

State of California

California Regional Water Quality Control Board  
Santa Ana Region

Cleanup and Abatement Order No. R8-2009-0038  
For  
Pardee Homes

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Regional Board) finds that:

**BACKGROUND**

- 1) On March 24, 2006, Glenn Lukos Associates, Inc. ("GLA") submitted an application for a Clean Water Act section 401 Water Quality Standards Certification ("Certification") on behalf of Pardee Homes (hereinafter, the discharger) for discharges of fill to 700-linear feet of an ephemeral drainage channel located east of Haun Road, in the vicinity of Holland Road, in Meriffee, Riverside County. The discharge would occur as part of the development of the "305-Acre Countryside Project".
- 2) The "305-Acre Countryside Project" is identified as the Countryside Specific Plan ("Countryside SP", a.k.a. Specific Plan 194 or SP 194) by Riverside County in the environmental documents provided in the application. Countryside SP consists of the construction of a southward extension of the Paloma Channel through the site from Newport Road to Holland Road, the development of a 68.9-acre commercial development east of Haun Road, known as the Countryside Marketplace (a.k.a. Parcel Map 34275), and the development of the remainder of the site into single- and multi-family residences.
- 3) In the application for Certification, GLA included a memorandum, prepared by GLA staff, regarding a "Jurisdictional Delineation of the Approximately 305-Acre Countryside Project Site in Meniffee, Riverside County, California", dated December 29, 2004 and revised February 17, 2005. Although the February 17, 2005 memorandum contains a lengthy description of the Regional Board's authority to regulate discharges of fill to waters of the State that are outside of the jurisdiction of the U.S. Army Corps of Engineers ("Corps"), GLA's memorandum failed to delineate three seasonal pools that would be filled as part of the development of the Countryside SP. Discharges of fill to these pools are subject to regulation by the Regional Board pursuant to the Porter-Cologne Water Quality Control Act.
- 4) Regional Board staff discovered references to three "vernal pool-like" features ("seasonal pools") within biological reports included in the application for

Certification. The reports were prepared by the Chambers Group, dated January 23, 2004, and Natural Resources Consultants ("NRC"), dated March 2005. In their report, NRC recommended that a jurisdictional delineation be prepared for the pools.

- 5) The Chambers Group report indicates that one of the seasonal pools contained spreading navarretia, a plant species listed as endangered under the Federal Endangered Species Act. Both the Chambers Group and the NRC reports document the presence of the versatile fairy shrimp, a common invertebrate prey species, in all of the pools. The presence of the spreading navarretia is indicative of the Rare, Threatened, or Endangered Species (RARE) beneficial use of this pool. The presence of the versatile fairy shrimp is indicative of the Wildlife Habitat (WILD) beneficial use of all of the pools. The aforementioned beneficial uses, as defined in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), would be adversely affected by the fill of the pools. The discharger had not specifically requested authorization to discharge to the pools.
- 6) The Regional Board commonly regulates discharges of dredge or fill to waters of the State through the issuance of Clean Water Act ("CWA") section 401 Water Quality Standards Certifications where the discharge is also subject to regulation by the Corps. This occurs when the receiving water is both a water of the State, as defined by the California Water Code, and a water of the U.S. under CWA section 404. The issuance of a Certification also represents an authorization to discharge under State Water Resources Control Board Order No. 2003-0017-DWQ (Order No. 2003-0017-DWQ), "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received Water Quality Certification". In the absence of an applicable federal permit or license, the Board may regulate the proposed discharge through the issuance of Waste Discharge Requirements or a waiver thereof.
- 7) While reviewing the application for Certification, Regional Board staff also began preparing tentative waste discharge requirements (Tentative Order No. R8-2007-0040) in order to authorize the discharge of fill to the seasonal pools. Public Notice was posted in May 2006 stating Regional Board staff's expectation that the discharge to the seasonal pools would be regulated by the Regional Board under Waste Discharge Requirements.
- 8) Riverside County certified a Supplemental Environmental Impact Report on January 23, 2007. The Regional Board issued the Certification for Countryside SP on April 3, 2007. The April 3, 2007 Certification also described the need for the Regional Board to regulate the discharge of fill to the seasonal pools through issuance of Waste Discharge Requirements.
- 9) A draft of Tentative Order No. R8-2007-0040 was provided to the discharger, via GLA, for review and comment on April 16, 2007 and was also provided to staff at

the California Department of Transportation, Department of Fish and Game, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service ("Service"), on April 30, 2007.

- 10) Tentative Order No. R8-2007-0040 contemplated that the discharger would make a contribution to the Service's Vernal Pool Conservation Fund, as proposed by the discharger. Service staff objected to the proposed compensatory mitigation and the adoption of Tentative Order No. R8-2007-0040 was set aside while the discharger pursued an alternative mitigation proposal.
- 11) On September 18, 2008, Regional Board staff conducted a scheduled inspection of the Countryside Specific Plan project. Regional Board staff observed that the Countryside Marketplace component of the project was mostly complete, with many of the commercial spaces occupied and doing business. No meaningful construction activity was observed on the residential portion of the project; however, a substantial amount of work had occurred and was ongoing for the construction of the Paloma Channel. Through the construction of the Paloma Channel, the discharger had caused the fill of one of the three seasonal pools and the pool no longer exists. The filled pool had previously been 0.22 acre in size and contained the versatile fairy shrimp. The remaining two pools did not appear to have been modified by the discharger.
- 12) On December 22, 2008, a Notice of Violation ("NOV") was sent to the discharger, via certified mail, for the unauthorized discharge of fill to the 0.22 acre seasonal pool. The discharger received the NOV on December 24, 2008. The NOV included a request for a proposal for compensatory mitigation for impacts to the beneficial uses of the filled seasonal pool no later than February 22, 2009.
- 13) GLA submitted the requested compensatory mitigation proposal, on behalf of the discharger, on February 23, 2009. The discharger proposes to create 0.22 acre of seasonal pools on one, or a combination of sites. The site(s) would be on land that the discharger owns or controls, or which is located on land owned by the Western Riverside County Resource Conservation Authority ("RCRCA"). If constructed on land owned by the RCRCA, the discharger would have a reasonable expectation of obtaining control over the site(s).

#### **AUTHORITY – LEGAL REQUIREMENTS**

- 14) California Water Code ("CWC") section 13260(a)(1) requires, in part, that, "any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state" submit a report of waste discharge.
- 15) CWC section 13264(a) states, in part, "No person shall initiate any new discharge...prior to the filing of the report required under Section 13260 and no

person shall take any of these actions [specified in Section 13264] after filing the report...". CWC section 13264(a)(2) allows for the discharge subsequent to filing a report under certain circumstances "if the waste to be discharged does not create or threaten to create a condition of pollution or nuisance".

16) CWC section 13050(l)(1) defines "pollution" as "an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

- (A) The waters for beneficial uses.
- (B) Facilities which serve these beneficial uses."

17) CWC section 13304(a) states, in part, "Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board... and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste..."

18) The discharge of fill to the seasonal pool has eliminated the pool and the pool's beneficial uses and resulted in a condition of pollution.

19) On September 9, 1988, the Regional Board adopted Resolution No. 88-121, delegating, in part, its authority to issue Cleanup and Abatement Orders to the Executive Officer.

20) Pursuant to the California Environmental Quality Act ("CEQA"), the County of Riverside certified an Environmental Impact Report ("EIR") for the Countryside Specific Plan, previously known as the Pueblo del Sol Specific Plan, on November 5, 1985; a negative declaration for Amendment No. 1 to SP 194 was adopted on September 14, 1990; and a Supplemental EIR was certified on January 23, 2007.

21) This enforcement action is being undertaken by a regulatory agency to enforce a water quality law. Such action is categorically exempt from provisions of CEQA according to section 15321 in Article 19, Division 3, Title 14 of the California Code of Regulations. However, the environmental documents produced by the County of Riverside have been considered in the preparation of this Cleanup and Abatement Order ("CAO").

IT IS HEREBY ORDERED THAT, pursuant to section 13304, Article 1, Chapter 5, Division 7 of the California Water Code, Pardee Homes must abate the effects of the unauthorized discharge of fill to waters of the State, in accordance with the following:

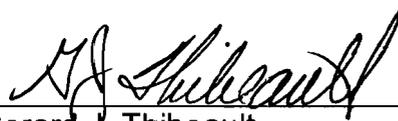
- 1) The discharger must fully implement the Conceptual Seasonal Pool Mitigation Report, prepared by Glenn Lukos Associates, Inc. and dated February 19, 2009 ("Mitigation Report"), and subsequently create a minimum of 0.22 acre of seasonal pools capable of supporting versatile fairy shrimp. Where there is a conflict between the Mitigation Report and CAO R8-2009-0038, the CAO shall prevail.
- 2) The capacity of the pool(s) to support the species with natural precipitation must be demonstrated through the presence of gravid female versatile fairy shrimp in three out of five consecutive rain seasons. The presence of other species of gravid female fairy shrimp shall also satisfy this requirement.
- 3) The site selected for the seasonal pools and their construction must not adversely affect rare, threatened, or endangered species or their habitat. The discharger must demonstrate compliance with this requirement through site surveys conducted according to generally accepted practices and implementing appropriate mitigation measures, including selection of an alternate site, in consultation with the Department of Fish and Game ("Department") and/or the U.S. Fish and Wildlife Service ("Service").
- 4) The discharger must submit a report to the Executive Officer by September 2, 2009 stating the final location(s) of the seasonal pool(s) and include: an appropriate site map showing the location(s) within accuracy of 1-meter; the relevant site survey(s) in accordance with requirement 3 above; and any written correspondence related to the consultation with the Department or the Service.
- 5) The discharger must complete grading work for the pool(s) not later than October 15, 2009.
  - a. In the event that the grading work is not complete by October 15, 2009, the discharger must submit a report to the Executive Officer not later than October 30, 2009, fully explaining the circumstances and cause(s) of the delay.
  - b. In the event that the October 15th deadline is not met due to reasons beyond the discharger's control, as determined by the Executive Officer, the acreage required in requirement 1 above shall increase to 0.23 acre, to compensate for additional environmental damage due to construction delays, and grading work must be completed not later than October 15, 2010.
- 6) The area of the created seasonal pools shall be measured based on an ordinary high water mark created during a rain season whose total seasonal rainfall is less than one standard deviation from the local average seasonal rainfall based on the longest available local rainfall record.

- 7) Water in the created seasonal pool shall not be contained by structures that are subject to failure in the event of overflow.
- 8) The earthwork for the created seasonal pool shall not adversely affect the beneficial uses of downstream receiving waters (i.e., withhold or divert water from an adjacent seasonal pool).
- 9) The discharger must act towards the creation of the seasonal pool(s) that can support fairy shrimp, in good faith at all times, avoiding unnecessary delays and identifying problems and implementing corrective measures in a timely manner.
- 10) Regional Board staff and other authorized representatives shall be allowed:
  - a. Entry upon premises where the seasonal pool or pools are located;
  - b. Access to copy any records that are kept under the requirements of this CAO;
  - c. To photograph, sample and monitor for the purpose of assuring compliance with this CAO.

Failure to comply with the terms and conditions of this Order may result in the imposition of civil liability in accordance with section 13350 of the California Water Code.

June 2, 2009

Date



Gerard J. Thibeault  
Executive Officer

**CONCEPTUAL SEASONAL POOL  
MITIGATION REPORT**

**COUNTRYSIDE MARKET PLACE  
COMMERCIAL AND RESIDENTIAL PROJECT,  
CITY OF MENIFEE  
RIVERSIDE COUNTY, CALIFORNIA**

**Prepared for:**

**Pardee Homes  
10880 Wilshire Boulevard  
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(310) 475-3525**

**Prepared by:**

**Glenn Lukos Associates, Inc.  
29 Orchard  
Lake Forest, California 92630  
Contact: Martin Rasnick  
(949) 837-0404, Ext. 20**

**February 19, 2009**

CRWQCB - REGION 8	
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APF	

**FEB 23 2009**


## SUMMARY

Pardee Homes (Pardee) is currently constructing the Countryside Market Place Residential and Commercial Development Project (Project) in the City of Menifee, Riverside County, California. The Project proposes the construction of a residential community on approximately 305 acres within the Menifee Valley, which is currently entitled for 1,154 single-family residential and multi-family units, a 15-acre school site, and approximately 68 acres of community commercial development. Phase one of the project included the construction of the commercial center and the Paloma Wash Channel. As part of construction of the Paloma Channel, a component of the Project, one seasonal pool, totaling 0.22 acre, has been inadvertently disturbed.

This Conceptual Seasonal Pool Mitigation Report (CSPMR) proposes to comply with Condition 1 of the December 22, 2008 Notice of Violation (NOV) issued by the Santa Ana Regional Water Quality Control Board (Regional Board) to Pardee through development of a program that provides for the identification and creation of 0.22 acre of shallow seasonal pool habitat and relocation of the common versatile fairy shrimp (*Branchinecta lindahli*) to newly created seasonal pool habitats that will provide sufficient ponding depth and duration to complete their life cycles. The mitigation program set forth in this report will be implemented once Pardee has identified and secured an acceptable seasonal pool site to be approved by Regional Board staff.

This CSPMR provides a program for the creation of 0.22 acre of seasonal pool habitat in order to compensate for impact to one seasonal pool, totaling 0.22 acre, which was inadvertently disturbed as part of the construction of the Paloma Channel. The mitigation report may take several years to complete, and consists of several components designed to create self-sustaining shallow seasonal pool habitat.

The program consists of the following principal components: (1) census of seasonal pool resources that will be impacted by development at the Project site; (2) identification of potential areas that are suitable for the creation of seasonal pool habitat; (3) creation of 0.22 acre of shallow seasonal pools; (4) implementation of a hydrological monitoring program to ensure that adequate ponding is present, and (5) creation of seasonal pool aquatic and terrestrial environments, including the relocation of the common versatile fairy shrimp.

### I. PROJECT DESCRIPTION AND LOCATION

The Project proposes the construction of a residential community on approximately 305 acres within the Menifee Valley, which is currently entitled for 1,154 single-family residential and multi-family units, a 15-acre school site, and approximately 68 acres of community commercial development

The Project is located within Section 3, Township 6 South, and Range 3 West in the City of Menifee, Riverside County, California. The Project supports one blue-line stream (as depicted on the U.S. Geological Survey (USGS) topographic map Romoland, California [dated 1953 and photorevised in 1979]) (see Exhibit 1, Project Regional Map and Exhibit 2, Project Location

Map). The Project comprises approximately 305 acres and is located south of Newport Road, north of Holland Road, east of existing residential development within the City of Menifee, and west of Interstate 215 Freeway. The Project area is located at latitude 33°40'30" north and longitude 117°00'30" west.

## II. PROJECT HISTORY

During 2006 and 2007, regulatory permits and agreements for the Project were issued by the California Department of Fish and Game (CDFG) pursuant to Section 1602 of the Fish and Game Code, the Regional Board pursuant to Section 401 of the Clean Water Act (CWA), and the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the CWA. Although all three regulatory permits and agreements were issued, the Project also supported three seasonal pools that were not subject to CDFG or Corps jurisdiction, but were subject to Regional Board jurisdiction pursuant to the Porter-Cologne Act (Section 13260 of the California Water Code). During 2007 and 2008, Regional Board staff prepared a draft Report of Waste Discharge Order (WDR) to authorize the fill of all three seasonal pools on site; however, no WDR has been issued because Pardee has not yet been able to locate and secure an acceptable seasonal pool mitigation site to compensate for the proposed impact to 0.39 acre of seasonal pools on site. Construction within the Project area, outside of the boundaries of all three seasonal pools, began in summer 2007 and is ongoing.

On September 18, 2008 GLA and Pardee met with the Regional Board at the Project to review the construction of the Paloma Channel, which is a component of the Project, as well as the existing condition of the three seasonal pools located within the northern and western portions of the Project area. Based upon this field review, the Regional Board determined that one of the three seasonal pools (Seasonal Pool 2, totaling 0.22 acre) had been disturbed, while the remaining pools (Pools 1 and 3, totaling 0.06 acre and 0.11 acre respectively) had not been disturbed. A graphic depicting the seasonal pools on site is attached as Exhibit 3<sup>1</sup>. Didn't we determine that one of these was in fact not a pool?

On December 22, 2008, the Regional Board issued a NOV to Pardee titled "Violation of California Water Code Section 13264 For Unauthorized Discharges of Fill to Waters of the State That Are Outside of the Jurisdiction of the U.S. Army Corps of Engineers and Violation of Clean Water Act Section 401 Water Quality Standards Certification Dated April 3, 2007" associated with the Project.

In this letter, Regional Board staff indicated the following:

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<sup>1</sup> Please note that during the September 18, 2008 site visit between Pardee and the Regional Board, both parties agreed that Seasonal Pool 1, totaling 0.06 acre, was actually not a seasonal pool and its disturbance would not require the issuance of waste discharge requirements.

- 1) *On September 18, 2008, Regional Board staff conducted a scheduled inspection of the Countryside development project. During the inspection, Regional Board staff observed grading and other construction of an on-site portion of the Paloma Channel through the site. The Countryside Marketplace component of the project (a.k.a. Parcel Map 34275) was mostly complete, with many of the commercial spaces occupied and doing business. No meaningful construction activity was observed occurring on the residential portions of the project site, except for the construction of the Paloma Channel. As a result of the observed construction, one of the three seasonal pools has been filled and the pool no longer exists. The seasonal pool was located near the intersection of the Paloma Channel and Newport Road and totaled 0.22 acre. The remaining pools were observed to be intact...In order to resolve the unauthorized discharge of fill to waters of the State, please submit a report which proposes compensatory mitigation for impacts to the beneficial uses of the filled seasonal pool no later than February 22, 2009; and*
  
- 2) *During a subsequent review of Regional Board records, Regional Board staff has also determined that the total fee due for the issuance of the April 3, 2007 Certification has not been paid. Regional Board records indicate that only \$500 of the total fee amount of \$4,000 has been paid (Check No. 2445546); \$3,500.00 is outstanding...the outstanding balance of \$3,500.00 is due and payable immediately. In order to avoid further enforcement action with respect to the payment of the fee, please pay the outstanding balance no later than January 5, 2009.*

Pardee responded to this NOV on December 30, 2008 by providing a check totaling \$3,500 to comply with Condition 2 of 2 of the NOV. Pardee also indicated that they would work diligently with Regional Board staff to satisfy Condition 1 of 2 by submitting this proposed seasonal pool mitigation proposal report to Regional Board staff by February 22, 2009.

### **III. EXISTING CONDITIONS**

The Project is a 305-acre proposed residential and commercial development located within the City of Menifee, Riverside County, California. The site presently supports on going agricultural activities and is annually disked. Vegetation within the Project consists mostly of non-native grasses and weeds. Neighboring developments, both existing and proposed, include Menifee to the east, HUB to the north, and CalNeva and Newport Estates to the west. Further west is the Audie Murphy Ranch. Vacant land lies southerly of the property, as well as adjacent to its southeast portion, although approximately 40 acres of this latter, vacant area has been proposed for industrial use. Single-family residential housing exists adjacent to the west and southwest of the Project.

The site supports two blue-line drainages, one of which is subject to Corps and CDFG jurisdiction and one of which is no longer present on site. Except for cultivated wheat, vegetation

was not observed within the Project area, other than on a small hillock area along the western Project boundary. Vegetation associated with this hillock area consisted of buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), and non-native ruderal vegetation.

#### **A. Seasonal Pool Flora and Fauna**

There are three seasonal pools that cover approximately 0.39 acre within the Project area. Pool 1 totals 0.06 acre, Pool 2 totals 0.22 acre, and Pool 3 totals 0.11 acre. Pools 1 and 2 appear to be man-made and highly disturbed seasonal pools that do not support vegetation associated with vernal pools. Vegetation surrounding Pools 1 and 2 consists of cultivated wheat. Pool 3 is also a man-made and highly disturbed seasonal pool supporting round woollyheads (*Psilocarphus brevissimus*), Moran's navarretia (*Navarretia fossalis*)<sup>2</sup>, vinegar weed (*Trichostema lanceolatum*), and pineapple weed (*Chamomilla suaveolens*). Vegetation surrounding Pool 3 consists of goldfields (*Lasthenia* sp.), tidytops (*Layia platyglossa*), and fiddleneck (*Amsinckia menziesii*).

The seasonal pools sampled during the wet and dry-season surveys all contained cysts of the common versatile fairy shrimp (*Branchinecta lindahli*); however, neither survey identified the presence of any listed fairy shrimp species. Only Seasonal Pool 3 supports any sensitive species, the federal threatened Moran's navarretia (*Navarretia fossalis*).

#### **B. Seasonal Pool Impacts**

A total of three seasonal pools have been identified on site, of which one seasonal pool (Seasonal Pool 2, totaling 0.22 acre) has been inadvertently disturbed due to grading associated with the construction of the Paloma Channel adjacent to Newport Road. Seasonal Pool 2 supported only cultivated wheat and the common versatile fairy shrimp (*Branchinecta lindahli*).

Seasonal Pools 1 and 3, totaling 0.06 acre and 0.11 acre respectively, have not been disturbed and currently exist on site. As stated above, Seasonal Pool 3 supports the federal threatened Moran's navarretia (*Navarretia fossalis*).

A graphic depicting the seasonal pools on site is attached as Exhibit 3.

#### **C. Soil Associations**

The Natural Resource Conservation Service, formerly the Soil Conservation Service, maps the following soil types in the vicinity of the seasonal pools and associated vegetation communities proposed for development.

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<sup>2</sup> The common name for spreading navarretia has been changed to Moran's navarretia.

### **Chino Silt Loam, Drained, 0 to 2 Percent Slopes (Ce)**

The Chino series are somewhat poorly drained to poorly drained soils that developed in granitic alluvium. These soils are on slopes of 1 to 2 percent in basins and on flood plains. Elevations range from 500 to 1,600 feet. The vegetation is chiefly annual grasses, weeds and sedges. In a typical profile, the surface layer is gray silt loam about 14 inches thick. The underlying material is gray to light-gray silty clay loam that extends to depths greater than 60 inches. Chino silt loam is nearly level soil that occurs in basins and on flood plains.

### **Wyman Loam, 2 to 8 Percent Slopes, Eroded (WyC2)**

Soils of the Wyman series are well drained and lie on alluvial fans. Slopes range from 2 to 15 percent. These soils developed in alluvium from predominantly basic igneous materials. Elevations range from 1,000 to 2,500 feet. Vegetation is chiefly annual grasses, forbs, chamise and black sage. Typically the surface layer is brown loam about 10 inches thick. The subsoil is reddish-brown loam and clay loam about 40 inches thick. The substratum is yellowish-red coarse sandy loam. Wyman loam is gently sloping to moderately sloping soil that occurs on alluvial fans.

### **Yokohl Loam, 2 to 8 Percent Slopes (YbC)**

The Yokohl series consists of well-drained soils on old alluvial fans and terraces. Slopes range from 2 to 25 percent. These soils developed on alluvium from predominantly basic igneous materials and are underlain by a hardpan. Elevations range from 1,000 to 3,000 feet. Vegetation is chiefly annual grasses, forbs, chamise and salvia. Typically, the surface layer is reddish-brown and dark-brown clay about 16 inches thick. Yokohl loam is gently sloping to moderately sloping soil that occurs on alluvial fans and terraces.

## **D. Description of Seasonal Pools**

In 2003 and 2004, three man-made depressions were identified within the Project area, which included one road-rut and two man-made depressions. Each of these pools is disked annually as part of ongoing dry-farming operations. These man-made depressions are found in the western portion of the Project area adjacent to existing single-family residential housing and along the northern boundary of the Project area adjacent to Newport Road.

## **E. Responsible Parties**

### *Discharger:*

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Los Angeles, California 90024  
(310) 475-3525  
Contact: Greg Hohman

### *Preparers of Mitigation Report:*

Glenn Lukos Associates, Inc.  
29 Orchard  
Lake Forest, California 92630  
(949) 837-0404  
Contact: Martin Rasnick

## **IV. PROPOSED MITIGATION SITE(S)**

As part of the overall Project approvals, GLA has been assisting Pardee with the location of potential seasonal pool mitigation areas for approximately two years. As of today's date, GLA has identified three potential seasonal pool mitigation areas. These areas are described below.

### **1. Canyon Hills Potential Mitigation Area**

The Canyon Hills Potential Mitigation Area (Canyon Hills) is located in the City of Lake Elsinore in Section 12, Township 6 South, and Range 4 West. The proposed seasonal pool mitigation area is located immediately east/northeast of Riparian Mitigation Site 3, west of a 28-acre community park, north of Canyon Hills Road, and south of an existing hillside open space area. Canyon Hills has relatively flat topography. The potential mitigation area exhibits a sizable ratio of drainage area to seasonal pool/basin area, meaning that sufficient watershed is available within this location. The area would require only minor grading to create the appropriate seasonal pool topography and the potential creation area exhibits sufficient watershed (a minimum of 10:1 drainage area to pool creation area). The soils associated with this potential mitigation area consist of Garretson Very Fine Sandy Loam, 2 to 8 Percent Slopes (GaC) and Ysidora Gravelly Very Fine Sandy Loam, 2 to 8 Percent Slopes, Eroded (YsC2). Based upon these sandy loam soils, this mitigation area may require the addition of bentonite and/or similar clay amendments to create an impermeable soil layer to facilitate the required seasonal pool hydrologic conditions. Pardee owns the Canyon Hills Project. A graphic depicting the Canyon Hills Potential Mitigation Area is attached as Exhibit 4.

## **2. San Timoteo Creek Potential Mitigation Areas**

The San Timoteo Creek Potential Mitigation Areas (San Timoteo Parcels) are located in unincorporated Riverside County in Section 27, Township 2 South, and Range 2 West. The proposed seasonal pool mitigation areas are located along terraces adjacent to San Timoteo Creek near San Timoteo Canyon Road near the City of Calimesa. The San Timoteo Parcels have relatively flat topography. The potential areas exhibit sizable ratio of drainage area to seasonal pool/basin area, meaning that sufficient watershed is available within each location. All areas would require only minor grading to create the appropriate seasonal pool topography. Each of the potential creation areas exhibit sufficient watershed, which may include runoff from the embankments of San Timoteo Canyon Road. The soils associated with these potential mitigation areas consist of Chino Silt Loam, Drained (Ce). Based upon these loamy soils, these mitigation areas may require the addition of bentonite and/or similar clay amendments to create an impermeable soil layer to facilitate the required seasonal pool hydrologic conditions. The Western Riverside Regional Conservation Authority (RCA) has identified the San Timoteo Parcels as potential mitigation areas within existing conservation lands. A graphic depicting the San Timoteo Parcels is attached as Exhibit 5.

## **3. County of Riverside Parcel 07-06 Potential Mitigation Areas**

The County of Riverside Parcel 07-06 Potential Mitigation Areas (County Parcel) is located in the County of Riverside in Section 17, Township 5 South, and Range 4 West. The proposed seasonal pool mitigation area is located in Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Criteria Cell 3670 located north of Mountain Avenue, south and east of existing open space, and west of Vista Avenue near the City of Lake Elsinore. The County Parcel has relatively flat topography. All three of the potential areas exhibit sizable ratio of drainage area to seasonal pool/basin area, meaning that sufficient watershed is available within each location. All areas would require only minor grading to create the appropriate seasonal pool topography. Each of the potential creation areas exhibit sufficient watershed (a minimum of 10:1 drainage area to pool creation area). The soils associated with these potential mitigation areas consist of Honcut Sandy Loam, 2 to 8 Percent Slopes (HnC). Based upon these sandy loam soils, these mitigation areas may require the addition of bentonite and/or similar clay amendments to create an impermeable soil layer to facilitate the required seasonal pool hydrologic conditions. The County of Riverside has granted right of entry permission to the County Parcel. A graphic depicting the County Parcel is attached as Exhibit 6.

## **V. IMPLEMENTATION PROGRAM**

### **A. Timing of Implementation Program**

Grading within the Project area began in summer 2007 and is ongoing. Once the mitigation area has been identified and accepted by Regional Board staff and/or other required entities, if necessary,

grading of the proposed mitigation area will occur within the fall/winter preceding the first storm events of the rainy season.

## **B. Rationale for Expecting Implementation Success**

Successful implementation is expected based upon the success of other seasonal pool creation projects in Southern California, which have been undertaken in areas exhibiting suitable topography to support creation of seasonal pools. Successful implementation is also expected because the proposed mitigation areas would be created within an area supporting an existing suitable watershed. Although the potential mitigation areas consist of loamy or sandy soils, a soil amendment, which would consist of either bentonite and/or other similar clay amendment, will be added to the existing parent soil material to enhance hydrology. In addition, the proposed mitigation area will not impact the watersheds of any existing seasonal pool.

## **C. Implementation Methods**

This report proposes a program for creation of 0.22 acre of seasonal pool habitat that would occur within one of the proposed alternative mitigation areas [see Exhibits 4, 5, and 6], and in doing so, offset inadvertent impacts resulting from the previously described disturbance to the man-made and highly disturbed Seasonal Pool 2, which did not support vegetation associated with vernal pools. Creation of the 0.22-acre seasonal pool area includes the following necessary components, which are discussed in detail in below.

- Identification of the necessary qualifications for the Project Biologist(s).
- Methods for creating/grading additional seasonal pools.
- Methodology for inoculum collection to be used in newly created seasonal pools.
- Development of a monitoring program.
- Satisfaction of proposed performance standards.

### **1. Qualifications of the Project Biologist**

The Project Biologist is required to have a Bachelor's degree with an emphasis in plant or invertebrate biology, a familiarity with seasonal/vernal pool flora and fauna (including vernal pool soils), and a minimum of five years of experience in creating/restoring seasonal pool habitat. Furthermore, prior to initiating soil stockpile removal, all contractors involved in the mitigation project will attend a site meeting with the Project Biologist(s). The Project Biologist(s) will provide the contractor(s) with a copy of the Final Mitigation Report and will review all components of the program that relate to earth moving.

## **2. Creating/Grading of Seasonal Pools**

The created pools will be graded by hand if possible or by using a small bulldozer and/or other similar earthmoving equipment. Pools will be graded to varying depths between six and ten inches. The topography in each pool will be somewhat irregular to provide a variety of micro sites for various plant species and the Project Biologist(s) will direct all grading. Material removed to create the pools will be used to create mima mounds in the vicinity of the created pools. Mima mounds are circular or oval domelike structures composed of loose silt and soil that are believed to be generated by a combination of geomorphic processes and burrowing by animals.

Grading will be conducted in a manner that will minimize disturbance to the surrounding landscape, native vegetation, and/or wildlife use of the selected mitigation site(s). A biological monitor will be present on site to ensure that other sensitive biological resources will not be disturbed during project grading. Bentonite and/or another similar clay amendment may be used in the mitigation project to maintain the target hydroperiod. Accordingly, pool hydrology will rely entirely on seasonal precipitation and overland run off from the surrounding watershed.

Prior to grading, the target perimeter of each pool will be clearly marked on the surface of the ground according to the appropriate micro-site design, and approximate size meeting the mitigation goal. The pool/basin area will then be over-excavated to a depth of approximately 24 inches at the deepest location, tapering to a few inches along the edges. A three to four-inch layer of bentonite and/or another similar clay amendment may be layered into the pool/basin. The pool will then be backfilled with native soil, covering fine materials such that the final pool elevations will range from eight to ten inches in the deepest areas, tapering to a few inches along the edges.

## **3. Inoculum Collection**

In order to ensure success of the created pools within the 0.22-acre of seasonal pool habitat area, soil inoculum from existing pools within the Project area, and/or other approved off site seasonal pools, will be collected and redistributed within the mitigation areas. Soil containing cysts of the common versatile fairy shrimp will be removed to a depth of approximately 2.5 cm (one inch) and placed in boxes for temporary storage. Inoculum collection will be performed during the summer/fall preceding mitigation site grading. Upon grading, the inoculum will be evenly distributed within the 0.22-acre mitigation area. Inoculum will be spread after the mitigation areas have been graded and before the first fall/winter rainfall event.

## **4. Monitoring Program**

The Monitoring Program begins at the time hand broadcasting of the topsoil and seed inoculum occurs. The purpose of this program is to evaluate the progress and success of the seasonal pool mitigation effort at regular intervals so that remedial measures can be implemented in a timely manner and the identified performance standards may be achieved. The Monitoring Program will occur for at least one-year. It is expected that during the first year of monitoring, site visits will

occur monthly during the winter and spring months. Monitoring will continue for up to three years to ensure that performance standards are achieved.

Specifically, the Monitoring Program will consist of hydrological measurements, invertebrate sampling and inventories, and photo-documentation. Monitoring will be conducted by the Project Biologist, or a qualified biologist (under supervision of the Project Biologist), with commensurate qualifications. The results of the Monitoring Program will be summarized in annual monitoring reports, which will be submitted to the Regional Board.

#### *Photo-Documentation*

A permanent photo-documentation station will be established to allow consistent photo-documentation of the development of the mitigation areas. Photographs will be taken during both the hydrological and vegetative field monitoring efforts.

## **VI. PERFORMANCE STANDARDS**

Performance standards will be based upon the presence of the common versatile fairy shrimp (*Branchinecta lindahli*) during a mean rainfall year ( $\pm 25\%$ ) within the created seasonal pools. Given the variability in rainfall, once this criterion is met, no further monitoring will be required. Monitoring will occur for at least one-year to ensure criteria success. If the performance standards are not met, monitoring will continue for up to three years to ensure performance standards are achieved.

### **A. Monitoring Hydrology and Water Quality of Created Pools**

Following completion of mitigation site grading, the created pools will be monitored for at least a one-year period in order to demonstrate that the pools hold water for sufficient periods to support the target invertebrate species during an average rainfall year. The establishment of pooling and/or the common versatile fairy shrimp will demonstrate that suitable hydrology exists. Permanent stations for photo-documentation will be established during the first monitoring event. Photos shall be taken during each monitoring period from the same vantage point and in the same direction each year, and shall reflect the progress of the mitigation effort. The mitigation project and seasonal pool establishment monitoring will be conducted under the direction of a qualified biologist with appropriate experience in habitat restoration and seasonal pool biology.

### **B. Annual Reports**

Annual qualitative and quantitative monitoring of hydrology and invertebrates would be completed by October of each year of monitoring. Annual reports will be prepared that address the performance of the 0.22-acre mitigation area. Included in the reports will be tables documenting invertebrates observed within the mitigation area as well as hydrological measurements.

## **VII. COMPLETION OF COMPENSATORY MITIGATION**

### **Notification of Completion**

Pardee shall notify the Regional Board in writing when the monitoring period is complete and the performance standards have been met. The seasonal pool creation will be considered successful when the performance standards are met. If the performance standards are not met, the monitoring program will be extended on a monthly basis incorporating a specific set of remedial measures until such time that the standards have been met and only those areas that fail to meet the performance standards will require additional monitoring.

## **VIII. CONTINGENCY MEASURES**

### **A. Initiating Procedures**

If a performance standard is not met for all or any portion of the mitigation project, or if the approved performance standards are not met, the Project Biologist will prepare an analysis of the cause(s) of failure and, propose remedial actions for approval. If the compensatory mitigation site has not met one or more of the performance standards, the responsible party's monitoring obligations shall continue until the Regional Board gives final approval that the mitigation obligations have been satisfied. It is therefore incumbent upon the Project Biologist to foresee project deficiencies as part of the Monitoring Program and take appropriate steps to address the situation.

### **B. Alternative Locations for Contingency Mitigation**

Although this plan is expected to be successful, other alternative locations may be used in the event that any of the currently proposed areas do not achieve performance standards.

### **C. Funding Mechanism**

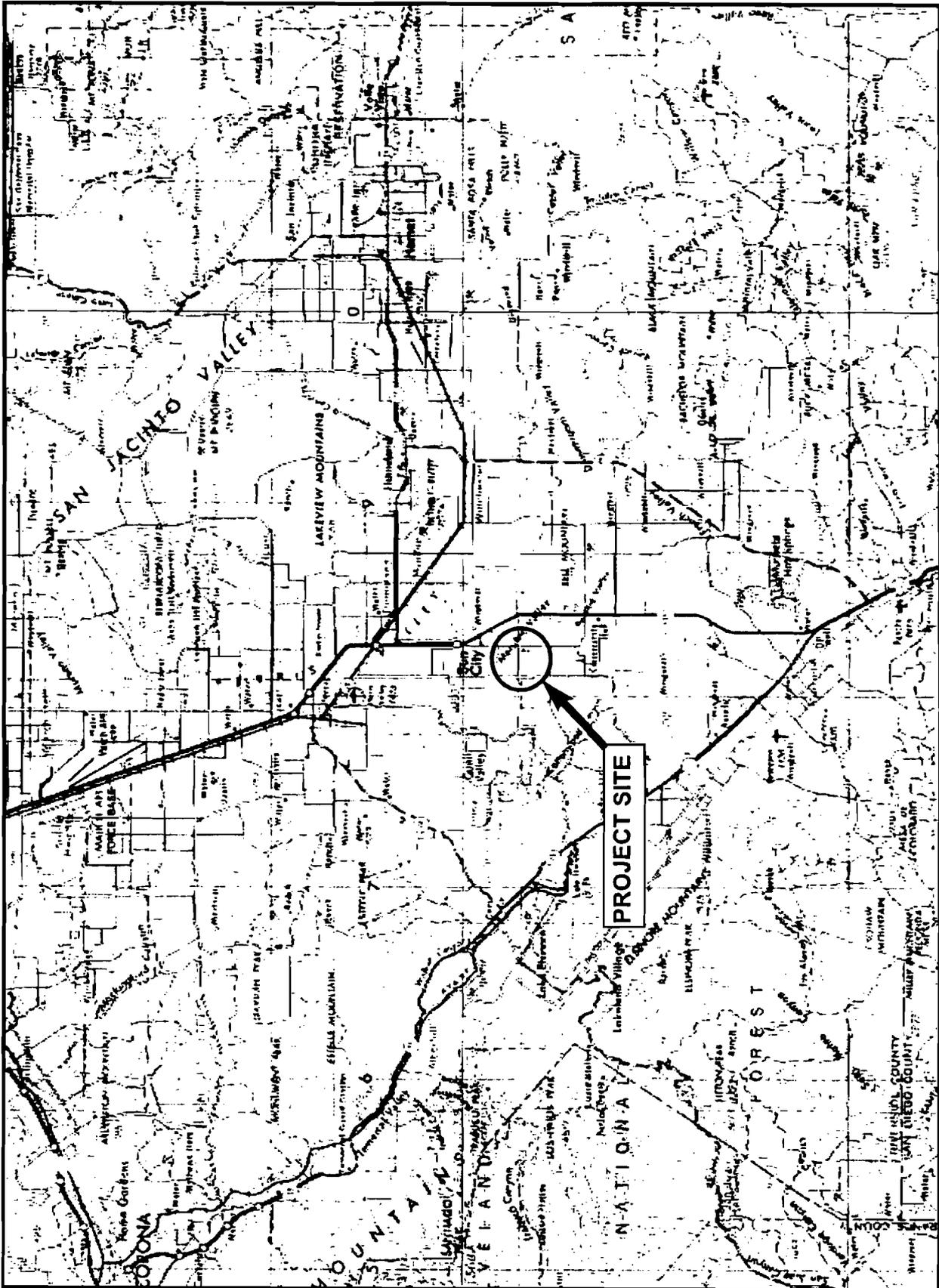
Pardee will fund planning, implementation, and monitoring of any contingency measures that may be required to achieve mitigation goals.

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Exhibit 1

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Countryside Project Regional Location Map

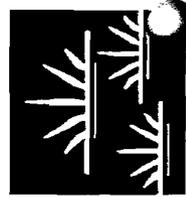


Adapted from USGS Sanat Ana quadrangle



**COUNTRYSIDE MARKET PLACE  
COMMERCIAL AND RESIDENTIAL PROJECT**

Regional Map



GLENN LUKOS ASSOCIATES

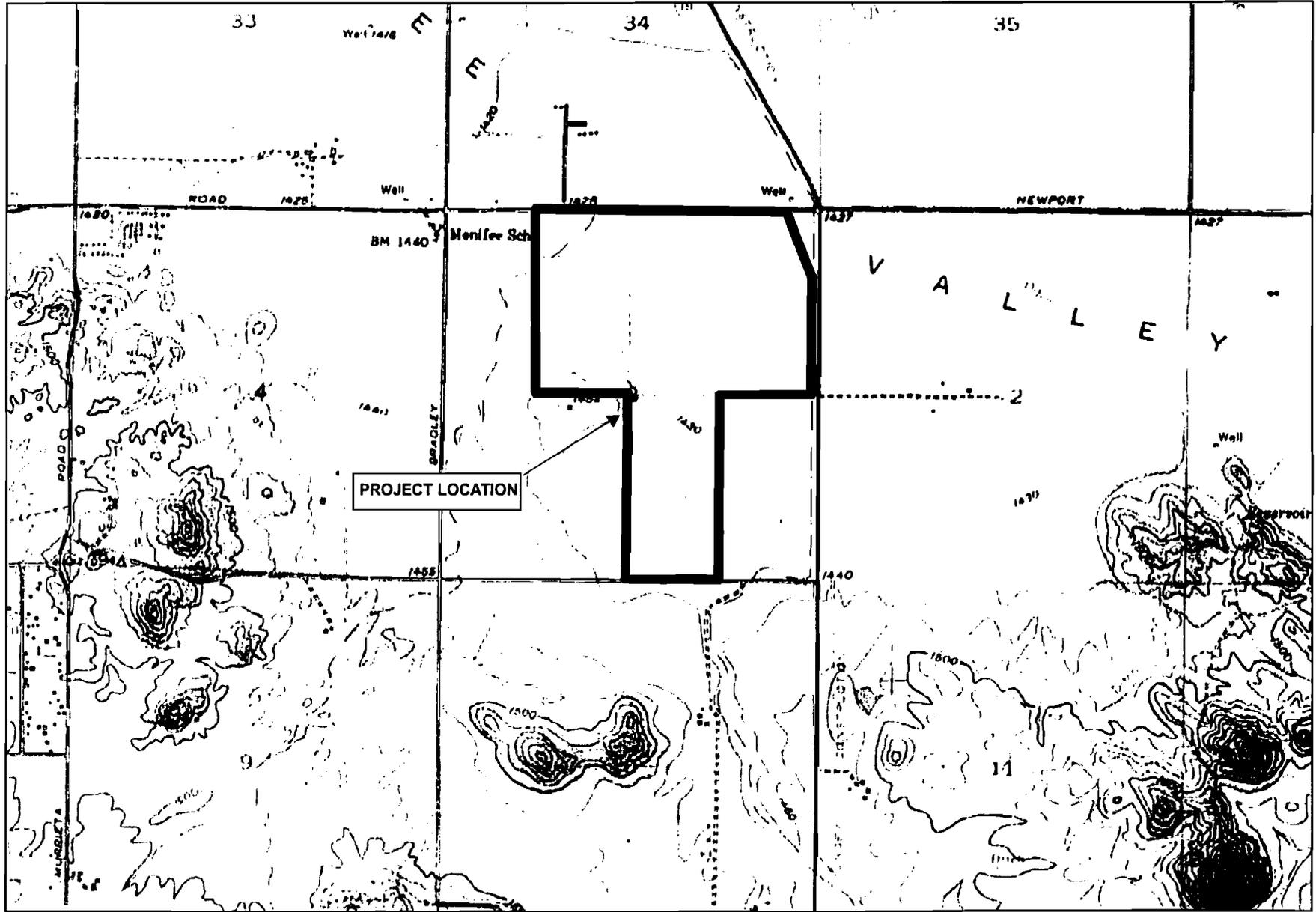
EXHIBIT 1

Exhibit 2

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Countryside Project Location Map

Adapted from USGS Romoland, CA quadrangle



**COUNTRYSIDE MARKET PLACE  
COMMERCIAL AND RESIDENTIAL PROJECT**

Vicinity Map

**GLENN LUKOS ASSOCIATES**

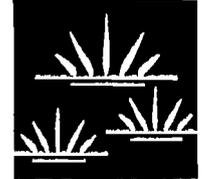


Exhibit 2

Exhibit 3

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Countryside Project Seasonal Pool Location Map



**LSA**

- |                           |  |
|---------------------------|--|
| PROJECT BOUNDARY          | <b>VEGETATION AND LAND USE</b>                           |
| FAIRY SHRIMP SURVEY AREAS | ACTIVE AGRICULTURAL FIELDS                               |
| NEPSSA AREA               | RUDERAL  |
| SITE PHOTOGRAPH           | SPREADING NAVARRERIA                                     |
|                           | POTENTIAL JURISDICTIONAL WATERS OF THE U.S. / STREAMBEDS |

**Exhibit 3**

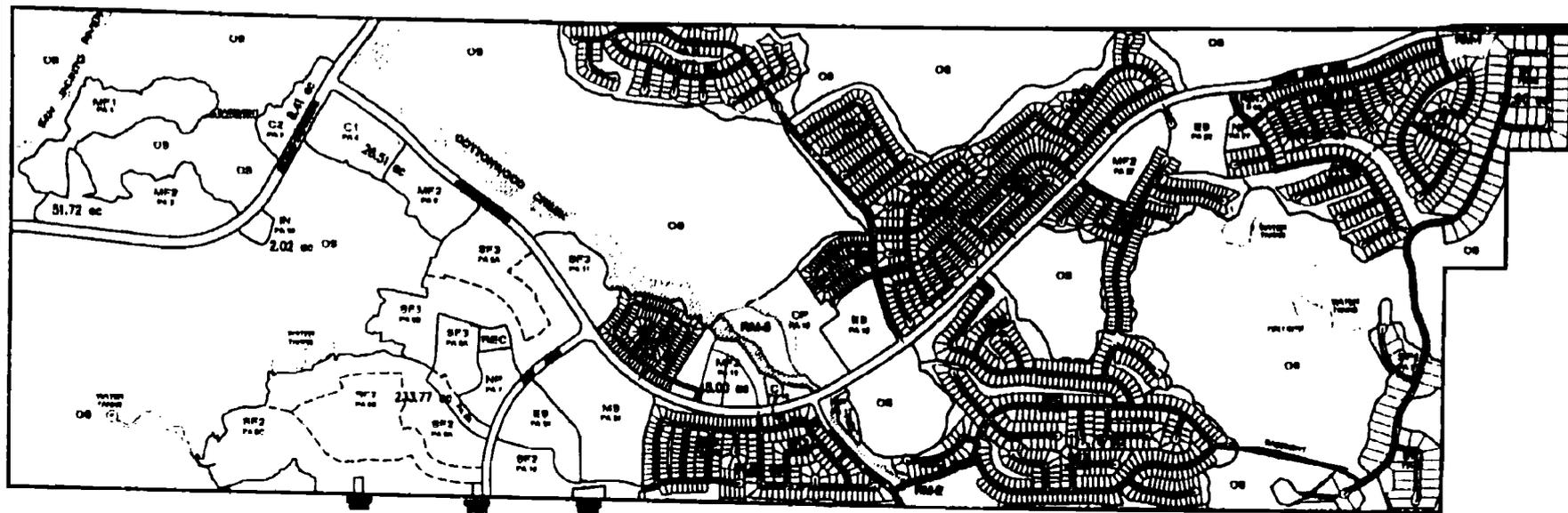
*Menfee Countryside Market Place  
General Biological Resources Assessment  
Vegetation, Land Use, and  
Photograph Location Map*

SOURCE: Eagle Aerial, 2004; County of Riverside, 2006  
R. DSR553 G Reports BIO Veg. NEPSSA.mxd (06/09/06)

Exhibit 4

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Canyon Hills Potential Mitigation Area



**LEGEND**

- GRADING DAYLIGHT LINE
- PA LINE
- - - - PA SUB-AREA
- PL
- PROJECT BOUNDARY

- MF1 SPECIFIC PLAN APPROVED ZONING
- PA 3A PLANNING AREA
- OS OPEN SPACE
- RM RIPARIAN MITIGATION

Potential Seasonal Pool Creation Area

**NOTE:**

DATE LAST REVISION 12/09/02

**BV ENGINEERING**  
 CIVIL ENGINEERING  
 LAND PLANNING  
 LAND SURVEYING



**CANYON HILLS  
 POTENTIAL MITIGATION AREA**  
 Exhibit 4

**GLENN LUKOS ASSOCIATES**

**Pardee Homes CANYON HILLS**

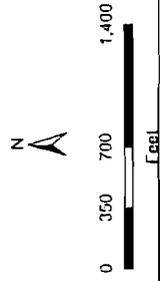
Exhibit 5

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San Timoteo Creek Potential Mitigation Areas



GLENN LUKOS ASSOCIATES



**SAN TIMOTEO CREEK PARCELS**

Exhibit 5

Exhibit 6

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County of Riverside Parcel 07-06 Potential Mitigation Areas

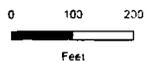


**Legend**

 Potential Seasonal Pool Creation

**COUNTY PARCEL 07-06**

Exhibit 6



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