Pima County.

cc: David Scalero
Amy Loughner

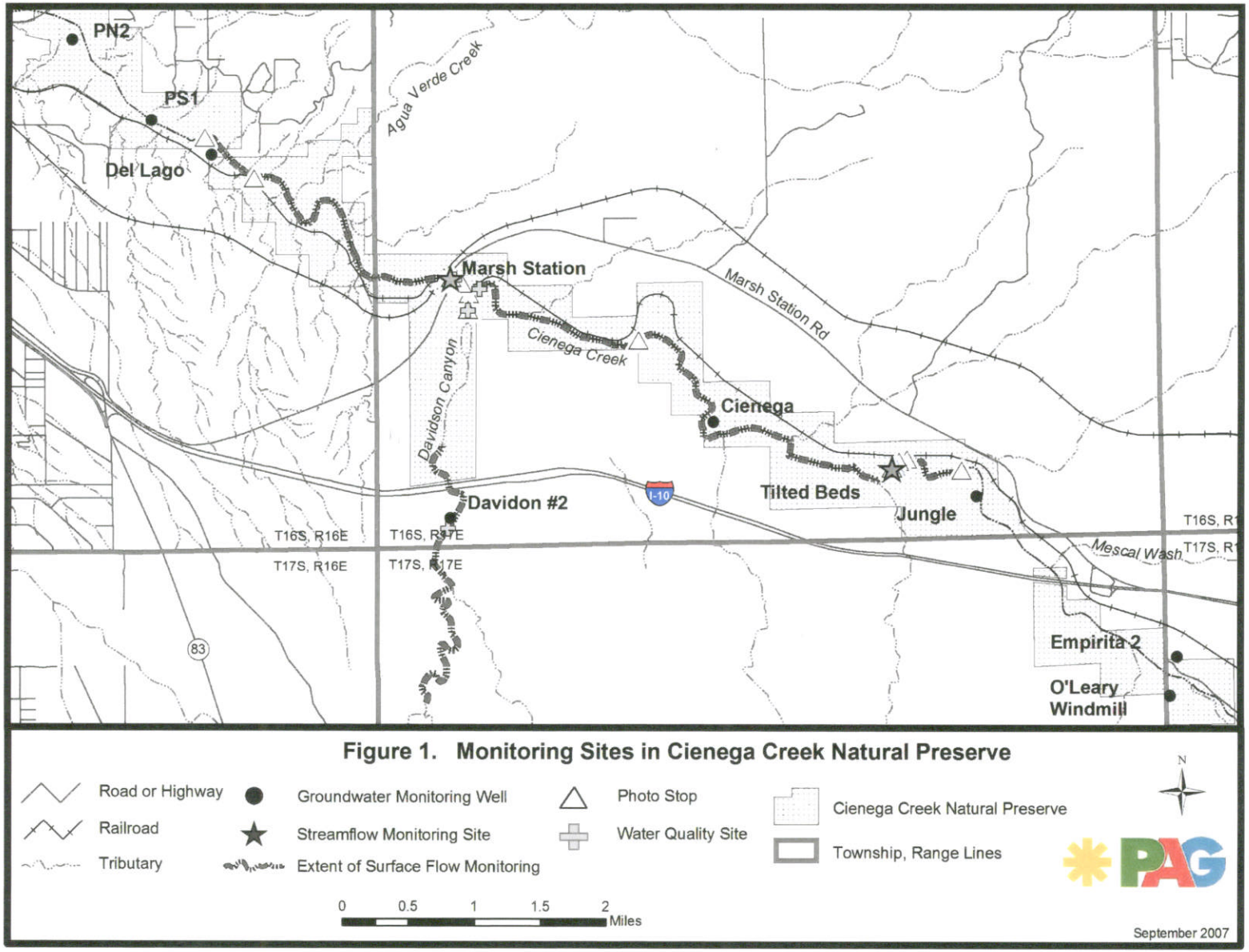


Figure 1. Monitoring Sites in Cienega Creek Natural Preserve

Table 1. Cienega Creek Discharge, July 2006 – June 2007

DATE	FLOW (cfs) Marsh Station	FLOW (cfs) Tilted Beds
July 2006	0.18	0
August 2006	NA [1]	0
Sept 2006	2.82	NA [2]
October 2006	1.38	0
November 2006	1.05	0
December 2006	0.940	0
January 2007	1.170	0
February 2007	1.120	0
March 2007	1.220	0
April 2007	1.020	0
May 2007	0.550	0
June 2007	0.250	0
2005-2006 AVERAGE	0.71	0
2006-2007 AVERAGE	1.06	0
CHANGE [3]	+ .35	0

All flows were measured with USGS Pygmy Flow Meter.
[1] Consistent rains prohibited base flow measurement.
[2] Trickle flow too small to measure with pygmy meter.
[3] Difference between 2006-2007 average and 2005-2006 average.
"+" = increase in discharge
"-" = decrease in discharge

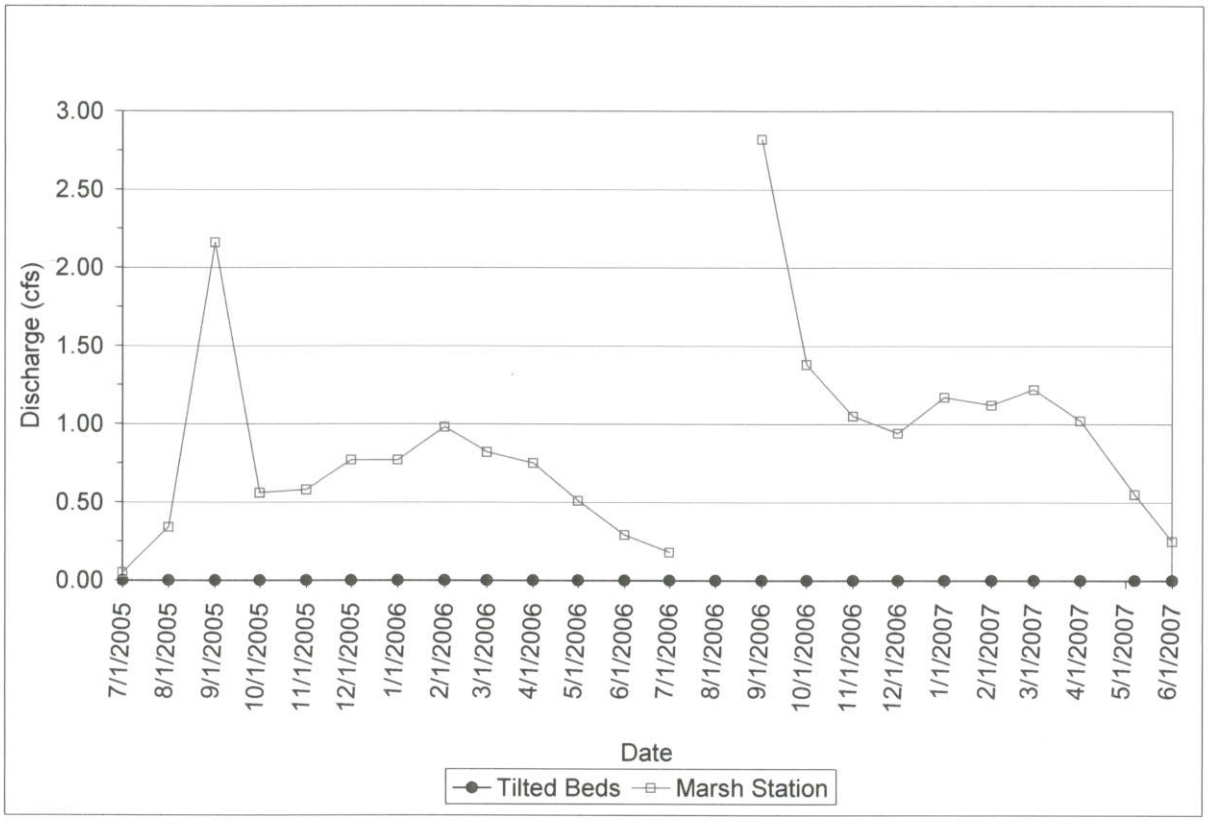


Figure 2. Cienega Creek Streamflow, July 2004 – June 2007. **No data available for August 2006.*

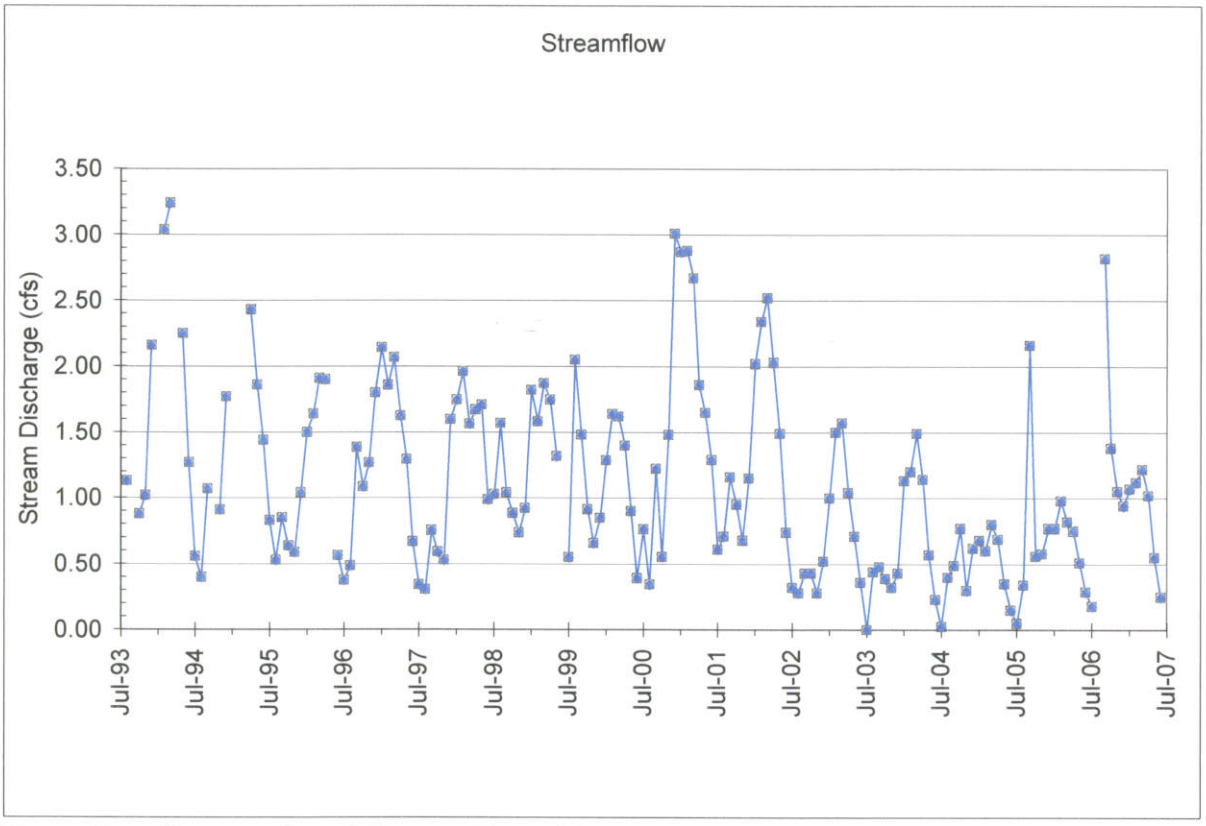


Figure 3. Cienega Creek Streamflow, July 1993 – June 2007.

Table 2. Depths to Water in Cienega Creek Natural Preserve Monitor Wells, July 2006 – June 2007

DATE	DEL LAGO 1 (feet)	CIENEGA (feet)	JUNGLE (feet)	EMPIRITA 2 (feet)	O'LEARY WINDMILL (feet)	DAVIDSON #2[1] (feet)	PS-1 (feet)	PS-2 (feet)
7/11/06	76.40	19.76	40.84	85.42	63.93		57.04	226.59
8/10/06	NA[2]	12.70	36.96	85.22	62.95		28.82	226.22
9/14/06	59.17	13.16	33.71	84.66	60.05	14.70	29.70[3]	183.12
10/13/06	67.55	16.20	34.67	84.20	58.75		43.57	168.88
11/17/06	68.71	17.10	34.37	83.85	58.90		48.45	173.52
12/5/06	66.25[3]	16.75	33.99	83.73	58.85	21.40	NA[2]	NA[2]
1/17/07	65.57	15.41	33.00	83.35	57.90		48.12	181.57
2/7/07	63.70	15.20	32.55	83.10	58.70		46.92	184.42
3/6/07	69.10	15.10	32.01	82.96	58.84	21.60	49.00[4]	188.10[4]
4/10/07	73.96	15.43	31.54	82.60	59.35		51.15	193.43
5/11/07	76.60	16.33	31.70	82.38	60.12		54.27	194.92
6/5/07	77.18	18.22	32.58	82.50	72.76	23.50	58.60	196.75
2005-2006 AVERAGE	75.63	18.29	39.64	84.82	63.19	22.87	56.87	222.34
2006-2007 AVERAGE	69.47	15.95	33.99	83.66	60.93	20.30	46.88	192.50
CHANGE 5[4)]	6.16	2.34	5.65	1.16	2.26	2.57	9.99	29.84

Note: All depths are feet below land surface

(1) Measured quarterly.

(2) Inaccessible during this month of monitoring.

(3) Measured within one week of other well monitoring due to temporary inaccessibility.

(4) Monitored by ADWR from this point on.

(5) Difference between 2006-2007 average and 2005-2006 average.

"+" = rise in water level

"-" = drop in water level

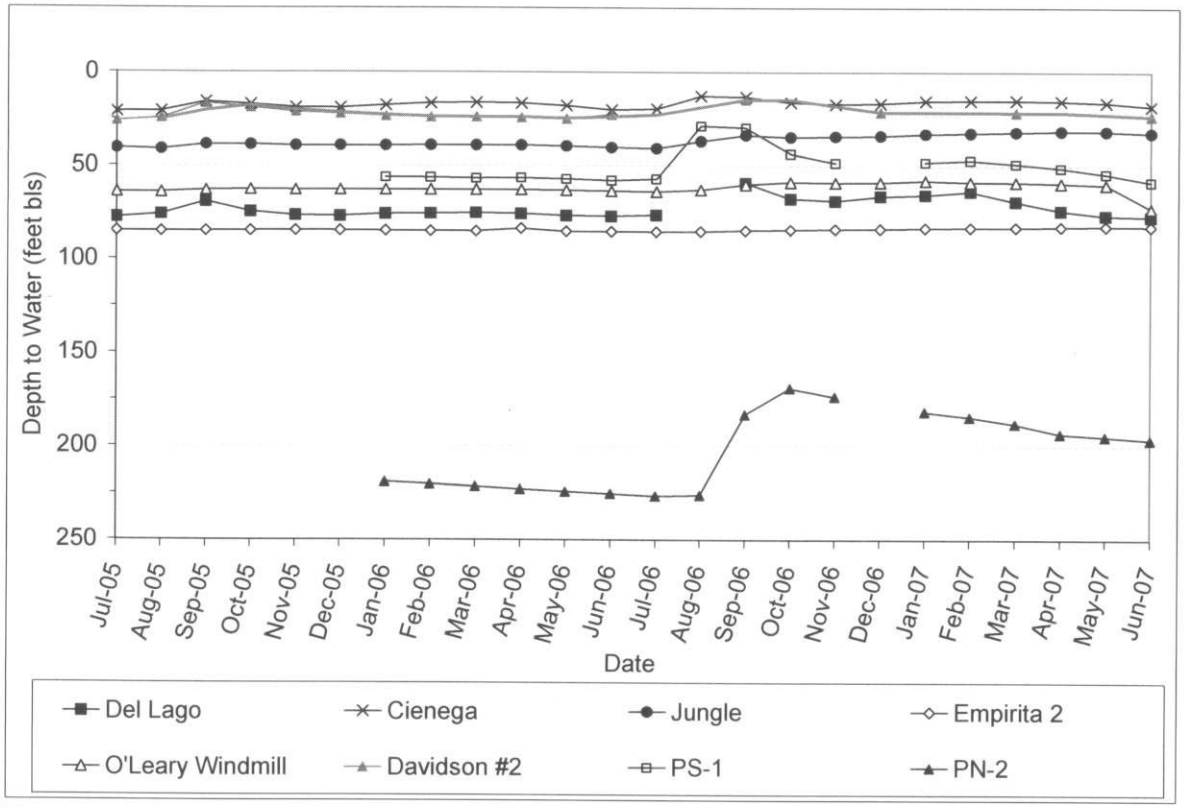


Figure 4. Depths to Groundwater in Cienega Creek Natural Preserve, July 2005 – June 2007. Data is not available for some months due to inaccessibility.

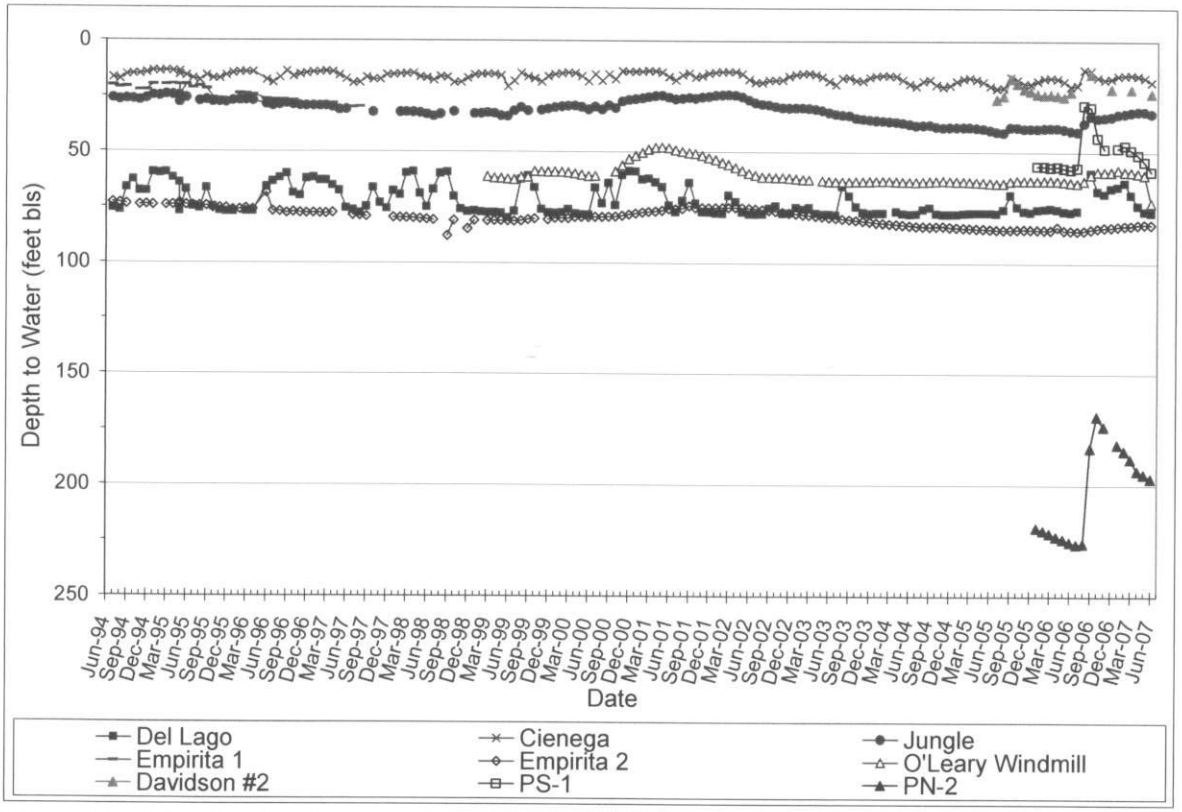


Figure 5. Depths to Groundwater in Cienega Creek Natural Preserve, July 1994 – June 2007.

Table 3. Lengths of Flowing Reaches in Cienega Creek Natural Preserve, Measured Quarterly, July 2006– June 2007

Flowing Reach	**Length of Flowing Reach (feet)**			
	September (9/6/05)	**December** (12/6/05)	**March** (3/7//06)	**June** (6/7/06)
Cienega Creek Reach A	6937	2929	3017	906
Cienega Creek Reach B	270	510	4251	1204
Cienega Creek Reach C	6789	6966	8218	374
Cienega Creek Reach D	3443	2075	4381	4294
Cienega Creek Reach E	6119	5187	5084	4635
Cienega Creek Reach F	5429	4447	375	1258
Cienega Creek Reach G	2008	586	422	3189
Cienega Creek Reach H		1391		
Lower Davidson Canyon Reach A	1146	466	175	0
Lower Davidson Canyon Reach B		394		
TOTAL	**32143 ft. (6.1 miles)**	**24951 ft. (4.7 miles)**	**25923 ft. (4.9 miles)**	**15860 ft. (3.0 miles)**

Reaches are not numbered in sequence; they are not associated with any one fixed portion on the creek. Lower total number of reaches generally indicates less interrupted flow.

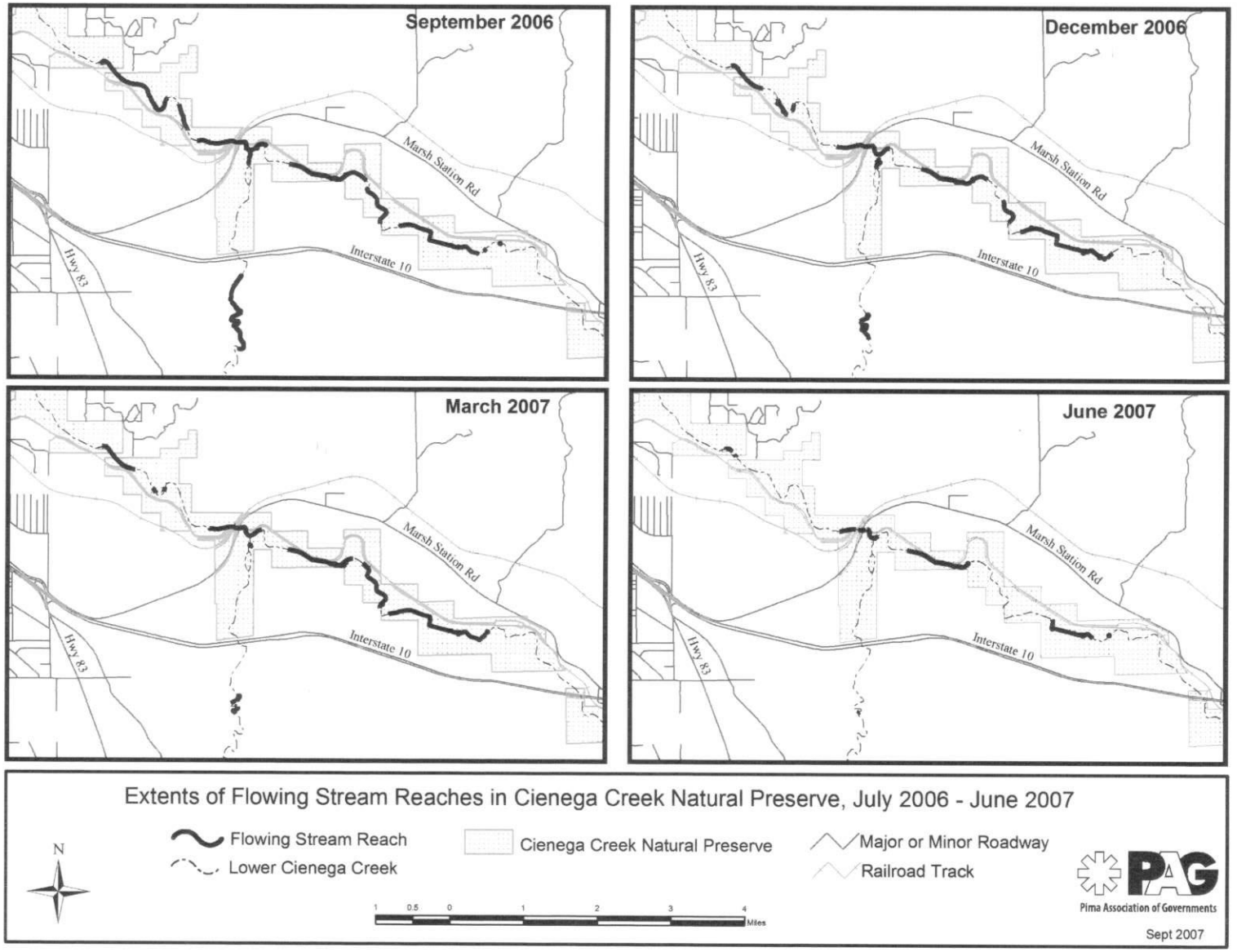


Figure 6. Extents of Flowing Stream Reaches in Cienega Creek Natural Preserve and Davidson Canyon, July 2006 – June 2007.

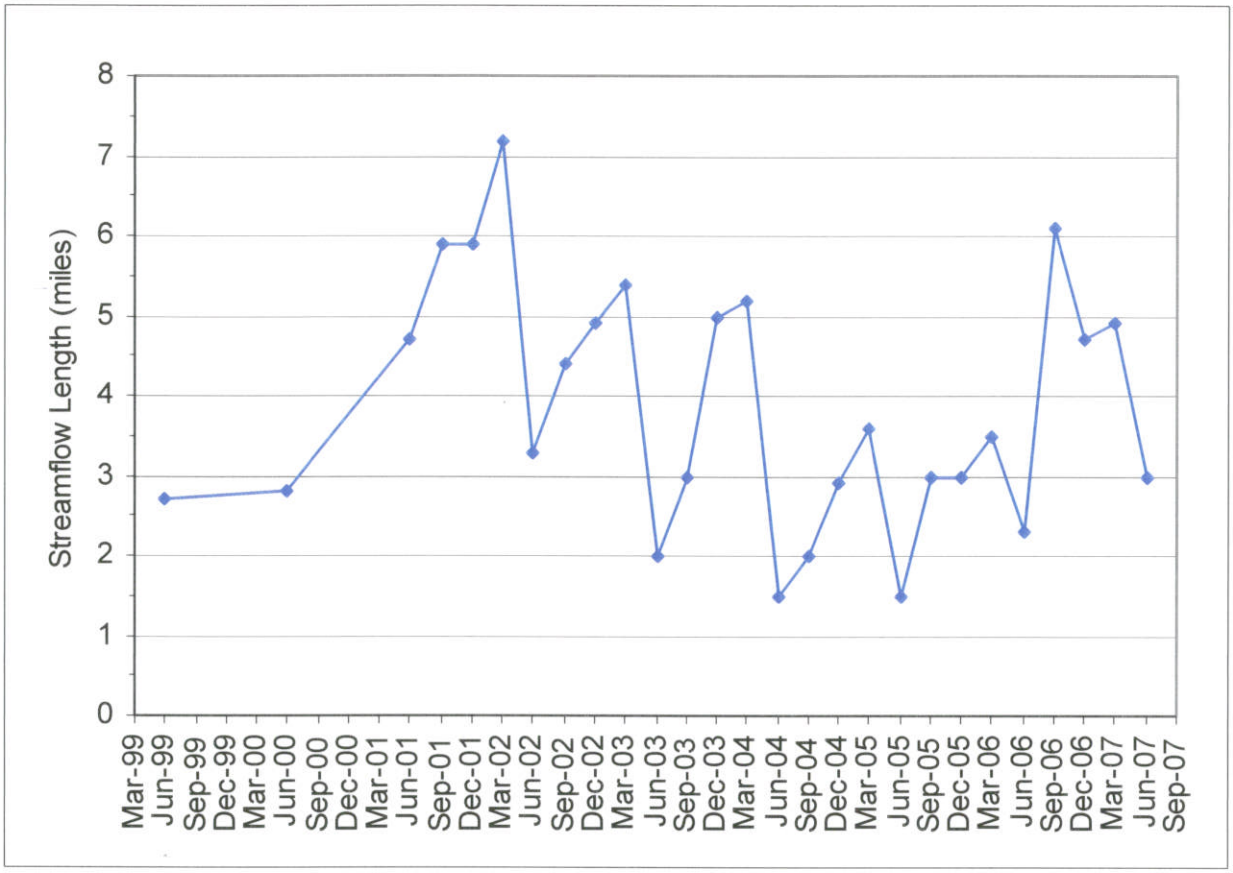


Figure 7. Lengths of Streamflow in Cienega Creek Natural Preserve, 1999-2007.

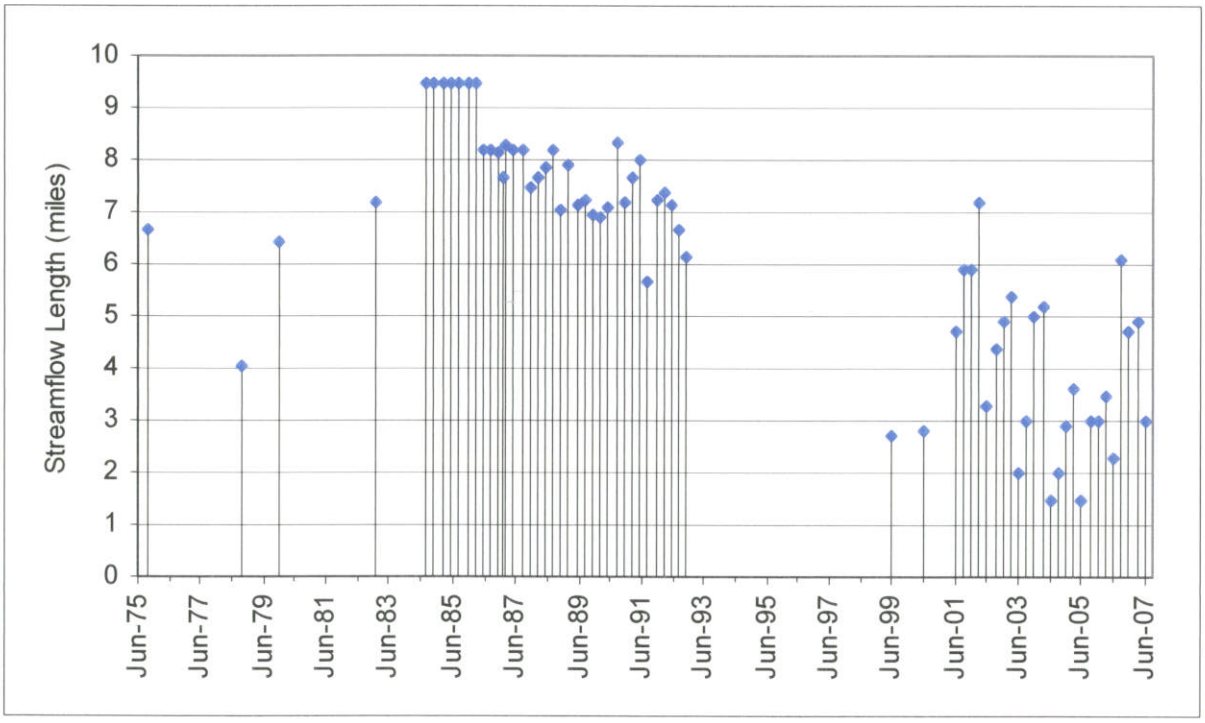


Figure 8. Lengths of Streamflow in Cienega Creek Natural Preserve, 1975-2007. *Length not measured 1993-1998.*

Table 4. Total Lengths of Flow in Cienega Creek Natural Preserve, Summer months, 1984 – 2007

Year	Length	Source
July 1984	50,000 ft. (9.5 miles)	Errol L. Montgomery & Associates, Inc.
May 1985	50,000 ft. (9.5 miles)	
May 1986	43,140 ft. (8.2 miles)	
May 1987	43,200 ft. (8.2 miles)	
May 1988	41,500 ft. (7.9 miles)	
May 1989	34,640 ft. (6.6 miles)	
May 1990	37,400 ft. (7.1 miles)	
May 1991	42,160 ft. (8.0 miles)	
May 1992	37,740 ft. (7.1 miles)	
No data 1993-1998		
June 1999	14,290 ft. (2.7 miles)	PAG
June 2000	14,590 ft. (2.8 miles)	
June 2001	24,950 ft. (4.7 miles)	
June 2002	17,220 ft. (3.3 miles)	
June 2003	10,630 ft. (2.0 miles)	
June 2004	8,145 ft. (1.5 miles)	
June 2005	7,865 ft. (1.5 miles)	
June 2006	12,025 ft. (2.3 miles)	
June 2007	15,860 ft. (3.0 miles)	

Length of creek channel from Interstate 10 to Pantano Dam equals 50,000 ft. (9.5 miles).

Table 5. Lengths of Flowing Reaches along Upper Davidson Canyon, Measured Quarterly, July 2006– June 2007

Flowing Reach	Length of Flowing Reach (feet)			
	September (9/14/06)	**December** (12/5/06)	**March** (3/6//07)	**June** (6/5/07)
Upper Davidson Canyon Reach A	5013	786	159	483
Upper Davidson Canyon Reach B	1941	879	379	
Upper Davidson Canyon Reach C		447	166	
Upper Davidson Canyon Reach D			387	
FY06-07 TOTAL	**6954 ft (1.3 miles)**	**2112 ft (.40 miles)**	**1091 ft (.21 miles)**	**483 ft (.09 miles)**
FY05-06 TOTAL	**3935 ft (.75 miles)**	**455 ft (.09 miles)**	**180 ft (.03 miles)**	**170 ft (.03 miles)**

Reaches are not numbered in sequence; they are not associated with any one fixed portion on the creek. Lower total number of reaches generally indicates less interrupted flow. Upper Davidson Canyon reaches mapped on different dates than Cienega Creek and Lower Davidson Canyon reaches due to the length of time required to complete both streams. Dates of monitoring in FY06-07 are 9/14/06, 12/5/06, 3/6//07, and 6/5/07. View the FY05-6 report for further sampling dates.

Water Quality Data from Cienega Watershed (Jan. 2007 – Jun 2007)

Table 6

Cienega 1 – Upstream of Davidson		
Date	3/9/07	6/15/07
Cond. (uS)	1336	1343
pH	7.05	7.42
TDS (ppm)	942.2	948.1
Temp. (F)	67.6 F	68.6

Table 7

Cienega 2 – Marsh Station						
Date	1/17/07	2/7/07	3/9/07	4/10/07	5/11/07	6/5/07
Cond. (uS)		1263	1274	1288	1269	1275
pH	7.74	7.69	7.77	7.63	7.65	7.52
TDS (ppm)	873.3	887.8	894.4	905.9	892.2	896.3
Temp. (F)	59.8 F	64.7 F	69.5 F	69.0 F	71.2 F	74.2

Table 8

Davidson 3 – South of I-10		
Date	3/6/07	6/5/07
Cond. (uS)	864.4	862.9
pH	7.46	7.52
TDS (ppm)	596.7	595.3
Temp. (F)	60.6 F	73.1

Table 9

Davidson 2 – Near Confluence		
Date	3/9/07	6/15/07
Cond. (uS)	793	NA (Dry)
pH	7.0	NA (Dry)
TDS (ppm)	545.3	NA (Dry)
Temp. (F)	68.3 F	NA (Dry)

Figure 9

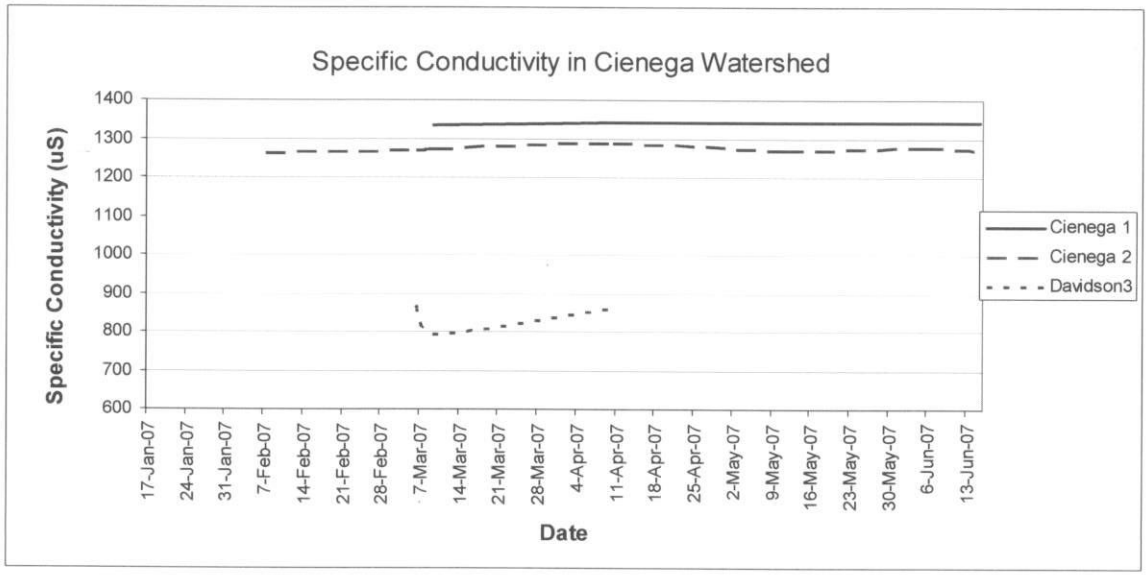


Figure 10

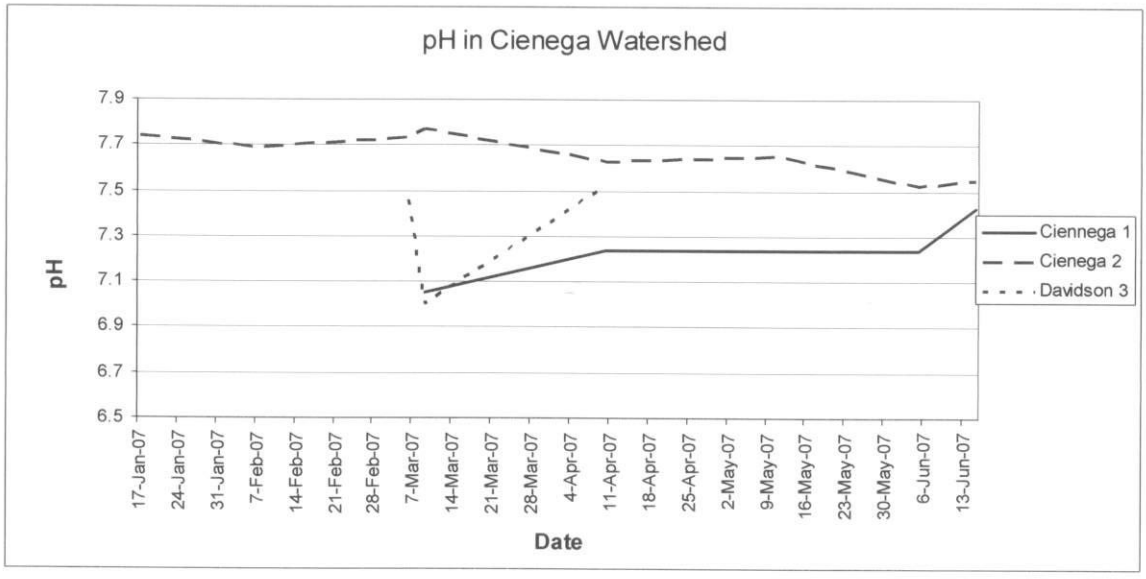


Figure 11

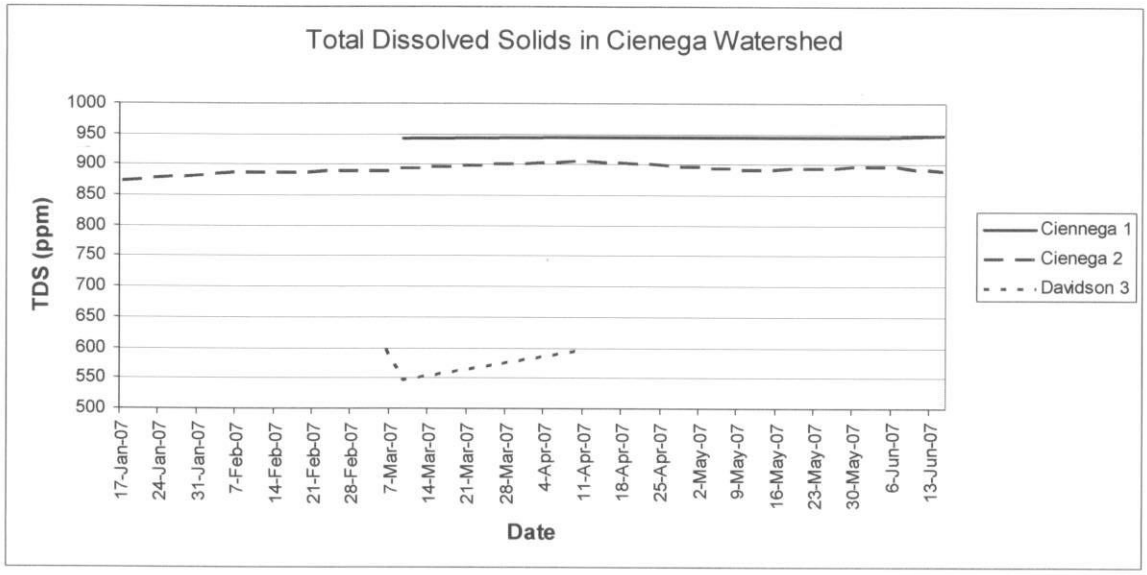
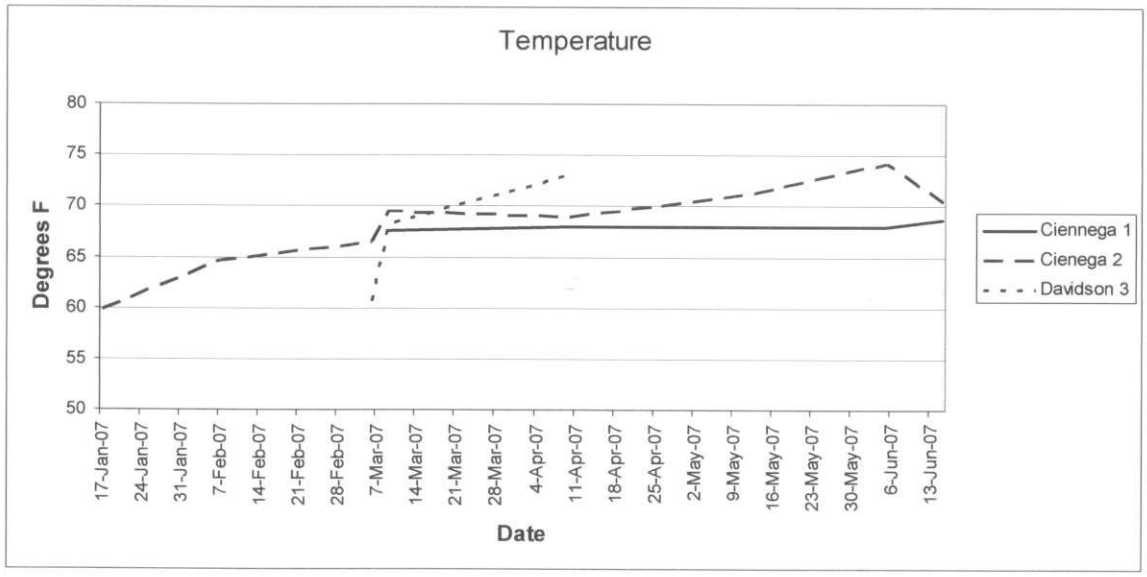
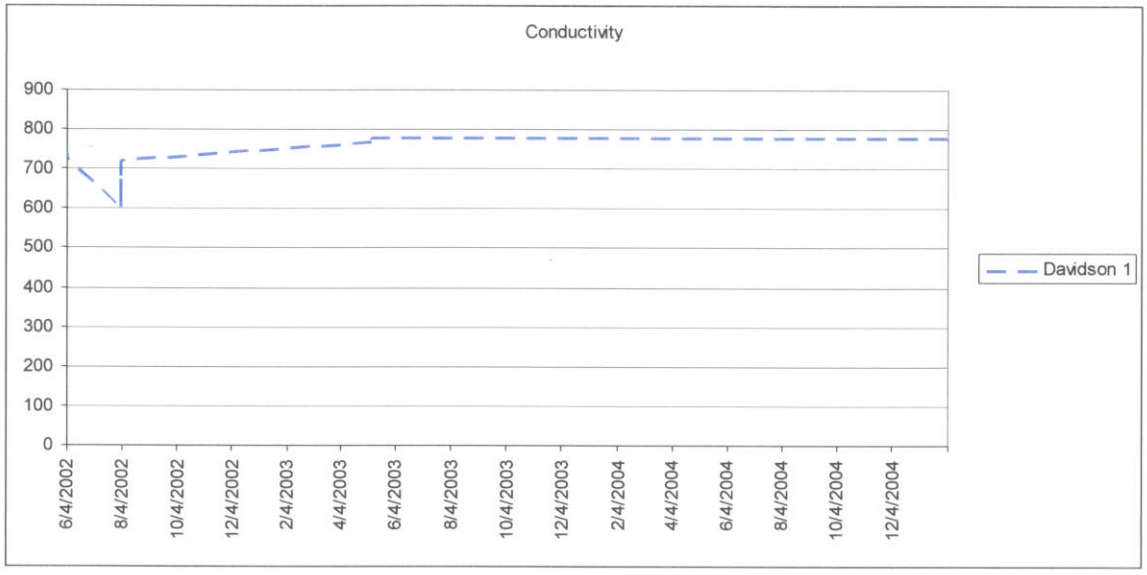


Figure 12



Historic Conductivity Data

Figure 13



*Davidson 3 serves as a replacement for the Davidson 1 site since March 2007.

Figure 14

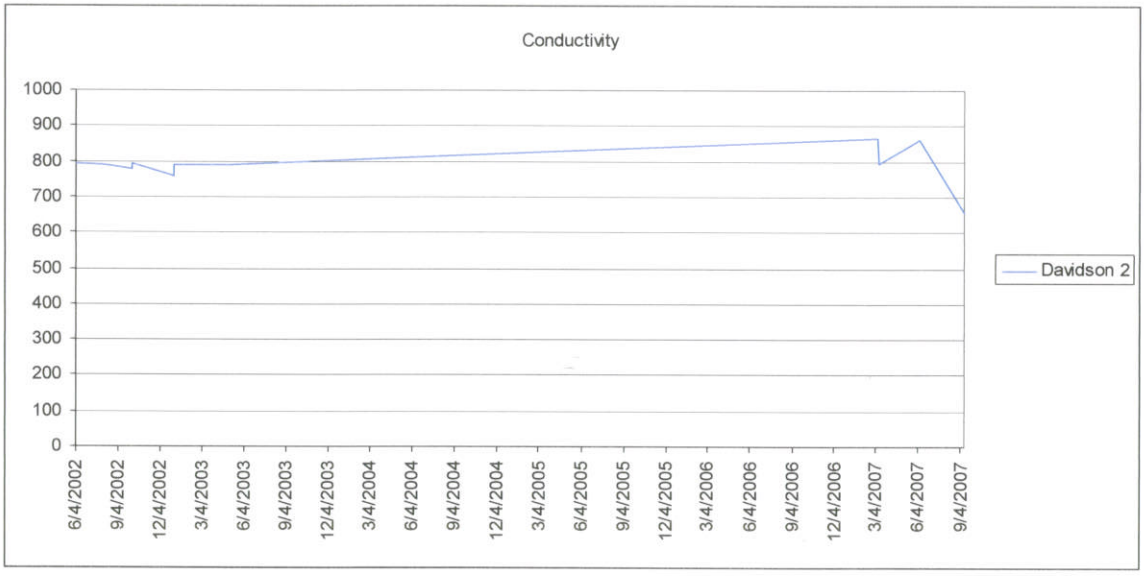


Figure 15

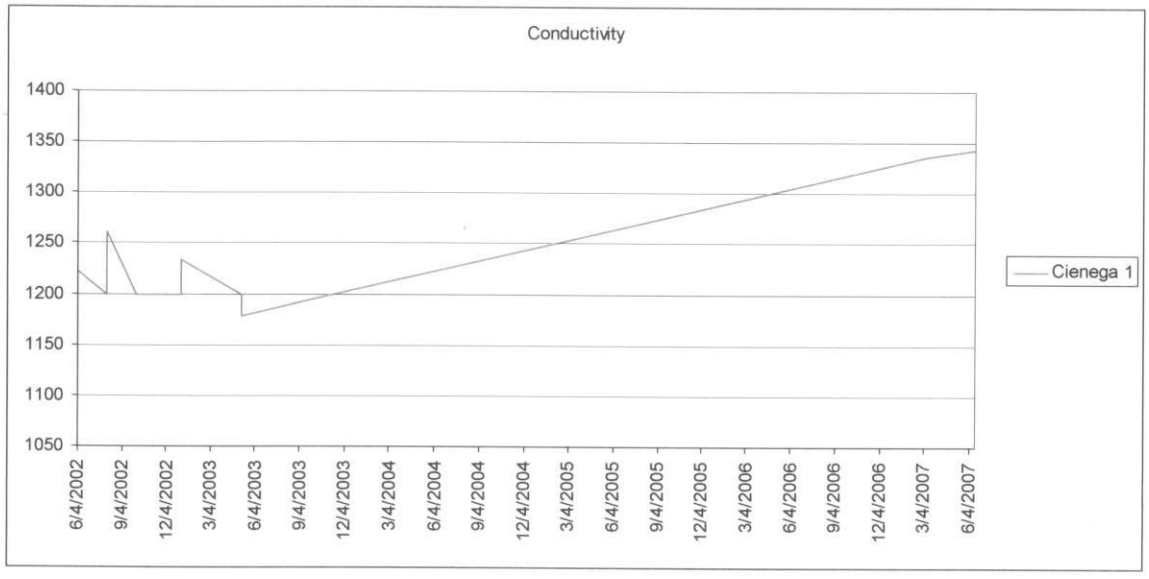
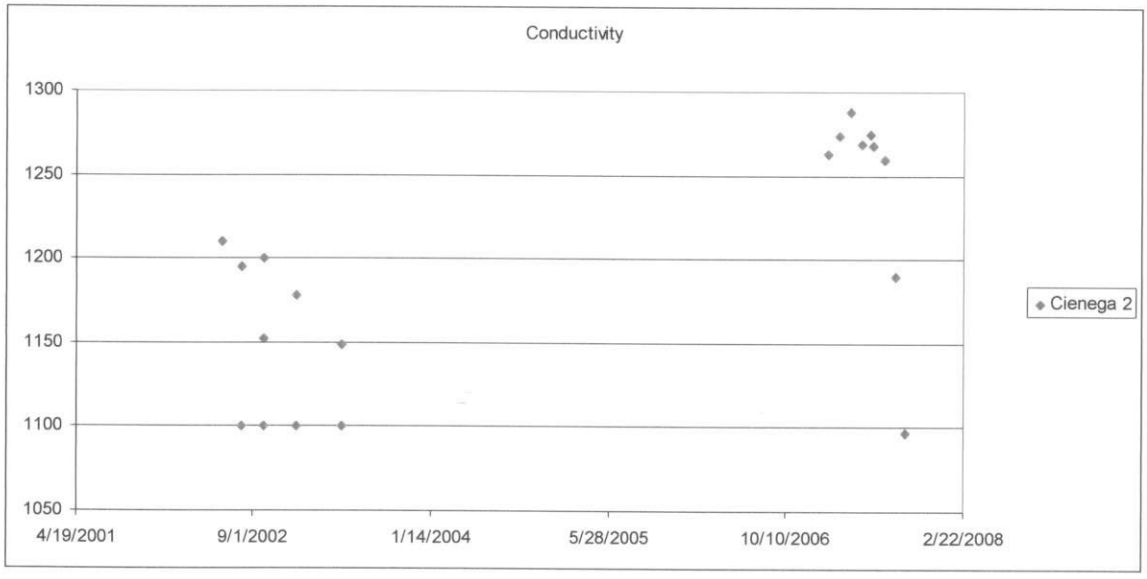


Figure 16



Pima Association of Governments

Pima Association of Governments

A Resolution to Support Arizona Department of Environmental Quality's Proposed Classification of Davidson Canyon as an Outstanding Arizona Water

Whereas, Davidson Canyon is a rare, spring-fed, low elevation desert stream located southeast of Tucson, Arizona within the Santa Cruz Watershed, and;

Whereas, Davidson Canyon has exceptional ecological significance for our area and supports a variety of rare flora and fauna including several species of concern including the Gila topminnow, Gila chub, Mexican gartersnake, lowland leopard frog, lesser long-nosed bat as well as many migratory birds, and;

Whereas, Davidson Canyon serves as a critical landscape linkage across Interstate 10 and between a number of other important waterways and mountain ranges north and south of Interstate 10, and;

Whereas, Davidson Canyon is a main tributary of Cienega Creek, which is already designated as a Unique Water of the State of Arizona, and;

Whereas, the Arizona Department of Environmental Quality has proposed rules to create a classification of 'Outstanding Water,' and;

Whereas, the Director of the Arizona Department of Environmental Quality may adopt site-specific water quality standards to protect or maintain existing water quality in an 'Outstanding Arizona Water," and;

Whereas, an 'Outstanding Arizona Water' affords the water body special protection because it prohibits any lowering of water quality in the stream pursuant to Tier 3 anti-degradation rules, and;

Whereas, Davidson Canyon has excellent water quality and existing data show that it would meet or exceed surface water quality standards required to be classified as an 'Outstanding Arizona Water,' and;

Whereas, designation of Davidson Canyon as an 'Outstanding Water' would compliment conservation efforts by local governments such as Pima County and

the City of Tucson who are working on multi-species habitat conservation plans that include the area of Davidson Canyon, and;

Whereas, the Director of the Arizona Department of Environmental Quality has proposed the classification of Davidson Canyon as an 'Outstanding Arizona Water,' and;

Whereas, PAG has received letters supporting the nomination of Davidson Canyon as an 'Outstanding Arizona Water' from Pima County, U.S. Fish and Wildlife Service, the Sonoran Institute, Save the Scenic Santa Ritas Association, the Rincon Institute, the Cienega Watershed Partnership, and Colossal Cave Mountain Park.

In Consideration Thereof, the PAG Regional Council:

Supports the Arizona Department of Environmental Quality's proposed classification of Davidson Canyon as an 'Outstanding Arizona Water,' pursuant to Arizona Administrative Code R18-11-112.