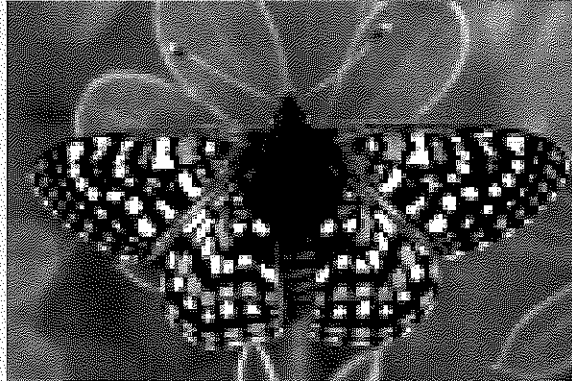


WESTERN RIVERSIDE COUNTY MULTIPLE
SPECIES HABITAT CONSERVATION PLAN

IMPLEMENTATION GUIDANCE MANUAL



Prepared by the
Regional Conservation Authority of
Western Riverside County
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Administrative Center
4080 Lemon Street
Twelfth Floor
Riverside, CA 92502



mshcp implementation guidance

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General Checklist of MSHCP Compliance Actions

Adoption of Implementing Resolution. Each City must adopt an Implementing Resolution and submit a copy of it to the RCA and the Wildlife Agencies by December 22, 2004. (see Exhibits G, H, and I in the MSHCP Implementing Agreement)

Development review: All discretionary actions and some city ministerial actions for public and private projects are subject to the MSHCP requirements. These include:

____ Employment of the HANs or other appropriate process to ensure compliance with the MSHCP (Section 6.1.1 of the MSHCP)

____ Participation in the Joint Project/Acquisition Review Process (Section 6.6.2 of the MSHCP)

____ Imposition of all terms of the MSHCP including compliance with:

- (a) Policies for protection of Riparian/Riverine Areas and Vernal Pools (Section 6.1.2 of the MSHCP)
- (b) Policies for the protection of Narrow Endemic Plant Species including surveys as appropriate (Section 6.1.3 of the MSHCP)
- (c) Additional Survey Needs and Procedures (Section 6.3.2 of the MSHCP)
- (d) Urban/Wildlands Interface Guidelines (Section 6.1.4 of the MSHCP)
- (e) Best Management Practices and siting and design Criteria (Section 7 and Appendix C of the MSHCP)

** In some instances, certain findings regarding application of these policies must be submitted to the RCA and Wildlife Agencies.

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Checklist of MSHCP Compliance Actions—continued.

Mitigation for Public Projects. County and City public projects must contribute to Plan implementation and reserve assembly through mitigation. (Section 13.2.C. of the Implementing Agreement.)

Collection of Fees. Collect the Local Development Mitigation Fee ("LDMF") according to adopted ordinance or resolution (Section 13.2.A. of the Implementing Agreement.)

Transmission of LDMF. Transmit the LDMF to the RCA at least quarterly, or sooner if possible (Section 13.2.B. of the Implementing Agreement.)

Participate in the RCA. Participate as a member agency of the RCA and its committees, as appropriate (Section 13.2.D. of the Implementing Agreement.)

Possession of federal permit. The federal permit must be on file in the possession of each Permittee as well as Third Parties under their direct control while conducting taking activities (Condition No. 26 of Federal permit.)

Habitat Assessments/Focused Surveys. Ensure that biologists send copies of all habitat assessments and focused survey reports for all covered species to the Monitoring Program Administrator (currently DFG) (Condition No. 23.e. of Federal permit.)

mshcp implementation guidance

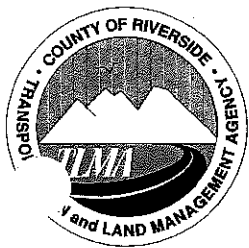
Habitat Acquisition and Negotiation Strategy Process

The MSHCP Plan has identified a mechanism for evaluating project compliance and the potential need to conserve lands through the development review process. Known as the Habitat Acquisition and Negotiation Process or HANS, it provides a process for developers, landowners, or anyone seeking to develop land within the criteria area. The County of Riverside has used this process successfully in the past and presents its model to the cities as an example of how to conduct such negotiations. Provided in this section are:

- (1) A flowchart of how the County's HANS process is implemented,
- (2) MSHCP Implementing Procedures,
- (3) MSHCP Implementing Policies,
- (4) Examples of forms used in a HANS procedure, and
- (5) The conditions that the County uses in its planning and permit process.

Each city is responsible for implementing HANS or another similar process for use in its land development review. Cities may choose to emulate the County's example directly or adapt it to suit their individual needs. The information provided here should allow cities to make such a choice. RCA staff is ready and available to assist cities in this effort.

Questions about this section may be referred to:
Ron Goldman (951) 955-3265



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP) IMPLEMENTING PROCEDURES AND POLICIES

MSHCP IMPLEMENTING PROCEDURES

1. HANS PROCESSING PROCEDURES (CASES OTHER THAN INDIVIDUALLY PROCESSED SINGLE FAMILY HOMES)

With the adoption of the Final Western Riverside County Multiple Species Plan (MSHCP), the County Board of Supervisors agreed to implement the plan utilizing the Property Owner Initiated Habitat Acquisition and Negotiation Strategy (HANS). HANS ensures that: 1) an early determination will be made concerning those properties that may be needed for the MSHCP Conservation Area, 2) owners of property needed for MSHCP conservation are compensated if necessary, through incentives or monetarily; 3) owners seeking land not needed for inclusion in the MSHCP Conservation Area, shall receive Take Authorization for Covered Species Adequately Conserved through the Permits issued to the County pursuant to the MSHCP.

The following HANS processing procedures shall apply to all discretionary actions within the MSHCP plan area. However, property owners may request a HANS evaluation whether or not they have any interest in processing a development review application. Property owners interested in selling an entire parcel for conservation purposes should submit a HANS application to the Permit Assistance Center as set forth in these procedures.

A. DOES APPLICANT REQUIRE A DISCRETIONARY PERMIT THAT INVOLVES A LAND USE DEVELOPMENT ENTITLEMENT (NOT INCLUDING NEW USES OF PROPERTY THAT WILL BE FULLY CONTAINED WITHIN AN EXISTING STRUCTURE) OR GRADING PERMIT?

IF NO Applicant may file development review application(s) without a HANS review. Counter personnel shall issue a signed "HANS Requirement Form" and attach Conservation Summary Report(s) for applicant to include as part of development application.

IF YES Determine if project is in the Cell Criteria Area by querying all associated Assessors Parcel Number(s) (APNs) by using the Conservation Summary Report Generator found at:
http://tlmacac.tlma.co.riverside.ca.us/PDFlib/rcip/apn_search.asp

B. DO ANY OF THE APNs FALL WITHIN THE CRITERIA AREA?

IF NO Applicant may proceed with development application(s). Counter personnel shall place a notice in the County's Land Management System attached to all APNs that no HANS review is required.

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

Counter personnel issues a signed "HANS Requirement Form" and attaches Conservation Summary Report(s) for applicant to include as part of the development application.

IF YES Counter personnel provides applicant with the HANS application package, issues a signed "HANS Requirement Form," and attaches Conservation Summary Report for applicant to include as part of the development application.

C. HANS APPLICATION SUBMITTAL. HANS applications shall be submitted to Permit Assistance Centers. Permit Assistance Staff shall review HANS application form for completeness. If it is determined that the HANS application is complete, appropriate HANS fees are receipted (PAR application). Completed HANS application shall then be routed to the HANS Staff, HANS Staff shall assign HANS case number, and schedule case for the first available Initial Application Review (HANS 1) agenda.

The initial HANS 1 review is internal only. The HANS Staff shall issue a written HANS 1 determination within 45 days from when the County received a complete application and including (where appropriate), a map identifying lands needed for inclusion in MSHCP Conservation Area; a determination concerning necessary Habitat Assessment(s); and (where appropriate), a recommendation concerning potential HANS incentives and incentives available. Such correspondence shall be forward to the RCA for joint project review.

Should the applicant wish to discuss the determination made by HANS Staff and offer an alternative proposal for lands needed for inclusion in the MSHCP Conservation Area, applicants shall submit a written request to extend the initial 45-day review period. The applicant shall submit the necessary mapping identifying the applicant's alternative proposal and justification in writing. HANS Staff shall extend the HANS 1 - review and schedule a meeting with the applicant. If an agreement is reached, a new written HANS 1 determination shall be issued and forwarded to the RCA for joint project review.

If the applicant and HANS Staff cannot reach agreement on lands needed for inclusion in the MSHCP Conservation Area that will support MSHCP compliance finding(s), the applicant may either: 1) initiate the MSHCP Conflict Resolution Process¹, 2) proceed with a development application on that portion of the property not needed for the MSHCP Conservation Area, 3) initiate a MSHCP Criteria Refinement², 4) proceed with the conflicting land use design with recommendation of project denial from the Planning Department to the Planning Director, Planning Commission, and/or Board of Supervisors.

D. DOES THE WRITTEN HANS 1 DETERMINATION REQUIRE NEGOTIATION OF TERMS AND INCENTIVES (HANS 2)?

IF NO Project applicant may proceed with filing development application(s). Case planner shall ensure that land use plan is consistent with the written HANS 1 determination. The appropriate MSHCP Findings (See Attachment XX) shall be included with other project findings set forth in the project staff report and Environmental Assessment. (Draft Findings document under development)

If applicant's proposed land use design deviates from the written HANS 1 determination for the MSHCP Conservation Area, then 1) project must be redesigned to meet the written HANS 1 determination or 2) apply for and complete a Criteria Refinement Process or, 3) proceed with a conflicting land use design with recommendation of project denial from the Planning Department.

¹ MSHCP pages 6-9 thru 6-11

² MSHCP section 6.5

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

IF YES HANS 2 and the development application may be processed simultaneously. The purpose of HANS 2 is to negotiate terms and incentives for the conservation of those lands that would not be required to be set aside through the normal land use entitlement process. HANS 2 is intended to result in an agreement between the HANS Staff and the applicant on what incentives will be utilized. Once mutually agreeable terms are reached in the course of the HANS 2 negotiations, these terms shall be memorialized in writing by the HANS Staff as well as through the appropriate conditions of approval to be attached.

HANS 2 may be extended upon mutual consent of the parties. In the event that terms cannot be reached within the prescribed 120-day negotiation period, both parties shall provide in writing their respective terms and agree to mutually extend the HANS 2 negotiation to a certain date.

If the applicant and HANS Staff are unable to reach mutually agreeable terms within the required HANS 2 time frame and the parties cannot agree to subsequent extensions of time, the applicant or the County may either initiate the MSHCP Conflict Resolution. Note: Applicant may proceed at his/her own risk with processing a land use entitlement application on that portion of the property not necessary for inclusion in the MSHCP Conservation Area.

2. EXPEDITED HANS PROCESSING PROCEDURES FOR INDIVIDUALLY PROCESSED SINGLE FAMILY HOMES/MOBILE HOMES (SFH)

In order to ensure consistency with the MSHCP, the following procedures shall be used by County staff when processing grading or building permit for SFH or site preparation or installation permit for a mobile home. Note: Building permits for Second Unit Permits or their corresponding grading permits are not subject to HANS review.

A. SFH APPLICATIONS

Determine if project is in Criteria Area by querying **all** associated Assessors Parcel Number(s) (APNs) by using the Conservation Summary Report Generator found at:
http://tlmacac.tlma.co.riverside.ca.us/PDFlib/rcip/apn_search.asp

~~B. IS SFH LOT LOCATED IN THE MSHCP CRITERIA AREA?~~

IF NO May continue to process permit, no HANS review required. Counter Personnel issues a signed "HANS Requirement Form" form and attaches Conservation Summary Report for applicant to include as part of their development application. MSHCP Habitat Assessment and/or survey requirements shall still apply prior to permit issuance. Counter personnel shall place a notice in LMS attached to APNs that no HANS review is required.

IF YES Permit Assistance Counter Staff provides applicant with SFH HANS application. Subsequently, the applicant may submit their HANS application prior to applying for construction permits or, at the applicant's own risk, may submit their construction permit concurrently with their HANS application. In a case where construction permit is submitted concurrently with the HANS application, Permit Assistance Counter Staff shall create a hold (COA) on the grading and/or building permit that prevents the grading and/or building permit from being issued until HANS review is complete. HANS application is reviewed for completeness and forwarded to the HANS Staff for processing. The HANS process allows for up to 90 days to determine the appropriate location of a building footprint area and any necessary access road including driveways on the least sensitive portion of an existing legal lot and/or to negotiate the acquisition of the entire lot or a portion thereof or determine which incentives may apply in order to

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

acquire a conservation easement over that portion of the property not necessary for access roads/driveways and outside of the building footprint area.

At the end of 90 days if there is not concurrence with the property owner regarding the location of the building footprint area and any necessary access roads/driveways, HANS Staff shall conclude its review and solely determine the building footprint and any necessary access roads/driveways to the least sensitive portion of the site. Within 90 days, HANS Staff must issue a written determination stating final conclusions. In order for the grading and/or building permit to be issued, Permit Assistance Staff shall determine that the construction permit complies with the HANS Staff determination.

If the agreed to terms include a dedication or acquisition of any portion of the property, HANS staff shall condition the subsequent construction permit to require the conveyance of the conservation easement or fee title to the RCA prior to final inspection of the permit.

3. CONFLICT RESOLUTION

a. Mediation -Available to resolve differences between the parties over the proposed development options for the property as well as differences regarding the application of MSHCP Conservation Criteria.

b. Arbitration -Available following mediation to resolve difference concerning the application of the MSHCP Conservation Criteria.

In order to initiate conflict resolution, an applicant shall submit a written request to mediate and/or arbitrate to the Office of the County Counsel.

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

COUNTY MSHCP IMPLEMENTING POLICIES

1. General HANS Implementing Policies

Policy 1: All County discretionary actions as well as the construction of a single family homes or location of a mobile home that occur on land within the MSHCP Criteria Area are subject to review through the HANS process as established by the MSHCP³. Such discretionary projects, include but are not limited to; General Plan Amendments, Specific Plans, Specific Plan Amendments, Zone Changes, Tentative Tract Maps, Tentative Parcel Maps, Conditional Use Permits, Plot Plans, Public Use Permits, and Temporary Use Permits.

Once the HANS process has concluded for a project, future discretionary actions associated with the original project are not subject to further HANS review (e.g. a Tract Map within a Specific Plan that has previously completed HANS, or single family home grading permit within subdivision maps that have previously completed HANS review). However, future discretionary applications shall be reviewed to determine compliance with the written HANS determination. The County biological staff shall confirm that all HANS conditions and agreements are met through the standard routing and approval process.

Policy 2: In the event that the party submitting the HANS application is not the owner of record, the applicant shall submit written permission from the property owner(s) (including property owner's mailing address). Any HANS meetings with the applicant must include the property owner of record. The County shall rely on the accuracy of the information provided by the applicant. The HANS Staff shall forward copies of all HANS correspondences to the property owner(s) and applicants as identified in the HANS application.

Policy 3: HANS 1 is intended to be a pre-development application process. Consequently, HANS 1 review shall be completed before the Planning Department accepts a development application for property within the MSHCP Criteria Area.

Policy 4: Upon receipt of a HANS 1 determination letter, a development application for the proposed project may be filed on that portion of the land not required for inclusion in the MSHCP Conservation Area and processed concurrently.

Similarly, should the HANS 1 determination letter indicate the need for conservation of a portion of the subject property, the entitlement process may proceed on the portion of the property not proposed for conservation concurrently with the negotiation and acquisition process (HANS 2). The property owner may process a development application on the portion of the property under negotiation for acquisition prior to the completion of the acquisition period.

Policy 5 If an applicant requests an extension of the initial review period to discuss the HANS 1 determination or propose an alternative conservation scenario, this request is considered an applicant-initiated Extended HANS 1 process. Alternative conservation scenarios may be submitted in writing by the applicant together with a map and an analysis of how such a proposed alternative is consistent with the MSHCP conservation objectives (i.e. Cores and Linkages, Area Plan Objectives, Sub-Unit Objectives, and MSHCP Conservation Criteria for the subject Cell(s)/Cell Group(s) Criteria).

³ MSHCP Section 6.1.1

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

Policy 6 Final HANS 1 determinations shall be forwarded to the Western Riverside County Regional Conservation Authority for Joint Project Review as provided by Section 6.6.2(E) of the MSHCP and upon completion of the HANS 1 initial review process.

Policy 7 HANS 2 refers to that portion of the MSHCP HANS process that is known as Negotiation of Terms and Incentives. HANS 2 is intended to provide a forum to discuss terms and incentives (See MSHCP, page 6-5: Negotiation of Terms and Incentives) for that portion of the MSHCP Conservation Area that is in excess of what may otherwise be conserved through the normal land-use entitlement process. Property owners shall not be provided monetary compensation for property that would normally be set aside as part of the County's development review process.

Policy 8 HANS 2 shall not be initiated when the initial determination of what lands need to be included in the MSHCP Conservation Area is in dispute.

Policy 9 As an incentive to convey property necessary for inclusion in the MSHCP Conservation Area and for which monetary compensation shall not be provided, Take Authorization may be granted upon project approval rather than upon issuance of a grading permit. In order to obtain this early Authorization of Take, the conveyance must occur within 45 days after project approval.

Policy 10: Habitat Assessments (HA) and surveys for riparian/riverine areas and vernal pools, Narrow Endemic Plant Species and other species required pursuant to Sections 6.1.2, 6.1.3, and 6.3.2 of the MSHCP shall be required prior to the completion of the HANS 2 negotiations. In the event that HANS 2 negotiations are not required, HA's and (if indicated) focused surveys are required prior to scheduling the project for public hearing.

It is possible that the HA and any subsequent focused survey could affect the determination of what lands are necessary for inclusion in the MSHCP Conservation Area. HANS applicants are encouraged to provide the requisite HA and/or surveys (where indicated) with their HANS application. While not mandatory prior to the completion of the HANS 1 initial determination process, such information may facilitate and/or expedite HANS determinations and potentially the negotiation process.

Policy 11: Land required to be included in the MSHCP Conservation Area shall be conveyed by conservation easement or fee title to the RCA prior to the issuance of grading permit or earlier as agreed to by the applicant.

Policy 12: For any subdivision map (Parcel Map or Tract Map) where land has been identified as necessary for inclusion in the MSHCP Conservation Area, this land shall be identified by separate numbered lot(s) and labeled "MSHCP Conservation Area."

Policy 13: No development application shall be deemed complete pursuant to the Permit Streamlining Act until review of the project pursuant to the HANS process (HANS 1 and 2) has been completed.

Policy 14: All projects outside the MSHCP Criteria Area shall submit MSHCP required habitat assessment and/or surveys prior to scheduling the project for public hearing. If habitat assessment and/or surveys indicate:

- a. Presence of species considered to be a significant population⁴,
- b. The population contributes to the long-term conservation value of the subject species, and,

⁴ MSCHP Section 6.3.2 & Appendix E

COUNTY MSHCP IMPLEMENTING PROCEDURES & POLICIES

- c. A biologically equivalent or superior preservation determination⁵ is unattainable.

Then all or portions of this land shall be required to be set aside as undisturbed open space until such time that the RCA has determined 1) that the species specific goals have been met in the MSHCP Conservation Area and 2) the RCA has determined that the land may be made available for development or that it be considered for acquisition, conservation, and management as part of the MSHCP Conservation Area (Appendix E, page E-3).

2. Single Family Home Implementing Policies

Policy 1: If a single-family lot is located within an area that is described by the MSHCP Criteria as necessary for inclusion in the MSHCP Conservation Area, the HANS response letter shall indicate the necessity of meeting with the HANS Manager and staff to discuss the location of the portion of the property within which development can occur (i.e., the least sensitive portion of the site.) This development envelope shall include the home-site, access driveway(s), septic systems, fuel modification zones, and all appurtenant facilities. Additionally, the HANS response letter shall indicate any interest the County may have in negotiating acquisition of the property.

Policy 2: Prior to issuance of a grading permit, the Counter personnel shall ensure compliance with the development envelope identified in the final meeting with the HANS Manager.

Policy 3: In the event that the SFH applicant elected not to negotiate terms within 90 days on that portion of the lot identified as necessary for inclusion in the MSHCP Conservation Area, HANS Staff may re-initiate a negotiation of terms upon written request of the property owner of record.

Policy 4: HANS does not apply to any subsequent construction applications including but not limited to secondary structures, pools, room additions, and patio covers, storage structures, second unit permits, guest homes, block walls, perimeter fencing, etc.

3. Biological Implementing Policies (more policies will be forthcoming from the biological team)

Policy 1: If a project applicant has received clearance from the County biological staff concerning a Habitat Assessment or required survey(s), no additional habitat assessment or required surveys shall be required for purposes of MSHCP conformance. However, habitat assessments or required surveys shall expire after 2-years.

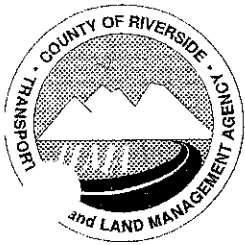
Policy 2: Habitat Assessments are required within 30 days of the applicant's submission of a development review application. For SFH on an existing legal lot, the HA will be performed by a County biological staff member. For proposed development, the HA and any required focused surveys (including focused surveys for single family homes) must be performed by an individual on the County's list of approved biologists. At a minimum, such assessments shall clearly indicate presence or absence of suitable habitat for requisite species, indicate if focused surveys are required, and map (electronic format to be determined).

Created: 7/12/04

Revised: 8/23/04

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⁵ MSHCP, pages 6-41 thru 6-71



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

PROPERTY OWNER INITIATED HABITAT ACQUISITION AND NEGOTIATION STRATEGY (HANS) APPLICATION FOR SINGLE FAMILY RESIDENCE ON EXISTING LOT

****HANS applications cannot be processed without all property owner(s) permission and signature(s)****

CHECK ONE AS APPROPRIATE:

- Project Review (Case # _____)
 Pre-application HANS Review (Speculation/Escrow)

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

CASE NUMBER: _____ DATE: _____

Applicant's Name: _____ E-Mail: _____

Mailing Address: _____
Street
City State ZIP

Daytime Phone No: (____) _____ Fax No: (____) _____

Property Owner's Name: _____ E-Mail: _____

Mailing Address: _____
Street
City State ZIP

Daytime Phone No: (____) _____ Fax No: (____) _____

AUTHORITY FOR THIS APPLICATION IS HEREBY GIVEN:

I certify that I am/we are the record owner(s) or authorized agent and that the information filed is true and correct to the best of my knowledge. An authorized agent must submit a letter from the owner(s) indicating authority to sign the application on the owner's behalf. I further authorize, pursuant to Government Code Section 65105, that planning agency personnel may enter upon the subject property and make examinations and surveys, provided that, the entry, examination, and survey do not interfere with the use of the land.

All signatures must be originals ("wet-signed"). Photocopies of signatures are **not** acceptable.

OWNER INITIATED HANS APPLICATION FOR SINGLE FAMILY RESIDENCE ON EXISTING LOT

PRINTED NAME OF PROPERTY OWNER(S)

SIGNATURE OF PROPERTY OWNER(S)

PRINTED NAME OF PROPERTY OWNER(S)

SIGNATURE OF PROPERTY OWNER(S)

If the subject property is owned by persons who have not signed as owners above, attach a separate sheet that references the application case number and lists the printed names and signatures of all persons having an interest in the property.

Related Permit or Development Application Case Number(s) *(If applicable)*:

_____ Case Planner: _____

Please provide the following information. If you need more room, submit a separate page.

Assessor's Parcel Number(s) (APNs): _____

Identify the MSHCP Conservation Criteria cell(s) covering the above referenced APN's:

Written project description: _____

Were any previous biological surveys performed on the above referenced APN's? YES NO
If yes, please provide a copy, or reference the County Biological Report Number.

Describe unique biological features (i.e. washes, streams, oak trees, juniper trees, and rock outcroppings) and quantify anticipated impacts resulting from development of the site:

Explain how the project design incorporates or complies with the criteria within the affected cells?

Please provide a copy of the following items/information:

A series of ground-level photographs showing the project site, together with a key map showing the location from where the photographs were taken and the approximate area of view.

OWNER INITIATED HANS APPLICATION FOR SINGLE FAMILY RESIDENCE ON EXISTING LOT

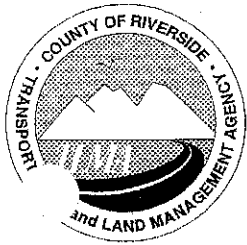
One (1) Site Plan that must be drawn on paper not less than 8.5"x11" or more than 24"x36," and should clearly show the following information:

1. North Arrow
2. Overall dimensions of the property and lot lines
3. Location and names of adjoining streets
4. Location and dimensions of existing and proposed buildings, structures, and driveways
5. Location and dimensions of easements or rights-of-way traversing the property

Any completed Habitat Assessments and/or biological surveys.

If available, aerial photographs and a map of topographic contour lines of the subject property would be helpful to the review process.

Y:\Planning Master Forms\Application Forms\295-1042B SFR HANS.doc



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

PROPERTY OWNER INITIATED HABITAT ACQUISITION AND NEGOTIATION STRATEGY (HANS) APPLICATION

****HANS applications cannot be processed without all property owner(s) permission and signature(s)****

CHECK ONE AS APPROPRIATE:

- Project Review (Case No. _____)
- Pre-application HANS Review Type 2 (Parcel Maps, Speculation/Escrow, or minor land divisions)
- Pre-application HANS Review Type 3 (Tract Maps, Specific Plans, major land divisions)
- MSHCP Acquisition Review (Interested in selling land to County)

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

CASE NUMBER: _____ DATE: _____

Applicant's Name: _____ E-Mail: _____

Mailing Address: _____

Street

City

State

ZIP

Daytime Phone No: (____) _____ Fax No: (____) _____

Property Owner's Name: _____ E-Mail: _____

Mailing Address: _____

Street

City

State

ZIP

Daytime Phone No: (____) _____ Fax No: (____) _____

AUTHORITY FOR THIS APPLICATION IS HEREBY GIVEN:

I certify that I am/we are the record owner(s) or authorized agent and that the information filed is true and correct to the best of my knowledge. An authorized agent must submit a letter from the owner(s) indicating authority to sign the application on the owner's behalf. I further authorize, pursuant to Government Code Section 65105, that planning agency personnel may enter upon the subject property and make examinations and surveys, provided that, the entry, examination, and survey do not interfere with the use of the land.

PROPERTY OWNER INITIATED HANS APPLICATION

All signatures must be originals ("wet-signed"). Photocopies of signatures are **not** acceptable.

PRINTED NAME OF PROPERTY OWNER(S)

SIGNATURE OF PROPERTY OWNER(S)

PRINTED NAME OF PROPERTY OWNER(S)

SIGNATURE OF PROPERTY OWNER(S)

If the subject property is owned by persons who have not signed as owners above, attach a separate sheet that references the application case number and lists the printed names and signatures of all persons having an interest in the property.

Related Permit(s) or Development Application Case Number(s) (If applicable):

Please provide the following information. If you need more room, submit a separate page.

Assessor's Parcel Number(s) (APNs): _____

Identify the MSHCP Conservation Criteria cell(s) covering the above referenced APN's:

Written project description: _____

Were any previous biological surveys performed on the above referenced APN's? YES NO
If yes, please provide a copy, or reference the County Biological Report Number.

Describe unique biological features (i.e. washes, streams, oak trees, juniper trees, and rock outcroppings) and quantify anticipated impacts resulting from development of the site:

Explain how the project design incorporates or complies with the criteria within the affected cells?

To speed the review and thereby reduce the cost in reviewing this application, please provide a copy of the following items/information:

PROPERTY OWNER INITIATED HANS APPLICATION

Completed application form
Building Permits and Site Preps
Exhibits and associated photographs that clearly represent the project area
Site Plan/Tentative Map (minimum size 11" x 17")
Any completed biological surveys

Based on the indicated cases types, the following additional information must be submitted in an electronic digital format on a CD.

Tentative Parcel Map, Tentative Tract Map, Use Permit, Specific Plan:

Existing biological reports (Microsoft Word format or a rich text file format)
Tentative Map Exhibit or Use Permit Exhibit (TIFF¹ image of map)
Also, one of the following data formats (linework and annotation)

- Shape File
- Microstation CAD File
- Autodesk Auto CAD File

Aerial Photographic Image (TIFF format) of the subject property(ies) (delineated) and surrounding vicinity.
Conceptual or preliminary Grading Plan. Include contours as well as a DEM in one of the data formats listed above.

Grading Permit

Aerial Photographic Image (TIFF format) of the (delineated) and surrounding vicinity.
Conceptual or preliminary Grading Plan (TIFF image of plan). Include contours as well as a DEM in one of the following data formats.

- Shape File
- Microstation CAD File
- Autodesk Auto CAD File

Appropriate filing fees must be included with the application.

HANS review for Tentative Parcel Maps or Use Permits - \$500.00 plus LMS Surcharge (2%)
HANS review without a specific development proposal articulated - \$500.00 plus LMS Surcharge (2%)
HANS review for Tentative Tract Maps or Specific Plans - \$1,472.00 plus LMS Surcharge (2%)

Y:\Planning Master Forms\Application Forms\295-1042 HANS.doc

¹ TIFF is an acronym for Tag(ged) Image File Format. It is one of the most popular and flexible of the current public domain raster file formats.



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

MSHCP COMPLIANCE REVIEW WORKSHEET

DRAFT 8/23/04

Project Case No.: _____ Application Type: _____

Applicant's Name: _____ Supervisorial District: _____

Address: _____ Date Received: _____

E-Mail Address: _____ Date Complete: _____

Telephone No.: _____ FAX No.: _____

PROJECT INFORMATION

I. Land Use Information:

- A. Project Type: _____
- B. Assessor's Parcel Number(s): _____
- C. Total Acreage of Parcel(s): _____
- D. Number of Lots Proposed: _____
- E. Minimum Lot Size: _____
- F. Existing Zoning: _____
- G. Existing Land Use: _____
- H. General Plan Land Use: _____
- I. Township, Range, Section(s): _____
- J. General Location: _____

II. MSHCP Area Plan Information:

- A. Area Plan: _____

MSHCP COMPLIANCE REVIEW WORKSHEET DRAFT 8/19/04

- B. Subunit: _____
- C. Area Plan Target Acreage: _____
- D. Area Plan Conservation Goals: _____

- E. Applicable Core and/or Linkage: _____
- F. Project Specific Biological Resources & Vegetation Communities: _____

- G. Relationship of Project Specific Biological Resources & Vegetation Communities to Overall Conservation Goals of Area Plan: _____

HANS PROCESS

Initial Review: (HANS 1 – 45 Days = _____ Ext. Review = Yes No)
Negotiation of Terms & Incentives: (HANS 2 – 120 Days = _____ Ext. Review = Yes No)
Conflict Resolution: Mediation (90 Days = _____)
 Arbitration (180 Days = _____)

I. MSHCP Cell/Cell Group Information:

- A. Cell/Cell Group No.: _____
- B. Cell/Cell Group Vegetation Communities Criteria Conservation Goals: _____

- C. Relationship of Project Specific Conservation Goals to Cell/Cell Group Criteria Conservation Goals: _____

- D. Project Specific Conservation Goals: _____

E. Contribution of Project Specific Conservation Goals to Overall Conservation Acreages Identified for Core or Linkage or Area Plan or Subunit:

F. Evaluation of Edge Effects:

II. Initial Review MSHCP Consistency Determination:

- The property is not needed for inclusion in the MSHCP Conservation Area. Subject to other MSHCP requirements? Yes/No.
- The entire property is needed for inclusion in the MSHCP Conservation Area. Subject to other MSHCP requirements? Yes/No.
- A portion of the property is needed for inclusion in the MSHCP Conservation Area. Subject to other MSHCP requirements? Yes/No.

III. Habitat Assessments/Focused Surveys:

Habitat Assessment(s) required for:

Results of Habitat Assessment(s):

Focused Survey(s) required for:

Results of Focused Survey(s):

IV. Negotiation of Incentives:

Agreed to Incentives:

MSHCP CRITERIA FINDINGS

I. The project complies with MSHCP Criteria as depicted on Map No. _____, dated _____.

II. Does the project conflict with MSHCP Criteria and, if so, how?

III. Can MSHCP Criteria compliance be achieved through the Criteria Refinement Process? Explain in detail:

IV. Although the proposed project would not avoid impacts, with proposed design and mitigation measures, the project would be biologically equivalent or superior to that which would occur under an avoidance alternative without these measures, based on one or more of the following factors: effects on Conserved Habitats; effects on the species listed under Section 6.1.2 of the MSHCP; and, effects on riparian Linkages and function of the MSHCP Conservation Area.

The following information must be provided by the applicant:

A. Protection of species associated with riparian/riverine areas/vernal pools (§6.1.2):

Survey and mapping completed? _____ Results? _____

Avoidance and minimization feasible?

Edge treatments?

Determination of biologically equivalent or superior preservation (where avoidance and minimization is not feasible).

1. Definition of project area:

2. Written project description explaining why avoidance is not feasible:

3. Written description of biological information available for the project site:

4. Quantification of direct and indirect unavoidable impacts to riparian/riverine areas and vernal pools associated with the project:

5. Project design features and mitigation measures that reduce indirect impacts (such as edge treatments, landscaping, elevation differences, minimization and/or compensation through restoration or enhancement):

60-day notice to USFWS and CDFG provided?

MSHCP COMPLIANCE REVIEW WORKSHEET DRAFT 8/19/04

When: _____

Comments received:

Finding that biologically equivalent or superior preservation is preferred based on one or more of the following factors:

1. Effects on Conserved Habitats:

2. Effects on the species:

3. Effects on riparian Linkages and function of the MSHCP Conservation Area:

B. Protection of Narrow Endemic Plants (§6.1.3):

Survey and mapping completed? Results? _____

Does population have long term conservation value? If no, 90% avoidance/equivalency findings not required.

Equivalency findings demonstrating compliance with the 90% avoidance threshold of populations with long-term conservation value.

1. Definition of project area:

MSHCP COMPLIANCE REVIEW WORKSHEET DRAFT 8/19/04

2. Written project description:

3. Written description of biological information available for the project site (including results of Narrow Endemic Plant Species Survey(s):

4. Quantification of direct and indirect unavoidable impacts to Narrow Endemic Plant Species associated with the project, documenting compliance with the 90% threshold:

5. Project design features and mitigation measures that reduce indirect impacts (such as edge treatments, landscaping, elevation differences, minimization and/or compensation through restoration or enhancement):

6. Summary conclusion, including findings of consistency with 90% threshold:

60-day notice to USFWS and CDFG provided?

When: _____

Comments received:

Determination of biologically equivalent or superior preservation (if making the equivalency findings is determined infeasible):

1. Effects on Habitat with long-term conservation value to Narrow Endemic Plant Species:

2. Effects on the populations of Narrow Endemic Plant Species:

3. Effects on Linkages and function of the MSHCP Conservation Area:

C. Guidelines Pertaining to Urban/Wildlife Interface (§6.1.4)¹

- 1. The project is located within the Criteria Area and in close proximity to the MSHCP Conservation Area.

Potential Edge Effects resulting in adverse impacts to biological resources:

a. Drainage (changes in water quantity and/or quality):

Mitigation Measures:

b. Toxics (generates bioproducts or uses chemicals):

Mitigation Measures:

¹ Project design shall incorporate the use of barriers, where appropriate, to minimize impacts resulting from unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area.

Manufactured slopes shall not extend into the MSHCP Conservation Area.

c. Lighting (increase in night lighting):

Mitigation Measures:

d. Noise (increase in ambient noise):

Mitigation Measures:

e. Invasives (landscaping incorporates use of invasive, non-native plant species):

Mitigation Measures:

Can findings be made that the project is consistent with MSHCP Criteria and Sections 6.1.2, 6.1.3, and 6.3.2 or will be consistent upon incorporation of the above identified mitigation measures as conditions of project approval.

MSHCP COMPLIANCE REVIEW WORKSHEET DRAFT 8/19/04

- No feasible mitigation measures are identified that would achieve consistency with MSHCP Criteria and Sections 6.1.2, 6.1.3, and 6.3.2. The project is subject to HANS Process.

- 2. The project is not located within the Criteria Area and is in close proximity to the MSHCP Conservation Area.

Potential Edge Effects resulting in adverse impacts to biological resources:

- a. Drainage (changes in water quantity and/or quality):

Mitigation Measures:

- b. Toxics (generates bioproducts or uses chemicals):

Mitigation Measures:

- c. Lighting (increase in night lighting):

Mitigation Measures:

- d. Noise (increase in ambient noise):

Mitigation Measures:

e. Invasives (landscaping incorporates use of invasive, non-native plant species):

Mitigation Measures:

- Can findings be made that the project is consistent with MSHCP Criteria and Sections 6.1.2, 6.1.3, and 6.3.2 or will be consistent upon incorporation of the above identified mitigation measures as conditions of project approval.

- No feasible mitigation measures are identified that would achieve consistency with MSHCP Criteria and Sections 6.1.2, 6.1.3, and 6.3.2. The project is subject to review through the HANS Process.

D. Additional survey needs and procedures (§6.3.2):

- Survey and mapping completed? Results? _____
- Does population have long term conservation value? If no, 90% avoidance/equivalency findings not required.
- Equivalency findings demonstrating compliance with the 90% avoidance threshold of populations with long-term conservation value.

1. Definition of project area:

2. Written project description:

3. Written description of biological information available for the project site (including results of the species surveys):

4. Quantification of direct and indirect unavoidable impacts to identified species associated with the project, documenting compliance with the 90% threshold:

5. Project design features that reduce indirect impacts (such as edge treatments, landscaping, elevation differences, minimization and/or compensation through restoration or enhancement):

6. Summary conclusion, including findings of consistency with the 90% threshold:

60-day notice to USFWS and CDFG provided?

When:

Comments received:

MSHCP COMPLIANCE REVIEW WORKSHEET DRAFT 8/19/04

Determination of biologically equivalent or superior preservation (if making the equivalency findings is determined infeasible):

1. Effects on conserved Habitats supporting the identified species:

2. Effects on the populations of the identified species:

3. Effects on Linkages and function of the MSHCP Conservation Area:

4. Effects on MSHCP Conservation Area configuration and management:

E. Criteria Refinement Process (§6.5):

1. Project Information:

a. Definition of the planning area for the project:

b. Narrative and graphic description of the project:

c. Narrative and graphic description of biological information available for the project site (including current project-specific vegetation mapping and species surveys):

d. Narrative and graphic description of project's efforts to be consistent with the MSHCP Criteria and explanation of the rationale why consistency is determined infeasible:

- e. Quantification and characterization of impacts/benefits of the proposed project (incorporating Criteria refinements) on Habitats, species and overall MSHCP Conservation Area design and function including relationship to identified Core Areas, Linkages and Constrained Linkages:

- f. Other information necessary to make the appropriate findings:

2. Equivalency Analysis:

- a. Effects on Habitats:

- b. Effects on Covered Species:

- c. Effects on Core Areas (as identified on the MSHCP Core and Linkage map):

- d. Effects on Linkages and Constrained Linkages (as identified on the MSHCP Core and Linkage map):

- e. Effects on Non-Contiguous Habitat Blocks (as identified on the MSHCP Core and Linkage map):

f. Effects on MSHCP Conservation Area configuration and management (such as increases or decreases in edge):

g. Effects on ecotones (defined as areas of adjoining Vegetation Communities, generally characterized by greater biological diversity) and other conditions affecting species diversity (such as invasion by exotics):

h. Equivalent or greater acreage contributed to the MSHCP Conservation Area:

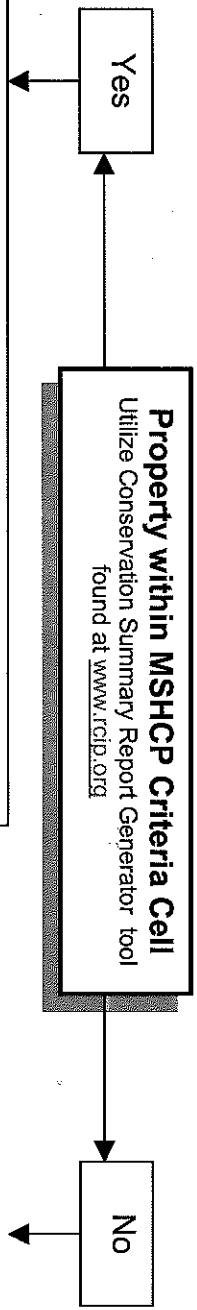
i. Demonstrate agreements or control over mitigation property being offered under the equivalency analysis:

A determination can be made that the project is biologically equivalent or superior to a project on the same site not deviating from the MSHCP Criteria. No amendment to the MSHCP is required prior to project approval.

A determination can be made that the project is not biologically equivalent or superior to a project on the same site not deviating from the MSHCP Criteria. An amendment to the MSHCP is required prior to project approval.

DRAFT

MSHCP HANS Case Processing Flow Chart For County Discretionary Permits (7/11/04)



HANS 1 triggered:
Application requirements:

1. a definition of the project area
 2. a written project description with maps as appropriate
 3. a written description of biological information available for the project site including the results of any available mapping or surveys
 4. quantification of anticipated impacts to biological resources identified for the project
 5. applicant's initial assessment of relationship of proposed project to MSHCP Conservation Criteria
 6. identification of environmental constraints that shall include flood plain, steep slopes, seismic hazards, topography
- HANS 1 review shall not consider applicant's desired land use design as HANS 1 is intended to be a pre-entitlement application function. HANS 1 review only considers the MSHCP criteria, other elements of MSHCP as they pertain to reserve design and the case in question, any other existing biological information that may affect the case, and the information provided by applicant. (above).**

Conservation required:
1. Letter identifying (if applicable):

- a. that conservation is required,
 - b. requisite Habitat Assessments (as indicated by Conservation Summary Report Generator)
 - c. identification of facilities not allowed in conservation area
 - d. timing of negotiating terms or extension of HANS 1 and required conservation upon applicant's request
 - e. initial determination of which incentives may be subject to negotiation
 - f. at discretion of Planning Director, other land use considerations may be incorporated
2. Map (as appropriate) with line that indicates the conservation footprint on

Land use tech inputs information to LMS and applicant proceeds to the entitlement application process.
Note: applicant may still be required to prepare Habitat Assessments for review by County biologist. MSHCP policies (other than HANS) may apply.

No conservation required:
Letter issued that releases property from Conservation Criteria and Habitat Assessments (if any) are noted.

HANS 1 Team: Deputy Director of Environmental Services Division, Assistant Planning Director, County Biologist, Case Planner, and GIS staff. Other County Departments/entities such as County Counsel, Flood, Transportation, Fire, Parks, etc. will be called in on an as-needed basis or when those Departments determine a HANS case requires their specific input.
Attendance by Supervisors

HANS 1

MSHCP Section 6.1.1.B(1)

before applicant submits a land use entitlement application

HANS 2

MSHCP Section 6.1.1.B(2)

120 day process commences upon issuance of HANS 1 letter. May be extended upon mutual consent of applicant and County. May proceed concurrent with land use entitlement application.

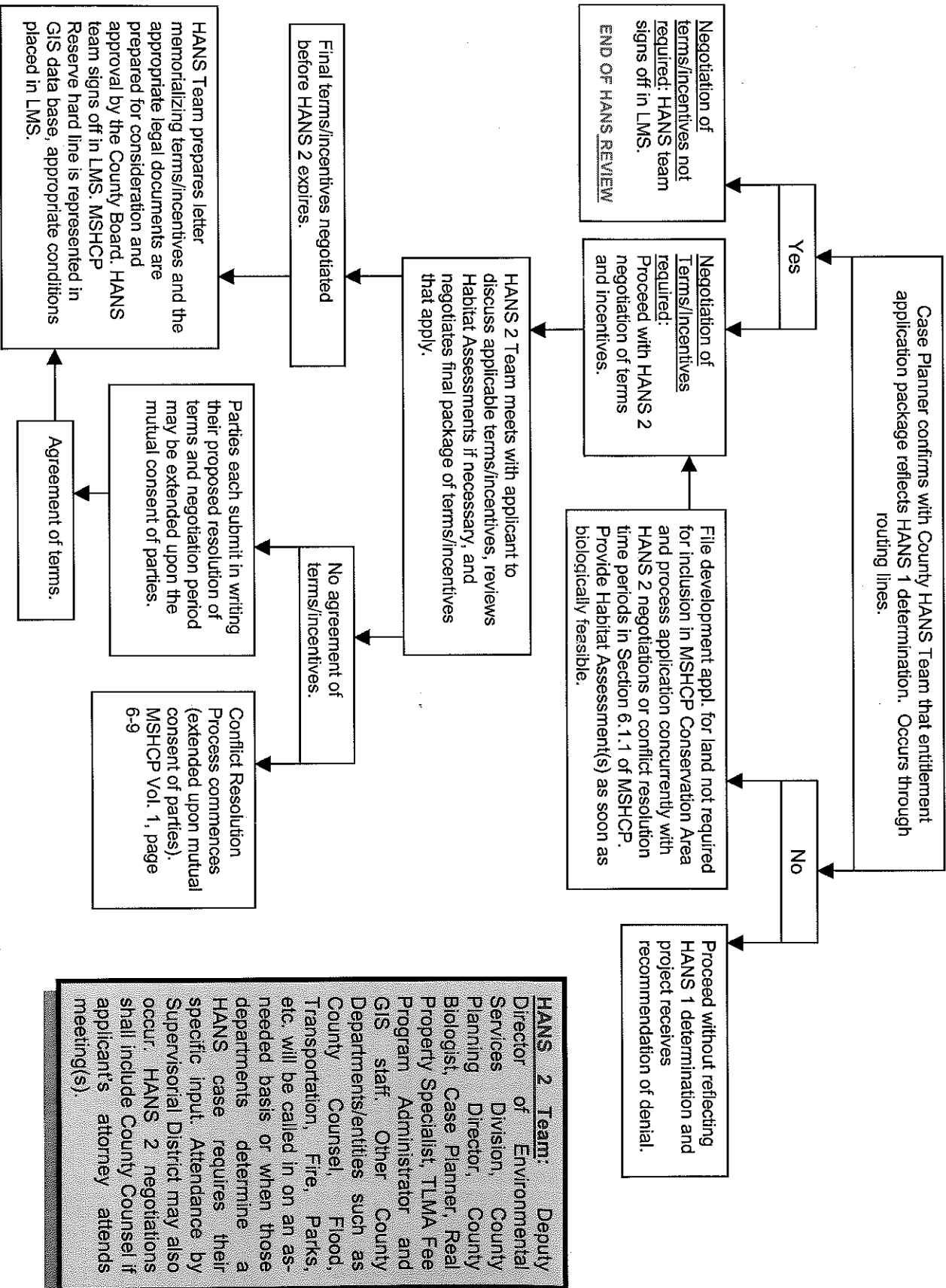
To be performed

the property. In cases with SFH, map will identify the least sensitive portion of site.

Letter is mailed to applicant and/or property owner and HANS 2 (120-day) time frame begins unless applicant requests an extension of HANS 1. Copy of letter and map is provided to RCA pursuant to MSHCP Joint Project Review process (MSHCP Section 6.6.2.E). GIS staff inputs proposed reserve design into GIS and applicant may proceed with the entitlement process with a project design that reflects the required conservation indicated in HANS 1 correspondence. Applicant is responsible for notifying HANS team if HANS 1 extension is needed.

District staff may also occur.

Copy of HANS 1 letter forwarded to RCA for Joint Project Review



HANS 2 Team: Deputy Director of Environmental Services Division, County Planning Director, County Biologist, Case Planner, Real Property Specialist, TLMA Fee Program Administrator and GIS staff. Other County Departments/entities such as County Counsel, Flood, Transportation, Fire, Parks, etc. will be called in on an as-needed basis or when those departments determine a HANS case requires their specific input. Attendance by Supervisorial District may also occur. HANS 2 negotiations shall include County Counsel if applicant's attorney attends meeting(s).

MSHCP CONSERVATION EASEMENT CONDITION FOR SINGLE FAMILY HOMES

As agreed to by the Applicant through the expedited Habitat Evaluation and Acquisition Negotiation Strategy (HANS file # _____), established by the Western Riverside County Multiple Species Habitat Conservation Plan, a total of _____ acres as shown on Exhibit "A" shall be offered pursuant to a conservation easement acceptable to the Western Riverside County Regional Conservation Authority (RCA), as County directs or authorizes and accepted by the RCA prior to final inspection of a grading, building or installation permit, whichever occurs first. This easement shall prohibit grading or any other disturbance or modification of the property including but not limited to buildings, structures, septic systems, detention basins, and fuel modification (except such fuel modification as may be conducted by the RCA and their agents), and shall be in a form acceptable to the RCA. Prior to acceptance of the conservation easement by the RCA, the RCA shall obtain a preliminary title report and conduct a Phase 1 Environmental Site Assessment for the area covered by the conservation easement. The applicant shall provide access to the project site to the RCA and their agents for purposes of conducting the Phase 1 Environmental Site Assessment. The RCA shall have sole and absolute discretion concerning acceptance of the information contained in the preliminary title report and Phase 1 Environmental Site Assessment. Title to the property covered by the conservation easement shall be free and clear of all liens, encumbrances, easements, and leases (recorded and unrecorded) except those liens, encumbrances, easements and leases, which are, at the sole discretion of the RCA, acceptable.

MSHCP CONSERVATION EASEMENT CONDITION FOR DEVELOPMENT PROJECTS

As determined through the Habitat Evaluation and Acquisition Negotiation Strategy (HANS file # _____), established by the Western Riverside County Multiple Species Habitat Conservation Plan, a total of _____ acres as shown on Exhibit "A" shall be offered pursuant to a conservation easement to the Western Riverside County Regional Conservation Authority (RCA), as County directs or authorizes, and accepted by the RCA prior to issuance of a grading or building permit, whichever occurs first. This easement shall prohibit grading or any other disturbance or modification of the property including but not limited to buildings, structures, septic systems, detention basins, and fuel modification (except such fuel modification as may be conducted by the RCA and their agents), and shall be in a form acceptable to the RCA. Prior to acceptance of the conservation easement by the RCA, the applicant shall submit a preliminary title report and Phase 1 Environmental Site Assessment for the area covered by the conservation easement to the RCA for review and approval. The RCA shall have sole and absolute discretion concerning approval and acceptance of the information contained in the preliminary title report and Phase 1 Environmental Site Assessment. Title to the property covered by the conservation easement shall be free and clear of all liens, encumbrances, easements, and leases (recorded and unrecorded) except those liens, encumbrances, easements and leases, which are, at the sole discretion of the RCA, acceptable.

MSHCP CONSERVATION (FEE TITLE) CONDITION

As determined through the Habitat Evaluation and Acquisition Negotiation Strategy (HANS file # _____), established by the Western Riverside County Multiple Species Habitat Conservation Plan, a total of _____ acres as shown on Exhibit "A" shall be offered for dedication to the Western Riverside County Regional Conservation Authority (RCA), as County directs or authorizes, and accepted by the RCA prior to issuance of any grading or building permit, whichever occurs first. This does not preclude earlier conveyance of the property at the discretion of the property owner. Prior to acceptance of the offer of dedication by the RCA, the applicant shall submit a preliminary title report and Phase 1 Environmental Site Assessment for the dedication acreage, to the RCA for its review and approval. The RCA shall have sole and absolute discretion with respect to the approval of the information contained in the preliminary title report and the Phase 1 Environmental Site Assessment. Title to the dedication acreage shall be free and clear of all liens, encumbrances, easements, leases (recorded and unrecorded) and

taxes except those encumbrances and easements, which are in the sole discretion of the RCA are acceptable. Easements allowing for the management of fuel modification areas or detention basins shall not be accepted.

MSHCP COMPLIANCE

Prior to grading permit issuance, development of the project shall be consistent with the area of development designated on Exhibit "___".

MAP – MSHCP TRAILS

No impacts or improvements to existing community trails (primarily used by equestrian users) will be allowed in the MSHCP Conservation Area. No new community trails will be allowed in the MSHCP Conservation Area. Existing Community Trails are mapped in figure 7-3 of the MSHCP. Construction of and improvements to Regional trails (primarily hiking, mountain biking and equestrian use) are allowed. Regional trails will only be allowed according to Figure 7-4 of the MSHCP. A total of fourteen trailheads are anticipated within the MSHCP Conservation Area and these trailheads serve as access points for hiking, mountain biking and equestrian uses. Trailheads are shown in Figure 7-4 of the MSHCP. An Exhibit showing all trails existing and planned (clearly differentiated) and trailheads in the MSHCP Conservation Area shall be provided and the Planning Director shall determine if the Exhibit is in compliance with the maps mentioned above.

MSHCP TRAILS – SITING/DESIGN (TO BE USED ON SPECIFIC PLANS PRIOR TO SUBSEQUENT PROJECT APPROVALS)

In order to minimize impacts on biological resources, prior to project approval, if any trails or facilities are anticipated as part of the project in the MSHCP Conservation Area, a plan, detailing the location and design of all trails shall be submitted to the County Biologist in the Planning Department to review compliance with the following:

- 1) Trails and facilities are sited and designed so as to protect natural resources and to minimize impacts to sensitive resources and habitat types covered by the MSHCP.
- 2) Trails and facilities will be located in the least sensitive areas of the MSHCP Conservation Area so that they avoid habitat occupied by species covered by the MSHCP.
- 3) ~~Prior to design and construction of public access facilities, biological surveys will be conducted within the study area for the facility including vegetation mapping and species surveys and/or wetland delineations based on field conditions as recommended by project biologists. New facilities will minimize impacts from lighting. The results of these investigations will be mapped and a written report will be submitted. This report should address potential affects to the MSHCP conservation Area resources and methods to avoid and minimize these impacts. The project biologist will work with eh facility designers during the design and constructions phase to ensure implementation of recommendations.~~
- 4) Recreational activities and construction of trails and facilities on highly erosive soils will be avoided.
- 5) Trails and facilities will be designed to discourage and prevent intrusion into adjacent environmentally sensitive areas.
- 6) New trails and facilities will avoid using wildlife crossing points.
- 7) New trails and facilities will be accessible from existing and planned public roads.
- 8) Environmentally sensitive grading techniques, drainage management and vegetation buffers will be used for trail and facility runoff absorption and filtration.

- 9) When landscaping is required, only native species will be used. The use of non-native invasive plant species will be prohibited.
- 10) Trail alignments in the MSHCP Conservation Area will use existing dirt roads whenever possible.
- 11) Trails will be kept along the edges of sensitive areas of habitat such as meadows and riparian areas.
- 12) The type, width, and intensity of trail uses will be consistent with the protection of the resources being traversed.
- 13) To prevent off-trail access and extensive trampling, wherever possible, trails will be constructed to any prominent features or viewpoints.
- 14) To prevent accelerated runoff and erosion water breaks will be installed on steep trails.
- 15) Dog-friendly trails will be located in areas of relatively low habitat value or edges.
- 16) Trailheads will have entry controls and signage to convey proper resource usage.
- 17) In most cases, trailheads will be sited at the edge of the resource area.

MSHCP TRAIL USES – (TO BE USED ON SPECIFIC PLANS PRIOR TO SUBSEQUENT PROJECT APPROVALS)

Prior to the final inspection of the first building permit, this condition shall be cleared when a copy of the information packet, showing (at a minimum) the below mentioned trail use rules is provided to the Planning Department for review. These rules shall be distributed to all homeowners in the development project.

- 1) No camping, off-road vehicle use will be allowed.
- 2) Motorized vehicle access by the public to the MSHCP Conservation Area is prohibited, except as necessary by emergency personnel.
- 3) Feeding of all wildlife is prohibited.
- 4) Pets must be maintained on leashes AT ALL TIMES. Pets are only allowed in designated areas.
- 5) In the event that public access policies and other policies conflict, the conflict will be resolved in a manner that is most protective of the biological resources within the MSHCP Conservation Area.
- 6) Firearms and hunting are prohibited.
- 7) Equestrian use is limited to designated trails.
- 8) Visitors to the trail must always stay on designated trails and must not stray into adjacent areas. This prevents the trampling of vegetation and erosion.
- 9) Following heavy rains, the use of equestrian trails will be prohibited for appropriate periods to avoid trail damage and impacts to adjacent habitat.
- 10) Mountain-biking is only allowed on specified trails.
- 11) Penalties may be imposed for littering and dumping within the MSHCP Conservation Area.
- 12) Public access may be restricted within and adjacent to wetland, vernal pools, restoration areas, and sensitive wildlife habitat at the discretion of the Reserve Manager.

HOUSE PAD LOCATION-SINGLE FAMILY HOME

Prior to issuance of grading permit, the Permit Assistance Center shall ensure compliance with the construction envelope identified in the final HANS response letter.

MAP-MSHCP GRADING/LAND DEVELOPMENT

Manufactured slopes associated with proposed site development shall not extend into the MSHCP Conservation Area. The final grading plan shall be submitted to the County Biologist for approval.

MSHCP FUELS MANAGEMENT

Brush management to reduce fuel loads to protect urban uses (fuel modification zones) will occur only in the boundaries of the development. Fuel modification zones will not encroach into the Conservation Area.

MSHCP LANDSCAPING PLAN

Prior to grading permit, a final Landscaping Plan shall be submitted to the Planning Department for review and approval. The plant pallet shall avoid the list of invasive plant species identified in the MSHCP as those species to be avoided adjacent to the MSHCP Conservation Area. (MSHCP Final in Volume I, Section 6 in Table 6.2 on Page 6-44 through 6-46).

MSHCP LIGHTING

Prior to recordation of a final map, a lighting plan shall be submitted to the County Planning Department for review and approval. Night lighting shall be directed away from the MSHCP Conservation Area. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased. These requirements shall be incorporated into the lighting improvement plan submitted to the Transportation Department.

MSHCP BARRIERS

Prior to final inspection of the first building permit, the applicant shall prepare and submit a written report to the Riverside County Planning Department demonstrating compliance with the approved "Barrier Plan" set forth in Exhibit "____". Inspection or other monitoring may be required to ensure such compliance.

MSHCP LANDSCAPING

Prior to final inspection, the landscaping in accordance with the approved MSHCP Landscaping Plan shall be installed.

STANDARD CONDITION FOR CRITERIA AREA PROJECTS ONLY - CALIFORNIA GNATCATCHER

60 Planning – California Gnatcatcher Survey

Pursuant to Condition No. 5.b. of Federal Fish and Wildlife Permit TE-088609-0 issued in connection with the Western Riverside County Multiple Species Habitat Conservation Plan, no grading permit may be issued between March 1 and August 15 of any given year unless the applicant for said grading permit provides written documentation to the County Biologist indicating that a focused survey of the project site has been conducted by a permitted biologist and confirms that habitat occupied by the California Gnatcatcher does not exist on said site.

STANDARD CONDITION FOR BURROWING OWL PRE-CONSTRUCTION SURVEY (INCLUDE ONLY WHEN PROJECT IS WITHIN THE SURVEY AREA AND THE SURVEY CONDUCTED DURING

DEVELOPMENT REVIEW FOR PROJECT INDICATES THAT SUITABLE HABITAT EXISTS ON THE
PROJECT SITE)

60 PLANNING

Pursuant to Objective 6 of the Species Account for the Burrowing Owl included in the Western Riverside County Multiple Species Habitat Conservation Plan, within 30 days prior to the issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl shall be conducted by a qualified biologist and the results of this presence/absence survey shall be provided in writing to the County Biologist. If it is determined that the project site is occupied by the Burrowing Owl, take of "active" nests shall be avoided. However, when the Burrowing Owl is present, active relocation outside of the nesting season (March 1 through August 15) by a qualified biologist shall be required. The County Biologist shall be consulted to determine appropriate translocation sites. Occupation of this species on the project site may result in the need to revise grading plans so that take of "active" nests is avoided or alternatively, a grading permit may be issued once the species has been actively relocated.

Created: 8/3/04

Revised: 8/23/04

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mshcp implementation guidance

Habitat Assessment and Focused Surveys

As Permittees, the County and each City are responsible for determining if certain covered species are present on land proposed for development. As part of determining potential presence/absence of such covered species, the County and Cities must require applicants to conduct biological assessments. Focused surveys, rather than habitat assessments, are required for certain other covered species (identified in Sections 6.1, 6.13, and 6.3.2 of the MSHCP.) If a habitat assessment concludes that suitable habitat is present on the site proposed for development, a focused survey for the covered species potentially impacted shall be required.

In this section, you will find information about

- (1) Which species need habitat assessments and/or focused surveys,
- (2) How to conduct and prepare habitat assessments,
- (3) The species for which survey protocols have been developed and the species which do not have protocols.

A complete set of available survey protocols is provided in Appendix D of this manual.

Questions about this section may be referred to:

Julie Greene, Ecological Resource Specialist at (951)955-4641



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Joh
Planning Dir.

Planning Department

THE COUNTY OF RIVERSIDE BIOLOGICAL POLICIES AND PROCEDURES

August 16, 2004

Biological Reports are required for all of the following case types.
General Biological Reports (Section I below) are required for EIRs.
Habitat Assessment Reports (Section II below) are required for cases, which do not require an EIR:

- Plot Plans (PP)
- Parcel Maps (PM)
- Tract Maps (TR)
- Conditional Use Permits (CUP)
- Specific Plans (SP)
- Surface Mining Permits (SMP)
- Temporary Outdoor Events
- Temporary Use Permits
- Variances
- Change of Zones
- WECS Permits
- General Plan Amendments
- Specific Plan Amendments
- Public Use Permits
- Hazardous Waste Facility Siting Permits
- Revised Permits
- Grading Permits (not including grading permits for a secondary use)

- I. GENERAL BIOLOGICAL REPORTS will be required for Environmental Impact Reports (EIRs) only. All other cases will require Habitat Assessment Reports.

Contents—A General Biological Report will include:

- A. Date of site visit
- B. Assessor's Parcel Numbers (APNs, e.g. 125-125-125)
- C. Project Case Number (e.g. TR99999)
- D. Surveyor Name(s)
- E. Survey Date(s)
- F. Species observed list
- G. Topography/hydrology
- H. Current vegetation map
- I. Soils map
- J. Current site photographs
- K. Discussion of any Sensitive Habitats/Species on-site. In Western Riverside County any narrow plant endemics, criteria area plant species or any of the animal species not adequately covered by the MSHCP which are present on the site will need to be addressed

- L. Habitat Assessments required by Western Riverside County's MSHCP as identified by the Conservation Summary Report Generator www.rcip.org/conservation --and a habitat assessment for any riparian/riverine areas and vernal pools will need to be addressed in the EIR. Identification and mapping of these habitat types (see section 6.1.2 MSHCP) is required. Habitat assessments for riparian/riverine species if habitat exists on-site will need to be performed and focused surveys when habitat is available for those species will need to be performed and included in the EIR.
- M. Discussion of any conservation required on-site for the MSHCP (reference to Habitat Acquisition and Negotiation Strategy--HANS determination).
- N. Jurisdictional Assessment--any potential jurisdictional waters/wetlands on-site, if a delineation is necessary, this will need to be included in the EIR.
- O. All required County of Riverside attachments
- P. Discussion of direct, indirect and cumulative impacts per CEQA
- Q. A current site map of the proposed project
- R. All oak trees will be identified on vegetation maps, showing clearly their drip line. An oak tree study, with diameter at breast height and canopy measurements as well as health ratings will also need to be included in the text of the biological report
- S. County of Riverside required attachments for biological reports

II. HABITAT ASSESSMENT REPORTS required in all circumstances except EIRs--which require General Biological Reports (Section I above):

- A. A Habitat Assessment Reports includes, at a minimum a Habitat Assessment for river/riparian, wetland, vernal pool, sage scrub and or jurisdictional waters. As well as Habitat Assessments are required for those species identified on the Conservation Summary Report Generator at www.rcip.org/conservation for every Assessor Parcel Number (APN) that is included in the project. Habitat assessments will need to be conducted prior to project approval or earlier if project is in the criteria area.
 - i. Riparian/riverine areas and vernal pools will be identified/mapped and assessed for species composition, topography/hydrology and soils analysis
 - ii. If suitable habitat is identified on-site for species listed in Section 6.1.2 of the MSHCP document and if the proposed project design does not avoid the identified habitat, then focused surveys will be required prior to project approval.
 - iii. **When focused surveys are positive, avoidance and minimization measures must be implemented in accordance with the species-specific objectives for least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp and vernal pool fairy shrimp. If avoidance is not feasible, then a practical alternative that minimizes direct and indirect effects to these habitats and associated functions and values to the greatest extent possible must be implemented. If a practical alternative is selected a determination of biologically equivalent or superior preservation according to Section 6.1.2 of the MSHCP will be required. Such determinations are subject to a 60-day review by the Wildlife Agencies.**

- B. Habitat assessments will need to be performed by biologists deemed to be qualified to conduct habitat assessments for the species in question (as identified on the County of Riverside's list of qualified Environmental Consultants (<http://www.tlma.co.riverside.ca.us/planning/enviconsult.html>)).
- C. When appropriate habitat is available, a focused survey, conducted during the appropriate season, by a qualified biologist will be required prior to project approval, see Section III below.

Habitat Assessment Reports shall include, at a minimum:

- A. Site Photographs
- B. Assessor Parcel Numbers (APNs)
- C. Case Numbers (e.g. TR99999)
- D. Surveyor Name(s)
- E. Survey Date(s)
- F. Topography/Hydrology
- G. Soils analysis
- H. Species Observed list
- I. Current vegetation description, with vegetation map
- J. All oak trees will be identified on vegetation maps, showing clearly their drip line. An oak tree study, with diameter at breast height and canopy measurements as well as health ratings will also need to be included in the text of the biological report
- K. Proposed site plan or project design
- L. Jurisdictional assessment (i.e. if there are any potential jurisdictional waters/wetlands on-site)
- M. Assessment for any riparian/river areas and vernal pools—identification and mapping of these habitat types (see section 6.1.2 MSHCP Final). Habitat assessments for riparian/river species if habitat exists on-site. Focused surveys for those species will be required if habitat is available.
- N. Discussion of whether or not habitat is available on-site for all species identified on the Conservation Summary Report Generator and whether or not a focused survey is required
- O. All required County of Riverside attachments for biological reports

III. EXCEPTIONS—Habitat Assessments for river/riparian, wetland, vernal pool and or jurisdictional waters will NOT be required in the following cases (please note habitat assessments may still be required for some of the following exceptions, see below):

- A. The site is currently completely graded. Proof of permits for the grading/clearing of the site will need to be provided as well as site photographs. Please note that some habitat assessments may still be required on a graded site.
- B. The entire site is currently a residence and accompanying yard, which is composed of landscaped elements and is not being divided into multiple parcels. Site photographs will be required. This exemption does not apply to pastureland and/or agricultural uses, regardless of whether or not a residence is present.
- C. The entire site is currently a building and/or a parking lot with all vegetated areas being composed entirely of landscaped elements. Site photographs will be required.
- D. The entire site is currently completely in commercial use. This use encompasses the entire site and has disturbed the entire site (i.e. a lumber yard with all areas

currently in use). Site photographs will be required. Please note that burrowing owl habitat assessments may still be required.

Note: Projects on agricultural land must comply with all Habitat Assessment requirements.

All other cases not mentioned in this section must comply with all Habitat Assessment requirements. If you believe that your project should not have to comply with these requirements and it's not on the above list, please submit your exception request form to the Planning Director to determine if you are eligible. It is recommended this be done early in the entitlement process.

III. FOCUSED SURVEYS

If a qualified biologist has determined that habitat is available for those species that require additional studies pursuant to the MSHCP (see Sections 6.1.2, 6.1.3 and 6.3.2 of the MSHCP), then a focused survey will need to be conducted by a qualified biologist. Surveys following protocols set forth in Exhibit A attached shall be conducted and submitted for review prior to project approval or earlier if the project is within a criteria area.

When focused surveys are positive, avoidance and minimization measures must be implemented in accordance with the species-specific objectives for the species observed. If avoidance is not feasible, then a practical alternative that minimizes direct and indirect effects to these habitats and associated functions and values to the greatest extent possible must be implemented. If a practical alternative is selected a determination of biologically equivalent or superior preservation according to Section 6.1.2 of the MSHCP will be required. Such determinations are subject to a 60-day review by the Wildlife Agencies. If the species is identified on-site, the County Biologist(s) shall review the report and determine what additional MSHCP requirements must be complied with. Additional review by other County staff may be required. (Added from riparian/riverine comments above)

IV. JURISDICTIONAL DELINEATIONS

Jurisdictional delineations are required when a qualified biologist has determined through a habitat assessment that the site may contain jurisdictional elements (waters/wetlands) and that a formal delineation is required.

All jurisdictional elements will be mapped in the delineation and this will have an overlay of the proposed project (if available at the time of preparation applicants will provide their biological consultant with their current site plan or project design to show impacts to the jurisdictional areas.)

Delineations shall include, at a minimum:

- A. Site Photographs
- B. Assessor Parcel Numbers (APNs)
- C. Case Numbers (e.g. TR999999)
- D. Surveyor Name(s)
- E. Survey Date(s)
- F. Topography/Hydrology
- G. Soils analysis
- H. Species Observed list

- I. Current vegetation description, with vegetation map
- J. Proposed site plan or project design
- K. Prior to project approval, an assessment for any riparian/river areas and vernal pools—identification and mapping of these habitat types (see section 6.1.2 MSHCP) will be required. Focused surveys for those species in section 6.1.2, page 6-23, will be required prior to project approval if habitat is available. This information may be included in the jurisdictional delineation or in the Habitat Assessment Report, but the Habitat Assessment Report MUST specify if habitat is available for riparian/riverine species.
- L. Discussion of whether or not habitat is available on-site for all species identified on the Conservation Summary Report Generator and whether or not a focused survey is required
- M. All required County of Riverside attachments for biological reports

V. EXPIRATION OF BIOLOGICAL REPORTS

General Biological Reports and Habitat Assessment Reports may be required to be repeated.

Jurisdictional delineations are valid for five years from the last date of survey.

Generally, habitat assessments are good for one year from the last date of survey. As a rule, one survey is sufficient for plant species. However, for species with a known reliance on rainfall, surveys need to be conducted in years with at least normal rainfall and/or during the blooming period for the species (Refer to Exhibit A –1, MSHCP Plant Survey Requirements for Narrow Endemic and Criteria Area Species). The County biologist may require additional surveys if any survey requirements set forth in sections 6.1.2, 6.1.3 and 6.3.2 are not met.

SPECIES WITH ADDITIONAL SURVEY REQUIREMENTS

Of the 146 species (refer to table 2-2 in Volume 1, section 2 of the final MSHCP) covered by the MSHCP, no habitat assessments or surveys will be required by applicants for public and private projects for 106 of these covered species. Covered species for which surveys are required include:

4 birds:

- burrowing owl – *Athene cunicularia hypugaea* (c)
- least Bell's vireo – *Vireo bellii pusillus* (a)
- southwestern willow flycatcher – *Empidonax traillii extimus* (a)
- western yellow-billed cuckoo – *Coccyzus americanus occidentalis* (a)

3 mammals:

- Aguanga kangaroo rat – *Dipodomys merriami collinus* (c)
- Los Angeles pocket mouse – *Perognathus longimembris brevinasus* (c)
- San Bernardino kangaroo rat – *Dipodomys merriami parvus* (c)

3 amphibians:

- arroyo toad – *Bufo californicus* (c)
- California red-legged frog – *Rana aurora draytonii* (c)
- Mountain yellow-legged frog – *Rana mucosa* (c)

3 crustaceans:

- vernal pool fairy shrimp – *Branchinecta lynchi* (a)
- Santa Rosa Plateau fairy shrimp – *Linderiella santarosae* (a)
- Riverside fairy shrimp – *Streptocephalus woottoni* (a)

14 Narrow Endemic Plants:

- Brand's phacelia – *Phacelia stellaris* (b)
- California Orcutt grass – *Orcuttia californica* (b)
- Hammitt's clay-cress – *Sibaropsis hammittii* (b)
- Johnston's rockcress – *Arabis johnstonii* (b)
- Many-stemmed dudleya – *Dudleya multicaulis* (b)
- Munz's mariposa lily – *Calochortus palmeri* var. *munzii* (b)
- Munz's onion – *Allium munzii* (b)
- San Diego ambrosia – *Ambrosia pumila* (b)
- San Jacinto Mountains bedstraw – *Galium angustifolium* ssp. *jacinticum* (b)
- San Miguel savory (Santa Rosa Plateau, Steele Rock) – *Satureja chandleri* (b)
- Slender-horned spine flower – *Dodecahema leptoceras* (b)
- Spreading navarretia – *Navarretia fossalis* (b)
- Wright's trichocoronis – *Trichocoronis wrightii* var. *wrightii* (b)
- Yucaipa onion – *Allium marvinii* (b)

- (a) Surveys may be required for these species as part of riparian/riverine and vernal pool mapping as described in Section 6.1.2 of the MSHCP.
- (b) Habitat assessments and/or surveys are required for these species within Narrow Endemic Plant Species survey area as described in Section 6.1.3 of the MSHCP.
- (c) Habitat assessments and/or surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
- (d) Habitat assessments and/or surveys may be required for these species within the Criteria Area as described in Section 6.3.2 of the MSHCP.

13 other sensitive plants within the Criteria Area (see section 6.3.2):

- Coulter's goldfields – *Lasthenia glabrata* ssp. *coulteri* (d)
- Davidson's saltscale - *Atriplex serenana* var. *davidsonii* (d)
- heart-leaved pitcher sage – *Lepechinia cardiophylla* (d)
- little mousetail – *Myosurus minimus* (d)
- mud nama – *Nama stenocarpum* (d)
- Nevin's barberry – *Berberis nevinii* (d)
- Parish's brittlescale – *Atriplex parishii* (d)
- prostrate navarretia – *Navarretia prostrate* (d)
- round-leaved filaree – *Erodium macrophyllum* (d)
- San Jacinto Valley crownscale – *Atriplex coronata* var. *notatior* (d)
- Smooth tarplant – *Centromadia pungens* (d)
- Thread-leaved brodiaea – *Brodiaea filifolia* (d)
- Vail Lake ceanothus – *Ceanothus ophiochilus* (d)

Of these 40 species, survey area maps are provided for 34 species, and habitat assessments surveys may be undertaken within locations identified on these maps (refer to Figures 6-1, 6-2, 6-3, 6-4, and 6-5) in the MSHCP. The remaining six species are associated with riparian/riverine areas and vernal pools and include least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp (see section 6.1.2). Although there are no survey area maps for these six species, surveys for these species, if necessary, will be undertaken as described below.

As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas and vernal pools will be performed pursuant to the California Environmental Quality Act (CEQA) using available information augmented by project-specific mapping provided to and reviewed by the County's biologist (refer to specific reporting information necessary in Section 6.1.2). If the mapping required in Section 6.1.2 identifies suitable habitat for any of the six species listed above and the proposed project design does not incorporate avoidance of the identified habitat, focused surveys for these six species are required, and avoidance and minimization measures must be implemented in accordance with the species-specific objectives for these species (refer to table 9.2).

- (a) Surveys may be required for these species as part of riparian/riverine and vernal pool mapping as described in Section 6.1.2 of the MSHCP.
- (b) Habitat assessments and/or surveys are required for these species within Narrow Endemic Plant Species survey area as described in Section 6.1.3 of the MSHCP.
- (c) Habitat assessments and/or surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
- (d) Habitat assessments and/or surveys may be required for these species within the Criteria Area as described in Section 6.3.2 of the MSHCP.

Habitat Assessments

Prior to conducting focused surveys, habitat assessments may be undertaken by a biologist/botanist with expertise in the species of concern. In general, habitat assessments may be undertaken year-round, with the exception of certain vernal pool plant species. Habitat assessments must address the presence and distribution of the identified habitat for all species and soils for plant species surveyed on the project site. Additionally, the assessment shall include the date of the assessment; precipitation data for that year (if applicable), and a recommendation as to whether focused surveys are necessary. Upon completion of the habitat assessment, a report shall be submitted by the Applicant's biologist/botanist for review and approval by the County's biologist.

Avoidance and Minimization

The information developed as part of the process described above shall be used to identify population areas within the Criteria Area that should be made priorities for inclusion in the MSHCP Conservation Area. If such areas are identified, acquisition shall proceed in accordance with MSHCP requirements (HANS process.)

For Narrow Endemic Plant Species listed above and Riparian/Riverine Areas and Vernal pool species listed above, impacts to 90% of those portions of the property that **provide for long-term conservation** of the identified species shall be avoided, with the exception of the southwestern willow flycatcher and western yellow-billed cuckoo occupied habitat which requires 100% conservation. If it is determined that the 90% threshold is unfeasible, a Determination of Biologically Equivalent or Superior Preservation must be made and an analysis as described below shall be prepared.

The following information shall be included in the project findings (equivalency findings) to demonstrate that the 90% threshold has been met.

- Definition of the project area.
 - A written project description.
 - A written description of biological information available for the project site including the results of Narrow Endemic Plant Species surveys.
 - Quantification of unavoidable impacts to Narrow Endemic Plant Species associated with the project, including direct and indirect effects, documenting that the 90% threshold will be met.
 - A written description of project design features that reduce indirect effects, such as edge treatments, landscaping, elevation differences; minimization and/or compensation through restoration or enhancement.
 - A summary conclusion, including findings of consistency with the 90% threshold.
- (a) Surveys may be required for these species as part of riparian/riverine and vernal pool mapping as described in Section 6.1.2 of the MSHCP.
 - (b) Habitat assessments and/or surveys are required for these species within Narrow Endemic Plant Species survey area as described in Section 6.1.3 of the MSHCP.
 - (c) Habitat assessments and/or surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
 - (d) Habitat assessments and/or surveys may be required for these species within the Criteria Area as described in Section 6.3.2 of the MSHCP.

Determination of Biologically Equivalent or Superior Preservation

Determination of Biologically Equivalent or Superior Preservation may be made if making the 90% finding is determined to be infeasible. A Determination of Biologically Equivalent or Superior Preservation shall be based upon the criteria for findings of equivalency, as defined above, as well as an expanded written description of the project. The expanded project description shall include information demonstrating that although the proposed project would exceed the 10% impact threshold, it would result in an overall conservation design biologically equivalent or superior to that which would occur otherwise. Demonstration that the biologically equivalent or superior alternative would provide benefits with respect to MSHCP Conservation Area design and configuration should be considered in the context of the following factors:

- Effects on conserved Habitats supporting the Species to be impacted.
- Effects on the populations of the species to be impacted.
- Effects on Habitat Linkages and function of the MSHCP Conservation Area.

Prior to approval of Biologically Equivalent or Superior Preservation determinations, the Wildlife Agencies shall be notified of such determinations and be provided a 60-day review and response period.

- (a) Surveys may be required for these species as part of riparian/riverine and vernal pool mapping as described in Section 6.1.2 of the MSHCP.
- (b) Habitat assessments and/or surveys are required for these species within Narrow Endemic Plant Species survey area as described in Section 6.1.3 of the MSHCP.
- (c) Habitat assessments and/or surveys may be required for these species within locations shown on survey maps as described in Section 6.3.2 of the MSHCP.
- (d) Habitat assessments and/or surveys may be required for these species within the Criteria Area as described in Section 6.3.2 of the MSHCP.

Reference A-1 MSHCP Plant Survey Requirements for Narrow Endemic and Criteria Area Species

Plant Species	Normal Rainfall Year Required?	Habitat Assessment Requirements	Focused Survey Requirements
Brand's phacelia	Yes	Year-round	Blooming Period
*California Orcutt grass	Yes	Rainy Season	Blooming Period
*Coulter's goldfields	Yes	Rainy Season	Blooming Period
*Davidson's saltscale	Yes	Rainy Season	Blooming Period
Hammitt's clay-cress	Yes	Year-round	Blooming Period
Heart-leaved pitcher sage	No	Year-round	Year-round
Johnston's rockcress	No	Year-round	Year-round
*little mousetail	Yes	Rainy Season	Blooming Period
many-stemmed dudleya	Yes	Year-round	Blooming Period
mud nama	Yes	Year-round	Blooming Period
Munz's mariposa lily	Yes	Year-round	Blooming Period
Munz's onion	Yes	Year-round	Blooming Period
Nevin's barberry	No	Year-round	Year-round
*Parish's brittlescale	No	Rainy Season	Blooming Period
*prostrate navarretia	No	Rainy Season	Blooming Period
round-leaved filaree	Yes	Year-round	Blooming Period
*San Diego ambrosia	No	Rainy Season	Year-round
San Jacinto Mountain bedstraw	No	Year-round	Year-round
*San Jacinto valley crownscale	Yes	Rainy Season	Blooming Period
San Miguel savory	No	Year-round	Year-round
slender-horned spineflower	Yes	Year-round	Blooming Period
smooth tarplant	Yes	Year-round	Blooming Period
*spreading navarretia	Yes	Rainy Season	Blooming Period
*thread-leaved brodiaea	Yes	Rainy Season	Blooming Period
*Wright's trichocoronis	Yes	Rainy Season	Blooming Period
Vail lake ceanothus	No	Year-round	Year-round
Yucaipa onion	Yes	Year-round	Blooming Period

mshcp implementation guidance

Joint Project Review

The County and each City must consult with the RCA on any development action that occurs within MSHCP criteria area. Both public and private activities are subject to this review, known as Joint Project Review or JPR. JPR is required for all discretionary actions and some ministerial actions. Ministerial actions (subject to review) may differ from jurisdiction to jurisdiction.

In this section, you will see the types of information and forms that the County has developed to conduct JPR with the RCA. Included in this section are:

- (1) Examples of a Joint Project Review form for public projects;
- (2) Examples of a Joint Project Review form for private projects;
- (3) An overview of the County process with assistance on how it can be adapted for city use.

Each jurisdiction will be responsible for conducting its own JPR. The models presented here can be adapted for this purpose. RCA staff is available to assist in this effort.

Questions about this section may be referred to:

Julie Greene at (951)955-4641 or

Laurie Dobson-Correa (for public projects) at (951)955-2016

JOINT PROJECT REVIEW

Initial Project Review (Criteria Area Projects)

Step 1

Private – Submit project description, concept map, APN, application of MSHCP requirements within 14 days of receipt or no later than the time application deemed complete.

Public – submittal to RCA encouraged at pre-design stage for public infrastructure projects which may affect habitat connectivity

Step 2

Public and Private – RCA staff to prepare checklist of actions necessary to for the project to implement terms and conditions of MSHCP.

Step 3

Public and Private – IPR meeting with RCA staff held within 14 days of RCA receipt and prepare project comments. If no meeting is held RCA staff will prepare comments within 14 days of receipt and send to Permittee, applicant (if private) and Wildlife Agencies.

Step 4

Public and Private – Wildlife Agencies shall submit comments on project within 10 days of receipt.

Step 5

Public and Private – Permittees shall send RCA final project decision documents within 30 days of approval.

MSHCP Compliance Meet and Confer

Step 6 (if necessary)

RCA staff and Permittee (and applicant if private) shall meet with 30 days of Permittee receipt of RCA comments if project fails to meet Implementation Mechanisms, compromises viability of Conservation Area or otherwise fails to comply the MSHCP requirements.

Elected Officials Ad Hoc Committee

Step 7 (if necessary)

If outstanding issues are not resolved during Meet and Confer (Step 8) the matter will be submitted to the Ad Hoc Committee which will meet within 30 days of receipt. Permittees agree not to consider project approval until after Ad Hoc Committee meeting.

If Ad Hoc Committee is unable to reach mutually agreeable solution and the Permittee intends proceed with project, RCA staff will notify Wildlife Agencies within 14 days. Wildlife Agencies have the right to revoke or suspend all or portions of the Permits.

State Permittees

State Permittees shall submit project information for project within Criteria Areas, Additional Survey areas and when it may affect species associated with Riparian/Riverine areas, including vernal pools. Submittal shall occur during Project Identification Document preparation and shall include project description, concept/location map and application of MSHCP requirements.

State Permittees and Wildlife Agencies may schedule a meeting to discuss. RCA shall be invited.

Status Meetings shall be held between RCA staff and Wildlife Agencies a minimum of every 90 days for the first three years of the plan.

Criteria Refinement Process can be initiated by any Permittee by meeting with RCA staff and Wildlife Agencies, submitting a written description for RCA Board action after 60 day comment period.



Western Riverside County Regional Conservation Authority
A Joint Powers Authority

DRAFT

**RCA Joint Project/Acquisition Review Application
FOR PRIVATE PROJECTS**

The Initial Project Review Timeline does not start until the RCA receives this completed application as well as the following information from the Permittee. Incomplete applications will not be reviewed.

For RCA internal use only:	
Date Received:	JPR#: YR.MO.DAY.001
Application submittal complete: yes/no	
Date reviewed:	By:
Concur with findings: yes/no	
Sent to wildlife agencies: yes/no	Date sent:

Date: _____

Permittee name: _____

Address: _____

Contact name: _____

Email: _____

Phone #.: _____

Fax #: _____

Project Number/Name _____

APN # (s) _____

Project Description:

Was a HANS review conducted on this project?

Was this project determined to be in compliance with the MSHCP conservation criteria?

JPR Submittal Requirements (Hardcopy and PDF/Electronic Versions)

1. Completed copy of HANS Application as received by Permittee.
2. Applicant / Developer Exhibit of proposed project (including all APNs)
3. Copies of any relevant Species Surveys Documents and Maps
4. Document (Word or PDF) of the HANS Review Results.
 - a. Meeting Date
 - b. List of Participants
 - c. Proposed Project Summary
 - d. Discussion of Criteria Cells affected and project impact on cells.
 - e. Conservation Requirements and description of how they contribute to Plan implementation and Reserve Assembly.
 - f. Checklist of actions necessary for the project to implement the terms and conditions of the MSHCP.
5. Exhibit Map (PDF and ESRI shape files) detailing project boundary, areas to be conserved and areas to be developed.

Note requirement as part of IPR that RCA staff complete a check list of action necessary for the project implement the terms and conditions of the MSHCP, including requirements for protection of wetland Habitats and Narrow Endemic Plant Species and all applicable survey requirements.

From the IPR RCA creates comments

RCA comments that address the projects compliance with the MSHCP.

(Within 14 days of IPR meeting they must be)

Transmit to: appropriate Permittee, private project applicant (if applicable) and the Wildlife Agencies.

Wildlife Agencies then shall submit any comments in response to the RCA's comments within ten (10) days of receipt. The Wildlife Agencies' comments, if any shall be sent to the RCA and appropriate Permittee. The Permittees shall send to the RCA the final decision documents.

For Wildlife Agencies use only

Concur with findings: yes/no

Comments:

**WESTERN RIVERSIDE MSHCP CHECKLIST
PUBLIC PROJECTS OUTSIDE CRITERIA AREAS**

DATE: _____

PERMITTEE: _____

PROJECT NAME: _____

PROJECT DESCRIPTION: _____

CONTACT PERSON: _____

A IS THE PROJECT A COVERED ACTIVITY? (SEE SEC. 7.0 of MSHCP)

YES NO List Section and page # _____

B PLAN WIDE SURVEYS

1. Does all or part of the project fall within Narrow Endemic survey area? (Fig. 6-1, Table 6-1 of MSHCP) YES NO

Area 1 Area 2 Area 3 Area 4 Area 5 Area 6 Area 7 Area 8 Area 9

a. Is the habitat in footprint suitable? YES NO NA

Survey required if habitat suitable within mapped survey area.

Habitat assessment/Survey attached? _____

2. Does the project support Riverine/Riparian habitat or vernal pools? YES NO

a. If yes, is the habitat or vernal pool avoided? YES NO

If no, must be mapped and functions and values assessed if property considered a priority acquisition for MSHCP or may affect downstream values to Covered Species in Conservation Area.

b. If suitable habitat for LBV, SWF, or WYC identified, must conduct protocol survey.

Wetland Delineation/Survey attached? _____

3. Does the Project fall within Burrowing Owl Survey Area? (Fig. 6-4) YES NO

a. Is there suitable habitat? YES NO

Survey required within mapped areas if habitat suitable.

Habitat assessment/Survey attached? _____

- Conservation standard: 90% avoidance of property that provides long term conservation value until RCA makes Finding of Equivalency demonstrating species goals have been met or Determination of Biologically Equivalent or Superior Preservation has been made.

C. URBAN/WILDLANDS INTERFACE

Demonstrate compliance as needed when Conservations lands boundaries are known. Refer to Sec. 6.1.4

- Drainage _____
- Toxics _____
- Lighting _____
- Noise _____
- Invasives _____

4. Vegetation Mapping

List acres of impact by habitat type (See Figure 6-6 for Rough Step Analysis Unit No.)

Unit No. _____ Map attached? Yes No

- Coastal Sage Scrub acres _____
- Desert Scrub acres _____
- Grasslands acres _____
- Riparian Scrub, Woodland, Forest _____
- Riversidean Alluvial Fan Sage Scrub _____
- Woodland and Forests acres _____
- Playas and Vernal Pools acres _____

E COVERED ACTIVITIES IN CRITERIA AREAS OR PUBLIC/QUASI-PUBLIC LANDS

NA (Applies to roads only)

7.5.1 Siting and Design – List any required siting and design guidance implemented on project

7.5.2 Wildlife Crossings – List any required wildlife crossing provisions incorporated into project

7.5.3 Construction – List any required construction guidelines to be implemented

Appendix C/Best Management Practices – List any required BMPS to be implemented

F MITIGATION

- Transportation Infrastructure - mitigation provided by payments from transportations funds to RCA
- Public Facilities (other than roads, utilities as Participating Special Entities) payment of Development Mitigation Fee (commercial/industrial per acre fee)
- Flood Control – 3% of capitol costs, may be offset by replacement or creation of Habitat
- Parks – 1:1 replacement habitat and/or payment of Development Mitigation (commercial/industrial per acre fee)
- Waste – landfill tipping fees
- Public infrastructure in PQP lands (other than roads) – purchase and dedication of Conservation Area lands at no less than 1:1

**WESTERN RIVERSIDE MSHCP JOINT PROJECT REVIEW
PUBLIC PROJECTS**

DATE: _____

PERMITTEE: _____

PROJECT NAME: _____

PROJECT DESCRIPTION: _____

CONTACT PERSON: _____

A IS THE PROJECT A COVERED ACTIVITY? (SEE SEC. 7.0 of MSHCP)

YES NO List Section and page # _____

B PLAN WIDE SURVEYS

1. Does all or part of the project fall within Narrow Endemic survey area? (Fig. 6-1, Table 6-1 of MSHCP) YES NO

Area 1 Area 2 Area 3 Area 4 Area 5 Area 6 Area 7 Area 8 Area 9

a. Is the habitat in footprint suitable? YES NO NA

Survey required if habitat suitable within mapped survey area.

Habitat assessment/Survey attached? _____

2. Does the project support Riverine/Riparian habitat or vernal pools? YES NO

a. If yes, is the habitat or vernal pool avoided? YES NO

If no, must be mapped and functions and values assessed if property considered a priority acquisition for MSHCP or may affect downstream values to Covered Species in Conservation Area.

b. If suitable habitat for LBV, SWF, or WYC identified, must conduct protocol survey.

Wetland Delineation/Survey attached? _____

3. Does the Project fall within Burrowing Owl Survey Area? (Fig. 6-4) YES NO

a. Is there suitable habitat? YES NO

Survey required within mapped areas if habitat suitable.

Habitat assessment/Survey attached? _____

- Conservation standard: 90% avoidance of property that provides long term conservation value until RCA makes Finding of Equivalency demonstrating species goals have been met or Determination of Biologically Equivalent or Superior Preservation has been made.

C. URBAN/WILDLANDS INTERFACE

Demonstrate compliance as needed when Conservations lands boundaries are known. Refer to Sec. 6.1.4

- Drainage _____
- Toxics _____
- Lighting _____
- Noise _____
- Invasives _____

D CRITERIA AREA SURVEYS

Is the Project in or partially in a Criteria Area? (See Fig. 3-4 thru 3-35 or Criteria Cells layer on sde in Arcview) YES NO List Cell #s _____

SUBMITTAL TO RCA FOR JOINT PROJECT REVIEW REQUIRED FOR PROJECTS IN CRITERIA AREAS.

SURVEYS

1. Does the Project fall within Criteria Area Plant Survey area? (Fig. 6-2) YES NO

Area 1 Area 2 Area 3 Area 4 Area 5 Area 6 Area 7 Area 8

a. If YES, is the habitat suitable? YES NO NA

Survey required if suitable habitat present in mapped survey areas.

Habitat assessment/Survey attached? _____

- Conservation standard: 90% avoidance of property that provides long term conservation value until RCA makes Finding of Equivalency demonstrating species goals have been met or Determination of Biologically Equivalent or Superior Preservation has been made.

2. Does the Project fall within Criteria Area Amphibian Survey Area? (Fig. 6-3) YES NO

If yes, survey required.

Survey attached? _____

- Conservation standard: 90% avoidance of property that provides long term conservation value until RCA makes Finding of Equivalency demonstrating species goals have been met or Determination of Biologically Equivalent or Superior Preservation has been made.

3. Does the Project fall within Criteria Area Mammal Survey Area? (Fig. 6-5) YES NO

If yes, survey required.

Survey attached? _____

- Conservation standard: 90% avoidance of property that provides long term conservation value until RCA makes Finding of Equivalency demonstrating species goals have been met or Determination of Biologically Equivalent or Superior Preservation has been made.

4. Vegetation Mapping

List acres of impact by habitat type (See Figure 6-6 for Rough Step Analysis Unit No.)

Unit No. _____ Map attached? Yes No

Coastal Sage Scrub acres _____

Desert Scrub acres _____

Grasslands acres _____

Riparian Scrub, Woodland, Forest _____

Riversidean Alluvial Fan Sage Scrub _____

Woodland and Forests acres _____

Playas and Vernal Pools acres _____

E COVERED ACTIVITIES IN CRITERIA AREAS OR PUBLIC/QUASI-PUBLIC LANDS

NA (Applies to roads only)

7.5.1 Siting and Design – List any required siting and design guidance implemented on project

7.5.2 Wildlife Crossings – List any required wildlife crossing provisions incorporated into project

7.5.3 Construction – List any required construction guidelines to be implemented

Appendix C/Best Management Practices – List any required BMPS to be implemented

F MITIGATION

Transportation Infrastructure - mitigation provided by payments from transportations funds to RCA

Public Facilities (other than roads, utilities as Participating Special Entities) payment of Development Mitigation Fee (commercial/industrial per acre fee)

Flood Control – 3% of capitol costs, may be offset by replacement or creation of Habitat

Parks – 1:1 replacement habitat and/or payment of Development Mitigation (commercial/industrial per acre fee)

Waste – landfill tipping fees

Public infrastructure in PQP lands (other than roads) – purchase and dedication of Conservation Area lands at no less than 1:1

mshcp implementation guidance

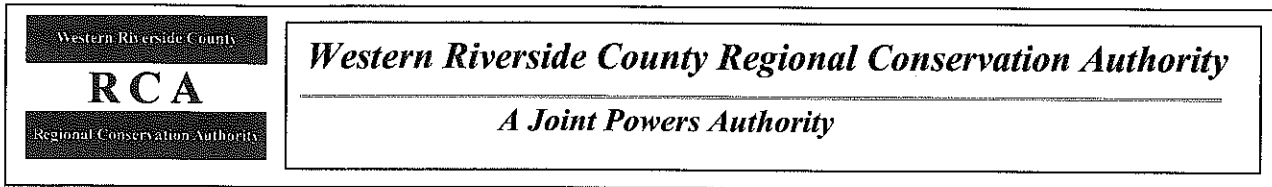
MSHCP Reporting Requirements

As Permittees, the County and each City will be responsible for tracking various types of activities and information associated with MSHCP implementation. Each jurisdiction is also responsible for reporting this information on a periodic basis to the RCA. This section identifies the types of information that must be tracked and reported during the life of the MSHCP permit, including:

- (1) Habitat lost and conserved within jurisdictional boundaries;
- (2) Certain monitoring surveys and results; and
- (3) Information about fee collections.

The information in this section is not a comprehensive treatise on reporting requirements, but rather contains a summary of each jurisdiction's responsibilities. The RCA is currently developing guidelines on preparing and submitting reports. As this information becomes available, each jurisdiction will receive updates and assistance.

Questions about this section may be referred to:
Pat Egetter, Information Technology Officer at (951)955-6867



PRELIMINARY DRAFT
RCA, County, Cities MSHCP / Permit Reporting Requirements
MSHCP Implementing Agreement

Date: 07/14/2004

This document represents an attempt to quantify and list some of the annual reporting requirements of the RCA, County and Cities under the permit.

Reporting Requirements

Each jurisdiction needs to provide to the RCA no later than September 1, 2004 a copy of the ordinance or resolution that the jurisdiction has adopted to establish the Local Development Mitigation Fee. (Exhibit G)

Each jurisdiction needs to provide to the RCA no later than September 1, 2004 a copy of the resolution or ordinance that the jurisdiction has adopted to establish the procedures and requirements for implementation of the Western Riverside County Multiple Species Habitat Conservation Plan. (Exhibit H or I)

Implementation Agreement - Exhibits G, H and I

Implementation Agreement - Annual Reporting.

The County and the Cities as required by section 10.1 of the Implementing Agreement will need to provide to the RCA for inclusion into the RCA's Annual Report the following information:

Implementing Agreement 10.1 Pg 22. Subsections A – I

- A.** Documentation of Reserve Assembly activities in relationship to the Rough Step formulas presented in Section 6.7 of the Plan.
 - Cities and County - On a monthly or quarterly basis reports to RCA all development projects within its jurisdiction.
 - RCA – RMOC will compile all information from a variety of sources for the annual report to the Wildlife Agencies.

- B.** Documentation of the total habitat area lost and conserved throughout the Plan Area during the reporting period, consistent with "HabiTrak" methodology.
 - Cities, County – On a monthly or quarterly basis reports to RCA all development projects within its jurisdiction with losses and gains.
 - RCA – Compiles all information and reports to Wildlife Agencies.

- C.** Documentation of single-family and mobile home activity within the Criteria Area for the preceding year and cumulatively occurring under the expedited review process for these activities set forth in Section 6.1 of the MSHCP
 - Cities, County – On a monthly or quarterly basis reports to RCA all activities and projects within its jurisdiction of this type.

- RCA – Compiles all information and reports to Wildlife Agencies.
- D.** Documentation of clerical and Minor Amendments approved for the preceding year in accordance with the procedures described in Section 6.10 of the MSHCP.
- Cities, County – Reports on these items will be handled on a as needed basis when identified or as needed.
 - RCA – Compiles all information and reports to Wildlife Agencies.
- E.** Documentation of ongoing management and monitoring activities identifying issues of concern and proposed remedies/actions.
- Cities, County – Reports on these items will be handled on a as needed basis when they are identified as an issue.
 - RCA – Compiles, develops all information and reports to Wildlife Agencies
- F.** Documentation regarding the collection of Local Development Mitigation Fees by jurisdiction and amount.
- Cities, County – Transmits fees collected and other appropriate fees and associated interest to RCA at least quarterly.
 - RCA – Compiles, summarizes all information and reports to Wildlife Agencies.
- G.** Information contained in the Existing Agricultural Operations Database, as described in Section 6.2 of the MSHCP, including the amount of New Agricultural Land, if any, added to the database.
- Cities – no reporting requirements.
 - County – Agricultural Commissioner maintains database, reports information/updates to RCA.
 - RCA – Compiles, summarizes all information and reports to Wildlife Agencies.
- H.** Documentation of new or expanded Agricultural Operations within the Criteria Area for the preceding year and cumulatively occurring under the processes identified in Section 6.2 of the MSHCP.
- Cities – no reporting requirements.
 - County – Agricultural Commissioner maintains documentation and process, reports information/updates to RCA.
 - RCA – Compiles, summarizes all information and reports to Wildlife Agencies.
- I.** A map reflecting the location of any New Agricultural Lands, as required by Section 6.2 of the MSHCP.
- Cities – no reporting requirements.
 - County – Agricultural Commissioner and GIS develops maps for RCA.
 - RCA – Compiles, summarizes all information and reports to Wildlife Agencies.

mshcp implementation guidance

MSHCP Fee Implementation

The MSHCP Implementing Agreement and Joint Powers Agreement establishing the RCA require that the County and Cities impose and collect a local development mitigation fee. Each jurisdiction is responsible for collecting fees and transmitting them at least quarterly to the RCA (preferably monthly.)

In this section, you will see how the County of Riverside has handled this aspect of MSHCP implementation. Included in this section are:

- (1) A copy of the County's authorizing resolution to collect fees;
- (2) Instructions on how to remit fees to the RCA; and
- (3) An example of the form that the RCA has developed for remitting fees;

The information in this section is intended to assist jurisdictions in developing their own fee collection and remittance procedures. RCA staff is ready and available to assist in this effort.

Questions about this section may be referred to:
Greg Neal, Administrative Manager at (951)955-3266

REMITTANCE INSTRUCTIONS

As a permittee in the MSHCP, local jurisdictions are obligated to collect the local development mitigation fee. These fees must be remitted to the Regional Conservation Authority at a minimum on a quarterly basis, although funds are encouraged to be remitted on a monthly basis. Funds should be transmitted to the RCA General Manager at the following address:

RCA General Manager
4080 Lemon Street, 12th floor
P.O. Box 1605
Riverside, CA 92502-1605

The Remittance Form is to be completed and accompany any and all funds transmitted to the RCA General Manager. Please see the attached Remittance Form for the following data inputs:

Fee Category

There are five fee categories: Residential, less than 8 d.u. per acre; Residential 8.1 to 14 d.u. per acre; Residential, greater than 14.1 d.u. per acre; Commercial; and Industrial.

Units / Acres

For the residential categories, enter the total number of dwelling units paying the MSHCP fee. For non-residential projects, enter the total acreage amounts for which the fee was paid. If there is a residential or non-residential project that is paying a different fee (variance) than what is identified in the ordinance, a separate entry must be input into this data field for each variance.

Variance Amount

If there is a Credit Agreement or other recognized legitimate mechanism that reduces the amount of the adopted fees, enter the total amount of the variance. A separate entry must be input into this data field for each variance.

Fee Amount

Enter the total fees paid by fee category

Total Fees

This is equal to the unadjusted total fees paid (Fee Amount + Variance Amount).

Less Credits

Enter the sum of all credits (Attach list of pertinent credit agreements).

Total Remitted

Enter the sum of all fees remitted to the RCA.

MSHCP Fee Ordinance Implementation Resolution

As indicated in the fee ordinances adopted by the County and most of the cities, a reference is made to a separate resolution that is to be adopted which establishes procedures and responsibilities for the MSHCP fee program. A draft of this resolution was distributed in the past to the WRCOG Planning Director's TAC. The Planning Directors reviewed and recommended changes that were subsequently incorporated into the document.

Attached is the final fee implementation resolution that was adopted by the County on July 13, 2004. This resolution should be used as the model for resolutions to be adopted by the participating cities.

Since the MSHCP is a dynamic program with the need for additional rules, procedures and clarifications arising in the future, it is envisioned that this fee implementation resolution will ultimately undergo changes which will require the participants to adopt amended resolutions. Any recommended changes will be processed through the RCA committee structure and approved by the RCA Board prior to adoption by the participating cities and the County.

**Remittance Form for the
Western Riverside County MSHCP Mitigation Fee Program**



MSHCP MITIGATION FEE
REMITTANCE REPORT

REPORTING PERIOD: _____
REPORTING JURISDICTION: _____

FEE CATEGORY	# UNITS	ACRES	VARIANCE AMOUNT	FEE AMOUNT

Under penalty of perjury, I certify the above is true and accurate accounting of MSHCP fees for this reporting period.

	\$
	\$
	\$

TOTAL FEES

Prepared By: _____ (Name and Title) (Include Phone #)

LESS: CREDITS / EXEMPTIONS

TOTAL REMITTED

Approved By: _____ (Name and Title) (Include Phone #)

RESOLUTION NO. 2004-223

ESTABLISHING PROCEDURES AND RESPONSIBILITIES

**RELATED TO THE WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT
CONSERVATION PLAN MITIGATION FEE PROGRAM**

WHEREAS, the Board of Supervisors on July 15, 2003 adopted Ordinance No. 810.2 establishing a mitigation fee (Fee) in order to implement the goals and objectives of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); and

WHEREAS, Section 5 of Ordinance No. 810 provides that administrative procedures and responsibilities for the Fee program supplementing Ordinance No. 810 will be described in a resolution adopted by the Board of Supervisors.

NOW, THEREFORE BE IT RESOLVED by the Board of Supervisors of the County of Riverside, State of California, in regular session assembled on July 13, 2004, that the following procedures and responsibilities concerning implementation of the Fee program are hereby established:

1. This resolution shall take the place of Resolution No. 2002-100 adopted by the Board on March 19, 2002 and supplement Ordinance No. 810, now known as the Western Riverside County Multiple Species-Habitat-Conservation Plan-Mitigation Fee Ordinance ("Ordinance"), and all procedures and responsibilities described herein are intended to provide further guidance and clarification concerning the requirements of this Ordinance. In the event of any conflict between this resolution and the Ordinance, the Ordinance shall control. The definitions of terms set forth in the Ordinance shall be applicable to this resolution.

2. Administrative responsibilities for the Fee shall be as follows:

a. The County Executive Officer shall:

i. Serve as chief administrator for the Fee program.

1 ii. Provide general oversight of the Fee collection process, including
2 insuring accuracy and accountability in all elements of the Fee collection process.

3 iii. Establish and maintain a Fee trust fund for the purpose of depositing
4 Fee monies and any income interest earned from monies on deposit in the Fee trust
5 fund.

6 iv. Prepare an annual report no later than December 27 of each year which
7 includes:

8 1. a brief description of the Fee;

9 2. the amount of the Fee;

10 3. the beginning and ending balance of the Fee trust fund;

11 4. the amount of Fees collected and the interest earned during the
12 previous year for monies deposited in the Fee trust fund;

13 5. the amount of Fees transferred to the Western Riverside County
14 Regional Conservation Authority (RCA) implementing the MSHCP;

15 6. the amount of any refunds dispersed; and

16 7. the amount of any Credits given.

17 b. The Director of the Department of Building and Safety shall insure that the Fee
18 is properly collected prior to the issuance of Certificates of Occupancy and/or Final
19 Inspection for all buildings permits issued as required by Ordinance No. 810.

20 3. Operational procedures for the implementation of Ordinance No. 810:

21 a. Any existing commercial and industrial buildings and corresponding parking
22 and landscaping shall not be included when determining the amount of the Fee to be paid.
23 The Fee shall be paid only on that gross acreage of the project site that was previously
24 vacant and built subsequent to the effective date of Ordinance No. 810 when it was
25
26
27
28

1 first adopted on March 13, 2001.

2 b. If a commercial or industrial development was partially under construction at
3 the time of the effective date of Ordinance No. 810 when it was first adopted on March 13,
4 2001, the Fee shall be paid only on the area of the building footprint and corresponding
5 parking and landscaping for those building permits issued subsequent to the
6 aforementioned effective date. The issuance of a "foundation only" permit does not
7 constitute partial construction of a commercial or industrial development. After the
8 aforementioned effective date, any building permit issued subsequent to the "foundation
9 only" permit shall be subject to the payment of the Fee pursuant to the Ordinance.
10

11 c. Phasing of the payment of the Fee for commercial and industrial development
12 projects is permitted, if a development phasing plan has been approved by the Planning
13 Department as part of the applicant's development plot plan. The area calculations for
14 each phase, which shall be used for determining the amount of Fee required to be paid for
15 each phase must be determined separately and included as part of the conditions of
16 approval for the project. The Fee for each phase shall be paid prior to the first Final
17 Inspection or Certificate of Occupancy issued for any building constructed within a phase
18 of the development project.
19

20 d. The expansion of an existing legal non-conforming use permitted pursuant to
21 Section 18.8 of Ordinance No. 348 shall not be subject to the payment of the Fee.
22

23 e. The Fee shall not apply when converting from an existing use to another similar
24 use as long as there is no change in the intensity or category of use. For example, the Fee
25 shall not apply to a project that changes from one commercial use to another commercial
26 use affecting the same amount of acreage. In the case of a change of use from one
27 category to another, for example, from a residential use to a commercial use, a Credit
28

1 amount equal to the current Fee for the existing use can be applied towards the new fee
2 calculation. In this situation, the current per unit fee amount for any existing unit or units
3 can be reduced from the amount of the fee calculated for the commercial acreage in the
4 following manner:

5 Existing single family home on 1 acre of land to be converted to commercial use

6
7 1 acre x \$5620 per acre = \$5620 – 1 unit x \$1651 = \$3969 (amount of Fee due)

8
9 f. In no case shall an exemption apply or any fee credit be given if the property
10 has been vacant longer than 3 years. For purposes of this section, vacant shall mean raw
11 land without buildings or structures.

12
13
14 4. Credits: The County may grant to applicants a Credit against the Fee for the dedication of
15 property determined to be necessary for inclusion in the MSHCP Conservation Area. Land which
16 remains in open space due to environmental factors, such as topography, access, flooding, or other
17 reasons, shall not be eligible for a Credit. Additionally, land required to be dedicated pursuant to
18 Section 7 or Section 10(a) of the federal Endangered Species Act and which is determined to be
19 necessary for inclusion in the MSHCP Conservation Area may be eligible for a Credit. The
20 dedication of property must occur prior to, or simultaneously with, any Credit received under
21 Ordinance No. 810.

22
23 Applicants requesting formal consideration of Credit applicability shall submit a complete
24 legal description of the property proposed for dedication along with a Preliminary Title Report to
25 the Executive Officer, or his/her designee. The property should be free of any deed restrictions or
26 other encumbrances or rights that would, if exercised, reduce the natural resource values of the
27 land or result in taxation or assessment under Community Facilities Districts, Assessment
28

1 Districts, Community Services Districts, or other mechanisms.

2 If it is determined that a Credit may be appropriate, the County will cause to have prepared
3 a fair market appraisal and a phase I environmental assessment for hazardous materials for the
4 subject property. In addition, the procedures set forth in Section 6.1.1 of the MSHCP shall be
5 complied with. Any real property identified in the phase I environmental assessment, or any
6 further necessary assessment report, as containing hazardous substances or trash and other debris,
7 will not be accepted unless such materials are removed and the land is certified as free of
8 contaminants prior to the property conveyance.

9
10 Upon the determination that the property is acceptable for dedication, a Credit agreement
11 shall be prepared and recorded concurrently with the transfer of title of the dedicated property. At
12 a minimum, the Credit agreement shall contain the following:

- 13 a. The complete legal description of the property to be dedicated.
- 14 b. The development entitlements (Tract Maps, Specific Plans, ect.) which will be
15 receiving the Credit.
- 16 c. The total number of residential lots and/or commercial/industrial acres, by
17 development entitlement, on which the Credit amount was calculated.
- 18 d. The specific dollar amount Credit per residential unit and/or the specific dollar
19 amount Credit per acre for commercial/industrial projects.
- 20 e. The Credit agreement shall expire and no further Credits shall be given upon the
21 expiration of the development entitlements named in the Credit agreement.
- 22 f. No transfer of Credits may occur to a different development entitlement without a
23 re-negotiation of the potential Credits and an amendment to the Credit agreement.
- 24
- 25
- 26
- 27
- 28

Implementation of the recorded Credit agreement shall be through the attachment of
conditions of approval on the subject development entitlements. All Credit agreements

1 shall be agendized for consideration by the Board of Supervisors prior to the recordation of
2 the final Credit agreement.

3 5. Fee adjustments, as contemplated by Section 13 of the Ordinance, shall be determined
4 by the County Executive Officer, or his/her designee, in cooperation with the RCA, and scheduled
5 for consideration by the Board of Supervisors no later than December 27 of each year. The
6 County Executive Officer, or his/her designee, shall insure that the current fee schedule is made
7 available to the public upon request.
8

9 6. The County Executive Officer, or his designee, shall prepare detailed procedures of the
10 duties and responsibilities of each County staff member necessary to implement Ordinance No.
11 810. Such procedures shall include those duties related to the identification, calculation,
12 collection, and accounting of Fee revenues. Accounting of Fee revenues shall be performed in
13 accordance with state law and County of Riverside policies and procedures.
14

15 7. Payment of the Fee shall be made by cash, check or other County approved method of
16 payment, which shall be made payable to the County of Riverside. The person providing payment
17 shall be issued an official County receipt as proof of payment. Each receipt shall include a
18 reference to the property address, development case number (i.e. tract map [including specific lot
19 numbers], parcel map [including specific lot numbers], CUP or plot plan number), payor's name
20 and address, and any other pertinent information.
21

22 8. The County Executive Officer, or his/her designee, shall coordinate all negotiations
23 with cities pertaining to Fee revenues affected by incorporations and annexations of
24 unincorporated County territory.

25 9. Land subject to or covered by a development agreement or vesting subdivision map
26 may not be subject to payment of the Fee. Whether or not such lands shall be subject to payment
27 of the Fee shall be determined on a case by case basis upon review of the applicable
28

1 development agreement or vesting subdivision map by the County Executive Officer, or his/her
2 designee.

3 10. In a limited number of circumstances, prior to the issuance of the state and federal take
4 permits for the MSHCP, certain development projects may have been required to provide
5 mitigation either on site or off site of the development project. The mitigation provided by these
6 projects may contribute towards the goals and objectives of the MSHCP. In recognition of the
7 effort to individually provide mitigation which benefits the MSHCP prior to its implementation, an
8 expedited credit agreement process shall apply to projects meeting the following criteria:
9

10 a. Prior the effective date of Ordinance No. 810.2, the development project has been issued
11 an environmental permit from a state or federal agency (for example, Section 10(a) Permit
12 or a Section 404 Permit pursuant to the Clean Water Act) which include a requirement to
13 conserve certain lands necessary to comply with such permits; and
14

15 b. The lands conserved through such environmental permits are within the Criteria Area
16 established by the MSHCP or can be demonstrated as having made a contribution towards
17 accomplishing the goals and objectives of the MSHCP.

18 In the event a development project can meet this criteria, the Credit agreement process described
19 in Section 4 of this Resolution shall be modified to the following extent:
20

21 I. The County shall review and make a final determination as to whether Credit may be
22 obtained within 30 days of the applicant submitting all necessary documentation as may be
23 determined by the County in its sole discretion.

24 II. The fair market value for any land dedicated for conservation shall be determined
25 through any existing appraisals, a review of similar properties in escrow or properties with signed
26 purchase agreements, and any other property comparisons determined to be appropriate by the
27 County in its sole discretion.
28

1 III. Land already purchased in a recognized conservation land bank (see Section 4.6 of the
2 MSHCP) shall be credited the full amount of the purchase price. Written documentation
3 confirming the purchase price received by the bank operator and the corresponding recorded
4 conservation easement shall be provided by the applicant as well as any additional information that
5 may be necessary as determined by the County in its sole discretion.
6

7 IV. Should an applicant disagree with the determination of land value and/or the amount
8 of any available fee credit, an appeal may be filed with the Board of Supervisors for their review
9 and consideration.

10 11. For purposes of implementing the terms of that certain settlement agreement
11 entered into by the County with the Riverside County Farm Bureau in May of 2004, the following
12 provisions shall apply to the imposition of the Fee established by Ordinance No. 810:
13

14 a. With respect to agricultural operations, the Fee shall only be imposed in
15 connection with the issuance of a building permit for the new construction of commercial uses on
16 agricultural properties. The Fee for the new construction of commercial uses on agricultural
17 properties shall be calculated based on the area impacted as established by the boundaries of the
18 approved plot plan, conditional use permit and/or grading permit. This may not include the entire
19 acreage of the applicant's property.

20 b. Residential homes in rural and agricultural zoning classifications shall pay the
21 applicable Fee for residential development.
22

23 c. Credit against the Fee for new projects on property shall be provided for the full
24 amount of any Fee previously paid pursuant to Ordinance No. 810 on the same property.

25 12. Resolution No. 2002-100 is hereby rescinded.

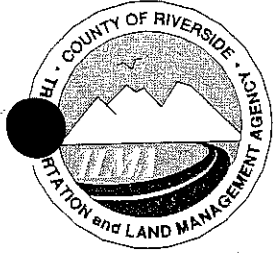
26 G:\Property\KWATTSBARESOLUTION.mitigation fee.doc
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mshcp implementation guidance

Appendix A: Permit Acknowledgement Form

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Richard K. Lashbrook
Agency Director



James J. Miller
Director



George A. Johnson, P.E.
Director



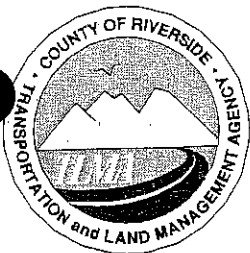
Robert Johnson
Director

NOTICE REGARDING MSHCP PERMIT ACKNOWLEDGMENT FORM

The Section 10(a) Permit (incidental take permit authorizing take of federally listed threatened and endangered species) for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), was issued by the U.S. Fish and Wildlife Service on June 22, 2004.

A requirement of the Section 10(a) Permit (See Condition No. 26) is that applicants for grading permits (third parties under the County's direct control) have a copy of the Section 10(a) permit in their possession. This is the **only** reason you are being required to sign this Acknowledgement Form. All other remaining conditions are not applicable to you.

Effective June 23, 2004 all grading permits (except those for precise grading only) must have a copy of the executed Acknowledgement Form attached.



COUNTY OF RIVERSIDE
TRANSPORTATION AND LAND MANAGEMENT AGENCY

WESTERN RIVERSIDE COUNTY
MULTI-SPECIES HABITAT CONSERVATION PLAN

INCIDENTAL TAKE PERMIT TE-088609-0
ACKNOWLEDGMENT FORM

I am the applicant or authorized agent for Grading Permit Number _____ . I acknowledge that I have received a copy of the attached Section 10(a) Permit and specifically acknowledge that I have read Condition No. 26 of said Permit.

Applicant / Authorized Agent

Condition No.: 26

“ A copy of this Permit must be in on file in the possession of the Permittees, and Third Parties under their direct control, while conducting taking activities. Please refer to the Permit number in all correspondence and reports concerning Permit activities. Any questions you may have about this Permit should be directed to the Field Supervisor, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Carlsbad, California 92008, telephone: 760-431-9440.”

mshcp implementation guidance

Appendix B: Federal MSHCP Permit



DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

3-201
D/FD

FEDERAL FISH AND WILDLIFE PERMIT

1. PERMITTEE

WESTERN RIVERSIDE COUNTY MSHCP PERMITTEES
(SEE ATTACHMENT A)

2. AUTHORITY-STATUTES

16 USC 1539(a)
16 USC 1533(d)
16 USC 703-712
16 USC 668-668(d)

REGULATIONS (Attached)

50 CFR 17.22
50 CFR 17.32
50 CFR 21.23 & 21.27
50 CFR 13

3. NUMBER

TE088609-0

4. RENEWABLE

YES
 NO

5. MAY COPY

YES
 NO

6. EFFECTIVE

6/22/2004

7. EXPIRES

6/22/2079

8. NAME AND TITLE OF PRINCIPAL OFFICER (If not to be business)
SEE ATTACHMENT A

9. TYPE OF PERMIT
THREATENED AND ENDANGERED SPECIES

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED

Western Riverside County, California: within the MSHCP Plan Area as depicted on maps and described in the MSHCP.

11. CONDITIONS AND AUTHORIZATIONS:

A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS.

B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL OR OTHER FEDERAL LAW.

C. VALID FOR USE BY PERMITTEE NAMED ABOVE.

- | | | | | |
|------|----|-----------------------|----|--|
| C.1. | a. | Riverside County | p. | CALTRANS |
| | b. | City of Banning | q. | California State Parks |
| | c. | City of Beaumont | r. | Riverside County Flood Control and Water Conservation District |
| | d. | City of Calimesa | s. | Riverside County Regional Park and Open-Space District |
| | e. | City of Canyon Lake | t. | Riverside County Transportation Commission |
| | f. | City of Corona | u. | Riverside County Waste Resources Management District |
| | g. | City of Hemet | v. | Regional Conservation Authority |
| | h. | City of Lake Elsinore | | |
| | i. | City of Moreno Valley | | |
| | j. | City of Murrieta | | |
| | k. | City of Norco | | |
| | l. | City of Perris | | |
| | m. | City of Riverside | | |
| | n. | City of San Jacinto | | |
| | o. | City of Temecula | | |

D. Further conditions of authorization are contained in the attached Special Terms and Conditions.

ADDITIONAL CONDITIONS AND AUTHORIZATIONS ALSO APPLY

12. REPORTING REQUIREMENTS

ISSUED BY

Michelle B. Friis

TITLE

Acting
DEPUTY MANAGER, CALIFORNIA/NEVADA OPERATIONS OFFICE

DATE

6/22/2004

- a. Roy Wilson, Chairman
Board of Supervisors
Riverside County
4080 Lemon Street, 5th Floor
Riverside, California 92501
- b. Arthur L. Welch, Mayor
City of Banning
99 E. Ramsey Street
Banning, California 92220
- c. Larry Dressel, Mayor
City of Beaumont
Civic and Community Center
550 East 6th Street
Beaumont, California 92223
- d. Shenna Moqet, Mayor
City of Calimesa
908 Park Avenue
Calimesa, California 92320
- e. John Zaitz, Mayor
City of Canyon Lake
31516 Railroad Canyon Road
Canyon Lake, California 92587
- f. Jeff Miller, Mayor
City of Corona
815 West Sixth Street
Corona, California 92882-3238
- g. Lyle Alberg, Mayor
City of Hemet
445 E. Florida Avenue
Hemet, California 92543
- h. Thomas Buckley, Mayor
City of Lake Elsinore
130 S. Main Street
Lake Elsinore, California 92530
- i. Frank West, Mayor
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552
- j. Jack van Haaster, Mayor
City of Murrieta
26442 Beckman Court
Murrieta, California 92562
- k. Frank Hall, Mayor
City of Norco
2870 Clark Avenue
Corona, California 92860
- l. Daryl Busch, Mayor
City of Perris
101 North D. Street
Perris, California 92570
- m. Ronald Loveridge, Mayor
City of Riverside
3900 Main Street
Riverside, California 92522
- n. Jim Ayres, Mayor
City of San Jacinto
201 East Mail Street
San Jacinto, California 92583
- o. Michael S. Nagger, Mayor
City of Temecula
43200 Business Park Drive
Temecula, California 92590
- p. Anne Mayer, District Director
CALTRANS
District 8, MS1201
464 W. Fourth Street, 6th Floor
San Bernardino, California 92401-1400

Attachment A

Page 2 of 2

- q. Ruth Colman, Director
California State Parks
1416 9th Street, Room 1405
Sacramento, California 95814
- r. Warren D. Williams, General Manager
Riverside County Flood Control and Water
Conservation District
1995 Market Street
Riverside, California 92501
- s. Paul Frandsen, General Manager
Riverside County Regional Park and
Open-Space District
4600 Crestmore Road
Riverside, California 92509-6858
- t. Eric Haley, Executive Director
Riverside County Transportation Commission
4080 Lemon Street, 3rd Floor
Riverside, California 92502
- u. Hans KenKamp, General Manager
Riverside County Waste Resources
Management District
14310 Frederick Street
Moreno Valley, California 92553
- v. Carolyn Syms-Luna, General Manager
Western Riverside County Regional
Conservation Authority
4080 Lemon Street, 12th Floor
Riverside, California 95201

**Special Terms and Conditions for Permit TE-088609-0
U.S. Fish and Wildlife Service, Carlsbad, California**

1. All sections of Title 50 *Code of Federal Regulations*, parts 13, 17.22, and 17.32 are conditions of this Permit. The current version of these regulations is provided in Attachment 1.
2. The authorization granted by this Permit is subject to compliance with, and implementation of the Final Western Riverside County Multiple Species Habitat Conservation Plan/ Natural Community Conservation Plan (MSHCP), dated June 17, 2003, errata letter to MSHCP from the County of Riverside dated May 21, 2004, and executed Implementing Agreement all of which are hereby incorporated into this Permit. In the event of a discrepancy, the special terms and conditions of this permit included herein, the IA, and MSHCP, including its associated volumes (exclusive of the IA) and the errata letter to MSHCP from the County of Riverside dated May 21, 2004, are the controlling documents in the above order regarding the conditions and authorizations of this permit.
3. The Permittees, Agricultural Operations and Participating Special Entities that have obtained a certificate of inclusion, and Third Parties Granted Take Authorization under the direct control of the Permittees, are authorized to take the animal species identified in Attachment 2 to this Permit as "Covered Species Adequately Conserved," to the extent that take of these species would otherwise be prohibited under section 9 of the Endangered Species Act of 1973, as amended (ESA), and its implementing regulations, or pursuant to a rule promulgated under section 4(d) of the ESA. To become a Covered Species Adequately Conserved, 12 species require that a Memorandum of Understanding be entered into with the U.S. Forest Service, consistent with Section 18.0 of the IA, that addresses management of Forest Service lands within the MSHCP Conservation Area. In order for the remaining 17 species to become Covered Species Adequately Conserved, achievement of species-specific conservation objectives, as identified in Table 9-3 of the MSHCP, must be demonstrated to the satisfaction of the Service.

Take authorization is effective at Permit issuance for those animal species listed as adequately conserved in Attachment 2 that are currently listed under the ESA. For each of the remaining animal species listed as adequately conserved in this attachment that are not listed as threatened or endangered under the Act, this section 10(a)(1)(B) Permit will become effective with respect to such species concurrent with the listing of the species as threatened or endangered under the Act, to the extent that their take is prohibited by the ESA. Take must be incidental to otherwise lawful Covered Activities within the Plan Area as described and defined

in the MSHCP and IA, and as further conditioned herein. The amount and nature of the take is described in the Attachment 3 for each species.

4. Because take of plants is not prohibited under the ESA, incidental take cannot be authorized under this Permit. Plant species included on the Permit in special terms and conditions and in Attachment 2 are named in recognition of the conservation benefits provided for such plants in the MSHCP, IA, and other documents identified in condition 2, and receive those assurances identified in the IA.
5. The following conditions apply to birds:
 - a. Bald eagle and golden eagle - No lethal take is authorized. Take or disturbance of active nests is not authorized. The Service will not refer the incidental take of any bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712) (MBTA), or the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d), if such take is in compliance with the terms and conditions specified herein.
 - b. For birds other than the bald eagle and golden eagle, this section 10(a)(1)(B) permit under the ESA also constitutes a Special Purpose Permit under 50 CFR 21.27 for the take, as defined by 50 CFR 10.12, of those Covered Species Adequately Conserved that are listed as threatened or endangered under the Endangered Species Act of 1973, as amended, and protected by the MBTA, except for both eagles. Such Special Purpose Permit shall be valid for a period of 3 years from the effective date, provided the section 10(a)(1)(B) permit remains in effect for such period. Such Special Purpose Permit shall be renewed, provided that the Permittees continues to fulfill their obligations under this agreement. Each such renewal shall be valid for the maximum period of time allowed by 50 CFR 21.27 or its successor at the time of renewal.

Take, as defined by 50 CFR 10.12, associated with habitat loss for bird species on the list of Covered Species Adequately Conserved (Attachment 2) is avoided or minimized by the restrictions provided in Sections 5.2.1, 7.5.3, and 6.1.2, and Table 9-2 of the MSHCP. In addition, these restrictions shall include the following restrictions and prohibitions for birds included as Covered Species Adequately Conserved (Attachment 2) that are subject to incidental take as defined by 50 CFR 17.3:

Coastal California gnatcatcher - Clearing of occupied habitat within PQP lands and the Criteria

Area between March 1 and August 15 is prohibited.

- Least Bell's vireo and southwestern willow flycatcher - Avoid occupied habitat pursuant to the species objectives.

Other birds protected by the MBTA and not listed under the ESA - No take is authorized under the MBTA (including the killing and wounding of any such birds, or take of eggs and active nests).

6. Unless take is authorized by the California Department of Fish and Game's Take Authorization for the MSHCP, Fully Protected Species under California Fish and Game Code may not be taken or possessed at any time and no provision of any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species. The following species are Fully Protected species: bald eagle, golden eagle, peregrine falcon, and white-tailed kite.
7. Where Covered Activities result in the incidental take of Covered Species Adequately Conserved within U.S. Army Corps of Engineers' jurisdictional wetlands or other waters of the United States, or where Covered Activities are federally funded or require a Federal permit or authorization, such incidental take is authorized by this Permit provided that appropriate authorization is first secured from the Corps or any other applicable Federal agency with jurisdiction. Where Covered Activities require formal section 7 consultation under the ESA, exemption for any associated incidental take by the applicable Federal agency(ies) shall be provided through future formal consultation, while authorization for any associated incidental take by the Permittee(s), Third Parties Granted Take Authorization, and Participating Special shall be provided through this Permit. This permit term and condition does not alter the provisions of Section 14.9 of the IA.
8. Because the Management and Monitoring activities are anticipated to extend beyond the term of the 75-year Permit and pursuant to Section 8.8 of the MSHCP, the Permittees have permanent responsibility for managing the conservation lands in perpetuity. At the end of the 75-year Permit term, the endowment for Adaptive Management shall be maintained in a non-wasting account.
9. The Orange County-Riverside County Corridor, like the Cajalco Road Improvements, State Route 79 Improvements, and San Jacinto River Project, may be a Covered Activity subject to the identified process in the MSHCP for each project and the Minor Amendment Procedure described in Section 20.4.2 of the IA.

10. The intermediate mariposa lily shall be considered a "Species Adequately Conserved" only after the species-specific conservation objectives are achieved.
11. The Permittees shall implement species Objective 1B for the Delhi sands flower-loving fly in accordance with Table 9-2 of the MSHCP. To clarify a potential result of a "meet and confer" with the applicable Local Permittee(s) and Service regarding an occupied project site described in Objective 1B of Table 9-2 of the MSHCP, the language "the Service concurs that such conservation would not contribute to the long-term conservation of the species" is interpreted to mean "the Service determines that the proposed, 75 percent conservation on site would not contribute to the long-term conservation of the species."
12. Consistent with the biological issue and consideration identified in the REMAP Area Plan (Section 3.3.12 of the MSHCP) to conserve undeveloped uplands including agricultural land, annual grassland, and coastal sage scrub that support or provide potential Habitat for Quino checkerspot butterfly, the Regional Conservation Authority (RCA) shall work to conserve the Quino checkerspot butterfly within the Tule Creek/Anza Valley Subunit of the REMAP Area Plan and, if necessary, use the Criteria Refinement Process to achieve this conservation.
13. Reserve Managers, in coordination with the RCA and Reserve Management Oversight Committee (RMOC), shall prepare Reserve Management Plans for each management unit that contains significant Additional Reserve Lands under Local Permittee control. Such plans shall be submitted to the RMOC within 5 years of significant acquisition of Additional Reserve Lands in a management unit.
14. Notwithstanding the authorized incidental take associated with Reserve Management, Monitoring and Scientific Research Activities (section 7.4.1 of the MSHCP), this Permit does not alter any permitting requirements authorized under section 10(a)(1)(A) of the ESA for biologists conducting surveys provided for in the Plan nor does this Permit alter any of the survey protocols associated with such permits.
15. Where management activities associated with vernal pools call for salvage, creation, restoration, or enhancement pursuant to the species-specific management objectives in Table 5-2 of the MSHCP, such efforts involving vernal pool species shall employ the following procedure or an alternative procedure mutually agreed upon with the Service:
 - a. Fairy shrimp pond soil (inoculum) will be collected when it is dry to avoid damaging or destroying fairy shrimp cysts, which are fragile when wet. A hand trowel or similar instrument will be used

to collect the soil. Whenever possible, soil will be collected in chunks. The trowel will be used to pry up intact chunks of soil, rather than loosening the soil by raking and shoveling, which can damage cysts. Soil will not be collected from any ponds until approved by the Service.

- b. The soil from each pond will be stored individually in labeled bags or boxes that are adequately ventilated and kept out of direct sunlight to prevent the occurrence of fungus or excessively heating the soil.
 - c. Inoculum will not be introduced into the created ponds until after the created ponds have been demonstrated to retain water for a minimum 60 days and will be placed in a manner that preserves, to the maximum extent possible, the orientation of the fairy shrimp cysts within the surface layer of soil (e.g., collected inoculum will be shallowly distributed within the pond so that cysts have the potential to be brought into solution upon inundation).
16. This Permit does not authorize the intentional pursuit or killing of animals associated with hunting.
17. The following procedure and analysis shall apply if a Permittee elects to use Public/Quasi-Public Lands within the MSHCP Conservation Area in a way that alters the land use such that it would not contribute to Reserve Assembly:

The Permittee shall make findings that the replacement acreage is biologically equivalent or superior to the existing property. The biological equivalency or superior analysis shall address the effects on habitats, Covered Species, core areas (as identified on the MSHCP Core and Linkage Map), linkages and constrained linkages (as identified on the MSHCP Core and Linkage Map), MSHCP Conservation Area configuration and management (such as increases or decreases in edge), and ecotones (defined as the areas of adjoining Vegetation Communities, generally characterized by greater biological diversity) and other conditions affecting species diversity (such as invasion by exotic species). The Permittees shall submit the equivalency analysis in narrative and graphic form comparing the effects/benefits of the proposed project to the Wildlife Agencies (Service and California Department of Fish and Game) for review and concurrence. Impacts to Habitats within existing Public/Quasi-Public Lands shall be compensated by purchase and dedication into the MSHCP Conservation Area of land of no less than a ratio of 1:1 that is in addition to the Additional Reserve Lands.

18. Pursuant to the policy on Riparian/Riverine Areas and Vernal Pools:
 - a. Where the avoidance alternative is selected, the other appropriate mechanisms incorporated into the project design to ensure the long-term Conservation of unsurveyed avoided areas shall include appropriate management.
 - b. Where the avoidance alternative is not selected and focused surveys confirm occupancy by Covered Species identified in Section 6.1.2 of the MSHCP and pursuant to the species objectives, 90 percent (to 100 percent for the southwestern willow flycatcher and western yellow-billed cuckoo) of the occupied portions of the property that provide for the long-term Conservation value for the species (including the watershed of individual vernal pools occupied by fairy shrimp species) shall be conserved unless a Determination of Biologically Equivalent or Superior Preservation concludes that a proposed alternative will provide equal or better conservation.
19. Permittees shall incorporate the appropriate guidelines (MSHCP Section 7.5) and specific design features (MSHCP Table 7-4) into individual planned roadway projects within the Criteria Area and Public/Quasi-Public Lands.
20. The Monitoring Program Administrator shall consult with the Service on the development and implementation of the long-term monitoring plan.
21. Prior to each Status Meeting with the Wildlife Agencies pursuant to Section 6.6.2.F.2 of the MSHCP, the RCA shall provide to the Wildlife Agencies a copy of the Permittee's final decision document for each development application in the Criteria Area submitted for the joint project/application review process that have been received since the last Status Meeting or Permit issuance, whichever is later. In addition, the RCA shall provide to the Wildlife Agencies a copy of the final decision documents that have been received since the last Status Meeting or Permit issuance, whichever is later, confirming that individual planned roadway projects within the Criteria Area, which are described in Section 7.3.5 of the Plan and depicted in Figure 7-1 of the Plan, are consistent with the Criteria, appropriate guidelines (MSHCP Section 7.5), and specific design features (MSHCP Table 7-4).
22. The first annual report is due to the Wildlife Agencies 15 months from the date of Permit issuance. Subsequently, annual reports shall be submitted to the Wildlife Agencies every 12 months for the life of the Permit. A copy of the annual report shall be submitted to the Field Supervisor of the Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Carlsbad,

California 92008, and one copy shall be submitted to the Assistant Regional Director, Ecological Services, U.S. Fish and Wildlife Service, 911 NE 11th Avenue, Portland, Oregon 97232. Aside from the information requirements set forth in Section 10.1 of the IA, the annual report shall address for that year:

- a. Permit implementation of Covered Activities within the Criteria Area, including the Criteria Refinement Process; and implementation of policies on Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, Protection of Narrow Endemic Plant Species, and Additional Survey Needs and Procedures.
 - b. Biologically Equivalent or Superior Preservation determinations.
23. In addition to the reporting requirements identified in Section 10.0 of the IA and the MSHCP, the following monitoring and/or reporting conditions shall apply:
- a. Within 6 months of execution of the IA, the Cities and County (Local Permittees) shall transmit to the Wildlife Agencies and RCA relevant documents showing adoption and/or execution of each Local Permittee's MSHCP implementation mechanism. Any subsequent amendments to the implementation mechanism throughout the life of the Permit shall be transmitted to the Service.
 - b. Copies of maps of existing disturbed use areas at County Waste facilities shall be provided to the Service.
 - c. Copies of the initial baseline assessment of Additional Reserve Lands pursuant to Section 5.2.1 of the MSHCP shall be provided to the Service.
 - d. Among the other items described in Section 5.3.7 of the MSHCP, the Monitoring Program Administrator shall monitor and include in the Biological Monitoring Report an analysis of the effectiveness of wildlife movement features for target species where such features are incorporated into the design of roadway projects within the MSHCP Conservation Area. The Wildlife Agencies, in consultation with the Monitoring Program Administrator and RCA, shall jointly agree on how, where, and when the effectiveness monitoring will be done and how the data will be analyzed to inform the Permittees regarding design and siting of future wildlife movement features.

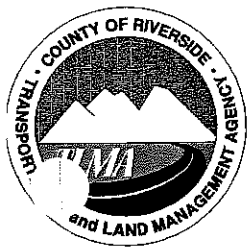
- e. Permittees shall require biologists send copies of all habitat assessments and focused survey reports for all Covered Species to the Monitoring Program Administrator.
 - f. Within 30 days of completion of an emergency repair pursuant to Section 7.4.1 of the MSHCP, the RCA shall provide a copy of their administrative record documentation regarding any such repair, including any revegetation plans determined to be warranted and the associated revegetation implementation.
24. The Permittees shall contact that the Service's Carlsbad Fish and Wildlife Office (6010 Hidden Valley Road, Carlsbad, California 92008, telephone 760-431-9440) immediately regarding any violations or potential violations of the Federal Endangered Species Act or Migratory Bird Treaty Act.
25. Within 1 working day of finding dead, injured, or sick endangered or threatened wildlife species, the Permittees or its designated agents must orally notify the Service's Carlsbad Fish and Wildlife Office. Written notification to the Carlsbad Fish and Wildlife Office and the Division of Law Enforcement (185 W. "F" Street, Suite 440, San Diego, California 92101) must be made within 5 calendar days and must include the date, time, and location of the specimen and any other pertinent information.
26. A copy of this Permit must be in on file in the possession of the Permittees, and Third Parties under their direct control, while conducting taking activities. Please refer to the Permit number in all correspondence and reports concerning Permit activities. Any questions you may have about this Permit should be directed to the Field Supervisor, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Carlsbad, California 92008, telephone 760-431-9440.
27. On June 10, 2004, the Court in *Spirit of the Sage Council v. Norton*, Civil Action No. 98-1873 (D.D.C.) ordered that, until the Service completes a rulemaking on permit revocation standards for incidental take permits, the Service may not approve new incidental take permits or related documents containing "No Surprises" assurances. The order does not prevent the Service from issuing incidental take permits that do not contain "No Surprises" assurances. Therefore, the "No Surprises" assurances contained in Sections 3.81, 3.109, 4.3(C), 14.10, 14.22, and 17.6 of the IA, and Sections 1.2.4 and 6.8 of the MSHCP are currently unenforceable and are ineffective with respect to this Permit. The remainder of the Permit, the IA, and the MSHCP shall remain in full force and effect to the maximum extent permitted by law. In addition, in the event that any future judicial decision or determination from the District Court for the District of Columbia in *Spirit of the Sage Council v. Norton*, Civil Action

No. 98-1873 (D.D.C.) holds that the "No Surprises" assurances rule (or similar successive rule) is vacated, unenforceable, or enjoined for any reason or to any extent, the "No Surprises" assurances contained in Sections 3.81, 3.109, 4.3(C), 14.10, 14.12, and 17.6 of the IA, and Sections 1.2.4 and 6.8 of the MSHCP shall be enforceable only to the degree allowed by any such decision or determination; provided that the remainder of the Permit, the IA, and the MSHCP shall remain in full force and effect to the maximum extent permitted by law. In the event that the "No Surprises" assurances rule is vacated, held unenforceable, or enjoined by a judicial decision or determination, including without limitation the June 10, 2004, order described above, but is later reinstated or otherwise authorized, the "No Surprises" assurances contained in Sections 3.81, 3.109, 4.3(C), 14.10, 14.12, and 17.6 of the IA, and Sections 1.2.4 and 6.8 of the MSHCP shall likewise be automatically reinstated and apply to the entire term of the MSHCP to the maximum extent permitted by law.

If, in response to any judicial decision or determination, the "No Surprises" assurances rule is revised, the "No Surprises" assurances contained in Sections 3.81, 3.109, 4.3(C), 14.10, 14.12, and 17.6 of the IA, and Sections 1.2.4 and 6.8 of the MSHCP shall be automatically amended in a manner consistent with the revised rule so as to afford the maximum protection to the Permittees consistent with the revised rule. Pursuant to the June 10, 2004, order in *Spirit of the Sage Council v. Norton*, Civil Action No. 98-1873 (D.D.C.), and while said order is in effect, until the Service adopts new revocation rules specifically applicable to incidental take permits, all incidental take permits issued by the Service shall be subject to the general revocation standard in 50 C.F.R. § 13.28(a)(5). Additionally, notwithstanding anything to the contrary in the IA (particularly Section 23.5) and the MSHCP, the Service retains statutory authority, under both sections 7 and 10 of the ESA, to revoke incidental take permits that are found likely to jeopardize the continued existence of a Covered Species. The Service recognizes that the Permittees retain the right under and pursuant to Section 22.0 of the IA to terminate their participation in the MSHCP in accordance with the requirements of Section 22.0 of the IA should the "No Surprises" assurances rule not be reinstated or be reinstated or otherwise authorized and/or amended in a manner not satisfactory to the Permittees.

mshcp implementation guidance

Appendix C: Sample HANS Letters



COUNTY OF RIVERSIDE
*TRANSPORTATION AND
LAND MANAGEMENT AGENCY*



Tony Carstens
Agency Director

Planning Department

Robert C. Johnson
Planning Director

SFH –Conservation Preferable

Date

Applicant
320 Development Lane
Riverside, CA 00000

RE: HANS No. XXX
Assessor's Parcel Number(s) – XXX-XXX-XXX

Dear Applicant:

We are in receipt of your application for review of the above-referenced property pursuant to the expedited Property Owner Initiated Habitat Acquisition and Negotiation Strategy (HANS) for single-family home/mobile-home construction or installation. HANS review is a requirement of the Multiple Species Habitat Conservation Plan (MSHCP) approved by the Board of Supervisors in June, 2003 and is also now a requirement of the County's General Plan.

As a result of our review, we have determined that the MSHCP Criteria describe conservation on and around your property. The MSHCP requires that a building footprint area and any necessary access road(s) be located on the least sensitive portion of the property (see page 6-18 of the MSHCP).

Additionally, the MSHCP requires that a habitat assessment and potentially a focused survey (if suitable habitat is present) be conducted for the -----(insert species name(s))----. A list of qualified consultants is attached. The consultant shall submit the habitat assessment report to:

Riverside County Planning Department
Attn: Jamie Thompson
4080 Lemon Street, 9th Floor
Riverside, CA 92502.

Once the report is submitted please call Jamie Thompson at (951) 955-5719 to schedule a meeting to discuss the appropriate building footprint area and potential conservation area.

There is no Habitat Assessment(s) required on this parcel. Please call Jamie Thompson at (951) 955-5719 to schedule a meeting to discuss the appropriate building footprint area and potential conservation area.

Ms. Thompson will schedule a HANS 1 extended meeting on the next available HANS agenda and you will be notified accordingly.

If you have further questions concerning this determination or the HANS process, please contact Ken Baez at (951) 955-2137

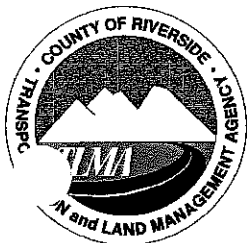
Sincerely,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Robert C. Johnson, Planning Director

Ron Goldman, Assistant Director

Cc: Carolyn Syms Luna – Regional Conservation Authority
Appropriate -Supervisorial District

Form Created: 8/23/04
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Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

NO CONSERVATION development app.

Date

Applicant
102 Developer Way
Riverside, CA 00000

RE: HANS No. XXX
Assessor's Parcel Number – XXX-XXX-XXX

Dear Applicant:

We are in receipt of your application for review of the above-referenced property pursuant to the expedited Property Owner Initiated Habitat Acquisition and Negotiation Strategy (HANS). HANS review is a requirement of the Multiple Species Habitat Conservation Plan (MSHCP) approved by the Board of Supervisors in June, 2003 and is also now a requirement of the County's General Plan.

We have reviewed your application for purposes of assessing your proposed development's compliance with the MSHCP and have determined that the MSHCP Criteria does not identify conservation on your property. Accordingly, you may proceed with filing a development application should you so desire. However, please be advised the MSHCP requires that a habitat assessment and potentially a focused survey (if suitable habitat is present) be conducted for the -----(insert species name(s))----. This assessment must be completed in conjunction with the processing of the development application. Subject to the results of the habitat assessment and any necessary survey(s), certain MSHCP conservation policies may apply. The results of the habitat assessment should be submitted to:

Riverside County Planning Department
Attn: Jamie Thompson
4080 Lemon Street, 9th Floor
Riverside, CA 92502.

There are no Habitat Assessments required on this parcel.

If you have any questions please contact Jamie Thompson at (951) 955-5719.

Sincerely,

If you have further questions please contact Ken Baez at (951) 955-2137.

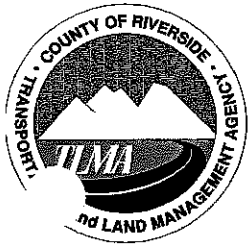
Sincerely,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Robert C. Johnson, Planning Director

Ron Goldman, Assistant Director

Cc: Carolyn Syms Luna – Regional Conservation Authority
Appropriate Supervisorial District Staff

Form Version: 8/23/04
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Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

NO CONSERVATION ON SFR

Date

Applicant
102 Developer Way
Riverside, CA 00000

RE: HANS No. XXX
Assessor's Parcel Number – XXX-XXX-XXX

Dear Applicant:

We are in receipt of your application for review of the above-referenced property pursuant to the expedited Property Owner Initiated Habitat Acquisition and Negotiation Strategy (HANS) for single-family home/mobilehome construction or installation. HANS review is a requirement of the Multiple Species Habitat Conservation Plan (MSHCP) approved by the Board of Supervisors in June, 2003 and is also now a requirement of the County's General Plan. As a result of our review, we have determined that the MSHCP Criteria does not describe conservation within your parcel.

However, please be advised the MSHCP requires that a habitat assessment and potentially a focused survey (if suitable habitat is present) be conducted for the -----(insert species name(s))----. This assessment must be completed prior to issuance of any construction or installation permit. Subject to the results of the habitat assessment and any necessary survey(s), certain MSHCP conservation policies may apply. The results of the habitat assessment should be submitted to:

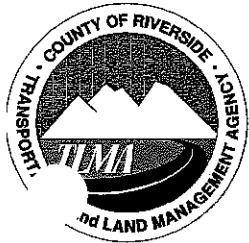
Riverside County Planning Department
Attn: Jamie Thompson
4080 Lemon Street, 9th Floor
Riverside, CA 92502.

There are no Habitat Assessments required on this parcel, therefore you may proceed with obtaining the appropriate permits.

Please submit a copy of this letter with any future permit applications. If you have any questions please contact Jamie Thompson at (951) 955-5719.

Sincerely,

RIVERSIDE COUNTY PLANNING DEPARTMENT
Robert C. Johnson, Planning Director



Tony Carstens
Agency Director

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Robert C. Johnson
Planning Director

Planning Department

Proposed development – conservation described.

Date

Applicant
1002 Development Way
Riverside, CA 00000

RE: HANS No. XXX
Assessor's Parcel No XXX-XXX-XXX

Dear Applicant:

We are in receipt of your application for review of the above-referenced property pursuant to the expedited Property Owner Initiated Habitat Acquisition and Negotiation Strategy (HANS). HANS review is a requirement of the Multiple Species Habitat Conservation Plan (MSHCP) approved by the Board of Supervisors in June, 2003 and is also now a requirement of the County's General Plan.

We have reviewed your application for purposes of assessing the property for compliance with the MSHCP. The MSHCP Criteria indicates that on-site conservation would be required should a development application be submitted for this property. The area necessary for inclusion in the MSHCP Conservation Area is identified on the attached exhibit. Any development application must be designed so that all development (i.e. structures, infrastructure improvements, grading, detention basins, and fuel modification zones) is located outside of this area.

~~Additionally, the MSHCP requires that a habitat assessment and potentially a focused survey (if suitable habitat is present) be conducted for the -----insert species name-----.~~ The habitat assessment and potentially focused surveys can be submitted prior to or concurrently with the development application. Subject to the results of the habitat assessment(s) and any necessary survey(s), the area needed for inclusion in the MSHCP Conservation Area may need to be revised and/or certain conservation policies may apply. The results of the habitat assessment should be submitted to the following address;

Riverside County Planning Department
Attn: Jamie Thompson
4080 Lemon Street, 9th Floor
Riverside, CA 92502.

This concludes the HANS 1 review for this case. Should you wish to discuss this determination, please submit a request in writing to extend the HANS 1 review to Jamie Thompson at the above address or email to jamthomp@rctlma.org within the next 10 calendar days. Upon receipt of your written request,

Ron Goldman, Assistant Director

Cc: Carolyn Syms Luna – Regional Conservation Authority
Appropriate Supervisorial District Staff

Form Version: 8/23/04

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mshcp implementation guidance

Appendix D: Biological Survey Protocols

MSHCP Species Survey Protocols

This portion of the manual focuses on protocols for conducting species surveys for those species for which survey requirements are identified in the MSHCP. Species survey requirements in the MSHCP are referenced in detail in Sections 6.1.2, 6.1.3 and 6.3.2 of the Plan and are summarized in Appendix E, included in Volume I of the Plan. As noted in Appendix E, of the 146 MSHCP Covered Species, survey requirements have been identified for 40 species including 4 birds, 3 mammals, 3 amphibians, 3 crustaceans and 27 plants. As stated in the Plan, the focus of the species surveys referenced in these sections of the MSHCP is to collect information important to assembling the best possible MSHCP Conservation Area. Other species surveys will be conducted within the MSHCP Conservation Area as part of the management and monitoring program but those will not be conducted in conjunction with review of applications for public and private development projects within the Plan Area and are not relevant to the species survey requirements and protocols discussed in this manual.

The Plan calls for surveys to be conducted within suitable habitat according to accepted protocols. General suitable habitat definitions for each Covered Species are provided in the species accounts included in Volume II, Section B of the Plan. Qualified biologists conducting habitat assessments should also exercise professional judgment in assessing the presence, characteristics and distribution of suitable habitat on individual project sites.

Official or accepted survey protocols have not been developed for all of the MSHCP survey species. For certain listed species, accepted protocols have been developed by the U.S. Fish and Wildlife Service (USFWS) and are updated on a somewhat irregular basis. Where such protocols exist for MSHCP survey species, they are considered to be the accepted protocols and are included in this manual. Efforts will be made to ensure that current versions of these protocols are available at the County, however, qualified biologists are also responsible for ensuring that current USFWS protocols are used when available (please refer to the applicable MSHCP species accounts and discussion of crustaceans, below, for additional information regarding fairy shrimp survey requirements). For other MSHCP survey species, such as the plants, general survey guidelines developed by organizations such as the California Native Plant Society (CNPS) are available and they are included in this manual to provide guidance to qualified biologists conducting species surveys.

Reporting of survey results shall be in accordance with requirements that may be established by Local Permittees and with the Special Terms and Conditions for the MSHCP permit (Permit TE-088609-0). Special Condition 23e calls for Permittees to require that biologists send copies of all habitat assessments and focused survey reports for all Covered Species to the Monitoring Program Administrator (Special Condition 23e). In addition, Special Condition 14 states that the MSHCP permit does not alter any permitting requirements authorized under Section 10 (a)(1)(A) for biologists conducting surveys provided for in the Plan

MSHCP Species Survey Protocols

nor does the MSHCP Permit alter any of the survey protocols associated with such permits. Such permits generally also require that permitted biologists provide survey results to USFWS.

A summary of the survey protocols included in this manual for the various taxonomic groups is provided below:

Amphibians: USFWS protocols for arroyo toad and California red-legged frog exist and are included in this manual. There is no accepted protocol for mountain-yellow legged frog. The protocol included in this manual is an adaptation of the California red-legged frog protocol prepared by Dudek & Associates, Inc.

Birds: USFWS protocols for least Bell's vireo and southwestern willow flycatcher exist and are included in this manual. There is no accepted protocol for western yellow-billed cuckoo, however, a protocol has been developed by Steve Laymon that provides survey guidance and it is included in this manual. Likewise, there is no accepted protocol for burrowing owl, however, a protocol has been developed by the California Burrowing Owl Consortium that provides survey guidance and it is included in this manual. The protocol developed by the Consortium includes both winter and nesting season surveys. Winter season surveys are not considered to be necessary to meet the primary objective of the MSHCP species surveys which is to collect information needed to assemble the best possible MSHCP Conservation Area. An alternate single pass burrow survey protocol prepared by Dudek & Associates, Inc. is also included in this manual and should be used for the pre-construction surveys called for in the species-specific objectives identified for burrowing owl in the species account.

Crustaceans: A USFWS protocol and handling and archival guidance exist for vernal pool branchiopods that are applicable to the MSHCP fairy shrimp survey species and are included in this manual. Species-specific objectives for the fairy shrimp for which MSHCP surveys are required (Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, vernal-pool fairy shrimp) state that a single-season dry or wet season survey for these species by a qualified biologist will be sufficient for these species.

Mammals: A USFWS protocol for San Bernardino kangaroo rat exists and is included in this manual. This protocol has been adapted by Dudek & Associates, Inc. the Aguanga kangaroo rat and the adapted protocol is included in this manual. There is no accepted protocol for Los Angeles pocket mouse. The USFWS protocol for Pacific pocket mouse has been adapted by Dudek & Associates, Inc. and is included in this manual.

Plants: There are no accepted protocols for the MSHCP plant survey species. General survey guidelines for plants have been developed by CNPS and are included in this manual.

AMPHIBIANS

SURVEY PROTOCOL FOR THE ARROYO TOAD

The following guidelines are provided to facilitate accurate assessments of the presence or absence of the federally listed endangered arroyo toad (*Bufo microscaphus californicus*). Accurate survey data are needed to provide the U.S. Fish and Wildlife Service (Service) with sufficient information to respond to requests for Federal permits and licenses. Currently, surveys performed in accordance with these guidelines will not require a permit under section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended. However, permits to conduct arroyo toad surveys may be required in the future. In all cases, extreme care must be taken when conducting surveys to avoid inadvertently injuring or killing toads, or damaging their habitat. These guidelines are not meant to be used for long-term monitoring of projects or the overall status of populations; guidelines for such monitoring efforts should be developed with the assistance of the Service for specific cases.

The Service recommends that the following survey guidelines be used to determine if arroyo toads are present in the vicinity of proposed activities, but cautions that negative surveys during a year of severe weather (e.g., drought, extended rainy season, cold weather) may be inconclusive. Contact the appropriate field office (addresses and phone numbers below) before conducting surveys for additional information.

- 1) Areas within one kilometer (1 km) of arroyo toad sites (documented by the presence of eggs, larvae, juveniles, or adults) that have suitable habitat shall be presumed to have arroyo toads.
- 2) If the sole purpose of surveys is to determine the presence or absence of the arroyo toad, surveys shall cease immediately upon determination that arroyo toad eggs, larvae, juveniles, or adults are present in the survey area. The arroyo toad locations shall be recorded on a USGS 1:24,000 (7.5 minute) map.
- 3) To be reasonably confident that arroyo toads are not present at a site, at least six (6) surveys must be conducted during the breeding season, which generally occurs from March 15 through July 1, with at least seven (7) days between surveys. Extreme weather conditions can cause variations in the breeding season; these conditions should be fully considered when developing a schedule of surveys. If uncertainty exists as to whether environmental conditions are suitable (see guideline #9 below), contact the appropriate field office for further information.
- 4) At least one survey shall be conducted per month during April, May, and June.
- 5) Surveys shall include both daytime and nighttime components conducted within the same 24-hour period (except when arroyo toads have been detected in the survey area).
- 6) Daytime surveys shall include an assessment and mapping of: a) arroyo toad habitat suitability, and b) the presence of arroyo toad eggs, larvae, or juveniles. Extreme caution must be used to avoid crushing arroyo toads that are burrowed into sand bars and banks, or lodged in depressions in the substrate (sand, gravel, soil). Arroyo toads will use trails and roads up to several hundred meters from breeding sites while foraging; therefore, caution must be taken to not disturb, injure, or kill arroyo toads when using these roads and trails.

- 7) Daytime surveys shall be conducted by walking slowly along stream margins and in adjacent riparian habitat, visually searching for (but not disturbing) eggs, larvae, and juveniles. If necessary, surveyors may walk within the stream, taking care not to disturb or create silt deposits within breeding pools. If stream crossings are necessary, these should be on the downstream ends of potential breeding pools or in fast-flowing channels to minimize the likelihood of stirring up silt deposits. Arroyo toad eggs are usually laid in shallow water (less than four inches deep), and are susceptible to being smothered by silt that may be raised by walking in or across breeding pools.
- 8) Nighttime surveys (assuming eggs, larvae, and/or juveniles have not been detected) shall be conducted by walking slowly and carefully on stream banks. Surveyors should stop periodically and remain still and silent for approximately 15 minutes at appropriate sites to wait for arroyo toads to begin calling. The same cautions used for daytime surveys to avoid disturbing, injuring, or killing arroyo toads shall be incorporated.
- 9) Nighttime surveys must be conducted between one hour after dusk and midnight, when air temperature at dusk is 55 degrees Fahrenheit or greater. Surveys should not be conducted during nights when a full or near-full moon is illuminating the survey area or during adverse weather conditions such as rain, high winds, or flood flows.
- 10) Nighttime surveys must be conducted as silently as possible, because talking or other human-generated noises may cause arroyo toads to stop calling or leave the creek. Strong headlights or flashlights may be used to visually locate and identify adult arroyo toads, and flash photography may be used to document sightings of solitary individuals; otherwise lighting should be kept to a minimum.
- 11) Pairs of arroyo toads are very sensitive to disturbances, particularly waves or ripples (calling males are less easily disturbed). Therefore, surveyors must not enter the water near amplexing or courting pairs, and must immediately leave the vicinity upon their discovery.
- 12) A final report, to be submitted within 30 days of each field season or positive survey shall be prepared that includes survey dates and times, names of surveyor(s), air temperature, estimated wind speed, lighting conditions, a description of the survey methods used, and survey locations plotted on a USGS 1:24,000 (7.5 minute) map.
- 13) The results of a field survey may not be valid for any of the following reasons:
 - a) surveys were conducted in a manner inconsistent with this protocol,
 - b) surveys were incomplete,
 - c) surveys were conducted during adverse conditions or during a season of severe weather conditions, or
 - d) reporting requirements were not fulfilled.In such cases, the Service may request that additional surveys be conducted.

The final report should be provided to the appropriate Service field office:

For surveys in Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties, Los Angeles County west of Highway 405, and the desert portions of Los Angeles and San Bernardino Counties, reports should be sent to the Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, California 93003
(phone: (805) 644-1766).

For surveys in Los Angeles County east of Highway 405 and south of the desert, Orange, Riverside, Imperial, San Diego, and montane and cismontane San Bernardino Counties, reports should be sent to the Carlsbad Fish and Wildlife Office, 2730 Loker Avenue West, Carlsbad, California 92008 (phone: (760) 431-9440).

If a surveyor thinks that a specific project warrants alterations in this protocol, the Service should be contacted prior to the onset of surveys to discuss and possibly grant permission for proposed modifications. We would appreciate receiving any comments or ideas on these guidelines or recommendations for their improvement. For additional information, please contact the Ventura Fish and Wildlife Office at (805) 644-1766 or the Carlsbad Fish and Wildlife Office at (760) 431-9440.

Diane K. Noda

Field Supervisor

**Guidance on Site Assessment and Field Surveys
for California Red-legged Frogs (*Rana aurora draytonii*)
U.S. Fish and Wildlife Service
February 18, 1997**

I. Introduction

A final rule determining threatened status for the California red-legged frog (*Rana aurora draytonii*) under the Endangered Species Act of 1973, as amended (Act), was published on May 23, 1996 (61 Federal Register 25813) and became effective on June 24, 1996. Since then the United States Fish and Wildlife Service (Service) has received numerous requests from private and government entities for guidance in planning for the protection of the California red-legged frog at the sites of proposed developments or of other land use activities. This document provides guidance for two procedures to accurately assess California red-legged frog status in the vicinity of a project site: (1) an assessment of California red-legged frog locality records and potential California red-legged frog habitat in and around the project area; and (2) focused field surveys of aquatic habitats to determine whether California red-legged frogs are present. Both procedures may be recommended because California red-legged frogs are mobile and, during different life history stages or different seasons of the year, may occupy a variety of aquatic and upland habitats. Both procedures should be incorporated into any assessment of the potential effects of projects on California red-legged frogs, unless field surveys are determined to be unnecessary based on the site assessment (see "Interpreting the results of the site assessment" section).

Ongoing contact and discussions with the Service before, during, and after site assessments and field surveys are a crucial element of this guidance. Results of the site assessment and field survey should also be reported to the Service (see "Reporting the results" sections below); however, results of the site assessment should be reported prior to proceeding with field surveys. The addresses and phone numbers of the appropriate field office are provided in section V below.

II. Site Assessment

Careful evaluation of the following information about California red-legged frogs and their habitats in the vicinity of projects or other land use activities is important because this information indicates the likelihood that California red-legged frogs may occur on the project site.

Protocol

1. Is the project site within the range of the California red-legged frog?

Because knowledge of the distribution of the California red-legged frog is likely to change as new locality information becomes available, surveyors should contact the appropriate Service field office (see section V below) to determine if a project site is within the range of this species.

2. What are the known localities of California red-legged frogs within the project site and within 8 kilometers (km) (five miles) of the project boundaries?

The surveyor should consult the Natural Diversity Data Base (NDDB) maintained by the California Department of Fish and Game's Natural Heritage Division to determine known localities of California red-legged frogs. Information on the NDDB is attached to the end of this document. Other information sources on local occurrences of California red-legged frogs should be consulted. These sources may include, but are not limited to, biological consultants, local residents, amateur herpetologists, resource managers and biologists from municipal, State, and Federal agencies, environmental groups, and herpetologists at museums and universities. The surveyor should report to the Service all known California red-legged frog localities within the project site and within 8 km of the project boundaries.

3. What are the habitats within the project site and within 1.6 km (one mile) of the project boundaries?

Describe the upland and aquatic habitats within the project site and within 1.6 km of the project boundaries. The aquatic habitats should be mapped and characterized (e.g. ponds vs. creeks; pool, riffle, rootball, vegetation). The information provided in section 4 of the attached appendix serves as a guide to the features that will indicate possible California red-legged frog habitat.

Reporting the results of the site assessment. Surveyors should prepare a report that includes the following: photographs of the project site, survey dates and times, names of surveyors, a description of the methods used, and a map of the site showing habitat as requested in section 11(3) above. The report should include copies of those portions of the 7.5' topographic quads that contain the site and the area within 1.6 km of its boundaries. A list of California red-legged frog localities as requested in section II (2) above should be included. The report should be provided to the appropriate Service field office (see section V below).

Interpreting the results of site assessment. After completing elements 1-3 of the site assessment above, the appropriate Service field office should be contacted for technical assistance. Based on the information provided from the site assessment, the Service will provide guidance on how California red- legged frogs should be addressed, including whether field surveys are needed or whether incidental take authorization should be obtained through section 7 consultation or a section 10(a)(1)(B) permit pursuant to the Act. A protocol for field surveys is presented below.

III. Field surveys

Frogs can be detected opportunistically in various habitats depending on weather and time of year. Aquatic sampling during the summer months is a reliable method of detecting frogs. Care should be taken to apply a level of effort and to use a style of surveying appropriate to the site. For instance, survey methods may differ according to habitat extent and type (e.g. deep pond, shallow pond, creek). In addition, field work should be conducted according to the best professional judgment of the surveyor (e.g. dogs should not be brought on surveys as they disturb frogs). The Service recommends that surveyors have field experience in the identification of California amphibians. The Service is willing to cooperate with surveyors who have specific needs not addressed by this field survey protocol and who may wish to propose alternative methods.

Protocol

1. Surveys should be conducted between May 1 and November 1. These sampling dates were selected because they allow surveys to be conducted with minimal disturbance of breeding frogs, eggs, or tadpoles during a period when frogs can be reliably detected.
2. ~~All aquatic habitat identified during the site assessment should be surveyed four times, twice during the day and twice at night. Surveyors should wait at least twenty-four hours and possibly longer, to meet the environmental conditions described in section 1II(3) below, before repeating surveys at the same site.~~
3. Day-surveys should be conducted on clear, sunny days. Night-surveys should be conducted on warm, still nights between one hour after sunset and 12 midnight. Warm, still nights are preferable for surveying because the probability of observing frogs tends to decrease under cold, windy conditions. In some circumstances where safety issues preclude night-surveys, the Service can provide alternatives to the surveyor on a case-by-case basis to ensure that safe surveys are conducted.

4. Surveyors should work along the entire shore (either on the bank or in the water), visually scanning all shoreline areas in all aquatic habitats identified during the site assessment. This methodology should be applied to both day- and night-surveys. In the case of water bodies covered with floating vegetation such as duckweed, both the shoreline and surface of the water should be scanned. When wading, surveyors should take maximum care to avoid disturbing sediments, vegetation, and any visible larvae. When walking on the bank, surveyors should take care to not crush rootballs, overhanging banks, and stream side vegetation that might provide shelter for frogs.
5. When conducting night-surveys for eyeshine, flashlights and headlamps that use one 6-volt or four to six D-cell batteries are recommended. High-powered spotlights are prohibited to avoid harming frogs.
6. Although not required, photographs of frogs observed during field surveys may aid in verification of species identifications. Surveyors should limit photography to the extent necessary to document the presence of California red-legged frogs and should not attempt to photograph frogs if this is likely to disturb them.

Reporting the results of field surveys. Any information on California red-legged frog distribution resulting from field surveys should be sent to the Natural Diversity Data Base (NDDDB) administered by the Natural Heritage program of the California Department of Fish and Game. Information about the NDDDB is attached to the end of this document. Copies of the NDDDB form should be mailed immediately to both the Service and CDFG.

Surveyors should also prepare a final report that includes the following: copies of all field notes, data sheets, ~~photographs of the project site and of frogs observed,~~ and a typed summary providing survey dates and times (both begin and end times), names of surveyors, temperature (water and air), wind speed, a description of the methods used, numbers and size classes of all amphibians observed, a map of the site showing survey locations, habitat and frog sightings, a copy of the NDDDB form, and a description of possible threats to California red-legged frogs observed at the site. The report should be provided to the appropriate Service field office (see section V below).

Interpreting the results of field surveys. Based on the results of field surveys, the Service will provide guidance on how California red-legged frog should be addressed. If California red-legged frogs are found, the Service will work with the project proponent through the section 7 or section 10(a)(1)(B) process to determine a further course of action, including the consideration of avoidance or minimization measures and whether incidental take authorization is needed. If

frogs are observed but not identified to species, additional survey effort may be recommended. If the Service recommended that field surveys be conducted and if California red-legged frogs were not identified during these field surveys conducted according to this protocol, the Service will consider the California red-legged frog not to be present on the project site and will not recommend any further take avoidance or mitigation measures. The Service may question the results of field surveys conducted under this protocol for any of the following reasons: **1)** if the appropriate Service field office was not contacted prior to field surveys being conducted; **2)** if field surveys were conducted in a manner inconsistent with this protocol; **3)** if field surveys were incomplete; or **4)** if the reporting requirements, including submission of NDDB forms, were not fulfilled.

IV . Statement on permitted activities.

This field survey protocol allows for conducting visual surveys for California red-legged frogs. Surveys following this protocol do not require a section 10(a)(1)(A) recovery permit pursuant to the Act. Activities that would require a section 10(a)(1)(A) recovery permit include: **1)** any capture or handling of California red-legged frog adults, larvae, or eggs; **2)** any activity intended to significantly modify the behavior of California red-legged frogs; **3)** any activity that subjects California red-legged frogs to some environmental condition not naturally present (e.g. experiments designed to study a frog's response to heat, moisture, noise) other than low-level illumination for night surveys as described in section 111(5); and **4)** any survey methods not covered in this field survey protocol if any form of "take" would occur during such activities. All surveyors using this field survey protocol should make all possible efforts to avoid unintentionally disturbing California red-legged frogs or their habitat. Surveyors should direct inquiries about section 10(a)(1)(A) recovery permits to the Service's Regional Office (see section V below).

V. Service Contacts.

For project sites and land use activities in Santa Cruz, Monterey, San Benito, San Luis Obispo, Santa Barbara, and Ventura Counties, portions of Los Angeles and San Bernardino Counties outside of the Los Angeles Basin, and portions of Kern, Inyo and Mono Counties east of the Sierra Crest and south of Conway Summit, contact:

Ventura Field Office,
2493 Portola Road, Suite B
Ventura, California, 93003 (805/644-1766).

For project sites and land use activities in all other areas of the state south of the Transverse Ranges, contact:

Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, California, 92008 (619/431-9440).

For project sites and land use activities in all other areas of the state, contact:

Sacramento Field Office
3310 El Camino Avenue, Suite 130
Sacramento, California 95821
(916/979- 2725).

For information on section 10(a)(1)(A) recovery permits, contact:

Regional Office,
Eastside Federal Complex 911 N.E., 11 th Avenue
Portland, Oregon 97232-4181
(503) 231-6241.

February 18, 1997
U.S. Fish and Wildlife Service Guidance on Site Assessment and Field Surveys for
California Red-legged Frogs
Appendix
California red-legged frog ecology and distribution

1. Identification

The California red-legged frog *Rana aurora draytonii* is a relatively large aquatic frog ranging from 4 to 13 centimeters (cm) (1 1/2 to 5 inches) from the tip of the snout to the vent. From above the California red-legged frog can appear brown, gray, olive, red or orange, often with a pattern of dark flecks or spots. The skin usually does not look rough or warty. The back of the California red-legged frog is bordered on either side by an often prominent dorsolateral fold of skin running from the eye to the hip. The hind legs are well-developed with large webbed feet. A cream, white, or orange stripe usually extends along the upper lip from beneath the eye to the rear of the jaw. The undersides of adult California red-legged frogs are white, usually with patches of bright red or orange on the abdomen and hind legs. The groin area can show a bold black mottling with a white or yellow background. California red-legged frog tadpoles range from 14 to 80 millimeters (mm) (1/2 to 3 1/4 inches) in length. They are generally brownish with

darker marbling and lack distinct black or white spotting or speckling. Large California red-legged frog tadpoles often have a wash of red coloration on their undersides.

Positive diagnostic marks should be used to accurately distinguish California red-legged frogs from other species of frogs that may be observed. A positive diagnostic mark is some attribute of the animal that will not be found on any other animal one might expect to encounter at the same locality. The following features are positive diagnostic marks that, if observed, will distinguish California red-legged frogs from yellow-legged frogs *Rana boylei* and bullfrogs *Rana catesbeiana*:

- a. Prominent dorsolateral folds (thick upraised fold of skin running from eye to hip) on any frog greater than 5 cm long from snout to vent. Young yellow-legged frogs can show reddish folds; these usually fade as the frogs attain maturity.
- b. Bright red dorsum.
- c. Well defined stripe as described above running along upper lip.

Because California red-legged frogs are often confused with bullfrogs, surveyors should note those features that might be found on bullfrogs that will rarely be observed on California red-legged frogs. These features are:

- a. Bright yellow on throat.
- b. Uniform bright green snout.
- c. Body length greater than 15 cm (6 inches).
- d. Tympanum (ear disc) distinct and much larger than eye.

Please note that some frogs may lack all of the above characteristics given for both California red-legged frogs and bullfrogs. Surveyors should regard such frogs as "unidentified." California red-legged frogs are cryptic because their coloration tends to help them blend in with their surroundings, and they can remain immobile for one half hour or more. When an individual California red-legged frog is disturbed, it may jump into the water with a distinct "plop." The California red-legged frog may do this either when the surveyor is still distant or when a surveyor is very near. Bullfrogs exhibit similar behavior but will often emit a "squawk" as they dive into the water. Because a California red-legged frog is unlikely to make such a sound, a "squawk" from a fleeing frog will be considered sufficient to positively identify the frog as a bullfrog.

2. Reproduction

California red-legged frogs breed during the winter and early spring from late November through April. Adults engage in complex courtship behaviors that result in the female depositing from 2,000 to 6,000 eggs, each measuring between 2 and 3 mm. California red-legged frog eggs are typically laid in a loose mass attached to emergent vegetation near the surface of the water body, where they can be easily dislodged. Eggs hatch within 6 to 14 days after deposition at which time the newly hatched tadpoles are delicate. California red-legged frog tadpoles transform into juvenile frogs in 3.5 to 7 months.

3. Movement

California red-legged frogs may move up to 1.6 km (one mile) up or down a drainage and are known to wander throughout riparian woodlands up to several dozen meters from the water. On rainy nights California red-legged frogs may roam away from aquatic sites as much as 1.6 km. California red-legged frogs will often move away from the water after the first winter rains, causing sites where California red-legged frogs were easily observed in the summer months to appear devoid of this species.

4. Habitat

California red-legged frogs occur in different habitats depending on their life stage and the season. All life history stages are most likely to be encountered in and around breeding sites, which are known to include coastal lagoons, marshes, springs, permanent and semi permanent natural ponds, ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. ~~California red-legged frog eggs are usually found in ponds or in backwater pools in~~ creeks attached to emergent vegetation such as Typha and Scirpus. California red-legged frog tadpoles remain in these habitats until metamorphosis in the summer months. Young California red-legged frogs can occur in slow moving, shallow riffle zones in creeks or along the margins of ponds. In the summer, older California red-legged frogs are often found close to a pond or a deep pool in a creek where emergent vegetation, undercut banks, or semi-submerged rootballs afford shelter from predators. Older California red-legged frogs may also take shelter in small mammal burrows and other refugia on the banks up to several dozen meters from the water any time of the year and can be encountered in smaller, even ephemeral bodies of water in a variety of upland settings. California red-legged frogs are frequently encountered in open grasslands occupying seeps and springs. Such bodies may not be suitable for breeding but may function as foraging habitat or refugia for wandering frogs. Creeks and ponds where

California red-legged frogs are found often have dense growths of woody riparian vegetation, especially willows (*Salix* sp.). The absence of *Typha*, *Scirpus*, and *Salix* at an aquatic site does not rule out the possibility that the site provides habitat for California red-legged frogs, but the presence of one or all of these plants is an important indicator that the site may provide foraging or breeding habitat for California red-legged frogs.

Mountain yellow-legged Frog (*Rana muscosa*)

Currently there are no official federal survey guidelines for mountain yellow-legged frog (*Rana muscosa*).

Phase 1: Habitat Assessment

Habitat assessments for the mountain yellow-legged frog shall be completed by a qualified biologist who is familiar with southern California amphibians and their associated habitats. The entire project area will be searched by foot for suitable habitat. Suitable habitat is defined as creeks or rivers which support water throughout the year (portions of the creek system may only support pooled water for portions of the year). Typically, suitable habitat consists of a series of pools and runs which receive abundant sun. Because this species typically requires two years to metamorphose larvae, intermittent creeks are not considered to be suitable habitat. In addition, this species is very susceptible to predation by non-native fishes, therefore, improved lakes and artificial ponds which support non-native predatory fishes (excludes mosquitofish) are considered to be not suitable.

Phase 2: Field surveys

A focused survey will be conducted in all areas found to be potentially suitable for mountain yellow-legged frog. Care should be taken to apply a level of effort and to use a style of surveying appropriate to the site. In addition, field work should be conducted according to the best professional judgment of the surveyor (e.g. dogs should not be brought on surveys as they disturb frogs). Surveyors must have field experience in the identification of California amphibians. Surveyors with specific needs not addressed by this field survey protocol and who may wish to propose alternative methods, may contact MSHCP biological resource staff.

Surveys should be conducted between May 1 and August 31. These sampling dates were selected because they allow surveys to be conducted with minimal disturbance of breeding frogs, eggs, or tadpoles during a period when frogs can be reliably detected.

All aquatic habitat identified during the site assessment should be surveyed three times during the day. Surveyors should wait at least seven (7) days, and meet the minimal environmental conditions described below, before repeating surveys at the same site.

Day-time surveys should be conducted on clear (less than 50% cloud cover), sunny days. Surveys should be conducted when temperatures are equal to or greater than 65 degrees Fahrenheit and sustained winds are less than 10 miles per hour. Windy, rainy, and cold days should be avoided.

Surveyors should walk along the entire shore, while visually scanning all shoreline areas in all aquatic habitats identified during the site assessment. Mountain yellow-legged frogs are rarely more than two or three hops from water. If surveys must be conducted from the water, then surveyors should take maximum care to avoid disturbing sediments, vegetation, and any visible larvae. When walking on the bank, surveyors should take care to not crush rootballs, overhanging banks, and stream side vegetation that might provide shelter for frogs.

Although not required, photographs of frogs observed during field surveys may aid in verification of species identifications. Surveyors should limit photography to the extent necessary to document the presence of mountain yellow-legged frogs and should not attempt to photograph frogs if this is likely to disturb them.

Reporting the results of field surveys. Any information on mountain yellow-legged frog distribution resulting from field surveys should be sent to the California Natural Diversity Data Base (CNDDDB) administered by the Natural Heritage program of the California Department of Fish and Game with copies sent to both the MSHCP biological resource staff and the Carlsbad USFWS field office.

Surveyors should also prepare a final report that includes the following: copies of all field notes, data sheets, photographs of the project site and of frogs observed, and a typed summary providing survey dates and times (both begin and end times), names of surveyors, temperature (water and air), wind speed, a description of the methods used, numbers and size classes of all amphibians observed, a map of the site showing survey locations, habitat and frog sightings, a copy of the CNDDDB form, and a description of possible threats to mountain yellow-legged frogs observed at the site. The report should be provided to the MSHCP biological resource staff and the Carlsbad USFWS field office.

BIRDS

APPENDIX B

BURROWING OWL SURVEY PROTOCOL AND MITIGATION GUIDELINES

Prepared by:
The California Burrowing Owl Consortium

Editor's Note: The California Burrowing Owl Consortium prepared the "Burrowing Owl Survey Protocol and Mitigation Guidelines" in response to the need for more uniform methods of conducting owl surveys and to promote more consistent procedures in mitigating impacts to burrowing owls from development projects. The Consortium is a group of approximately 60 biologists and citizens interested in burrowing owl conservation and management in the San Francisco Bay area. This document was submitted to the California Department of Fish and Game (CDFG) for review and to any interested party who requested information regarding survey methods or mitigation strategies. For more information, updates, or to provide input to these evolving guidelines, contact: Mr. Jack Barclay, BioSystems Analysis, Inc., 305 Potrero Street, Suite 29-203, Santa Cruz, California 95060, (408) 459-9100. For information on CDFG's Staff Report on Burrowing Owl Mitigation guidelines, please contact Mr. Ron Rempel, CDFG, 1416 9th Street, Room 1341, Sacramento, California 95814, (916) 654-9980.

BACKGROUND

The California Burrowing Owl Consortium developed the following Survey Protocol and Mitigation Guidelines to meet the need for uniform standards when surveying burrowing owl (*Speotyto cunicularia*) populations and evaluating impacts from development projects. The California Burrowing Owl Consortium is a group of biologists in the San Francisco Bay area who are interested in burrowing owl conservation. The following survey protocol and mitigation guidelines were prepared by the Consortium's Mitigation Committee. These procedures offer a decision-making process aimed at preserving burrowing owls in place with adequate habitat.

California's burrowing owl population is clearly in peril and if declines continue unchecked the species may qualify for listing. Because of the intense pressure for development of open, flat grasslands in California, resource managers frequently face conflicts between owls and development projects. Owls can be affected by disturbance and habitat loss, even though there may be no direct impacts to the birds themselves or their burrows. There is often inadequate information about the presence of owls on a project site until ground disturbance is imminent. When this occurs there is usually insufficient time to evaluate impacts to owls and their habitat. The absence of standardized field survey methods impairs adequate and consistent impact

assessment during regulatory review processes, which in turn reduces the possibility of effective mitigation.

These guidelines are intended to provide a decision-making process that should be implemented wherever there is potential for an action or project to adversely affect burrowing owls or the resources that support them. The process begins with a four-step survey protocol to document the presence of burrowing owl habitat, and evaluate burrowing owl use of the project site and a surrounding buffer zone. When surveys confirm occupied habitat, the mitigation measures are followed to minimize impacts to burrowing owls, their burrows and foraging habitat on the site. These guidelines emphasize maintaining burrowing owls and their resources in place rather than minimizing impacts through displacement of owls to an alternate site.

Each project and situation is different and these procedures may not be applicable in some circumstances. Finally, these are not strict rules or requirements that must be applied in all situations. They are guidelines to consider when evaluating burrowing owls and their habitat, and they suggest options for burrowing owl conservation when land use decisions are made.

Section 1 describes the four phase Burrowing Owl Survey Protocol. Section 2 contains the Mitigation Guidelines. Section 3 contains a discussion of various laws and regulations that protect burrowing owls and a list of references cited in the text.

We have submitted these documents to the California Department of Fish and Game (CDFG) for review and comment. These are untested procedures and we ask for your comments on improving their usefulness.

SECTION 1: BURROWING OWL SURVEY PROTOCOL

Phase 1: Habitat Assessment

The first step in the survey process is to assess the presence of burrowing owl habitat on the project site including winter and nesting seasons. Negative results during surveys outside the above periods are not conclusive proof that owls do not use the site.

Preconstruction Survey. A preconstruction survey may be required by project-specific mitigations and should be conducted no more than 30 days prior to ground disturbing activity.

Phase IV: Resource Summary, Written Report

A report should be prepared for CDFG that gives the results of each Phase of the survey protocol, as outlined below.

Phase I: Habitat Assessment

1. Date and time of visit(s) including weather and visibility conditions; methods of survey.
2. Site description including the following information: location, size, topography, vegetation communities, and animals observed during visit(s).
3. An assessment of habitat suitability for burrowing owls and explanation.
4. A map of the site.

Phase II: Burrow Survey

1. Date and time of visits including weather and visibility conditions; survey methods including transect spacing.
2. A more detailed site description should be made during this phase of the survey protocol including a partial plant list of primary vegetation, location of nearest freshwater (on or within 1.6 km of site), animals observed during transects.
3. Results of survey transects including a map showing the location of concentrations of burrow(s) (natural or artificial) and owl(s), if present.

Phase III: Burrowing Owl Surveys, Census and Mapping

1. Date and time of visits including weather and visibility conditions; survey methods including transect spacing.
2. Report and map the location of all burrowing owls and owl sign. Burrows occupied by owl(s) should be mapped indicating the number of owls at each burrow. Tracks, feathers, pellets, or other items (prey remains, animal scat) at burrows should also be prepared.
3. Behavior of owls during the surveys should be carefully recorded (from a distance) and reported. Describe and map areas used by owls during the surveys. Although not required, all behavior is valuable to document including feeding, resting, courtship, alarm, territorial, parental, or juvenile behavior.

4. Both winter and nesting season surveys should be summarized. If possible include information regarding productivity of pairs seasonal pattern of use, and include a map of the colony showing territorial boundaries and home ranges.
5. The historical presence of burrowing owls onsite should be documented, as well as the source of such information (local bird club, Audubon Society, other biologists, etc.).

SECTION 2: BURROWING OWL MITIGATION GUIDELINES

The objective of these mitigation guidelines is to minimize impacts to burrowing owls and the resources that support viable owl populations. These guidelines are intended to provide a decision-making process that should be implemented wherever there is potential for an action or project to adversely affect burrowing owls or their resources. The process begins with a four-step survey protocol (see *Burrowing Owl Survey Protocol*) to document the presence of burrowing owl habitat, and evaluate burrowing owl use of the project site and a surrounding buffer zone. When surveys confirm occupied habitat, the mitigation measures described below are followed to minimize impacts to burrowing owls, their burrows and foraging habitat on the site. These guidelines emphasize maintaining burrowing owls and their resources in place rather than minimizing impacts through displacement of owls to an alternate site.

Mitigation actions should be carried out prior to the burrowing owl breeding season, generally from 1 February through 31 August (Thomsen 1971, Zarn, 1974). The timing of nesting activity may vary with latitude and climatic conditions. Project sites and buffer zones with suitable habitat should be resurveyed to ensure no burrowing owls have occupied them in the interim period between the initial surveys and ground disturbing activity. Repeat surveys should be conducted not more than 30 days prior to initial ground disturbing activity.

Definition of Impacts

1. Disturbance or harassment within 50 m (approx. 160 ft.) of occupied burrows.
2. Destruction of burrows and burrow entrances. Burrows include structures such as culverts, concrete slabs and debris piles that provide shelter to burrowing owls.
3. Degradation of foraging habitat adjacent to occupied burrows.

General Consideration

1. Occupied burrows should not be disturbed during the nesting season, from 1 February through 31 August, unless the Department of Fish and Game verifies that the birds have not begun egg-laying and incubation or that the juveniles from those burrows are foraging independently and capable of independent survival at an earlier date.
2. A minimum of 16 hectares of foraging habitat, calculated on a 100-m (approx. 300 ft) foraging radius around the natal burrow, should be maintained per pair (or unpaired resident single bird) contiguous with burrows occupied within the last three years (Rich 1984, Feeney 1992). Ideally, habitat should be retained in a long-term conservation easement.
3. When destruction of occupied burrows is unavoidable, burrows should be enhanced (enlarged or cleared of debris) or created (by installing artificial burrows) in a ratio of 1:1 in adjacent suitable habitat that is contiguous with the foraging habitat of the affected owls.
4. If owls must be moved away from the disturbance area, passive relocation (see below) is preferable to trapping. A time period of at least one week is recommended to allow the owls to move and acclimate to alternate burrows.
5. The mitigation committee recommends monitoring the success of mitigation programs as required in Assembly Bill 3180. A monitoring plan should include mitigation success criteria and an annual report should be submitted to the California Department of Fish and Game.

AVOIDANCE

Avoid Occupied Burrows. No disturbance should occur within 50 m (approx. 160 ft) of occupied burrows during the non-breeding season of 1 September through 31 January or within 75 m (approx. 250 ft) during the breeding season of 1 February through 31 August. Avoidance also requires that a minimum of 6.5 acres of foraging habitat be preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird (Figure 2).

MITIGATION FOR UNAVOIDABLE IMPACTS

Onsite Mitigation. Onsite passive relocation should be implemented if the above avoidance requirements cannot be met. Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 50 m from the impact zone and that are within or contiguous to a minimum of 16 hectares of foraging habitat for each

pair of relocated owls (Figure 3). Relocation of owls should only be implemented during the non-breeding season. Onsite habitat should be preserved in a conservation easement and managed to promote burrowing owl use of the site.

Owls should be excluded from burrows in the immediate impact zone and within a 50 m (approx. 160 ft) buffer zone by installing one-way doors in burrow entrances. One-way doors should be left in place 48 hours to ensure owls have left the burrow before excavation. One alternate natural or artificial burrow should be provided for each burrow that will be excavated in the project impact zone. The project area should be monitored daily for one week to confirm owl use of alternate burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe or burlap bags should be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

Offsite Mitigation. If the project will reduce suitable habitat onsite below the threshold level of 6.5 acres per relocated pair or single bird, the habitat should be replaced offsite. Offsite habitat must be suitable burrowing owl habitat, as defined in the *Burrowing Owl Survey Protocol*, and the site approved by CDFG. Land should be purchased and/or placed in a conservation easement in perpetuity and managed to maintain suitable habitat. Offsite mitigation should use one of the following ratios:

1. Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.
2. Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.
3. Replacement of occupied habitat with suitable occupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.

SECTION 3: LEGAL STATUS

The burrowing owl is a migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R. 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phase of the nesting cycle (1 March – 15 August, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or the loss of habitat upon

which the birds depend is considered “taking” and is potentially punishable by fines and/or imprisonment. Such taking would also violate federal law protecting migratory birds (e.g., MBTA).

The burrowing owl is a Species of Special Concern to California because of declines of suitable habitat and both localized and statewide population declines. Guidelines for the Implementation of the California Environmental Quality Act (CEQA) provide that a species be considered as endangered or “rare” regardless of appearance on a formal list for the purposes of the CEQA (Guidelines, Section 15380, subsections b and d). The CEQA requires a mandatory findings of significance if impacts to threatened or endangered species are likely to occur 9Sections 21001[c], 21083. Guidelines 15380, 15064, 15065). Avoidance or mitigation must be presented to reduce impacts to less than significant levels.

CEQA AND SUBDIVISION MAP ACT

CEQA Guidelines Section 15065 directs that a mandatory finding of significance is required for projects that have the potential to substantially degrade or reduce the habitat of, or restrict the range of a threatened or endangered species. CEQA requires agencies to implement feasible mitigation measures or feasible alternatives identified in EIR’s for projects which will otherwise cause significant adverse impacts (Sections 21002, 21081, 21083; Guidelines, sections 15002, subd. (a)(3), 15021, subd.(1)(2), 15091, subd.(a).).

To be legally adequate, mitigation measures must be capable of “avoiding the impact altogether by not taking a certain action or parts of an action”; “minimizing impacts by limiting the degree or magnitude of the action and its implementation”; “rectifying the impact by repairing, rehabilitating or restoring the impacted environment”; “or reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.” (Guidelines, Section 15370).

Section 66474(c) of the Subdivision Map Act states “a legislative body of a city or county shall deny approval of a tentative map or parcel map for which a tentative map was not required, if it makes any of the following findings...(e) that the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish and wildlife or their habitat.” In recent court cases, the court upheld that Section 66474(e) provides for environmental impact review separate from and independent of the requirements of CEQA (Topanga Assn. for a Scenic Community . County of Los Angeles, 263 Cal. Rptr. 214 (1989).). The finding in Section 66474 is in addition to the requirements for the preparation of an EIR or Negative Declaration.

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BURROWING OWL SURVEY PROTOCOL

PHASE I: HABITAT ASSESSMENT

The first step in the survey process is to assess the presence of burrowing owl habitat on the project site including a 150-m (approx. 500 ft) buffer zone around the project boundary (Thomsen 1971, Martin 1973).

Burrowing Owl Habitat Description. Burrowing owl habitat can be found in annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation (Zarn 1974). Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30% of the ground surface. Burrows are the essential component of burrowing owl habitat: both natural and artificial burrows provide protection, shelter, and nests for burrowing owls (Henny and Blus 1981). Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels (*Spermophilus beecheyi*) or badgers (*Taxidea taxus*), but also may use man-made structures, such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement.

Occupied Burrowing Owl Habitat. Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers. Occupancy of suitable burrowing owl habitat can be verified at a site by an observation of at least one burrowing owl, or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing owls exhibit high site fidelity, reusing burrows year after year (Rich 1984, Feeney 1992). A site should be assumed occupied if at least one burrowing owl has been observed occupying a burrow there within the last three years (Rich 1984).

The Phase II burrow survey is required if burrowing owl habitat occurs on the site. If burrowing owl habitat is not present on the project site and buffer zone, the Phase II burrow survey is not necessary. A written report of the habitat assessment should be prepared (Phase IV), stating the reason(s) why the area is not burrowing owl habitat.

PHASE II: BURROW SURVEY

1. A survey for burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 m (approx. 500 ft) of the project impact zone. This 150-m buffer zone is included to account for adjacent burrows and foraging habitat outside the project area and impacts from factors such as noise and vibration due to heavy equipment which could impact resources outside the project area.
2. Pedestrian survey transects should be spaced to allow 100% visual coverage of the ground surface. The distance between transect center lines should be no more than 30 m

(approx. 100 ft), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 60 m (approx. 160 ft) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.

3. If burrows or burrowing owls are recorded on the site, a map should be prepared of the burrow concentration areas. A breeding season survey and census (Phase III) of burrowing owls is the next step required.
4. Prepare a report (Phase IV) of the burrow survey stating whether or not burrows are present.
5. A preconstruction survey may be required by project-specific mitigations no more than 30 days prior to ground disturbing activity.

PHASE III: BURROWING OWL SURVEYS, CENSUS AND MAPPING

If the project site contains burrows that could be used by burrowing owls, then survey efforts should be directed toward determining owl presence on the site. Surveys in the breeding season are required to describe if, when, and how the site is used by burrowing owls. If no owls are observed using the site during the breeding season, a winter survey is required.

Survey Methodology. A complete burrowing owl survey consists of four site visits. During the initial site visit examine burrows for owl sign and map the locations of occupied burrows. Subsequent observations should be conducted from as many fixed points as necessary to provide visual coverage of the site using spotting scopes or binoculars. It is important to minimize disturbance near occupied burrows during all seasons. Site visits must be repeated on four separate days. Conduct these visits from two hours before sunset to one hour after or from one hour before to two hours after sunrise. Surveys should be conducted during weather that is conducive to observing owls outside their burrows. Avoid surveys during heavy rain, high winds (> 32 kmp), or dense fog.

Nesting Seasons Survey. The burrowing owl nesting season begins as early as 1 February and continues through 31 August (Thomsen 1971, Zarn 1974). The timing of nesting activities may vary with latitude and climatic conditions. If possible, the nesting season survey should be conducted during the peak of the breeding season, between 15 April and 15 July. Count and map all burrowing owl sightings, occupied burrows, and burrows with owl sign. Record numbers of pairs and juveniles, and behavior such as courtship and copulation. Map the approximate territory boundaries and foraging areas if known.

Survey for Winter Residents (non-breeding owls). Winter surveys should be conducted between 1 December and 31 January, during the period when wintering owls are most likely to be present. Count and map all owl sightings, occupied burrows, and burrows with owl sign.

Surveys Outside the Winter and Nesting Seasons. Positive results (i.e., owl sightings) outside of the above survey periods would be adequate to determine presence of owls onsite. However, results of these surveys may be inadequate for mitigation planning because the numbers of owls and their pattern of distribution may change during winter and nesting season. Negative results during surveys outside the above periods are not conclusive proof that owls do not use the site.

Preconstruction Survey. A preconstruction survey may be required by project-specific mitigations and should be conducted no more than 30 days prior to ground disturbing activity.

SINGLE PASS BURROW SURVEY

This survey option consists of walking the entire site, surveying every potential burrowing owl burrow (*i.e.*, California ground squirrel burrow, drainage pipe 4 to 24 inches in diameter, other holes 4 to 24 inches in diameter) for burrowing owl sign (*e.g.*, individuals, feathers, pellets, white wash, insect remains, etc.).

- 1) Burrow surveys shall be completed by a qualified biologist that is familiar with burrowing owl biology and characteristic sign.
- 2) Survey transects should provide 100% coverage of all potential habitat on site. Burrowing owls primarily occur in open grassland, agricultural, or scrub habitats.
- 3) Every potential burrow site must be inspected for burrowing owl sign.
- 4) Burrows (or clusters) shall be mapped.
- 5) Surveys may be conducted year-round, however care must be taken during the breeding season (February 1 through August 31) to avoid indirect impacts to nesting pairs.
- 6) After the survey, a final report shall be submitted to the MSHCP biological resource personnel which discusses the survey methodology, transect width, duration, conditions, and results of the survey. Appropriate maps showing burrow locations shall be included.
- 7) A California Natural Diversity Data Base (CNDDDB) data sheet shall be submitted to the California Department of Fish and Game for all positive locations.

LEAST BELL'S VIREO SURVEY GUIDELINES

The following suggested guidelines are provided to facilitate accurate assessments of the presence/absence of the State and federally endangered least Bell's vireo (*Vireo bellii pusillus*, vireo), to provide the Fish and Wildlife Service with sufficient information to adequately respond to requests for applicable Federal permits and licenses, and to fulfill our mandate to conserve and recover the species. Currently, a recovery permit pursuant to section 10(a)(1)(A) of the Endangered Species Act is not required to conduct presence/absence surveys for the vireo, as long as this protocol is utilized and vocalization tapes are not used. These guidelines include minor modifications to our February 1992 guidelines and provide clarification of what we have been verbally recommending.

1. Under normal circumstances, all riparian areas and any other potential vireo habitats should be surveyed at least eight (8) times during the period from April 10 to July 31. However, we may concur, on a case by case basis, with a reduced effort if unusual circumstances dictate that this is a prudent course of action. For instance, intensive surveys of small, marginal or extralimital habitats by experienced personnel may well result in defensible conclusions that eight (or more) individual survey are unnecessary. Under such unusual circumstances, we will consider requests for reductions in the prescribed number of individual surveys. In any case, site visits should be conducted at least 10 days apart to maximize the detection of, for instance, late and early arrivals, females, particularly "non vocal" birds of both sexes, and nesting pairs.
2. Although the period from April 10 to July 31 encompasses the period during which most vireo nesting activity occurs, eight surveys are generally sufficient to detect most (if not all) vireo adults in occupied habitats. Precise vireo censuses and estimations of home range likely will not be possible unless surveys are conducted outside of this time window. Although focused surveys conducted in accordance with these guidelines substantially reduce the risk of an unauthorized take* that could potentially occur as a result of land development or other projects, individual project proponents may wish to conduct surveys that are more rigorous than those that would otherwise result from strict adherence to these survey guidelines. If additional information (e.g., extent of occupied habitat, total numbers of adult and juvenile vireos in study area) is desired or necessary, surveys should be extended to August 31 and conducted in such a manner as to collect the data necessary to prepare reports that reflect the methods and standards established in the current scientific literature on this subject. In particular, information collected after July 15 will reflect a broader extent to the riparian habitat and other adjacent habitat types that the vireo typically utilizes during the latter phase of the breeding season, especially when the young become independent of the adults.
3. Surveys should be conducted by a qualified biologist

familiar with the songs, whisper songs, calls, scolds, and plumage characteristics of adult and juvenile vireos. These skills are essential to maximize the probability of detecting vireos and to avoid potentially harassing the species in occupied habitats.

4. Surveys should be conducted between dawn and 11:00 a.m. Surveys should not be conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather that individually or collectively may reduce the likelihood of detection.
5. Surveyors should not survey more than 3 linear kilometers or more than 50 hectares of habitat on any given survey day. Although surveyors should generally station themselves in the best possible locations to hear or see vireos, care should be taken not to disturb potential or actual vireo habitats and nests or the habitat of any sensitive or listed riparian species.
6. All vireo detections (*e.g.*, vocalization points, areas used for foraging, etc.) should be recorded and subsequently plotted to estimate the location and extent of habitats utilized. These data should be mapped on the appropriate USGS quadrangle map.
7. Data pertaining to vireo status and distribution (*e.g.*, numbers and locations of paired or unpaired territorial males, ages and sexes of all birds encountered) should be noted and recorded during each survey. In addition, surveyors should look for leg bands on vireo adults and juveniles if, in fact, it is possible to do so without disturbing or harassing the birds. If leg bands or other markers are observed, then surveyors should record and report the detection and associated circumstances to us by telephone, facsimile, or electronic mail as soon as possible. Reports should include the colors and relative locations of any and all bands detected, the age and sex of the marked bird, and the precise location of the detection.
8. The numbers and locations of all brown-headed cowbirds (*Molothrus ater*) detected within vireo territories should be recorded during each survey and subsequently report to us. In addition, all detections of the State and federally endangered southwestern willow flycatcher (*Empidonax trillii extimus*, flycatcher) and State endangered yellow billed cuckoo (*Coccyzus americanus*, cuckoo) should be recorded and reported. Any all cuckoo and flycatcher adults, young, or nests should not be approached, and taped vocalizations of these species should not be used unless authorized in advance by scientific permits to take* issued by us (if appropriate) and the California Department of Fish and Game.

Flycatcher presence/absence surveys require a recovery permit issue us per section 10(a)(1)(A) of the Endangered Species Act

9. To avoid the potential harassment of vireos, flycatchers, and cuckoos resulting from vireo surveys, other riparian species survey efforts, or multiple surveys within a given riparian habitat patch, detections of these three species should be reported to us as soon as possible by telephone, facsimile, or electronic mail.
10. A final report (including maps) should be prepared that depicts survey dates and time and includes descriptions or accounts of the methods, locations, data and information identified in preceding sections.
11. This final report should be provided to us (at the letterhead address) and to the local office of the Department of Fish and Game within 45 calendar days following the completion of the survey effort. Additionally, a summary of all vireo survey efforts conducted during the calendar year should be submitted to each of the above offices by January 31 of the following year.

Should you have data or information to report, or have any questions regarding these survey guidelines, please contact Christine Moen (christine-moen@fws.gov), or Loren Hays (loren-hays@fws.gov) of my staff at (760) 431-9440 (facsimile 760-431-9624), or John Gustafson (jgustafs@hq.dfg.ca.gov) with the Department of Fish and Game at (916) 654-426((facsimile 916-653-1019).

Sincerely,

Ken S. Berg
Acting Field Supervisor

*The term "take," as defined in Section 3, paragraph 18 of the Endangered Species Act of 1973 as amended means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any conduct. "Take" (specifically "harass") is further defined to mean "an act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, and sheltering". "Take" (specifically "harm") is further defined "as an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding or sheltering" (50 CFR 17.3). Please be advised that the take of the vireo and other listed species is prohibited by section 9 of the Act unless authorized by permits issued pursuant to section 7 or section 10 to the Act.

SOUTHWESTERN WILLOW FLYCATCHER PROTOCOL REVISION 2000

The U.S. Fish and Wildlife Service (USFWS) is revising the survey protocol for the southwestern willow flycatcher due to issues raised (Braden and McKernan 1998, 1999, Sogge et al. 1997, 1999), discussion with experts in the field, and subsequent review of pertinent documents by the Ornithological Council. The number and timing of surveys recommended in Sogge et al. (1997) (e.g., a *minimum* three surveys), are appropriate for general surveys and situations where the survey results will NOT be used to evaluate the effects of a project. However, surveyors will now need to be prepared to make at least five visits to evaluate project effects on flycatchers (e.g., typically those that would involve consultation with the USFWS). The purpose of these additional surveys is to provide greater confidence in determining resident southwestern flycatcher presence/absence and direct limited resources to where they can be most beneficial. Thus, what was once a single approach for all survey purposes has been changed to a two-strategy system; for general purposes, surveyors will need to conduct a *minimum* of three surveys, and in order to assess project-related impacts, surveyors will need to be prepared to conduct a *minimum* of five surveys.

ALL SURVEYS

Although the USFWS is modifying the recommended *minimum* number of survey visits to evaluate project effects to flycatchers, all surveys conducted should follow the general guidelines described in Sogge et al. (1997). This includes the use of tape-playback, thorough coverage of survey sites on ALL visits, ways to minimize impacts to the habitat, importance of recognizing all flycatcher vocalizations, importance of beginning surveys at dawn, etc.

Early-season visits in May and June (needed for both survey strategies) allow surveyors to look for flycatchers when they are most vocal. During these visits, surveyors using taped calls can elicit vocal responses from flycatchers, and subsequently observe behaviors that indicate nesting (e.g., establishing and defending territories soliciting mates, acquiring/carrying nest material, etc.). These early visits also ~~increase the surveyor's familiarity with the site (e.g., learning vegetation types, topography, etc.),~~ and if birds are located, help the surveyor focus on specific areas within a site where the resident southwestern willow flycatchers might be found during the third survey period (and therefore where to devote extra survey attention).

During ALL visits, surveyors should observe and record flycatcher behavior such as territorial defense, pair status, carrying nest material, feeding fledged young, etc. Surveyors should spend additional time either during or after the survey to observe and document pair behavior and status (while being careful to not disturb the birds). Neither survey method is limited to three or five visits. Searches of large or particularly dense areas may take more than one day to complete a "single" survey of the area (depending on start time, number of surveyors, etc.). Or possibly, some surveyors may want to make extra visits to confirm an observation. It is important that all survey information be recorded on your survey forms (in Sogge et al. 1997) and Submitted to your local USFWS or State wildlife agency as specified in your permit.

The survey efforts described in Sogge et al. (1997) and modified herein relate only to presence/absence type surveys. Efforts such as nest monitoring require different techniques, and more extensive effort, experience, and permitting. The permit to survey for willow flycatchers does not authorize surveyors to directly monitor or search for nests. Both State and Federal permits are required for these activities because they are more invasive and require more experience. We recognize that surveyors may discover nests, while trying to detect birds. In these instances, surveyors should place themselves at a distance where birds are not disturbed, quickly determine the status of the nest with binoculars, map the location, leave the immediate area, and contact your local State or Federal wildlife agency with this information as soon as possible.

GENERAL SURVEYS

The *minimum* three survey effort described in Sogge et al. (1997) is appropriate for conducting general willow flycatcher surveys, but should NOT be used to help assess impacts of a specific project. When using the *minimum* three survey methodology, the flexibility exists to conduct more than three surveys in order to be more certain about the presence/absence, breeding status, home range, absence, etc. of resident southwestern willow flycatchers. This might especially be worthwhile if flycatchers are detected during periods one and two, and/or based on the confidence/experience of the surveyor. If a surveyor has more time, it may best be applied by conducting more surveys during period three.

PROJECT-RELATED SURVEYS

Surveyors need to plan to make at least three visits during the third (or last) survey period (June 22 to July 17), because: (a) nesting southwestern willow flycatchers can be more difficult to detect once breeding efforts are well underway (e.g., the third survey period), compared to earlier in the breeding season; (b) detections during the third period are the "verification" that flycatchers are resident, lacking other evidence of local breeding; and (c), the potentially high conservation ramifications of incorrectly determining that flycatchers are not resident at a project-related site. Detecting southwestern willow flycatchers during the last survey period can be difficult because birds are less vocal and less likely to respond (especially with singing) to playback calls. Conducting more visits during this survey period provides greater confidence in determining the presence/absence of resident southwestern willow flycatchers, and can generate more information about nesting behaviors, number of pairs, and other related information.

MODIFIED SURVEY GUIDELINES: TIMING AND NUMBER OF VISITS

Survey schedule

1st survey period

May 15 to May 31. *Minimum* one survey.

2nd survey period.

June 1 to June 21. *Minimum* one survey.

3rd survey period.

June 22 to July 17 (this period is extended one week longer than per Sogge et al. 1997).

For general surveys -*Minimum* one survey.

For project-related surveys -Plan to conduct a *minimum* of three surveys, each at least five days apart.

GUIDELINES FOR THE REVISED PROTOCOL FOR PROJECT-RELATED SURVEYS

- 1) Surveyors must be familiar with and adhere to the general survey techniques and guidelines in Sogge et al. (1997). Flycatcher survey training must be completed prior to being permitted to conduct surveys. Please follow all reporting requirements described in your permits such as contacting agencies when nests are discovered or submitting survey forms at the end of the season.
- 2) For project-related surveys, visits in the third period are recommended until flycatchers are found, or until three visits are completed with no flycatcher detections. If birds are found on either the first or second survey within the last survey period (visit 3 or 4), we recommend that surveyors continue to complete all five surveys, especially if pair status could not be determined in earlier visits.
- 3) Surveys conducted in different survey periods, and multiple surveys within the third survey period, must be at least FIVE days apart from each other.
- 4) Conduct the initial survey in period three between June 22 and June 30. Because surveys must be at least five days apart and there are just 27 days in the last survey period, it is important that surveys begin as soon as possible.
- 5) Detecting flycatchers in the third survey period can confirm resident status. Additionally, behaviors observed and recorded on survey forms throughout the survey period can help determine number of pairs, nesting status, etc. Surveyors should spend time either during or after surveys to observe and document flycatcher behavior (without directly monitoring nests or disturbing bird behavior).
- 6) Flycatchers could be considered as migrants or absent if birds are not detected during the last survey period. Yet, it may be possible for early-season nests to fail by late June, and the flycatchers not be detected in the last survey period. As a result, observing and reporting behavior of flycatchers in the first two survey periods is important in determining resident southwestern willow flycatcher status.

- 7) State and Federal permits are required to search for and monitor nesting flycatchers. Contact your State or Federal wildlife agency for more information on methodology. For example, the Arizona Game and Fish Department has produced a report (Rourke et al. 1999) that specifically describes how to monitor southwestern willow flycatcher nests. The applicant is responsible for having all applicable State and Federal permits prior to conducting flycatcher survey, monitoring, and management activities.

LITERATURE CITED

- Braden, O.T. and R.L. McKernan. 1998. Nest cycles, vocalizations, and survey protocols of the endangered southwestern willow flycatcher. Report to the U.S. Bureau of Reclamation, Boulder City, Nevada. San Bernardino County Museum, Redlands, CA
- Braden, G.T. and R.L. McKernan. 1999. Rebuttal to the criticism of Sogge et al. (1999) concerning the proposed survey protocol for the endangered southwestern willow flycatcher. Report to the U.S. Fish and Wildlife Service, Albuquerque, New Mexico. San Bernardino County Museum, Redlands, CA.
- Rourke, J.W., T.D. McCarthy, R.F. Davidson, and A.M. Santatliello. 1999. Southwestern willow flycatcher nest monitoring protocol. Nongame and Endangered Wildlife Program Technical Report 144. Arizona Game and Fish Department, Phoenix, Arizona.
- Sogge, M.K., R.M. Marshall, S.L. Sferra, and T.J. Tibbitts. 1997. A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol. Technical Report NPS/NAUCPRS/NRTR-97/12. USGS Colorado Plateau Research Station, Northern Arizona University, Flagstaff, Arizona.
- Sogge, M.K., R.M. Marshall, S.L. Sferra, and T.J. Tibbitts. 1999. Preliminary evaluation of the effectiveness of the southwestern willow flycatcher survey protocol (Sogge et al. 1997). A briefing statement to the U.S. Fish and Wildlife Service, Arizona Ecological Services Office, Phoenix, AZ.

Fill in the following information completely. Submit original form. Retain copy of your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No ? (circle one)

Management Authority for survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles=mi, kilometers=km, meters=m)

Did you survey the same general area during each visit to this site this year? Yes/No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes/No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (Check one):

- Native broadleaf plants (entirely or almost entirely, includes high-elevation willow)
- Mixed native and exotic plants (mostly native)
- Mixed native and exotic plants (mostly exotic)
- Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)?

Yes No (circle one)

If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary): _____

Willow Flycatcher Survey and Detection Form (rev.4/98)

Site Name _____ Total Site No. _____

Was site surveyed in previous year? Yes No Drainage _____

If yes, what site name was used? _____

County _____ State _____ USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM

Stop: N _____ E _____ UTM Zone _____

Elevation _____ feet/meters (circle one)

****Fill in additional site information on back of this page****

Survey # Observer (s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
_____	Date Start Stop Total hrs _____							
_____	Date Start Stop Total hrs _____							
_____	Date Start Stop Total hrs _____							
_____	Date Start Stop Total hrs _____							

_____	Date							
_____	Start							
	Stop							
	Total hrs__							
Overall Site Summary (total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes No			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

CRUSTACEANS

April 19, 1996

**Interim Survey Guidelines to Permittees
for Recovery Permits under Section 10(a)(1)(A)
of the Endangered Species Act for the
Listed Vernal Pool Branchiopods**

The endangered Conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool tadpole shrimp (*Lepidurus packardii*), and the threatened vernal pool fairy shrimp (*Branchinecta lynchi*) were listed on September 19, 1994, under the Endangered Species Act of 1973, as amended (Act) (59 Federal Register 48136). These species are endemic to vernal pools in the Central Valley, coast ranges, and a limited number of sites in the Transverse Range and Riverside County, California. The endangered Riverside fairy shrimp (*Streptocephalus woottoni*) was listed under the Act on August 3, 1993 (58 Federal Register 41391). This species inhabits Riverside, Orange and San Diego Counties, California, and northern Baja California, Mexico. These five species, hereafter referred to as vernal pool branchiopods, are fully protected under the Act. The San Diego fairy shrimp (*Branchinecta sandiegonensis*) is a proposed endangered species. Surveys for all these species should follow the methodologies described in these Interim Survey Guidelines (Guidelines). It is expected that the Guidelines will be revised in the future as additional information becomes available.

These Guidelines are issued as guidance to section 10(a)(1)(A) permittees. Because taking (killing, injuring, harming or harassing) endangered species is strictly prohibited under the Act, a section 10(a)(1)(A) recovery permit must be obtained prior to initiating any surveys or studies that might result in the take of endangered or threatened branchiopods. Failure to obtain this permit may result in violation(s) of section 9 of the Endangered Species Act. Additionally, ~~violation(s) of a section 10(a)(1)(A) permit may result in its non-renewal, suspension or revocation.~~

For the purposes of these Guidelines, vernal pools and swales are defined as follows:

Vernal pools and swales are ephemeral wetlands that form in areas of California with Mediterranean climates that have shallow depressions underlain by a substrate of hardpan, clay, or basalt near the surface that restricts the percolation of water. They may be characterized by a barrier to overland flow that causes water to collect and pond. Vernal pools/swales may occur singly, but more typically occur in vernal pool/swale complexes, due to the local hydrology, geology, and topography. Initially, the dry soil in vernal pools/swales becomes wet and starts to saturate during the fall and early winter rains. The second stage in a typical vernal pool cycle is characterized by peak rainfall and inundation of the vernal pools/swales. Vernal pools may remain inundated until spring or early summer, sometimes filling and emptying numerous times during the wet

season. The vernal pools gradually dry down during the spring, quite often forming the unique "bathtub ring" of flowers from endemic vernal pool plants blooming profusely at the pool margins. This drying down stage is typified by the production of seeds in the endemic plants and the dispersal of animals from the vernal pools. These pools eventually dry down totally, with the onset of drought conditions. During this final stage, early season and shallow-rooted plants turn brown, and the soil dries and may crack. With average rainfall patterns, vernal pools are typically characterized by a predominantly annual plant community dominated by wetland species.

Note: At this time, vernal pool-associated activities not directed toward the listed species, such as botanical surveys and wetland delineations, are not considered to require a permit. However, persons conducting such activities should minimize any potential impact on the vernal pool branchiopods or plants by reducing the amount of walking through vernal pools to the lowest extent practical. Persons conducting projects that require permits (e.g., branchiopod or amphibian surveys) should also minimize walking through the pools.

I. Survey Approval

Unless otherwise authorized by the U.S. Fish and Wildlife Service (Service) in writing, these Guidelines shall be utilized for all surveys conducted for the listed vernal pool branchiopods. Any deviations from the methods prescribed by these Guidelines must be approved by the Service ~ surveys are conducted. The permittee shall provide the appropriate Service Field Office (see XI, Service Contact section) with all of the following information in writing for each project site at least 10 working days prior to the anticipated start date of survey work:

- a. The precise location of the project site clearly delineated on either an original or high quality copy of a U.S. Geological Survey topographic map {exact scale, 7.5 minute, 1" = 2,000 ft.}. ~~The map should contain the project name, type of project by category [the categories are: development, mitigation banking, or other (specify)], the estimated area (acreage) of the project site and an estimated number of area (acreage) of pool/swales on the site, quad name, and county name;~~
- b. Names of all vernal pool biologists and associated personnel with reference to their section 10(a)(1)(A) permit number; and
- c. A written request to commence wet season or dry season sampling for each project to be surveyed for the listed vernal pool branchiopods.

II. Sampling Survey Completion

- a. Once initiated, surveys conducted pursuant to these Guidelines may be suspended prior to completion if:

1. the presence of one or more of the five listed branchiopods on the subject site is:, determined through identification at any point within the wet season survey cycle; or
 2. it is agreed that one or more of the listed vernal pool branchiopods are present on the subject site.
- b. Permission to dry season survey for the listed vernal pool branchiopods requires the completion of both the full wet season survey and the dry season survey, including the complete analysis of all dry soil samples (see V).
- c. A complete survey consists of sampling for either:
1. two full wet season surveys done within a 5-year period; or
 2. two consecutive seasons of one full wet season survey and one dry season survey (or one dry season survey and one full wet season survey).
- d. Each vernal pool/swale in a vernal pool/swale complex shall be surveyed as per these Guidelines. However, in the case of a large vernal pool/swale complex, the Service may authorize a representative portion or portions of the vernal pool/swale complex to be surveyed as per these Guidelines.

III. Notification of Presence

Should the permittee determine that any of the five listed vernal pool branchiopods are present at a site,- the appropriate Service Field Office (see XI, Service Contact section) shall be notified within 10 working days by letter or telephone.

IV. Wet Season Surveys

Wet season survey sampling shall not be conducted at any project site unless the permittee receives prior permission from the Service (see I (c)).

- a. Survey Initiation, Frequency, and Termination
1. Surveyors should visit sites after initial storm events to determine when pools/swales have been inundated. A pool/swale is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event.
 2. Pools/swales shall be adequately sampled once every two weeks, beginning no later than two weeks after their initial inundation and

- continuing until they are no longer inundated, or until they have experienced 120 days of continuous inundation.
3. In cases where the pools/swales dry and then refill in the same wet season, sampling shall be reinitiated within eight days of refilling every time they meet the 3 cm of standing water criteria and shall continue until they have experienced 120 days of continuous inundation, or until they are no longer inundated .
 4. If a vernal pool/swale has already experienced 120 days of continuous inundation, but then dries down and subsequently refills in the same wet season, surveys must be re-initiated in accordance with IV(a)(3) above, each time the vernal pool/swale refills and meets the 3 cm of standing water criteria.
 5. Once initiated, surveys conducted pursuant to these Guidelines may be suspended prior to completion if the presence of one or more of the five listed branchiopods on the subject site is determined through identification at any point within the wet season survey cycle

b. Survey Sampling

At each wet season visit, representative portions of the pool/swale bottom, edges, and vertical water column shall be adequately sampled using a seine, dip net or aquarium net appropriate for the size of the pool or swale. Net mesh size shall not be larger than (1/8) inch. Seines shall be examined and emptied of material at least once every five linear meters.

c. Voucher Specimens

1. Voucher specimens shall be collected only once for each individual vernal pool/swale and shall be accessioned to either the California Academy of Sciences (CAS) or the Natural History Museum of Los Angeles County (LACM) (see VIII).
2. Voucher specimens of all listed vernal pool branchiopods captured shall be collected and all other specimens shall be returned in good condition to the vernal pool/swale where they were found as quickly as possible.
3. No more than 20 specimens of each species of listed vernal pool branchiopods from each pool/swale, or less than 10% of the subpopulation present in the pool/swale, whichever is the lesser amount, shall be retained and preserved as voucher specimens.
4. Only sexually mature, adult branchiopods shall be used for purposes of voucher specimens for species identification. The Service will not accept species identifications made using immature specimens.

5. The sample of 20 voucher specimens shall include no less than three specimens of either sex.

V. Dry Season Surveys

Dry season soil sampling shall not be conducted at any project site unless the permittee receives prior written permission from the Service (see I (c)).

a. Soil Collection

Soil shall be collected when it is dry to avoid damaging or destroying cysts which are more fragile when wet. A hand trowel or similar instrument shall be used to collect approximately one liter volume sample per pool/swale of the top 1-3 cm of pool sediment. Whenever possible, soil samples shall be collected in chunks. The trowel shall be used to pry up intact chunks of sediment, rather than loosening the soil by raking and shoveling which can damage cysts.

In southern California there are a number of federally listed plant species (*Orcuttia californica*, *Pogogyne abramsii*, and *Pogogyne nudiscula*) that often co-occur with the fairy shrimp. Removal of soil could damage populations of these plants by inadvertently removing seed. Dry sampling should be minimized or avoided within those vernal pools/swales that are known to, or may, contain these species. The permittee shall contact the Carlsbad field Office (see XI, Service Contact section) regarding the distribution of these listed plants species prior to conducting dry sampling. in Los Angeles, Orange, Riverside and other southern California counties.

b. Soil Sample Volume...

Each soil sample from the 10 soil sample locations shall be labeled, stored, and analyzed individually.

1. A total of 10 soil samples of approximately 100 ml each shall be taken from each pool/swale, for a total soil sample volume of approximately one liter per pool/swale.
2. In the case of a very large playa, dry lake, or vernal pool, the Service may authorize the removal of more than one liter of soil.
3. If a pool has a diameter of less than three meters, the total soil sample taken shall not exceed 1/2 liter in volume per pool, and the 10 soil samples shall be approximately 50 ml each in volume.

c. Soil Sample Locations

A total of 10 soil samples shall be collected from the following locations within each pool/swale sampled:

1. Starting with one soil sample taken from the edge of the pool/swale, at least four soil samples shall be taken from equidistant points along the longest transect of the pool/swale.
2. Starting with one soil sample taken from the edge of the pool/swale, at least four soil samples shall be taken from equidistant points along the widest transect of the pool/swale.
3. If neither the longest or the widest transect encompasses the deepest part (or parts) of the pool/swale, then at least two soil samples shall be taken from the deepest part (or parts) of the pool/swale.

d. Soil Storage

1. The soil samples from each soil sample location shall be stored in separate bags, labeled with the specific location within the pool/swale from where each soil sample was taken. A sketch of the pool/swale showing the specific location of each soil sample shall be included in the 90-day report.
2. Soil samples containing any residual moisture initially shall be adequately ventilated and allowed to air dry thoroughly before storage of the sample. The bags containing the soil samples shall be kept out of direct sunlight in order to avoid excessively heating the sample.
3. All soil samples shall be retained and stored as directed in V(d)(1) and V(d)(2) above until the Service is able to provide direction in species-level identification of the cysts of all the aforementioned branchiopod species.

e. Soil Sieving

1. The soil samples shall not be ground, crushed, or otherwise manipulated in order to expedite the sieving process. A relatively short period of pre-soaking the soil sample may be helpful/necessary in order to facilitate the sieving process. Small aliquots (approximately 50 ml in volume) of soil shall be gently washed with water through a graded series of U.S. standard eight inch soil sieves ending in mesh sizes 300 micron (um), and 150 micron (um).
2. Sieves must be thoroughly rinsed and visually inspected for any cysts adhered to the sieves prior to the start of sieving. This process must be repeated for each individual soil sample location. Sieves shall also be rinsed and thoroughly inspected upon completion of sieving soil samples.

f. Soil Examination

1. Washed and sieved soil fractions from the 300 urn and 150 urn sieves shall be examined under a dissecting microscope for tadpole shrimp and fairy shrimp cysts. The process shall be repeated until all individual soil samples have been examined. All sieved material shall be processed and dried as quickly as possible, preferably within one hour from the initial wetting. Note: Do not return soil to survey sampling site.
2. All fairy shrimp and tadpole shrimp cysts shall be removed from the soil, separated by cyst type into labeled vials, allowed to air-dry, and then stored dry.

g. Cyst Density

Cyst density information for each soil sample location shall be calculated by dividing the total number of cysts recovered by the total amount of soil from the individual aliquots from that soil sample location. Total cyst density information for each soil sample location shall be reported for each species in terms of: none; 1-25 cysts/100 ml soil; 26-50 cysts/100 ml soil; 51-100 cysts/100 ml soil; 101-199 cysts/100 ml soil; or more than 200 cysts/100 ml soil.

h. Cyst Identification

Each fairy shrimp and tadpole shrimp cyst type shall be identified to genus by a qualified biologist. The Service may require an independent review by a crustacean biologist(s) of any vernal pool branchiopod or cyst identification.

There are two options when a branchiopod cyst identification is made to genus:

1. the survey, pursuant to these Guidelines, may be suspended if it is agreed one or more of the listed species are present on the project site; or
2. one subsequent complete wet season sampling survey shall be conducted to complete survey requirements.

VI. Cyst Voucher Specimens

A representative sample of each cyst type from each pool/swale shall be accessioned to either CAS or LACM (see VIII).

VII. 90-Day Reports

a. U.S. Fish & Wildlife Service

The permittee shall provide the appropriate Service Field Office (listed in the Service Contact section) with all of the following information in writing, using the appropriate Vernal Pool Data Sheet where applicable as the reporting form, no more than 90 calendar days after completing the last field visit of the season at each project site:

1. The location of the project site clearly delineated on an original or high quality copy of a U.S. Geological Survey topographic map (exact scale, 7.5 minute, 1" =2,000 ft.). The location of the listed vernal pool branchiopods is to be included on the 7.5 minute maps in as precise a manner as possible (*e.g.*, lat/long or location within a section).
2. Five color photographic 35mm slides and/or 3" x 5" photographs of each project site taken during sampling in the wet season; this is to include two slides and/ or photographs taken from standing position that portray the general landscape of the site [*e.g.*, two photos from an opposing axis of the site (*e.g.*, north and south compass headings)]; and three slides and/or photographs of representative vernal pools, swales, and other areas within the site sampled for the five listed vernal pool branchiopod species. The following information shall be legibly written on each slide/photograph with permanent ink: precise location of the project site, direction from which photograph was taken, date of photograph, initials of photographer, and initials of the scientific names of any of the five listed vernal pool branchiopod species that were found at the depicted site.
Note: ~~Slides and/or photographs only need to be submitted once per project site.~~
3. The estimated number of individuals of any of the listed vernal pool branchiopods observed in each pool/swale shall be reported in terms of an order of magnitude (*e.g.*, 10's, 100's, 1000's).
(*Refer to the Vernal Pool Data Sheet*)
4. The number of individuals of any of the listed vernal pool branchiopods or cysts preserved from each pool/swale and the name of the institution in which they are accessioned. (*Refer to the Vernal Pool Data Sheet*) section 10(a)(1)(A) permit:

- a. falsification of any reporting or information;
- b. failure to follow the stated Guidelines sampling methodologies;

- c. failure to obtain prior permission to commence wet season surveys or failure to obtain written permission to commence dry season surveys (see section I (c));
- d. failure to notify the Service within 10 days of a determination of presence of one or more of the listed vernal pool branchiopods on a survey site;
- e. failure to accession voucher specimens or improperly accessioned voucher specimens;
- f. failure to file completed 90-day reports with the Service within 90 calendar days after completing the last field visit of the season at each project site; or
- g. failure to file completed Natural Diversity Data Base forms with the California Department of Fish and Game within 90 calendar days after completing the last field visit of the season at each project site.

Violation(s) of a section 10(a)(1)(A) permit may result in its non-renewal, suspension or revocation.

XI. Service Contact

For the Central Valley hydrographic basin and the coast ranges north of the Santa Cruz County line, the Sacramento Field Office (2800 Cottage Way Room E-1803, Sacramento California 95825; telephone 916/979-2728) should be contacted regarding vernal pool pranchiopod issues.

For areas from Santa Cruz County south to Ventura County , contact the Ventura Field Office (2493 Portola Road -Suite B, Ventura, California 93003; telephone 805/644-1766).

For areas from Los Angeles County south to the U .S.- Mexico border, contact the Carlsbad Field Office (2730 Loker Avenue West, Carlsbad, California 92008; telephone 619/431-9440).

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit

This form is being submitted to serve as part of the 90-day report: _____ no _____ yes

Required color slides and/or photographs for the project site are included: _____ no _____ yes

Date: _____ Time: _____ County: _____ Quad: _____

Collector(s): _____ Permit #: _____

Site/Project Name: _____ Pool #: _____

Township: _____ Range: _____ Section: _____ lat. _____ Long. _____

Temperature: _____ Water: _____ °C Air: _____ °C

Pool Depth:

At time of sampling: _____ cm at time of sampling: _____ m x _____ m
Estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

Undisturbed	disturbed:	tire tracks	garbage	discing/plowing
Ungrazed	grazed:	cattle	horses	sheep other _____
		Light	moderate	heavy

Land use habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. fish and Wildlife Service Vernal Pool Data sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 2000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

(Optional) Species Observations:

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Dry Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: _____ no _____ yes

Required color slides and/or photographs for the project site are included: _____ no _____ yes

Date: _____ Time: _____ County: _____ Quad: _____

Collector(s): _____ Permit #: _____

Site/Project Name: _____ Pool # _____

Township: _____ Range: _____ Section: _____ lat. _____ long

Habitat Condition: (circle where appropriate)

Undisturbed	Disturbed:	tire tracks	garbage	discing/plowing
Ungrazed	Grazed	cattle	horses sheep	other _____
		Light	moderate	heavy

Land use of habitat:

Pool Bottom Surface: (circle where appropriate)

Hardpan— claypan— cobbly/rocky lava flow other _____

Pool Depth: _____ cm (estimated maximum) Surface Area: _____ m² (estimated maximum)

Sketch of pool and transects showing:

Scale

Indication of North

Sampling locations

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Dry Season Survey
Soil Analysis

Note: Please fill out the required information completely for each site visit.

Sample ID	Sample Volume (ml)	Genus (/species)	# Cysts (or None)	Cyst Density (#/100ml)

Voucher Specimens
 Cysts shall be stored dry and shall be preserved according to the standards of the institution in which they will be accessioned.

Genus (/species) # Cysts Catalog/Accession # Pool #

California Academy of Sciences
Department of Invertebrate Zoology and Geology
Golden Gate Park
San Francisco, CA 94118

October 1995

Protocols and standards for preservation and archival of vernal pool crustaceans.

Specimens of vernal pool crustaceans listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and collected during surveys permitted by the USFWS may be deposited as voucher specimens at the California Academy of Sciences, Department of Invertebrate Zoology and Geology (CASIZG). However, only those specimens which have been properly fixed, preserved and documented will be accepted for archival. The vendors listed below can supply the necessary materials for specimen storage, however these vendors are not specifically required and materials from other sources will be acceptable provided they meet the standard requirements of CASIZG. Any questions regarding these standards and protocols may be directed to Dr. Robert Van Syoc, Senior Collection Manager of invertebrates at CASIZG (415-750-7082). Visits to the collection to deposit potential voucher specimens must be at least 7 days in advance. Specimens may be shipped to CASIZG, but shipments with damaged specimens or broken containers will not be accepted. Each shipment must be accompanied by a packing list of specimens sent. CASIZG catalog numbers will be assigned by CAS staff and notification sent to you by U. S. mail. This will be done in an expeditious manner, but staffing limitations may cause delays. Therefore, allow several days for notification of CASIZG catalog numbers.

Materials required:

- ◆ 100% or 95% non-denatured ethanol
- ◆ 75% non-denatured ethanol (diluted from 100% or 95% with de-ionized or distilled water)
- ◆ 2 dram, 4 dram, 6 dram glass shell vials
- ◆ clean cotton
- ◆ 8 oz. tall flint glass bottles, 48 mm aperture (inside diameter) or 32 oz. glass bottles, 74 mm aperture (inside diameter)
- ◆ white polypropylene screw-top closures with solid (no holes) smooth surface, 58 mm diameter (8 oz. bottles) or 85 mm diameter (32 oz. bottles), with foam or plastic liners
- ◆ Nalgene polypaper
- ◆ Dot-matrix printer and alcohol-proof ink ribbons, or technical pen with alcohol-proof ink, or #2 pencil

Standards and Protocols:

- ◆ Vernal pool crustaceans must be fixed in 100-95% non-denatured ethanol and preserved for archival in 75% non-denatured ethanol. Enough 100-95% ethanol should be used in the initial fixation to insure proper fixing of tissues. At ratio of at least 10 parts 100-95% ethanol to 1 part tissue is required for initial fixation. A ratio of at least 3 parts 75% ethanol to 1 part tissue is required for preservation.

- ◆ All specimens must be sorted by collecting event (each locality/date/time of collection). They must be identified to species level, each species from each collecting event placed into a vial or vials in its own 8 or 32 oz. bottle (use the smaller size if possible). Specimens are placed into 2 dram, 4 dram, or 6 dram glass shell vials filled with 75% ethanol. The vial or vials are plugged with clean cotton in such a manner that no air bubbles are trapped inside and placed inverted into an 8 or 32 oz. glass bottle filled with 75% ethanol (Fig. 1). If open vials with specimens are inserted upright into the larger container, then plugged with cotton, air bubbles will not be trapped in the vial. The vial may then be removed and placed back into the bottle with cotton plug down for archival. It is important to remember that the specimens should not be jammed into the vials. The purpose of placing specimens into vials is to protect them from potential damage which could be caused by contact with labels placed into the jar or during removal from the 8 or 32 oz. container. However, putting too many specimens into a vial or putting specimens into a vial which is too small will damage them. The required ratio of preservative to tissue inside the vial is at least 3 parts 75% ethanol to 1 part tissue. This may require splitting a species sample from a single collecting event into two or more vials within a bottle or even into two bottles.

- ◆ The 8 or 32 oz. glass bottle is capped with the foam or plastic lined, screw-top polypropylene closure.

- ◆ Each 8 or 32 oz. bottle must contain a label with collecting event data on Nalgene polypaper in alcohol-proof ink or #2 pencil. Labels must be placed into the specimen bottle which contains the specimen vial(s), not directly inside the vials and not attached to the outside of the bottle. The data may be printed using a dot-matrix printer with alcohol-proof ink ribbon. Alternatively, it may be hand printed with technical pen using alcohol-proof ink or a #2 pencil. Laser printed or photocopied labels are not acceptable. All labels must be easily readable by CAS staff. If labels are not legible, specimens will not be accepted or cataloged into the CAS collection. Labels should be no larger than 3 x 5 inches and no smaller than 2 x 3 inches.

Data required for specimen labels:

- ◆ Species name
- ◆ County t city/town, and other clearly worded description of collection locality so as to enable another scientist to find the collection locality

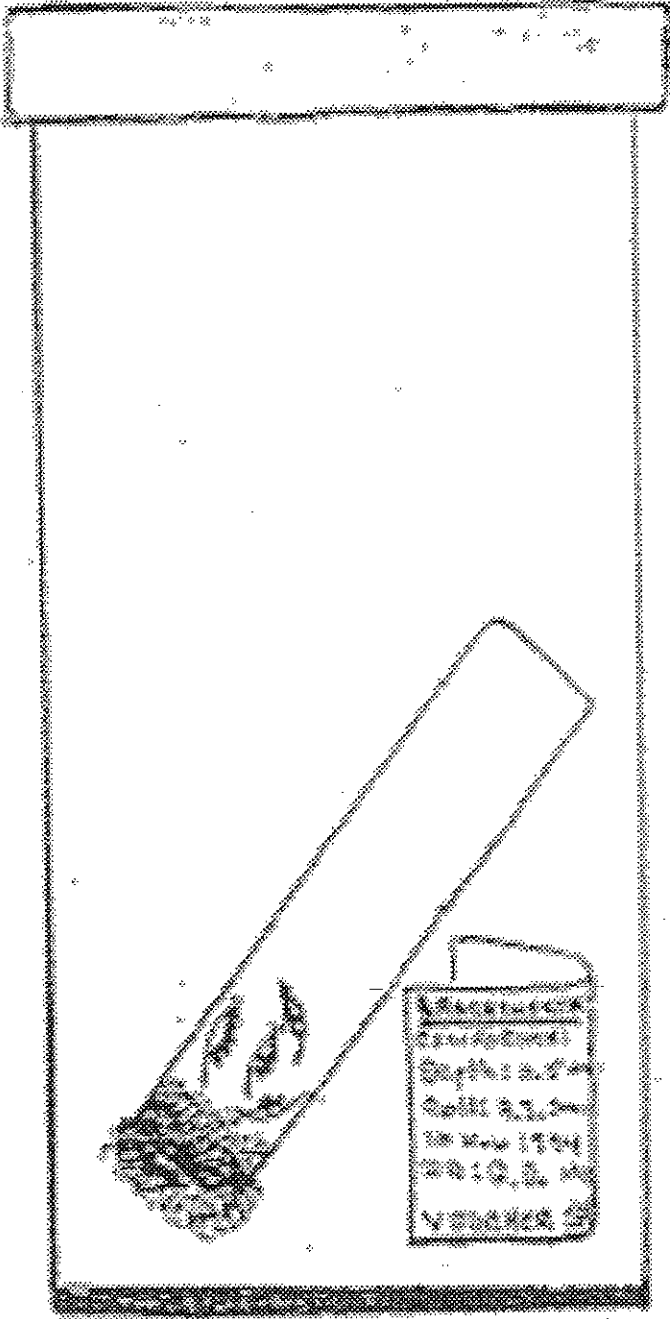
- ◆ Latitude and longitude
- ◆ Environmental data regarding habitat (temperature, turbidity, depth and size of pool)
- ◆ Full names of collector(s) and identifier
- ◆ Dates of collection and identification, dates should clearly indicate day, month and year (*e.g.* 10 Jan 1995)
- ◆ The phrase "Voucher specimen: Vernal Pool Crustacean Survey"

List of potential (not specifically required) vendors of some required materials.

Glass vials: S-930	Acme Vial and Glass 1601 Commerce Way Paso Robles, CA 93446 805-239-2666
Glass bottles: and polypropylene lids	California Glass 155 98 th Ave. Oakland, CA 94603 510-635-7700
Polypropylene lids:	Berlin Packaging 7900 Edgewater Dr. Oakland, CA 94621 510-562-7201
Cotton: Non-sterile	California Medical Supplies 3315 Broadway Oakland, CA 800-932-5000
Nalgene Polypaper:	VWR Scientific 415-468-7150 800-932-5000
Alcohol-proof ("non-bleeding") printer ribbons:	Automated Office Products Inc. 9700-A Martin Luther King Jr. Hwy. Lanham, MD 20708
Non-denatured Ethanol 190 or 200 proof (95% or 100%)	Gold Shield Chemical 3111 Depot Rd. Hayward, CA 94545 510-782-2040

Materials may be obtained from other sources, but should conform to the specific standard listed above. CASIZG will not act as a supplier of materials.

Fig. 1: 8 oz. bottle containing inverted glass vial plugged with cotton. Note label inside jar, but not inside vile.



Collection, Preservation, Handling, and Accessioning Information for Small Crustaceans

**Crustacea Section, Invertebrate Zoology
The Natural History Museum of Los Angeles County
900 Exposition Boulevard
Los Angeles, California 90007**

Collection Data

To the extent possible, the following data should be included. The Museum reserves the right to refuse acceptance of any specimens without a minimum of usable, legible collection data. Archival quality materials (including glass vials, permanent ink or pencil and permanent label paper, and glass outer jars with screw-top polypropylene lids) should always be used (see below). All collections should include the following information:

Taxon name: (Lowest available or known, down to species where possible)

Date: (day, month, year)

Time of Day: (if known)

Detailed Location:

Latitude and Longitude:

Specific habitat information:

Name of collector:

Collecting method(s) / device(s):

Preservative used:

Notes: (to include any observations on behavior, co-occurring species, etc.)

Preservation

Ideally, even small crustaceans should be initially fixed in 5 to 10% formalin (37% formaldehyde in solution, as commercially purchased, mixed with 90-95% water). As an alternative, 100% ethyl alcohol, although not a fixative and so not as good for long term tissue preservation, can sometimes be used (not recommended for animals longer than 20 mm total length). With either method, specimens should be transferred to 70% ethyl alcohol (ethanol) after a minimum of 8 hours of fixation. The 70% ethanol to tissue ratio should be approximately 3 to 1 for long term storage.

Storage

Archival quality materials (including glass vials, permanent ink or pencil and permanent label paper, and glass outer jars with screw-top polypropylene lids) should always be used. Specimens should be placed in small glass vials completely filled with 70% ethanol and plugged with cotton

(not foam). Vials are then inverted and stored in a slightly larger outer storage jar of glass or plastic, also filled with 70% ethanol and fitted with a polypropylene-closure lid. Labels are ideally situated in the outer jar containing the vial rather than in the shell vial, never on the outside of the jar or affixed to the lid.

Shipping

Specimens should be shipped in plastic, leak-proof bottles, jars, or vials, and must be adequately cushioned by bubble-wrap, plastic peanuts, etc. to ensure their safe arrival. It is preferred that specimens that are designated types or vouchers be sent by registered or certified mail, although this is at the discretion of the sender. Use the complete address given at the top of this document.

Cost of Specimen Accessioning

Because of the rising costs of accessioning and maintaining valuable collections, the Natural History Museum reserves the right to charge on a per-sample basis for accessioning collections. This fee varies with the size of the collection, duration of the project, and availability of Museum staff at the time of deposition. The fee may be waived at the discretion of the Curator or Collections Manager of Crustacea and may fluctuate depending upon our evaluation of lots received.

Accessioning Information

The Natural History Museum of Los Angeles County will accept for permanent care and curation selected collections of Crustacea, including those from vernal pools and other ephemeral freshwater habitats and representatives of threatened or endangered taxa. The Museum is willing to act as the repository for collections acquired during USEWS or other surveys.

To be accepted for accessioning, the collections must be in reasonably good shape, meaning that the animals themselves must not be overly deteriorated and that all previously stated collecting, preserving, and labeling protocols have been followed. Furthermore, all collections must be accompanied by a detailed list of the specimens being sent. The Museum reserves the right to charge an accessioning fee to cover the costs of accessioning any and all deposited specimens. This fee may be waived at the discretion of the curator in charge of the Museum Section that will be overseeing the accessioning and curation of the collection.

The Museum reserves the right to decide whether an incoming collection should be stored topically vs. separated and stored according to taxonomic divisions (*i.e.* storing all members of one family together rather than keeping all collections from one site together).

The Museum further reserves the right to decide which specimens will be kept and maintained for long term storage and which may be passed on to other institutions in exchange or as long term loans for research purposes.

For further information contact:

Dr. Gary Pettit, Collections Manager, Crustacea	213-744-3450 fax 746-2999
Dr. Joel W. Martin, Curator of Crustacea	213-744-3440 fax as above

(Or write to the address given above)

This document current as of: 25 September 1995

The California Natural Diversity Data Base

Commonly Asked Questions

What is the Natural Diversity Data Base (NDDB)?

The NDDB is a program within the Department of Fish and Game's Natural Heritage Division. The NDDB's mission is to track the location and condition of California's many species of rare and sensitive plants, animals, and natural communities (*e.g.*, marshes, riparian systems, desert scrub, etc.). These species and natural communities are collectively referred to as inventory elements. The NDDB includes site records for all federally and state listed plants and animals, and all species that are candidates for listing. Also included are those species that are considered "sensitive" by government agencies and the conservation community. This is a computerized inventory and information is available for a fee in hardcopy and digital forms. As of November 1992, the NDDB contained about 20,450 locational records for 1,164 inventory elements.

How is NDDB information set up or organized?

NDDB data are organized geographically and taxonomically. Information can be retrieved by United States Geological Survey (USGS) map sheet (*e.g.*, typically 1:24,000, 1:62,500, 1:100,000, or 1:250,000 scale), or by taxa. Most NDDB clients request information for USGS 7.5 minute Quads. The approximately 49 square miles covered by a single USGS 7.5 minute quad is the smallest area for which we will perform a data retrieval. Due to the nature of our inventory, it is important that our clients consider inventory element locations on and near their project site or area of interest.

What types of information can I obtain?

Information from the NDDB is usually made available in three formats:

TEXT-Reports can be generated by 7.5' quad, 1:100,000 scale map, by county, or custom area. If the number of records for the region of interest exceed 200 (a report of about 25 pages in length), we prefer to use a digital format rather than relying on hardcopy reports. Reports vary in cost with the number of records involved. Our per record rates for our government/conservation clients is \$4.00/record and \$8.00/record for our commercial clients. Our experience has been that reports related to 7.5' quads usually vary between \$140 and \$270 each for our commercial clients.

OVERLAY-We have the ability to produce computer generated overlays for any scale base map you might have. These overlays have only the map features representing our inventory elements and a " map sheet boarder for registration to your base map. Most of our clients request overlays for USGS 7.5' and 1:100,000 scale maps. Overlays cost \$30.00 each.

RAREFIND-We can also make our data available via a microcomputer database application called *RAREFIND*. You can obtain our entire state wide data set or request that we customize the data set to a single county or a set of counties. *RAREFIND* is available by yearly subscription. The entire state cost is \$1,250 government rate, or \$2,500 commercial rate. You can call us for county pricing. A subscription includes an initial set of data with the *RAREFIND* application followed by an updated data set 6 months later. *RAREFIND* subscribers are also afforded a special rate of \$20 per overlay. Costs for customized data sets will vary with the number of data base records involved. *RAREFIND* is a compiled, stand alone application that requires an IBM compatible microcomputer with adequate hard disk space (e.g., 5 to 23 MB) to run. No additional software is required.

How do I order information from the NDDB?

It is easy to request information from the NDDB. Call one of our Information Services staff at (916) 324-3812 to place your order by phone. It is most helpful to have the name or names of the 7.5' maps you want information for at hand when you call. We will tell you how many records we have in the NDDB for your area of interest and give you a cost estimate before we proceed with your request.

To what extent can information be customized to my needs?

For special requests, with adequate notification, our geographic information system allows us to customize our information products to your specific needs. For projects that affect large areas, you can send us a map showing your project boundaries. We can then enter this boundary into our system and use it to accurately determine what data we might have for your project area.

How long does it take to get information from the NDDB?

The usual turn around time for data requests is one to two weeks. We ask you to remember that this is a computerized system and it does go down from time to time. Such unforeseen, but not unexpected, events can interfere with our normal response time.

How do I pay?

You are invoiced directly from our accounting department after the products have been sent to you. You do not need to pay up front; however, delinquent accounts will be denied additional services until the balance has been paid.

NOTE: There is a 50% cancellation charge if you cancel your order after we have already processed your request and generated our products. There is a no return policy on products already delivered.

Why is there a charge for this information?

Our enabling legislation requires that we “insure cost-sharing by all who use the” NDDDB, “and develop a fee structure to recover actual costs for use of the NDDDB. The Department of Finance has determined that this will include not only direct costs for generating and distributing our data, but will also include some program overhead. We recover about \$225,000 per year in fees, which amount to about 25% of our program costs.

2/26/93

MAMMALS

LOS ANGELES POCKET MOUSE SURVEY

Phase 1: Habitat Assessment

Habitat assessments for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*; LAPM) shall be conducted by a qualified biologist, defined as a biologist who possesses a Memorandum of Understanding (MOU) with the California Department of Fish and Game (CDFG) for live-trapping of heteromyid species in southern California, such as the Stephens' kangaroo rat (*Dipodomys stephensi*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), and/or Pacific pocket mouse (*Perognathus longimembris pacificus*). The project area will be systematically surveyed on foot to determine the presence and map the distribution of any suitable habitat for the Los Angeles pocket mouse within the project boundaries. Suitable habitat for the LAPM includes Riversidean sage scrub, coastal sage scrub, Riversidean alluvial fan sage scrub, desert scrub, chaparral, grassland, and playas and vernal pools on sandy soils, typically found within or adjacent to, but not limited, sandy washes or areas of windblown sand. Because diagnostic surface sign of this species (e.g., burrows, scat, tracks, etc.) is difficult to detect and attribute specifically to the LAPM, the absence of such sign is not evidence of absence. Suitable habitat areas will be identified and mapped. At the completion of the Phase 1 task, the biologist will advise the project applicant if a trapping program is needed to confirm the presence/absence of the LAPM in the project area.

Phase 2: Live-trapping Study for the Los Angeles Pocket Mouse

A live-trapping program for the LAPM will be conducted in mapped suitable habitat (as described above) in the project area by a qualified biologist, as defined above. A similar trapping protocol as specified by the USFWS for the federally-listed endangered Pacific pocket mouse shall be used. Trapping guidelines are as follows:

- Live-trapping studies shall be conducted during the period that the LAPM is most likely to be active on the surface; between ~~May 1 and September 15~~ (Provisional subject to input)
- ~~The live-trapping program shall be conducted over five (5) consecutive nights if~~ no LAPM are captured. The trapping program at a given site shall be terminated if an LAPM is trapped prior to the fifth night. If more than one site is present in a project area, trapping would continue up to five nights in areas where LAPM have not yet been trapped.
- At a given site, all traps must be located in areas that best typify LAPM habitat, as defined above. Traps shall be checked at least twice per night, once near midnight and again at sunrise. Animals will be held only so long as to identify to species, sex, and age-class and then released at the trap site. Trapping will be conducted under mild weather conditions, with minimum temperatures greater than 50⁰ Fahrenheit and atmospheric conditions relatively dry, and calm. Trapping shall not be conducted in extended periods of wind, rain or fog that may jeopardize the lives of LAPM.

- All traps shall be 9-inch or 12-inch Sherman live traps or traps of similar design and efficiency. Sherman 9-inch traps may only be used if they were purchased before March 13, 1990. Such similar non-Sherman traps shall be approved by the CDFG prior to their use. All trap models shall be modified to eliminate or substantially reduce the risk of injury (e.g., tail lacerations). Traps that have been used for trapping outside Riverside County shall be sterilized before use in Riverside County.
- No mutilation marking scheme (e.g., toe-clipping, ear clipping) shall be allowed. No invasive technique (e.g., PIT-tagging) will be allowed unless authorized by the CDFG.

Following the live-trapping study, the biologist shall submit all trapping reports and associated information required by the CDFG MOU.

SAN BERNARDINO AND AGUANGA KANGAROO RAT SURVEYS

Phase 1: Habitat Assessment

Habitat assessments for the San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) and Aguanga kangaroo rat (*D. merriami collinus*; AKR) shall be conducted by a qualified biologist, defined as a biologist who possesses a Memorandum of Understanding (MOU) with the California Department of Fish and Game (CDFG) for live-trapping of the San Bernardino kangaroo rat. For habitat assessments for the San Bernardino kangaroo rat, the biologist must also possess a federal Section 10(a) incidental take permit. The project area will be systematically surveyed on foot to determine the presence and map the distribution of any suitable habitat for the SBKR/AKR within the project boundaries. Suitable habitat for the SBKR/AKR includes Riversidean sage scrub, coastal sage scrub, Riversidean alluvial fan sage scrub, desert scrub, chaparral, and grassland, typically found within or adjacent to, but not limited, sandy washes or areas of windblown sand. Because diagnostic surface sign of the SBKR/AKR (e.g., burrows, scat, tracks, etc.) can be difficult to detect and differentiate from the sympatric (overlapping) Dulzura kangaroo rat (*D. simulans*) and Stephens' kangaroo rat (*D. stephensi*), the absence of such sign is not evidence of absence and, conversely, the presence of diagnostic kangaroo rat sign is not evidence of presence of SBKR/AKR. Suitable habitat areas for the SBKR/AKR will be identified and mapped. At the completion of the Phase 1 task, the biologist will advise the project applicant if a trapping program is needed to confirm the presence/absence of the SBKR/AKR in the project area.

Phase 2: Live-trapping Study for the San Bernardino Kangaroo Rat and Aguanga Kangaroo Rat

A live-trapping program for the SBKR/AKR will be conducted in mapped suitable habitat (as described above) in the project area by a qualified biologist, as defined above. The trapping protocol as specified by the USFWS for the SBKR shall be used for both the SBKR and AKR. Trapping guidelines are as follows:

- The live-trapping program shall be conducted over five (5) consecutive nights if no SBKR/AKR are captured. The trapping program at a given site shall be terminated if an SBKR/AKR is trapped prior to the fifth night. If more than one site is present in a project area, trapping would continue up to five nights in areas where SBKR/AKR have not yet been trapped.
- At a given site, all traps must be located in areas that best typify SBKR/AKR habitat. Traps shall be checked at least twice per night, once near midnight and again at sunrise. Animals will be held only so long as to identify to species, sex, and age-class and then released at the trap site. Trapping will be conducted under mild weather conditions, with minimum temperatures greater than 50^o Fahrenheit and atmospheric conditions relatively dry, and calm. Trapping shall not be conducted in extended periods of wind, rain or fog that may jeopardize the lives of SBKR/AKR.

- All traps shall be 9-inch or 12-inch Sherman live traps or traps of similar design and efficiency. Sherman 9-inch traps may only be used if they were purchased before March 13, 1990. Such similar non-Sherman traps shall be approved by the CDFG and Carlsbad Fish and Wildlife Office (CFWO) (for SBKR only) prior to their use. All trap models shall be modified to eliminate or substantially reduce the risk of injury (e.g., tail lacerations). No batting may be used in traps. Traps that have been used for trapping outside Riverside County shall be sterilized before use in Riverside County.
- No mutilation marking scheme (e.g., toe-clipping, ear clipping) shall be allowed. No invasive technique (e.g., PIT-tagging) will be allowed unless authorized by the CDFG and USFWS Portland Regional Office (for SBKR only).

Following the live-trapping study, the biologist shall submit all trapping reports and associated information required by the CDFG MOU and federal Section 10(a) permit.