PLANNING COMMISSION HEARING DATE: April 19, 2001

TRACT MAP 29515: Proposal of Webb Associates, on behalf of William J. Cagney Trust, to subdivide approximately 220.1 acres into 105 single family residential lots, situated generally east of Bradley Street and south of Overlook Parkway, in the R-1-130 — Single Family Residential and RC — Residential Conservation Zones.

PROJECT DESCRIPTION

The applicant is proposing to subdivide approximately 220 acres in the Alessandro Heights Community into 104 single family residential lots in the RC-Residential Conservation and R-1-130 - Single Family Residential Zones. The site is generally bounded by undeveloped properties to the east, Overlook Parkway and developed residential properties to the north and the Prenda Arroyo to the south and west.

ANALYSIS

In reviewing this project, staff has the following comments:

- **General Plan/Zoning Considerations**

  The subject site is zoned both RC - Residential Conservation and R-1-130 - Single Family Residential, with corresponding General Plan designations of RHS - Hillside Residential and RES - Estate Residential. The proposed project is consistent with the General Plan designations, and the proposed lot sizes are generally consistent with the requirements of the R-1-130 and RC Zones. The RC Zone requires an minimum average net lot size of 2.0 acres, while the average net lot size of the RC portion of this project is 2.21 acres. While all the lots meet the minimum area requirements of the underlying zone, five of the lots do not meet the minimum width requirement of the RC Zone, and the applicant has requested variances to allow the project as proposed. Further technical variances are required to allow landlocked parcels along H Court and I Drive, both private streets. These variances are discussed in detail below.

- **Map Design**

  Circulation

  - The design of the map is dictated to a large degree by the need to provide extensions of three roadways shown as planned streets on the City's General Plan Streets and Highways Diagram. The first of these is Overlook Parkway, a 4 lane, 110-foot wide arterial, which is to be extended to the east by approximately 1,300 feet. "A" Street,

or Chateau View Drive, is proposed to be extended southwesterly from Overlook Parkway, eventually connecting with Bradley Street. "B" Street extends southeasterly from "A" Street to provide a connection within the County of Riverside. Both "A" and "B" Streets are planned 2 lane, 80 foot wide collector streets. The locations of "A" and "B" Streets are somewhat fixed based on previous studies and the need to provide areawide access as well as access to individual surrounding properties.

- Overall, the proposed circulation system provides good internal circulation, which is sensitive to the natural topography of the site, as well as allowing for future development of adjoining properties and for areawide circulation.

- From a planning perspective, staff is very concerned with the fact that there are an increasing number of lots in the Alessandro Heights area that rely solely on Overlook Parkway for access (Lots 1-12, 16-46 and 68-104). Currently, there are 134 existing and tentatively approved lots in the Alessandro Heights area easterly of Golden Star, which rely on Overlook Parkway as a sole point of access. The subject map will add an additional 82 lots relying on this same single point of access via Overlook Parkway to the west. Until the properties to the south and east are developed, or Overlook Parkway is extended easterly to connect on the east side of the Alessandro Arroyo, there is effectively only one way into or out of this area for all of these lots. At this time, staff is unwilling to support development of further lots relying on access to Overlook Parkway without some form of alternate access. This could be via the extension of Overlook Parkway to the east, or the connection of "A" Street to Bradley Street or "B" Street to the County streets southeast of the property.

  However, it should be noted that there is an inherent problem in connecting "B" Street southeasterly to connect to streets in the County. If this is done prior to the extension and connection of Overlook Parkway to the east, then the "B" Street connection would likely become a de facto major east - west travel route for traffic between Alessandro Boulevard and Trautwein Road on the east and Washington Street on the west. Local streets in both the County and City, including Via Vista Drive within the City could also be subject to significant increases in traffic. For these reasons, staff could not support any connection of "B" Street to the County without a connection of Overlook Parkway to the east. This leaves only one viable option to provide alternative access, namely, the connection of "A" Street to Bradley Street. This should not have significant impacts to local traffic as it would only serve locally generated traffic, and could be done without a traffic study. However, the extension of "A" Street across private properties to the south of the subject tract would be subject to a separate initial study addressing other environmental issues, such as grading, biology and cultural resources. Based on the above, staff is recommending a condition that would require either: 1) the extension of Overlook Parkway to connect across the Alessandro Arroyo; or 2) connection of "A" Street southerly to Bradley Street prior to recordation of any portion of the subject map relying on access to Overlook Parkway. Further, no connection of "B" Street

southerly to the County would be allowed until such time as Overlook Parkway is extended across the Alessandro Arroyo to provide a connection to Alessandro Boulevard.

In written comments, the Riverside County Transportation Department recommends that no connection to County streets be made until Overlook Parkway is extended easterly. The recommended conditions reflect the need for the additional connection, but allows for one of two options, as discussed above.

- In reviewing the map, staff noted one potential concern with the street layout - the J Drive interface with the adjacent property to the south. The planned extension of J Drive and the presence of the Metropolitan Water District easement result in the isolation of an RC zoned portion of the property to the south of this map. This isolated land will most likely be proposed as a residential lot when a subdivision is proposed on this adjacent property. Approving the proposed J Drive configuration would effectively lock the City into approving that future lot, as little option to modify the lot would remain. Based on information provided by the applicant, it appears that a future lot on this property would be slightly over one acre in size with an average natural slope (ANS) of 13.4%, which is in compliance with the RC Zone requirements. Given this, and that the lot is configured in a manner to allow for typical residential development, staff supports the alignment of J Drive as proposed.

Dual Zoning

As mentioned above, this map is located in two separate zones, RC and R-1-130, both of which have comparable and compatible development standards (i.e., identical front setbacks, similar minimum lot width - 130' vs. 125'). Nine of the proposed lots, 6, 20, 23, 24, and 37-41 fall into both zones. It is not uncommon in the Alessandro Heights area to have lots in both the RC and R-1-130 Zones. However, in such cases, it is desirable to have a single zoning standard apply to the entire lot. The applicant is proposing that two of these lots, 23 and 41, be developed under the RC Zone standards. Staff concurs with these two, but also recommends that three additional lots, 6, 38 and 40, be subject to the RC Zone standards. The graded pads on these lots fall into both zones, which would technically allow two different side setbacks for the same house and could be confusing for homeowners and the City at a later date. Staff is not recommending rezoning of these lots, merely the application of the RC Zone standards to the entire lot with regard to future development. A covenant would be required on each of the five lots in order to alert future property owners that the RC Zone development standards apply to the entire lot.

Lot Width Variances

As mentioned above, five of the proposed lots, 14, 16, 17, 18 and 49, fail to meet the minimum width requirements of the RC Zone. RC zoned lots with an average natural slope of up to 30% require a minimum width of 130 feet, which these lots fail to provide. Lots 16-18 and 49 are located adjacent to cul-de-sacs, which narrow the lots, resulting in the

substandard widths. The unusual design of Lot 14 results in the need for a variance. The driveway portion of the lot is narrowed as a result of the location of the lot both on the curve in L Drive and adjacent to Lot 15. Once past the driveway area, this lot opens to a size comparable to adjacent lots.

These are fairly common variances in new subdivisions. Provided that the building envelopes on each lot are of sufficient size to construct residences without requiring encroachment variances, as they are in this case, staff is supportive of the requests.

Landlocked Parcels

With two proposed private streets, 28 lots within the map (Lots 54-67 and 70-83, on H Court and I Drive, respectively) will be without access to a public street, which is required by the Code. Variances for each of these lots is required. Again, as these are fairly common and considered to be technical, staff is supportive of these variances.

The one concern with landlocked parcels is that, by technical definition in the Zoning Code, they have no front or rear setbacks, only sides setbacks. In order to ensure that these lots develop with the same standards as all the other RC lots in the tract, staff has conditioned that these lots be developed with standard RC Zone setbacks. Covenants will be recorded on the lots to alert all future property owners of this condition.

- **Grading**

The overall grading for the tract provides for the proposed street system and residential pads between 16,500 and 27,000 square feet, involving manufactured slopes up to twenty feet in height. Manufactured slopes for the street grading are up to thirty feet in height. Earthwork quantities are unknown at this time. The submitted plans depict 47 exceptions for individual lots, though the applicant indicates that thirteen of the encroachments into the arroyo and arroyo setback limits will be eliminated when the grading plans are prepared, leaving 34 exceptions. The applicant should be commended for working closely with staff to minimize the exceptions to the ordinance and provide for a sensitive grading plan. As discussed below, staff generally supports the applicant's justifications for the requested exceptions.

Street Construction and Lots 1, 15, 42-46, 69, 70, 73-77, 83, and 104: With the installation of "A" Drive, the upper reaches of three minor tributaries of both the Alessandro and Prenda Arroyos will be filled. Pads for lots 1, 43-46, 70, 73-77, 83, and 104 will also involve minor fill in these same tributaries. Once the street is graded, these portions of the tributaries will cease to function as natural drainage features and so will lose all environmental significance. In no case are any sensitive features being disturbed. "A" Drive is a planned collector and so cannot be modified greatly to avoid the arroyo tributaries. For these reasons, and the fact that the three tributaries in question are not significant and distant from any main tributary to either arroyo, staff is supportive of the requested exceptions.

The exception for Lot 15 is isolated to the construction of L Drive and does not involve pad construction. Although the current plans depict an encroachment for the graded pad, the applicant indicates this encroachment will be eliminated at the time the grading plans are prepared. One slope on Lot 15 reaches approximately thirty feet in height and is associated with the grading for the construction of L Drive. The Grading Ordinance limits manufactured slopes to no more than twenty feet in height and thus a grading exception is needed, which the applicant has requested. Given that this overheight slope and the arroyo encroachment result from construction of a fixed public facility (i.e. a public street), staff is supportive of these exceptions.

Lots 47, 48, 51-56: These lots are located within a relatively large tributary of the Prenda Arroyo. The project engineer has submitted evidence demonstrating that these lots are not within the 100 year flood plain. The area that is within the flood plain is sufficiently removed from any proposed grading that it will be preserved in its natural state. Additionally, staff inspected this area and does not believe that any of the area proposed to be graded is significant from a topographic or aesthetic standpoint. Staff is supportive of the requested exceptions.

Lots 57, 59, 60, and 61: These lots are in a similar condition as Lots 51-56 - they fall within the area defined as the Prenda Arroyo, but they are all significantly removed from the actual water course area, and the area proposed to be graded is not topographically or visually significant. Lot 57 is thirty feet above the floor of the arroyo, and the remaining three are all between ten and thirty-five feet higher still. Approving the requested encroachments on these lots will not impact the hydrologic, visual or biologic functioning of the arroyo tributary. Staff is supportive of these exceptions.

Lots 49 and 50: The exceptions for these lots are required to allow driveway construction to serve the lots. The proposed driveways extend from K Court across a finger of a Prenda Arroyo tributary. The plans indicate that drainage will be maintained through the use of a drain pipe. However, staff believes that additional measures should be taken to allow for wildlife access between the tributary and the adjacent trunk of the arroyo. With the installation of a large culvert, a connection for wildlife transit would be maintained. Subject to this condition, staff supports the requested exceptions.

9

Lots 22-24 and 65: The grading for these lots will impact small portions of two minor tributaries to the Prenda Arroyo. Based on a field inspection, staff believes these exceptions are minor in nature and will not significantly impact any significant features.

- **Open Space Conservation**

As mentioned above, the western half of this map is occupied by several tributaries to the Prenda Arroyo. Most of the smaller tributary portions of the arroyo branch off to the east and dead-end within this tract, but the largest tributary extends north through the map and connects with two approved open space areas to the north, which together contain approximately 16 acres of land in its natural state. The larger tributary within this map

provides a potentially important corridor connection, for flora and fauna, between those open space areas to the north and the main trunk of the arroyo to the south.

Apart from some minor infringements by several of the proposed pads, a majority of this tributary, and most of the other tributaries present within the map boundaries, will be left undisturbed, as required by the Grading Ordinance. It is important that these open space areas be defined and protected in perpetuity. The applicant has agreed to set aside all ungraded portions of the map in an open space conservation easement.

With these areas set aside, there are two options available to maintain this land in its natural state. Staff believes it would be most preferable to dedicate these areas either in fee or with an open space easement to an appropriate non-profit conservation agency with expertise and experience in managing natural areas, such as the Riverside Land Conservancy. In the event a suitable conservation organization cannot be found to accept this property, it is recommended that a Homeowners Association be formed and charged with maintenance and stewardship of these areas. In addition, staff would recommend that an open space management plan be developed to ensure that a maintenance program is developed for the open space. This plan should also specify fencing around the streets and pads to protect open space areas.

- **Biological Considerations**

The biological study for the project indicated the presence of coastal sage scrub habitat along the easterly project limit, which serves as potential habitat for the federally endangered California Gnatcatcher. Since no focused gnatcatcher survey was prepared, the site is presumed to be occupied. As such, the applicant will be required to prepare a Habitat Conservation Plan (HCP) and obtain an incidental take permit from the U.S. Fish and Wildlife Service. The biological study included specific mitigation measures related to when and how vegetation may be cleared, property mitigation through off-site habitat conservation, proper site access and project area maintenance. These measures have been incorporated into the recommended conditions of approval for the project.

- **ALUC**

This property falls within the jurisdiction of the Riverside County Airport Land Use Commission (ALUC) and is subject to their review and approval. This map has already been reviewed and approved by ALUC. A copy of the conditions of approval have been attached to this report and have been included in the recommended conditions of approval.

- **Metropolitan Water District Pipeline**

A sixty-foot pipeline easement is present in the southeast portion of the map, between Lots 12, 13, 15, 16, 19 and 27. The Metropolitan Water District has reviewed the proposed map and has provided several required conditions. These have been attached to this report and

two of the conditions relating to map design have been included in the recommended conditions of approval.

- **Neighborhood Compatibility Considerations**

  This map will accommodate a public street system and typical RC and R-1-130 zoned subdivision of a size and configuration similar to what is found in the surrounding area. With the conditions regarding the establishment of open space areas and minimized grading, this map should be compatible with the surrounding residential neighborhood and sensitive to the existing natural features on-site.

  Pursuant to City policy for RC zoned properties, this map is subject to City Council review on the Consent Calendar, unless appealed or otherwise set for public hearing.

RECOMMENDATION

That the City Planning Commission:

1. **APPROVE** Subdivision Case TM 29515, subject to the recommended conditions of approval and based on the following findings:

   a. The proposed project is consistent with the RHS - Hillside Residential and RES - Estate Residential General Plan designations and the RC — Residential Conservation and R-1-130 - Single Family Residential Zones, as well as existing and planned development in the area.

   b. As conditioned, this map is sensitive to the existing terrain and natural features found on-site. The proposed grading and open space areas will help protect and preserve the arroyos and topographical features within the map.

2. Determine that:

   a. This proposed case will not have a significant effect on the environment because of the mitigation measures described in this report and recommend that the City Council adopt a Mitigated Negative Declaration;

   b. The proposed project could have the potential for adverse effects on wildlife resources and the applicant is responsible for payment of Fish and Game fees at the time the Notice of Determination is filed with the County.

EXHIBITS

1. Location/Zoning Map
2. General Plan Map

LOT SIZE VAR.

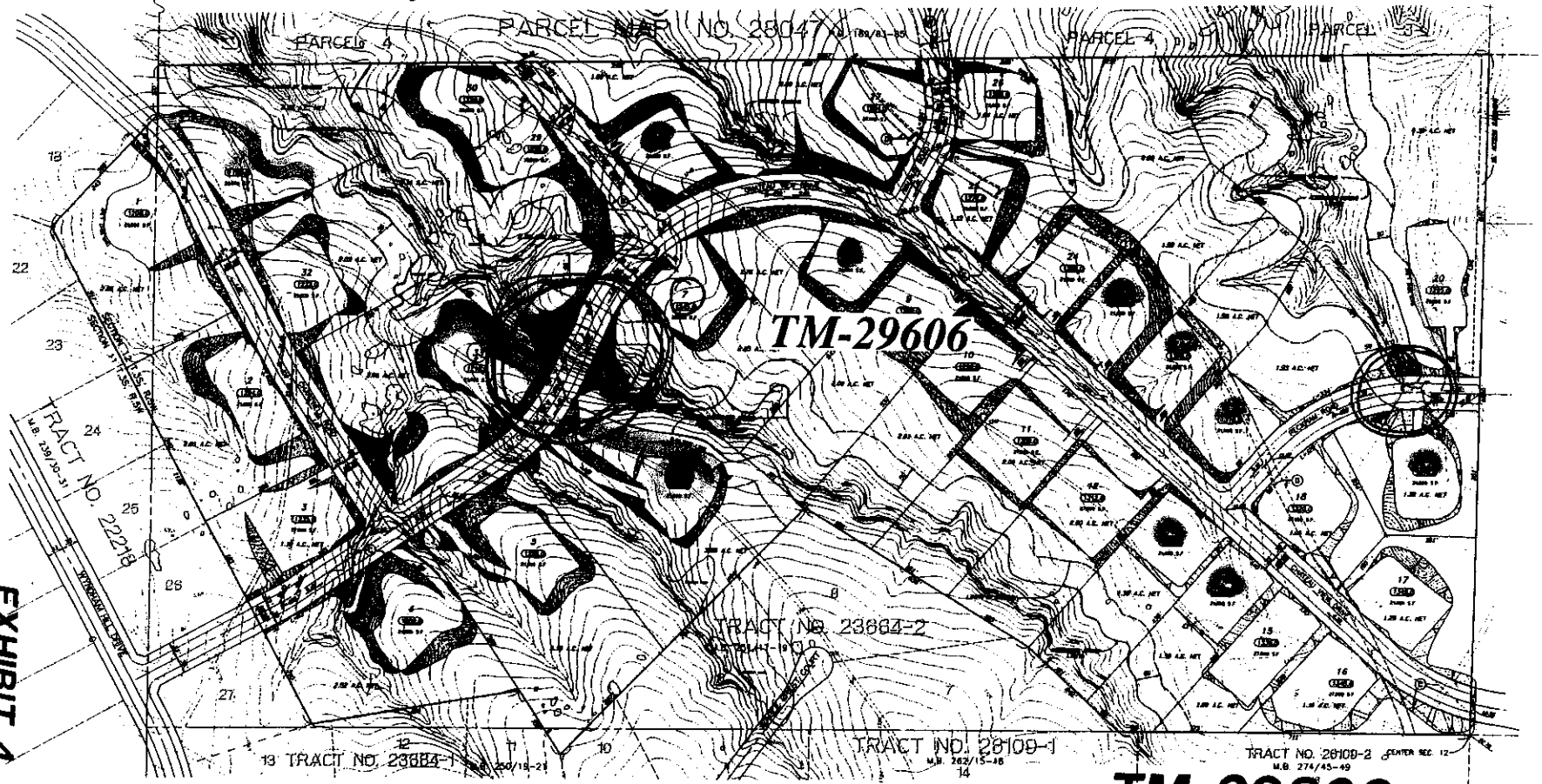
encroachment into SETBACK

fixed Street Alignment regs grading inside Setbacks + inside Arroyo

Wildlife Corridor

Culvert or bridge

2/11/12



TM-29606

GENERAL NOTES

OWNER

H & I WASHINGTON, LTD. PARTNERSHIP
2103 WASHINGTON PLACE
RIVERSIDE, CALIFORNIA 92504
(909) 787-4358 OR (909) 781-7316

APPLICANT

H & I WASHINGTON, LTD. PARTNERSHIP
2103 WASHINGTON PLACE
RIVERSIDE, CALIFORNIA 92506
(909) 787-4358
ATTN: MR. YANG-CHANG HONG

ENGINEER

ALBERT A. WEBB ASSOCIATES
3788 MCCRAY STREET
RIVERSIDE, CA 92506 TEL. (909) 686-1070

ASSESSOR'S PARCEL NUMBERS

243-150-025

ACREAGE

GROSS ACREAGE: 75.36 AC.
33 LOTS

LAND USE

EXISTING LAND USE: VACANT
EXISTING ZONING: RC
PROPOSED ZONING: RC
PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL

UTILITIES

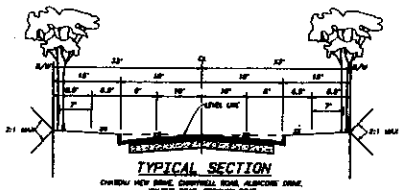
WATER — CITY OF RIVERSIDE
SEWER — SEPTIC TANK
ELECTRIC — CITY OF RIVERSIDE
GAS — SOUTHERN CALIF. GAS COMPANY
TELEPHONE — PACIFIC BELL
TELEVISION — CABLE RECEPTION AVAILABLE

SCHOOL DISTRICT

RIVERSIDE UNIFIED SCHOOL DISTRICT

EASEMENTS

(A) 60' WIDE OF 80' PRIVATE ACCESS EASEMENT BY GRANT DEED REC. 7/9/92 AS INSTR. NO. 249880 O.R.
(B) 60' WIDE OF 80' PRIVATE ACCESS EASEMENT BY DEED REC. 12/8/94 AS INSTR. NO. 406893 O.R.
(C) 60' STRIP OF DEDICATION TO CITY OF RIVERSIDE BY DEED REC. 11/22/94 AS INSTR. NO. 44
(D) 20' EASEMENT GRANTED TO R.C.F.C. WTR. CONSERVATION DISTRICT REC. 2/8/57 IN BOOK 3028/26 O.R. FOR ROAD PURPOSES



TYPICAL SECTION

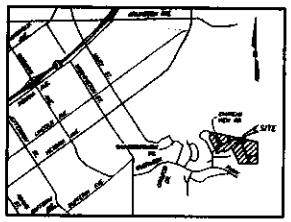
CHANDAU VISTA DRIVE, CAMPANELLI ROAD, ALBACORE DRIVE, WALKING ROAD, PECHANGA ROAD
NOT TO SCALE T-1-S

NOTES

1. ALL SLOPES ARE 2:1 (BASE), UNLESS OTHERWISE NOTED
2. ALL SLOPES LESS THAN 3 FEET IN VERTICAL HEIGHT ARE NOT SHOWN FOR CLARITY
3. (XXXX) INDICATES PRELIMINARY PAD ELEVATION
4. PADS ARE NOT TO EXCEED 24,000 S.F.
5. ALL DIMENSIONS ARE APPROXIMATE
6. TOPOGRAPHIC BASE: MAP
7. ALL IMPROVEMENTS TO BE PER CITY OF RIVERSIDE OR AS MODIFIED
8. ALL NON-GRADED AREAS SHALL BE MAINTAINED AS OPEN SPACE WITHIN A RECORDED EASEMENT.

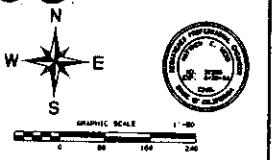
AVERAGE NATURAL SLOPE

LOT NO.	ANS FOR LOT %	ANS FOR GRADED PAD %
1	16.78	17.82
2	21.26	20.05
3	24.78	13.26
4	28.13	20.66
5	24.35	16.12
6	24.55	24.66
7	24.52	16.26
8	23.66	21.69
9	23.66	16.12
10	23.66	16.16
11	23.66	14.66
12	23.66	14.16
13	23.66	17.16
14	23.66	17.16
15	23.66	17.16
16	23.66	17.16
17	23.66	17.16
18	23.66	16.66
19	23.66	17.16
20	23.66	16.66
21	23.66	21.66
22	23.66	20.66
23	23.66	18.16
24	23.66	17.16
25	23.66	17.16
26	23.66	17.16
27	23.66	17.16
28	23.66	16.66
29	23.66	16.66
30	23.66	19.66
31	23.66	19.66
32	23.66	16.16
33	26.16	16.16



VICINITY MAP

NOT TO SCALE



CITY OF RIVERSIDE

TENTATIVE MAP NO. 29606

BEING A SUBDIVISION OF PORTIONS OF SECTIONS 11 AND 12, T.3S., R.5W., S.B.M.

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 MCCRAY STREET
RIVERSIDE, CALIFORNIA 92506

SHEET 1 OF 1 SHEETS

FILED IN THE OFFICE OF THE CITY CLERK OF THE CITY OF RIVERSIDE, CALIFORNIA

EXHIBIT 4
Proposed Subdivision Map

ATTACHMENT C
12-380

PLANNING COMMISSION HEARING DATE: December 21, 2000

TRACT MAP 29606 (*Continued from the December 7, 2000 meeting*): Proposal of Webb Associates, on behalf of Dr. Yang-Chang Hong, to subdivide approximately 75.56 acres into 33 single family residential lots, situated northerly of Overlook Parkway, easterly of Wyndham Hill Road, and southerly of the Alessandro Arroyo, in the RC — Residential Conservation Zone.

BACKGROUND/PROJECT DESCRIPTION

H & L Hawarden Group is proposing to establish 33 single family residences on approximately 75.6 acres of vacant land within Alessandro Heights in the RC-Residential Conservation Zone. The site is generally bounded by Wyndham Hill Road to the east, Overlook Parkway to the north and the Alessandro Arroyo to the south and west. Existing surrounding development consists of single family residences on large estate lots to the west and south, and the Alessandro Arroyo to the north and east. Portions of the site lie within the limits of the Alessandro Arroyo and its tributaries as defined in the City's grading ordinance.

The site is characterized by rolling topography, including a series of ravines, ridgelines, natural water courses, including a blue line stream, and tributary segments of the Alessandro Arroyo. The project is designed as a conventional large lot subdivision, and the project for the most part avoids grading within the protected arroyo tributaries, as pads are situated on the flatter knolls and ridges. The project proposes 33 residential lots, with lots ranging from approximately 1 to 6.3 acres in size. The overall average lot size of 2.03 acres. Several lot size variances are requested to accommodate the project as proposed, and these are discussed in the body of this report. Grading to implement the project will involve establishing residential pads ranging from 19,000 to 27,000 square feet in size.

The project will be served by a public street system through an extension of Chateau View Drive and Chartwell Road. Three additional 66-foot streets will serve the site from the easterly extension of Chateau View Drive. Public stub streets are extended to the northerly and easterly property lines to provide access to the adjoining parcels.

The subject site was part of a tentative tract map TM 23664, approved in 1991. While two phases of this map recorded, the phase covering the subject property did not record, and the map expired in January, 2000. The lots situated south of the project site are within recorded phases of TM 23664. The current proposal is similar in design to the previously approved tentative map. However, at the time the original map was approved, the grading ordinance was not in existence. As a result, a series of deviations from the grading ordinance are now being requested. These are discussed in detail under the grading section of the report.

ANALYSIS

In reviewing this project, staff has the following comments:

- **General Plan/Zoning Considerations**

  The subject site is zoned RC — Residential Conservation and has a General Plan designation of RHS — Hillside Residential. The proposed project is consistent with the General Plan designation, and the proposed lot sizes are generally consistent with the requirements of the RC Zone. The RC Zone requires an average lot size of 2 acres, while the average lot size of this project is 2.03 acres. Although the overall density complies with Code standard, lot size variances are requested for eight of the proposed lots. These variances are discussed under the following Map Design analysis.

- **Map Design**

  The following table is a reference chart for each lot within the tract, listing Average Natural Slope (ANS) for each lot and each pad area as well as any required variances. Variances and Grading Exceptions noted in bold are those requested by the applicant. Those not in bold are exceptions or variances shown on the proposed map, which the applicant intends to eliminate by revising the map and grading plan.

Lot	Lot ANS (%)	Lot Size (in acres)	Pad ANS (%)	Pad Size (in square feet)	Variances	Grading Exceptions
1	19.1	2.05	17.0	21,000		
2	21.2	2.01	20.0	21,000		
3	14.7	1.10	13.3	27,000		Driveway
4	25.1	2.52	20.0	21,000		**Slope Height,** Driveway
5	24.1	3.13	18.1	21,000		Driveway
6	31.2	**3.93**	20.0	21,000	**Lot Size**	**Arroyo Setback,** Driveway
7	25.3	2.25	16.2	21,000		**Arroyo Setback**
8	17.3	**1.75**	21.0	21,000	**Lot Size**	
9	24.0	2.00	18.1	21,000		Driveway
10	23.5	2.01	18.1	21,000		Driveway
11	24.8	2.00	14.8	27,000		Driveway
12	25.1	2.00	14.1	27,000		

13	25.9	**1.39**	17.1	21,000	**Lot Size**	
14	22.9	**1.39**	17.1	21,000	**Lot Size**	
15	14.2	1.00	11.9	27,000		
16	12.8	1.00	11.9	27,000		
17	14.9	1.29	15.2	21,000		
18	13.5	1.05	11.9	21,000		
19	16.3	**1.38**	16.2	21,000	**Lot Size**	Driveway
20	31.8	6.30	21.0	21,000	Lot Width	**Arroyo Setback,** Driveway
21	19.2	**1.93**	16.2	21,000	**Lot Size**	
22	23.0	**1.53**	17.1	21,000	**Lot Size**	Driveway
23	22.1	**1.59**	20.0	21,000	**Lot Size**	Driveway
24	23.9	2.68	18.1	21,000		Driveway
25	14.6	1.13	17.1	21,000		Driveway
26	14.8	1.04	21.0	21,000		
27	26.6	2.08	11.1	27,000		
28	22.0	**1.83**	16.2	21,000	Lot Size	Driveway
29	29.9	2.31	19.0	19,000		**Slope Height, Arroyo Setback**
30	26.3	2.11	15.2	20,000		
31	28.2	2.25	21.0	21,000		**Arroyo Setback**
32	24.6	2.03	19.1	21,000		
33	28.1	3.01	19.1	21,000		**Arroyo Setback,** Driveway

Lot Size Variances

The overall density of the map complies with the RC Zone standard, with 33 lots in 67.15 net acres, for an average density of one unit per 2.03 acres. However, nine lots (Lots 6, 8, 13, 14, 19, 21-23 and 28), fail to comply with the minimum individual size standards of the RC Zone. Lot 6 has an ANS of 31.2% and is required to be at least 5 acres, but is proposed

at 3.93 acres in size. The remaining eight lots have an ANS between 16.3% and 25.9% and are required to contain at least two acres. These lots range from 1.38 to 1.83 acres in size.

The applicant-prepared variance justification findings are attached as Exhibit 6. The applicant cites topographical and street alignment constraints, along with improved map design and open space retention and maintenance issues as justification for the requested variances. In reviewing the applicant's request, staff is generally supportive of the requested variances. For eight of the nine lots, the applicant has demonstrated that they could comply with the lot size requirement by adjusting property lines. In most cases, adjustment of the lot lines to comply with the Code creates a series of awkward, irregularly shaped lots, much of which is within the open space area and not a usable part of the lot. As such, staff sees no benefit in redrawing lot lines to comply with the letter of the Code and would support lot size variances to accommodate a better project design with more logical lot configurations.

The exception is Lot 28, which is approximately 1.83 acres in size. In this case, minor adjustments between Lots 27 and 28 and minor modifications to adjoining street alignments would provide sufficient lot area to provide the required 2 acres in a logical manner. Staff recommends that the map be modified so that Lot 28 complies with the lot size requirements, and the applicant has agreed to make the necessary modifications.

Lot Width for Lot 20

The RC Zone requires that all lots with an ANS of thirty percent or greater also have a minimum lot width of two hundred feet at the building setback line. Lot 20, with a width of 180 feet does not comply with this standard. The applicant indicates that the common lot line between Lots 20 and 21 will be adjusted in order to allow Lot 20 to comply with the standard.

- **Open Space Conservation**

Apart from the proposed pad grading and street construction, a majority of the land under this map will be left undisturbed. Much of this undisturbed area lies within protected tributaries to the Alessandro Arroyo as defined in the City's grading ordinance. As such, it is important that these open space areas be defined and protected in perpetuity. The applicant has agreed to set aside all ungraded portions of the map in an open space conservation easement.

With these areas set aside, there are two options available to maintain this land in its natural state. Staff believes it would be most preferable to dedicate these areas either in fee or with an open space easement to an appropriate non-profit conservation agencies which have expertise and experience in managing natural areas, such as the Riverside Land Conservancy. In the event a suitable conservation organization cannot be found accept this property, it is recommended that a Homeowners Association be formed and charged with maintenance and stewardship of these areas. In addition, staff would recommend that an open space management plan be developed to ensure that a maintenance program is developed for the

open space. This plan should also specify fencing around the streets and pads to protect open space areas.

- **Location and Access**

The proposed map will extend both Chateau View Road and Chartwell Drive, 66-foot wide two-lane public streets that are currently stubbed to the subject property from the west. Chateau View Drive will be extended through the site to the southeasterly corner to provide access for off-site future development which may occur. Two new public streets will be established off Chateau View Road to provide access to the north, and another stub street will be extended easterly to provide access opportunities. Chartwell Drive will also be extended, completing a loop from Chateau View Drive to Wyndham Hill Drive.

The circulation system is relatively fixed. In conjunction with the previous map (TM 23664), public utilities easements and offers of street dedication were recorded which follow the proposed street alignments. These alignments were extended through subsequent utilities easements and offers of street dedication recorded on the adjacent property to the north.

Off-Site Access

In reviewing this project there is a concern with the provision of access to properties to the northeast of the site. In 1985, the Planning Commission approved TM 21156, a 36-lot subdivision generally located to the northeast of this map, with no direct connection to the subject property. Access to the subdivision was provided from Via Vista Drive to the east, as no streets existed to the west. Under the approved subdivision, Lot 36 of TM 21156 was created as a flag lot with access from Canyon Hill Drive. Access to the buildable westerly portion of the lot necessitates a private driveway or bridge crossing of the main branch of the Alessandro Arroyo. The lot has not yet been developed, nor has a permanent arroyo crossing been established. Subsequent to the approval of this map, the Alessandro Heights Study Grading and Arroyo Preservation Study and Grading Ordinance were prepared and adopted, and the adopted grading ordinance now prohibits private drive crossings of the major arroyos.

Although TM 21156 has long since recorded and points of access for each lot are fixed, the development of TM 29606 presents an opportunity to provide alternate access for Lot 36 of TM- 21156 without crossing the Alessandro Arroyo. Granting an access easement across Lot 20 would provide access from a public street (Peckham Road) to the southwesterly corner of TM 21156 Lot 36, where the building site is located. While easements from other abutting property owners would be required to provide functional access to this property, staff believes this represents an opportunity to reduce development impacts on the Alessandro Arroyo. Additionally, access from this location would result in minimal physical disturbance, as the topography is suitable for such a driveway. The owner of TM 21156 Lot 36 has verbally requested that such an easement be granted, and has agreed to waive access rights from Canyon Hill Drive. The applicant has agreed to provide this easement to

accommodate TM 21156 Lot 36. The specific easement alignment shall be subject to Planning Department and Public Works Departments review and approval.

- **Grading**

The overall grading for the tract provides for the proposed street system and residential pads between 19,000 and 27,000 square feet, involving manufactured slopes up to twenty feet in height. Manufactured slopes for the street grading are up to thirty feet in height. Earthwork quantities are unknown at this time. A number of grading exceptions for slope heights and grading within the Alessandro Arroyo are requested to implement the project as proposed, and are discussed below.

Manufactured Slope Heights

Lots 4 and 29 have manufactured slopes over twenty feet in height, which exceeds the maximum slope height permitted by the grading ordinance. The overheight slopes proposed for Lot 4 are associated providing vehicular access to a drainage inlet as required by the Public Works Department. The slopes proposed on Lot 29 vary between ten and thirty feet in height, and the overheight portions are associated with the extensions of Albacore and Chateau View Drives. Given that these overheight slopes are a result of fixed public facilities, staff is supportive of these two exceptions.

Grading within the Alessandro Arroyo Tributaries

This map proposes grading within protected tributaries of the Alessandro Arroyo, as set forth in the grading ordinance, in order to create graded pads and accommodate two public street crossings. As discussed previously in this report, the street alignment through the map is basically fixed and necessitates two crossings of tributaries, once by Chateau View Drive and a second by Peckham Road. The first crossing, between lots 6, 7, 29 and 33, involves grading both within the setback and within the bounds of the tributary itself. Inasmuch as the street alignment is fixed as discussed previously, staff supports the requested grading exceptions in this area.

The second crossing, between lots 19 and 20, involves filling in the headwater of a small arroyo tributary. This crossing will not sever any connections to other portions of the arroyo and will not destroy any significant topographical feature. Given that the crossings are necessary to serve this and the adjacent properties and that the proposed grading is limited, staff is supportive of this exception.

Grading exceptions for pads on individual lots are analyzed below.

Lot 6 Approximately one quarter of the proposed pad on this lot encroaches into the arroyo setback area, though not into arroyo itself. The proposed pad for this lot will not result in any fill slopes within the arroyo. Instead it will be cut and leveled to an existing contour.

The proposed pad could be shifted to the south to eliminate the encroachment, but this would involve filling the other drainage feature on the lot and removal or burying of some significant rock outcrops. The tributary to the south is not protected by the grading ordinance, but it is a steep feature within some major rock outcrops and should be preserved, in staff's opinion. Staff believes the proposed grading is appropriate given the constraints of the lot, and supports the requested grading exception. Staff would, however, recommend that a covenant be recorded prohibiting future building on that portion of the pad located within the arroyo setback.

Lot 20 The southwestern edge of the proposed pad encroaches up to about sixteen feet into the setback from the arroyo. Staff notes that this area of encroachment is relatively small (approximately 1,200 square feet in area) and does not involve any cut or fill slopes in the arroyo, instead daylighting at an existing contour. Eliminating the encroachment would result in an irregular pad that would not be a practical design and may interfere with the newly proposed private access easement. Staff, therefore, supports the requested exception.

Lot 29 Apart from the street crossing discussed above, the amount of encroachment for the pad, found at the western corner of the lot, is minor. It appears that this encroachment may be eliminated without negative impacts to the development of the lot and staff recommends that the grading be revised to provide the required setback.

Lot 31 The proposed graded pad on this lot is roughly triangular shaped and follows the contours of the portion of the arroyo that crosses the lot. A minor finger of the tributary juts into the lot, and the pad grading encroaches approximately 25 feet into the required setback from this finger. Staff can support this limited encroachment as the grading complies with the required setback for the main branch the arroyo.

Lot 33 This lot is located at a confluence of two smaller drainages, which creates limited opportunities for locating a pad. The proposed pad site selected for the proposed pad is the flattest of the three areas and is devoid of any significant rock features which occur elsewhere on the lot and will be protected in place. Relocation of the pad would require extensive filling of the tributary features and the removal or covering of sizeable rock outcroppings. Additionally, the encroachment area is adjacent to an area that will be disturbed due to the street crossing, which minimizes the visual impacts of such grading. While staff is supportive of the general pad location of the pad and supports some encroachment into the arroyo setback, it is recommended that all encroachment into the arroyo itself be eliminated and the encroachment into the arroyo setback be minimized to the extent feasible.

Driveways

The driveways depicted for lots 3-6, 9-11, 19, 20, 22-25, 28 and 33 are all twenty feet wide where the Grading Ordinance limits driveway width to 15 feet. The applicant has indicated that the driveways will be reduced to the maximum permitted width.

- **Environmental Considerations**

  There are several important environmental issues associated with this project that are discussed in detail in the initial study, and these issues are summarized below.

  Gnatcatcher Considerations

  The biological study for the project indicated the presence of coastal sage scrub habitat along the easterly project limit, which serves as potential habitat for the federally endangered California Gnatcatcher. Since no focused gnatcatcher survey was prepared, the site is presumed to be occupied. As such, the applicant will be required to prepare a Habitat Conservation Plan (HCP) and obtain an incidental take permit from the U.S. Fish and Wildlife Service. The biological study included specific mitigation measures related to when and how vegetation may be cleared, property mitigation through off-site habitat conservation, proper site access and project area maintenance. These measures have been incorporated into the recommended conditions of approval for the project.

  Wildlife Corridor

  The central drainage feature (behind Lot 7-16 and between Lots 29-33) is an important linkage between approximately fourteen acres of open space preserved within TM 26109 to the southeast and the main branch of the Alessandro Arroyo to the northwest (See Exhibit 5). The crossing of Chateau View Drive and related fill slopes will effectively create a barrier to animal movement along this corridor. Staff believes it is important to maintain opportunities for movement along this corridor. As such, it is recommended that a functional wildlife corridor be provided under Chateau View Drive, as determined by a qualified biologist and approved by the Planning Department. Options for maintaining the corridor may include the installation of one or more large culverts under the roadway, retention of a short natural span area under the roadway, or other alternative deemed appropriate by the biologist.

- **Neighborhood Compatibility Considerations**

  This map will accommodate a public street system and typical RC zoned subdivision of a size and configuration similar to what is found in the surrounding area. With the conditions regarding the establishment of open space areas and minimized grading, this map should be compatible with the surrounding residential neighborhood and sensitive to the existing natural features on-site.

RECOMMENDATION

That the City Planning Commission:

1. **APPROVE** Subdivision Case TM 29606, subject to the recommended conditions of approval and based on the following findings:

a. The proposed project is consistent with the RHS — Hillside Residential General Plan designation and RC — Residential Conservation Zone, as well as existing and planned development in the area.

b. As conditioned, this map is sensitive to the existing terrain and natural features found on-site. The proposed grading and open space areas will help protect and preserve the arroyos and topographical features within the map.

2. Determine that:

a. This proposed case will not have a significant effect on the environment because of the mitigation measures described in this report and recommend that the City Council adopt a Mitigated Negative Declaration;

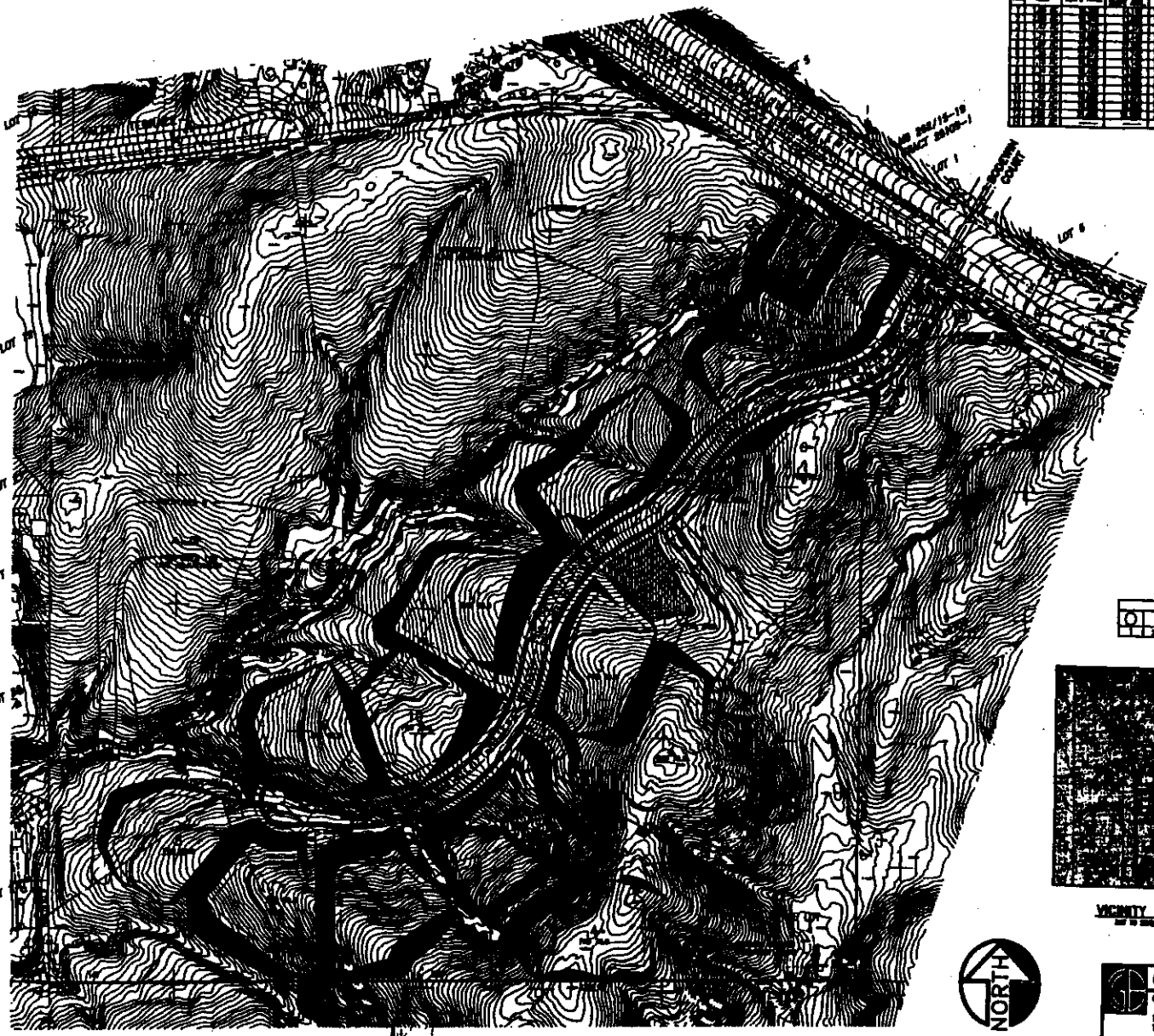
b. The proposed project could have the potential for adverse effects on wildlife resources and the applicant is responsible for payment of Fish and Game fees at the time the Notice of Determination is filed with the County.

EXHIBITS

1. Location/Zoning Map
2. General Plan Map
3. Aerial Photo
4. Proposed Subdivision Map
5. Open Space Connection Map
6. Applicant's Variance Justifications
7. Staff-Prepared Variance Justifications
8. Applicant's Grading Exception Justifications
9. Staff-Prepared Grading Exception Justifications

P03-1336/1337 - EXHIBIT 4

TENTATIVE TRACT MAP NO. 31859



12-390
ATTACHMENT D

VICINITY MAP

GABEL, COOK & BECKLUND
CIVIL ENGINEERS · LAND SURVEYORS
LAND PLANNERS

TENTATIVE TRACT MAP NO. 31859
PLANNED RESIDENTIAL DEVELOPMENT
BEING A DIVISION OF A PORTION OF THE
W½ OF THE SW¼ OF SECTION 12, T. 3 S.,
R. 3 W., S.B.M.

EXHIBIT 3 – 1998 Aerial Photo

12-391

CPC 1/22/04

P03-1336 (TM 31859) / 1337

CITY OF RIVERSIDE PLANNING DEPARTMENT

Tract Map

CONDITION

PLANNING COMMISSION HEARING DATE: February 19, 2004

PLANNING CASE P03-1530: Proposed Tract map, TM 32042 by Gabel, Cook and Becklund, Inc., to subdivide approximately 16.79 vacant acres into 8 single family residential lots, located at the easterly terminus of Talcey Terrace, southwest of Overlook Parkway in the RC - Residential Conservation Zone.

BACKGROUND/PROJECT DESCRIPTION

The project area is the westerly portion of a previous map, Tract 24016, and a Planned Residential Development application, PD-006-901, both approved by the City Planning Commission in September 17, 1992 with an expiration date of March 17, 1995. The original map proposed the subdivision of approximately 42.2 vacant acres into 21 single family residential lots and 3 open space lots. The map obtained two one-year time extensions authorized by State actions and three one-year time extensions approved by the City Planning Commission extending the map until March 17, 2001. The map subsequently expired and the applicant is proposing a new map which encompasses the easterly half of the original tract map. A separate subdivision and PRD has been submitted separately for the westerly half of the map. The original map has been split to provide independent street access for both the east and west portions. The original map proposed a private street connecting both sides of the map.

The project proposes to subdivide approximately 16.79 vacant acres into 8 single family residential lots. The map depicts residential lots located on either side of the north-south private street that is an extension of Talcey Terrace. The site is generally characterized by two gentle rolling hills on the east and west sides with minor drainages running through the project center and along the east project boundary. The average natural slope of the property is approximately 18 percent, with individual slopes ranging between 10 and 30 percent. Lots range between approximately 1.0 anf 3.8 acres in size.

The Planning Commission approved a tract map and planned residential development application, P03-1336 and P03-1337, on the easterly portion of the previous tract map in January 2004. This project requires several variances related to landlocked parcels on a private street and two lots that are substandard sizes per the RC Zone standards. These variances are described in detail in the staff report.

ANALYSIS

In reviewing this project, staff has the following comments:

- **General Plan/Zoning Considerations**

  The subject site is zoned RC - Residential Conservation with a corresponding General Plan designation of RHS - Hillside Residential. The RC Zone requires an minimum average net lot size of 2.0 acres. The proposed subdivision provides an average residential lot size of

approximately 1.99 acres. With a recommended modification to reduce the private street width consistent with City requirements, the net area within the project will be increased sufficiently to increase the average lot size to the required two acres.

This project requires variances to allow landlocked parcels as these lots are located along private street. The street complies with the minimum private street standards and it will adequately serve the eight lots. As such, staff is able to make findings in support of this request.

Two of the individual lots, 7 and 8, require variances from the minimum two acre lot size standard for lots with average natural slopes of more than 15%. These lots, with average natural slopes of 17.66% and 16.10%, are required to provide at least two acres. Lot 7 is 1.38 acres and Lot 8 is 1.54 acres. Given that the overall project complies with the average lot size requirement and that there would be no benefit in adjusting the lot lines solely to comply with the lot size standards, staff is able to make findings in support of the variance requests.

- **Location and Access**

The project area is located on the south side of Overlook Parkway, at the easterly end of Talcey Terrace. The property is currently vacant.

The proposed lots will take access from a single private street, approximately 480 feet long, off of Talcey Terrace. The original map, 24016, had an approved street in roughly this same location, although that street connected with Overlook Parkway east of this project area.

The entry design does not appears to conform with the City standard design for a gated entry and this will need to be redesigned if a gated private street is planned. It appears that there is sufficient space to provide a City standard turnaround without disrupting the project

Talcey Terrace, and its off-shoot street Brandon Court, is currently an approximately 2,100 foot long cul-de-sac off Golden Star Way that currently serves 23 existing and planned houses. This project will extend that cul-de-sac to a length of approximately 2,600 feet and add eight additional residences along its length. The City's Subdivision Ordinance limits cul-de-sac streets to no more than 600 feet in length and limits the number of residences along a cul-de-sac to no more than 16. The Subdivision Ordinance does make an exception for situations where the topography requires cul-de-sacs of greater length and it is under this provision that staff is supportive of the proposed extension. The area surrounding the project is characterized by rolling hills that make the creation of multiple streets and access points impractical and counter to the intent of the Grading Ordinance and RC Zone of preserving the hillside through sensitive development. The proposed design is also superior in that it eliminates a previously approved street crossing of the significant drainage feature that runs along the east boundary of this project. This design allows for that feature to be preserved while still allowing the existing and proposed houses to have adequate access. Additionally, neither the Fire Deaprtment nor the Public Works Department object to the circulation as shown.

- **Map Design**

The proposed design situates four lots on either side of the private street that runs roughly through the center of the project. The lots on the west side of the street, Lots 5-8, are regularly shaped lots The proposed residential lots range in size from 1.01 to 3.79 acres, with individual average natural slopes ranging from 11.78% to 20.06%. The following chart details the specifics of each lot.

Lot	Lot Size	Lot ANS	Pad ANS	Proposed Pad Size	Allowed Pad
1	3.61 acres	15.43%	11.08%	21,926 SF	27,000 SF
2	1.01 acres	11.78%	11.99%	20,870 SF	27,000 SF
3	1.19 acres	14.76%	15.34%	21,000 SF	21,000 SF
4	2.04 acres	19.85%	13.59%	20,600 SF	27,000 SF
5	3.79 acres	20.06%	13.58%	18,650 SF	27,000 SF
6	1.43 acres	14.92%	13.71%	20,780 SF	27,000 SF
7	1.38 acres	17.66%	15.30%	21,000 SF	21,000 SF
8	1.54 acres	16.10%	16.10%	20,050 SF	21,000 SF

Staff is supportive of the overall map design.

Grading

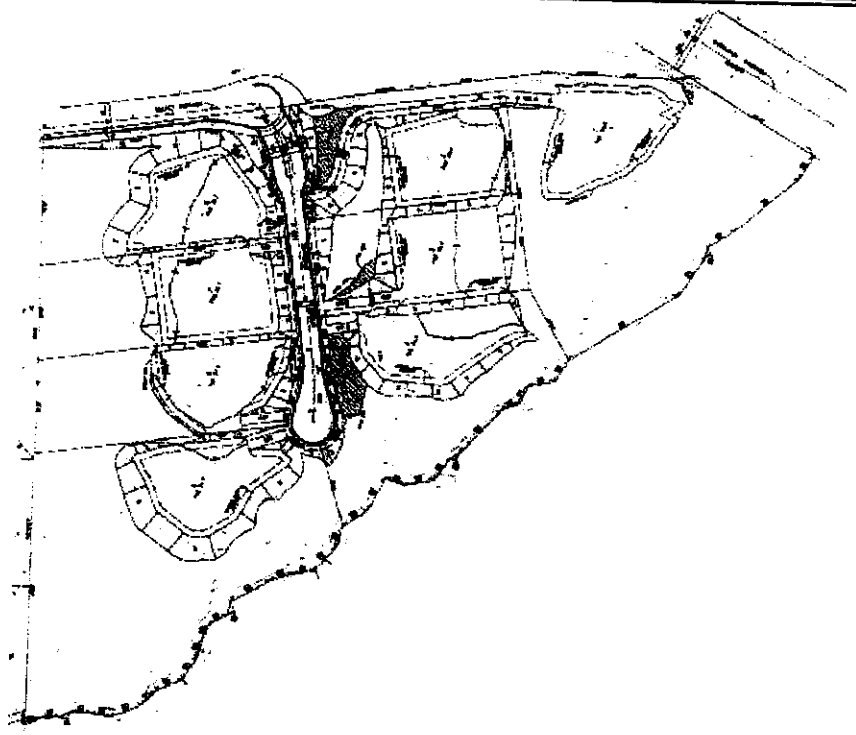
The proposed grading involves the creation of residential pads ranging in size from 18,650 to 21,926 square feet. The average natural slopes of the areas to be graded ranging between 11% and 16.1%. For those pad areas with less than 15% slope, the grading ordinance allows pads up to 27,000 square feet. For areas exceeding 15%, the grading ordinance allows up to 21,000 square feet of level pad area. In this instance, the proposed grading complies with all established standards of the hillside grading provisions of the Grading Ordinance.

- **Neighborhood Compatibility Considerations**

This project is generally consistent with the previously approved map from this property. The design review requirement for this entire project will ensure visual compatibility of the houses and recreational area with the surrounding development. With the recommended conditions, this project meets the average lot size requirement of the RC Zone and will be consistent with the surrounding development.

Tm 32042

EXHIBIT 5 – Proposed Grading Plan



CPC 2/19/04

P03-1530

CITY OF RIVERSIDE, PLANNING DEPARTMENT

Tract Map/Planned Residential Development

PLANNING COMMISSION HEARING DATE: January 22, 2004

PLANNING CASE P03-1336: Proposed Tract Map 31859 by Bill Gabel, on behalf of Overlook Park Associates LLC, to subdivide approximately 24.64 vacant acres into 12 single family residential lots, 1 common recreation lot and 1 open space lot, situated on the south side of Overlook Parkway, east of Talcey Terrace and west of Bodewin Court in the RC - Residential Conservation Zone. (*This case is being heard concurrently with P03-1337.*)

PLANNING CASE P03-1337: Proposed planned residential development by Bill Gabel, on behalf of Overlook Park Associates LLC, to establish a 12 detached single family dwellings private and common open space on approximately 24.64 acres, situated on the south side of Overlook Parkway, east of Talcey Terrace and west of Bodewin Court, in the RC - Residential Conservation Zone. (*This case is being heard concurrently with P03-1336.*)

BACKGROUND

The project area is the easterly portion of a previous map and Planned Residential Development (Tract 24016, and a, PD-006-901), approved by the City Planning Commission in September 17, 1992 with an expiration date of March 17, 1995 (see Exhibit 8). The original map proposed the subdivision of approximately 42.2 vacant acres into 21 single family residential lots and 3 open space lots. The map obtained two one-year time extensions authorized by State actions and three one-year time extensions approved by the City Planning Commission extending the map until March 17, 2001. The map and PRD subsequently expired, and the applicant is proposing a new map and PRD encompassing the easterly half of the original tract map.

PROJECT DESCRIPTION

The project proposes to subdivide approximately 24.64 vacant acres into 12 single family residential lots, 1 common recreation lot and 1 open space lot. The map depicts residential lots located on either side of the private street, with the common recreation lot located adjacent to Overlook Parkway and the project entrance. The Prenda Arroyo runs along the southeast corner of the project area and the proposed grading plan will not encroach into the limits of the arroyo and 50-foot development setback. The site is generally characterized by a central ridgeline with drainages on the east and west sides. There are a few rock outcrops toward the south project boundary, which are planned to be preserved on-site. The average natural slope of the property is approximately 18 percent, with individual slopes ranging between 10 and 30 percent.

ANALYSIS

In reviewing this project, staff has the following comments:

- **General Plan/Zoning Considerations**

The subject site is zoned RC - Residential Conservation with a corresponding General Plan designation of RHS - Hillside Residential. The RC Zone requires an minimum average net lot size of 2.0 acres. The proposed subdivision provides an average residential lot size of approximately 1.54 acres. This is consistent with the provisions of the City's PRD standards, which permit a benchmark density of .5 units per gross acre, and in this case would permit up to 12 units. An analysis of the PRD is provided later in this staff report.

This project does require variances to allow landlocked parcels and to allow substandard lots sizes as a result of the Planned Residential Development application. Although the proposed project complies with the density allowed under a PRD, the lots sizes are now substandard in size and require lot size variances. Staff is able to make findings in support of both variance requests since adequate street access will be provided for all resulting lots and given that this project involves a PRD designed to cluster lots with the intent to preserve open space.

- **Location and Access**

The project area is located on the south side of Overlook Parkway, between Chabot and Bodewin Courts. The property is currently vacant.

The proposed lots will take access from a single gated private street, approximately 1500 feet long, off of Overlook Parkway. The original map, 24016, had an approved street in roughly this same location, although that street connected with Talcey Terrace. The entry design appears to conform with the City standard design already, but modifications may be required by the Public Works Department if it does not when street plans are designed.

- **Map Design**

Staff is supportive of the overall map design. However, since all the residential lots are located along a private street, without direct frontage on a public street, the Code considers them landlocked. These lots require variances to allow as proposed. Given that the proposed private street provides adequate access from this project staff is supportive of this request

Grading

The proposed residential lots range in size from 1.03 to 2.34 acres, with individual average natural slopes ranging from 13.75% to 22.67%. Lots 1, 3-7, 9, 11 and 12 all have average natural slopes of more than 15% and the Code requires a minimum lot size of 2 acres when this occurs. However, each of the proposed lots is less than 2 acres in size and each requires a lot size variance to allow this configuration. The following chart details the specifics of each lot.

Lot	Lot Size	Lot ANS	Pad ANS	Proposed Pad Size	Allowed Pad
1	1.84 acres	16.39%	14.11%	21,000 SF	27,000 SF
2	2.03 acres	16.24%	13.00%	21,000 SF	27,000 SF
3	1.47 acres	16.72%	16.37%	21,000 SF	21,000 SF
4	1.71 acres	19.06%	18.44%	21,000 SF	21,000 SF
5	1.07 acres	22.39%	22.59%	20,800 SF	21,000 SF
6	1.26 acres	22.67%	21.74%	21,000 SF	21,000 SF
7	1.19 acres	18.83%	19.14%	20,440 SF	21,000 SF
8	2.34 acres	18.48%	13.58%	20,800 SF	27,000 SF
9	1.31 acres	21.53%	15.90%	20,260 SF	21,000 SF
10	1.03 acres	13.75%	13.28%	21,000 SF	27,000 SF
11	1.47 acres	18.85%	13.47%	20,990 SF	27,000 SF
12	1.76 acres	18.69%	15.68%	21,000 SF	21,000 SF
13	2.00 acres (Common Recreational Lot)	21.49%	21.20%	36,850 SF	21,000 SF
14	2.63 acres (Open Space)	N/A	N/A	N/A	N/A

The proposed grading involves the creation of residential pads ranging in size from 18,800 to 21,000 square feet. The average natural slopes of the areas to be graded ranging between 13% and 22.59%. For those pad areas with less than 15% slope, the grading ordinance allows pads up to 27,000 square feet. For areas exceeding 15%, the grading ordinance allows up to 21,000 square feet of level pad area. In this instance, the applicant has limited all residential grading to a maximum of 21,000 square feet, regardless of whether additional area is permitted.

The proposed pad for the recreational lot, at 36,850 square feet with an average natural slope of 21.2%, exceeds the maximum allowable graded by 15,850 square feet and it requires a grading exception to allow as proposed. As this lot is intended to reduce the amount of future grading by providing typical residential amenities thereby minimizing the likelihood that each individual residence will propose similar construction in the future, staff is able to support this request.

Five of the proposed lots, 1, 2, 8, 10 and 11, have pads at or below 21,000 square feet where the grading ordinance would allow up to 27,000 square foot pads on each of these lots. The overall savings in grading on the residential lots by this limitation is 30,210 square feet.

While the pad proposed for the common recreation lot is 15,850 square feet larger than allowed, this area is less than the amount of grading that could be done as a matter of right on these five residential lots. This results in a net savings of approximately 14,360 square feet of graded area, even though the pad on Lot 13 is somewhat larger than allowed. Based on this net reduction in the amount of grading proposed with the maximum allowed within this project, staff is able to support the requested graded exception.

Recreation Lot

A common recreation lot is located on the west side of the private street, directly adjacent to Overlook Parkway. This recreation area is planned to have a playground, turf area and tennis court and will be for exclusive use of the residents on within the gated development. The intent of this common recreation area is to decrease the likelihood of residents constructing private improvements on individual lots and possible requiring additional grading.

Prenda Arroyo/Biological Issues

A portion of the Prenda Arroyo crosses the southeast corner of the property. The design of the map locates all residential grading and street construction outside the designated arroyo boundaries and setback. No disturbance of this area is proposed. The biological report for this project concluded that no significant impacts would result from the development of this project. The entire project area is located in designated Stephen's Kangaroo Rat habitat and will be subject to compliance with the County's Habitat Conservation Plan, which involves the payment of mitigation fees. No permits from any State agency will be required for this project.

Lot 14

One the final map submitted for recordation, staff recommends that Lot 14 be converted to a lettered lot. The City requires all numbered lots to be provided with utilities connections for adequate service. As this lot is planned to be passive open space, with no need for utilities service, converting it to a lettered lot will eliminate this connections requirement.

- **PRD Considerations**

Per Section 19.65.010 of the Zoning Code, planned residential developments are intended to provide a greater flexibility in the design of residential properties, to promote a more desirable living environment, and to encourage a more creative approach in land development; a variety of housing types and environments; a more efficient use of the land; the provision of greater amounts of open space and amenities for recreational and visual enjoyment; and the preservation and enhancement of valuable natural areas. It is adherence to these standards and the provision of a unique land use plan that determines whether the PRD application should be approved.

EXHIBIT 'O'

ENVIRONMENTAL SERVICES . PLANNING . NATURAL RESOURCES MANAGEMENT

July 9, 2004

Alicen Clark Wong
Gresham Savage Nolan & Tilden,
550 East Hospitality Lane, Suite 300
San Bernardino, California 92408-4205
Tel (909) 890-4499 Fax (909) 890-9690

Subject: Review of Previously Prepared Biological Assessments for Tract map 31930 in the City of Riverside, California.

Dear Ms. Wong:

As requested, Michael Brandman Associates (MBA) conducted a review of the previously prepared biological reports on the 151.8-acre property in the Arlington Heights area of Riverside, California. This review included the critical reading of a Biological Assessment Report (RB Riggan and Associates, 2000), a California gnatcatcher focused survey report (RB Riggan and Associates 2001), a jurisdictional delineation (MBA 2003), a habitat assessment on a proposed sewer line within the project boundary (MBA 2003, Attached), and as a follow up, a site visit was conducted on July 5, 2004 by MBA biologist, Nina Jimerson.

Since the 2000 and 2001 reports were prepared, approximately half of the project site has been developed. TM 28728, Phase 1 was completed with a total of 23 lots on 38.4 acres. Phase 2 was completed shortly thereafter with 14 lots on 23.86 acres. Phase 3 expired and has been incorporated into TTM 31930, for the remaining 86.31 gross acres, including 29 residential and 5 open space lots.

Upon completing the review of the literature and the site visit, it was determined that the previously prepared biological reports are sufficient in relaying the current conditions of the site, with the exception of the removal of the northeastern 62.26 acres (TM 28728 Phases 1 and 2). The conditions of TM31930 are consistent with the findings of the 2000 and 2001 reports prepared by RB Riggan and Associates. The quality of habitat has not changed in the past 4 years and no new sensitive species are expected to occur on the property. Additionally, although the report prepared by MBA in December 2003 (attached), does not address the entire site, it does document the existing conditions in the location of the sewer line proposed within the project site. These reports document conditions which are consistent with current conditions onsite, therefore, the recommendations contained in the report remain appropriate.

With site conditions being consistent with the previously prepared reports, it is not necessary to complete any additional surveys of the site. Additionally, with the adoption of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the City, under the direction of the County, may

require that a per-unit mitigation fee (approximately $1,650 per dwelling unit) be paid as required by County Ordinance 810.2.

It is MBA's understanding that because the site falls within an area designated as Critical Habitat by the U.S. Fish and Wildlife Service (USFWS) and the project site had a Federal Nexus due to the drainages being under the Jurisdiction of the Army Corps of Engineers (USACE) that a biological opinion and subsequent "take" permit was issued by the agencies for the take of Critical Habitat. Because of this, it may be argued that the loss of habitat has already been compensated by mitigation negotiated through the Biological Opinion and that an additional County mitigation fee should not be required.

In Conclusion, it is MBA's opinion that the impacts on the natural communities associated with this project have been clearly defined and mitigated. Additionally, the design of the project has avoided the most sensitive areas, namely the drainage features associated with the Alessandro Arroyo. MBA does not recommend any further biological studies on the project site, or any additional mitigation requirements.

Should you have any further questions regarding this project, please do not hesitate to call me at (909)884-2255.

Sincerely,

Nina Jimerson
Project Biologist

NLJ:sep
H:\Client\2619\26190002\July 7.doc

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

December 15, 2003

Mr. Jim Guthrie, President
Jim Guthrie Construction Inc.
4225 Garner Road
Riverside, CA 92501

SUBJECT: Biological Due Diligence for Tentative Tract Map 31930 in the City of Riverside, Riverside County, CA

Dear Mr. Guthrie,

This report contains the findings of Michael Brandman Associates' (MBA) biological due diligence investigation of Tentative Tract Map 31930, hereafter referred to as the project site. The project site is located in the City of Riverside, Riverside County. This report includes a literature review and a site assessment that identifies the potential significant biological resources related to the proposed development of the project site.

Project Description and Location

The proposed project consists of installing a new sewer line and access road in the open space area within Tentative Tract Map 31930 The project will likely require minimal grading and excavation for the installation of the sewer line and sewer access road. The sewer line originates for the adjacent residential development to the north (TTM 28728-2) and flows to the south until it reaches the intersection of Grass Valley Way and Century Hills Drive.

The project site is located in the central portion of the City of Riverside, California. The project site is southeast of State Highway 91. Tract 31930 is located north of Alessandro Arroyo, south of Trafalgar Avenue, east of Victoria Avenue, and west of Alessandro Boulevard. Tract 31930 is located directly south of Tract 28728-2. This tract is depicted on the Riverside East United States Geological Survey (USGS) 7.5-minute topographic map.

Methodology

A preliminary literature review followed by a field assessment provided information regarding the biological conditions of the project site. MBA biologist Scott Crawford conducted a field survey on December 4, 2003. The objective of the field survey was to document the existing conditions on the project site and to identify potential biological resources with regard to property development.

220 Commerce, Suite 200, Irvine, CA 92602 714.508.4100 FAX 714.508.4110

Inland Empire 909.884.2255 Kern County 661.334.2755 Bay Area 925.730.0061

www.brandman.com EMAIL mba@brandman.com

Literature Review

Prior to the survey, a records search was conducted using a current version of the California Natural Diversity Database (CNDDB) for information on sensitive biological resources known to occur in the Riverside East and Riverside West topographic quadrangle. The California Native Plant Society Electronic Inventory (CNPSEI), the U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Game (CDFG) sensitive wildlife lists were also reviewed. Special status wildlife species include all federal- and state-listed endangered and threatened species, former federal candidate species, and California species of special concern. Field guides and other literature pertinent to the project were also reviewed.

Field Survey Methods

The biologist conducted a general pedestrian survey of the project site. The biologist focused on sensitive areas of the project site that potentially supported sensitive species as well as any jurisdictional drainage areas. The biologist referred to a USGS 7.5-minute topographic map, as well as an aerial photo and Tentative Tract Map for reference while conducting the survey. The survey was not conducted in order to document all of the plant and wildlife species that potentially occur within the site, rather, a general reconnaissance survey was conducted to understand the existing site conditions in order to provide recommendations for focused surveys that may be needed.

Existing Conditions

The weather conditions during the site visit were cool with a temperature of 62 degrees Fahrenheit, wind speed approximately 2 miles per hour, and no cloud cover. The project site is located in a disturbed non-native grassland plant community with gently rolling topography. The general condition and abundance of flora at the time of the survey was relatively poor and was dominated by non-native weed species.

The sewer line alignment is parallel to an existing upland swale that flows to the south. The sewer line right-of-way is located to the west of the drainage and remains in an upland portion of the project site. Plant species observed on this parcel include red-stemmed filaree (*Erodium cicutarum*), ripgut brome (*Bromus rigidus*), slender oats (*Avena barbata*), black mustard (*Brassica nigra*), Russian thistle (*Salsola tragus*), and dove weed (*Eremocarpus setigerus*)

Wildlife species observed on the project site are typical of those species found commonly in urban and grassland communities and include western meadowlark (*Sturnella neglecta*), killdeer (*Charadrius vociferus*), and northern mockingbird (*Mimus polyglottos*).

The surrounding land use consists of residential developments located to the north and west and vacant land to the south and east of the project site.

Sensitive Species

The literature review and CNDDB database search (RareFind 2003) indicated that seven special status plant species, nineteen special status wildlife species, and three sensitive plant communities have been reported as occurring in the Riverside East and adjacent Riverside West quadrangle. These species include the following:

Sensitive plant species include:

- San Diego ambrosia (*Ambrosia pumila*)
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- Rayless ragwort (*Senecio aphanactis*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- Parish's desert-thorn (*Lycium parishii*)

Sensitive wildlife species include:

- Western spadefoot toad (*Scaphiopus hamondii)*
- Cooper's hawk (*Accipiter cooperii*)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- Burrowing owl (*Athene cunicularia*)
- Coastal California gnatcatcher (*Polioptila californica*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Arroyo chub (*Gila orcutti*)
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. 3)
- Santa Ana sucker (*Catostomus santaanae*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)
- Stephens' kangaroo rat (*Dipodomys stephensi*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- San Diego horned lizard (*Phyrnosoma blainvelli coronatum*)
- Orange-throated whiptail (*Cnemidophorus hyperythrus*)
- Coastal western whiptail (*Cnemidophorus tigris stejnegeri*)
- Northern red-diamond rattlesnake (*Crotalus exsul ruber*)

Sensitive plant communities include:

- Southern cottonwood willow riparian forest
- Southern sycamore alder riparian woodland
- Southern willow scrub

Based on the current plant communities occurring within the project site and the location of known recorded occurrences of the above mentioned special status species, Stephens' kangaroo rat (SKR), which occurs in disturbed scrub and grassland habitats, has a moderate potential to occur within the project site. The remaining sensitive species have a low potential for occurrence due to the lack of suitable habitat. No sensitive plant communities were observed on the project site.

Conclusions and Recommendations

The following recommendation has been made with regard to the sensitive wildlife species that potentially occur within the project site. The SKR is a federally-listed endangered species and has a moderate potential to occur on the site. Although the project site is located within the known range for the SKR, the site is located within the established SKR Riverside County 10(a)-Permit fee area. Based on the current Riverside County protocol regarding this species, a one-time fee based on project size is required in order to proceed with project development.

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County recently adopted by the County. The goal of the MSHCP is for maintaining biological and ecological diversity within a rapidly urbanizing region. The project site is within the current MSHCP boundary.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the Wildlife Agencies will allow signatories of the IA to issue "take" authorizations for all species covered by the MSHCP, including state and federally listed species as well as other identified sensitive species and/or their habitats. Each city or local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the City of Riverside and compliance with the survey requirements of the MSHCP, where required, full mitigation in compliance with CEQA, NEPA, CESA, and FESA will be granted. The Development Mitigation Fee will vary according to project size and project description. The estimated fee for residential development ranges from approximately $800 per unit to $1,600 per unit depending on development density (County Ordinance 810.2).

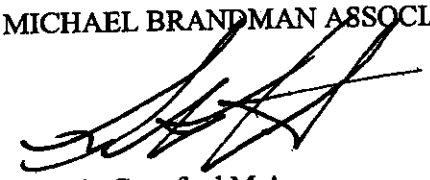
Under the adopted MSHCP, the County of Riverside may require additional habitat assessments for burrowing owl and narrow endemic plant species. This letter report provides a habitat

assessment for burrowing owls and narrow endemic plants. The proposed project site does not contain any suitable habitat for burrowing owl or narrow endemic plant species. Therefore, a separate habitat assessment is not required by the County prior to issuance of grading permits.

Please feel free to call me if you have any questions concerning the information in this report. We look forward to assisting you with work on this and other project sites.

Sincerely,

MICHAEL BRANDMAN ASSOCIATES



Scott A. Crawford M.A.
Project Manager

SAC:ap

H:\Client (PN-JN)\2488\24880001\24880001_Due Diligence.doc

Biological Assessment

A Biological Assessment of Tentative Tract 28728 In the City of Riverside County of Riverside, California

Prepared For:

Dr. Yang Chang Hong
2193 Hackamore Place
Riverside CA 92506

Prepared By:

RBRiggan and Associates
11228 Zapata Avenue
San Diego, California 92126

30 October 2000
Revised 15 August 2001
RBR Job Number 1810.86A

12-408

EXHIBIT III
Biological Report

Table of Contents

Attachments:

Attachments (continued):

Appendix:

A Biological Assessment of Tentative Tract 28728 In the City of Riverside County of Riverside, California

I. BACKGROUND AND SUMMARY

RBRiggan and Associates was retained to prepare an "updated" comprehensive biological assessment for the City of Riverside Tentative Tract 28728. This report details the results of that field effort. The Tract encompasses an area of approximately 151.8-acres and lies at the north end of the Alessandro Heights Community, north of the Alessandro Arroyo and flood control basin (see Figures 2 and 3). Approximately 60.12 acres will be dedicated as open space, including the portion of the Alessandro Arroyo that lies within the property boundaries. Adjacent properties to the north are developed as older, urban, single-family detached subdivisions. Properties to the east are residential and range from recent construction to well developed neighborhoods, while the properties to the south include large, undeveloped Tracts within Alessandro Heights. To the west of the Tract are large lot residential homes with extensive horticultural plantings. Tract 28728 is part of an on-going burst of development that includes much of the Alessandro Heights area. Numerous tracts are presently under construction around the periphery of the Arroyo.

Tract 28728 lies on a portion of the Perris Plain and is underlain by undifferentiated granodiorites of the southern California batholith. Surficial soils are sandy loams (decomposed granite) and there are scattered bedrock outcrops and residual boulders (see Figures 4 and 5).

Tract 28728 is presently occupied by a ruderal vegetation (a non-native grassland or Old Field Association), a limited Riversidian Upland Sage Scrub and Southern Willow Scrub (see Figure 7). The first community dominates the northern 80-percent of the site is characterized by a preponderance of invasive weed species. The second community is localized on-site (on steeper slopes in the southern part of the property) and includes, California Sagebrush (*Artemisia californica*), White Sage (*Salvia apiana*), Flat-topped Buckwheat (*Eriogonum fasciculatum* ssp. *foliolosum*) and Brittlebush (*Encelia farinosa*). The third community is found along the Alessandro Arroyo and is dominated by Willows (*Salix* sp.), Mulefat (*Baccharis salicifolia*), and Cottonwoods (*Populus fremontii*).

The dry drainage swales that cross the property differ (in some cases) vegetatively from the surrounding slopes. They have been characterized as "Dry Wash Eclectics" for the purposes of this report and are discussed further in the Vegetation and Flora section.

During the course of the survey, a concerted effort was made to identify both plant and animal forms

considered threatened, endangered or otherwise sensitive. No sensitive plant species were located during the various surveys of the site and the potential for occurrence of such species is considered low given the massive, prior disturbance of the site (most of the site was mechanically cleared in the early 1990's: J. Mays, personal communication, October 2000). During the survey, special attention was given to locating any sign indicative of the Stephens' Kangaroo Rat (SKR). Active kangaroo rat burrows and scat were found throughout the less steeply sloped portions of the site. Of the151.8-acre Tract, approximately 46.0-acres is occupied by a low density population of the Stephens' Kangaroo Rat. In addition to the SKR, four other sensitive species were also observed on the subject property; the San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*), the San Diego Desert Wood Rat (*Neotoma lepida intermedia*), the Orange-throated Whiptail (*Cnemidophorus hyperythrus beldingi*) and the Ashy Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*). No other threatened or endangered species were observed (for additional information see discussion of Coastal California Gnatcatcher and selected other species in the following sections of the report).

Development of the Tract Map will result in the following ***potential significant*** effects on the existing Biological Resources:

1. Loss of a low density population of Stephens' Kangaroo Rat, one that occupies approximately 46.0-acres;

2. The filling of as much as 4,600-lineal feet of "non-wetland waters of the United States" including roughly 600-lineal feet (a total of approximately 0.35-acres) of stream bed definable as a wetland under Department of Fish and Game practices (meets one of the three criteria); and,

3. Loss of2.9-acres of non-occupied Riversidian Sage Scrub and the loss of 2.6-acres of heavily disturbed, non-occupied Riversidian Sage Scrub habitat within designated Critical Habitat for the California Gnatcatcher.

Mitigation of these significant impacts can be accomplished through:

1. Payment of an appropriate fee and the consequent participation in the existing, regional, 10(a)-Permit for the Stephens' Kangaroo Rat. This payment will reduce the anticipated impact to the species to a level of insignificance.

2. Prior to grading that will disturb jurisdictional "wetlands," obtain from the California Department of Fish and Game a section 1603-Agreement and from the United States Army Corps of Engineers, obtain a section 404-permit.

3. Both State and Federal policies mandate "no net loss of wetlands." In addition, a 3:1 replacement for the loss of "wetland" habitat value is generally considered appropriate mitigation. In that this Tract will dedicate an extensive area of wetland along Alessandro Wash to permanent open space, that dedication should serve as mitigation for two of the three required credits inherent in the 3:1 ratio. The third credit must be "created" or "new"

wetland. To meet this requirement it is recommended that a 0.5-acre credit in an appropriate wetland mitigation bank be purchased by the developer. This mitigation (in company with the following) will reduce the anticipated "wetland" impacts to an insignificant level.

4. In order to assure the continuity of the wetland and related habitats in the designated open space lands, it is recommended that either (a) the lands be transferred in fee title to an appropriate non-profit [501(c)(3)] organization (or other entity approved by the wildlife agencies) or (b) that an irrevocable conservation easement over the lands be transferred to such an entity, along with an appropriate non-wasting endowment. The amount of the endowment to be determined by the accepting entity.

5. The conservation on-site of 11.0-acres of disturbed Riversidian Sage Scrub and of 9.6-acres of relatively intact Riversidian Sage Scrub, exceeds the normal 3:1 mitigation ratio applied by the Fish and Wildlife Service to such habitats. This mitigates the impacts to Sage Scrub to a level of insignificance.

II. METHODOLOGY

A portion of Tentative Tract 28728, known as Tentative Tract 28728-2 was the subject of an intense ground survey on 28 September and on 10 October 2000. Both of the undersigned participated in the first survey effort but only the senior author participated in the second field date. The property survey consisted of a series of pedestrian transects walked the length of the property. Every effort was made to insure that each of the micro-habitats present on the site were examined in detail. Weather conditions at the time of the first survey (between 1030 and 1200 hours) were warm, dry, dead calm and with a solid cloud cover. The weather conditions at the time of the second field effort (between 0745 and 1030 hours) were cool (air temperatures in the low 60's), humid, with broken cloud cover and a light wind (4-7 mpg) out of the west. The weather on the second field date was dominated by a low pressure system that had passed through western Riverside County that morning, leaving a light rain (the first of the season).

The remaining portions of Tentative Tract 28728 were surveyed on 19 October and 24 October 2000. Both of the undersigned participated in these two surveys. The field survey on 19 October occurred between 0945 and 1315 hours, and between 1600 and 1730 hours. The weather was warm and sunny (on average the air temperatures were in the high 60's to low 70's). The field survey on 24 October occurred between the hours of 0900 and 1215. Again the weather was warm, dry and sunny (air temperatures were in the high 60's to low 70's).

An additional field survey and federal protocol California Gnatcatcher survey was mounted during the spring of 2001. The six field dates and the weather conditions are outlined in the Gnatcatcher report, which is presented as Appendix A of this document. As an adjunct to the Gnatcatcher field effort, some limited additional observations of the southern part of the Tract were accomplished by means of a directed spring survey for sensitive plant species.

The goals of the survey effort were:

1. To develop an overall picture or snap-shot of the existing biological resources including the species present and the habitats present, and, specifically:

2. To determine the presence or absence of any populations of sensitive plant or animal species, (such as the Stephens' Kangaroo Rat), and to delineate the occurrence of such populations, if any.

3. To determine the presence or absence of wetlands or similar, sensitive habitats.

In order to meet the above outlined goals, all sign (including scat, tracks and others), direct observation, and auditory inputs (such as songs and calls) were utilized to identify the animal species present. Standard naming references are listed in the References Cited section of this report. Plant identifications were made in the field with some material collected for laboratory analysis.

III. PHYSICAL ENVIRONMENT

Geological Structure. The 151.8-acre property consists of gently eroded hills on a part of the Perris Plain (a Pliocene erosional surface). Various drainages are incised into the eroded hills, all eventually draining into the arroyo at the south of the property. The entire site is underlain by undifferentiated granodioritic rocks of the Box Springs Mountain complex (Greenwood, and Morton, 1991). These rocks are generally deeply weathered but bedrock outcrops and some residual boulders occur at scattered stations on the property (see Figure 4).

Biological Soils. Despite the size of the property, it is overlain almost exclusively by a single surficial soil type the Cieneba rocky sandy loam (Knecht, et al., 1971). The Cieneba Series is ". . . excessively drained soils on uplands. . . . formed in coarse-grained igneous rock." A typical section is 22-inches in depth, over weathered granodiorite. Due to past clearing of much of the property it is anticipated that a significant part of this soil has been carried by sheet erosion — over the years — into the Arroyo. The Arroyo itself is occupied by a "soil" best described as an entisol, the alluvial result of recent erosion and deposition.

Water Resources. The Tract lies on a series of hills and ridges that form part of the north and northeast side of the Alessandro Arroyo. A portion of the Arroyo itself and the Alessandro Reservoir (a normally dry flood control dam and pool) also lie within the Tract's boundaries. No other water sources (other than the perennial flow of the Alessandro Arroyo) were identified during the course of the project survey. No springs, seeps, or other permanent water sources were found.

The only exception to this was located at the terminus of Cresthaven Drive on the norther property boundary. There appears to be a permanent flow (from yard irrigation) in the gutter on the west side of the street. This flow has been directed through a shallow ditch (12-inches wide and perhaps 6-

inches deep; see Figure 12) across the end of the paved street to dump into the draw on the east side of the street. This permanent flow has created a tiny, definable wetland at the end of the street. This "resource" is discussed further under the Sensitive Habitats section of the report.

IV. BIOLOGICAL RESOURCES

This Biological Assessment and the following discussion of resources is for the approximately 151.8-acres that are included within the boundaries of Tentative Tract 28728. Included within this discussion are both Tract 28728-2, for which a separate report was recently filed with the City of Riverside and the unbuilt (but graded) portions of 28728-1. The latter Tract occupies the essentially northeast 40-acres of the larger subdivision and has been finished graded. Roughly the north half of 28728-1 has been built as single-family detached homes while the southern half is a series of graded lots with streets, curbs, gutters, and infrastructure installed.

A. Vegetation and Flora

Old Field Association. Typically, vegetation associations can be keyed to Holland (1986). This vegetation classification scheme is widely used in the state and is the one typically utilized by the California Department of Fish and Game. However, the majority of the vegetation on the subject property does not fall within a vegetative association defined by Holland. Rather, the site is dominated by what can best be described as an Old Field Association — or as a ruderal association or as a non-native grassland. An "Old Field Association" is an artificial construct used to describe the adventive, native and nonnative, "weedy" association of plants typically found on abandoned agricultural fields. It is believed that the Old Field Association found on-site can be attributed to a variety of factors including clearing, fire, and to extensive sheep grazing of the property (see Figures 4 through 6). A listing of all plant species observed on-site has been included as Table 2 and the reader's attention is directed to that annotated table for a more detailed accounting of the individual plants present within the Tract.

Within Tract 28728 the following plants are typical of Old Field Association:

White-stemmed Filaree	*Erodium moschatum*
Red Brome	*Bromus madritensis rubens*
Wild Oats	*Avena barbata*
Rip-gut Grass	*Bromus diandrus*
Virgate Sand Aster	*Corethrogyne filaginifolia virgata*

A number of species, which cannot be seen during the fall of the year due to their annual nature and fragile construction (they don't stand up well to wind and light during the summer), are also suspected but cannot be reported due to the season. Species such as Red Maids (*Calandrinia ciliata*) and Dwarf Lupine (*Lupinus bicolor*) are undoubtedly common on the disturbed soils (and both were observed during the spring 2001 field work).

The Old Field Association provides virtually no cover for wildlife and offers little by way of food resources. For much of the area within Tract 28728, recent fire (during late 1999 and again during late 2000 and spring 2001), sheep grazing and the low rainfall received during the precipitation year just ending, all contributed to even further reduction in the diversity and stature of the plants that make up the Old Field Association.

Riversidian Upland Sage Scrub. This sage scrub association (Element Code 32700; Holland 1986) is found in localized areas of the project site (see Figure 7). According to Holland, this scrub is the most xeric expression of Coastal Sage Scrub south of Point Conception. The following plants are typical of this association:

California Sagebrush	*Artemisia californica*
White Sage	*Salvia apiana*
Brittlebush	*Encelia farinosa*
Flat-topped Buckwheat	*Eriogonum fasciculatum* ssp. *foliolosum*

Within the bounds of the Tract, this association is found primarily along the southern edge, on steeply sloped lands adjacent to the Alessandro Arroyo (see Figures 4 through 6 and 7). As can be seen in Figure 7, the southeastern part of this association is more robust, has a greater diversity, and has a greater closured of individual shrub canopies. The more southwestern expression of this association (again, see Figure 7) is a much more open expression with wide spaces between individual shrubs and a lower diversity. Indeed, the "Sage Scrub" north of the Alessandro Reservoir is so open (large distances between shrubs) that calling it a "Sage Scrub" is a bit of a stretch.

Southern Willow Scrub. This association is found only along the Alessandro Arroyo and is classified by Holland as Element Code 63320. Plant species found on-site indicative of this association include:

Black Willow	*Salix gooddingii*
Arroyo Willow	*Salix lasiolepis*
Cottonwood	*Populus fremontii*

The Southern Willow Scrub is a sensitive habitat and one that warrants protection. For this reason, Tract 28728 places the entire portion of the Arroyo that lies within the bounds of the subject property into permanent open space. However, the Flood Control District holds an easement over a portion of the Arroyo and has apparently has let a contract to a sand mining operation to remove the excess silt buildup behind the Alessandro Reservoir dam. This sand mining operation was in progress at the time field work was conducted for this report. This mining operation has resulted in a wholesale disruption of the Arroyo within the bounds of the Tract, an act completely outside of the control of the property owner. It is assumed that the Flood Control District has the appropriate permits and environmental clearances for the work being performed. In that the disruption to the Arroyo is not a part of the development of Tract 28728 (given the existing open space designation) this report and field effort made no further attempt to document the resources present.

Other. In order for the reader to accurately picture the project site, two other distinct habitats not categorized by Holland need to be mentioned. These two habitats are the "Boulder Patches" and the "Dry Wash Eclectics" (a tongue-in-cheek category, but one with a real meaning).

Often times, biologists attempt to fit curved surfaces to straight lines. When we do this with the use of Holland vegetation associations, the reader gets a black and white vegetative visual of an area when there are actually varying degrees of gray as well. Although the vegetation in the drainages does not differ substantively from the vegetation on the adjacent, xeric, slopes, a few facultative wetland plant species are scattered through the drainages resulting in a higher diversity of species. In addition, the drainages support certain non-native species not found on the adjacent slopes and a few natives not found elsewhere. If we simply categorized the drainages as one of the adjacent habitat types, such as Old Field Vegetation or Riversidian Sage Scrub, we would be misrepresenting what actually exists in those drainages. As a result of this, we have designated the drainages as Dry Wash Eclectics (a name which reflects the nature of the vegetation).

The same is true of the Boulder Patches. While we might normally categorized the Boulder Patches as Riversidian Sage Scrub, there are a few plants that occur only in or near these Boulder Patches, such as the Desert Brickellia (*Brickellia desertorum*) and the Bush Monkey-flower (*Mimulus aurantiacus*). These and other species give them a flavor different from the surrounding terrain.

B. Sensitive Plant Species

One principal goal of the biological survey was the determination of the presence or absence of sensitive plant species. Prior to initiation of the field work, a search was made of the latest California Native Plant Society Electronic Database (CNPS, 2000; issued 1 July 2000) to determine those plant species considered sensitive and known to occur within approximately a 10-mile radius of the subject property. This search produced a list of 38 species. This list is presented as Table 1 and the reader's attention is directed to that Table for additional information. Each entry in the Table has been annotated as to whether or not the species would be expected or not, given the particular habitats present within the bounds of the Tract. Of the 38 species that are listed, none were found on-site. However, only fifteen of the species from the list could reasonably be expected within the bounds of the proposed residential tract based on broad habitat considerations alone. These fifteen species are:

Chaparral Sand-verbena	*Abronia villosa* var. *aurita*
San Diego Ambrosia	*Ambrosia pumila*
Marsh Sandwort	*Arenaria paludicola*
Nevin's Barberry	*Berberis nevinii*
Plummer's Mariposa Lily	*Calochortus plummerae*
Bristly Sedge	*Carex comosa*
Smooth Tarplant	*Centromadia pungens* ssp. *laevis*
Parry's Spineflower	*Chorizanthe parryi* var. *parryi*

Long-spined Spineflower	*Chorizanthe polygonoides* var. *longispina*
Round-leaved Filaree	*Erodium macrophyllum*
Mesa Horkelia	*Horkelia cuneata* ssp. *puberula*
Parish's Desert-thorn	*Lycium parishii*
Gambel's Water Cress	*Rorippa gambelii*
Rayless Ragwort	*Senecio aphanactis*
Prairie Wedge Grass	*Sphenopholis obtusata*

A diligent search was conducted for all of the species during field work within the bounds of the proposed residential tract, but none were found. This is not surprising given the degree and nature of the insults to which the property has been subject for decades. When the senior author first saw this site in 1988 (for example) the site was severely over grazed by sheep but supported an essentially intact chaparral/Sage Scrub association. Sheep grazing has apparently continued to this day along with other disturbances, including fire, clearing, and off-road vehicle use. Approximately half of the plants in the above short list have woody parts or dried parts that would be visible and identifiable even in the fall. That these species do not occur within the bounds of the Tract is essentially assured. However, the two *Chorizanthe*'s, for example, have extremely friable structures and could not be identified this late in the season. In addition, these are species that prefer open sandy surfaces that lack competition from other plants. It is possible that seeds of both of these species are present in the site's seed bank but would not sprout unless they experience ideal conditions following a fire. Obviously we cannot preclude all of these species from the site. However, given the past disturbance of Tract 28728 it is highly unlikely that any occur on this property.

C. Wildlife

Given the degree of disturbance (clearing, fire and sheep grazing) it is not surprising that the property contains a low diversity of wildlife species. The most notable of the wildlife species found on site is the endangered Stephens' Kangaroo Rat, but this species will be discussed in further detail in the following section. Four other sensitive species were observed in addition to the Stephens' Kangaroo Rat and they will also be discussed in the Sensitive Wildlife Species section. During the course of the field survey, an effort was made to assess all available sign (tracks, burrows, trails, scat, and the like) as a means of ascertaining the wildlife species present on the property. The following were found:

Amphibians. As noted above, this site is extremely xeric and the Old Field Association that dominates most of the Tract provides virtually no cover for wildlife species. Existing drainages through the property appear to hold surficial water only immediately after a major rain event. This brief inundation is not long enough to create the habitat required by amphibians, nor long enough for the amphibians to breed. There are certainly frogs in the Alessandro Arroyo at the south end of the property, but there is no use of the upland portions of this Tract, except perhaps as aestivating sites during the summer.

Reptiles. The most notable reptile observed on-site was the Orange-throated Whiptail (*Cnemidophorus hyperythrus beldingii*). While none were observed on Tract 28728-2, a high density population was observed on the remaining portions of Tract 28728. In addition to the Orange-throated Whiptail, a few individuals of the Side-Blotched Lizard (*Uta stansburiana*) were observed along with a few Granite Spiny Lizards (*Sceloporus orcuttii*). The latter lizard species finds "vertical cover" in the boulder piles and bedrock outcrops that are its sole residence. It is certainly possible that there are other reptile species present, but the sparse vertical cover is an almost unsurmountable problem. Snakes, for example, are considered quite a treat by several species of hawks, including the Red-tailed Hawks that nest in the Alessandro Arroyo.

For a discussion of additional reptile species that could be found on site, the reader is referred to Glaser, 1970.

Mammals. Once again, the sparse vegetative cover limits the diversity of species on-site. Like the reptiles, smaller mammals, would have a low survival rate due to easy predation. However, certain ground dwelling mammals, which can hide from aerial predators, were observed on site. These included:

Species	Occurrence
Canis latrans Coyote	One individual was seen off-site just to the west of the property. It was traversing the vacant land between this Tract and the residences to the west.
Thomomys bottae Valley Pocket Gopher	Burrows assignable to this species were found throughout the property. This may be the most common mammal on the property.
Spermophilus beecheyi California Ground Squirrel	A few burrows assignable to this species were found in and around the rock outcropping on site and in open terrain.
Dipodomys stephensi Stephens' Kangaroo Rat	A low density population occupies 46.0-acres of the property. Burrows, scat, and trails were widely scattered.
Lepus californicus bennettii San Diego Black-tailed Jackrabbit	Several individuals were observed despite the lack of cover on the property.
Sylvilagus audubonii Audubon's Cottontail	Pellets indicative of this species were observed.
Sylvilagus bachmani Brush Rabbit	An individual of this species was seen in on of the dry washes on-site. Also, pellets indicative of this species were observed.
Neotoma lepida intermedia San Diego Desert Wood Rat	Stick nests were observed around a few of the boulder out-croppings.

Species	Occurrence
Neotoma fuscipes Dusky-footed Wood Rat	Two stick nests characteristic of this species were found in the vegetation along the arroyo.

Birds. The avifauna is similarly limited due to the lack of both vertical and horizontal cover, the lack of perches, and the general lack of refugia where an individual bird could roost or rest safe from immediate predation. Two birds of interest are the Pinyon Jay(*Gymnorhinus cyanocephalus*) and Ashy Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*). The sparrow is a species of special concern and is discussed in the next section. The presence of the jay is notable from an esoteric ornithological context, but has no bearing on the subdivision itself. This bird is simply a rare siting for the Alessandro area and is worth mentioning. For further information on the Pinyon Jay, please refer to Table 4. This Table includes a complete, annotated list of the bird species observed during the survey.

D. Sensitive Wildlife Species

One of the principal goals of the biological reconnaissance was the identification and delineation of sensitive wildlife species. The reader's attention is directed to Table 3, wherein are listed those endangered, threatened or otherwise sensitive wildlife species known to occur in the vicinity of Tentative Tract 28728. In the following paragraphs, we describe the occurrence of such species or the reasons why such species were not encountered.

Amphibians. The extremely xeric nature of the upland portions of the site, the sparse vegetative cover, and the rapid runoff during precipitation events (no ponding) all appear to preclude amphibian species from these portions of the property. However, the Alessandro Arroyo in the southern section of the property maintains water year round and could possibly include two sensitive amphibian species, the Western Spadefoot Toad (*Scaphiopus hammondii*) which is considered a sensitive species and the Southwestern Arroyo Toad (*Bufo californicus*) which is endangered. Given the timing of the surveys, no frogs were actually observed in the arroyo. In order to positively identify the presence or absence of either of these species, focused surveys must be conducted.

It is believed by these two authors that both of the toad species listed above, if they in fact occur on the property, would be restricted to the Alessandro Arroyo. The Southwestern Arroyo Toad requires vegetatively open areas along a slowly flowing water course in order to breed. As adults and juveniles, the toads must find friable, sandy soils in which to bury themselves during periods of estivation. After conducting the field surveys for this project, the only soils loose enough for the toads to dig a burrow were found within the confines of the arroyo. The Western Spadefoot Toad also aestivates. However, this toad will utilize existing mammal burrows, while the Arroyo Toad prefers to dig their own. Even though mammal burrows exist in the upland portion of the property, it would be suicidal for the Spadefoot Toad to attempt a crossing over the sparsely vegetated property to get to them.

Since the entire Alessandro Arroyo is being preserved as Open Space under the existing Tract Map, even if the toads exist on the property, the development of the Tract will not have a significant effect on them. The real danger to the toads is the current disturbance of the arroyo by the Flood Control District.

Reptiles. The only sensitive reptile species observed on the property was the Orange-throated Whiptail (*Cnemidophorus hyperythrus beldingi*). This species was abundant throughout the Tract and the population is considered a high density one within the vegetated portions of the Tract. Since a majority of the vegetated areas will be preserved as Open Space, this will cause the loss of the small remaining population to be insignificant.

Even though the primary prey species (Harvester Ants of the genus *Pogonomyrmex*) of the Coast Horned Lizard (*Phrynosoma coronatum*) are abundant on the subject property, none of the lizards were observed. There is virtually no cover for these diurnal feeding lizards and it would be surprising to find any on-site. In that the lizards and their prey are only active during the hotter parts of the day, the lack of cover would make the lizard subject to predation by a variety of birds and mammals (for example: Greater Road-runners, 11-year old boys, any of several hawk species).

Mammals. The most infamous of the mammal species listed in Table 3 is perhaps the Stephens' Kangaroo Rat (*Dipodomys stephensi*), a species listed as endangered and the subject of a major habitat conservation planning effort in the County of Riverside. As is well known, the Stephens' Kangaroo Rat (SKR) is characteristic of disturbed habitats and occupies areas which are dominated by large blocks of relatively bare soil with limited vegetative cover. This, of course, is a basic description of the Tract. However, the considerable size differential between the front and hind feet of the Kangaroo Rat makes negotiating steep slopes relatively difficult. For that reason, Kangaroo Rats are not found on slopes that are steep *to them*. Remember, this is a matter of scale. A slope that is steep to a human, but which contains small flatter spaces just a few tens of feet in size (width and or length) will be perfectly suitable for a Kangaroo Rat which lives on the small relatively flat benches. The slopes of the subject property, however, do not have such benches and the slopes (for the most part) were completely lacking in Kangaroo Rat sign. It was determined that approximately 46.0-acres of the property supports what is best described as a low density population of the Stephens' (as can be seen in Figure 8).

Two other sensitive mammal species were observed on-site, the San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) and the San Diego Desert Wood rat (*Neotoma lepida intermedia*). The latter species was found in one or two locations on-site in boulder outcrops where the *de minimus* stick nests were placed. Because this species appears to be limited to a very few boulder outcrops, the population is small; probably less than a minimum viable population. As such, this occurrence is not considered to be significant. Loss of these few animals will not affect the species' population as a whole. Indeed, it could not be confirmed if the nests observed were occupied or vacant. It is entirely possible that these are only stick middens left from when the site supported a more extensive shrub vegetation.

The Black-Tailed Jackrabbits were observed throughout the site as widely scattered individuals.

While the population is regarded as of higher density than the Woodrat, they seem to be clustered amongst the sparse vegetation, places where they can utilize a modicum of vertical cover for both a sun shield and to avoid predators. As such, the are mainly found in the areas that will be preserved as Open Space. For this reason, no significant impact on the species is anticipated.

Birds. Given the sparse clumps of habitat found on-site, only one sensitive bird species was identified during the survey, the Ashy Rufous-crowned Sparrow (*Aimophila ruficeps* ssp. *canescens*). The population is believed to be limited to 2 pair. This number is so small as to make its loss insignificant.

Following completion of an initial version of this Biological Assessment, the applicant authorized a federal protocol survey of specified portions of the property to determine the presence or absence of the threatened California Gnatcatcher (*Polioptila californica*). This species is tightly tied to Sage Scrub habitats and is rarely found far from such vegetation. Tract 28728 contains only limited stands of Riversidian Sage Scrub (see Figures 7 and 10). The bulk of the site, as an Old Field Association, is incapable of supporting the Gnatcatcher. Indeed, portions of the southwestern corner of the Tract support a Sage Scrub vegetation that is so sparse (widely spaced shrubs), the Gnatcatcher is effectively precluded due to a lack of cover. Only in the southeastern part of the property is the Riversidian Sage Scrub of sufficient density as to afford suitable habitat. It is also the southeastern quadrant of the site that provides a potential conflict between the California Gnatcatcher and the design of the Tract. As can be seen in Figure 10, lots 39, 40, and 43-46 are each underlain in part by Riversidian Sage Scrub.

Accordingly, the protocol presence/absence survey was limited to suitable habitats in the southeastern part of the project site (see Figures 7 and 10). This area supported the greatest density of Sage Scrub and, therefore, held the greatest potential for the occurrence of the species. Additional details of the actual survey effort are found in Appendix A.

During the course of the protocol survey, no individuals of the California Gnatcatcher were found. This is not a surprising result, given a number of operable parameters:

- The area of suitable habitat was small, 12.5-acres, while the average size of a Gnatcatcher territory in western Riverside County is roughly 20-acres (See papers by Braden).

- The small (four lot) Tract immediately adjacent to and south of the area being surveyed was approved for grading and such activity was underway at the time of the Gnatcatcher survey. This noise and activity could be a factor in precluding birds in the area.

- Much of the opposite (western) bank of the Alessandro Arroyo burned just prior to the initiation of the survey effort. This fire reduced significantly the available habitat for the Gnatcatcher to the west of the subject property. This contiguous habitat, if occupied, would be important in maintaining the minimum territory demanded by breeding pair of the Gnatcatcher. With this habitat temporarily removed, considerable pressure was placed on any pair remaining behind in the vicinity.

In addition, the Tract lies within the area designated as critical habitat for the Coastal California Gnatcatcher (see Figure 9). The critical habitat was approved as final by the United States Fish and Wildlife Service on 17 October 2000.

It should be noted that the *caerulea* species of the Genus *Polioptila* (the Blue-gray Gnatcatcher) was found to be rather common within the southern part of the Tract, especially near the Alessandro Arroyo during the winter months, but not as a breeding species. The Blue-gray Gnatcatcher is differentiated from the California Gnatcatcher by the broader, white, outer rectrice and by the overall white appearance of the underside of the tail. In addition, there are other subtle plumage characteristics and the vocalizations, while similar, are notably different.

Other Sensitive Wildlife Species. The reader's attention is directed to Table 3 (attached) for a complete listing of those species considered rare, endangered, or otherwise sensitive and known to occur within an approximately ten-mile radius of the subject property. This list was prepared prior to conducting the field work and served as a guide for the field effort. As can be seen in a quick examination of Table 3, the vast majority of the species listed simply would not be anticipated within the bounds of the proposed residential tract due to a lack of suitable habitats.

E. Sensitive Habitats

Riversidian Sage Scrub. Sage Scrub habitats of all flavors (Coastal, Riversidian, Diegan, for example) are considered "sensitive" by both the California Department of Fish and Game (CDF&G) and by the United States Fish and Wildlife Service (FWS). These habitats occur largely concurrent with the parts of southern California that are suitable for development and construction over the last several decades has reduced Sage Scrub habitats to a fraction of their former extent. Indeed, habitat loss is one of the principle reasons cited for the decline of such species as the California Gnatcatcher, which is an obligate inhabitant of Sage Scrub systems.

The bulk of the Sage Scrub habitats within the bounds of the Tract have been removed over the last decade or more by a variety of factors including clearing, fire, off-road vehicle activity, sheep grazing and others. The extent of the Sage Scrub habitats within the bounds of the Tract today is limited to an area in the southeastern part of the Tract (see Figures 7 and 10) and, in a much more disturbed expression, to the southwestern part of the Tract. These habitats are summarized in the following table.

The mitigation ratio presently in use by the Fish and Wildlife Service for the western Riverside County region is 3:1. This ratio is normally applied to both occupied and non-occupied habitats that have retained some level of quality. The "disturbed" Sage Scrub within the bounds of the Tract might not even be considered as Sage Scrub habitat if the overall shrub coverage is less than 15 percent, which, based on visual inspection, is certainly the case in some of the southwestern areas.

	Disturbed Riversidian Sage Scrub	Relatively undisturbed Riversidian Sage Scrub
Total habitat area on-site at present	13.6-acres	12.5-acres
Area of habitat type to be lost with development	2.6-acres	2.9-acres
Mitigation ratio	3:1	3:1
Recommended mitigation acreage	7.8-acres	8.7-acres
Acreage of habitat type to be placed in open space	11.0-acres	9.6-acres
Excess acreage over mitigation requirement	3.2-acres	0.9-acres

However, in a abundance of caution, even if we apply the 3:1 mitigation ratio to both the relatively intact and the disturbed habitats, we have on-site an excess of dedication — the mitigation requirements are easily met on-site (see above table).

Wetlands and Related Habitats. Wetlands and similar habitats are also considered to be sensitive by the wildlife agencies, also due to the excessive loss of such habitats state wide. Both the State of California and the Federal Government have strict policies governing the filling or alteration of wetlands and both have strict "no net loss" policies — the acreage of wetland (as defined) must be the same after construction of a project as before construction of that project. Developments such as Tract 28728 are regulated under Section 1603 of the California Fish and Game Codes and under section 404 of the Federal Clean Water Act. Filling or alteration of any wetland (as defined) requires the issuance of a section 1603 Agreement by the Department of Fish and Game and the issuance of a section 404-permit by the Army Corps of Engineers (ACOE).

The most obvious wetlands within the bounds of Tract 28728 are those along the included reach of Alessandro Arroyo. The development as proposed, however, will not directly affect these wetlands — no filling or construction is proposed within the Alessandro Arroyo riparian or wetland habitats. This having been said, it should be pointed out that these habitats have been grossly altered over the last several months, apparently under the auspices of the Riverside County Flood Control District who holds an easement over this portion of the property. Sand and gravel accrued behind the Alessandro Reservoir (a flood control structure) has been mined as a commodity. This has increased the holding capacity of the flood control basin but it has also resulted in the down-cutting of the arroyo bottom and many of the adjacent contributory drainages, resulting in the wholesale loss of both wetland and riparian habitats. This action is entirely outside of the control of the applicant for Tract 28728.

The federal definition of wetlands (used by the Army Corps of Engineers and the Fish and Wildlife Service) consists of three parts:

1. Occupation of the site by a predominance of hydrophytic (water loving) plants,

2. The presence of a hydric soil (as defined) or an entisol, and,

3. A hydrology such that the soils experience anaerobic growing conditions for at least one week during the growing season.

No part of Tract 28728 outside of the Alessandro Wash meets all three criteria for definition as a wetland. However, the State of California defines "wetlands" as areas meeting *any one* of these three criteria (not all three). A review of the various drainages within the bounds of the Tract identifies three that may meet at least one of the above listed criteria and which are proposed for disturbance during the development of the property. These three drainages are identified with solid red lines on Figure 11. Collectively the three have a cumulative length (length of disturbance) of approximately 600-feet. These are, however, narrow drainages and the average width of the floor of the swales (the width of the "wetland") is roughly 10-feet (greater in a few areas, generally less in most). Conservatively then, 6,000-square feet of "wetland" could be affected by development of Tract 27728.

Under current regulations (33 CFR 328.3) the jurisdiction of the ACOE extends to (1) waters involved in interstate commerce, (2) interstate waters and wetlands, (3) all other wetlands and waters that could be involved in interstate or foreign commerce, (4) all impoundments of waters otherwise defined as waters of the United States, and (5) *tributaries to the above*. This is obviously a summary of the code section and it is the last entry that is of interest. ACOE jurisdiction extends virtually over every swale that is tributary to the waters of the United States. These "swales" are referred to in the vernacular as "non-wetland waters of the United States."

We have attempted to identify such "tributaries" within the bounds of Tract 28728 and these are identified in Figure 11. A quick inspection of the Figure clearly indicates that not all "swales" are included within the definition of "tributaries" that we used to develop the map. What we have attempted to do is exclude from consideration those swales that drain primarily by sheet flow (that is with no obvious center line in the swale) while including those that have a definable (usually incised) drainage way. While we believe this to be a valid distinction, it will certainly be subject to review by the ACOE and the wildlife agencies and may be subject to amendment at that time.

Assuming that our definition of "tributaries" is accurate (see red dashed lines in Figure 11), there are approximately 4,000-lineal feet of such drainages that are subject to regulatory control. Assuming that the average width of the incised drainage is approximately 2-feet (a conservative estimate, the average width is probably closer to 1-foot) then the total affected "non-wetland waters of the United States" is roughly 8,000-square feet.

There lies within the Tract one additional area that could be defined as a "wetland." This is the

terminus of the existing paved section of Cresthaven Drive, at the northern property boundary of the Tract. Drainage on Cresthaven Drive (and neighboring streets) is such that there appears to be a continuous flow of irrigation runoff in the gutter of the western side of the street. At the end of the pavement (and the street) this flow has been channelized across the width of the road so that it empties to the east into a steep swale (see Figure12). The channel is approximately 12-inches wide and 6-inches deep. However, this drainage solution has resulted in the development of a de minimus (and completely artificial) "wetland" that includes a single, mature Black Willow tree. Making some liberal assumptions about the definable wetland vegetation, this artificial system encompasses not more than 500 square feet. We refer to it as "artificial" because it is (a) dependent solely on water from a street gutter and (b) one individual with a shovel could easily divert the flow to the west thereby cutting off all water to the "wetland" and drying it up. These facts not-with-standing, we include this "wetland" in the following analysis, in an abundance of caution.

V. ANALYSIS AND RECOMMENDATIONS

A. Anticipated Impacts

Implementation of the proposed residential tract will have the following effects on the existing biological resources:

1. The loss of approximately 46.0-acres of low density, occupied habitat of the Stephens' Kangaroo Rat. The loss of any federally listed species is considered significant. [Note: not all of this area will actually be graded, much of the SKR habitat lies within designated open space. However, due to the fragmentation of the habitat and the introduction of subsidized predators and other edge effects, it is anticipated that the entire population within the subject Tract may ultimately be at risk].

2. Loss of 2.9-acres of Riversidian Sage Scrub and 2.6-acres of heavily disturbed Riversidian Sage Scrub (see Figure 10) within Critical Habitat for the California Gnatcatcher. These habitats are not occupied by the California Gnatcatcher (see Appendix A).

3. The loss of approximately 4,000-lineal feet of "non-wetland waters of the United States," along with the loss of approximately 600-lineal feet of streambed definable as wetland under state rules, and the loss of roughly 500-square feet of "artificial" wetland — for a total loss of approximately 0.33-acres of wetland habitat values.

All three of these effects are considered potentially significant. Mitigation of all three effects is, therefore, mandated by stature.

4. Approximately 48-acres of Old Field Association (and its limited association of wildlife species) will be graded and converted to a residential subdivision. This loss is not considered significant due to the commonness of that habitat type, the lack of biodiversity in that habitat, and the lack of sensitive species.

B. Recommended Mitigation Measure

Mitigation of the above outlined, potentially significant impacts can be accomplished through:

1. Payment of an appropriate fee and the consequent participation in the existing, regional, 10(a)-Permit for the Stephens' Kangaroo Rat;

2. Prior to grading that will disturb jurisdictional "wetlands," obtain from the California Department of Fish and Game a section 1603-Agreement and from the United States Army Corps of Engineers, obtain a section 404-permit.

3. Both State and Federal policies mandate "no net loss of wetlands." In addition, a 3:1 replacement for the loss of "wetland" habitat value is generally considered appropriate mitigation. In that this Tract will dedicate an extensive area of wetland along Alessandro Wash to permanent open space, that dedication should serve as mitigation for two of the three required credits inherent in the 3:1 ratio. The third credit must be "created" or "new" wetland. To meet this requirement it is recommended that a 0.5-acre credit in an appropriate wetland mitigation bank be purchased by the developer. This mitigation (in company with the following) will reduce the anticipated "wetland" impacts to an insignificant level.

4. In order to assure the continuity of the wetland and related habitats in the designated open space lands, it is recommended that either (a) the lands be transferred in fee title to an appropriate non-profit [501(c)(3)] organization (or other entity approved by the wildlife agencies) or (b) that an irrevocable conservation easement over the lands be transferred to such an entity, along with an appropriate non-wasting endowment. The amount of the endowment to be determined by the accepting entity.

5. The conservation on-site of 11.0-acres of disturbed Riversidian Sage Scrub and of 9.6-acres of relatively intact Riversidian Sage Scrub, exceeds the normal 3:1 mitigation ratio applied by the Fish and Wildlife Service to such habitats. This mitigates the impacts to Sage Scrub to a level of insignificance.

Lacking any other significant effect, no other mitigation measures are required and none are recommended.

VI. CERTIFICATION

This report is based on an independent field examination and analysis of the property known as Tentative Tract 28728 in Riverside County. Any errors or omissions are solely the responsibility of the senior author.

Royce B. Riggan, Jr., AICP
Consulting Biologist
[PRT-780195]

Gretchen Morse
Consulting Biologist

RBRiggan and Associates
11228 Zapata Avenue
San Diego, California 92126
909-351-0809
rbriggan@compuserve.com

RBR Job Number 1810.86A
1 November 2000

[:\1810bio-rpt.wpd]

REFERENCES CITED[1]

American Ornithologists' Union. 1998. Check-list of North American Birds. 7th Edition. American Ornithologists' Union, Washington, D. C., liv + 829 pp.

American Ornithologists' Union. 2000. Forty-second Supplement to the American Ornithologists' Union Check-list of North American Birds. The Auk 117(3):847-858

Atwood, Jonathan L. 1988. Speciation and Geographic Variation in Black-tailed Gnatcatchers. American Ornithologists Union, Ornithological Monographs No. 42, Wash., D.C.

Bailey, Eric A. and P. J. Mock. 1998. Dispersal Capability of the California Gnatcatcher: A Landscape Analysis of Distribution Data. Western Birds 29(4):351-360.

Braden, Gerald T., S. L. Love, and R. L. McKernan. 1994. Dispersal and Non-breeding Habitat Use by the Coastal California Gnatcatcher (*Polioptila californica californica*) in Western Riverside County. Unpublished manuscript, prepared for Southwestern Riverside County Multi-species Reserve management Committee and the Metropolitan Water District, copies available from the Fish and Wildlife Service, Carlsbad Field Office, 28 pp.

Braden, Gerald T., and S. Powell. 1994a. Nesting Biology of the California Gnatcatcher (*Polioptila californica californica*) in Western Riverside County.

Braden, Gerald T., and S. Powell. 1994b. Breeding Habitat Use by *Polioptila californica* in Western Riverside County.

Braden, Gerald. 1998. Gnatcatcher Factoids. Unpublished manuscript, Fish and Wildlife Service, Carlsbad, Calif., 3 pp.

California Native Plant Society. 2000. Electronic Inventory (of Rare and Endangered Vascular Plants of California), Version 1.5.2, released 1 July 2000, The Author, Sacramento, Calif.

Campbell, Kurt F., R. A. Erickson, W. E. Haas, and M. A. Patten. 1998. California Gnatcatcher Use of Habitats Other Than Coastal Sage Scrub: Conservation and Management Implications. Western Birds 29(4):421-433.

Davis, Liam H., R. L. McKernan, and J. S. Burns. 1998. History and Status of the California Gnatcatcher in San Bernardino County, California. Western Birds 29(4):361-365.

Environmental Laboratory. 1987a. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

---

[1] Included in this "References Cited" section are both resources specifically cited in the text of th Biological Assessment and resources specifically relied on in a broader sense for the preparation of this study and report. All documents cited in this section are included by reference within the administrative record of the preparation of this Biological Assessment, whether or not they are specifically referenced in text.

References Cited (continued)

Environmental Laboratory. 1987b. National List of Plants that Occur in Wetlands, Region O — California. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, 36 pp.

Emmel, Thomas C., and John F. Emmel. 1973. The Butterflies of Southern California. Natural History Museum of Los Angeles County, Science Series 26, xi + 148 pp.

Fish and Game, Department of. 2001a. State and Federally Listed Endangered, Threatened, and Rare Plants of California. The Author, Sacramento, California, 16 pp. [available at http://www.dfg.ca.gov/whdab/], edition of July 2001.

Fish and Game, Department of. 2001b. Special Vascular Plants, Bryophytes, and Lichens List. The Author, Sacramento, California, 141 pp. [available at http://www.dfg.ca.gov/whdab/], edition of July 2001.

Fish and Game, Department of. 2001c. Natural Diversity Data Base: Special Animals. The Author, Sacramento, California, 59 pp., [available at http://www.dfg.ca.gov/whdab/], edition of July 2001.

Fish and Game, Department of. 2001d. State and Federally Listed Endangered, Threatened Animals of California. The Author, Sacramento, California, 11 pp. [available at http://www.dfg.ca.gov/whdab/], edition of July 2001 (revised 30 July 01).

Fish and Wildlife Service. 1986. Endangered and threatened wildlife and plants: Determination of Endangered Status for the Least Bell's Vireo. Federal Register 51(85):16474-16482.

Fish and Wildlife Service. 1988. Endangered and threatened wildlife and plants: Determination of endangered status for the Stephens' Kangaroo Rat. Federal Register 59(190):38465-38469.

Fish and Wildlife Service. 1993a. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Coastal California Gnatcatcher. Federal Register 58(59):16742-16757.

Fish and Wildlife Service. 1993b. Endangered and Threatened Wildlife and Plants; Proposed Special Rule to Allow Take of the Threatened Coastal California Gnatcatcher. Federal Register 58(59):16758-16759.

Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Least Bell's Vireo. Federal Register 59(22):4845-4867.

Fish and Wildlife Service. 1995. Endangered and Threatened Wildlife and Plants: Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher. Federal Register 60(38):10694-10715.

Fish and Wildlife Service. 1997a. Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for the Laguna Mountains Skipper and Quino Checkerspot Butterfly. Federal Register 62(11):2313-2322.

Fish and Wildlife Service. 1997b. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines February 28, 1997. Unpublished manuscript, 5 pp., copies available from the Carlsbad Field Office, Carlsbad, Calif.

References Cited (continued)

Fish and Wildlife Service. 1998a. Endangered and Threatened Wildlife and Plants: Emergency Rule to List the San Bernardino Kangaroo Rat as Endangered. Federal Register 63(17):3835-3843.

Fish and Wildlife Service. 2000a. Quino Checkerspot Butterfly (*Euphydryas editha quino*) Year 2000 Survey Protocol. Unpublished manuscript, available from the Carlsbad Field Office, Carlsbad, Calif., 6 pp + appendices.

Fish and Wildlife Service. 2000b. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher; Final Rule. Federal Register 65(206):63680-63743

Fish and Wildlife Service. 2001a. Endangered and Threatened Wildlife and Plants; Proposed Determination of Critical Habitat for the Quino Checkerspot Butterfly; Proposed Rule. Federal Register 66(26):9476-9507.

Fish and Wildlife Service. 2001b. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad; Final Rule. Federal Register 66(26):9414-9474

Glaser, H.S. Robert, 1970. The Distribution of Amphibians and Reptiles in Riverside County, California. Riverside Museum Press, Natural History Series #1.

Greenwood, Richard B., and D. M. Morton. 1991. Geology of the Santa Ana 1:100,000 Quadrangle, California. California Division of Mines and Geology, Open File Report 91-17, Sacramento, Calif.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento, California. iii + 155 pp.

Jennings, Mark R. and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Rancho Cordova, Calif., final report, Contract No. 8023, 255 pp.

Kelly, Patrick A., and John T. Rotenberry. 1993. Buffer Zones for Ecological Reserves in California: Replacing Guesswork with Science. In: Keeley, Jon E., ed., Symposium on the Interface Between Ecology and Land Development In California, Southern California Academy of Sciences, Los Angeles, Calif., pp. 85-92.

Mattoni, Rudi, et al. 1995 (1997). The endangered Quino Checkerspot Butterfly, *Euphydryas editha quino* (Lepidoptera: Nymphalidae). J. of Research on the Lepidoptera 34(1-4):99-118.

O'Farrell, M.J. and Curt Uptain. 1989. Assessment of Population and Habitat Status of the Stephens' Kangaroo Rat (*Dipodomys stephensi*). California Department of Fish and Game, Wildlife Management Division, Sacramento, California.

Parmesan, Camille. 1995. Traversing the Checkerboard of *Euphydryas* Identification. American Butterflies 3(4):12-22.

References Cited (continued)

Price, Mary V., W. S. Longland, and R. L. Goldengay. 1991. Niche relationships of *Dipodomys agilis* and *D. stephensi*: Two sympatric Kangaroo Rats of similar size. Am. Midl. Nat. 126:172-186.

Price, Mary V., et al. 1994. Managing habitat for the endangered Stephens' Kangaroo Rat (*Dipodomys stephensi*): Effects of shrub removal. Am. Midl. Nat. 131:9-16.

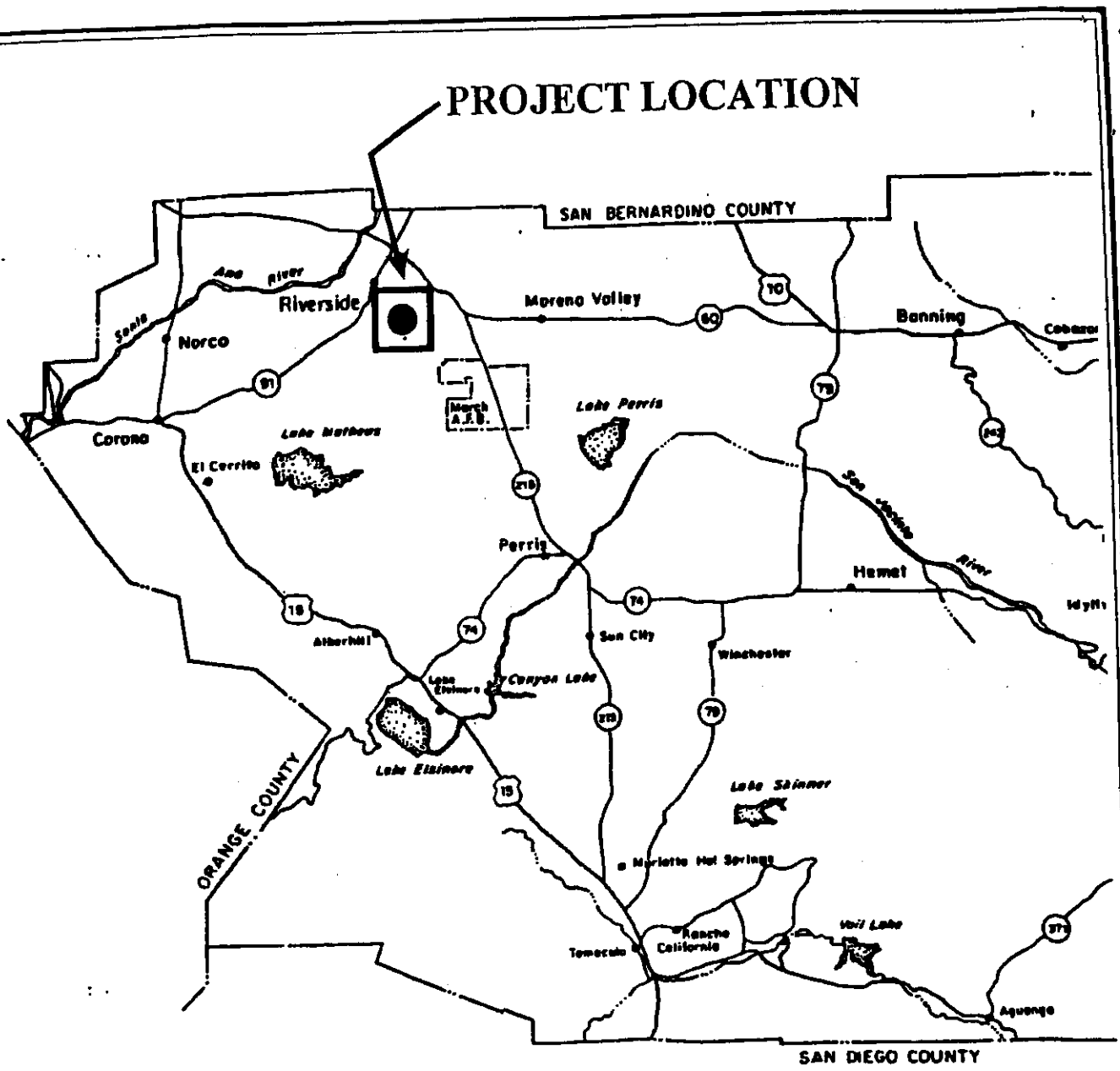
Scott, James A.1986. The Butterflies of North America. Stanford University Press, Stanford, Calif., xii + 583 pp. [CD-ROM edition published by Hopkins Technology, LLC, 1997]

Williams, Daniel F. 1986. Mammalian species of special concern in California. California Department of Fish and Game, Sacramento, California. 112 pp.

Wilson, Don E. and Sue Ruff, eds. 1999. The Smithsonian Book of North American Mammals, Smithsonian Institution Press, Washington, D. C., xxv + 750 pp.

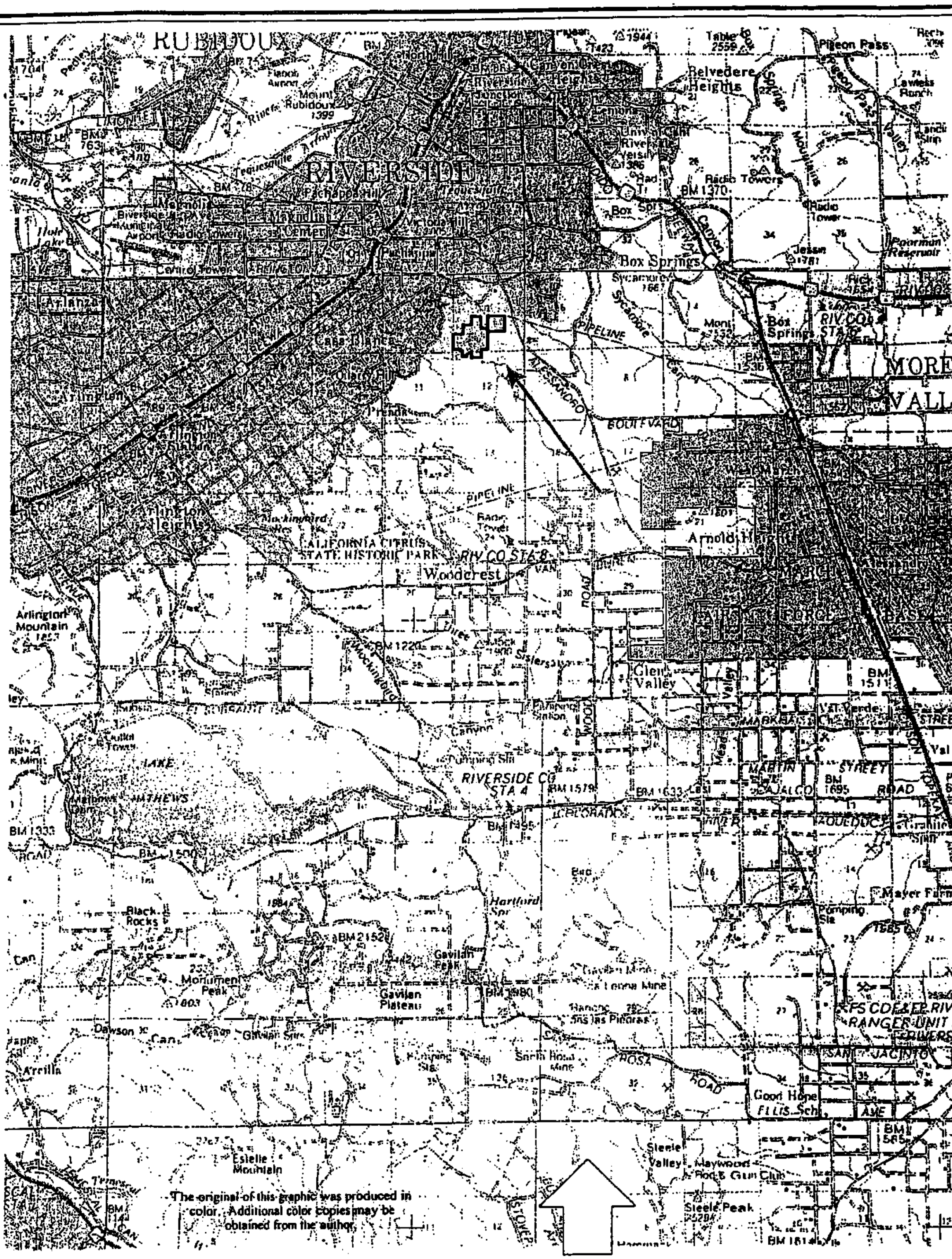
Woodruff, George A. and W.Z. Brock. 1980. Soil Survey of San Bernardino County, Southwestern Part, California. Soil Conservation Service, ii + 65 pp., 13 plates.

[:/1810-ref-cit.wpd]



[RBRiggan and Associates Job Number 1810.86A 30 October 2000] [I:\1810-Fig-1.wpg]

RBRiggan and Associates	Location of City of Riverside Tentative Tract 28728 in the Regional Context of Western Riverside County	Figure 1



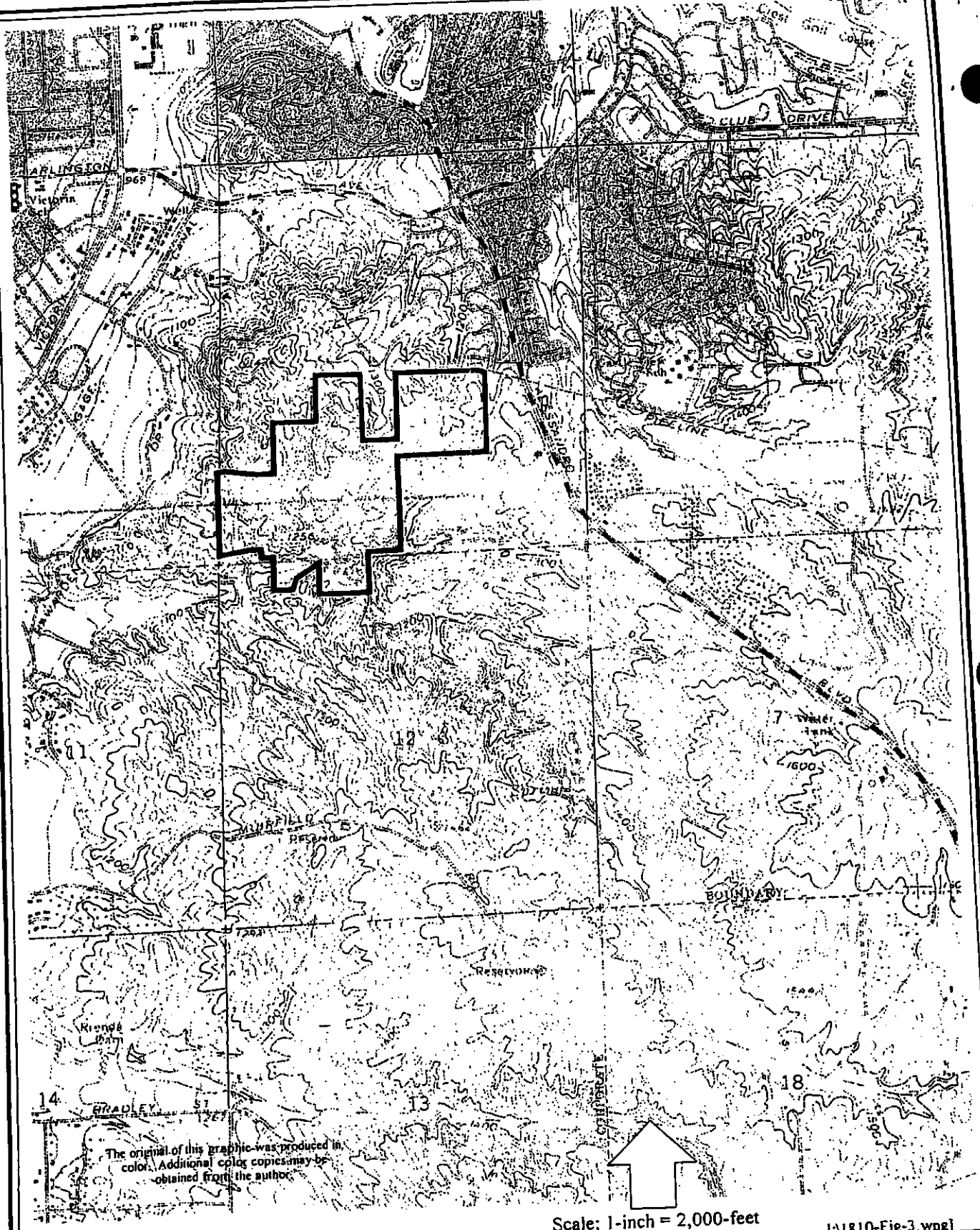
Scale: 1-inch = 2-miles

RBRiggan and Associates Job Number 1810.86A 30 October 2000

[:\1810-Fig-2.wpg]

RBRiggan and Associates	**City of Riverside Tract 28728 in the Regional Conext of Western Riverside County [Base Map from USDA Forest Service]**	**Figure 2**

12-434



Scale: 1-inch = 2,000-feet

I:\1810-Fig-3.wpg]

RBRiggan and Associates Job Number 1810.86A 30 October 2000

RBRiggan and Associates	Location of City of Riverside Tract 28728 on a Scanned Portion of the U.S.G.S. 7½-minute Riverside East Quadrangle Map	Figure 3

Approximate location of the west property boundary.

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

Rock outcrops within the bounds of the Tract are generally in designated open space lots.

One of several Peruvian Pepper Trees found within the Tract.

12-436

Riparian growth within Alessandro Wash. The area just to the left of the photo is an active sand mining operation — apparently an effort contracted by the Flood Control Agency to remove sand buildup in the flood control basin.

This slope is one of the few remaining areas within the Tract that supports a Riversidian Sage Scrub association.

Match line with Figure 5 →

[:\1810-Fig-4.wpg]

RBRiggan and Associates Job Number 1810.21C 28 October 2000

RBRiggan and Associates

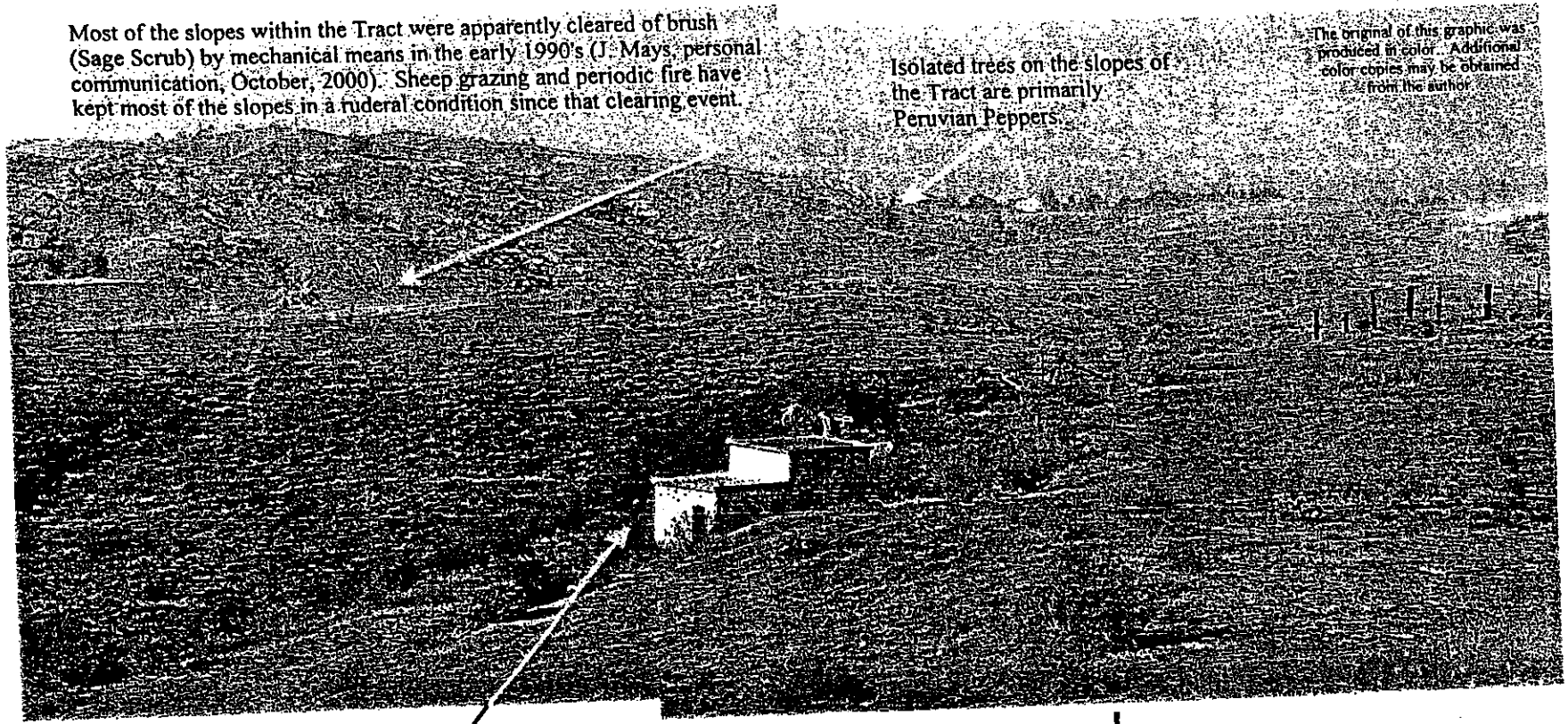
City of Riverside Tract 28728 — Panorama (Part I) Looking Generally North from a High Point Near the Southern Boundary of the Property (see also Figures 5 and 6)

Figure 4

Most of the slopes within the Tract were apparently cleared of brush (Sage Scrub) by mechanical means in the early 1990's (J. Mays, personal communication, October, 2000). Sheep grazing and periodic fire have kept most of the slopes in a ruderal condition since that clearing event.

Isolated trees on the slopes of the Tract are primarily Peruvian Peppers.

The original of this graphic was produced in color. Additional color copies may be obtained from the author.



Match line with Figure 4

Part of abandoned shooting range. The building formerly housed the trap for the skeet shooting range. Slopes to the left of the building (in the photograph) are blackish due to the number of broken clay "pigeons."

Match line with Figure 6

Alessandro Wash and the Arroyo lie directly behind the photographer (see Figure 7).

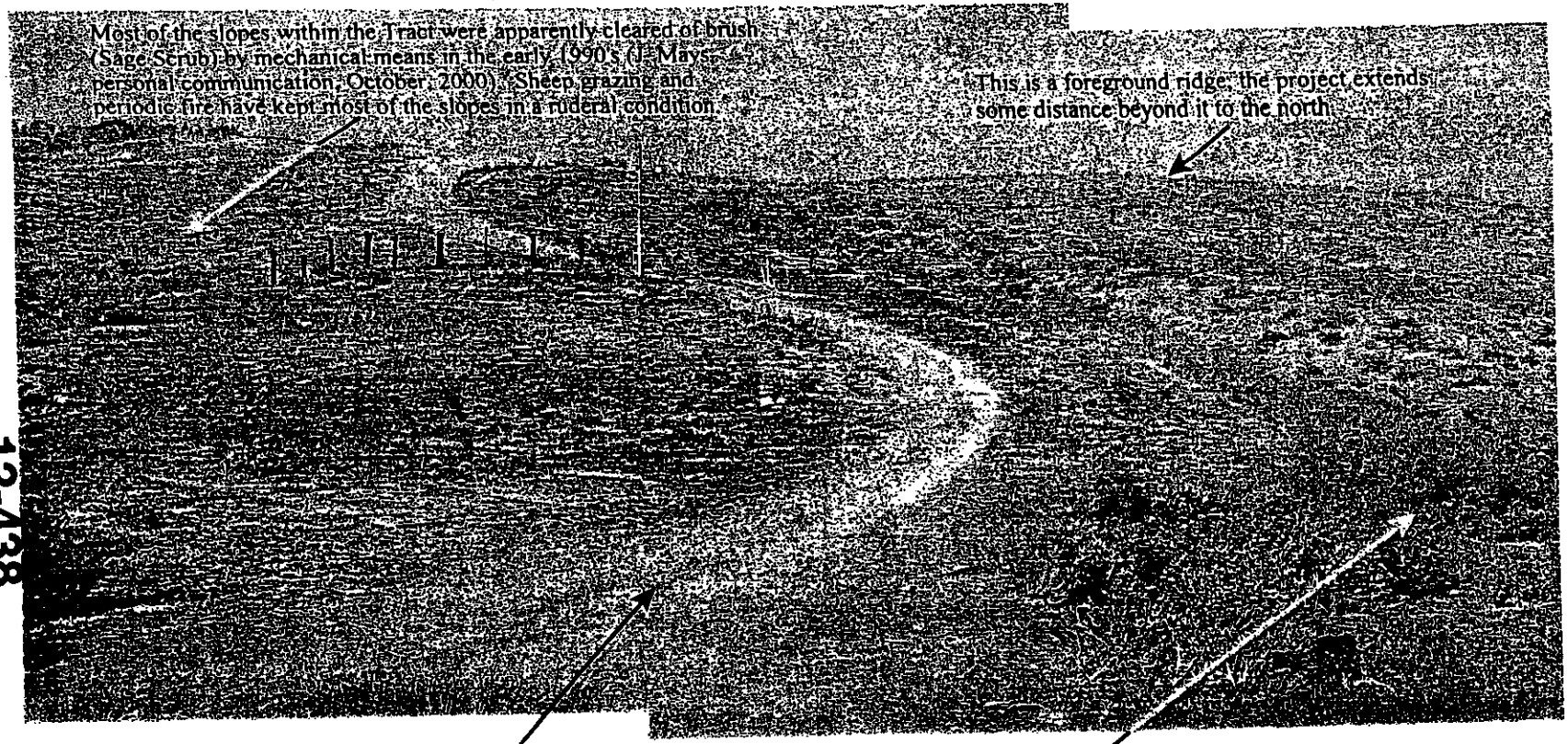
[:\1810-Fig-5.wpg]

RBRiggan and Associates Job Number 1810.21C 28 October 2000

RBRiggan and Associates

City of Riverside Tract 28728 — Panorama (Part II) Looking Generally North from a High Point Near the Southern Boundary of the Property (see also Figures 4 and 6)

Figure 5



12-438

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

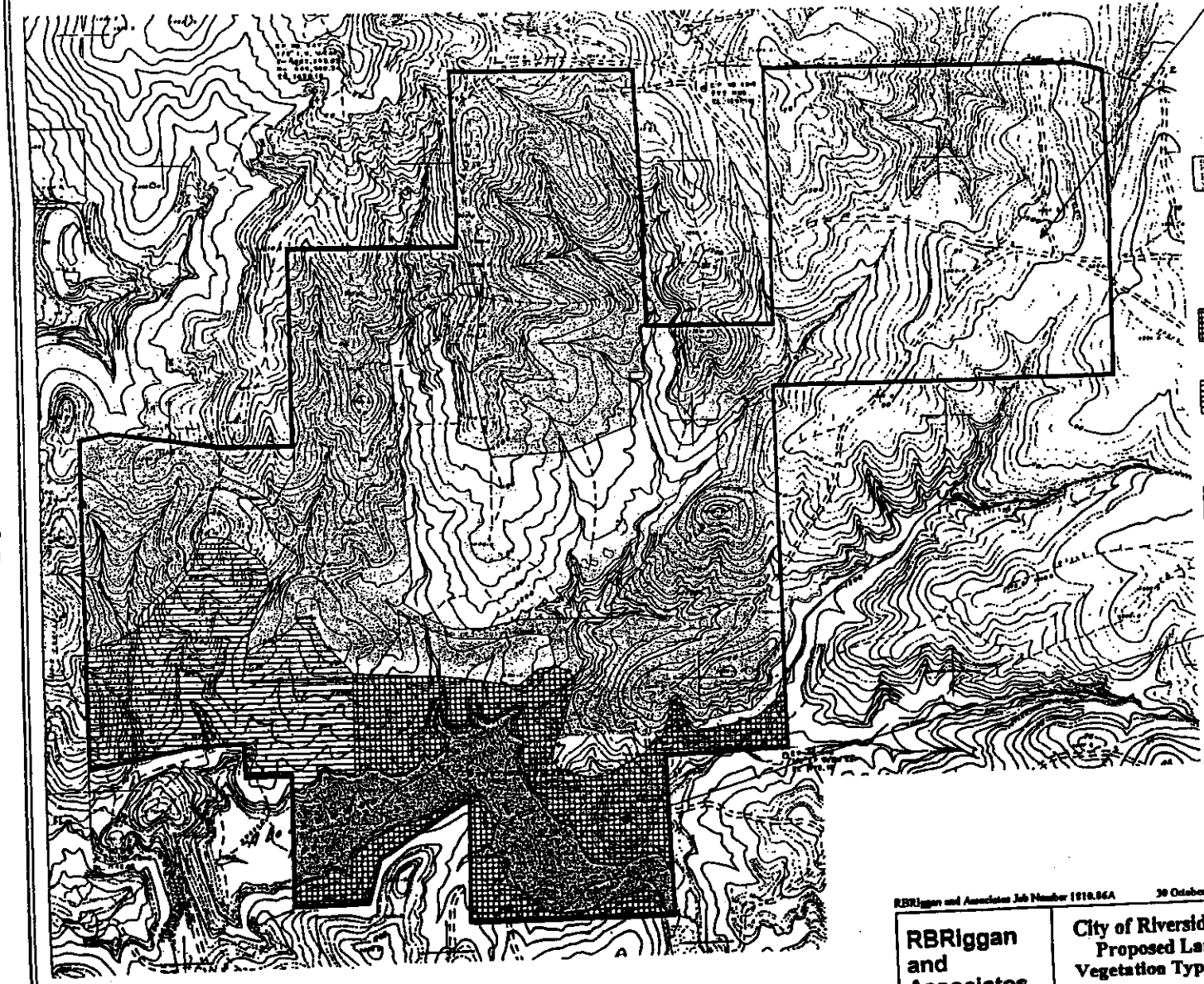
[:\1810-Fig-6.wpg]

RBRiggan and Associates Job Number 1810.21C 28 October 2000

RBRiggan and Associates

City of Riverside Tract 28728 — Panorama (Part III) Looking Generally North from a High Point Near the Southern Boundary of the Property (see also Figures 4 and 5)

Figure 6



The northeast quadrant of the Tract (approximately 40-acres designated as Tract 28728-1) has been previously finish graded and streets, curbs, gutters and utilities installed. The northern portion of 28728-1 is actually built-out and the homes occupied. For clarity and consistency the whole area is mapped as "low density residential."

KEY TO THE LAND USES:

Not a vegetation type — "planning" color designates areas to be developed at low density residential.

Areas not colored yellow (regardless of the vegetation type present) are designated open space.

KEY TO THE VEGETATION:

Riversidian Sage Scrub — disturbed but relatively intact system with moderate shrub density. Potential Gnatcatcher habitat (see text). Overlays some of development area.

Riversidian Sage Scrub — heavily disturbed system with widely spaced shrubs. This is such an open system with so few shrubs that it is not deemed to be suitable habitat for the California Gnatcatcher (see text). Overlays some of development area.

Riparian and wetland vegetation in the Alessandro Arroyo. All of this type lies within open space.

Ruderal vegetation — areas mechanically cleared in the early 1990's. These areas are essentially devoid of shrubs. Overlays the bulk of the development area.

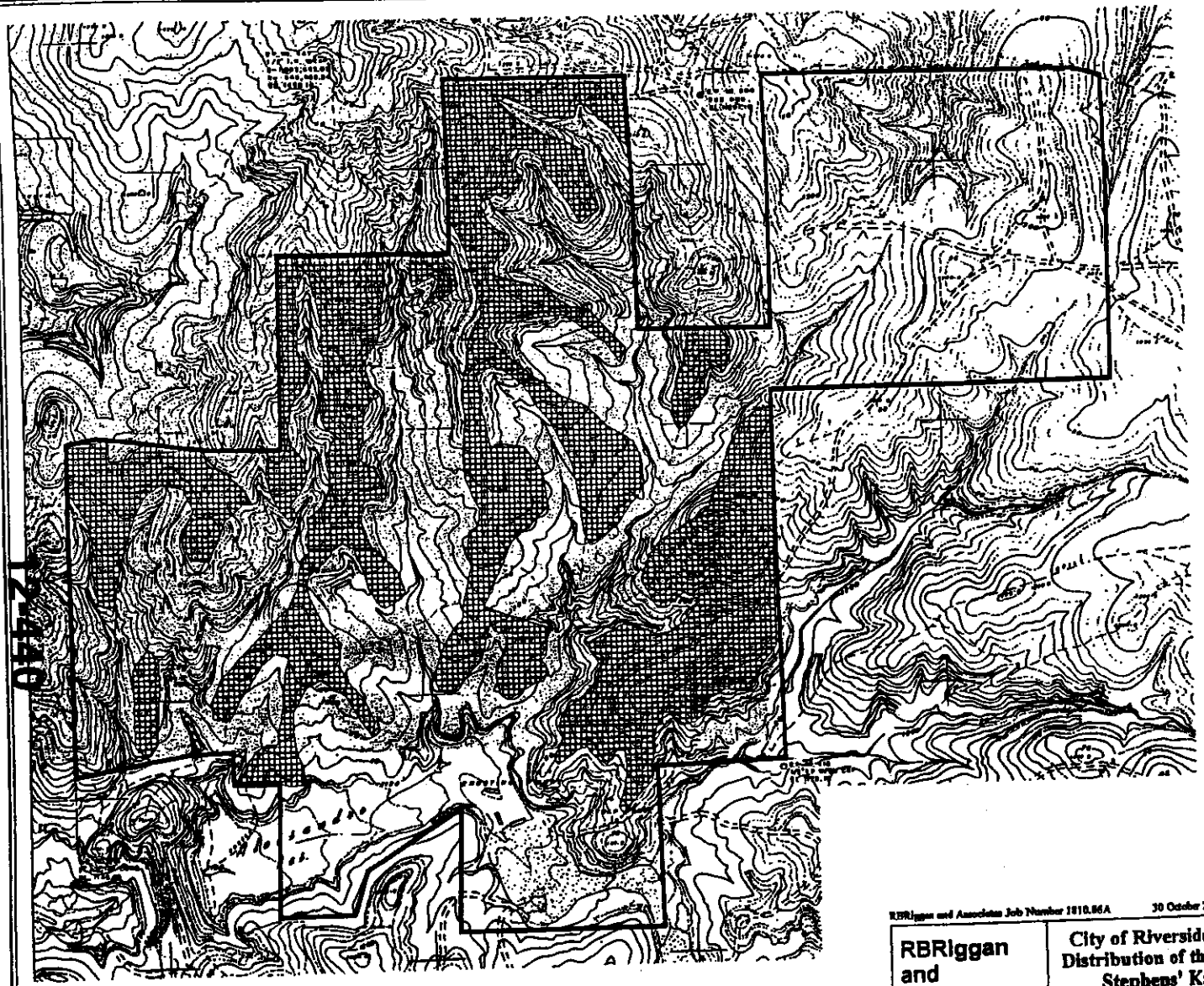
High point in the southern part of the property from which the photographic panorama was taken. Figures 4, 5 and 6 provide a sweeping view of the site from left to right from this vantage point.

Scale: 1-inch = 400-feet
[Base maps from the Riverside County Flood Control District]

RBRiggan and Associates Job Number 1918.06A 30 October 2000 [A1810-Fig-7.wpg]

RBRiggan and Associates	City of Riverside Tract 28728 Showing the Proposed Land Uses and the Existing Vegetation Types (see Text for Discussion)	Figure 7

12-439



The northeastern approximately 40-acres of Tract 28728 has been previously finished graded and approximately half of that area (north of Century Avenue) has been build out. It is assumed that the "take" of the Stephens' Kangaroo Rat in this area has been previously documented and reported. The fact that the southern (vacant) lots may support a trace population of the Kangaroo Rat is not relevant in that to count these individuals would constitute something of a biological double jeopardy.

As plotted to the left there are approximately 46-acres of occupied Stephens' Kangaroo Rat habitat within the bounds of Tract 28728. Based on a visual inspection of virtually all parts of this distribution, the population is best described as "low."

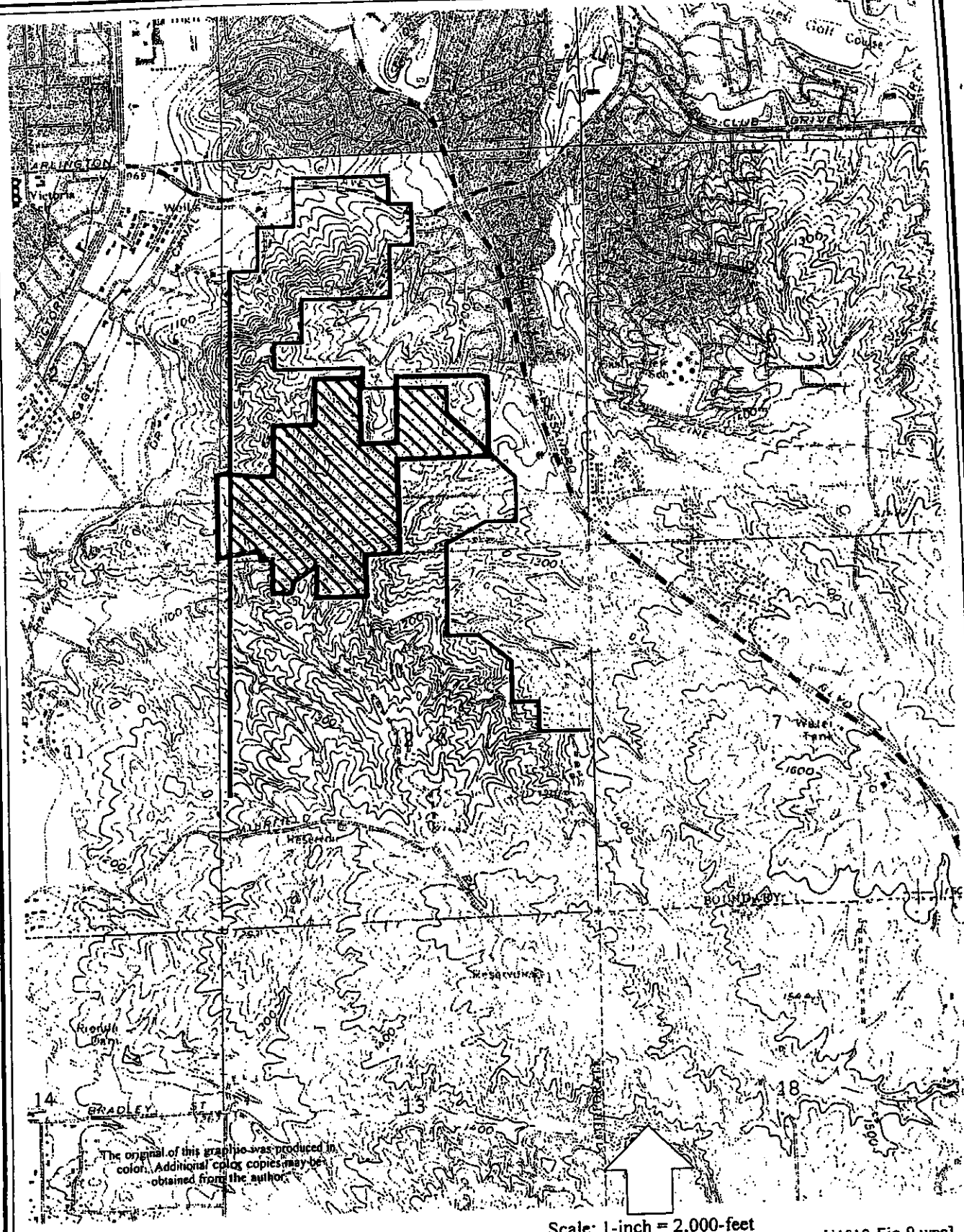
The plotting of the distribution of the Stephen's Kangaroo Rat is subjective and diagrammatic. As one walks the Tract it is clear that the bulk of the individuals assignable to Stephens' are located on the flattest portions of the property. Individual Stephens' are found outside of the areas shaded in green, but such animals are few and far between. Such individuals occur on micro-benches on the slopes; topographic features so small that it is not practicable to plot their occurrences on a map of this scale.

The lack of density in the Stephens' population is something of a surprise. However, when this site was surveyed as part of the Alessandro Heights Specific Plan in 1988 it was a complex association of Sage Scrub and chaparral, not (if with closed canopies) associations frequented by the Stephens'. Subsequent to the "resolution" of the Stephens' issue, the site was apparently cleared mechanically (J. Mays, personal communication, October 2000). Mechanical clearing, excessive sheep grazing and periodic fire when coupled with the current drought year, may have been sufficient to reduce the Kangaroo Rat population to the low levels currently observed.

Scale: 1-inch = 400-feet
[Base maps from the Riverside County Flood Control District]

RBRiggan and Associates Job Number 1810.06A 30 October 2000 [A1816-Fig-8.wpg]

RBRiggan and Associates	City of Riverside Tract 28728 Showing the Distribution of the Habitats Occupied by the Stephens' Kangaroo Rat (see Text)	Figure 8

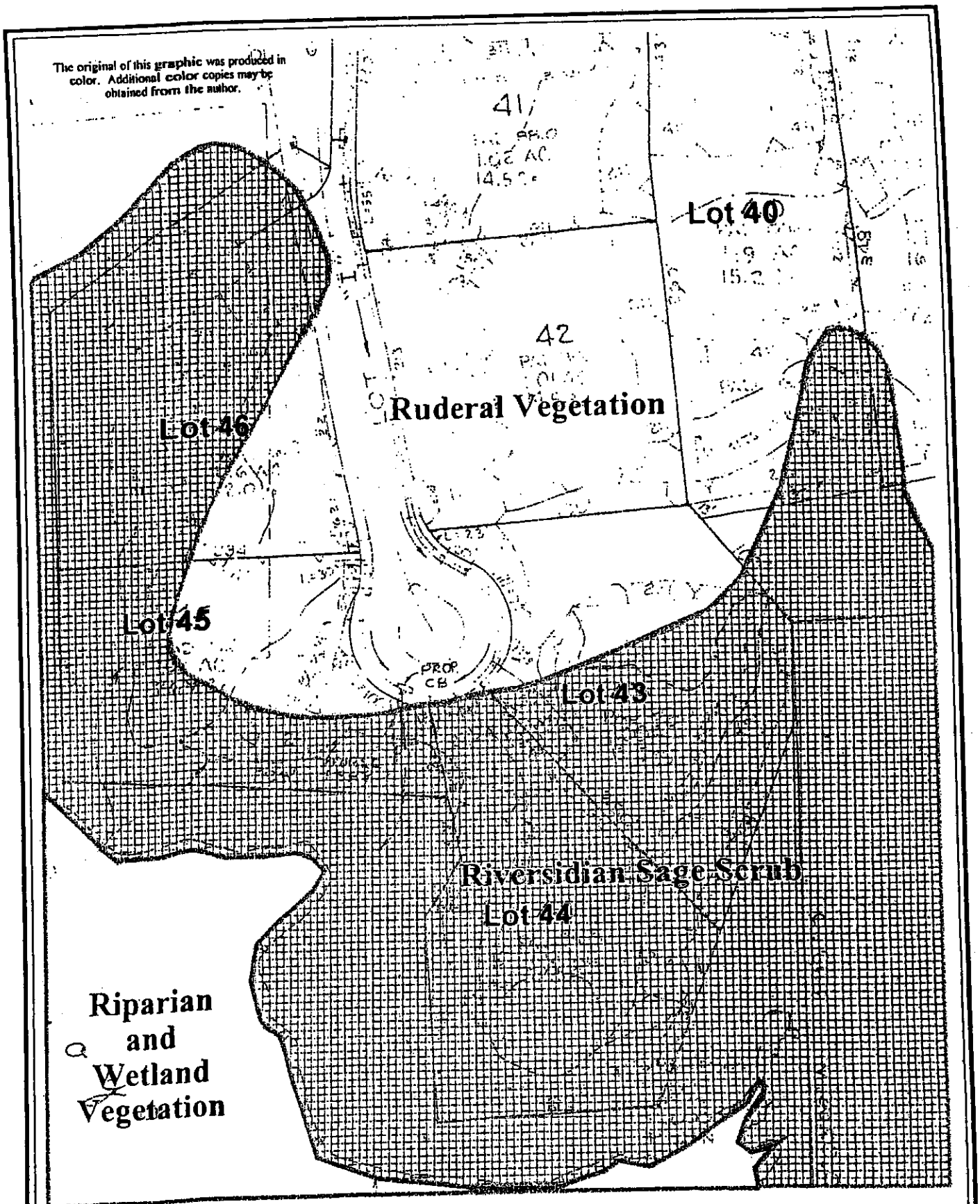


Scale: 1-inch = 2,000-feet

[\1810-Fig-9.wpg]

RBRiggan and Associates Job Number 1810.86A 30 October 2000

RBRiggan and Associates	Location of City of Riverside Tract 28728 in Relation to Final Critical Habitat for the California Gnatcatcher (see text)	Figure 9



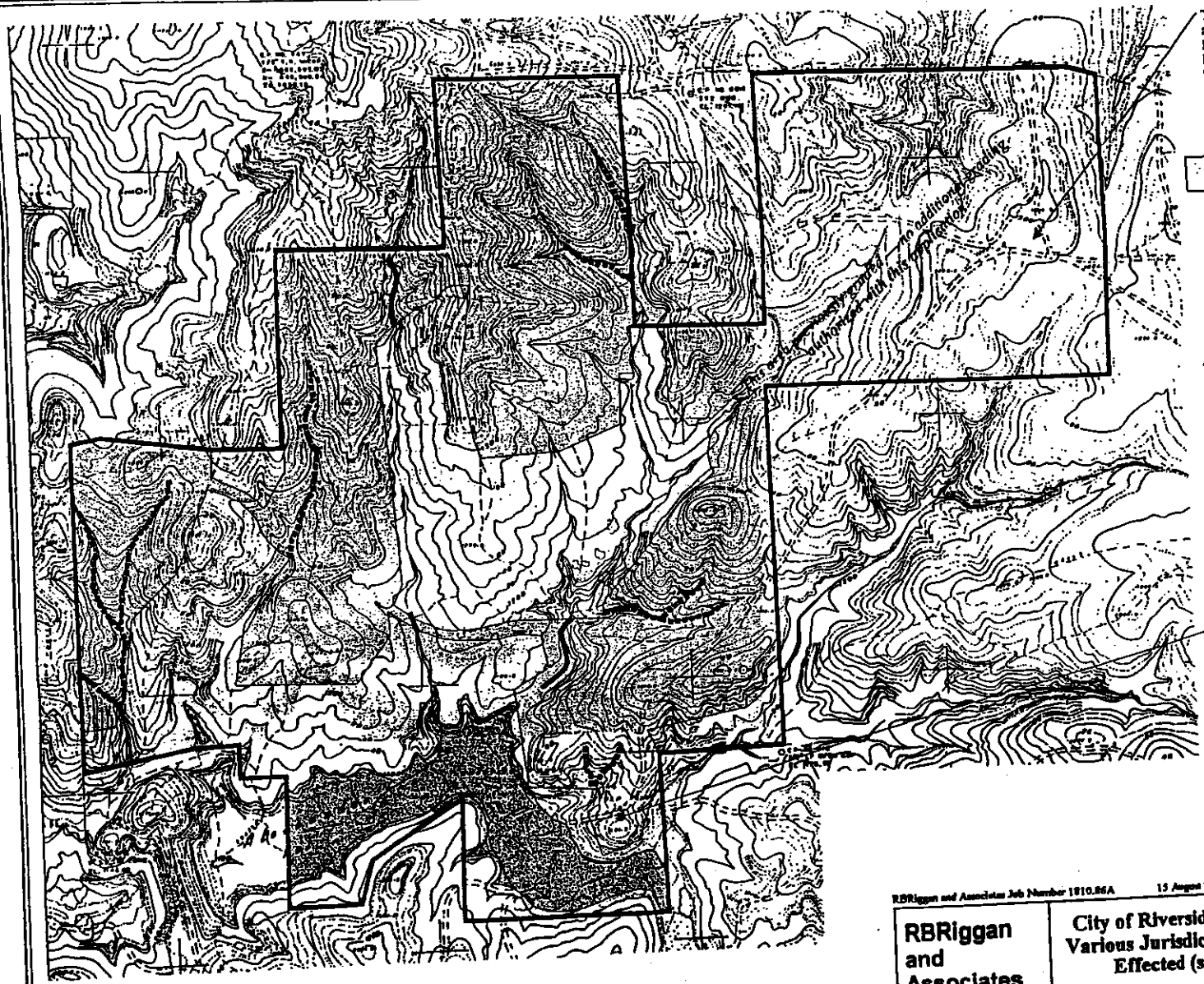
RBRiggan and Associates Job Number 1810.86A 30 October 2000 [:\1810-Fig-10.wpg]

RBRiggan and Associates

Tract 28728 — Detail of Tract Showing the Limits of the Vegetation Types in the Southeastern Corner of the Property

12-442

Figure 10



The northeast quadrant of the Tract (approximately 40-acres designated as Tract 28728-1) has been previously finish graded and streets, curbs, gutters and utilities installed. The northern portion of 28728-1 is actually built-out and the homes occupied. For clarity and consistency the whole area is mapped as "low density residential."

KEY TO THE LAND USES:

Not a vegetation type — "planning" color designates areas to be developed at low density residential.

Areas not colored yellow (regardless of the vegetation type present) are designated open space.

Designates streambeds that appear to meet at least one of the tripartite criteria used to define wetlands (hydrology, hydric soils, or hydrophytic vegetation).

Designates tributaries that drain by other than sheet flow. It is assumed that Federal jurisdiction extends over these drainages.

Hign point in the southern part of the property from which the photographic panorama was taken. Figures 4, 5 and 6 provide a sweeping view of the site from left to right from this vantage point.

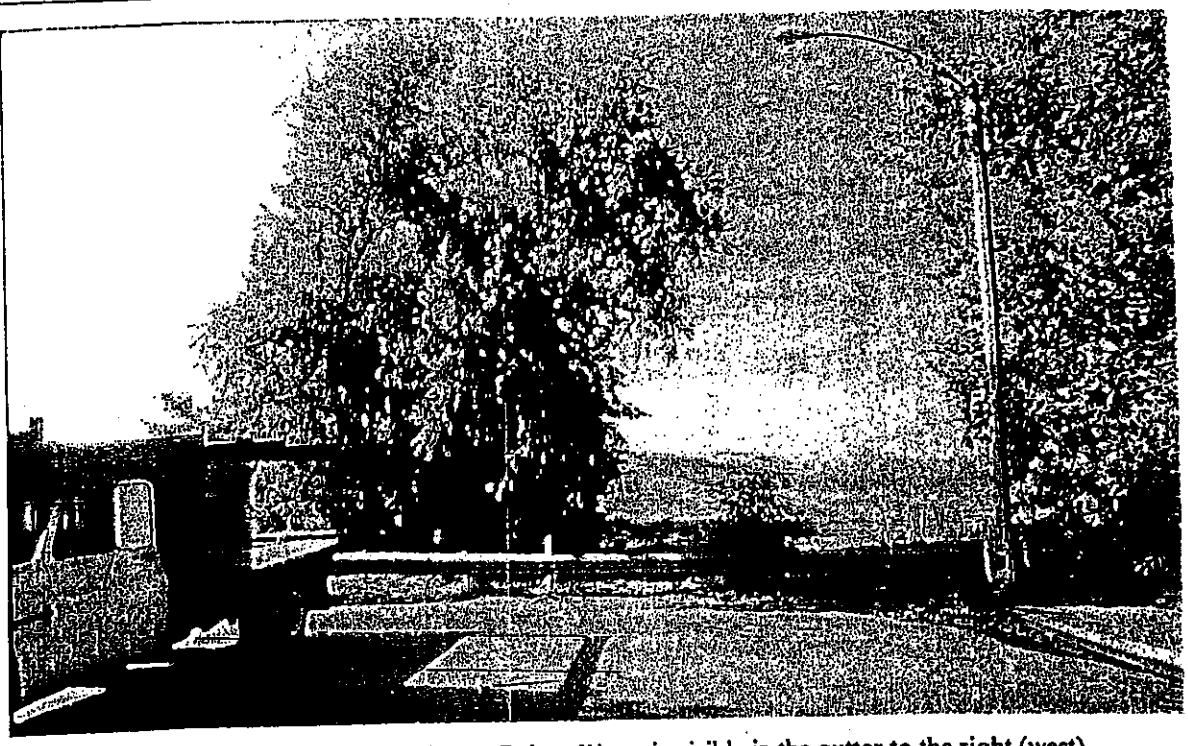
Scale: 1-inch = 400-feet
[Base maps from the Riverside County Flood Control District]

[A1810-Fig-11.wpg]

RBRiggan and Associates Job Number 1810.86A 15 August 2001

RBRiggan and Associates	City of Riverside Tract 28728 Showing the Various Jurisdictional Wetlands that will be Effected (see Text for Discussion)	Figure 11

12-443



View looking to the end of Cresthaven Drive. Water is visible in the gutter to the right (west). Drainage is across the end of the stub-out (from right to left) via a shallow, hand cut, trench. Flows have been sufficient to allow the development of the Black Willow on the left.

View looking west across the end of the Cresthaven Drive stub-out. The shallow ditch is just visible in the shade of the tree and is marked with a highlighted line. The de minimum nature of this resource: one tree and a shallow, 30-foot ditch, do not constitute a valuable resource.

RBRiggan and Associates Job Number 1833.21C 15 August 2001 [:\1810-Fig-12.wpg]

RBRiggan and Associates	Cityof Riverside Tract 28728 — Illustration of the De Minimus "Wetland" at the terminous of Cresthave Drive	Figure 12

12-444

Table 1

Threatened, Endangered, and Otherwise Sensitive Plant Species Known to Occur within an Approximate Ten-Mile Radius of Tentative Tract 28728, Riverside County, California

Species/Common Name/Occurrence — **CNPS/State/Federal Status**

Abronia villosa var. *aurita*
Chaparral Sand-verbena — List 1B, 2-3-3/-/-
[**Possible**: Occurs on sandy soils and at elevations similar to those on the subject property.]

Allium munzii
Munz's Onion — List 1B, 3-3-3/CT/FE
[Not Expected: This species occurs in mesic conditions, often in clay soils; a soil type not found on the subject property.]

Ambrosia pumila
San Diego Ambrosia — List 1B, 3-3-2/-/SOC
[**Possible**: Occurs at similar elevations as are found on the subject property and in more mesic situations, such as the floors of the side drainages to Alessandro Wash.]

Arenaria paludicola
Marsh Sandwort — List 1B, 3-3-2/CE/FE
[**Possible**: A wetland species that could occur along the Alessandro Wash.]

Atriplex coronata var. *notatior*
San Jacinto Valley Crownscale — List 1B, 3-3-3/-/FE
[Not Expected: A species found on alkaline, heavy clay soils; a type not found on-site.]

Atriplex coulteri
Coulter's Saltbush — List 1B, 2-2-2/-/-
[Not Expected: Occurs in more coastal areas and on more mesic, saline soils; a type not found on-site.]

Atriplex pacifica
South Coast Saltscale — List 1B, 3-2-2/-/SOC
[Not Expected: Occurs in more coastal areas and on more mesic, saline soils; a type not found on-site.]

Table 1 (continued)

Atriplex parishii
Parish's Brittlescale — List 1B, 3-3-2/-/SOC
[Not Expected: A species found on alkaline soils; a type not found on-site.]

Berberis nevinii
Nevin's Barberry — List 1B, 3-3-3/CE/FE
[**Possible**: Occurs at similar elevations and on similar soils as are found on the subject property.]

Brodiaea filifolia
Thread-leaved Brodiaea — List 1B, 3-3-3/CE/FT
[Not Expected: This species occurs in mesic, heavy clay soils; a soil type not found on the subject property.]

Calochortus plummerae
Plummer's Mariposa Lily — List 1B, 2-2-3/-/SOC
[**Possible**: Occurs at similar elevations and on similar granitic soils as are found on the subject property.]

Carex comosa
Bristly Sedge — List 2, 3-3-1/-/-
[**Possible**: A species found on mesic soils; perhaps in the Alessandro Wash.]

Centromadia pungens ssp. *laevis*
Smooth Tarplant — List 1B, 2-3-3/-/SOC
[**Possible**: Occurs in mesic habitats; possibly along the Alessandro Wash.]

Chorizanthe parryi var. *parryi*
Parry's Spineflower — List 3, ?-2-3/-/SOC
[**Possible(??)**: Occurs in xeric openings or interstices between shrubs. However, unlikely on-site given the prior disturbance of the soils and the native vegetation.]

Chorizanthe polygonoides var. *longispina*
Long-spined Spineflower — List 1B, 2-2-2/-/SOC
[**Possible(??)**: Occurs in xeric openings or interstices between shrubs. However, unlikely on-site given the prior disturbances to the soils and the native vegetation.]

Table 1 (continued)

Dodecahema leptoceras
Slender-horned Spineflower — List 1B, 3-3-3/CE/FE
[Not Expected: This species occurs at elevations similar to those on the subject property, but is associated with active alluvial fans and fluvial environments, which are not found on the subject property.]

Dudleya multicaulis
Many-stemmed Dudleya — List 1B, 1-2-3/-/SOC
[Not Expected: A species found in heavy clay soils; a soil type not found on the subject property.]

Eriastrum densifolium ssp. *sanctorum*
Santa Ana River Woollystar — List 1B, 3-3-3/CE/FE
[Not Expected: Occurs at similar elevations and on similar granitic soils as are found on the subject property, but in active fluvial environments; a type not found on-site.]

Erodium macrophyllum
Round-leaved Filaree — List 2, 2-3-1/-/-
[**Possible**: A species found in shaded washes and similar environments.]

Galium californicum ssp. *primum*
California Bedstraw — List 1B, 3-2-3/-/SOC
[Not Expected: Occurs at elevations higher than those found on the subject property.]

Helianthus nuttallii ssp. *parishii*
Los Angeles Sunflower — List 1A, */-/SOC
[Not Expected: Presumed extinct.]

Hordeum intercedens
Vernal Barley — List 3, ?-2-2/-/-
[Not Expected: A vernal pool and alkaline flat species; habitat types not found on the subject property.]

Horkelia cuneata ssp. *puberula*
Mesa Horkelia — List 1B, 2-3-3/-/-
[**Possible**: Occurs at similar elevations and on similar granitic soils as are found on the subject property.]

Table 1 (continued)

Lasthenia glabrata ssp. *coulteri* — List 1B, 2-3-2/-/SOC
Coulter's Goldfields
[Not Expected: An alkaline, wetland obligate; a habitat type not found on the subject property.]

Lycium parishii — List 2, 2-1-1/-/-
Parish's Desert-thorn
[**Possible**: Occurs at similar elevations and in similar habitats as are found on the subject property.]

Malacothamnus parishii — List 1A,*/-/SOC
Parish's Bush Mallow
[Not Expected: Presumed extinct.]

Monardella macrantha ssp. *hallii* — List 1B, 2-1-3/-/-
Hall's Monardella
[Not Expected: Occurs at elevations higher than those found on subject property.]

Monardella pringlei — List 1A, */-/SOC
Pringle's Monardella
[Not Expected: Presumed extinct.]

Myosurus minimus ssp. *apus* — List 3, 2-3-2/-/SOC
Little Mousetail
[Not Expected: A vernal pool obligate species; a habitat type not found on the subject property.]

Navarretia fossalis — List 1B, 2-3-2/-/FT
Spreading Navarretia
[Not Expected: A vernal pool obligate species; a habitat type not found on the subject property.]

Navarretia prostrata — List 1B, 2-3-3/-/-
Prostrate Navarretia
[Not Expected: A vernal pool obligate species; a habitat type not found on the subject property.]

Populus angustifolia — List 2, 3-2-1/-/-
Narrow-leaved Cottonwood
[Not Expected: Occurs at elevations significantly higher than those found on-site.]

Table 1 (continued)

Ribes divaricatum var. *parishii*
Parish's Gooseberry — List 1B, 3-3-3/-/SOC
[Not Expected: Believed to be extirpated in San Bernardino County. It was last documented in 1980 at the Whittier Narrows Nature Center.]

Rorippa gambelii
Gambel's Water Cress — List 1B, 3-3-2/CT/FE
[**Possible**: A wetland species that occurs at elevations similar to those found on subject property.]

Senecio aphanactis
Rayless Ragwort — List 2, 3-2-1/-/-
[**Possible**: Occurs at similar elevations and in similar habitats as are found on the subject property.]

Sidalcea neomexicana
Salt Spring Checkerbloom — List 2, 2-2-1/-/-
[Not Expected: Occurs in alkaline, mesic conditions.]

Sphenopholis obtusata
Prairie Wedge Grass — List 2, 2-2-1/-/-
[**Possible**: Occurs in mesic conditions; possibly in the Alessandro Wash.]

Trichocoronis wrightii var. *wrightii*
Wright's Trichocoronis — List 2, 3-3-1/-/-
[Not Expected: Occurs in alkaline, mesic conditions.]

[:\1810cnps-tbl.wpd]

Table 1 (continued)

Key to the R-E-D code:

Rarity (first digit)

1 — Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.

2 — Occurrence confined to several populations or to one extended population.

3 — Occurrence limited to one or few highly restricted populations or present in such small numbers that it is seldom reported.

Endangerment (second digit)

1 — Not Endangered

2 — Endangered in a portion of it's range

3 — Endangered throughout it's range

Distribution (third digit)

1 — More or less widespread outside California

2 — Rare outside of California

3 — Endemic to California

CNPS "List"

List 1B — Plants threatened or endangered in California and elsewhere

List 2 — Plants rare, threatened or endangered in California but more common elsewhere

List 3 — Plants about which more information is needed; a watch list

Status Codes

CR — State of California listed as rare

CE — State of California listed as endangered

CT — State of California listed as threatened

SOC — Federal "species of concern" a designator used for species that may be at risk in the future or for which there is insufficient information to proceed with a listing action at this time.

FE — Designated Endangered under Federal Endangered Species Act

FT — Designated as Threatened under the Federal Endangered Species Act

PE — Proposed for Endangered status under the Federal Endangered Species Act

Quadrangle Maps researched in the preparation of the above list:

85B — Sunnymead

85C — Perris

86A — Riverside East **

86B — Riverside West

86C — Lake Mathews

86D — Steele Peak

106C — Redlands

107C — Fontana

107D — San Bernardino South

**Indicates map that served as the centroid of the search.

TABLE 2
VASCULAR PLANTS OBSERVED ON TENTATIVE TRACT 28728 RIVERSIDE COUNTY, CALIFORNIA

Species		Status/Occurrence on Site
Amsinckia menziesii Rancher's Fireweed	N	Common across the site, one of the dominants in ruderal areas that have not been recently burned.
Artemisia californica Coastal Sagebrush	N	Uncommon; rare, over most of the property were it is represented by widely spaced individuals scattered largely near the rock outcrops. However, in the southern part of the property (along the sides of Alessandro Wash) the species is common in remaining stands of Sage Scrub.
Artemisia dracunculus Tarragon	N	Uncommon, occasional in the dry arroyos.
Arundo donax Giant Reed	I	Common in the arroyo. A non-native, invasive that should be eliminated from the site.
Astragalus pomonensis Pomona Locoweed	N	Occasional, adventive in the ruderal vegetation.
Avena barbata Slender Wild Oat	I	Common on the disturbed soils throughout the site, but not as numerically dominant as the Bromes.
Baccharis salicifolia Mule Fat	N	Common in the Alessandro Arroyo and to a lesser extent as scattered individuals in the various side drainages.
Baccharis sarothroides Broom Baccharis	N	Uncommon, a few individuals were noted in the side drainages.
Bebbia juncea Rush Sweetbush	N	Occasional on-site, generally localized in boulder patches
Brickellia desertorum Desert Brickellbush	N	This Brickellbush is not the expected *B. californica* because the phyllaries are not glabrous. They are puberulent as in *B. desertorum* (Jepson), a species out-of-range in the Alessandro Heights area. According to Abrams, the petioles of *B. desertorum* are 1-3 mm, while those of *B. californica* are 5-20 mm. [continued]

Species	Status/Occurrence on Site	
		[continued from previous page] Our specimen's petioles measured out to be 2 mm. Abrams also states that the leaves of *B. desertorum* are cinereous-puberulous, while those of *B. californica* are not. The leaves of our specimen were definitely cinereous-puberulous. Individuals of this shrub were found at scattered locations, primarily in the boulder outcrops.
Bromus madritensis ssp. *rubens* Red Brome	I	Common on the disturbed soils throughout the site, a dominant. Visibly absent where recently burned.
Bromus cf. *diandrus* Rip-gut Grass	I	Common on the disturbed soils throughout the site, a dominant.
Centaurea melitensis Tocalote	I	Surprisingly uncommon, a few were noted in the southeastern part of the property.
Chamaesyce polycarpa Prostrate Spurge	N	Occasional on open, disturbed soils.
Chenopodium berlandieri Pitseed Goosefoot	N	Scattered near the dam.
Conyza canadensis Horseweed	I	An occasional adventive on disturbed soils, primarily in the drainages.
Corethrogyne filaginifolia var. *virgata* Virgate Sand Aster	N	Common on disturbed soils, a sub-shrub that appears to invade the open grassland or ruderal vegetation. This is the most common (sub-)shrub on the property.
Croton californicum California Croton	N	Few individual plants at widely scattered stations.
Cynodon dactylon Crab Grass	I	Found only at the end of Cresthaven Drive.
Cyperus cf. *odoratus* Umbrella-sedge	N	Found only in a ditch at the end of Cresthaven Drive and in the floodway of Alessandro Wash.
Datura wrightii Jimsonweed	N	Very few individuals on southeast corner of property and at a few other disjunct locations.
Encelia farinosa Brittlebush	N	Common, but highly localized. Over most of the property found only as relictual individuals in the boulder outcrops. Most in southern part of Tract.

Species		Status/Occurrence on Site
Eremocarpus setigerus Turkey Mullein	N	Occasional on most heavily disturbed soils.
Ericameria pinefolia Pine Goldenbush	N	An adventive shrub found on the lower sides of the drainages.
Eriogonum fasciculatum ssp. *foliolosum* Flat-Top Buckwheat	N	Uncommon, rare individuals scattered across the site, most common in association with boulder outcrops except where the Sage Scrub is relatively intact, such as the southern part of the property.
Erodium cicutarium Red-stemmed Filaree	I	Abundant, on the more heavily disturbed soils.
Erodium cf. *moschatum* Storksbill	I	This species also appeared to be abundant with the above.
Geraea canescens Desert Sunflower	N	Rare on-site, identified from specimens on a previously graded, sandy road-cut in 28728-1.
Gutierrezia sarothrae Matchweed	N	Uncommon, perhaps the second most common (sub-)shrub on the property. Adventive in the ruderal association.
Helianthus annuus California Sunflower	N	Scattered along drainages.
Heliotropium curvassavicum Salt Heliotrope	N	Found only at the stub end of Cresthaven Drive (see text for discussion). Perhaps also along the Alessandro Wash, in or near the flood plain.
Hemizonia cf. *fasciculatum* Tarweed	N	Occasional, on soils not so heavily disturbed in recent years.
Heterotheca grandiflora Telegraph Weed	N	Abundant on heavily disturbed soils; most common on graded parts of the Tract.
Hirschfeldia incana Short-pod Mustard	I	Common to abundant on the disturbed soils throughout the site.
Lactuca serriola Prickly Lettuce	I	A facultative wetland species found scattered in the dry washes.
Lotus scoparius Deerweed	N	Occasional, widely scattered, frequently in association with rock outcrops.

Species	Status/Occurrence on Site	
Lycium andersonii Anderson's Desert Thorn	N	A single plant was found in the southwest section of the property and approximately 20 plants were found clustered on a south-facing slope in the south-central section. Distinction of two closely related species is important here in that one is a sensitive species appearing on the CNPS list (2000).The single plant had numerous flowers which assisted in the identification of the species, while the group of plants were dormant. Identifying characteristics were the length of the calyx lobe, length of the corolla tube, point of attachment of the stamens and width of the corolla tube. A calyx lobe of *(a non-sensitive species)* while a calyx lobe 2-4 mm in length indicates *L. parishii*. Our specimen's calyx lobe measured 0.6 mm in length. A corolla tube 5-10 mm long and 0.6-2.5 mm wide is indicative of *L. andersonii* while one 2.5-6 mm long and >3 mm wide is assignable to *L. parishii*. The length of our specimen's corolla tube was 7 mm long and and 1.1 approximately 0.8 mm in length is indicative of *L. andersonii* mm wide. Finally, if the stamens were attached at the middle of the corolla tube that would indicate *L. parishii*. If the stamens were instead attached a third from the base of the corolla tube, that indicated *L. andersonii*. The stamens on our specimen were attached one third from the base of the corolla tube. The plants found appear to be the common Anderson's Desert Thorn.
Marah macrocarpus Wild Cucumber	N	Seen at several stations but overall is rare on-site. Individuals observed were always in association with rock outcrops.
Marrubium vulgare Horehound	I	Occasional, primarily along the arroyos.
Mimulus aurantiacus Bush Monkey-flower	N	Occasional, in the rock outcrops.
Mirabilis californica Wishbone Bush	N	Rare on site, individuals were seen at only one or two locations, generally in rock outcrops.
Nicotiana glauca Tree Tobacco	I	Abundant but highly localized on disturbed soils, primarily in the dry washes.

Species	Status/Occurrence on Site	
Opuntia parryi Cane Cholla	N	Scattered in the remaining Sage Scrub in the southern and southwestern parts of the site.
Pentagramma triangularis Gold/Silver-backed Fern	N	Specimen was too desiccated to determine whether it was ssp. *triangularis* or ssp. *viscosa*. Rare on-site, found only in one or two rock outcrops.
Phacelia cf. *cicutarium* Caterpillar Phacelia	N	Uncommon. A few individuals are scattered throughout the property, primarily in rock outcrops.
Polypogon monspeliensis Rabbit's-foot Grass	I	Found only at the stub-out end of Cresthaven Drive (see text for discussion) and possibly along the Alessandro Arroyo.
Populus fremontii Fremont's Cottonwood	N	Few individuals found in side drainages, but primarily scattered along Alessandro Arroyo.
Ricinus communis Castor Bean	I	Found on disturbed soils, uncommon on-site but highly visible.
Salix gooddingii Black Willow	N	Common along the Alessandro Arroyo. Isolated individuals are found elsewhere in some of the dry washes.
Salix lasiolepis Arroyo Willow	N	Common along the Alessandro Arroyo. Isolated individuals are found elsewhere in some of the dry washes.
Salsola tragus Russian Thistle	I	Uncommon on-site, widely scattered on the most heavily disturbed soils.
Salvia apiana White Sage	N	A few isolated individuals, scattered throughout property, most frequent on the steep sides of the dry washes.
Sambucus mexicana Elderberry	N	A few widely scattered individuals, primarily in rock outcrops.
Sarcostemma cynanchoides ssp. *hartwegii* Climbing Milkweed	N	A few isolated individuals were found in the rock outcrops.
Schinus molle Peruvian Pepper	I	Several individuals widely scattered in the northern part of the property (see Figures 4, 5, and 6)

Species	Status/Occurrence on Site	
Schismus barbatus Mediterranean Grass	I	Common but localized on stable but relatively barren soils where there is little competition from other grasses and forbs.
Scrophularia californica California Figwort	N	Found only in association with boulder outcrops, relatively common but highly localized.
Selaginella cf. *bigelovii* Mossfern	N	Localized on-site but appearing as relatively extensive ground cover where it does occur. Too deteriorated to key, resembled *S. cinerascens* in aspect.
Solanum parishii Purple Nightshade	N	Subshrub individuals (and one definitely woody individual) were found scattered in the rock outcrops across the Tract.
Stephanomeria exigua ssp. *deanei* Stephanomeria	N	Relatively common, scattered across the site.
Tamarix parviflora Tamarisk, Salt Cedar	I	Common along the Alessandro Arroyo. A single individual was seen in one of the side washes
Urtica dioica Stinging Nettle	N	Common along the Alessandro Arroyo. A few scattered stands were found in the side washes where the floor of the wash is slightly more mesic due to an underground substrate that retains waster during the rainy season.
Xanthium strumarium Cocklebur	N	Common along the Alessandro Arroyo.

Table 3

THREATENED, ENDANGERED AND SENSITIVE WILDLIFE SPECIES KNOWN TO OCCUR IN THE GENERAL REGION OF THE TENTATIVE TRACT 28728 IN THE CITY OF RIVERSIDE

Species Name	Status	
	Federal[1]	State[2]
Insects		
Euphydryas editha quino — Quino Checkerspot Butterfly	E	none
Rhaphiomidas terminatus abdominalis — Delhi Sands Flower-loving Fly	E	none
Crustaceans		
Streptocephalus woottoni — Riverside Fairy Shrimp	E	none
Branchinecta lynchi — Vernal Pool Fairy Shrimp	T	none
Branchinecta sandiegoensis — San Diego Fairy Shrimp	E	none
Amphibians		
Scaphiopus hammondii — Western Spadefoot Toad	FSC	SSC
Bufo californicus — Arroyo Southwestern Toad	E	SSC
Rana aurora draytonii — Red-legged Frog	T	SSC
Reptiles		
Clemmys marmorata — Western Pond Turtle	FSC	SSC
Anniella pulchra pulchra — Silvery Legless Lizard	FSC	SSC
Cnemidophorus hyperythrus beldingii — Orange-throated Whiptail	FSC	SSC
Crotalus exsul ruber — Northern Red Diamond Rattlesnake	FSC	SSC
Eumeces skiltonianus interparietalis — Coronado Western Skink	FSC	SSC

Species Name	Status	
	Federal[1]	State[2]
Phrynosoma coronatum ssp. *blainvillei* — Coast Horned Lizard	FSC	SSC
Salvadora hexalepis virgultea — Coast Patch-nosed Snake	FSC	SSC
Thamnophis hammondii — Two-striped Garter Snake	FSC	SSC
Mammals[4]		
Bassariscus astutus — Ring-tailed Cat	none	protected
Eumops perotis californicus — Greater Western Mastiff Bat	FSC	SSC
Corynorhinus (Plecotus) townsendii — Townsend's Western Big-eared Bat	FSC	SSC
Dipodomys stephensi — Stephens' Kangaroo Rat	E	T
Dipodomys merriami parvus — San Bernardino Merriam's Kangaroo Rat	E	SSC
Lepus californicus bennettii — San Diego Black-tailed Jackrabbit	FSC	SSC
Neotoma lepida intermedia — San Diego Desert Woodrat	FSC	SSC
Onychomys torridus ramona — Southern Grasshopper Mouse	FSC	SSC
Perognathus longimembris brevinasus — Los Angeles Pocket Mouse	FSC	SSC
Birds[5]		
Accipiter cooperii — Cooper's Hawk (nesting)	none	SSC
Agelaius tricolor — Tricolored Blackbird	FSC	SSC
Aimophila ruficeps ssp. *canescens* — (Southern California) Rufous-crowned Sparrow	FSC	SSC
Amphispiza belli belli — Bell's Sage Sparrow	FSC	SSC
Athene cunicularia hypugea — Western Burrowing Owl	FSC	SSC
Circus cyaneus — Northern Harrier (nesting)	none	SSC
Coccyzus americanus occidentalis — Western Yellow-billed Cuckoo (nesting)	none	E
Elanus caeruleus — White-tailed Kite (nesting)	none	protected
Empidonax trailii extimus — Southwestern Willow Flycatcher	E	none

Species Name	Status	
	Federal[1]	State[2]
Polioptila californica californica — Coastal California Gnatcatcher	T	SSC
Thryomanes bewickii — Bewick's Wren[6]	none	none
Vireo bellii pusillus — Bell's Vireo	E	E

TABLE 3 (continued)

Key to the Codes Appearing in the Table:

E	Endangered species (as designated by either the Fish and Wildlife Service or by the State of California)
T	Threatened species
PE	Proposed as Endangered
PT	Proposed as Threatened
FSC	Formerly considered as a category 1 or 2 species for listing under the Federal Endangered Species Act, but no longer under active consideration. Now listed as a "Federal Species of Concern."
SSC	Species of Special Concern — as determined by the California Department of Fish and Game
protected	Two species protected by special State Statute (statutes enacted before the advent of the State Endangered Species Act)
none	Indicates that the species has no specific status with either the federal or the state wildlife agencies.

Numbered Notes:

1 The Federal status of the listed is taken from: "State and Federally Listed Endangered and Threatened Animals of California," 2000; California Department of Fish and Game, posted at http://www.dfg.ca.gov/whdab/, 12 pp., and from the California Department of Fish and Game, Special Animals, July 2000, 47 pp., also posted at the same web site.

2 State of California status for the listed and sensitive species is also derived from: Fish and Game, 1994; Jennings, 1994; and, Williams, 1986.

3 Although these species have no State or Federal "status" they are included in the table for clarity due to past concerns that have been vocalized by various workers

4 Certain species of bats, because they are: a) not listed or categorized by the Fish and Wildlife Service, and b) are widespread in California, are not included in the list despite being classified as Species of Special Concern by the state.

5 The "Blue List" (Tate, 1986) is **not** utilized to develop the list of sensitive species due to its age (over 10-years since last updated) and effective replacement by other, more current resources (e.g. see Fish and Wildlife Service).

6 The "sensitive" status of the Bewick's Wren applies only to the Appalachian sub-species and not to the forms found in mainland southern California.

Table 4
Bird Species Observed During the Surveys of Tentative Tract 28728 Riverside County, California

Species	Tract 28728-2		Tract 28728		Notes
	9/28	10/10	10/19	10/24	
Buteo jamaicensis Red-tailed Hawk	—	2	2	1	It appears that this is a local nesting pair on the Alessandro Wash (or in neighboring horticultural plantings) which uses the subject property as a hunting ground.
Falco sparverius American Kestrel	1	—	1	2	Two separate males use the subject property as a hunting ground.
Callipepla californica California Quail	1	—	—	—	Heard calling off-site on the 28th.
Zenaida macroura Mourning Dove	—	18	20	1	These flocks were seen in the drainages on-site.
Archilochus alexandri Black-chinned Hummingbird	—	—	1	—	A single male was observed on-site in one of the drainages, perched on a branch.
Calypte anna Anna's Hummingbird	1	—	3	4	Residents on-site.
Colaptes auratus Northern Flicker	—	3	2	4	Heard and seen on- and off-site. Two individuals were seen interacting in some ill defined way with the Pinon Jay. Four were seen flying from a Eucalyptus tree off-site and then flying over the property.
Sayornis nigricans Black Phoebe	2	3	8	1	Residents on-site.
Sayornis saya Say's Phoebe	2	1	2	2	Residents on-site.
Corvus brachyrhynchos American Crow	—	74+	1	1	All observed flying over the property with the one large flock concentrated at dawn on Tract 28728-2 before departing the area.
Corvus corax Common Raven	—	2	—	—	A single pair was seen on-site.
Aphelocoma californica Western Scrub Jay	1	—	1	—	Both birds were heard off-site.

Species	Tract 28728-2		Tract 28728		Notes
	9/28	10/10	10/19	10/24	
Gymnorhinus cyanocephalus Pinyon Jay	1	1	—	—	While of no consequence to the biology of the Tract, this observation is of considerable interest to the birding community. This Bird was seen by Morse on the 28th and was subsequently reported to the San Bernardino Audubon Society's Rare Bird Alert. Birds of this species are not normally found on the coastal side of the mountains. This juvenile probably represents one of the dispersing individuals that are on rare occasions seen far afield in California, far from the normal species' range. The bird was still present on-site on the 10th.
Psaltriparus minimus Bushtit	—	—	—	4	This group of four was seen moving through the Sage Scrub in the southeastern section of the property heading toward Alessandro Wash.
Salpinctes obsoletus Rock Wren	—	—	1	1	It is believed that these two sitings are of the same individual, which was seen and heard calling from various boulders overlooking one of the drainages on-site.
Thryomanes bewickii Bewick's Wren	—	—	4	—	Two pair were seen and heard along one of the drainages on-site.
Polioptila caerulea Blue-gray Gnatcatcher	—	—	5	2	There are at least two pair and maybe three scattered throughout the property in the Sage Scrub habitat and along the drainages, but primarily in the latter. All birds were observed until a clear view of the underside of the tail was obtained. Each bird had the characteristic white outer retrices and abundantly white underside of the tail with a thin black center. Vocalizations were heard that were characteristic of the Blue-gray and distinguishable from the Type I call of the California Gnatcatcher. All birds were observed by both Riggan and Morse.
Chamaea fasciata Wrentit	—	—	1	—	Heard singing south of property.
Mimus polyglottos Northern Mockingbird	1	3	—	—	Seen and heard off-site in the adjacent horticultural plantings in the residential subdivision.
Toxostoma redivivum California Thrasher	1	—	1	—	A single individual was seen and heard in Sage Scrub vegetation off-site to the northwest, at the base of the high hill, on the 28th. Another individual was seen in the Sage Scrub in the southeastern section of the property on the 19th.
Dendroica coronata Yellow-rumped Warbler	—	—	—	1	Observed on the graded pads in the northeastern section of the property.
Pipilo crissalis California Towhee	4	2	14	5	Resident on-site.
Aimophila ruficeps Rufous-crowned Sparrow	—	1	2	2	At least one pair is represented by the various sitings, probably resident on-site.
Passerculus sandwichensis Savannah Sparrow	—	1	—	—	Early migrant.
Zonotrichia leucophrys White-crowned Sparrow	—	—	8	—	Migrants have arrived.

Species	*Tract 28728-2		Tract 28728		Notes
	9/28	10/10	10/19	10/24	
Sturnella neglecta Western Meadowlark	—	2	1	2	At least one pair is utilizing the subject property.
Carpodacus mexicanus House Finch	6	23	14	6	Common on-site, off-site and over the site.
Carduelis psaltria Lesser Goldfinch	—	—	—	1	Observed in the southwestern portion of the property.
Carduelis tristis American Goldfinch	—	—	3	—	Seen on the south side of the arroyo.

* Tentative Tract 28728-2 was surveyed on September 28, 2000 and October 10, 2000. The balance of the entire Tentative Tract 28728 was surveyed on October 19 and 24, 2000.

[:\1810bird-tbl.wpd]

Appendix A

California Gnatcatcher Survey Report

An Assessment of the California Gnatcatcher on Tentative Tract 28728 in Riverside County, California

Prepared For:

Dr. Yang Chang Hong
2193 Hackamore Place
Riverside CA 92506

Prepared By:

RBRiggan and Associates
10646 Marbury Avenue
San Diego, California 92126
619-233-5454

7 September 2001
RBR Job Number 1810.86A

An Assessment of the California Gnatcatcher on Tentative Tract 28728 in Riverside County, California

SUMMARY

Based on the results of the field work reported in this document, habitats within City of Riverside Tract 28728 which are apparently suitable for the California Gnatcatcher are not occupied by that species. These un-occupied habitats encompass approximately 12.5-acres of which approximately 2.9- acres will be lost during construction. The lack of Gnatcatchers is in all probability due to (1) grading activities on the property immediately adjacent and to the south of the subject Tract, (2) recent fires to the west and southwest, fires that have destroyed large areas of Riversidian Sage Scrub, and, (3) the relatively small size of intact habitat left within and adjacent to the southeastern corner of the property. A pair of California Gnatcatchers generally occupies approximately 20-acres for breeding purposes (Braden, 1998). There is hardly 20-acres of Riversidian Sage Scrub left in or adjacent to the southeastern corner of the subject Tract.

BACKGROUND AND INTRODUCTION

County of Riverside Tract 28728 encompasses approximately 151.8-acres and lies at the north end of the Alessandro Heights Community, north of the Alessandro Arroyo and flood control basin (see Figures 2 and 3). In August 2000, RBRiggan and Associates was retained to conduct a Biological Assessment of the tract and prepare a report for submittal to the City of Riverside. California Gnatcatcher (a federally listed "Threatened" species; *Polioptila californica*) surveys were not, however, initially authorized by the applicant. The Riverside Planning Department issued a Mitigated Negative Declaration for the Tract late in the year and the Department of Fish and Game responded in a letter dated February 2, 2001. One of their recommendations of the Department was that a protocol presence/absence California Gnatcatcher survey be conducted. RBRiggan and Associates was retained to conduct this protocol survey during the breeding season of 2001. This document serves as the protocol survey report.

The bulk of Tentative Tract 28728 is occupied by a ruderal or weedy association of plants not suitable as habitat for the California Gnatcatcher (see Braden 1998, and Braden et al., 1997). Of the entire area of the Tract, only 12.5-acres in the southeastern corner of the parcel (see Figure 2) offers habitat suitable for the Gnatcatcher (see RBRiggan and Associates, 2001). Of this habitat area, approximately 2.9-acres will actually be lost to development.

This protocol survey was specifically designed to encompass the 12.5-acres of suitable habitat within

the bounds of Tract 28728 along with the immediately adjacent suitable habitats that occur on adjacent properties. The total area of survey was in excess of 20-acres. The southeastern corner of the Tract has a common boundary with an approved four-lot Tract that did support a single pair of the Gnatcatcher. That Tract, however, was actively being graded concurrent with the field survey on the adjacent subject property. This grading activity undoubtedly had an effect on the results on Tract 28728.

The Tract is located north of the Alessandro Arroyo and flood control basin (see Figures 2 and 3). Adjacent properties to the north are developed as older, urban, single-family detached subdivisions. Properties to the east and west are residential and range from recent construction to well developed neighborhoods, while the properties to the south include large, undeveloped Tracts within or adjacent to the Alessandro Arroyo. To the west of the Tract are large lot residential homes with extensive horticultural plantings. Tract 28728 is part of an on-going burst of development that includes much of the Alessandro Heights area. Numerous tracts are presently under construction around the periphery of the Arroyo.

The Tentative Tract Map parcels the property into 66 residential lots. The lots will be accessed from the extensions of Cresthaven Drive and Century Avenue, both of which will connect with an internal street system. The current tentative map contains 60.12 acres of designated Open Space within 5 different lots.

METHODS

The survey of Tentative Tract 28728 was intensely focused on the determination of the presence or absence of the California Gnatcatcher (*Polioptila californica*). To this end, the field effort on each of the six survey dates effectively saturated the site providing what would be described by this author as an "intense effort" given the relatively small size of the parcel. Two observers were utilized on all but one of the field dates. One observer worked the eastern section while another traversed the western. The dates, times of survey, and the extant weather conditions were as follows:

10 May 2001 — All observations were made between 0715 and 0815 hours. The weather was clear and calm during the beginning of the survey with increasing winds near the end. Air temperatures increased throughout the survey from 68.8 degrees Fahrenheit at the beginning of the survey to 71.2 degrees at the end of the survey. Humidity was measured at 65% at the beginning of the survey and decreased slightly to 64% at the end of the survey. Winds ranged from zero mph at the start of the survey to 1.1 - 3.2 mph at the end (two observers: G. Morse and Riggan).

8 June 2001— All observations were made between 0715 and 0815 hours. Air temperatures increased throughout the survey from 70.3 degrees Fahrenheit at the beginning of the survey to 77.2 degrees at the end of the survey. Humidity was measured at 66% at the beginning of the survey and decreased to 60% at the end of the survey. Winds ranged from zero mph at the start of the survey to 0.0 - 1.3 mph at the end (two observers: G. Morse and Riggan).

21 June 2001 — All observations were made between 0515 and 0630 hours. Air temperatures increased throughout the survey from 64.8 degrees Fahrenheit at the beginning of the survey to 74.3 degrees at the end of the survey. Humidity was measured at 67% at the beginning of the survey and decreased to 55% at the end of the survey. Winds ranged from zero mph at the start of the survey to ±2.0 mph at the end (two observers: G. Morse and Riggan).

30 June 2001 — All observations were made between 0730 and 0845 hours. The weather was clear and calm throughout. Air temperatures ranged from 71.0 degrees Fahrenheit at the beginning of the survey to 87.3 degrees at the end of the survey. Humidity decreased from 72% at the beginning of the survey to 58% at the end of the survey (two observers: G. Morse and Riggan).

8 July 2001 — All observations were made between 0830 and 1015 hours. Apparently a limited overcast near dawn, burned off by the time of the observations. Dead calm, warm and moderate humidity at the beginning of the period. Negligible wind, hot, and drier by the end of the observational period.(one observer: Riggan).

18 July 2001 — All observations were made between 0730 and 0845 hours. At the onset of the survey, the site was covered in ground fog which dissipated as the survey progressed. Air temperatures ranged from 63.7 degrees Fahrenheit at the beginning of the survey to 68.0 degrees at the end of the survey. Humidity decreased from 78% at the beginning of the survey to 76% at the end of the survey (two observers: G. Morse and Riggan).

On each field date, the whole property was walked and a concerted effort was made to assure that a "line-of-sight" inspection was made of all parts of the property. "Pishing" was utilized as a location technique, as was the recorded call of the California Gnatcatcher. At each station, the tape was played for a duration of at least five minutes (calls obtained through the Cornell Laboratory of Ornithology; the recording is of a Type I call in the sense of Atwood, 1988). When two observers were in the field, field radios were utilized to maintain constant communication and to ensure that no double counting of species (or Gnatcatchers) was occurring.

All birds heard and/or seen during the course of the survey were noted and that information is presented as Table 1 (including a numerical listing by date of the numbers of individuals seen of each species). The Table is annotated and the reader is directed to it for information about the avifauna present within the bounds of the property.

RESULTS

A total of 40 species of birds were noted on or over the subject property during the six site visits (see Table 1 for species accounts). The avifauna observed was typical of sage scrub and riparian habitats. The specific lack of sighting of the California Gnatcatcher is discussed in the following with some general comments on the balance of the avifauna following that discussion. Table 1 is also

extensively annotated and the reader's attention is directed to the Table for additional information.

California Gnatcatcher

No California Gnatcatchers were seen during any of the survey efforts in the Riversidian Sage Scrub in the southeastern section of the site. That area of the Tract appears ***not*** to be occupied by the California Gnatcatcher even though it is occupied by what appears to be suitable habitat and it is located in Final Critical Habitat for the species (see Figure 4). As indicated in the Biological Assessment for Tract 28728 (RBRiggan and Associates, 2001), a Section 404 Permit from the Army Corps of Engineers will be required due to the filling of certain "non-wetland" wasters of the United States for transportation crossings. This federal nexus will be the basis for a Section 7 consultation (Section 7 of the Endangered Species Act) which will address the potential loss of un-occupied habitat within designated "Critical Habitat" for the California Gnatcatcher.

Other Bird Species

The suite of bird species observed on-site is consistent with the surrounding land uses and habitats on-site. For example, Bewick's Wrens and California Thrashers were observed in the Sage Scrub habitat. Likewise, Nuttall's Woodpecker was heard in the Willows and surrounding riparian habitat. A complete, annotated listing of these species is presented in Table 1.

CONCLUSIONS

A series of six intensive surveys were conducted to delineate the population of the California Gnatcatchers on Tentative Tract Map 28728 in the Alessandro Heights Community of Riverside County. A combination of direct observation, "pishing," and the use of tape-recorded calls was utilized in an attempt to locate individuals of the species.

Based on the results of the field work, it appears that the 12.5-acre area of Riversidian Sage Scrub within the Tract is unoccupied by California Gnatcatchers. Implementation of the project as proposed will disrupt approximately 2.9-acres of unoccupied habitat within Final Critical Habitat for the California Gnatcatcher.

CERTIFICATION

This survey represents and independent field effort and analysis. Any errors or omissions are solely the responsibility of the senior author.

Royce B. Riggan, AICP
Consulting Biologist

(TE-780195-3)
7 September 2001
RBR Job No. 1810.86A

RBRiggan and Associates
10646 Marbury Avenue
San Diego, California 92126

Attachments

1. References Cited
2. Figure 1 — Regional Location Map
3. Figure 2 — Location on a USGS Quad Map
4. Figure 3 — Location on a Thomas Brothers Map
5. Figure 4 — California Gnatcatcher Critical Habitat
6. Table 1 — Birds Observed

[:\1810gnat-rpt.wpd]

References Cited

Atwood, Jonathan L. 1980. The United States distribution of the California Black-tailed Gnatcatcher. Western Birds 11(2):65-78.

Atwood, Jonathan L. 1988. Speciation and Geographic Variation in Black-tailed Gnatcatchers. American Ornithologists Union, Ornithological Monographs No. 42, Wash., D.C.

Atwood, Jonathan L. 1990. Status review of the California Gnatcatcher (Polioptila californica). Unpublished technical report, Manomet Bird Observatory, Manomet, Massachusetts. 79 pp.

Atwood, Jonathan L. 1991. Subspecies limits and geographic patterns of morphological variation in California Gnatcatchers (*Polioptila californica*) Bull. S. Calif. Acad. Sci. 90:118-133.

Atwood, Jonathan L., and J. S. Bolsinger. 1992. Elevational Distribution of California Gnatcatchers in the United States. J. Field Ornithol. 63(2):159-168.

Atwood, Jonathan L., D. R. Bontrager, and A. L. Gorospe. 1998. Use of Refugia by California Gnatcatchers Displaced by Habitat Loss. Western Birds 29(4):406-412.

Atwood, Jonathan L., et al. 1998. Factors Affecting Estimates of California Gnatcatcher Territory Size. Western Birds 29(4):269-279.

Braden, Gerald T., S. L. Love, and R. L. McKernan. 1994. Dispersal and Non-breeding Habitat Use by the Coastal California Gnatcatcher (*Polioptila californica californica*) in Western Riverside County. Unpublished manuscript, prepared for Southwestern Riverside County Multi-species Reserve management Committee and the Metropolitan Water District, copies available from the Fish and Wildlife Service, Carlsbad Field Office, 28 pp.

Braden, Gerald T., R. L. McKernan, and, S. M. Powell. 1997. Association of within-territory vegetation characteristics and fitness components of California Gnatcatchers. Auk 114(4):601-609.

Braden, Gerald. 1998. Gnatcatcher Factoids. Unpublished manuscript, Fish and Wildlife Service, Carlsbad, Calif., 3 pp.

Davis, Liam H., R. L. McKernan, and J. S. Burns. 1998. History and Status of the California Gnatcatcher fin San Bernardino County, California. Western Birds 29(4):361-365.

Dunn, J.L., and K.L. Garrett. 1987. The identification of North American gnatcatchers. Birding 19:17-29.

Famolaro, Peter and J. Newman. 1998. Occurrence and Management Considerations of California Gnatcatchers Along San Diego County Highways. Western Birds 29(4):447-452.

References Cited (continued)

Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Coastal California Gnatcatcher. Federal Register 58(59):16742-16757.

Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Proposed Special Rule to Allow Take of the Threatened Coastal California Gnatcatcher. Federal Register 58(59):16758-16759.

Fish and Wildlife Service. 2000. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher; Final Rule. Federal Register 65(206):63680-63743

Greenwood, Richard B., and D.M. Morton. 1991. Geology of the Santa Ana 1:100,000 Quadrangle, California. California Division of Mines and Geology, Open File Report 91-17, Sacramento, Calif.

Knecht, Arnold A., et al. 1971. Soil Survey of Western Riverside Area, California, U.S. Department of Agriculture, Soil Conservation Service, U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Preston, Kristine L., M. A. Grishaver, and P. J. Mock. 1998. California Gnatcatcher Vocalization Behavior. Western Birds 29(4):256-268.

Preston, Kristine L., et al. 1998. California Gnatcatcher Territorial Behavior. Western Birds 29(4):242-257.

Pyle, Peter, et al. 1987. Identification Guide to North American Passerines. Slate Creek Press, Bolinas, Calif., x + 278 pp.

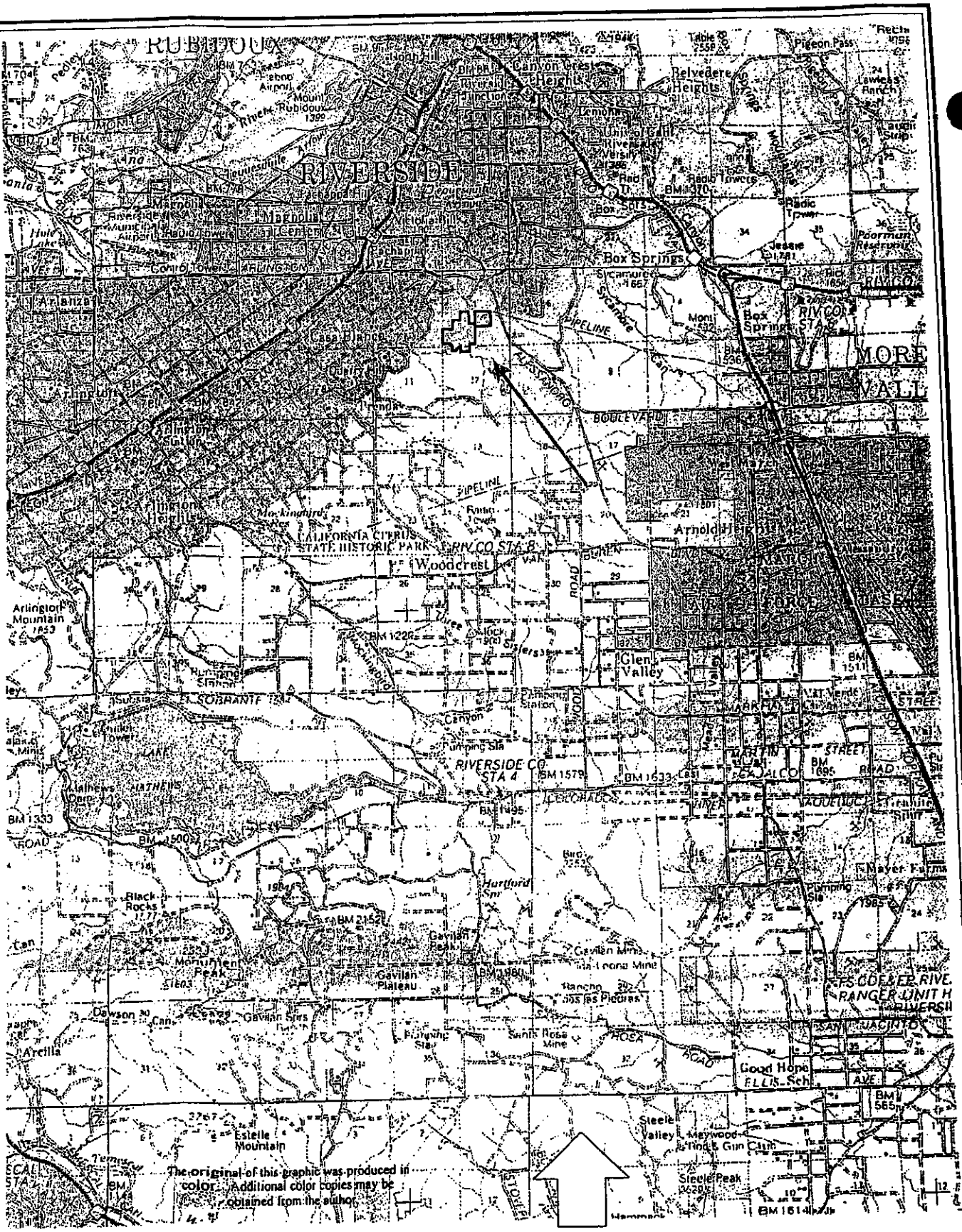
Pyle, Peter and P. Unitt. 1998. Molt and Plumage Variation by Age and Sex in the California and Black-tailed Gnatcatchers. Western Birds 29(4):280-289.

Rotenberry, John T., and, T. A. Scott. 1998. Biology of the California Gnatcatcher: Filling in the Gaps. Western Birds 29(4):237-241.

Weaver, Kenneth L. 1998. Coastal Sage Scrub Variations of San Diego County and Their Influence on the Distribution of the California Gnatcatcher. Western Birds 29(4):392-405.

Weaver, Kenneth L. 1998. A New Site of Sympatry of the California and Black-tailed Gnatcatchers in the United States. Western Birds 29(4):476-479.

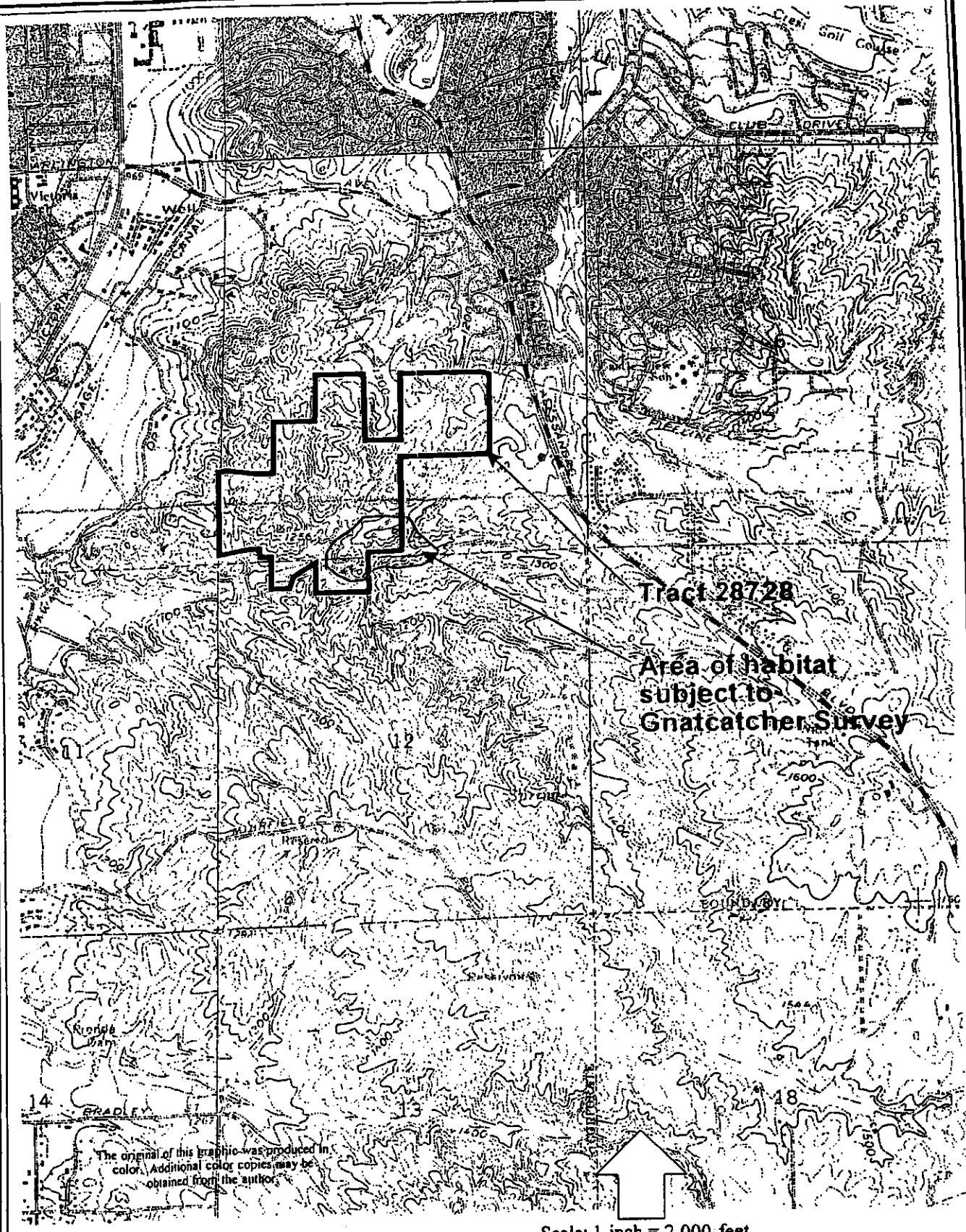
[:\1810gnat-ref-cit.wpd]



Scale: 1-inch = 2-miles

RBRiggan and Associates Job Number 1810.86A 7 September 2001 [-\1810-Gnat-Fig-1.wpg]

RBRiggan and Associates	City of Riverside Tract 28728 in the Regional Conext of Western Riverside County [Base Map from USDA Forest Service]	Figure 1

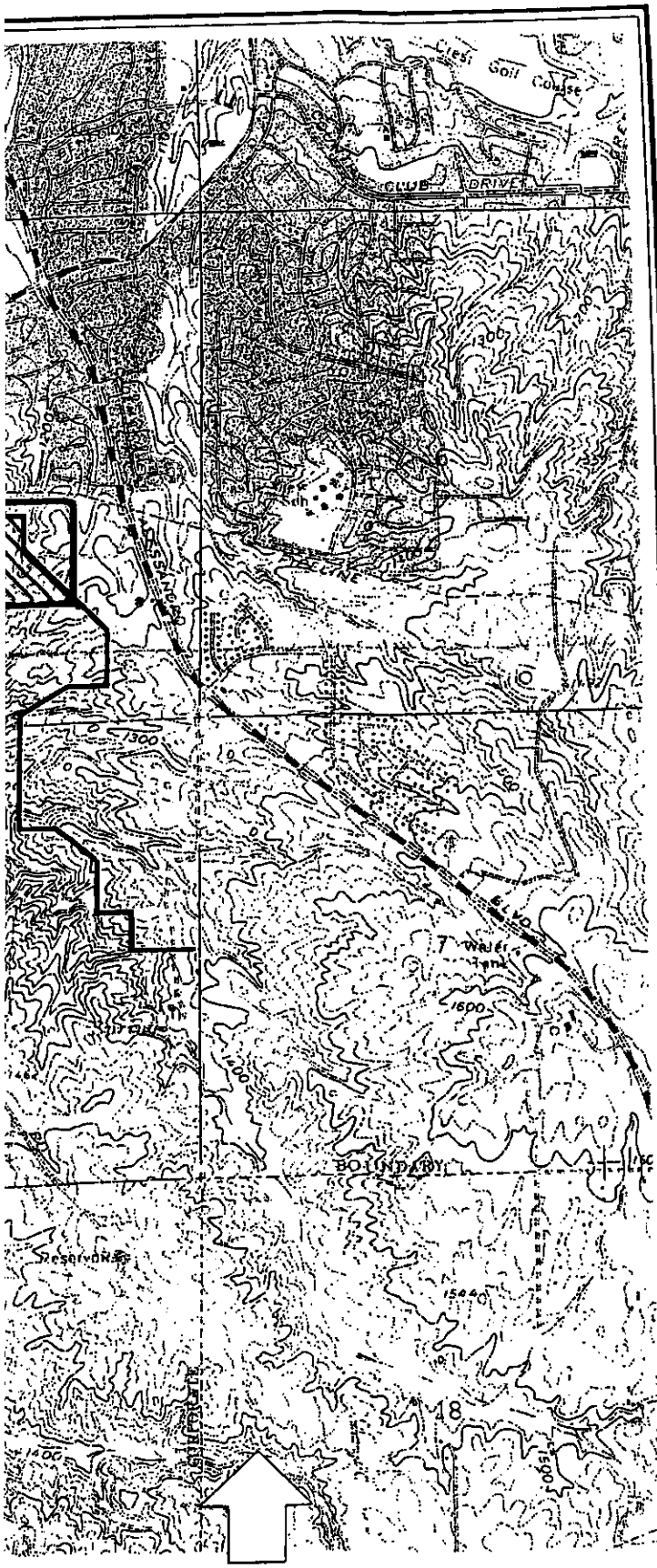


[N:\1810-Gnat-Fig-2.wpg]

RBRiggan and Associates Job Number 1810.86A 30 October 2000

RBRiggan and Associates	Location of City of Riverside Tract 28728 on a Scanned Portion of the U.S.G.S. 7½-minute Riverside East Quadrangle Map	Figure 2

12-474

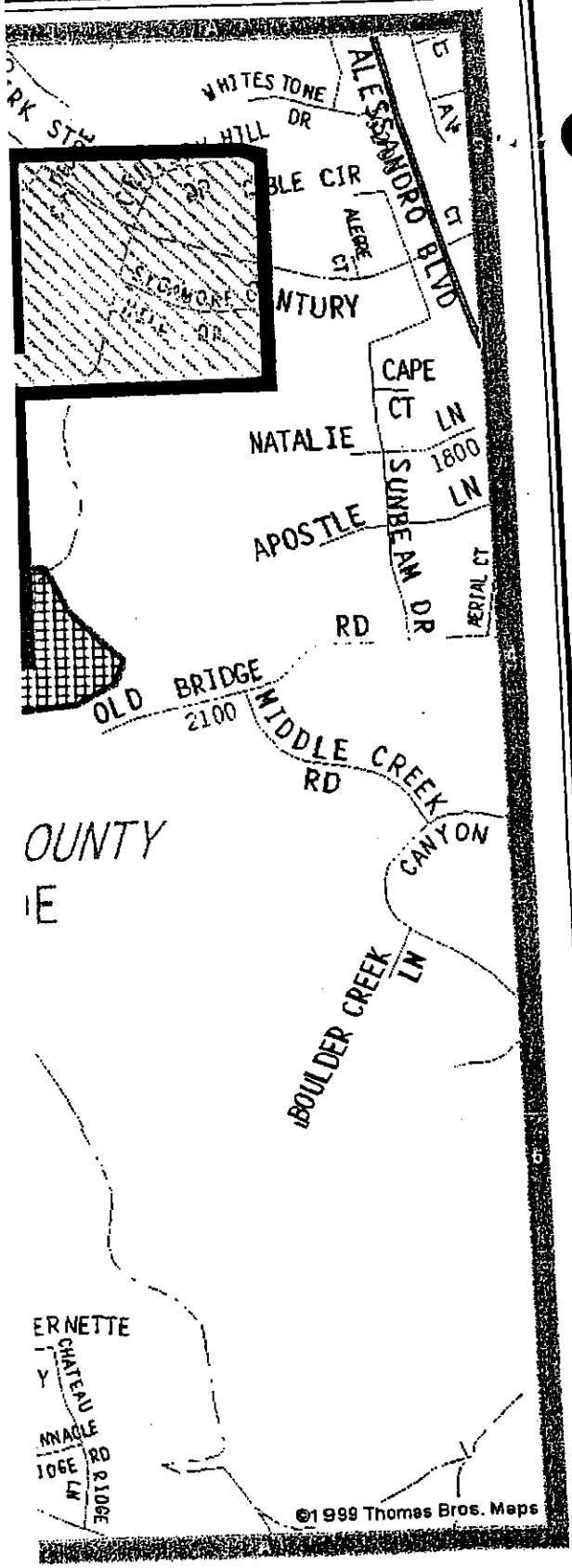


Scale: 1-inch = 2,000-feet

[:\1810-Gnat-Fig-4.wpg]

Riverside Tract 28728 in Critical Habitat for the atcatcher (see text)

Figure 4



[:\1810-Gnat-Fig-3.wpg]

atcatcher Survey ers Map Base s Maps]

Figure 3

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
Downy Woodpecker (*Picoides pubescens*)	—	—	1	—	—	—	Heard in the riparian area along the Alessandro Arroyo — this is a unique observation, this species is uncommon in the Riverside area.
Northern Flicker (*Colaptes auratus*)	1	—	—	—	—	1	Heard in the riparian area along the Alessandro Arroyo.
Black Phoebe (*Sayornis nigricans*)	2	3	2	3	3	4	Seen throughout the survey site.
Ash-throated Flycatcher (*Myiarchus cinerascens*)	1	—	—	—	—	—	Heard in the riparian area along the Alessandro Arroyo.
Western Kingbird (*Tyrannus verticalis*)	2	2	—	—	—	—	Seen along the Alessandro Arroyo; probably breeding on-site.
American Crow (*Corvus brachyrhynchos*)	6	—	5	—	—	49	Frequently seen overflying the site.
Common Raven (*Corvus corax*)	—	—	—	2	4	—	Seen overflying the site.
Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)	1	—	1	—	—	—	Seen overflying the site.
Cliff Swallow (*Petrochelidon pyrrhonota*)	—	6	—	—	1	—	Seen overflying the site.
Bushtit (*Psaltriparus minimus*)	4	16	—	—	—	—	Birds of this species were seen in groups; probably resident on-site
Rock Wren (*Salpinctes obsoletus*)	—	1	1	—	—	—	Seen and heard amongst the boulders near the Alessandro Arroyo.
Bewick's Wren (*Thryomanes bewickii*)	2	5	9	10	2	11	Seen and heard throughout the survey site.

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
California Gnatcatcher *(Polioptila californica)*	—	—	—	—	—	—	See text of report for discussion. No individuals were seen or heard.
Western Bluebird (*Sialia mexicana*)	1	—	—	—	—	—	Heard overflying the site.
Wrentit (*Chamaea fasciata*)	—	—	1	—	—	—	Heard south of the survey site.
Northern Mockingbird (*Mimus polyglottos*)	—	1	—	—	—	—	Seen on the border of the survey site adjacent to the residential houses.
California Thrasher (*Toxostoma redivivum*)	1	—	2	—	—	4	Seen and heard scattered throughout the survey site.
European Starling *(Sturnus vulgaris)*	1	—	—	—	—	—	Heard off-site in horticultural plantings to the east.
Phainopepla (*Phainopepla nitens*)	2	2	—	—	—	—	Male and female seen in the riparian area along the Alessandro Arroyo.
Common Yellowthroat (*Geothlypis trichas*)	—	1	—	1	—	—	Male seen in the riparian area along the Alessandro Arroyo.
Spotted Towhee *(Pipilo maculatus)*	2	1	—	1	—	—	Heard scattered throughout the survey site.
California Towhee *(Pipilo crissalis)*	10	9	14	6	16	19	Year-round resident, abundant.
Rufous-crowned Sparrow (*Aimophila ruficeps*)	—	—	—	—	2	5	Heard and seen in the disturbed Sage Scrub.
Bell's Sage Sparrow (Amphispiza belli belli)	—	1	3	4	—	3	Breeding on-site.
Song Sparrow (*Melospiza melodia*)	7	5	2	3	4	5	Breeding on-site.

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
Blue Grosbeak (*Guiraca caerulea*)	1	2	1	—	—	—	Male seen and heard in the riparian area along the Alessandro Arroyo.
Red-winged Blackbird (*Agelaius phoeniceus*)	—	—	—	—	—	7	This species was seen in a flock overflying the property.
Western Meadowlark (*Sturnella neglecta*)	2	—	—	—	—	—	Heard in the disturbed Sage Scrub.
Bullock's Oriole (*Icterus bullockii*)	2	1	—	—	—	—	Female seen in the riparian area along the Alessandro Arroyo.
House Finch (*Carpodacus mexicanus*)	2	27	18	8	17	30	Year-round resident.
Lesser Goldfinch (*Carduelis psaltria*)	15	13	7	11	16	10	Probable breeding resident.

Total Species: 40

12-478

[A1810CAGNbird-table.wpd]

REGULATORY COMPLIANCE
TENTATIVE TRACT 28728
CITY OF RIVERSIDE, CALIFORNIA

Prepared for:

Sanda Group, LTD
2193 Hackmore Place
Riverside, California 92506

Contact: Mr. Yang C. Hong, Ph.D.

Prepared by:

Michael Brandman Associates
220 Commerce Drive, Suite 200
Irvine, California 92606

Contact:
Alissa Cope, Senior Regulatory Specialist
Erinn Johnson, Regulatory Analyst

March 2003
12-479

Applications

REGIONAL WATER QUALITY CONTROL BOARD

12-481

California Regional Water Quality Control Board
Santa Ana Region

Office Address:
3737 Main Street, Suite 500
Riverside, CA 92501-3348
401 Coordinator: Kelly Schmoker (909) 782-4990

Phone: (909) 782-4130
Fax: (909) 781-6288
http://www.swrcb.ca.gov/rwqcb8

Instructions: Provide all information on the form that applies to your project. *Filling out this form is not required*; a cover letter that includes this information is acceptable (including all the information described in this form will expedite the processing of your request). An electronic copy of this form in Word97/2000 or PDF is available at the following website: www.swrcb.ca.gov/rwqcb8/html/401.html. Attach additional sheets as necessary. **An incomplete application will delay the processing or receipt of the 401 certification.**

APPLICANT

Name	Mr. Yang C. Hong, Ph.D.
Title	TTM 28728
Company	Sanda Group, LTD
Address	2193 Hackmore Place
City/State/Zip Code	Riverside, California 92506
Telephone Number	909.787.4750
Fax Number	N/A
E-mail Address	N/A

AGENT (consultant)*

Name	Ms. Alissa Cope
Title	Senior Regulatory Specialist
Company	Michael Brandman Associates
Address	220 Commerce Drive
City/State/Zip Code	Irvine, CA 92606
Telephone Number	714.508.4100
Fax Number	714.508.4110
E-mail Address	acope@brandman.com

*Complete only if applicable

FILING FEE*

Amount $2,250

Is it attached? X yes ____ no

12-482

PROJECT DESCRIPTION (See "Instructions for Filling Out the Water Quality Standards Certification Application" for types of information needed). Also, please refer to "Contents of a Complete Section 401 Certification Application" for any clarification on items required.

*Please refer to "Section 401 Water Quality Standards Certification Fee Schedule" to determine fee.

Project Title: Tentative Tract Map 28728, City of Riverside, California

Purpose/Goal: 86.31-acre estate-lot residential development consisting of 28 residential lots and 60.2 acres of open space

Project Activities: Grading is limits to building pads and associated infrastructure. No mass grading is proposed. Impacts are limited to fill of 0.028 acres of an ephemeral water of the United States due to expansion of an existing road crossing.

Is the fill/excavation or dredge activity for which 401 certification is sought part of a larger plan of development? __X__ yes _____ no

Proposed Schedule for fill/excavation or dredging activity (ies) (start-up, duration, and completion dates):

Start -up: June 2003 (estimate) Duration: 3.5 months Completion: prior to October 15 2007

If fill/excavation or dredge activity is plan of development, proposed schedule for that larger development (start-up, duration, and completion dates):

Start -up: June 2003 Duration: 50 months Completion: October 2007

Project location (If fill/excavation or dredge activity is part of a plan of development, a map of suitable quality and detail of the entire project site should be included):

City or Area: City of Riverside: East of Hawarden Drive, west of Alessandro Boulevard, north of Muirfield Drive, and south of Arlington Avenue

Longitude/Latitude 33° 56' 07"N, 117° 21' 15"W

Township/Range/Section/Quadrangle Sec 12, T3S R5W, Sec12, Riverside East 7.5 minute quad

Total size of area to be impacted by fill/excavation or dredge activity 0.028 acres, 370 linear feet (if appropriate)

Total size of entire project area (including larger plan of development, where applicable):

__86.31__ acres _____ linear feet (if appropriate)

Please attach a hydrology report detailing the pre- and post-construction (Q_{10} and Q_{100}) if your project is a development.

Forthcoming

RECEIVING WATER

Name of Affected Water body(ies) and type(s) of receiving water body(ies)

One unnamed drainage features tributary to the Alesandro Arroyo

Is receiving water(s) within the San Jacinto Watershed? _____ yes ___X___ no

Major Tributary(ies) Santa Ana River

*As listed in the *Water Quality Control Plan, Santa Ana Region* (Basin Plan). For unlisted waters, the major named tributary(ies) must be identified.

FILL/EXCAVATED* AREA

Indicate in ACRES and LINEAR FEET (where appropriate) the proposed **waters of the United States** to be impacted, and identify the impact(s) as permanent and/or temporary for each water body type listed below:

Wetland	_____ acres of permanent	_____ acres of temporary impact
	_____ linear feet of permanent	_____ linear feet of temporary impact
Riparian	_____ acres of permanent	_____ acres of temporary impact
	_____ linear feet of permanent	_____ linear feet of temporary impact
Streambed	0.028 acres of permanent	_____ acres of temporary impact
(Ephemeral)	370 linear feet of permanent	_____ linear feet of temporary impact
Lake	_____ acres of permanent	_____ acres of temporary impact
	_____ linear feet of permanent	_____ linear feet of temporary impact
Ocean	_____ acres of permanent,	_____ acres of temporary impact
	_____ linear feet of permanent	_____ linear feet of temporary impact

Indicate type(s) of material proposed to be discharged in waters of the United States:

Reinforced concrete pipe and clean fill dirt

DREDGE VOLUME

Indicate in **CUBIC YARDS** the proposed **waters of the United States** to be impacted.

No dredging is proposed.

Indicate type(s) of material proposed to be discharged in waters of the United States:

Note: Dredging generally includes removing sediment in deeper water to increase the depth. Impacts to beneficial uses are best described by the volume of sediment discharged. Dredging typically occurs to facilitate navigation and for aggregate extraction in marine waters.

FEDERAL PERMIT

File No.(s) (if known) _____

Individual - list Corps control number _____

Nationwide – list permit number 14

Does the project require any other Federal Application(s), Notification(s) or Correspondence?

__X__ yes (attach copy(ies)) _____ no (attach detailed explanation)

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Indicate CEQA document (submit final or draft copy if available*) and Lead Agency:

Mitigated Negative Declaration, City of Riverside - as enclosed

Has the document been certified/approved, or has a Notice of Exemption been filed?

If yes, date of approval/filing: February 5, 1998 If no, expected approval/filing date: _____

If exempt, list section that applies (cite code) and explain exemption:

_____

_____

_____

* Note: ample time must be provided to the Regional Board to properly review a final copy of valid CEQA documentation before certification can occur.

THREATENED OR ENDANGERED SPECIES

Please list the expected impacts and species: The project site is located within United States Fish and Wildlife Service (USFWS) designated critical habitat for the coastal California gnatcatcher (CAGN). Project development will result in the loss of 2.9 acres of moderate quality Riversidean Sage Scrub (RSS) and 2.6 acres of low quality RSS within critical habitat. No CAGN are present onsite.

Is the project within the Stephens' Kangaroo Rat fee area? __X__ yes _____ no

Is a Section 7 or 10 Consultation with the U.S. Fish and Wildlife Service necessary? __X__ yes _____ no

Has the U.S. Fish and Wildlife Service issued a Biological Opinion? _____ yes __X__ no

If yes, list date Opinion was issued _____

MITIGATION FOR IMPACTS TO WATER QUALITY STANDARDS

Please identify the pollutants that may be associated with the proposed development. Describe the short- and long-term water quality impacts on the receiving waters and downstream waters that may result from discharge of these pollutants.

Typical pollutants associated with residential developments, such as oil and gasoline from automobiles, detergents from car washing, and fertilizer and pesticides.

Please list any beneficial uses (as defined in the Basin Plan) of the receiving water(s) and downstream water(s) that may be lost or impacted through project implementation.

None.

What are the proposed mitigation measures to limit impacts on water quality standards in receiving water(s) and also downstream water(s)? List the avoidance or alternative measures considered (if described in CEQA document, please reference page number). Please indicate if no such measures were considered.

A water quality bio-swale will be installed immediate downstream of the road crossing. The bio-swale will be installed in an upland location to provide pretreatment of urban runoff prior to discharge into the drainage feature. The Homeowners Association will provide long-term maintenance of the bioswale, consisting of installation of native grasses, and sediment removal as needed.

The proposed project improvements will comply with Section 402 (Stormwater Pollution Prevention Plan) regulations as administered by the RWQCB.

FILL/EXCAVATION AND DREDGE MITIGATION (Indicate in **ACRES and LINEAR FEET** (where appropriate) the total quantity of **waters of the United States** proposed to be created, restored, enhanced and/or preserved for purposes of providing compensatory mitigation and indicate the water body type).

Water Body Type	Created	Restored	Enhanced	Preserved
Ephemeral drainage	0.007-acres immediately adjacent to the affected area			
Perennial drainage				Alesandro Arroyo

Other proposed compensatory mitigation related to fill/excavation and dredge activities (e.g., mitigation banks) (omit if not applicable):

See enclosed Jurisdictional Delineation

How many acres of proposed mitigation area are considered waters of the United States? All

Location of compensatory mitigation site(s) (attach map of suitable quality and detail):

Onsite

City or Area City of Riverside
County: Riverside

Longitude/Latitude_____ Township/Range_____

Will a mitigation plan be prepared in accordance with the Army Corps of Engineers' guidelines and submitted to the Regional Board office?

_____ yes ___X___ no

12-486

CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG) STREAMBED ALTERATION AGREEMENT

Agreement issued _____ yes (attach copy) __X__ no

Applying for Agreement __X__ yes (attach copy) _____ no

Exempt _____ yes __X__ no

If exempt from a Streambed Alteration Agreement, state why

_____

_____

DEWATERING PERMIT

Will groundwater dewatering be necessary? _____ yes __X__ no

If so, what is the proposed method of disposal of the dewatered wastewater?

_____

Has an NPDES permit for dewatering discharges to surface waters already been obtained?

_____ yes __X__ no

Dewatering permit number _____

COASTAL DEVELOPMENT PERMIT

Permit issued _____ yes (attach copy) _____ no

Applying for permit _____ yes (attach copy) __X__ no

Exempt _____ yes _____ no

If exempt from a Coastal Development Permit, state why

Located in an Inland Empire City _____

_____

PAST/FUTURE PROPOSALS BY THE APPLICANT

Briefly describe any projects carried out in the last 5 years or planned for implementation in the next 5 years that relate in any way to the proposed activity or **may impact the receiving body of water.** Include estimated adverse impacts.

Last 5 years: Old Bridge Road - 4 lot development _____

Next 5 years: Tentative Tract Map 27824 in 2003/2004 – partial fill of ephemeral drainage(s)

STORM WATER PERMIT STATUS*

Obtained storm water permit _____ yes __X__ no

Filed Notice of Intent with the SWRCB _____ yes __X__ no _____ date

Prepared Storm Water Pollution Prevention Plan (SWPPP) _____ yes _____ no

If you believe that a Storm Water permit is not necessary, state why

forthcoming

Please list (Best Management Practices) BMPs that will be used to minimize impacts to water quality standards (i.e., water quality and beneficial uses) during and after construction.

Construction phase: compliance with the NPDES General Construction Permit including soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, waste management and materials.

Operations phase: A water quality bio-swale, as discussed on Page 5.

Please discuss BMP maintenance and monitoring activities and duration, including the party(ies) responsible for long-term maintenance of any BMP installed. If maintenance and monitoring will be provided through another agency/party, submit a letter from that agency/party demonstrating that an agreement for such long-term maintenance/monitoring has been or will be reached.

The Applicant will be responsible for the installation, maintenance and monitoring of the bio-swale until establishment of the Homeowners Association (HOA), which is anticipated to be formed after year 2 of project initiation.

The HOA will be responsible for the long-term maintenance of the bio-swale, including but not limited to vegetation control and sediment removal, as required.

If project is a new development within the San Jacinto Watershed (i.e., coverage under SWRCB's general permit not obtained prior to January 19, 2001) coverage under Order No. 01-34 "Watershed-wide Waste Discharge Requirements for Storm Water Discharges Associated with New Developments in the San Jacinto Watershed" is required. Please visit our website at http://www.swrcb.ca.gov/rwqcb8/ and click on the "Adopted Orders" button or go directly to the "Adopted Orders" web page at http://www.swrcb.ca.gov/rwqcb8/html/adopted_orders.html for more information on the Regional Board's Order No. 01-34 "Watershed-wide Waste Discharge Requirements for Storm Water Discharges Associated with New Developments in the San Jacinto Watershed". To view a map of the San Jacinto Watershed, please visit http://www.swrcb.ca.gov/rwqcb8/html/san_jacinto_watershed.html.

Yang-Chang Hong

Mr. Yang C. Hong, Ph.D.
Sanda Group, LTD

Feb. 17, 2003
Date

CALIFORNIA DEPARTMENT OF FISH AND GAME

State of California
The Resources Agency
Department of Fish and Game

Lake and Streambed Alteration Program
Project Questionnaire

Please complete the following questionnaire and submit it with your notification package to expedite the Department's review of your proposed project or activity. Please attach or enclose any additional information or documents that support or relate to your response.

	Yes	Maybe/ Uncertain	No	Please explain if you responded "yes" or "maybe/uncertain"
1. Will the project or activity involve work on the bank of a river, stream, or lake?	X			Project impacts are limited to improvement of one road crossing affecting the unnamed drainage feature, tributary to the Alessandro Arroyo. The improvement will result in the permanent loss of approximately 0.077 acres of CDFG jurisdictional waters. No wetlands are present within the project impact area.
2. If you answered "yes" to #1, will the project or activity involve any of the following:				
a. Removal of any vegetation?	X			At the proposed road crossing expansion area, vegetation is limited to ruderal species and a few sparse Mulefat (*Baccaris salicifolia*).
b. Excavation of the bank?			X	
c. Placement of piers?			X	
d. Placement of bank protection or stabilization structures or materials (e.g., gabions, rip-rap, concrete slurry/sacks)?			X	
3. Will the project or activity take place in, adjacent to, or near a river that has been designated as "wild and scenic" under state or federal law?			X	
4. Will the project or activity involve work in the bed or channel of a river, stream, or lake?	X			See Item 1
5. Will the project or activity involve the placement of any permanent or temporary structure in a river, stream, or lake?	X			The project includes improvement to one existing road crossing within an unnamed tributary to the Alessandro Arroyo. Improvements consist of installation of one culvert (36-inch CMP) and widening of the existing roadway to an 80 foot right-of-way.
6. Will the project involve the use of material from a streambed?			X	
7. Will the project or activity result in the disposal or deposition of debris, waste, or other material in a river, stream, or lake?			X	
a. If you answered "yes" to #7, describe the material that will be disposed of or deposited in the river stream, or, lake:			X	

	Yes	Maybe/ Uncertain	No	Please explain if you responded "yes" or "maybe/uncertain"
8. Will any type of equipment be used in a river, stream, or lake?	X			
a. If you answered "yes" to #8, describe the type of equipment that will be used:				A backhoe, dump truck, and grader
9. Does the project or activity area flood or periodically become inundated with water?			X	The subject drainage is ephemeral.
10. Will water need to be diverted from a river, stream, or lake for the project or activity?			X	
11. If you answered "yes" to #10, please answer the following:				
a. Will this be a temporary diversion?				
b. Will water quality be affected by the deposition of silt, an increase in water temperature, a change in the pH level, or in some other way?			X	
c. Will the water be diverted by means of a dam, reservoir, or other water impoundment structure?			X	
12. Will the project or activity be done pursuant to a water right application or permit?			X	
13. Has a wildlife assessment or study been completed for the area where or near where the project or activity will take place? (If "yes", please attach or enclose a copy of the assessment or study.)	X			See Item 20a.
14. May the project or activity affect fish, amphibians, insects, or other aquatic resources?			X	Existing: The entire project site is located within United States Fish and Wildlife Service (USFWS) designated critical habitat for the coastal California gnatcatcher (CAGN). The project site contains 12.5 acres of moderate quality Riversidean Sage Scrub (RSS) and 13.6 acres of low quality RSS. No CAGN are present onsite. The project site is located within the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan Fee Assessment Area, and therefore subject to current fee requirements as administered by the City of Riverside. Impacts: The grading envelope of the project is 86.31 acres. Project implementation would result in the permanent loss of approximately 31.80 acres of non-native grassland, 2.9 acres of moderate quality RSS and 2.6 acres of low quality RSS. Mitigation: Approximately 43.78 acres of the project site along the Alessandro Arroyo will be dedicated as open space. Impacts to RSS will be mitigated at a greater than 3:1 ratio through the onsite preservation of 20.6 acres RSS of high to moderate quality adjacent to the Alessandro Arroyo.
15. May the project or activity affect terrestrial wildlife?	X			
16. Are any endangered or rare plant species thought or known to occur in the area where the proposed project or activity will take place?			X	
17. Are any endangered or threatened fish, bird, or animal species thought or known to occur in the area where the proposed project or activity will take place?			X	

	Yes	Maybe/ Uncertain	No	Please explain if you responded "yes" or "maybe/uncertain"
18. Have you contacted any other local, State, or federal agency regarding the project or activity?	X			
a. If you answered "yes" to #18, please list the names of the agencies you have contacted:				United States Army Corps of Engineers Regulatory Branch - Los Angeles; Water Quality Control Board - Santa Ana Region, United States Fish and Wildlife Service - Carlsbad Office
19. Have you applied for or obtained any permit, agreement, or other authorization for your project or activity from any government agency?	X			In progress:
a. If you answered "yes" to #19, please list the names or describe the permit, agreement, or authorization you have applied for or obtained:				United States Army Corps of Engineers Nationwide Permit Program Authorization - Section 404 of the federal Clean Water Act California Regional Water Quality Control Board – Colorado River Basin- 401 Waiver of Water Quality Certification United States Fish and Wildlife Service, ESA Section 7 consultation for potential impacts to designated CAGN critical habitat. Subsequent permits and other approvals integral to project implementation include, but may not be limited to, the following: • NPDES Permit (*California Regional Water Quality Control Board*)
20. Have any environmental documents pertaining to your project or activity been prepared?	X			
a. If you answered "yes" to #20, please list the environmental documents that have been prepared:				Michael Brandman Associates, *Jurisdictional Delineation - Tentative Tract No. 28728, City of Riverside, California,* February 2003. Campbell BioConsulting, Inc. *Focused Survey for Coastal California Gnatcatcher – Tentative Tract 28728 in the City of Riverside, Riverside County, California,* October 3, 2002. RBRiggan and Associates, *A Biological Assessment of Tentative Tract 28728 in the City of Riverside, County of Riverside, California,* Revised August 15, 2001

I hereby certify that all information contained in this notification is true and correct and that I am authorized to sign this document. I understand that in the event this information is found to be untrue or incorrect, I may be subject to civil or criminal prosecution and the Department may consider this notification to be incomplete and/or cancel any Lake or Streambed Alteration Agreement issued pursuant to this notification.

Feb. 17, 2003
Date

Yang-Chang Hong
Mr. Yang C. Hong, Ph.D.
Sanda Group, LTD

H:\Client\24880001\Reg Pac\CDFG permit.doc

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

(See attachment/enclosure for instructions)

_ 1601 (Public) X 1603 (Private) _ Timber Harvest Plan _ Commercial Gravel Extraction

Applicant Information

	Name	Address	Telephone Number
Applicant	Sanda Group, LTD	2193 Hackmore Place Riverside, California 92506	909.787.4750
Operator			
Contractor (if known):	N/A		
Contact Person (if not applicant):	**Alissa Cope Senior Regulatory Specialist Michael Brandman Associates**	**220 Commerce Drive Suite 200 Irvine, California 92606**	**(714) 508-4100 x108**
Property Owner:	Same		

Project Information

County	Assessor's Parcel Number	Section	Range	Township	USGS Map
Riverside	243-170-007, 012, & 017 243-180-003 & 006 243-190-002	12	5 West	3 South	Riverside East USGS 7.5 minute series quadrangle map
Name of River, Stream, or Lake:	One unnamed tributary to the Alessandro Arroyo.				
Tributary To?	Alessandro Arroyo and ultimately the Santa Ana River				
Proposed Start Date: June 2003	Proposed Completion Date: October 15, 2007	Project Cost (see instructions)	>$ 25,000 and < $ 500,000 fee: $ 772.75	Number of Stream Encroachments (Timber Harvest Plans Only):	

Attachments/Enclosures

Please attach or enclose the following documents listed below and check the boxes of the documents attached or enclosed.

X Project Description (below)	X Map showing the location of the project, including distances	X Construction plans pertaining to the project

Please attach or enclose the following documents listed below, if applicable, and check the boxes of the documents attached or enclosed.

Completed CEQA documents:	_ Environmental Impact Report _ Negative Declaration _ Other X Mitigated Negative Declaration _ Notice of Exemption
Copies of all applicable local, State, or federal permits, agreements, or other authorizations:	_ Local. Describe: _ State. Describe: _ Federal. Describe:

Name of Applicant: Sanda Group, LTD

Project Description - Please describe your project or activity in detail below and, if necessary, on separate attached pages.

Subject Waterway(s):

One unnamed, ephemeral drainage tributary to Alessandro Arroyo, located within the upper Santa Ana River (SAR) watershed.

Location:

The 86.31-acre project site is generally located east of Hawarden Drive, west of Alessandro Boulevard, north of Muirfield Drive, and south of Arlington Avenue within the City of Riverside, Riverside County, California. This area is found entirely within Section 12, Township 3 south, Range 5 west, as depicted on the Riverside East USGS 7.5 minute series quadrangle map, and on pages 715 and 716 of the 2002 Thomas Guide for Riverside County.

Brief Description of Project:

Sanda Group, LTD proposes to develop an estate-lot development, Tentative Tract Map 28728 (Phases 3 and 4), consisting of 28 residential lots and 5 open space lots on a 86.31-acre project site. Site preparation is limited to pad grading and installation of supporting infrastructure (roads, utilities and drainage facilities). No mass grading is proposed.

The project is designed to avoid impacts to the Alessandro Arroyo, a sensitive habitat. Approximately 43.78 acres will be dedicated as open space, including the portion of the Alessandro Arroyo open spaces area that lies within the property boundary and the 100-year storm flood zone.

The project includes improvement to one existing road crossing within an unnamed tributary to the Alesandro Arroyo.

Jurisdictional Area and Impacts:

Existing: The project contains two (2) onsite drainages which are subject to both United States Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) jurisdiction. These features are the Alessandro Arroyo, which flows perennially, and one unnamed tributary to the Arroyo located in the eastern portion of the project site. Alessandro Arroyo will be preserved as open space and therefore not impacted. Numerous non-jurisdictional upland swales are also present onsite.

Impacts: Project impacts are limited to improvement of one road crossing affecting the unnamed drainage feature. The improvement will result in the permanent loss of approximately 0.007 acres (140 linear feet) of USACE and 0.034 acres of CDFG jurisdictional waters. No wetlands are present within the project impact area.

Mitigation: The permanent loss of jurisdictional waters will be offset by the expansion of the unnamed drainage feature at a 1:1 ratio. The mitigation site will be located immediate downstream of the road crossing and adjacent to the proposed upland water quality bio-swale. It is anticipated that the bio-swale will provide sufficient hydrology to support riparian vegetation.

0 Continued on separate page(s)

I hereby certify that all information contained in this notification is true and correct and that I am authorized to sign this document. I understand that in the event this information is found to be untrue or incorrect, I may be subject to civil or criminal prosecution and the Department may consider this notification to be incomplete and/or cancel any Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand that this notification is valid only for the project described herein and that I may be subject to civil or criminal prosecution for undertaking a project that differs from the one described herein, unless I have notified the Department of that project in accordance with section 1601 or 1603 of the Fish and Game Code.

I understand that a Department representative may need to inspect the property where the project described herein will take place before issuing a Lake or Streambed Alteration Agreement pursuant to this notification. In the event the Department determines that a site inspection is necessary, I hereby authorize the Department to enter the property where the project described herein will take place to inspect the property at any reasonable time and certify that I am authorized to grant the Department permission to access the property.

X *I request the Department to first contact me at (insert telephone number)* **(714) 508-4100 - Alissa Cope, Senior Regulatory Specialist, Michael Brandman Associates** *to schedule a date and time to enter the property where the project described herein will take place and understand that this may delay the Department's evaluation of the project described herein.*

Feb. 17, 2003
Date

Yang-Chung Hong
Mr. Yang C. Hong, Ph.D., Sanda Group, LTD

For Department Use Only			
Notification No.:	Date Received:	Fees enclosed?	_ Yes $ _ No
Notification Complete?	_ Yes. 5-day letter sent on (date):	_ No. Notification materials and application fee returned on (date):	
Notes:			

FG 2023 (Rev. 4/28/99)

Jurisdictional Delineation

JURISDICTIONAL DELINEATION
TENTATIVE TRACT 28728
CITY OF RIVERSIDE, CALIFORNIA

Prepared for:

Sanda Group, LTD
2193 Hackmore Place
Riverside, California 92506

Contact: Mr. Yang C. Hong, Ph.D.

Prepared by:

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100

Contact: Alissa Cope, Senior Regulatory Specialist
Scott Crawford, Project Ecologist

March 2003

12-497

TABLE OF CONTENTS

12-498

LIST OF TABLES

LIST OF EXHIBITS

LIST OF APPENDICES

Appendix

Appendix A Wetland Data Forms

Appendix B Determination of Jurisdictional Wetlands

Pocket

Site Plan - 11x17 copy

12-499

SECTION 1
SUMMARY

Applicant Name:
Mr. Yang C. Hong, Ph.D.
Sanda Group, LTD
2193 Hackmore Place
Riverside, California 92506

Agent Name:
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602
714.508.4100
acope@brandman.com

Subject Waterway(s):

One unnamed, ephemeral drainage tributary to Alessandro Arroyo, located within the upper Santa Ana River (SAR) watershed.

Location:

The 86.31-acre project site is generally located east of Hawarden Drive, west of Alessandro Boulevard, north of Muirfield Drive, and south of Arlington Avenue within the City of Riverside, Riverside County, California. This area is found entirely within Section 12, Township 3 south, Range 5 west, as depicted on the Riverside East USGS 7.5 minute series quadrangle map, and on pages 715 and 716 of the 2002 Thomas Guide for Riverside County.

Brief Description of Project:

Sanda Group, LTD proposes to develop an estate-lot development, Tentative Tract Map 28728, consisting of 28 residential lots and 5 open space lots on an 86.31-acre project site. Site preparation is limited to pad grading and installation of supporting infrastructure (roads, utilities and drainage facilities) impacting a total of 37.30 acres. No mass grading is proposed.

The project is designed to avoid impacts to the Alessandro Arroyo, a sensitive habitat. Approximately 43.78 acres will be dedicated as open space, including the portion of the Alessandro Arroyo open spaces area that lies within the property boundary and the 100-year storm flood zone.

The project includes improvement to one existing road crossing within an unnamed tributary to the Alesandro Arroyo.

Jurisdictional Area and Impacts:

Existing: The project contains two (2) onsite drainages which are subject to both United States Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) jurisdiction.

These features are the Alessandro Arroyo, which flows perennially, and one unnamed tributary to the Arroyo located in the eastern portion of the project site. Alessandro Arroyo will be preserved as open space and therefore not impacted. The unnamed tributary contains 0.097 acres of USACE and 0.338 acres of CDFG jurisdictional waters. Numerous non-jurisdictional upland swales are also present onsite.

Impacts: Project impacts are limited to improvement of one road crossing affecting the unnamed drainage feature. The improvement will result in the permanent loss of approximately 0.028 acres (370 linear feet) of USACE and 0.077 acres of CDFG jurisdictional waters. Affected vegetation is limited to ruderal species and scarce mulefat. No wetlands are present within the project impact area.

Mitigation:

- Waters: The permanent loss of jurisdictional waters will be offset by the expansion of the unnamed drainage feature at a 1:1 ratio. The mitigation site will be located immediate downstream of the road crossing and adjacent to the proposed upland water quality bio-swale. It is anticipated that the bio-swale will provide sufficient hydrology to support riparian vegetation.

- Water Quality: A water quality bio-swale will be installed immediate downstream of the road crossing. The bio-swale will be installed in an upland location to provide pretreatment of urban runoff[1] prior to discharge into the drainage feature. The Homeowners Association will provide long-term maintenance, consisting of installation of native grasses, and sediment removal as needed.

Endangered Species:

Existing: The entire project site is located within United States Fish and Wildlife Service (USFWS) designated critical habitat for the coastal California gnatcatcher (CAGN). The project site contains 12.5 acres of moderate quality Riversidean Sage Scrub (RSS) and 13.6 acres of low quality RSS. No CAGN are present onsite.

The project site is located within the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan Fee Assessment Area, and therefore subject to current fee requirements as administered by the City of Riverside.

[1] up to the 85 percentile of the 3 year 24-hour storm

Impacts: The grading envelope of the project is 37.30 acres within designated critical habitat, consisting of 31.80 acres of non-native grassland, 2.9 acres of moderate quality Riversidean Sage Scrub (RSS) and 2.6 acres of low quality RSS.

Mitigation:

- Approximately 43.78 acres of onsite CAGN critical habitat located along the Alessandro Arroyo will be dedicated as open space.

- Permanent loss of RSS will be mitigated at a greater than 3:1 ratio through the onsite preservation of 20.6 acres RSS (9.6 moderate quality, 11.0 low quality) adjacent to the Alesandro Arroyo.

Historical Properties:

A project-specific archival investigation was conducted as part of the environmental documentation prepared for the project in 1998, as discussed below. The investigation identified four archeological resources on site, according to the National Register or National Register eligible resources. Three of the sites will be preserved within the open space areas. The remaining site is located within a proposed street and, therefore, will not be preserved. However, the City of Riverside Planning Department does not consider this loss significant (see Negative Declaration).

Environmental Documentation:

The project's environmental effects have been analyzed in accordance with the California Environmental Quality Act (CEQA) by the City of Riverside. A Negative Declaration was adopted for the project in January 1998. Mitigation measures to minimize potential project impacts related to biological resources, hydrology, and erosion potential were included.

SECTION 2
INTRODUCTION

2.1 PROJECT LOCATION

The 86.31-acre project site is generally located east of Hawarden Drive, west of Alessandro Boulevard, north of Muirfield Drive, and south of Arlington Avenue within the City of Riverside, Riverside County, California. This area is found entirely within Section 12, Township 3 south, Range 5 west, as depicted on the Riverside East USGS 7.5 minute series quadrangle map, and on pages 715 and 716 of the 2002 Thomas Guide for Riverside County (Exhibit 1 - Regional Vicinity Map and Exhibit 2 - Local Vicinity Map).

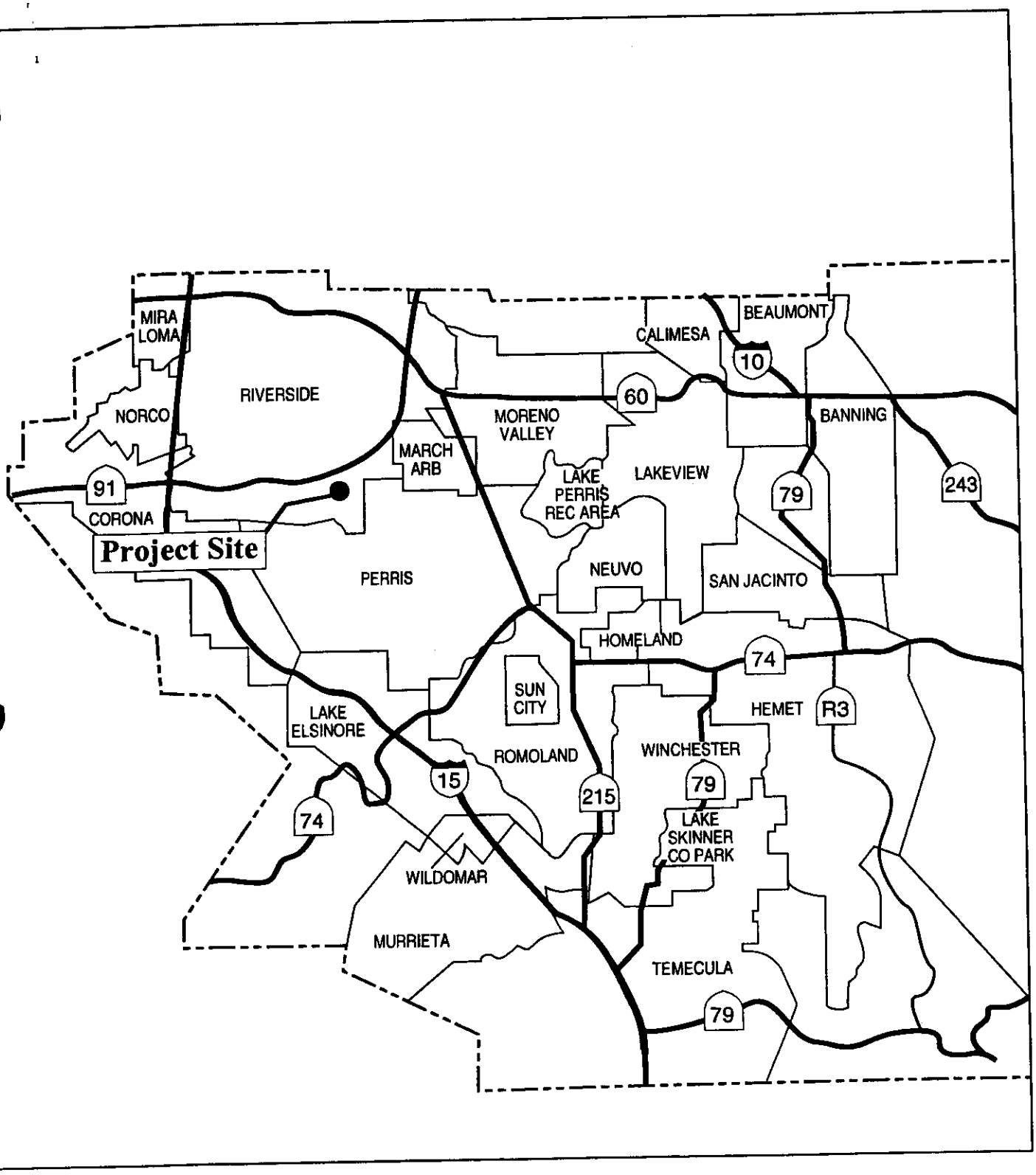
Properties to the immediate north are older, single-family detached subdivisions. Properties to the immediate east are a mix of new and old neighborhoods. To the south is the Alessandro Heights community and to the west large residences with extensive horticulture.

2.2 PROJECT DESCRIPTION

Sanda Group, LTD proposes to develop Tentative Tract Map 28728, an estate-lot development consisting of 28 residential lots and 5 open space lots on an 86.31-acre project site. The proposed project design consists of residential lots, streets, associated infrastructure, and open space areas. Site preparation is limited to pad grading and installation of supporting infrastructure (roads, utilities and drainage facilities) impacting a total of 37.30 acres. Approximately 43.78 acres of the project site will be dedicated open space, including the Alessandro Arroyo.

2.3 PURPOSE AND NEED FOR THE PROJECT

The primary purposes and need for the project is to develop a single-family residential subdivision. Since the proposed project extends across and within existing jurisdictional drainages, an assessment of Waters of the United States is required. This assessment includes an evaluation of U.S. Army Corps of Engineers (USACE) jurisdiction, pursuant to Section 404 of the Clean Water Act, and California Department of Fish and Game (CDFG) jurisdiction, pursuant to Section 1600 of the Fish and Game Code.



NORTH

5 2.5 0 5

SCALE IN MILES

Michael Brandman Associates

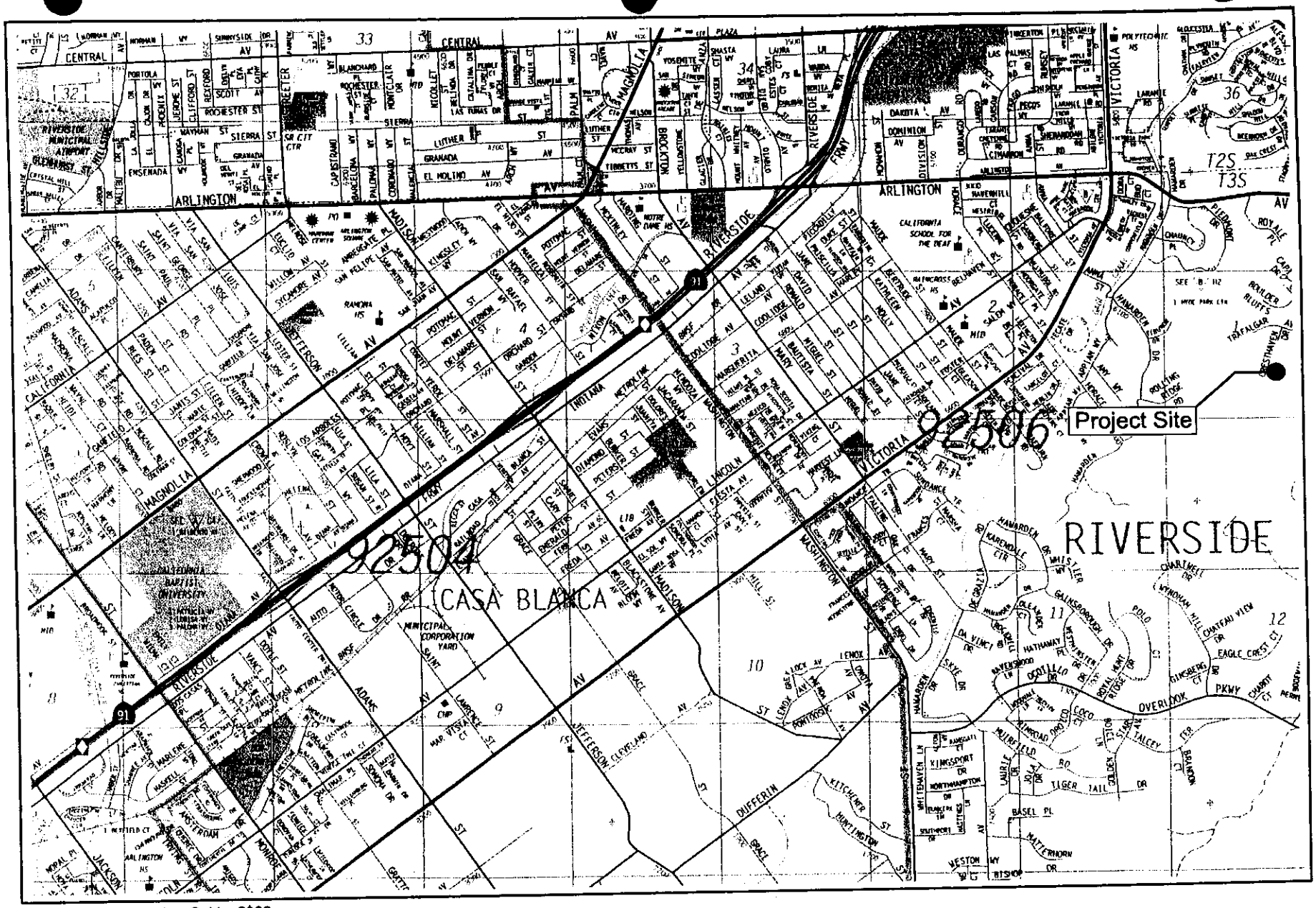
Exhibit 1

Regional Vicinity Map

24880001 • 03/2003

TTM 28728 JURISDICTIONAL DELINEATION • UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA

12-505



Source: Thomas Brother Guide, 2002.

NORTH

2400 1200 0 2400

SCALE IN FEET

Exhibit **2**

Local Vicinity Map

Michael Brandman Associates

24880001 • 03/2003

TTM 28728 JURISDICTIONAL DELINEATION • UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA

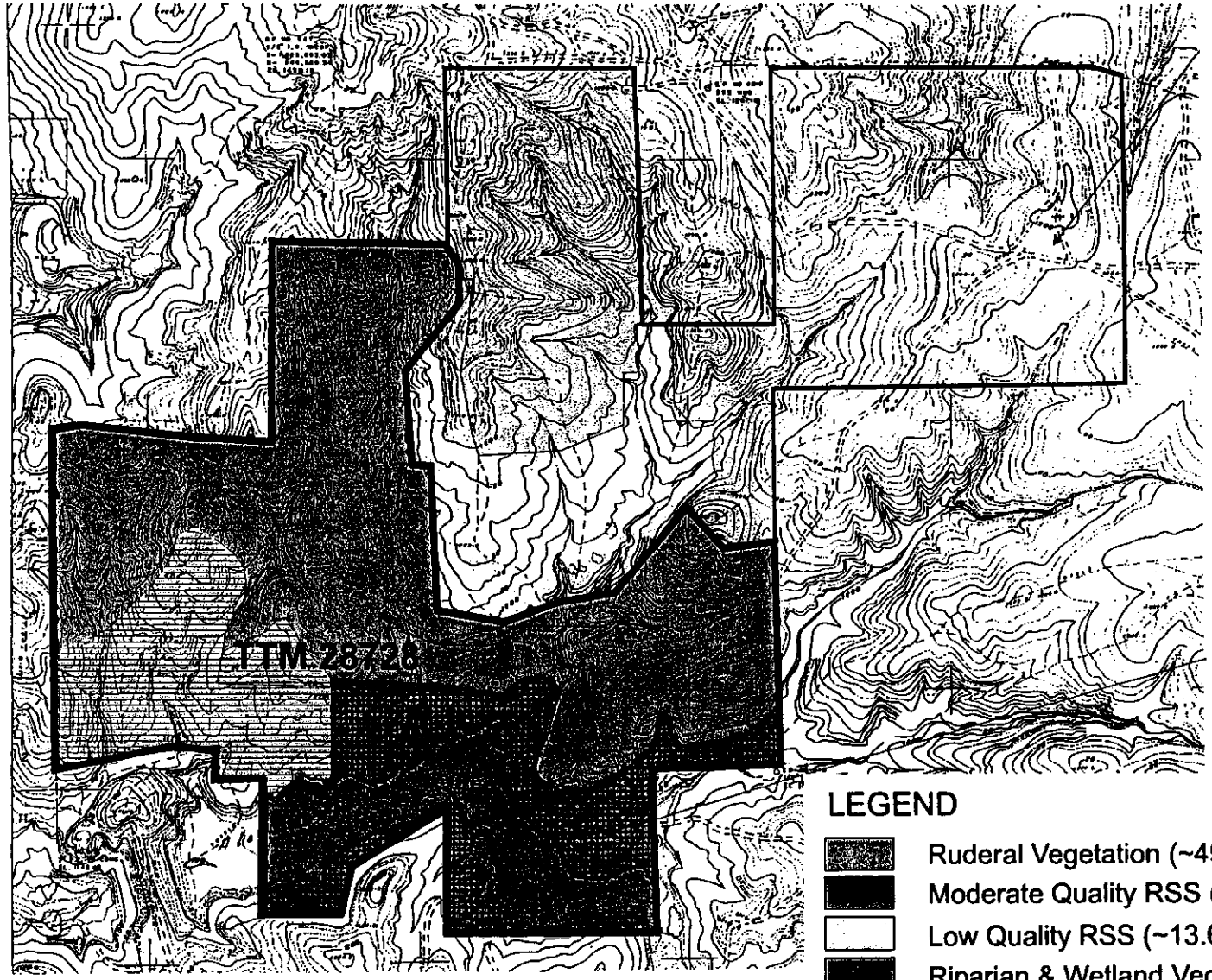
SECTION 3
ENVIRONMENTAL SETTING

The project site lies within gently rolling hills of Perris Plain (a Pliocene erosional surface) generally west of Sycamore Canyon in the City of Riverside. The elevation ranges from 300 to 1,250 feet above sea level. The project site is underlain by undifferentiated granodioritic rocks of the Box Spring Mountains complex. These rocks are generally deeply weathered bedrock outcrops and some residual boulders occur at a few scattered locations on-site.

The project site is bounded by the perennially-flowing Alessandro Arroyo and the Alessandro Reservoir (a normally dry flood control dam and pool) to the north and northeast. Aside from the Arroyo, there are no other permanent water sources. The limits of the Alessandro Arroyo are defined as the limits of the 100-year flood plain. With the required 100-foot development setback, the probability of flood risk to residences is minimal (per t the Negative Declaration adopted in 1998).

Vegetation onsite is predominated by ruderal species (non-native grassland and "weedy" species). Limited RSS and Southern Willow Scrub are also present onsite. Ruderal vegetation dominates the northern 80-percent of the site and is characterized by a dominance of invasive weedy species. The RSS is localized on slopes in the southern part of the property and includes, California Sage Scrub (*Artemisia californica*), White Sage (*Salvia apiana*), Flat-topped Buckwheat (*Eriogonum fasciculatum ssp. foliolosum*), and Brittlebush (*Encelia farinosa*). The Southern Willow Scrub is found along the Alessandro Arroyo and is dominated by Willows (*Salix sp.*), Mulefat (*Baccaris salicifolia*), and Cottonwood (*Populus fremontii*) (Exhibit 3 – Vegetation Map).

Surrounding land uses include older, single-family detached subdivisions to the immediate north. Properties to the immediate east are a mix of new and old neighborhoods. To the south is the Alessandro Heights community and to the west large residences with extensive horticulture. The project site is part of an ongoing burst of development that includes much of the Alessandro Heights area.



Source: RBRiggan and Associates, 2000.

NORTH

400 200 0 400

SCALE IN FEET

Exhibit 3

Vegetation Map

Michael Brandman Associates

24880001 • 03/2003

SECTION 4
REGULATORY BACKGROUND

4.1 USACE SECTION 404 REGULATIONS

The discharge of dredged or fill material (temporarily or permanently) into areas delineated as waters of the United States, including wetlands, typically requires prior authorization from the USACE, pursuant to Section 404 of the Clean Water Act.

WATERS OF THE UNITED STATES

Waters of the United States, as defined in the Code of Federal Regulations (CFR) 328.3 include all waters or tributaries to waters such as lakes, rivers, intermittent and perennial streams, mudflats, sandflats, natural ponds, wetlands, wet meadows, and other aquatic habitats. Frequently, a water of the United States (with at least intermittently flowing water or tidal influences) is demarcated by the ordinary high water mark (OHWM), defined in CFR 328.3(e) as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Typically, in this area, the OHWM is indicated by the presence of an incised streambed with defined bank shelving.

Recently the United States Army Corps of Engineers South Pacific Division issued Guidelines for Jurisdictional Delineations for Waters of the United States in the Arid Southwest, June 2001. The purpose of the document was to provide background information concerning physical characteristics of dryland drainage systems. These guidelines were reviewed and utilized to delineate the drainage feature within the project site.

WETLANDS

According to the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987), three criteria must be satisfied to classify an area as a jurisdictional wetland. These are: (1) a predominance of plant life that is adapted to life in wet conditions (hydrophytic vegetation); (2) soils that saturate, flood, or pond long enough during the growing season to develop anaerobic conditions in the upper part (hydric soils); and (3) permanent or periodic inundation or soils saturation, at least seasonally (wetland hydrology). Wetland vegetation is characterized by vegetation in which more than 50 percent of the composition of dominant plant species are obligate wetland, facultative wetland, and/or facultative species that occur in wetlands. These criteria are discussed in more detail in Appendix B in the discussion of Hydrophytic Vegetation

REGULATED ACTIVITIES

Regulated activities involve a regulated discharge of dredged or fill material include, but are not limited to, grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge (if performed specifically in a manner to avoid discharges) include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

4.2 CDFG SECTION 1600 REGULATIONS

The Fish and Game Code of California mandates that "it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity." CDFG jurisdiction includes ephemeral, intermittent and perennial watercourses (including dry washes) characterized by (1) the presence of hydrophytic vegetation; (2) the location of definable bed and banks; and (3) the presence of existing fish or wildlife resources. Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system.

SECTION 5
JURISDICTIONAL METHODOLOGY

5.1 PRE-SURVEY INVESTIGATION

Prior to the field visit, a 200' scale (1" = 200') aerial photograph of the site was procured and compared with the Riverside East USGS 7.5 minute series quadrangle map to identify drainage features as indicated from topographic changes or visible drainage patterns. The National Wetland Inventory was also reviewed to determine whether any wetland areas had been documented within the vicinity of the subject property. The United States Department of Agriculture Soil Survey Map, Western Riverside County, was also reviewed to identify the soil series that occur on the site.

5.2 FIELD INVESTIGATION

In December 2002, MBA regulatory specialists Scott Crawford, conducted a survey of the project site to identify and map potential jurisdictional areas and take sample measurements of the drainage features within the property boundaries. Materials used for this effort included the following: a 30-meter tape measure, shovel, Munsel color chart, 1:200 scale aerial photograph, and 7.5-minute USGS topographic quadrangle map.

The survey was conducted on foot and all drainage features identified by reviewing maps and aerial photography and during the site reconnaissance were inspected. Surveys of each drainage feature started at the downstream portion of the site, where each feature entered an underground culvert before proceeding of site. The drainage features were systematically inspected to record existing conditions and to measure widths and length. Width measurements were taken along each drainage from bank to bank at the Ordinary High Water Mark (OHWM), at approximately 50-foot intervals.

Drainage features were inspected upstream until the OHWM and/or riparian were no longer observable. Areas where the OHWM was obscured for short distances were regarded as potentially jurisdictional if the OHWM became clearly visible further upstream. Information regarding drainage characteristics such as an observable channel bed and banks, changes in soils or vegetation were recorded on standardized datasheets. Soil characteristics were not sampled to determine whether hydric soils were present because the drainages lacked any dominant hydrophytic vegetation or evidence of prolonged saturation that would otherwise warrant soil sampling to make a valid wetland determination.

Channel measurements were entered into a computer database to identify drainage area locations and dimensions utilizing Arcview software. The Arcview application was then used to compute the surface area of each drainage feature in acres. Acreage computations were verified using the aerial

photograph and field data to estimate the approximate drainage length and then calculating surface area by multiplying total length of each feature by its average width.

SECTION 6
JURISDICTIONAL DELINEATION RESULTS

The following section describes jurisdictional delineation results, including findings related to vegetation communities, topography and soils, hydrology, and wetlands for each of the onsite drainage features (Exhibit 4 – Jurisdictional Areas). The Alessandro Arroyo was not formally delineated as no impacts to the Arroyo are proposed.

6.1 VEGETATION COMMUNITIES

Plant communities on the project site are ruderal vegetation (non-native grassland and "weedy" species), limited Riversidean Sage Scrub (RSS), and Southern Willow Scrub. Ruderal vegetation dominates the northern 80-percent of the site and is characterized by a dominance of invasive weedy species. The RSS is localized on slopes in the southern part of the property and includes, California Sage Scrub (*Artemisia californica*), White Sage (*Salvia apiana*), Flat-topped Buckwheat (*Eriogonum fasciculatum ssp. foliolosum*), and Brittlebush (*Encelia farinosa*).

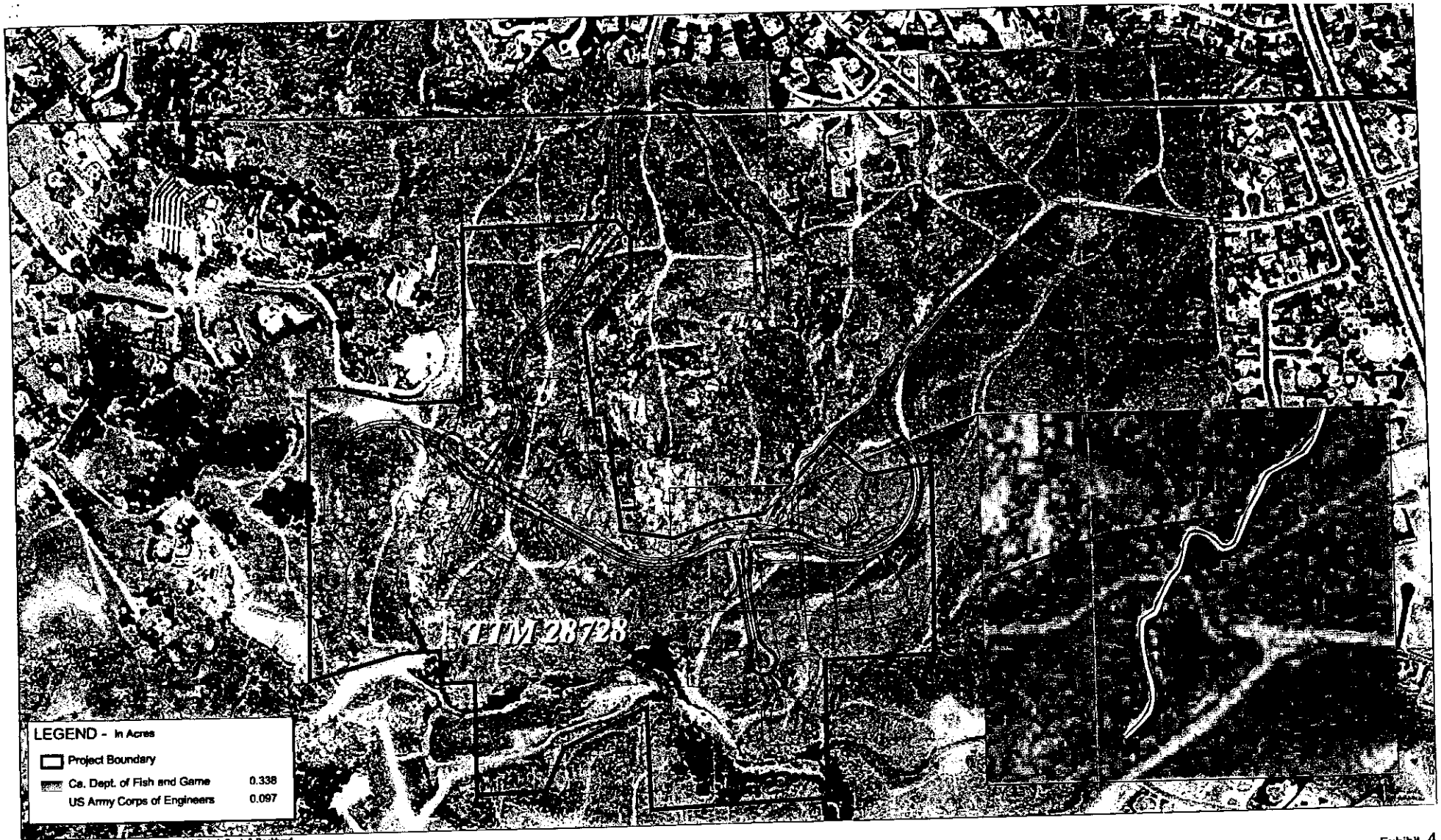
At the proposed road crossing expansion area, vegetation is limited to ruderal species and a few sparse Mulefat (*Baccaris salicifolia*).

The Southern Willow Scrub is found along the Alessandro Arroyo and is dominated by Willows (*Salix sp.*), Mulefat (*Baccaris salicifolia*), and Cottonwood (*Populus fremontii*). Vegetation within the upland swales is limited to upland ruderal and RSS species.

Southern Willow Scrub riparian plant community is only found along the Alessandro Arroyo. The Southern Willow Scrub is a sensitive habitat and one that warrants protection. For this reason, the project places the entire portion of the Arroyo that lies within the bounds of the project site into permanent open space.

6.2 TOPOGRAPHY AND SOILS

The project site is underlain by undifferentiated granodioritic rocks of the Box Spring Mountains complex. These rocks are generally deeply weathered bedrock outcrops and some residual boulders occur at a few scattered locations on-site. The project site is overlain by the Cieneba rocky sandy loam. The Cieneba series is excessively drained soils on uplands....formed in coarse-grained igneous rock. The Arroyo contains soil best described as entisol, the alluvial result of erosion and deposition.



Source: Michael Brandman Associates and Gabel, Cook & Backlund

NORTH

300 0 300 600 Feet

Michael Brandman Associates
24650001 • 03/2003

Exhibit 4
Jurisdictional Areas
TTM 28728 JURISDICTIONAL DELINEATION • UNINCORPORATED RIVERSIDE COUNTY, CA

12-513

Hydric soils may be present at the southern end of the Arroyo upstream from the Alessandro Dam. This area has been heavily altered by the Riverside County Flood Control District, which mines the area for sand and gravel deposits, per a permitted easement.

6.3 HYDROLOGY

WATERSHED CONDITIONS

The project site is located within the Santa Ana River (SAR) watershed. The two major components of total flow in the SAR wateshed are storm flow and base flow. Storm flow occurs primarily during the rainy season. Base flow is composed of non-point source discharges (runoff from agricultural and urban areas).

Storm flows exiting the project site are conveyed to the SAR via the Alessandro Arroyo, which is undergrounded downstream of the project site within the Lincoln Avenue and Magnolia Avenue storm drains

The FEMA Flood Insurance Rate Map for the project area indicates the Alessandro Arroyo as susceptible to flooding during a 100-year storm. Adherence to Riverside County Flood Control District's 100-year flood zone setback requirements will reduce the flood hazard risk to less than significant (see Negative Declaration adopted in 1998).

ONSITE HYDROLOGY

The project contains two (2) onsite drainages, namely Alessandro Arroyo, a USGS-designated "blue line" stream, and one unnamed tributary to the Arroyo located in the eastern portion of the project site. Numerous non-jurisdictional swales occur on the project site, however, these features do not exhibit a definable bed and bank or riparian vegetation.

The onsite drainage features convey natural runoff originating from direct precipitation within the natural slopes on-site and immediately north, east, and west of the site.

6.4 WETLANDS

Three criteria, hydrophytic vegetation, hydric soils, and wetland hydrology, must be present to classify an area as a jurisdictional wetland (as discussed in Appendix B - Determination of Jurisdictional Wetlands).

Portions of the Alessandro Arroyo show evidence of ponding or retention of water. Therefore, evidence of wetland hydrology exists within the Arroyo. The tributary drainage does not exhibit wetland hydrology.

6.5 DESCRIPTIONS OF ONSITE DRAINAGE FEATURES

Alessandro Arroyo: The Alessandro Arroyo enters the project site at its south-eastern boundary. At the project boundary the Ordinary High Water Mark (OHWM) of the streambed is approximately 3 feet wide with adjacent, associated wetlands that span another 1 to 2 feet of both sides of the drainage. Associated riparian vegetation includes willows, mulefat, and watercress and spans 10 feet across the drainage.

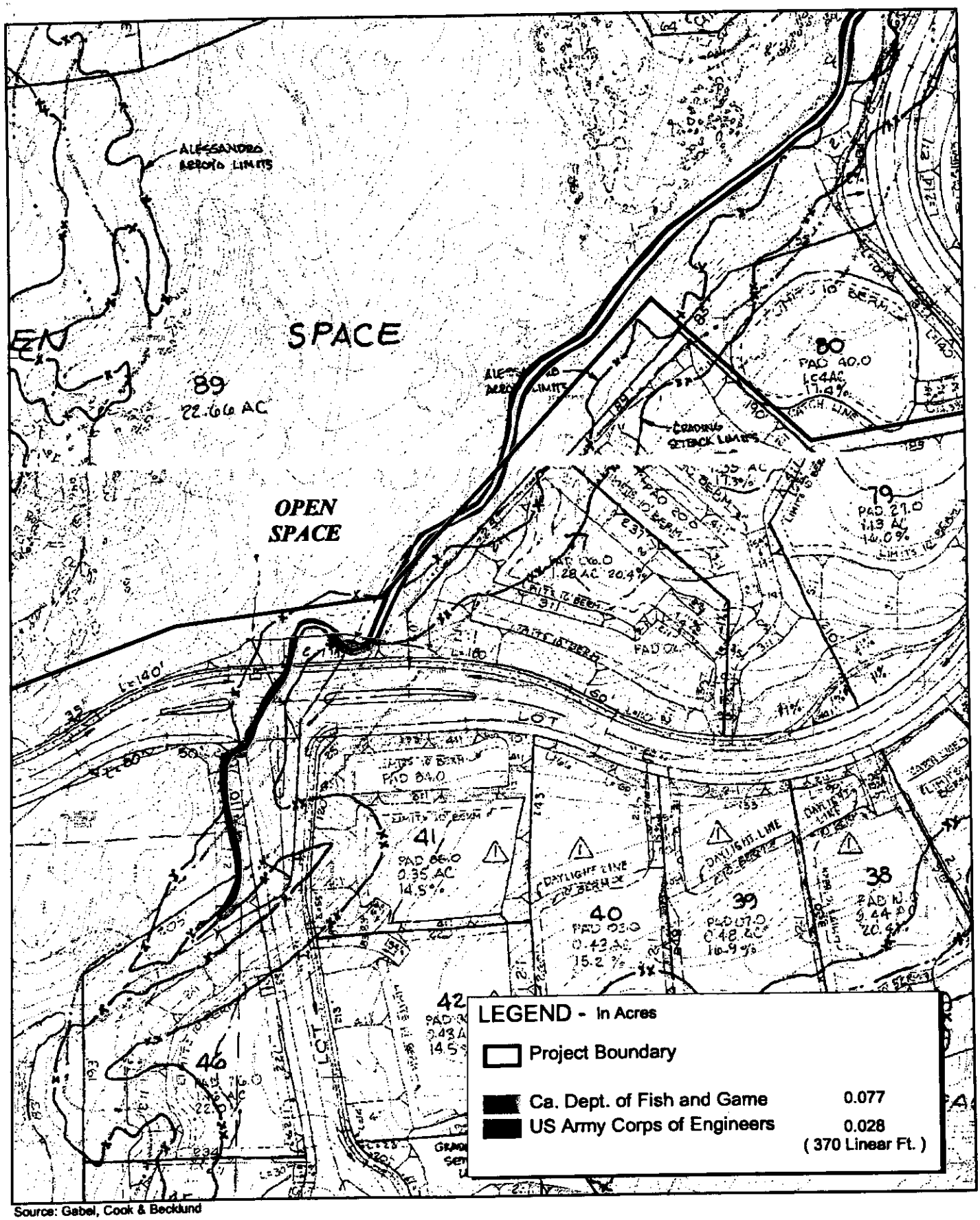
As the drainage opens up to the west, before the Alessandro Dam, it is heavily disturbed from sediment dredging activity by Riverside County Flood Control District (RCFCD). The RCFCD retains an easement within this portion of the Arroyo.

Tributary Drainage: The unnamed drainage feature originates in the north-east portion of the TTM 28728 and flows southwesterly. The streambed is approximately 1 to 2 feet in width and associated riparian vegetation spans 10 feet across the drainage. Such riparian vegetation includes a canopy of willow and pepper trees with a mix of mostly non-native weeds plus a few individuals of mulefat and coastal sage scrub. No evidence of wetland hydrology, hydric soils, and hydrophytic vegetation exists within the drainage. Towards its headwaters near the northern project boundary, the drainage gains in elevation. It contains rock riprap near its confluence with the Alessandro Arroyo and just before the confluence it drops in elevation by 30 to 40 feet. Otherwise, the drainage is relatively flat. The existing dirt road crossing is proposed for improvement, consisting of widening, paving and installation of a 36-inch culvert (corrugated metal pipe).

Non-jurisdictional Swales: Numerous small upland swales are located within the project site. These swales have a round-bottom, and contain no evidence of an Ordinary High Water Mark (OHWM) or riparian vegetation.

6.6 PROJECT IMPACTS WITHIN JURISDICTIONAL AREAS

Impacts are limited to the improvement of an existing road crossing of the onsite unnamed drainage feature. The improvement will result in the permanent loss of 0.028 acres (370 linear feet) of "waters of the United States", and 0.077 acres of "waters of the State" subject to CDFG jurisdiction (Exhibit 4 – Jurisdictional Impacts). Affected vegetation is limited to ruderal species and a few sparse Mulefat (*Baccaris salicifolia*).



Source: Gabel, Cook & Becklund

NORTH

100 0 100 200 Feet

Michael Brandman Associates

24880001 • 03/2003

Exhibit 5

Jurisdictional Impacts

TTM 28728 JURISDICTIONAL DELINEATION • UNINCORPORATED RIVERSIDE COUNTY, CA

No impacts will be incurred within the Alessandro Arroyo, which will be set aside as an open space area.

Table 1 – Permanent Jurisdictional Impacts

	USACE			CDFG
	Wetlands (acres)	**Non-Wetlands (acres)**	**Linear Feet**	**Waters of the State (acres)**
Unnamed Drainage	0	0.028	370	0.077
Alessandro Arroyo	0	0	0	0
Total	0	0.028	140	0.077

Temporary impacts to jurisdictional waters would extend the limits of encroachment approximately 40 feet beyond the development footprint. These areas would be returned to the pre construction contours at the end of the construction phase. All equipment staging and servicing would occur in upland locations.

SECTION 7
PERMITS/AGREEMENTS PROCESSING

The proposed project affects waters of the United States and waters of the State, which fall under the jurisdiction of the USACE and CDFG, respectively. The following discussion identifies the project-specific regulatory clearance requirements of each process.

7.1 USACE NATIONWIDE PERMIT

The proposed project will permanently affect approximately 0.028 acres (370 linear feet) of waters of the U.S. No wetlands are present within the impact area. The project qualifies for processing under the Nationwide Permit (NWP) program utilizing NWP 14—Linear Transportation Projects. A pre-construction notification (PCN) is not required for projects resulting in the permanent impact of less than 0.10 acres.

As the project site is located within designated critical habitat for the CAGN, the applicant has chosen to submit a PCN the USACE in order to coordinate consultation with the USFWS under Section 7 of the Endangered Species Act (ESA).

NWP 14 – Linear Transportation Projects: Authorizes placement of fill for linear transportation projects permanently affecting less than 1/2-acre of waters of the U.S. for the entire project. Notification under General Condition 13 is required for discharge into special aquatic sites, including wetlands. Compensatory mitigation is required to offset permanent loss of waters of the U.S. and wetlands.

A pre-construction notification (PCN) is not required for projects resulting in the permanent impact of less than 0.10 acres. Due to the presence of a designated critical habitat onsite, the applicant has chosen to submit a PCN to the USACE in order to coordinate consultation with the USFWS regarding this issue.

7.2 COMPLIANCE WITH THE ENDANGERED SPECIES ACT

The USACE, in administering the Section 404 permitting program, requires that any endangered species potentially affected by the proposed project be reported with the permit application, pursuant to the Endangered Species Act. Therefore, the presence of sensitive plant or animal species must be determined prior to submittal of the Section 404 application.

PRESENCE/ABSENCE OF FEDERALLY ENDANGERED SPECIES

A project-specific biological survey, consisting of a literature review and field survey and focused Gnatcatcher (CAGN) survey were conducted by RBRiggans and Associates in October 2000 and September 2001, respectively. A follow-up focused CAGN survey was conducted by Campbell BioConsulting, Inc. in October 2002. Both surveys resulted in no siting of CAGN.

The entire project site is located within United States Fish and Wildlife Service (USFWS) designated critical habitat for the CAGN. Project development will result in the loss of 31.80 acres of non-native grassland, 2.9 acres of moderate quality Riversidean Sage Scrub (RSS) and 2.6 acres of low quality RSS within critical habitat area.

Impacts to RSS within critical habitat will be mitigated at a greater than 3:1 ratio through the onsite preservation of 20.6 acres RSS of moderate to low quality located within the proposed 43.78-acre Alessandro Arroyo dedicated open space area

The project site is located within the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan Fee Assessment Area, and construction impacts are subject to current fee requirements.

7.3 COMPLIANCE WITH THE HISTORIC PRESERVATION ACT

A project-specific archival investigation was conducted as part of the environmental documentation prepared for the project in 1998. The investigation identified four archeological resources on site, according to the National Register or National Register eligible resources. Three of the sites will be preserved within the open space areas. The remaining site is located within a proposed street and, therefore, will not be preserved. However, the City of Riverside Planning Department does not consider this loss significant (see Negative Declaration).

7.4 COMPLIANCE WITH SECTION 401 OF THE CLEAN WATER ACT

In connection with notification to the USACE under Section 404 of the Clean Water Act, pursuant to 33 CFR Part 330, Appendix A, a written request for Section 401 water quality certification must be submitted to the RWQCB to ensure that no degradation of water quality will result from the proposed project. RWQCB Section 401 certification must be issued prior to commencement of any activity that might affect water quality.

The project site is located within the Upper Santa Ana River Watershed, Temescal hydrologic unit. Beneficial uses of the Temescal hydrologic unit, as identified in the *Water Quality Control Plan for the Santa Ana River Basin (8)*, include agricultural, groundwater, recreation 1 and 2, industrial,

warm, wild, and rare uses. The Temescal hydrologic unit is not listed in the *1998 Section 303(d)* for Region 8.

Post-project storm flow quantity and velocity at the point of offsite discharge will be consistent with pre-project discharge quantity and velocity, per County of Riverside flood control standards.

Urban runoff has been shown to contain potentially high levels of heavy metals, oil, and grease, as well as silt and organic loads, plastics and other general trash, and bacterial populations. Additionally, improper use of chemicals for landscape maintenance may have a detrimental effect on water quality. Proposed mitigation for project-specific impacts to water quality are included in Section 8 of this document.

7.5 CDFG 1600 STREAMBED ALTERATION AGREEMENT

Approximately 0.077 acres of CDFG jurisdiction would be permanently affected by project implementation. A CDFG Section 1600 agreement is required prior to any alteration of a streambed or riparian habitat. Mitigation to offset the potential impacts to waters of the state is proposed in Section 8 of this document.

SECTION 8
MITIGATION MEASURES

8.1 AVOIDANCE, MINIMIZATION AND MITIGATION RECOMMENDATIONS

The following measures are proposed to avoid, minimize and mitigate potential waters, biology, and water quality effects associated with project implementation.

WATERS

Onsite mitigation is proposed to offset the permanent loss of jurisdictional waters, as discussed below:

- Expansion of the unnamed drainage feature immediately downstream of the road crossing and adjacent to the proposed upland water quality bio-swale. It is anticipated that the bio-swale will provide sufficient hydrology to support riparian vegetation. The mitigation site will be 0.077-acres and contain a minimum of 0.028 acres created waters of the U.S.

- Riparian vegetation will be installed within the mitigation site consisting of native grasses.

- A three year maintenance and monitoring plan is proposed to ensure the successful establishment of the native cover within the mitigation area.

BIOLOGY

The 86.31-acre project development area is composed of 26 acres of varying quality RSS, 49.81 acres of NNG, and 10.5 acres of riparian/wetland vegetation (preserved within the proposed Alessandro Arroyo open space area).

Project implementation would result in the permanent loss of approximately 2.9 acres of moderate quality Riversidean Sage Scrub (RSS) and 2.6 acres of low quality RSS within critical habitat.

- **Onsite Preservation:** The project is designed to avoid impacts to the Alessandro Arroyo, a sensitive habitat. Approximately 43.78 acres will be dedicated as open space, including the Alessandro Arroyo area. This area contains approximately 10.5 acres of riparian/wetland vegetation.

  Impacts to RSS will be mitigated at a greater than 3:1 ratio through the onsite preservation of 20.6 acres RSS of moderate to low quality adjacent to the Alesandro Arroyo.

WATER QUALITY

- The proposed project improvements will comply with Section 402 (Stormwater Pollution Prevention Plan) regulations as administered by the RWQCB. Water pollution control measures incorporated into project design, construction, and operations would establish compliance with current National Pollutant Discharge Elimination System (NPDES) regulations.

- A water quality bio-swale will be installed immediate downstream of the road crossing. The bio-swale will be located in an upland area to provide pretreatment of urban runoff[2] prior to discharge into the drainage feature. The Homeowners Association will provide long-term maintenance, consisting of installation of native grasses, and sediment removal as needed.

[2] up to the 85 percentile of the 3 year 24-hour storm

SECTION 9
REFERENCES

California, State of. 1989. Fish And Game Code.

Department of Army. 1986 (Nov 13). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register. 51(219): 41206-260.

Department of Army. 2000 (Mar 9). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register. Vol. 65 No. 47: 12818-899.

Department of Army. 2002 (Jan 15). 33 CFR Parts 320 Through 330, Regulatory Programs of the Corps of Engineers; Final Rule. Federal Register. Vol. 67 No. 10: 2020-2095.

Department of Army—South Pacific Division 2001 (June). Guidelines for Jurisdictional Delineations for Waters of the United States In the Arid Southwest.

Federal Emergency Management Agency. Flood Insurance Rate Map, Riverside County California (unincorporated areas), Community-Panel Number 060245 2085 C, revised November 20, 1996.

Federal Interagency Committee For Wetland Delineation. 1989. Federal Manual For Identifying and Delineating Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Services, and U.S.D.A. Soil Conservation Service. Washington, D.C. Cooperative Technical Publication.

Kollmorgen Corporation, 1975. Munsell Soil Color Charts. Macbeth Division of Kollmorgen Corporation, Baltimore, Md.

Reed, P.B. 1988. National List of Plant Species That Occur In Wetlands: California (Region 0). National Wetlands Inventory, U.S. Fish and Wildlife Service Biological Report 88 (26.9).

U.S. Department of Agriculture, Soil Conservation Service and Forest Service. 1973. Soil Survey of Orange County And Eastern Part of Riverside County, California.

U.S. Fish And Wildlife Service. 1988 (May). National List of Plant Species that Occur in Wetlands: California (Region 0). Biological Report 88(26.10). Washington, D.C.: USFWS.

U.S. Geological Survey. 1967 and Photorevised 1980. Riverside East, California. 7.5-minute topographic map.

APPENDIX A
WETLAND DATA FORMS

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	A
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Mule fat		FACW	9		
2 Red Brome		upl	10		
3 Deer Weed		upl.	11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks

NO

HYDROLOGY

☐ Recorded Data (Describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Drd not meet hydrology indicator no further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	YES (NO)	Is this Sampling Point Within a Wetland? YES (NO)
Wetland Hydrology Present?	YES (NO)	
Hydric Soils Present?	YES (NO)	

Remarks

Drainage 1-2' Corps
2 - COF6

no wetland
close to head water
Adjacent to develop no longer Receiving Direct flows

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	B
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Mule	Fac		9		
2 Willow	Fac		10		
3 Cheese weed	U.		11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 75%

Remarks

wetland not occur. Shaded Ruvine

HYDROLOGY

☐ Recorded Data (Describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Did not meet hydrology indicator. No further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	~~YES~~ NO	
Wetland Hydrology Present?	YES (NO)	Is this Sampling Point Within a Wetland? YES (NO)
Hydric Soils Present?	YES (NO)	

Remarks

No noticible water marks

wetland veg occurs but it is sparse.

1-2 Feet

3 Soil cores

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	C
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	-

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Pepper tree	FACU		9		
2 Tobacco	FAC		10		
3 Mule Cat.	FACW		11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 75

Remarks

edge of Riparian veg. no other wetland veg downstream

HYDROLOGY

- ☐ Recorded Data (Describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Ord not meet hydrology indicator no further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	YES NO	Is this Sampling Point Within a Wetland? YES (NO)
Wetland Hydrology Present?	YES (NO)	
Hydric Soils Present?	YES (NO)	

Remarks

Drainage flattens out at this location edge of riparian

1 - ACE

10 - COF6

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	D
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 None			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks

Just upstream of Road crossing
upper Bench has dis. RNG
But none in drainage

HYDROLOGY

☐ Recorded Data (Describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Did not meet hydrology indicator no further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	YES (NO)	Is this Sampling Point Within a Wetland? YES (NO)
Wetland Hydrology Present?	YES (NO)	
Hydric Soils Present?	YES (NO)	

Remarks

At this point OHWM. not long delineable
Sheet flows over the Road.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	E
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	-

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 tobacco	FAC		9		
2 Mule Fat	FAW		10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) NO

Remarks

Wetland veg. sparse limited to edge of Road crossing

HYDROLOGY

☐ Recorded Data (Describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Did not meet hydrology indicator. No further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(YES) NO	Is this Sampling Point Within a Wetland? YES (NO)
Wetland Hydrology Present?	YES (NO)	
Hydric Soils Present?	YES (NO)	

Remarks

Beginning of Braided channel feature

Large sandy area

OHW. - 5 1/2 foot

CDFB - 2 Feet

Similar for Addition no feet.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site	TT. 28728	Date	12/11/03
Applicant / Owner	Guthrie	County	Riverside
Investigator	S Crawford	State	CA
Do Normal Circumstances exist on the site?	(YES) NO	Community ID	1
Is the site significantly disturbed (Atypical Situation)?	YES (NO)	Transect ID	F
Is the area a potential Problem Area? (If needed, explain on reverse)	YES (NO)	Plot ID	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 No Veg			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8			16		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-)

Remarks

Rocky Eroded Area.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

NO Evidence

FIELD OBSERVATIONS	
Depth of Surface Water	(in)
Depth to Free Water in Pit	(in)
Depth to Saturated Soil	(in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

SOILS

Map Unit Name (Series and Phase):	Drainage Class:
Taxonomy (Subgroup)	Field Observations Confirm Mapped Type? YES NO

PROFILE DESCRIPTION

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.

HYDRIC SOIL INDICATORS:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Did not meet hydrology indicator no further documentation need

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	YES (NO)	Is this Sampling Point Within a Wetland? YES (NO)
Wetland Hydrology Present?	YES (NO)	
Hydric Soils Present?	YES (NO)	

Remarks

No veg. in this area. just upstream of confluence to Arroyo Alessandro

Rocky spillway into drainage feature. likely man-made but disturbance was likely some time ago.

COF6 - 2
USACE - 1

APPENDIX B
DETERMINATION OF JURISDICTIONAL WETLANDS

JURISDICTIONAL CRITERIA

The Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987) sets forth three mandatory criteria and a number of non-mandatory field indicators to use in evaluating whether or not an area is a jurisdictional wetland. The three mandatory criteria are hydrophytic vegetation, hydric soils, and wetland hydrology. The following paragraphs discuss the mandatory criteria, the field indicators, and other reference materials used to determine if each criterion has been met at the project site.

HYDROPHYTIC VEGETATION

Hydrophytic vegetation is defined as plant life growing in water, soil or substrate that is at least periodically deficient in oxygen as a result of excessive water content. The U.S. Fish and Wildlife Service has published the National List of Plant Species That Occur in Wetlands, and divided plants into four groups based on their "wetland indicator status": (1) obligate wetland plants (OBL) that occur almost always in wetlands under natural conditions; (2) facultative wetland plants (FACW) that usually occur in wetlands but occasionally are found in upland areas; (3) facultative plants (FAC) that are equally likely to occur in wetlands as well as upland; and (4) facultative upland plants (FACU) that usually occur in upland areas but occasionally are found in wetlands. An area has hydrophytic vegetation when, under normal circumstances, more than 50% of the composition of dominant plant species from all strata are obligate wetland (OBL), facultative wetland (FACW) and/or facultative species (FAC).

HYDRIC SOILS

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. "Long enough" generally means one week during the growing season and soils that are saturated for this period of time usually support hydrophytic vegetation. The criteria for establishing the presence of hydric soils vary among different types of soils and between normal circumstances, disturbed areas, and problem areas. Due to their wetness during the growing season, hydric soils usually develop certain morphological properties that can be readily observed in the field. Prolonged anaerobic soil conditions typically lower the soil redox potential, causing a chemical reduction of some soil components, mainly iron oxides and manganese oxides. This reduction is typically reflected by the presence of iron or manganese concretions, gleying or mottling. Other field indicators of hydric soils include the presence of sulfidic material, an aquic or peraquic moisture regime, or a spodic horizon. (All organic soils, with the exception of Folists, are classified as hydric soils.)

WETLAND HYDROLOGY

Wetland hydrology is permanent or periodic inundation, or soil saturation for a significant period during the growing season. Numerous factors influence the wetness of an area, including precipitation, stratigraphy, topography, soil permeability, and plant cover. At certain times of the year in most wetlands, and in certain types of wetlands at most times, wetland hydrology is quite evident, since surface water or saturated soils may be observed. Yet in many instances, especially along the uppermost boundary of wetlands, hydrology is not readily apparent. Despite this limitation, hydrologic indicators can be useful for confirming that a site with hydrophytic vegetation and hydric soils still exhibits wetland hydrology. While hydrologic indicators are sometimes diagnostic of the presence of wetlands, they are generally either operationally impracticable (e.g. in the case of recorded data) or technically inaccurate (e.g., in the case of some field indicators) for delineating wetland boundaries.

The following hydrologic indicators, while not necessarily indicative of hydrologic events during the growing season or in wetlands alone, do provide evidence that inundation or soil saturation have occurred at some time: visual observation of inundation, visual observation of soil saturation, oxidized channels (rhizospheres) associated with living roots and rhizomes, water marks, drift lines, waterborne sediment deposits, water-stained leaves, surface scoured areas, morphological plant adaptations, and hydric soil characteristics.

Cagn Surveys

CAGN SURVEY – RBRIGGAN & ASSOCIATES

An Assessment of the California Gnatcatcher on Tentative Tract 28728 in Riverside County, California

Prepared For:

Dr. Yang Chang Hong
2193 Hackamore Place
Riverside CA 92506

Prepared By:

RBRiggan and Associates
10646 Marbury Avenue
San Diego, California 92126
619-233-5454

7 September 2001
RBR Job Number 1810.86A

An Assessment of the California Gnatcatcher on Tentative Tract 28728 in Riverside County, California

SUMMARY

Based on the results of the field work reported in this document, habitats within City of Riverside Tract 28728 which are apparently suitable for the California Gnatcatcher are not occupied by that species. These un-occupied habitats encompass approximately 12.5-acres of which approximately 2.9- acres will be lost during construction. The lack of Gnatcatchers is in all probability due to (1) grading activities on the property immediately adjacent and to the south of the subject Tract, (2) recent fires to the west and southwest, fires that have destroyed large areas of Riversidian Sage Scrub, and, (3) the relatively small size of intact habitat left within and adjacent to the southeastern corner of the property. A pair of California Gnatcatchers generally occupies approximately 20-acres for breeding purposes (Braden, 1998). There is hardly 20-acres of Riversidian Sage Scrub left in or adjacent to the southeastern corner of the subject Tract.

BACKGROUND AND INTRODUCTION

County of Riverside Tract 28728 encompasses approximately 151.8-acres and lies at the north end of the Alessandro Heights Community, north of the Alessandro Arroyo and flood control basin (see Figures 2 and 3). In August 2000, RBRiggan and Associates was retained to conduct a Biological Assessment of the tract and prepare a report for submittal to the City of Riverside. California Gnatcatcher (a federally listed "Threatened" species; *Polioptila californica*) surveys were not, however, initially authorized by the applicant. The Riverside Planning Department issued a Mitigated Negative Declaration for the Tract late in the year and the Department of Fish and Game responded in a letter dated February 2, 2001. One of their recommendations of the Department was that a protocol presence/absence California Gnatcatcher survey be conducted. RBRiggan and Associates was retained to conduct this protocol survey during the breeding season of 2001. This document serves as the protocol survey report.

The bulk of Tentative Tract 28728 is occupied by a ruderal or weedy association of plants not suitable as habitat for the California Gnatcatcher (see Braden 1998, and Braden et al., 1997). Of the entire area of the Tract, only 12.5-acres in the southeastern corner of the parcel (see Figure 2) offers habitat suitable for the Gnatcatcher (see RBRiggan and Associates, 2001). Of this habitat area, approximately 2.9-acres will actually be lost to development.

This protocol survey was specifically designed to encompass the 12.5-acres of suitable habitat within

the bounds of Tract 28728 along with the immediately adjacent suitable habitats that occur on adjacent properties. The total area of survey was in excess of 20-acres. The southeastern corner of the Tract has a common boundary with an approved four-lot Tract that did support a single pair of the Gnatcatcher. That Tract, however, was actively being graded concurrent with the field survey on the adjacent subject property. This grading activity undoubtedly had an effect on the results on Tract 28728.

The Tract is located north of the Alessandro Arroyo and flood control basin (see Figures 2 and 3). Adjacent properties to the north are developed as older, urban, single-family detached subdivisions. Properties to the east and west are residential and range from recent construction to well developed neighborhoods, while the properties to the south include large, undeveloped Tracts within or adjacent to the Alessandro Arroyo. To the west of the Tract are large lot residential homes with extensive horticultural plantings. Tract 28728 is part of an on-going burst of development that includes much of the Alessandro Heights area. Numerous tracts are presently under construction around the periphery of the Arroyo.

The Tentative Tract Map parcels the property into 66 residential lots. The lots will be accessed from the extensions of Cresthaven Drive and Century Avenue, both of which will connect with an internal street system. The current tentative map contains 60.12 acres of designated Open Space within 5 different lots.

METHODS

The survey of Tentative Tract 28728 was intensely focused on the determination of the presence or absence of the California Gnatcatcher (*Polioptila californica*). To this end, the field effort on each of the six survey dates effectively saturated the site providing what would be described by this author as an "intense effort" given the relatively small size of the parcel. Two observers were utilized on all but one of the field dates. One observer worked the eastern section while another traversed the western. The dates, times of survey, and the extant weather conditions were as follows:

10 May 2001 — All observations were made between 0715 and 0815 hours. The weather was clear and calm during the beginning of the survey with increasing winds near the end. Air temperatures increased throughout the survey from 68.8 degrees Fahrenheit at the beginning of the survey to 71.2 degrees at the end of the survey. Humidity was measured at 65% at the beginning of the survey and decreased slightly to 64% at the end of the survey. Winds ranged from zero mph at the start of the survey to 1.1 - 3.2 mph at the end (two observers: G. Morse and Riggan).

8 June 2001— All observations were made between 0715 and 0815 hours. Air temperatures increased throughout the survey from 70.3 degrees Fahrenheit at the beginning of the survey to 77.2 degrees at the end of the survey. Humidity was measured at 66% at the beginning of the survey and decreased to 60% at the end of the survey. Winds ranged from zero mph at the start of the survey to 0.0 - 1.3 mph at the end (two observers: G. Morse and Riggan).

21 June 2001 — All observations were made between 0515 and 0630 hours. Air temperatures increased throughout the survey from 64.8 degrees Fahrenheit at the beginning of the survey to 74.3 degrees at the end of the survey. Humidity was measured at 67% at the beginning of the survey and decreased to 55% at the end of the survey. Winds ranged from zero mph at the start of the survey to ±2.0 mph at the end (two observers: G. Morse and Riggan).

30 June 2001 — All observations were made between 0730 and 0845 hours. The weather was clear and calm throughout. Air temperatures ranged from 71.0 degrees Fahrenheit at the beginning of the survey to 87.3 degrees at the end of the survey. Humidity decreased from 72% at the beginning of the survey to 58% at the end of the survey (two observers: G. Morse and Riggan).

8 July 2001 — All observations were made between 0830 and 1015 hours. Apparently a limited overcast near dawn, burned off by the time of the observations. Dead calm, warm and moderate humidity at the beginning of the period. Negligible wind, hot, and drier by the end of the observational period.(one observer: Riggan).

18 July 2001 — All observations were made between 0730 and 0845 hours. At the onset of the survey, the site was covered in ground fog which dissipated as the survey progressed. Air temperatures ranged from 63.7 degrees Fahrenheit at the beginning of the survey to 68.0 degrees at the end of the survey. Humidity decreased from 78% at the beginning of the survey to 76% at the end of the survey (two observers: G. Morse and Riggan).

On each field date, the whole property was walked and a concerted effort was made to assure that a "line-of-sight" inspection was made of all parts of the property. "Pishing" was utilized as a location technique, as was the recorded call of the California Gnatcatcher. At each station, the tape was played for a duration of at least five minutes (calls obtained through the Cornell Laboratory of Ornithology; the recording is of a Type I call in the sense of Atwood, 1988). When two observers were in the field, field radios were utilized to maintain constant communication and to ensure that no double counting of species (or Gnatcatchers) was occurring.

All birds heard and/or seen during the course of the survey were noted and that information is presented as Table 1 (including a numerical listing by date of the numbers of individuals seen of each species). The Table is annotated and the reader is directed to it for information about the avifauna present within the bounds of the property.

RESULTS

A total of 40 species of birds were noted on or over the subject property during the six site visits (see Table 1 for species accounts). The avifauna observed was typical of sage scrub and riparian habitats. The specific lack of sighting of the California Gnatcatcher is discussed in the following with some general comments on the balance of the avifauna following that discussion. Table 1 is also

extensively annotated and the reader's attention is directed to the Table for additional information.

California Gnatcatcher

No California Gnatcatchers were seen during any of the survey efforts in the Riversidian Sage Scrub in the southeastern section of the site. That area of the Tract appears ***not*** to be occupied by the California Gnatcatcher even though it is occupied by what appears to be suitable habitat and it is located in Final Critical Habitat for the species (see Figure 4). As indicated in the Biological Assessment for Tract 28728 (RBRiggan and Associates, 2001), a Section 404 Permit from the Army Corps of Engineers will be required due to the filling of certain "non-wetland" wasters of the United States for transportation crossings. This federal nexus will be the basis for a Section 7 consultation (Section 7 of the Endangered Species Act) which will address the potential loss of un-occupied habitat within designated "Critical Habitat" for the California Gnatcatcher.

Other Bird Species

The suite of bird species observed on-site is consistent with the surrounding land uses and habitats on-site. For example, Bewick's Wrens and California Thrashers were observed in the Sage Scrub habitat. Likewise, Nuttall's Woodpecker was heard in the Willows and surrounding riparian habitat. A complete, annotated listing of these species is presented in Table 1.

CONCLUSIONS

A series of six intensive surveys were conducted to delineate the population of the California Gnatcatchers on Tentative Tract Map 28728 in the Alessandro Heights Community of Riverside County. A combination of direct observation, "pishing," and the use of tape-recorded calls was utilized in an attempt to locate individuals of the species.

Based on the results of the field work, it appears that the 12.5-acre area of Riversidian Sage Scrub within the Tract is unoccupied by California Gnatcatchers. Implementation of the project as proposed will disrupt approximately 2.9-acres of unoccupied habitat within Final Critical Habitat for the California Gnatcatcher.

CERTIFICATION

This survey represents and independent field effort and analysis. Any errors or omissions are solely the responsibility of the senior author.

Royce B. Riggan, AICP
Consulting Biologist

(TE-780195-3)
7 September 2001
RBR Job No. 1810.86A

RBRiggan and Associates
10646 Marbury Avenue
San Diego, California 92126

Attachments

1. References Cited
2. Figure 1 — Regional Location Map
3. Figure 2 — Location on a USGS Quad Map
4. Figure 3 — Location on a Thomas Brothers Map
5. Figure 4 — California Gnatcatcher Critical Habitat
6. Table 1 — Birds Observed

[:\1810gnat-rpt.wpd]

References Cited

Atwood, Jonathan L. 1980. The United States distribution of the California Black-tailed Gnatcatcher. Western Birds 11(2):65-78.

Atwood, Jonathan L. 1988. Speciation and Geographic Variation in Black-tailed Gnatcatchers. American Ornithologists Union, Ornithological Monographs No. 42, Wash., D.C.

Atwood, Jonathan L. 1990. Status review of the California Gnatcatcher (Polioptila californica). Unpublished technical report, Manomet Bird Observatory, Manomet, Massachusetts. 79 pp.

Atwood, Jonathan L. 1991. Subspecies limits and geographic patterns of morphological variation in California Gnatcatchers (*Polioptila californica*) Bull. S. Calif. Acad. Sci. 90:118-133.

Atwood, Jonathan L., and J. S. Bolsinger. 1992. Elevational Distribution of California Gnatcatchers in the United States. J. Field Ornithol. 63(2):159-168.

Atwood, Jonathan L., D. R. Bontrager, and A. L. Gorospe. 1998. Use of Refugia by California Gnatcatchers Displaced by Habitat Loss. Western Birds 29(4):406-412.

Atwood, Jonathan L., et al. 1998. Factors Affecting Estimates of California Gnatcatcher Territory Size. Western Birds 29(4):269-279.

Braden, Gerald T., S. L. Love, and R. L. McKernan. 1994. Dispersal and Non-breeding Habitat Use by the Coastal California Gnatcatcher (*Polioptila californica californica*) in Western Riverside County. Unpublished manuscript, prepared for Southwestern Riverside County Multi-species Reserve management Committee and the Metropolitan Water District, copies available from the Fish and Wildlife Service, Carlsbad Field Office, 28 pp.

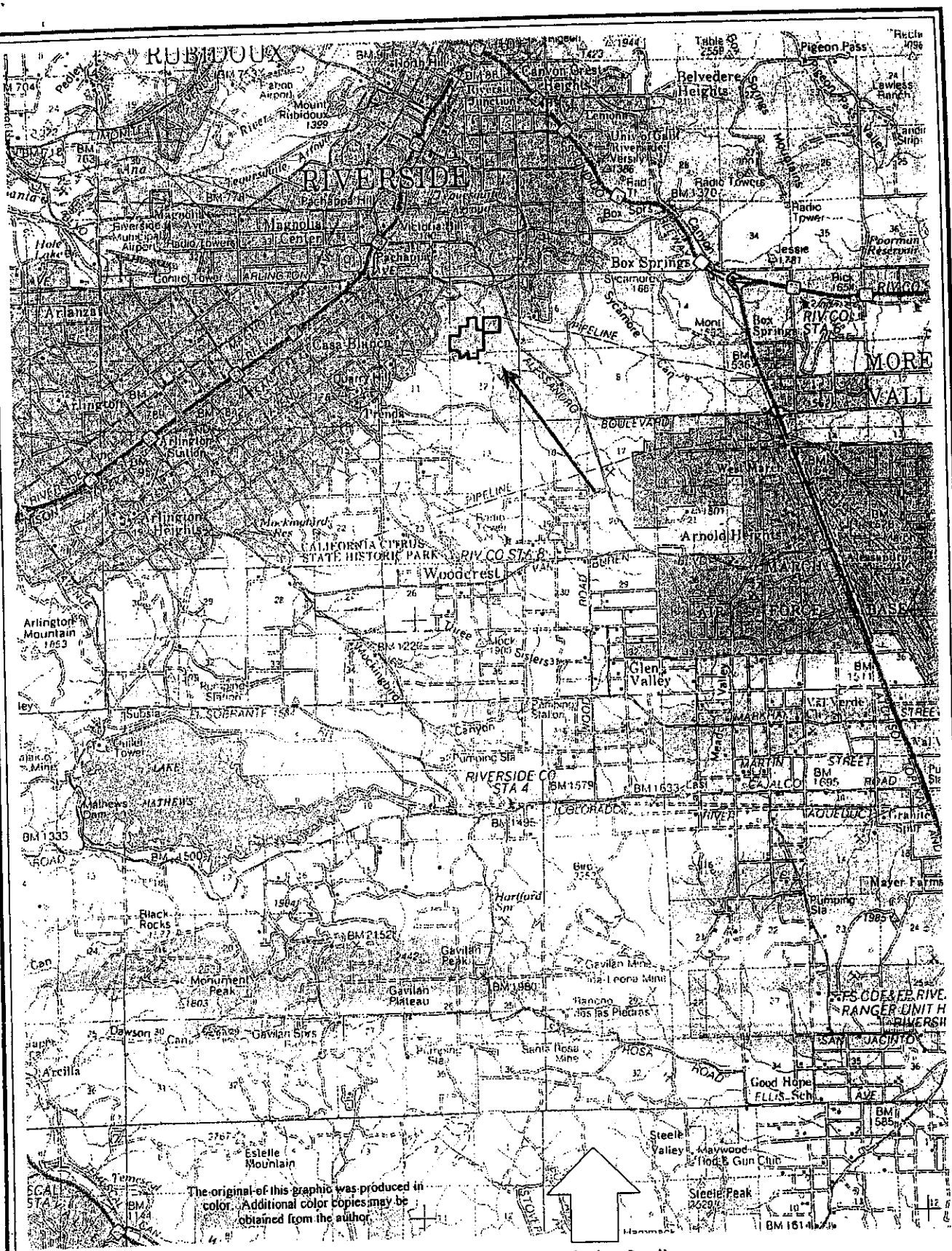
Braden, Gerald T., R. L. McKernan, and, S. M. Powell. 1997. Association of within-territory vegetation characteristics and fitness components of California Gnatcatchers. Auk 114(4):601-609.

Braden, Gerald. 1998. Gnatcatcher Factoids. Unpublished manuscript, Fish and Wildlife Service, Carlsbad, Calif., 3 pp.

Davis, Liam H., R. L. McKernan, and J. S. Burns. 1998. History and Status of the California Gnatcatcher fin San Bernardino County, California. Western Birds 29(4):361-365.

Dunn, J.L., and K.L. Garrett. 1987. The identification of North American gnatcatchers. Birding 19:17-29.

Famolaro, Peter and J. Newman. 1998. Occurrence and Management Considerations of California Gnatcatchers Along San Diego County Highways. Western Birds 29(4):447-452.



Scale: 1-inch = 2-miles

[\1810-Gnat-Fig-1.wpg]

RBRiggan and Associates Job Number 1810.86A 7 September 2001

RBRiggan and Associates	City of Riverside Tract 28728 in the Regional Conext of Western Riverside County [Base Map from USDA Forest Service]	Figure 1

12-549

References Cited (continued)

Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Coastal California Gnatcatcher. Federal Register 58(59):16742-16757.

Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants; Proposed Special Rule to Allow Take of the Threatened Coastal California Gnatcatcher. Federal Register 58(59):16758-16759.

Fish and Wildlife Service. 2000. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher; Final Rule. Federal Register 65(206):63680-63743

Greenwood, Richard B., and D.M. Morton. 1991. Geology of the Santa Ana 1:100,000 Quadrangle, California. California Division of Mines and Geology, Open File Report 91-17, Sacramento, Calif.

Knecht, Arnold A., et al. 1971. Soil Survey of Western Riverside Area, California, U.S. Department of Agriculture, Soil Conservation Service, U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Preston, Kristine L., M. A. Grishaver, and P. J. Mock. 1998. California Gnatcatcher Vocalization Behavior. Western Birds 29(4):256-268.

Preston, Kristine L., et al. 1998. California Gnatcatcher Territorial Behavior. Western Birds 29(4):242-257.

Pyle, Peter, et al. 1987. Identification Guide to North American Passerines. Slate Creek Press, Bolinas, Calif., x + 278 pp.

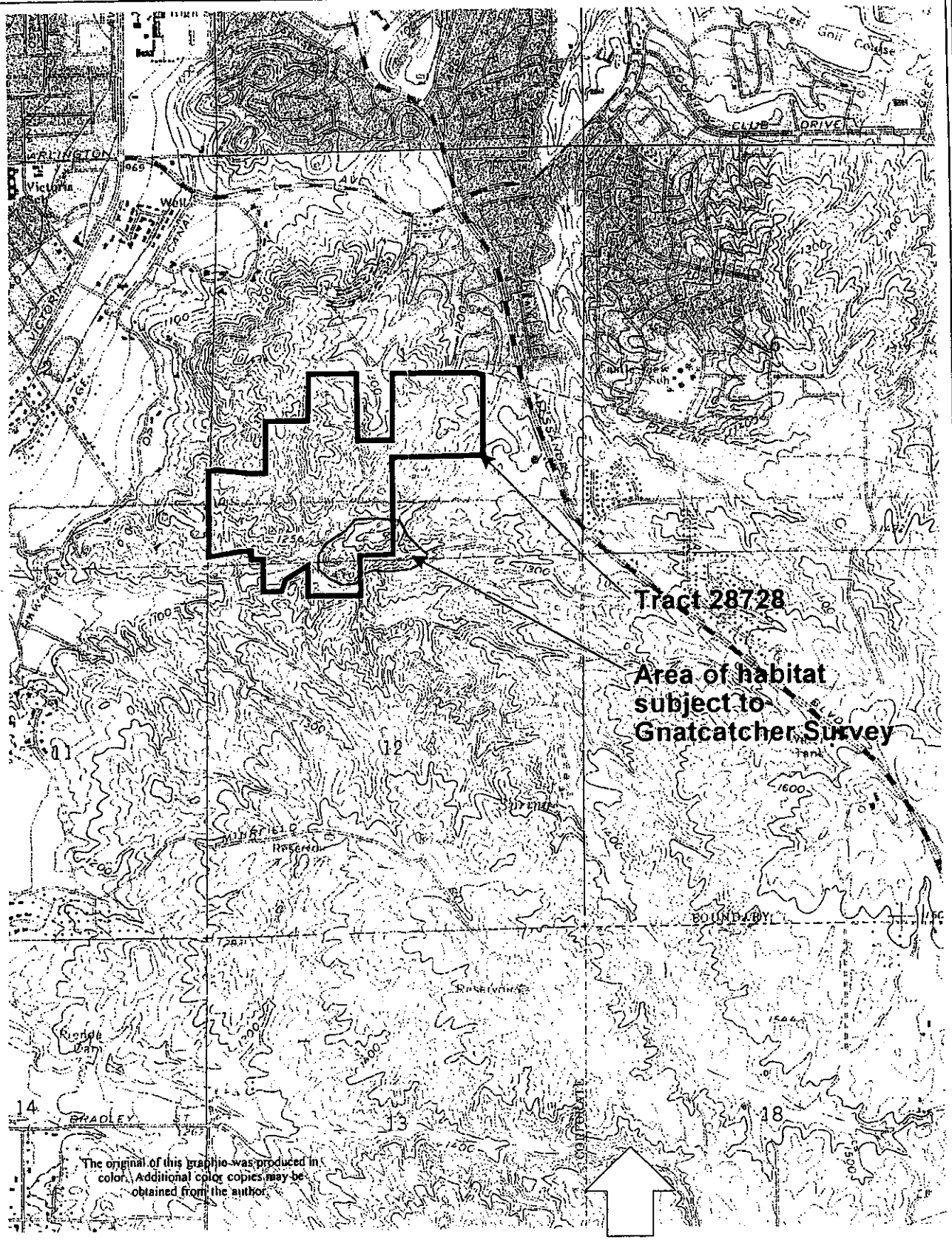
Pyle, Peter and P. Unitt. 1998. Molt and Plumage Variation by Age and Sex in the California and Black-tailed Gnatcatchers. Western Birds 29(4):280-289.

Rotenberry, John T., and, T. A. Scott. 1998. Biology of the California Gnatcatcher: Filling in the Gaps. Western Birds 29(4):237-241.

Weaver, Kenneth L. 1998. Coastal Sage Scrub Variations of San Diego County and Their Influence on the Distribution of the California Gnatcatcher. Western Birds 29(4):392-405.

Weaver, Kenneth L. 1998. A New Site of Sympatry of the California and Black-tailed Gnatcatchers in the United States. Western Birds 29(4):476-479.

[:\1810gnat-ref-cit.wpd]

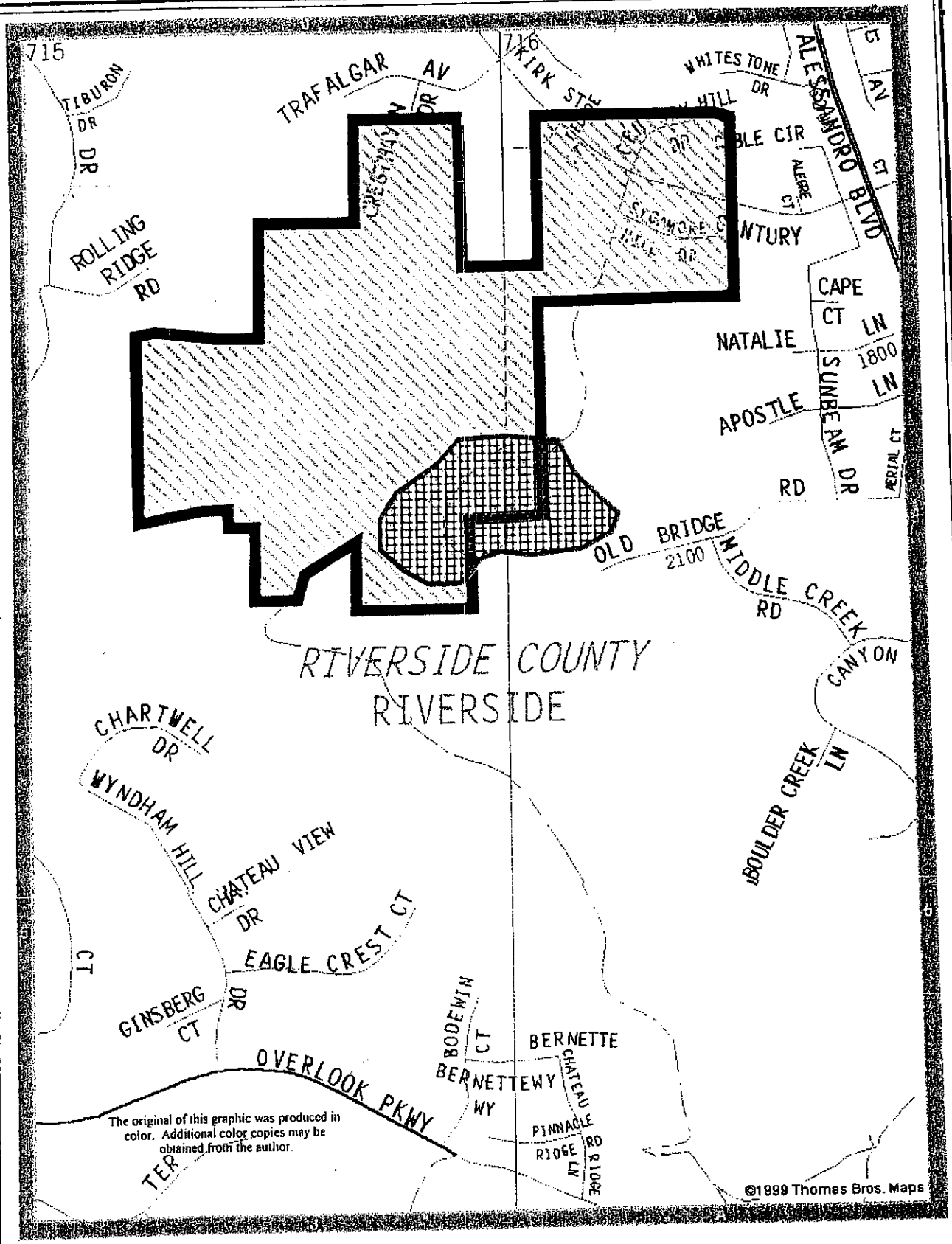


Scale: 1-inch = 2,000-feet

RBRiggan and Associates Job Number 1810.86A 30 October 2000 [\1810-Gnat-Fig-2.wpg]

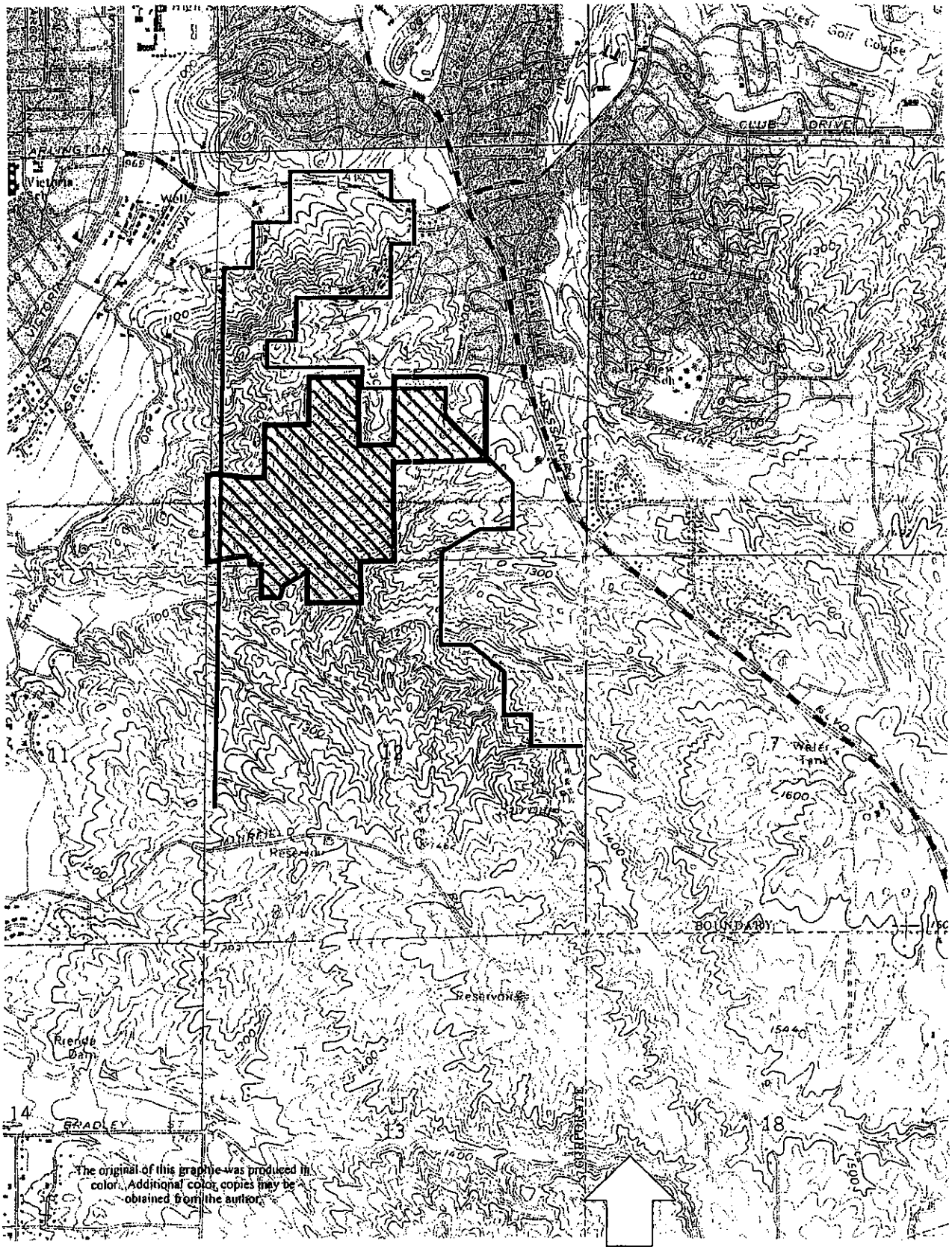
RBRiggan and Associates	Location of City of Riverside Tract 28728 on a Scanned Portion of the U.S.G.S. 7½-minute Riverside East Quadrangle Map	Figure 2

12-551



RBRiggan and Associates Job Number 1810.86A 7 September 2001 [:\1810-Gnat-Fig-3.wpg]

RBRiggan and Associates	Tract 28728 and the Gnatcatcher Survey Area on a Thomas Brothers Map Base [map © Thomas Bros Maps]	Figure 3



Scale: 1-inch = 2,000-feet

RBRiggan and Associates Job Number 1810.86A 7 September 2001 [:\1810-Gnat-Fig-4.wpg]

RBRiggan and Associates	Location of City of Riverside Tract 28728 in Relation to Final Critical Habitat for the California Gnatcatcher (see text)	Figure 4

12-553

Table 1
Bird Species Observed During the California Gnatcatcher Survey for Tentative Tract 28728 in the City of Riverside, County of Riverside, California

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
Red-Tailed Hawk (*Buteo jamaicensis*)	1	1	1	2	1	1	Seen overflying the site; probably resident in the area.
American Kestrel (*Falco sparverius*)	—	—	1	—	—	—	Seen overflying the Alessandro Arroyo.
California Quail (*Callipepla californica*)	9	3	13	1	covey	2	Seen and heard scattered throughout the survey site.
Killdeer (*Charadrius vociferus*)	2	—	—	—	—	—	Heard down in the Alessandro Arroyo (note, this is not a confused call of the Rufous-crowned Sparrow)
Mourning Dove (*Zenaida macroura*)	8	11	4	3	6	11	Seen throughout; probably nests on-site.
Greater Roadrunner (*Geococcyx californianus*)	—	—	—	—	2	—	Heard and seen amongst the boulders near the Alessandro Arroyo.
Anna's Hummingbird (*Calypte anna*)	1	—	4	6	3	6	Year round resident.
Costa's Hummingbird (*Calypte costae*)	1	—	—	1	—	—	Heard doing breeding display.
Nuttall's Woodpecker (*Picoides nuttallii*)	2	—	1	3	1	2	Seen and heard in the riparian area along the Alessandro Arroyo.

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
Downy Woodpecker (*Picoides pubescens*)	—	—	1	—	—	—	Heard in the riparian area along the Alessandro Arroyo — this is a unique observation, this species is uncommon in the Riverside area.
Northern Flicker (*Colaptes auratus*)	1	—	—	—	—	1	Heard in the riparian area along the Alessandro Arroyo.
Black Phoebe (*Sayornis nigricans*)	2	3	2	3	3	4	Seen throughout the survey site.
Ash-throated Flycatcher (*Myiarchus cinerascens*)	1	—	—	—	—	—	Heard in the riparian area along the Alessandro Arroyo.
Western Kingbird (*Tyrannus verticalis*)	2	2	—	—	—	—	Seen along the Alessandro Arroyo; probably breeding on-site.
American Crow (*Corvus brachyrhynchos*)	6	—	5	—	—	49	Frequently seen overflying the site.
Common Raven (*Corvus corax*)	—	—	—	2	4	—	Seen overflying the site.
Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)	1	—	1	—	—	—	Seen overflying the site.
Cliff Swallow (*Petrochelidon pyrrhonota*)	—	6	—	—	1	—	Seen overflying the site.
Bushtit (*Psaltriparus minimus*)	4	16	—	—	—	—	Birds of this species were seen in groups; probably resident on-site
Rock Wren (*Salpinctes obsoletus*)	—	1	1	—	—	—	Seen and heard amongst the boulders near the Alessandro Arroyo.
Bewick's Wren (*Thryomanes bewickii*)	2	5	9	10	2	11	Seen and heard throughout the survey site.

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
California Gnatcatcher *(Polioptila californica)*	—	—	—	—	—	—	See text of report for discussion. No individuals were seen or heard.
Western Bluebird (*Sialia mexicana*)	1	—	—	—	—	—	Heard overflying the site.
Wrentit (*Chamaea fasciata*)	—	—	1	—	—	—	Heard south of the survey site.
Northern Mockingbird (*Mimus polyglottos*)	—	1	—	—	—	—	Seen on the border of the survey site adjacent to the residential houses.
California Thrasher (*Toxostoma redivivum*)	1	—	2	—	—	4	Seen and heard scattered throughout the survey site.
European Starling *(Sturnus vulgaris)*	1	—	—	—	—	—	Heard off-site in horticultural plantings to the east.
Phainopepla (*Phainopepla nitens*)	2	2	—	—	—	—	Male and female seen in the riparian area along the Alessandro Arroyo.
Common Yellowthroat (*Geothlypis trichas*)	—	1	—	1	—	—	Male seen in the riparian area along the Alessandro Arroyo.
Spotted Towhee *(Pipilo maculatus)*	2	1	—	1	—	—	Heard scattered throughout the survey site.
California Towhee *(Pipilo crissalis)*	10	9	14	6	16	19	Year-round resident, abundant.
Rufous-crowned Sparrow (*Aimophila ruficeps*)	—	—	—	—	2	5	Heard and seen in the disturbed Sage Scrub.
Bell's Sage Sparrow (Amphispiza belli belli)	—	1	3	4	—	3	Breeding on-site.
Song Sparrow (*Melospiza melodia*)	7	5	2	3	4	5	Breeding on-site.

Species	10 May 2001	8 June 2001	21 June 2001	30 June 2001	8 July 2001	18 July 2001	Notes
Blue Grosbeak (*Guiraca caerulea*)	1	2	1	—	—	—	Male seen and heard in the riparian area along the Alessandro Arroyo.
Red-winged Blackbird (*Agelaius phoeniceus*)	—	—	—	—	—	7	This species was seen in a flock overflying the property.
Western Meadowlark (*Sturnella neglecta*)	2	—	—	—	—	—	Heard in the disturbed Sage Scrub.
Bullock's Oriole (*Icterus bullockii*)	2	1	—	—	—	—	Female seen in the riparian area along the Alessandro Arroyo.
House Finch (*Carpodacus mexicanus*)	2	27	18	8	17	30	Year-round resident.
Lesser Goldfinch (*Carduelis psaltria*)	15	13	7	11	16	10	Probable breeding resident.

Total Species: 40

12-557

[:\1810CAGNbird-table.wpd]

CAGN SURVEY – CAMPBELL BIOCONSULTING, INC.

Focused Survey for Coastal California Gnatcatcher

Tentative Tract 28728 in the City of Riverside, Riverside County, California

Prepared for:
Sanda Group
2193 Hackamore Place
Riverside, CA 92506

Contact: Dr. Yang C. Hong

Prepared by:
Campbell BioConsulting, Inc.
27403 Ynez Road, Suite 208
Temecula, CA 92591

Author and Contact: John Reseck

03 October 2002

12-559

TABLE OF CONTENTS

1.0 INTRODUCTION

This report provides information on a focused survey for Coastal California Gnatcatcher. The study area on which the survey was conducted is a single, contiguous property totaling approximately 151.8 acres (about 61.4 hectares). This property lies east of Hawarden Drive, south of Arlington Avenue, and west of Alessandro Boulevard and is within Section 12, Township 3 south, Range 5 west, in the City of Riverside, Riverside County, California (Figure 1-1). This location is depicted on the Riverside East, California 7.5-minute U.S. Geological Survey (USGS) quadrangle map (Riverside East1980), and on pages 715 and 716 of the 2003 Thomas Guide to Riverside County (Thomas Bros. 2002).

The proposed project design consists of residential lots, streets, associated infrastructure, and open space areas. For the current work the study area was located and boundaries determined using base maps produced by Gabel, Cook & Becklund (largest scale 1:4560, or 1"=380') with elevation contour intervals of 2 feet (about .6 meters).

Previous biological work conducted on the study area includes a biological assessment (RBR 2001a) and a focused survey for Coastal California Gnatcatcher (RBR 2001b), both performed by RBRiggan and Associates. Results of the focused survey were negative.

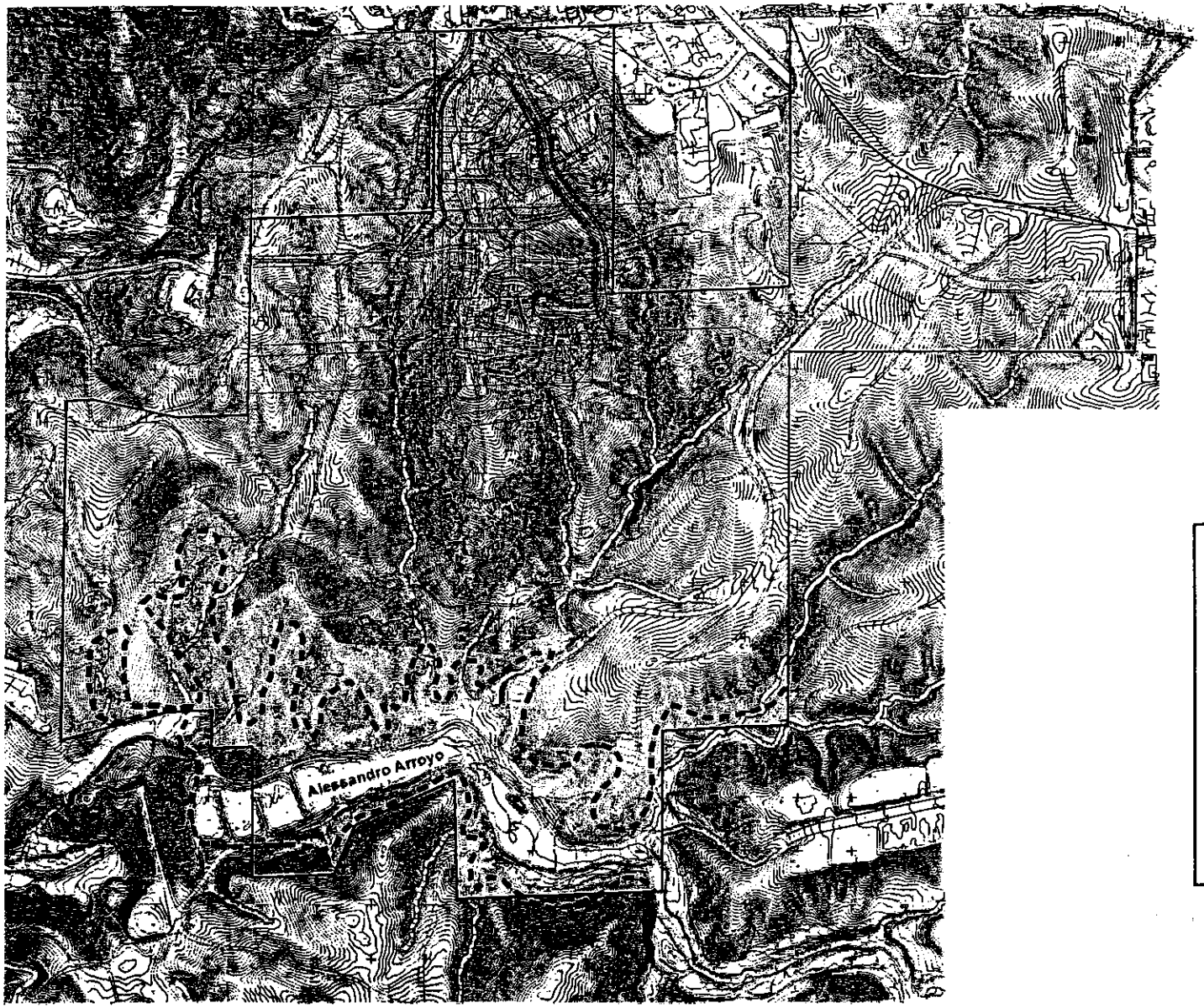
The purpose of this report is to provide results of focused biological surveys and to provide brief recommendations on options for permitting, mitigation, or further work as appropriate. Potential constraints to the project under the California Environmental Quality Act (CEQA), and other regulations will be very briefly addressed for the covered species, but complete analysis of potential constraints posed by biological resource regulations is not provided.

2.0 STUDY AREA CONDITIONS

The following sections describe in general the topography, vegetative communities, and wildlife resources found on the study area. Taxonomy and nomenclature follow Hickman (1993) for plants, AOU (1998) for birds, and Laudenslayer et al. (1991) for all other terrestrial vertebrates. Classification of natural communities is based on Holland (1986).

2.1 Physical Conditions

The topography of the study area consists of moderate to steep slopes and associated drainages surrounding the Alessandro Arroyo. With the exception of the Alessandro Arroyo itself, which contained water throughout the survey, drainages on the study area were dry. Elevation on the study area ranges between 1293 feet (about 394 meters) at a peak near the northeast corner and 1100 feet (about 335 meters) at the west edge of the Alessandro Arroyo within the study area. Disturbance on the study area is heavy, and includes grading, previous use as a shotgun range, past sheep grazing (RBR 2001a), current use by hikers and joggers, mechanical modification of the Arroyo by ongoing flood control operations, fire, and invasion by nonnative plant species. Adjacent land uses are primarily residential development and open space areas.



12-562

Figure 2-1
California Gnatcatcher
Focused Survey Results Map
Tentative Tract 28728
City of Riverside, California

Riversidian Sage Scrub: Low Potential for California Gnatcatcher

Approximate Survey Route

Tentative Tract 28728 Boundary (Study Area)

Scale: approximately 1 inch = 380 feet (1:4560)
Base Map Source: Gabel, Cook & Becklund January 2000

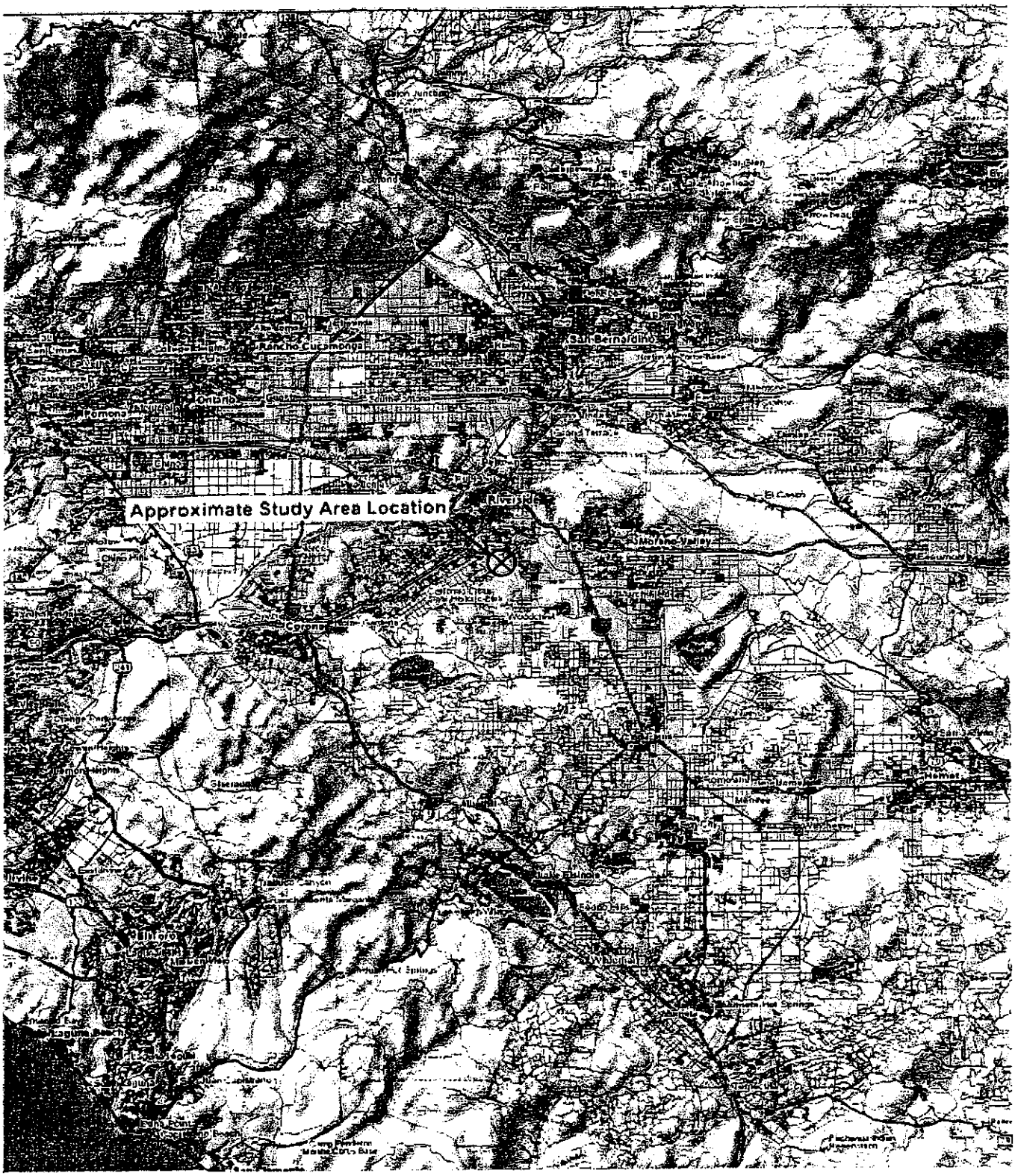


Figure 1-1
Study Area Vicinity Map
Tentative Tract No. 28728
City of Riverside, California

Scale: Approximately 1 inch = 6.3 miles (1:400,000)
Base map source: Delorme TopoUSA 3.0

2.2 Vegetation

Following the Holland (1986) classification of natural communities, the study area supports Southern Willow Scrub, Mule Fat Scrub, and Riversidian Sage Scrub. Additional areas which do not fit well into the Holland classification system are either disturbed riparian (e.g. - the Alessandro Arroyo) or ruderal, including barren (less than 10% total cover), weedy, or otherwise disturbed areas. A total of 44 species of plants were identified during the current field work.

Southern Willow Scrub is present in a few small, linear patches within drainages in the central portion of the study area, and is dominated by Arroyo Willow (*Salix lasiolepis*), with an understory of Mule Fat (*Baccharis salicifolia*) and young willows. One substantial patch of Mule Fat Scrub, composed almost exclusively of Mule Fat, occupies a drainage near the center of the study area.

Riversidian Sage Scrub covers most of the hillsides surrounding the Alessandro Arroyo (Figure 2-1). Dominants in this community are Brittlebush (*Encelia farinosa*) and in some areas California Sagebrush (*Artemisia californica*). Other common perennials here include Cudweed Aster (*Lessingia filaginifolia*), Sweetbush (*Bebbia juncea*), Mesa Bushmallow (*Malacothamnus fasciculatus*), and California Buckwheat (*Eriogonum fasciculatum*). The herb layer is generally poorly developed or absent, and where present is composed of Chia (*Salvia columbariae*), Menzies' Fiddleneck (*Amsinckia menziesii*), or ruderal species such as Short-pod Mustard (*Hirschfeldia incana*) or Ripgut Brome (*Bromus diandrus*). Quality of Riversidian Sage Scrub with regard to potential as Coastal California Gnatcatcher habitat was judged to be low due to a high level of disturbance, heavy invasion of the herb layer by nonnatives, and relatively low plant species diversity.

The Alessandro Arroyo supports a disturbed riparian community dominated along its banks by Tree Tobacco (*Nicotiana glauca*), tamarisk (*Tamarix* sp.), Castor-Bean (*Ricinus communis*), Common Sunflower (*Helianthus annuus*), a few Arroyo Willows, and small patches of Giant Reed (*Arundo donax*). Open water within the Arroyo is vegetated with a dense matt of veronica (*Veronica* sp.) and cattails (*Typha* sp.). The majority of the study area is ruderal, with vegetation (where present) dominated by Short-pod Mustard, Ripgut Brome or Tocalote (*Centauria melitensis*).

2.3 Wildlife

At least 47 species of vertebrate animals were confirmed to be present on or immediately adjacent to the study area. Pacific Chorus Frog (*Pseudacris* [=*Hyla*] *regilla*) was the only amphibian species observed. Five species of reptiles were noted. These were Granite Spiny Lizard (*Sceloporus orcutti*), Western Fence Lizard (*Sceloporus occidentalis*), Side-blotched Lizard (*Uta stansburiana*), Orange-throated Whiptail (*Cnemidophorus hyperythrus*), and Western Whiptail (*Cnemidophorus tigris*).

Thirty-one of the vertebrate species noted were birds. Migrant birds appearing widely in the study area vicinity at the proper season, and likely to utilize the study area in moderate numbers include many species, such as several species each of swifts, hummingbirds, swallows, flycatchers, vireos, warblers, grosbeaks and buntings, and sparrows. Bird species found to be common during the survey included Mourning Dove (*Zenaida macroura*), American Crow (*Corvus brachyrhynchos*), Phainopepla (*Phainopepla nitens*), House Finch (*Carpodacus mexicanus*), and Lesser Goldfinch (*Carduelis psaltria*). Brown-headed Cowbirds (*Molothrus ater*) were not detected on the study area at any time.

Ten species of mammals were detected. Audubon's Cottontail (*Sylvilagus audubonii*) was abundant, and Black-tailed Jackrabbit (*Lepus californicus*), California Ground Squirrel (*Spermophilus beecheyi*), Botta's Pocket

Gopher (*Thomomys bottae*), kangaroo rat (*Dipodomys* sp.), Desert Woodrat (*Neotoma lepida*), Dusky-footed Woodrat (*Neotoma fuscipes*), Coyote (*Canis latrans*), Domestic Dog (*Canis familiaris*), and Striped Skunk (*Mephitis mephitis*) were also noted.

Additional species of wildlife very likely occur, but were not detected due to their rarity, or the need for special survey methods (e.g., bats) not required for the current level of study.

3.0 CALIFORNIA GNATCATCHER FOCUSED SURVEY

The following information addresses the biology, methodology, and results of the focused survey conducted for the Coastal California Gnatcatcher (*Polioptila californica californica*) on all potential habitat within the study area.

3.1 Background

California Gnatcatcher (*Polioptila californica*) is a small songbird and one of several species of gnatcatchers found in the United States; none of the other gnatcatcher species has special regulatory status at this time. Among the other gnatcatchers, only Blue-gray Gnatcatcher (*P. caerulea*) is found across a substantial portion of the range of California Gnatcatcher, within the United States. There are also many other unrelated, small, gray, insect-eating songbirds in the range of California Gnatcatcher.

Several subspecies of California Gnatcatcher are found across most of Baja California, Mexico, where they occur in habitat quite different from that in the U.S. Within the U.S., Coastal California Gnatcatchers (*Polioptila californica californica*) are currently found in a patchy distribution across lowlands with suitable habitat in Orange, San Diego, and western Riverside counties. Small numbers persist across lowland southwestern San Bernardino and eastern Los Angeles counties. Finally, there are small, isolated populations on the Palos Verdes Peninsula in Los Angeles County and at two or three spots in eastern Ventura County. There may be a few additional, small pockets of individuals in Ventura and Los Angeles counties, but no undiscovered populations are anticipated to remain.

Coastal California Gnatcatcher is the only subspecies of California Gnatcatcher found in the U.S., and has been listed by the U.S. Fish and Wildlife Service (USFWS) as a Threatened species since 1993 (USFWS 1993a, 1995). Habitat losses, degradation, and fragmentation due to land alteration and development by man are considered the major threats (Atwood 1993). Within much of its current range, the Natural Communities Conservation Plan (NCCP) is providing a basis to support region wide protection of the California Gnatcatcher while allowing limited take under Section 4(d) of the Endangered Species Act (USFWS 1993b). There is currently no draft or final recovery plan, but Critical Habitat has been designated for about 513,488 acres (207,890 ha) in Los Angeles, Orange, Riverside, San Bernardino and San Diego counties, California (USFWS 2000). However, as a result of legal challenges, USFWS is under court order to reevaluate the basis for the critical habitat boundaries for this species and to adopt a new critical habitat rule by October 2003.

Breeding Biology

The biology of California Gnatcatcher has received increasing scrutiny in the past decade, with an important summary by Atwood and Bontrager (2001). The Coastal California Gnatcatcher is a small, gray, insect-gleaning bird, and appears to be a dietary generalist (Burger et al. 1999). They are non-migratory residents of coastal sage scrub communities of several subtypes. During the breeding season, January through August, the birds form monogamous pairs and defend a territory from other California Gnatcatchers. They nest persistently

through the season, making as many as 10 nesting attempts, although the number of successful broods in a season is typically no more than two. They regularly forage outside of the territory across a larger area called the home range. This may be as much as 80% larger than the defended territory and fluctuates widely depending on many factors including season (Bontrager 1991, Atwood and Bontrager 2001). For example, studies indicate that breeding season home ranges of California Gnatcatchers in Riverside County average more than nine acres and can reach at least 24 acres (Braden et al.1995) while in San Diego County home ranges average 6 acres or less (Braden et al.1997). Much of the home range is only visited occasionally, yet this probably represents the area needed for successful breeding and fledgling survival.

Habitat

There have been several studies attempting to characterize or quantify Coastal California Gnatcatcher breeding habitat (e.g., Anderson 1991, Bontrager 1991). However, all except Braden et al. (1997) have been restricted to a single locale or subregion, and none have confirmed that the studied population(s) were self-sustaining. Geographic variation in habitat selection is quite evident among Coastal California Gnatcatcher populations, especially at regional scales. They occur at considerably higher maximum elevations inland than coastally, and in a broader variety of habitats, including Black Sage (*Salvia mellifera*) stands (rare in such areas coastally). Yet, in coastal areas California Gnatcatcher densities are generally higher than in inland areas (Atwood 1993, Preston et al. 1998, Weaver 1998) and tend to be localized in distribution (Grinnell 1898). Thus a biologist having experience with the range of suitable habitat in only one area may misjudge it in another.

Issues acting at widely varied scales may need to be understood to explain much of the variation in when and whether a particular site is occupied. For example, it appears that fluctuations between occupied and unoccupied status for sites across years may result from periodic population changes at larger scales even without a site-specific variation (Erickson and Miner 1998). Such a pattern may imply that the birds are acting as a single population at a sub-regional scale, or may simply reflect similar population-limiting factors acting across the subspecies' entire range. Similarly, areas adjacent to productive habitat but consistently poorer in resources may be readily occupied even though such areas cannot support a self-sustaining population (e.g., Pulliam and Dunning 1997). Finally, a site with suitable habitat could be unoccupied simply because of a past stochastic (random event) local extinction, and it has not yet been reoccupied (e.g., Smith and Peacock 1990, Hanski and Gilpin 1997). The latter scenario may be increasingly common as sub-populations (or "demes") become more fragmented from habitat alteration.

California Gnatcatchers, like most birds, probably select habitat initially on general appearance, and then remain to breed if satisfied with more subtle factors such as food supply, available mates, local climate, and limited levels of potential predators. When biologists judge sites for potential to be occupied, they must generally use surrogates, beyond recognizing basic factors of general appearance and vegetation type. These criteria are based on information in published and unpublished literature, as well as within the broad experience of properly qualified biologists. Assessment of the following factors plays a primary role in judging potential habitat:

(1) Floristics (plant species). Dominant shrubs common in Coastal California Gnatcatcher occupied habitat are most commonly California Sagebrush (*Artemisia californica*), California Buckwheat (*Eriogonum fasciculatum*), Brittlebush (*Encelia farinosa*), California Sunflower (*Encelia californica*), Broom-Baccharis (*Baccharis sarothroides*), Chaparral Beard-tongue (*Keckiella antirrhinoides*), White Sage (*Salvia apiana*), and Black Sage (*Salvia mellifera*). Many other plant species can be fairly common or locally dominant within occupied areas.

(2) Physiognomy (structure). Breeding Coastal California Gnatcatchers nearly always avoid vegetation that is extensively either very sparse (e.g., less than about 10% shrub cover) or strongly invaded by trees and shrubs over about 16 to 20 feet (5 to 6 meters) tall. At least coastally, occurrence is associated with open or broken shrub canopy (Weaver 1998) and in sage scrub adjacent to grassland (Atwood and

Bontrager 2001). Braden, et al. (1997) found a positive correlation between nest sites and decreased vertical homogeneity, decreased species diversity, and increased horizontal homogeneity of plants. More obviously, this species avoids heavily burned sage scrub until the physiognomy is suitable, typically at least 4 to 5 years coastally and perhaps as much as 10 years or more at some inland sites during drought conditions.

(3) Site Location (geography and elevation). The broad outlines of the species range in California now appear to be fairly well established. Sites well outside this range have no reasonable potential to be occupied at this time. The species is mostly restricted to elevations below about 2300 feet (700 meters) in inland portions of the range, and about 820 feet (250 meters) within roughly 20 miles of the coast (pers. obs., Atwood and Bolsinger 1992). This may be directly due to limiting climate factors (e.g., cold nights), or to indirect effects such as those of climate on food supply.

Secondary factors, such as whether there are California Gnatcatcher populations in the vicinity, types of adjacent communities, slope, fragmentation, current disturbances, and disturbance history, while useful for explaining presence or absence once determined, are probably too weak as predictors to substantially shape the judgement of what is or is not potential habitat.

3.2 Methods

The most recently published and mandatory survey protocol for presence/absence surveys (USFWS 1997) was followed. A focused breeding survey to determine presence or absence of the California Gnatcatcher requires a federal 10(a)1(A) permit, a Memorandum of Understanding with the California Department of Fish and Game, and must follow the current protocol published by the U.S. Fish and Wildlife Service (USFWS). The species is sought both visually and aurally, with taped vocalizations used sparingly to elicit responses from any California Gnatcatchers present. The breeding survey protocol was followed which requires six visits at a minimum visit interval of one week if surveys are performed in the core nesting period from 15 March through 30 June. Outside of an active NCCP planning area (as in this case), the protocol also requires that no more than 80 acres may be covered per biologist per day. All potential habitat for the species, and any observations of the species, should be mapped at a scale of 1 inch = 200 feet. The protocol does not require quantitative vegetation analysis and because it is only a presence/absence survey, determination of home ranges and/or territories is not required.

The rate of coverage for potential habitat was below 80 acres per day on each survey. A total of approximately 25 acres (about 10 hectares) of potentially suitable habitat is present (Figure 2-1). All potential habitat was surveyed on each of the six visits. The study area was surveyed by Cheryl D. Frawley (CDF) and John Reseck (JR), both independent subpermittees on Tricia A. Campbell's permit # TE-789266 (expires 10 May 2003). Campbell BioConsulting, Inc. has entered into a Memorandum of Understanding with the California Department of Fish and Game which authorizes surveys for this and other species effective 28 March 2001 and expiring 31 March 2003. See Table 3-1, below, for dates, times, and conditions.

Table 3-1. Study Area Visits and Conditions for California Gnatcatcher Survey.

Date	Times	Biologist	Conditions
24 May '02	1100-1200	CDF	79°f→91°f; cloud cover 0%; wind 1→4 mph; no dew; visibility good
31 May '02	1035-1200	CDF	83°f→83°f; cloud cover 50%; wind 1→4 mph; no dew; visibility good
07 June '02	1100-1200	CDF	77°f→85°f; cloud cover 100%; wind 1→3 mph; no dew; visibility good
14 June '02	0940-1150	JR	75°f→90°f; cloud cover 0%; wind 1→5 mph; no dew; visibility good
21 June '02	0945-1130	JR	73°f→80°f; cloud cover 90→70%; wind 3→10 mph; no dew; visibility good
28 June '02	0750-0950	JR	66°f→72°f; cloud cover 100→0%; wind 5→2 mph; no dew; visibility good

To determine whether habitat had potential for the species the component shrub and sub-shrub species, their physical structure, and condition were assessed based on both personal experience with, and published literature on California Gnatcatcher habitat requirements. Taped vocalizations of territorial California Gnatcatchers were played in an effort to elicit response from any individuals present. The number of times taped vocalizations were used during a survey visit depended on topography, habitat layout, and lack of response by gnatcatchers in areas potentially suitable. Habitat structure was not analyzed quantitatively, and no attempt was made to define home ranges or territories. Areas within 30 meters (100 feet) or more of the study area boundaries were also examined, to provide context.

3.3 Results

California Gnatcatchers were not found on the study area and can be considered absent at this time. However, potentially suitable habitat is present, and the species is considered to have a low but reasonable potential to occur in the future.

4.0 CONCLUSIONS

This report provides information on a focused survey for Coastal California Gnatcatcher. The study area (Tentative Tract 28728) on which the survey was conducted is a single, contiguous property totaling approximately 151.8 acres (about 61.4 hectares). This property lies east of Hawarden Drive, south of Arlington Avenue, and west of Alessandro Boulevard, in the City of Riverside, California.

The topography of the study area consists of moderate to steep slopes and associated drainages surrounding the Alessandro Arroyo. Elevation on the study area ranges between 1293 feet (about 394 meters) and 1100 feet (about 335 meters). Disturbance on the study area is heavy, and includes grading, previous use as a shotgun range, past sheep grazing (RBR 2001), current use by hikers and joggers, mechanical modification of the Arroyo, fire, and invasion by nonnative plant species. The study area supports Southern Willow Scrub, Mule Fat Scrub, and Riversidian Sage Scrub. Additional areas are either disturbed riparian (e.g. - the Alessandro Arroyo) or ruderal, including barren (less than 10% total cover), weedy, or otherwise disturbed areas. Quality of Riversidian Sage Scrub with regard to potential as Coastal California Gnatcatcher habitat was judged to be low due to a high level of disturbance, heavy invasion of the herb layer by nonnatives, and relatively low plant species diversity.

A focused survey for Coastal California Gnatcatcher was performed with negative results. This species can be considered absent from the study area at this time. Because the survey was negative, no recommendations are provided in this report.

The study area appears to be within designated Critical Habitat for Coastal California Gnatcatcher. As such, the use of any federal funding, or permitting from or direct involvement of any federal agency ("federalization" of the project) may subject the project proponent to a requirement of mitigation for the loss of critical habitat, regardless of whether the study area is occupied by gnatcatchers. Generally, consultation with the USFWS does not federalize a project.

5.0 CITED REFERENCES

[AOU] American Ornithologists' Union. 1998. Check-list of North American Birds. 7th ed. American Ornithologists' Union, Washington, DC. 829 pp.

Anderson, E. R. 1991. Habitat preferences of the California Gnatcatcher in San Diego County. M.A. thesis, San Diego State Univ. 132 pp.

Atwood, J. L. 1993. California Gnatcatchers and coastal sage scrub: the biological basis for endangered species listing. Pages 149-169 in Keeley, J. E. Interface between ecology and land development in California. S. Calif. Acad. Sci., Los Angeles.

Atwood, J. L., and J. S. Bolsinger. 1992. Elevational distribution of California Gnatcatchers in the United States. J. Field Ornithol. 63:159-168.

Atwood, J. L., and D. R. Bontrager. 2001. California Gnatcatcher (*Polioptila californica*). In A. Poole and F. Gill, eds., The Birds of North America, No. 574. The Birds of North America, Inc., Philadelphia, PA.

Bontrager, D. R. 1991. Habitat requirements, home range and breeding biology of the California Gnatcatcher (*Polioptila californica*) in south Orange County, California. Prepared for Santa Margarita Company.

Braden, G., R. L. McKernan, S. Love, and S. Powell. 1995. Draft report: Nesting biology of the Coastal California Gnatcatcher (*Polioptila californica californica*) in western Riverside County: 1993-1994. Unpubl. rep. prep. for Southwestern Riverside County Multi-species Reserve Management Committee and The Metropolitan Water District, by The San Bernardino County Museum, for U.S. Fish and Wildlife Service, Carlsbad, CA. 29 pp.[L. Skinner, L. Mathews, Motte Rimrock E.R.]

Braden, G. T., R. L. McKernan, and S. Powell. 1997. Association of within-territory vegetation characteristics and fitness components of California Gnatcatchers. Auk 114:601-609.

Burger, J. C., M. A. Patten, J. T. Rotenberry, and R. A. Redak. 1999. Foraging ecology of the California gnatcatcher deduced from fecal samples. Oecologia:304-310.

Erickson, R. A., and K. L. Miner. 1998. Six Years of Synchronous California Gnatcatcher Population Fluctuations at Two Locations in Coastal Orange County, California. W. Birds 29: 333-339.

Grinnell, J. 1898. Birds of the Pacific Slope of Los Angeles County. Pasadena Acad. Sci., Publ. no. 11.

Hanski, I. A., and M. E. Gilpin, eds. 1997. Metapopulation Biology: Ecology, Genetics, and Evolution. Academic Pr., San Diego, CA. 512+ pp.

Hickman, J. C., ed. 1993. The Jepson Manual: Higher Plants of California. Univ. of Calif. Press, Berkeley. 1400 pp.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, Calif. Dept. Fish & Game.

Laudenslayer, W. F., Jr., W. E. Grenfell, Jr., and D. C. Zeiner. 1991. A check-list of the amphibians, reptiles, birds and mammals of California. Calif. Fish and Game 77(3):109-141.

Preston, K. L., P. J. Mock, M. A. Grishaver, E. A. Bailey, and D.F. King. 1998. California Gnatcatcher Territorial Behavior. W. Birds 29:242-257.

Pulliam, H. R., and J. B. Dunning. 1997. Demographic Processes: Population Dynamics on Heterogeneous Landscapes. Pages 203-232 in Meffe, G. K., and C. R. Carroll. 1997. Principles of Conservation Biology. Sinauer Assoc., Inc., Sunderland, MA.

[RBR] RBRiggan and Associates. 2001a. A Biological Assessment of Tentative Tract 28728 in the City of Riverside, California. Unpubl. rpt. prep. for Dr. Yang C. Hong. 30 October 2000, revised 15 August 2001.

[RBR] RBRiggan and Associates. 2001b. An Assessment of the California Gnatcatcher on Tentative Tract 28728 in the City of Riverside, California. Unpubl. rpt. prep. for Dr. Yang C. Hong. 07 September 2001.

Riverside East. 1980. Riverside East, California 7.5-minute topographic map. Reston, VA: U.S. Geological Survey. Color, revised 1980, scale 1:24,000.

Smith, A. T., and M. M. Peacock. 1990. Conspecific attraction and the determination for metapopulation colonization rates. Conservation Biology 4:320-323.

[Thomas Bros.] Thomas Brothers Maps Design. 2002. The Thomas Guide: 2003 San Bernardino / Riverside Counties Street Guide and Directory. Thomas Brothers Maps Design, Irvine, CA.

U.S. Fish and Wildlife Service. 1993a. Endangered and Threatened wildlife and plants; Determination of threatened status for the Coastal California Gnatcatcher. Fed. Reg. 58:16742-16757, 30 March 1993.

[USFWS] U.S. Fish and Wildlife Service. 1993b. Endangered and Threatened Wildlife and Plants; Special rule concerning take of the Threatened Coastal California Gnatcatcher. Federal Register 58:65088-65096, 10 Dec 1993.

U.S. Fish and Wildlife Service. 1995. Endangered and Threatened wildlife and plants; Notice of determination to retain the threatened status for the Coastal California Gnatcatcher under the Endangered Species Act. Fed. Reg. 60:15693-15701, 27 March 1995.

[USFWS] U.S. Fish and Wildlife Service. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) presence/absence survey guidelines. Unpublished report, revised 28 July 1997.

U.S. Fish and Wildlife Service. 2000. Endangered and Threatened Wildlife and Plants; Final Determination of Critical Habitat for the Coastal California Gnatcatcher. Federal Register 65:63680-63743. 24 October 2000.

Weaver, K. L. 1998. Coastal Sage Scrub Variations of San Diego County and Their Influence on the Distribution of the California Gnatcatcher. W. Birds 29: 392-405.

APPENDIX A
REPRESENTATIVE PHOTOGRAPHS OF STUDY AREA

Photo 1: Typical ruderal condition of northern portion of study area.

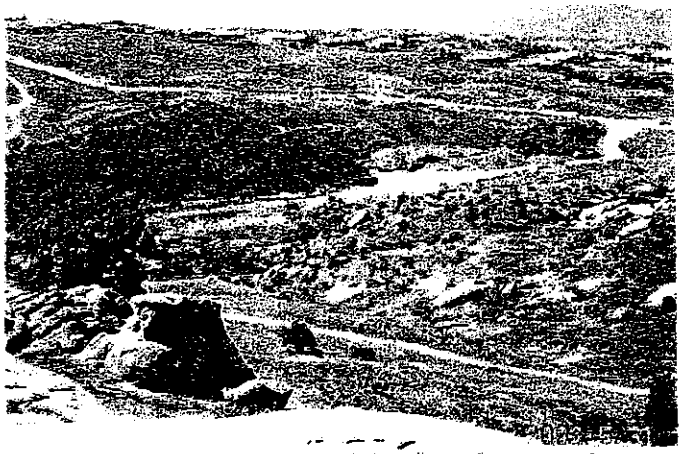


Photo 2: Distribution of Riversidian Sage Scrub on slopes above Alessandro Arroyo.

Photo 3: Brittlebush (*Encelia farinosa*) heavily invaded by Short-pod Mustard (*Hirschfeldia incana*) and Castor-Bean (*Ricinus communis*).

Photo 4: Riversidian Sage Scrub dominated by Brittlebush (*Encelia farinosa*) on slope above Alessandro Arroyo.

Photo 5: View southwest across Alessandro Arroyo with Riversidian Sage Scrub on hillside beyond. Note Giant Reed (*Arundo donax*) on near shore.

Photo 6: Disturbed riparian vegetation along Alessandro Arroyo.

EXHIBIT P

SECTION 1

THE PROJECT

The Project consists of Planning Case P03-1451, the subdivision of 86.31 acres into 29 residential and 4 open space lots; Planning Case P03—1548, a revision of planned residential development (PD-001-912) consisting of 29 single family residences with private and common open space, on approximately 86.31 acres, located southerly of the terminus of Crest Haven Drive and northerly of the Alessandro Arroyo in the RC - Residential Conservation, and O-Official Zones; and Planning Case P04-0260, consisting of the rezone of approximately 7 acres from O-Official Zone to the RC Residential Conservation Zone located along the southerly portion of the Project.

SECTION 2

FINDINGS

At a regular session assembled on August 19, 2004, the Planning Commission recommended that, based upon all of the evidence presented, including but not limited to the Initial Study and all technical data relied upon therein, written and oral testimony given at the meetings and hearings, and submission of testimony from the public, organizations and regulatory agencies, the following impacts associated with the Project are (1) less than significant and do not require mitigation; or (2) potentially significant and each of these impacts will be avoided or reduced to a level of insignificance through the identified mitigation measures and/or implementation of substitute mitigation measures which will reduce short term air quality impacts during construction to a level of less than significant..

SECTION 3

The Planning Commission hereby finds that the following potential environmental impacts of the Project are less than significant and therefore do not require the imposition of mitigation measures.

A. Aesthetics

1. **Have a demonstrable negative aesthetic effect:** The Project area contains rock outcroppings of various sizes many of which are located in the open space area (see the rock outcroppings identified as circles on the Site Plan). One prominent outcropping is located within the building pad area of lot 45. Condition of Approval number 18, will protect the outcropping by requiring the submittal of a grading plan identifying for protection the existing rock outcropping on lot 45.

The location and orientation of future residences on the site will be subject to the approval of a Design Review process to assure that the proposed locations will not result in a significant aesthetic impact. Further, RCMC § 19.09.030 limits residences in the

RC zone to one story with a maximum height of 20'. Compliance with this limitation will assure that the residences constructed on the site will not result in significant aesthetic impacts within the surrounding neighborhood.

2. **Create light or glare:** The introduction of light sources typically associated with residential use to the Project area is not anticipated to result in a significant impact (Initial Study, pg. 27). Any ancillary lighting shall be reviewed as part of the Design Review process (Ibid). Tennis court lighting shall be hooded and directed downward and designed to avoid off-site light spillage (Ibid).

3. **Affect a scenic vista or roadway:** The Project does not contain any scenic roadways. The Design Review process, together with the provision in the RC zone limiting houses to one story, and a maximum of 20' in height, will ensure that the residences developed on TM 31930 will not affect scenic vistas (Initial Study, pg. 28).

B. **Air Quality**

1. **Create a CO hotspot, or expose individuals to CO concentrations above established standards:** The Project is located in an area of the South Coast Air Quality Management District that is designated as attainment for CO. Project traffic is not anticipated to result in a significant impact at intersections in the Project vicinity, resulting CO levels from Project traffic will not rise to a level of significance.

2. **Expose Sensitive Receptors to Pollutants:** The neighborhood surrounding the Project is zoned RC and contains lots an average of 1-2 acres in size. The large lots prevent the transfer of air pollutants between the proposed project and the existing homes to the northeast. Sensitive receptors to the northeast of the Project may be exposed to an increase in PM10 during grading, however, compliance with the mitigation measures identified herein will reduce PM10 impacts to a less than significant level.

3. **Create objectionable odors:** This Project will not result in emission odors likely to be found objectionable by reasonably sensitive persons in nearby neighborhoods.

4. **Be Subject to Transportation Demand Measures:** This project will not result in any new employees and therefore, Transportation Demand Management requirements do not apply.

C. **Biological Resources:** The Project would not result in impacts to:

1. **Wildlife dispersal or migration corridors:** The proposed open space along the Alessandro Arroyo will provide wildlife corridor movement opportunities. (IS., p. 21.)

D. Cultural Resources: The Project will not result in impacts to the following:

1. Disturb Paleontological Resources: No identified paleontological resources or paleontologically sensitive areas are known to occur within the City.

2. Disturb archaeological resources: The Alessandro Heights EIR included this site. As part of that EIR, an archeological study was completed, which identified four archaeological sites on the site of the larger TM 28728. Three of the sites will be located within open space lots. The remaining site is located within a proposed street, and therefore, will not be preserved. Because the archaeological study did not require that these sites be retained, City staff does not believe that the loss of one site constitutes a significant impact.

3. Have a Potential to Cause a Physical Change Which Would Affect (i) Historical Resources, including Heritage Trees, or (ii) Unique Ethnic Cultural Values, including those Associated with Religious or Sacred Uses: No other historical or cultural resources are located on this site except as described in number 2, above.

E. Energy and Mineral Resources:

1. Conflict with the General Plan Energy Element: This Project does not conflict with the General Plan Energy Element. (IS., p. 22.)

2. Use non-renewable resources in a wasteful and inefficient manner: The construction of residences contemplated by TM 31930 is not a wasteful use of non0renewable materials.

3. Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State: TM 31930 is not located in an area containing known mineral resources. Therefore, the construction of residences will not reduce the future availability of valuable mineral resources. (IS. P. 22.)

F. Geology and Soils: The Project would not result in or expose people to potential impacts involving:

1. Fault rupture: The Project site is not identified as a seismically active area on Exhibit 6 of the General Plan.

2. Seismic Ground Shaking: The Project site is not identified as being in an area subject to seismic ground shaking on Exhibit 6 of the General Plan.

3. **Seismic Ground Failure, including Liquifaction:** The Project site was previously included in the approved map TM 28728, and the Soil Study prepared for TM 28728 does not identify the Project area as containing soils subject to liquefaction or seismic ground failure.

4. **Seiche Hazard:** The Project is not located on an area subject to seiche hazard, according to the General Plan on Exhibit 7.

5. **Subsidence of Land:** The General Plan does not identify the Project location as an area subject to subsidence risks. (General Plan, Exhibit 6, Seismic Hazards.)

6. **Expansive Soils**: The Project area is consistent with the development footprint previously approved as TM 23027. The Preliminary Soils Report, prepared for TM 23027 by Earth Technics, dated November 22, 1999, does not identify the Project site as a location containing expansive soils.

G. **Hazards:** The project would not involve:

1. **A risk of accidental explosion or release of hazardous substances (including, but not limited to: Oil. Pesticides, chemicals, or radiation):** TM 31930 does not involve the use of hazardous materials.

2. **Possible interference with an emergency response plan or emergency evacuation plan:** This project will not impact emergency response or evacuation plans. (IS., at pg. 22.)

3. **The creation of any health hazard or potential health hazard:** TM 31930 will facilitate the construction of single-family residences that would not result in health hazards. (IS., at pg. 23.)

4. **Exposure of people to existing sources of potential health hazards:** No hazardous sites are identified in the vicinity of the project. (IS., at pg. 23.)

5. **Increased fire hazard in areas with flammable brush, grass, or trees:** TM 31930 proposes low-density residential development with areas of natural vegetation. While a minimal risk of grassland fire exists, the Project contains streets, which are accessible to emergency vehicles and will require the installation of fire hydrants per City requirements. In addition, City Code requires residences to include fire sprinklers. These requirements ensure that fire risks will be reduced to a level of less than significant. (IS., at pg. 23.)

H. **Land Use and Planning:**

1. **Conflict with general plan designation or zoning**: The general plan designation is hillside residential and the zoning is residential conservation (RC).

TM 31930 was previously approved as part of TM 23027 /PD-001-912 (Planned Residential Development), which consisted of 85 lots on 167.5 acres. 65 lots expires unrecorded and were incorporated into TM 28728, which consisted of 4 phases. Phases 1 and 2, consisting of 37 lots, were developed. The remaining 28 lots expired and were incorporated into TM 31930. A new PRD has been submitted to provide for the addition of 1 lot, for a total of 29 lots. The 2-acre average density per lot required in the RC zone can be increased by 25% with the approval of a PRD. (City of Riverside Municipal Code ("CRMC") § 19.65.050(B).) With the approval of the PRD, the density proposed for TM 31930 will conform to the RC zone and therefore, the general plan designation.

2. **Conflict with general plan designation or zoning:** The proposed Project is in conformance with the land use designation in the General Plan. The proposed Project was originally included in Tract Map 23027 (167.5 acres consisting of 86 residential lots and 5 open space lots, of which 85 lots were approved in 1994. Phase 1 of TM 23027 consisting of 12 lots on 18.9 acres was developed to the north of the subject property. The remaining 65 residential lots approved in TM 23027 expired and were incorporated into Tract Map 28728 consisting of 65 residential lots and 6 open space lots, of which 37 were recorded. Twenty-eight of the lots previously approved as TM 23027 and TM 28728 have been incorporated into Tract Map 31930. One additional lot, not previously approved, has been incorporated into the Project. A density bonus application is being submitted for the Project to provide for the additional lot. Existing residential development projects in the surrounding area have been developed with a similar density. (IS, page 5) Directly south of the Alessandro Arroyo, Tract Map 29606 was approved on December 21, 2000. That project consisted of 33 residential lots on 67.15 net acres (average density of 2.03 acres per lot). Directly to the east of the Project, Tract Map 21156, approved in October 1985, consisted of 36 residential lots on 72 acres, for an average lot size of 2.0 acres per lot. As a result, the Project is compatible with existing land uses in the surrounding neighborhood, and is not expected to result in a significant impact based on land use incompatibility.

3. **Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses):** Portions of the site are designated as farmland of local importance by the State of California. The City General Plan, while acknowledging the importance of retaining the City's agricultural capability, indicates that it is not feasible or desirable to retain all potentially viable agricultural lands, based on land use considerations. Because the General Plan proposes conversion of these lands to development, and the designated areas have not been actively farmed, these impacts are not considered significant.

4. **Disrupt or divide the physical arrangement of an established community:** The development of TM 23027-1, directly to the north of the Project, established a residential neighborhood to the north. TM 31930 consists of the 28 lots previously approved (but never recorded), with TM 23027-1 and TM 28728-1 and -2. Project constructions will result in the completion of access roads previously designed and approved for TM 23027 and TM 28728. The completion of these roads will

complete the 167.5-acre residential tract previously envisioned when TM 23027 was approved in 1994.

I. Noise

1. Increase in existing noise levels: The Project does not involve uses, activities, or increased traffic levels that would result in an increase in ambient noise levels. (IS., pg. 23.)

J. Population and Housing:

1. Cumulatively exceed official regional or local population projections: The area proposed for residential development is already zoned Residential Conservation. A 7-acre portion is currently zoned Official Zone, and is proposed to be rezoned to Residential Conservation, however that area will be contained in an Open Space lot which is not proposed for development of any kind. The Project site is also consistent with the General Plan, and the growth projections contained therein.

2. Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure). The Project involves infill within a partially urbanized area, and will include the extension of the sewer line previously installed for the development of an earlier iteration of the Project, TM 28728-2, approved in 1998. The extension of the sewer line will serve the 29 lots contained in TM 31930 only and is not sized with adequate capacity to serve other residential projects, or induce growth.

3. Eliminate existing housing, especially affordable housing: The Project will not result in the removal of any existing residences.

K. Public Services: TM 31930 will not have an effect upon or result in a need for new or altered government services in any of the following areas:

1. Police Protection: The Project will result in an incremental additional demand for public services. However because the Project is consistent with the adopted General Plan, which provides for adequate public services, no significant adverse impacts will result from Project implementation.

2. Schools: The payment of school fees pursuant to state law requirements shall be required prior to project construction. Payment of the required fees will offset any impacts related to students transferring within the district or new students attending local schools.

3. Maintenance of public facilities, including roads: The Project will be conditioned to pay Traffic Uniform Mitigation Fee and Transportation Fees in the amount required by City ordinance. The payment of these fees will reduce impacts related to maintenance of public facilities to a level of less than significant.

4. **Other Governmental Services:** The Project will result in an incremental additional demand for public services. However, because the Project is consistent with the adopted General Plan, which provides for adequate public services, no significant adverse impacts will result from its implementation.

L. **Recreation:** The project would not result in significant impacts in the following areas:

1. **Increase the Demand for Neighborhood or Regional Parks or Other Recreational Facilities:** The addition of 29 new residences will minimally increase the demand for neighborhood and regional recreational facilities, which will be accommodated through the City's existing park system.

M. **Transportation and Circulation:**

1. **Increased vehicle trips or traffic congestion**: In 1991, a traffic study was prepared for TM 28728, including the development footprint, the same number of lots and uses proposed in TM 31930. The study concluded that the intersection of Alessandro/Chicago/Arlington Avenues and of Alessandro Boulevard was required without the project to mitigate existing traffic impacts. The implementation of these mitigation measures will correct the background conditions in the Project vicinity. The widening of the Alessandro/Chicago/Arlington Avenues has been scheduled for construction, and the widening of Alessandro Boulevard is identified in the current General Plan, and will occur after the General Plan update has been completed. Correction of the background conditions unrelated to the project will alleviate congestion in the Project area, and reduce the potential for traffic impacts from the build-out of 29 residences on 86 acres to a level of less than significant. (IS., p. 16.)

2. **Reduction in Level of Service of Intersections**: Project traffic, as described in the 1991 traffic study, will not increase the level of service at intersections which will carry project traffic to a level of significance. The level of service for Century and Alessandro and Trafalgar and Alessandro identified in the traffic study continue to be accurate today, according to the City Traffic Engineer. (IS., p. 16.)

3. **Hazards to Safety from Design Features (e.g., sharp curves or dangerous intersections) or Incompatible Uses:** The streets in TM 31930 have been engineered to comply with a design speed of 25 miles per hour with a 150 foot minimum sight distance (COA 48.). There are no sharp curves or dangerous intersections contained in TM 31930. TM 31930 is located in an area designated for residential use. No other uses are located in the neighborhood surrounding the Project. (IS., p. 16.)

4. **Inadequate Emergency Access or Access to Nearby Uses:** The development of TM 31930 will complete Century Hills Drive, and connect existing dead end cul-de-sacs previously constructed as part of TM 23027 and TM 28728. The completion of Century Hills Drive will improve emergency access to the Project and the

surrounding vicinity by connecting Century Drive to the east, and Crest Haven Drive, to the north. (IS., p. 17.)

5. **Insufficient parking capacity on-site or off-site**: Each lot in TM 31930 will be required to designate parking facilities that comply with City standards during the design review process required for each residence. (CRMC § 19.09.090.)

6. **Hazards of barriers for pedestrians of bicyclists:** TM 31930 will be a private gated community accessible to residents and invited guests only. The gates at the Project entrance at the top of Crest Haven Drive and Century Hills Drive will be equipped with a keypad, which can be used, by pedestrians, bicyclists and motorists to gain access to the Project. (IS., p. 17.)

7. **Conflicts with Adopted Policies Supporting Alternative Transportation (e.g., bus turnouts, bicycle racks):** The Project consists of 29 residences and no business uses. The Project does not conflict with adopted policies supporting alternative transportation, but because the Project consists of residences only, no measures promoting alternative transportation are required. (IS., p. 17.)

N. **Utilities and Service Systems:** The Project will not result in a need for new systems or supplies, or substantial alterations to the following utilities:

1. **Power or Natural Gas, and Communication Systems:** The Project will result in an incremental additional demand for utilities. However, the Project is consistent with the General Plan, which provides, in conjunction with the City's Capital improvement Program, for the adequate provision of infrastructure and utility services. Therefore, no impacts with regard to infrastructure or services will result from the Project.

2. **(a) Local or Regional Water Treatment or Distribution Facilities, (b) Storm Water Drainage, (c) Solid Waste Disposal, (d) Local or Regional Water Supplies:** The Public Utilities Department indicated a concern regarding the proposed private street system relative to the installation and maintenance of water lines and the provision of water to the subdivision. To address these concerns, conditions of approval have been imposed by the City Water Department.

3. **Sewer or Septic Tanks:** The Project will require the installation of a new sewer line and access road. The sewer line shall be subject to the specifications and approval of e Public Works Department to ensure that it is constructed consistent with City requirements.

O. **Water:**

1. **Exposure of People or Property to Water Related Hazards such as Flooding:** The proposed Project will not result in a significant impact related to flooding. No development is proposed within the 100-year flood plain and, therefore, the

possibility to exposure to flood hazards is minimal. The flood plan for the Project area was identified in the hydrological study prepared for TM 23027. Floor plain areas identified in the hydrological study are incorporated into the open space lots. The on-site vegetated water quality basin will remove pollutants from the nuisance and first flush discharges. No significant impact related to hydrology is anticipated. (IS, page 11)

2. **Result in changes in the course or direction of water movement:** All grading and drainage facilities will be subject to Public Works Department approval and will be required to comply with specifications designed to ensure that adequate drainage is provided. (IS., at p. 13.)

3. **Changes in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability:** TM 31930 does not involve either the direct withdrawal or recharge of groundwater, nor will it alter the underlying aquifer. TM 31930 will result in new impermeable surfaces, thereby potentially impacting groundwater recharge capability. However, due to the topography of the site, ground water will runoff the new impermeable surfaces, into the proposed drainage facilities consistent with the City's master drainage plan. (IS., at p. 13.)

4. **Altered direction or rate of flow of groundwater:** No changes in the direction of groundwater flow will occur as a result of TM 31930. A retention basin is proposed to catch and filter "first flush" runoff before it percolates into the ground, pursuant to the requirements of the Clean Water Act Section 401 permit. The rate of flow may increase slightly due to the development of additional impervious surfaces, but the increase in rate of flow has been studied in the Hydrology Study prepared for the previous tract map, TM 28728, and has been determined to be a less than significant impact. (IS., at p. 14)

5. **Impacts to ground water quality:** TM 31930 is not expected to result in the discharge of groundwater contaminants. (IS, at p. 14.)

6. **Substantial reduction in the amount of local groundwater otherwise available for public water supplies:** TM 31930 will not utilize local groundwater to provide water to the proposed residences. Local groundwater will not be utilized for domestic consumption. (IS, at p. 14)

P. Mandatory Findings of Significance:

1. **Does the Project have the Potential to Achieve Short-term to the Disadvantage of Long-term Environmental Goals?** No. The original Project consisting of tract map 23027, 28728, and 31930, proposes to preserve 60.44 acres, or 36% of the total 167.5-acre development. The 41.86-acres of open space proposed for preservation as part of TM 31930 consists of 48% of the property contained in the

project. The preservation of open space is listed as a goal in the RC zone, and is also identified as a goal in Measure C.

2. **Does the Project have impacts that are individually limited, but cumulatively considerable?** The potential exists for the individual Project to result in significant grading impacts due to landform alteration. TM 31930 is the third component of a 186-acre project, first approved as TM 23027. When TM 23027 expired, the lots remaining unrecorded at that time were incorporated into a new map, TM 28728, which was approved before the Grading Ordinance was adopted. At that time, the Alessandro Arroyo was defined as the boundaries of the 100-year flood plain and the Arroyo setback was determined from that limit. In 1998, after the Grading ordinance was adopted, the property owner applied for a time extension for TM 28728 and prepared grading exceptions that the City approved. Recently, the remaining unrecorded lots in exactly the same design previously approved for TM 28728 have been incorporated into TM 31930 [except for the addition of an off-site sewer line.] The City will support grading exceptions for TM 31930 if they establish that areas proposed for grading are not sensitive. The development of TM 31930 and TM 28728 did not result in significant impacts to landform grading. Because TM 31930 does not incorporate any changes to the design or layout of the lots previously approved as TM 28728, its development is not anticipated to result in cumulatively considerable impacts to the environment. Together, the recordation of the three tract maps resulted in the preservation of 36% of the total project acreage. The open space dedication for each tract individually include, TM 23927- no open space, TM 28728-1 – 14.40 acres, TM 28728-1 – 4.18-acres, and TM 31930 – 41.86 acres. The acreage dedicated to open space for the three tract maps totals 60.44 acres. Because each tract map individually did not result in significant grading impacts to landforms grading related to their cumulative development is not expected to result in a cumulatively considerable impact.

3. **Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?** No. The Project does not involve the use of hazardous materials. The Project will not impact emergency response or evacuation plans. The single-family residences constructed by the Project would not result in health hazards. No hazardous sites have been identified in the Project vicinity. Although a minimal risk of grassland fire exists due to the areas of natural vegetation in the Project area, the Project will construct streets that will be accessible to emergency vehicles, and the installation of fire hydrants will be required. All residences within the Project will also be required to install sprinklers. The site is located in the March Air Reserve Base influence area. However, the Airport Land use Commission ("ALUC") has jurisdiction over potential impacts related to exposing people to risks from airport operations. The ALUC will be required to approve the Project improvements before issuance of a building permit.

SECTION 4

ENVIRONMENTAL IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

The Planning Commission finds that the following environmental impacts identified in the Initial Study are potentially significant but can be mitigated to a less than significant level through the imposition of mitigation measures and/or conditions identified in the Initial Study and summarized below.

A. Air Quality

(1) Potential Significant Impacts: The Project could potentially violate an air quality standard or contribute to an existing or projected air quality violation during the construction phase. This is a potentially significant impact (Initial Study, p. 14). Development of the Project could result in air quality impacts that violate construction and operational air quality standards and/or contribute to an existing or projected air quality violation.

Finding: Implementation of the following mitigation measures will reduce potential construction, operational, and cumulative air quality impacts to a less than significant level.

Mitigation for Construction-Related Emissions:

During construction, the contractor shall be responsible for ensuring that all mitigation measures listed herein are implemented. Note that to achieve the particulate control efficiencies identified in the Air Quality Analyses dated June and July 30, 2004, it was assumed that finished surfaces would be stabilized with water and/or dust palliatives and isolated from traffic flows to prevent emissions of fugitive dust from these areas.

Construction Vehicle/Equipment Operations	
•	Configure construction parking to minimize traffic interference.
•	Provide temporary traffic control during all phases of construction activities to improve traffic flow (e.g., flag person).
•	Provide on-site food service for construction workers.
•	Prohibit truck idling in excess of 10 minutes.
•	Apply 4-6 degree injection timing retard to diesel IC engines whenever feasible.
•	Use reformulated low-sulfur diesel fuel in all equipment whenever feasible.
•	Use catalytic converters on all gasoline powered equipment.
•	Minimize concurrent use of equipment through equipment phasing.
•	Use low NOx engines, alternative fuels, and electrification whenever feasible.
•	Substitute electric and gasoline powered equipment for diesel powered equipment whenever feasible.
•	Turn off engines when not in use.

•	Wash truck wheels before the trucks leave the construction site.
•	When operating on site, do not leave trucks idling for periods in excess of 10 minutes.
•	Operate clean fuel van(s), preferably vans that run on compressed natural gas or propane, to transport construction workers to and from the construction site.
•	Provide documentation to the County of Riverside prior to beginning construction demonstrating that the project proponents will comply with all SCAQMD regulations including 402, 403, 2224, and 1403.
•	Suspend use of all construction equipment operations during second stage smog alerts. For daily forecast, call (800) 367-4710 (San Bernardino and Riverside counties).
•	All construction equipment shall be maintained in good operating condition so as to reduce operational emissions. The contractor shall ensure that all construction equipment is being properly serviced and maintained.
Grading	
•	Apply nontoxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
•	Enclose, cover, water twice daily, or apply nontoxic soil binders, according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content.
•	Water active sites at least twice daily.
•	Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.
•	Cover all trucks hauling dirt, sand, soil, or other loose materials on site or maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CDC Section 23114.
•	Cover all trucks hauling these materials off site.
•	Finish grading area – up to once every two hours.
Paved Roads	
•	Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved road (water sweepers with reclaimed water are recommended).
•	Sweep public streets at the conclusion of construction work.
	Install adequate storm water control systems to prevent mud deposition onto paved areas.
Unpaved Roads	
•	Apply water two times daily or nontoxic soil stabilizers according to manufacturers' specifications to all unpaved parking or staging areas or unpaved road surfaces.
	Roads Traveled by autos, rock trucks, water trucks, fuel trucks, and maintenance trucks – up to twice per hour.
	Roads traveled by scrapers and graders; active excavation area – up to twice per hour.

Additional Mitigation Measures:

(i) To reduce fugitive dust by up to 65%:

- Regular watering, at least three times a day, of construction site including all unpaved parking or staging areas or unpaved road surfaces shall be utilized in order to reduce the fugitive dust generated during grading and construction operations.
- Replace ground cover in disturbed areas as quickly as possible.
- Appoint a construction relation's officer to act as a community liaison concerning on-site construction activity, including resolution of issues related to PM10 generation.

(ii) To Further Reduce Oxides of Nitrogen (NOx):

- Ambient background concentrations of NOx have been well below the state and federal standard since 1999. The residential development proposed by TM 31930 was included in the General Plan, and for that reason has been taken into consideration in the preparation of the South Coast Air Quality Management district's air Quality Management Plan. Therefore, the emissions generated during construction will not delay the attainment of the ambient air quality standards.

Implementing these mitigation measures is feasible and the Commission adopts and incorporates these measures into the Project.

Supporting Explanation: The mitigation measures identified above will reduce air quality impacts related to construction grading to a less than significant level. Air quality emissions from the operation of grading equipment will be reduced by prohibiting trucks from idling of more than 10 minutes, phasing the grading equipment, using low emissions fuel, suspending grading during second stage smog alerts, maintaining all construction equipment in good operating condition, and complying with the SCAQMD rules 402, 403, 2224, and 1403. Watering the construction site twice per day reduces the fugitive dust emissions by 50%. By increasing the schedule for watering the construction site to three times per day, impacts from fugitive dust will be reduced by 65%. The increase in watering will reduce daily construction impacts from dust to 129 pounds or less per day, which is below the SCAQMD daily construction threshold. (Memo from LSA, dated July 30, 2004, p. 2.) Impacts from NOx will be reduced through compliance with the mitigation measures for construction equipment identified above. In the July 30' 2004 memo, LSA states that because background concentrations of NOx have not exceeded the State 0.25 parts per million one-hour standard or the federal 0.053 ppm annual average standard in the past five years, no new exceedances of the NOx ambient air quality standards are anticipated. Also, because TM 31930 is consistent with the General Plan, the development of 29 residences on the subject property was taken into consideration in the preparation of the SCAQMD Air Quality Management Plan. Because the development of TM 31930 was considered in the Air Quality Management Plan, NOx emissions generated during construction will not delay the attainment of the

SCAQMD ambient air quality standards. (Id. at pgs. 2 and 3.) As a result, impacts to air quality caused by construction would be reduced to less than significant.

B. Biological Resources

(1) Potentially Significant Impact: Impacts to federally endangered, threatened, or rare species or their habitats (including but not limited to plants, fish, insects, animals and birds.) The Project will result in the following potentially significant impacts to Biological Resources: 1) the loss of about 46 acre of low density, occupied habitat of the Stephens' Kangaroo Rat; 2) the loss of 2.9 acres of Riversidean Sage Scrub ("RSS") and 2.6 acres of heavily disturbed RSS within the Critical Habitat for the California Gnatcatcher, (these habitat are not occupied); and 3) the loss of approximately 31.8 acres of non-native grassland, 2.9-acres of moderate quality RSS, and 2.6-acres of low quality RSS within the Gnatcatcher Critical Habitat area. Affected vegetation is limited to ruderal species and scarce mulefat. No wetlands are present within the Project impact area. (IS. at p. 19.)

Implementing the following mitigation measures is feasible and the Commission adopts and incorporates these measures into the Project.

Mitigation Measures:

i) Approximately 43.78 acres of onsite CAGN Critical Habitat located along the Alessandro Arroyo will be dedicated as open space. This area contains approximately 10.5 acres of riparian/wetland vegetation.

ii) The permanent loss of RSS will be mitigated at a greater than 3:1 ratio through the onsite preservation of 20.6 acre of RSS (9.6 acres of moderate quality and 11 acres of lot quality) adjacent to the Alessandro Arroyo.

iii) Riparian vegetation will be installed within the mitigation site consisting of native grasses.

iv) The project site is located within the Riverside County SKR Habitat Conservation Plan Fee Assessment Area, and therefore, subject to current fee requirements as administered by the City of Riverside. (IS., pgs. 19 and 20.)

Implementing these mitigation measures is feasible and the Commission adopts and incorporates these measures into the Project.

Supporting Explanation: The mitigation measures will reduce impacts to less than significant because the dedication to open space of land located along the Arroyo consisting of CAGN Critical Habitat and containing RSS, will mitigate the loss of unoccupied CAGN habitat, moderate and low quality RSS within the Critical Habitat area, by more than the required 3:1 ratio. The payment of the fee required for the SKR

Habitat Conservation Plan Assessment Area will mitigate impacts resulting from the loss of low-density, occupied SKR habitat. As a result, impacts to biological resources will be reduced to less than significant. (IS., pgs. 19 and 20.)

(2) Potentially Significant Impact: The Project site is located in an area which contains a moderate potential to contain the Stephen's Kangaroo Rat, a special status species. No sensitive plant communities occur on the project site.

Finding: Implementation of the following mitigation measure will reduce potential impacts to sensitive or special status species in local or regional plans or listings maintained by the California Department of Fish and Game to a less than significant level.

Mitigation Measure:

No. 15 The project site is located within the Riverside County SKR Habitat Conservation Plan Fee Assessment Area, and therefore subject to current fee requirements as administered by the City of Riverside.

Implementing this mitigation measure is feasible, and the Commission adopts and incorporates this measure into the Project.

Supporting Explanation: This mitigation measure will reduce impacts to a level of less than significant because pursuant to the City's Habitat Conservation Plan, the payment of this per-acre fee is appropriate to mitigate the loss of occupied habitat. The fee will be applied to the purchase of occupied habitat for the SKR, and therefore, will reduce impacts resulting from the loss of habitat occupied by the SKR to a level of less than significant.

(3) Potentially Significant Impact: The loss of locally important natural communities (i.e. sage scrub) consisting of (i) about 31.8 acres of non-native grassland, 2.9 acres of moderate quality RSS and 2.6-acres of low quality RSS within the designated Gnatcatcher Critical Habitat Area, and (ii) the loss of about 46 acre of low density, occupied habitat of the Stephens' Kangaroo Rat.

Finding: Implementation of the following mitigation measures will reduce potential impacts to biological resources to a less than significant level:

Mitigation Measures:

(8) A three-year maintenance and monitoring plan will be required to ensure the successful establishment of the native cover within the mitigation area. Riparian vegetation will be installed within the mitigation site consisting of native grasses.

(10) The project site is located within the Riverside County SKR Habitat Conservation Plan Fee Assessment Area; and therefore, is subject to current fee requirements as administered by the City of Riverside.

(16) The applicant shall prepare a Coastal Sage Scrub and riparian enhancement plan subject to review and approval by the Planning Department prior to grading permit issuance.

(21) The applicant shall comply with the long term SKR Habitat Conservation Plan ("HCP") and the City's policies for implementing the HCP.

Implementing these mitigation measures is feasible and the Commission adopts and incorporates these measures into the Project.

Supporting Explanation: The mitigation measures will reduce impacts to locally important natural communities to a level of less than significant because the Coastal Sage Scrub and riparian enhancement plan, combined with the three-year maintenance and monitoring plan will ensure that the RSS will thrive. The payment of the fee required for impacts to the SKR HCP Assessment Area, and compliance with the long term SKR HCP will ensure that impacts to the low density occupied SKR habitat are mitigated to a less than significant. (IS., p. 21.)

(4) Potential Significant Impacts: The loss of wetland habitats (e.g. riparian and vernal pool) including approximately .028 acres (370 linear feet) of USACE and .077 acres of CDFG jurisdictional waters.

Finding: Implementation of the following mitigation measures will reduce potential impacts to wetland habitats to a less than significant level.

Mitigation Measures

No. 1 Expansion of the unnamed drainage feature immediately downstream of the road crossing and adjacent to the proposed upland water quality bio-swale. It is anticipated that the bio-swale will provide sufficient hydrology to support riparian vegetation. The mitigation site will be 0.077-acres and contain a minimum lf 0.028 acres created waters of the U.S.

No. 2: Riparian vegetation will be installed within the mitigation site consisting of native grasses.

No. 3: A three-year maintenance and monitoring plan is proposed to ensure the successful establishment of the native cover within the mitigation area.

Implementing these mitigation measures is feasible and the Commission adopts and incorporates these measures into the Project.