4153

SUBMITTAL TO THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT BOARD COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: General Manager-Chief Engineer

SUBMITTAL DATE: October 18, 2011

SUBJECT: Day Creek Channel Stage 6 Phase 2
Project No. 1-0-00250
Cooperative Agreement to Facilitate Compensatory Mitigation Efforts

RECOMMENDED MOTION:
Approve the Cooperative Agreement (Agreement) between the District and the Inland Empire Resource Conservation District (IERCD); and authorize the Chairman to execute the Agreement documents on behalf of the District.

BACKGROUND:
The Agreement sets forth the terms and conditions under which the IERCD will implement the approved Final Habitat Mitigation and Monitoring Plan (HMMP) to satisfy the Western Riverside County Multiple Species Habitat Conservation Plan and regulatory mitigation requirements for the District's Day Creek Channel Stage 6 Phase 2 Project.

(Continued on Page 2)

RS:

WARREN D. WILLIAMS
General Manager-Chief Engineer

FINANCIAL DATA				
	Current F.Y. District Cost:	$284,152	**In Current Year Budget:**	Yes
	Current F.Y. County Cost:	N/A	**Budget Adjustment:**	No
	Annual Net District Cost:	N/A	**For Fiscal Year:**	2011-2012

SOURCE OF FUNDS: 25110-947400-523220 – Licenses and Permits

Positions To Be Deleted Per A-30 ☐

Requires 4/5 Vote ☐

C.E.O. RECOMMENDATION: APPROVE

BY: Michael R. Shetler
Michael R. Shetler

County Executive Office Signature

Departmental Concurrence

APPROVED COUNTY COUNSEL
FOR
BY: KARIN L. WATTS-BAZAN DATE 10/4/11

FISCAL PROCEDURES APPROVED
IVAN M. CHAND, FINANCE DIRECTOR
BY IVAN M. CHAND 10/4/2011

☐ Policy ☐ Consent — Dep't Recomm.:
☐ Policy ☐ Consent — Per Exec. Ofc.:

Prev. Agn. Ref.: | **District:2nd** | **Agenda Number:** 11.3

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

SUBJECT: Day Creek Channel Stage 6 Phase 2
Project No. 1-0-00250
Cooperative Agreement to Facilitate Compensatory Mitigation Efforts

SUBMITTAL DATE: October 18, 2011
Page 2

BACKGROUND:

The District is bearing all costs associated with the HMMP implementation. The District will pay the IERCD a one-time lump sum amount of $284,152 for HMMP implementation and its associated long-term management. The IERCD shall be responsible for the successful implementation of the HMMP.

County Counsel has approved the Agreement as to legal form.

FINANCIAL:

The District's total cost shall not exceed $284,152. Sufficient funds are included in the District's FY 2011-2012 budget.

TT:RS:seb
P8\141156

COOPERATIVE AGREEMENT
TO FACILITATE COMPENSATORY MITIGATION EFFORTS
FOR THE DAY CREEK CHANNEL STAGE 6 PHASE 2 PROJECT
Project No. 1-8-00250

This COOPERATIVE AGREEMENT ("Agreement") is entered into this 18th day of October, 2011 ("Execution Date") by and between Riverside County Flood Control and Water Conservation District ("RCFC") and the Inland Empire Resource Conservation District, a governmental special district ("IERCD").

RECITALS

WHEREAS, RCFC is planning to construct Day Creek Channel Stage 6 Phase 2 ("Project") located in the City of Jurupa Valley, County of Riverside, State of California; and

WHEREAS, RCFC has obtained authorization for the Project from the California Department of Fish and Game ("CDFG") issued under California Fish and Game code Section 1602 on May 13, 2011 (Notification No. 1600-2010-0075-R6) attached hereto as Exhibit "A"; and

WHEREAS, RCFC has obtained authorization for the Project from the California Regional Water Quality Control Board – Santa Ana Region ("RWQCB") in the form of a Water Quality Standards Certification issued under Section 401 of the federal Clean Water Act on March 14, 2011 (SARWQCB Project No. 332010-15) attached hereto as Exhibit "B"; and

WHEREAS, RCFC has obtained authorization for the Project from the U.S. Army Corps of Engineers ("USACE") in the form of a Permit issued under Section 404 of the federal Clean Water Act on October 3, 2011 (Permit No. File No. SPL-2009-00882) ("Section 404 Permit") attached as Exhibit "C"; and

WHEREAS, USACE has consulted with the U.S. Fish and Wildlife Service ("USFWS") about the Project pursuant to Section 7 of the federal Endangered Species Act resulting in a Biological Opinion issued by the USFWS on June 21, 2011 (FWS-WRIV-08B0492-11F0446) attached as Exhibit "D"; and

WHEREAS, RCFC is a permittee under the Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP") and has prepared a MSHCP Section 6.1.2 Riverine/ Riparian Determination of Biologically Equivalent or Superior Preservation ("DBESP") on October 2009 and an addendum thereto in August 2011 pursuant to MSHCP Section 6.1.2 attached as Exhibit "E"; and

WHEREAS, the above regulatory authorizations ("Authorizations") and DBESP require RCFC to provide 2.1 Acres of Riverine Habitat ("Riverine Habitat") and 2.0 Acres of Riparian Scrub Habitat ("Riparian Habitat") as mitigation for impacts associated with the construction and subsequent maintenance of Project, together hereinafter called "MITIGATION WORK"; and

WHEREAS, together, CDFG, RWQCB, USACE, and USFWS are hereinafter called

"Regulatory Agencies"; and

WHEREAS, together, the Section 1602 authorization, Section 401 Water Quality Certification, Section 404 Permit, and Biological Opinion are hereinafter called "Regulatory Permits"; and

WHEREAS, IERCD has prepared and the Regulatory Agencies have approved a "Final Habitat Mitigation and Monitoring Plan for Day Creek Channel Stage 6, Phase 2 Project" dated June 2011 ("HMMP") for the MITIGATION WORK as shown on Exhibit "F"; and

WHEREAS, IERCD is the grantee of a conservation easement within the Santa Ana River, hereinafter called "SITE," a portion of which will be used to mitigate for Project related impacts, as shown on Exhibit "G"; and

WHEREAS, IERCD is a Resource Conservation District formed for the control of runoff, the prevention or control of soil erosion, and the improvement of land capabilities pursuant to Public Resources Code section 9151 *et seq.*; and

WHEREAS, IERCD may accept grants of money to carry out its purposes and may establish and charge fees for services provided upon request pursuant to Public Resources Code sections 9401 *et seq.*; and

WHEREAS, RCFC and IERCD (collectively, the "Parties") desire to enter into this Agreement to set forth the terms and conditions pursuant to which IERCD agrees to implement the MITIGATION WORK for the Project.

NOW, THEREFORE, in consideration of the above and the mutual covenants, terms and conditions contained herein, and pursuant to the laws of the State of California, RCFC and IERCD hereby agree as follows:

SECTION I

IERCD shall:

1. Implement MITIGATION WORK within the SITE including but not limited to planning, environmental studies, investigations, design, construction, monitoring, reporting and financing in accordance with the HMMP and pay all costs associated therewith subject to those reimbursements set forth herein. The portion of the SITE that contains the MITIGATION WORK shall be defined as the "MITIGATION SITE."

2. Perform the following tasks that will assist RCFC to fulfill the requirements of the Section 404 Permit:

a. To assist RCFC in meeting the requirements of Special Condition No. 1 of the Section 404 Permit, IERCD shall (i) complete site preparation and planting (HMMP §§ 3.2 & 3.3) and (ii) initiate maintenance and monitoring (HMMP §§ 3.4 through 3.6) within sixty (60) days from the later of (i) IERCD's receipt of written notification from RCFC of Project completion, or (2) the Start Date as defined in Section II.1 below; provided, however, that the

60-day time period will be tolled based upon the time restrictions described in the HMMP (i.e, "All work will be performed outside of the accepted nesting season, which occurs between March 15th and September 15th annually, in order to avoid impacts to local species of endangered, threatened, and otherwise marginalized avian species;" and "All plant removal should occur at the beginning of the rainy season when plants are either dormant or beginning to sprout for the year but have not yet set seed [Note: Typically October 1]" HMMP §3.2, p. 13.)

b. To assist RCFC in meeting the requirements of Special Condition Nos. 2 and 5 of the Section 404 Permit, within forty-five (45) days of the execution of this Agreement, IERCD shall provide to RCFC GIS data (polygons only) depicting the boundaries of the MITIGATION SITE. All GIS data and associated metadata shall be provided on a digital medium (CD or DVD) or via file transfer protocol (FTP), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. Such GIS data shall conform to the data dictionary, as specified in the current Map and Drawing Standards for the Los Angeles District Regulatory Division, and shall include a text file of metadata, including datum, projection, and mapper contact information.

c. To assist RCFC in meeting the requirements of Special Condition No. 3 of the Section 404 Permit, IERCD shall submit to RCFC as-built GIS data (polygons only) accompanied by a narrative description listing and explaining each deviation within forty-five (45) days following completion of the MITIGATION WORK if any deviations have occurred.

d. IERCD agrees to cooperate with RCFC in the drafting, execution and recordation of any new conservation easement or any amendment to the existing conservation easement required to fulfill Special Condition No. 4 of the Section 404 Permit. IERCD shall keep an accurate accounting of all costs associated with executing and recording any such new conservation easement or amendment to the existing conservation easement, and include this accounting when invoicing RCFC for reimbursement of said costs.

e. To assist RCFC in meeting the requirements of Special Condition No. 9 of the Section 404 Permit, within thirty (30) calendar days after completion of Sections 3.2 and 3.3 of the HMMP, IERCD shall submit to RCFC two (2) copies of a memo indicating the following:

i. Date(s) all MITIGATION WORK was installed (i.e., HMMP §§ 3.2 & 3.3) and monitoring was initiated;

ii. The schedule for future maintenance, monitoring and reporting (HMMP §§ 3.4 through 3.6);

iii. One (1) copy of "as-built" drawings for the implementation of the MITIGATION WORK (all sheets must be signed, dated, to-scale, and no larger than 11 x 17 inches).

iv. Color photographs taken at the MITIGATION SITE before and after implementation of MITIGATION WORK.

NOTE: RCFC acknowledges that this Agreement shall not include (nor require IERCD to conduct any activity related to) Special Condition Nos. 9(C), 9(D) and a portion of 9(E)

because those requirements are related to the Project and not the MITIGATION WORK.

3. Prepare an annual mitigation monitoring report in accordance with the HMMP, and make the annual report available to RCFC for review, comment and transmittal to the appropriate Regulatory Agencies as required by the Regulatory Permits for a period of five years or until final written approvals are received from the Regulatory Agencies.

4. Invoice RCFC for TWO HUNDRED EIGHTY FOUR THOUSAND ONE HUNDRED FIFTY TWO AND NO/100'S DOLLARS ($284,152), which is a one-time lump-sum fee reflecting IERCD's reasonable costs to implement the MITIGATION WORK (i.e., the five-year implementation, performance, monitoring, reporting, and management), including the endowment for management in perpetuity pursuant to the HMMP and Regulatory Permits, upon execution of this Agreement ("Fee").

5. Grant RCFC, by execution of this Agreement, the right to accompany IERCD staff to observe the construction and/or maintenance and operation of MITIGATION WORK. This right shall terminate when the final written approvals of the Regulatory Agencies are received.

SECTION II

RCFC shall:

1. RCFC acknowledges receipt of IERCD's appropriate invoice as detailed in Section I.4 and shown as Exhibit "H". Accordingly, RCFC will pay the Fee within thirty (30) days after the execution of this Agreement. IERCD's receipt of the Fee will be known as the "Start Date."

2. Prepare, cause to be prepared, and negotiate at its sole cost and expense, a new conservation easement or an amendment to the existing conservation easement, if necessary, in accordance with USACE standards. Following recordation of any conservation easement or amendment to the existing conservation easement, reimburse IERCD within thirty (30) days following RCFC's receipt of IERCD's accounting and invoice for transactional costs including, but not limited to, drafting, exhibit preparation, and all related staff and legal costs associated with completing Special Condition No. 4 of the Section 404 Permit ("Expenses"). Pursuant to Section 4 of the Deposit Agreement dated November 10, 2010, the Parties agree that $5,000 is a reasonable amount to cover the anticipated Expenses incurred by IERCD with respect to the Project after execution of this Agreement ("Deposit"). If IERCD determines that its incurred Expenses will exceed the Deposit, IERCD shall notify RCFC in writing, and may request an additional Deposit before proceeding with further work. Any unused portion of the Deposit shall be returned to RCFC.

SECTION III

It is further mutually agreed:

1. The Parties agree that while IERCD agrees to implement the MITIGATION WORK as set forth in this Agreement, IERCD will not accept any assignment of legal

responsibility for the Regulatory Permit conditions nor will IERCD be required to seek Regulatory Agency approval of the Regulatory Permit conditions.

2. IERCD agrees to perform the MITIGATION WORK through the completion of the fifth Annual Report ("Completion"); provided, however, that if additional time is required to obtain approval from the Regulatory Agencies, IERCD agrees to extend the performance of the MITIGATION WORK for one year to a time until RCFC receives all approvals from the Regulatory Agencies for the Regulatory Permits, at which time this Agreement shall automatically terminate.

3. The Fee shall be used by IERCD solely for the purpose of designing, constructing, operating, implementing and maintaining MITIGATION WORK in perpetuity in accordance with the HMMP and conservation easement as set forth herein.

4. With seven (7) days notice, and with a time convenient to both RCFC and IERCD, RCFC personnel may observe the MITIGATION WORK being done on SITE, and shall have the right to provide comments to IERCD personnel who shall be solely responsible for all aspects of the MITIGATION WORK.

5. IERCD shall be under no obligation under this Agreement unless and until RCFC tenders the Fee. In the event RCFC does not tender the Fee when due, IERCD shall have no obligation to RCFC whatsoever under this Agreement, whether at law or equity.

6. The Parties agree that IERCD shall not be responsible in law or equity if the MITIGATION WORK agreed to under this Agreement is determined in any way, by any person or agency, to be insufficient for mitigation or regulatory compliance purposes. If any Regulatory Agency later determines that the mitigation as set forth in the Regulatory Permits is insufficient, RCFC, their successors and assigns, shall be entirely responsible for satisfying any and all additional obligations that may be imposed. However, IERCD shall be responsible and liable in law or in equity for the successful implementation of the HMMP.

7. In the event that severe storm damage, flood, hurricane, tornado, fire or other unusual circumstances or natural disaster ("Event") beyond IERCD's control damages the MITIGATION WORK, IERCD shall not be responsible to restore it to its pre-event condition. If an Event occurs, one or both of the Parties may agree to one of the following options (i) meet together to renegotiate the completion of the MITIGATION WORK to incorporate any new measures that may be required to conduct additional repair and restoration caused by the Event, or (ii) terminate this Agreement by providing a written notice to the non-terminating Party, provided, however, the IERCD will return unused Funding, as described here.

8. RCFC remains responsible for obtaining any approvals, including final approval, from the Regulatory Agencies related to the Regulatory Permits.

9. This Agreement may not be assigned to another party except as may be agreed to by the Parties in writing.

10. IERCD agrees that it shall either perform or contract for the performance of all MITIGATION WORK required under this Agreement. RCFC shall have no liability, monetary

or otherwise, to any cooperators, subcontractors, providers of services or recipients of service under this Agreement.

11. IERCD and its contractors and subcontractors, shall act at all times in an independent capacity during the term of this Agreement and in the performance of the services to be rendered hereunder and shall not act as or shall not be and shall not in any manner be considered to be employees or agents of RCFC.

12. IERCD agrees to provide RCFC with copies of all applicable correspondence, reports, and publications pertaining to the MITIGATION WORK or to this Agreement.

13. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

To IERCD at:	To RCFC at:
Inland Empire Resource Conservation District (IERCD) 25864-K Business Center Drive Redlands, CA 92374 Attn: Mandy Parkes, District Manager Phone: (909) 799-7407	Riverside County Flood Control and Water Conservation District 1995 Market Street Riverside, CA 92501 Attn: Regulatory Division Phone: (951) 955-1200
With a copy to:	With a copy to:
Best Best & Krieger, LLP 3750 University Avenue, Suite 400 P.O. Box 1028 Riverside, CA 92502-1028 Attn: General Counsel for IERCD Phone: (951) 686-1450	Riverside County Counsel 3960 Orange Street, Fifth Floor Riverside, CA 92501 Phone: (951) 955-6300

or to such other address as either party from time to time shall designate by written notice to the other.

14. Entire Agreement. This instrument, including exhibits, sets forth the entire Agreement of the Parties with respect to the MITIGATION WORK and supersedes all prior discussions, negotiations, understandings, or agreements relating to the MITIGATION WORK, all of which are merged herein.

15. Indemnification.

a. IERCD shall indemnify and hold harmless RCFC (including its officers, Board of Supervisors, elected and appointed officials, employees, agents, subcontractors and representatives) from any liability, claim, damage, proceeding or action, present or future, based upon, arising out of or in any way relating to IERCD's (including its employees, subcontractors and agents) actual or alleged negligent, reckless or willful misconduct acts or omissions related

to this Agreement, performance under this Agreement, or failure to comply with the requirements of this Agreement, including but not limited to: (a) property damage; (b) bodily injury or death; or (c) any other element of any kind or nature whatsoever.

b. RCFC shall indemnify and hold harmless IERCD (including its officers, employees, agents and representatives) from any liability, claim, damage, proceeding or action, present or future, based upon, arising out of or in any way relating to RCFC's (including its officers, Board of Supervisors, elected and appointed officials, employees, agents, subcontractors and representatives) actual or alleged negligent, reckless or willful misconduct acts or omissions related to this Agreement, performance under this Agreement, or failure to comply with the requirements of this Agreement, including but not limited to: (a) property damage; (b) bodily injury or death; or (c) any other element of any kind or nature whatsoever.

16. Non-Appropriation of Funds. It is mutually agreed and understood that the obligation(s) of RCFC are limited by and contingent upon the availability of RCFC funds for the Project. In the event that such funds are not forthcoming for any reason, RCFC shall immediately notify IERCD in writing. This Agreement shall be deemed terminated and have no further force and effect immediately on receipt of such RCFC notification by IERCD.

17. Controlling Law/Severability. The interpretation and performance of this Agreement shall be governed by the laws of the State of California. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall be declared severable and shall be given full force and effect to the extent possible.

18. Attorneys' Fees. The Parties shall bear their own attorney's fees and costs.

19. Venue. Any action at law or in equity brought by either of the parties hereto for the purpose of enforcing a right or rights provided for by this Agreement shall be tried in a court of competent jurisdiction in the County of Riverside, State of California, and the parties hereby waive all provisions of law providing for a change of venue in such proceedings to any other county.

20. Authority. Each party to this Agreement warrants to the other that it is duly organized and existing and that it and the respective signatories have full right and authority to enter into and consummate this Agreement and all related documents and bind the parties thereto.

21. Counterparts. This Agreement may be executed in several counterparts and all counterparts so executed shall constitute one Agreement, which shall be binding on all of the parties, notwithstanding that all of the parties are not signatory to one original or the same.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on

_____.
(to be filled in by Clerk of the Board)

RECOMMENDED FOR APPROVAL:

By _____
WARREN D. WILLIAMS
General Manager-Chief Engineer

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By _____
MARION ASHLEY, Chairman
Riverside County Flood Control and Water Conservation District Board of Supervisors

APPROVED AS TO FORM:

PAMELA J. WALLS
County Counsel

By _____
KARIN WATTS-BAZAN
Principal Deputy County Counsel

ATTEST:

KECIA HARPER-IHEM
Clerk of the Board

By _____
Deputy

(SEAL)

P8\141159
Cooperative Agreement
Day Creek Channel Stage 6 Phase 2
10/18/11

INLAND EMPIRE
RESOURCE CONSERVATION DISTRICT

By _____
PAUL WILLIAMS
President of the Board of Directors
Inland Empire Resource Conservation District

P8\141159
Cooperative Agreement
Day Creek Channel Stage 6 Phase 2
10/18/11

EXHIBIT "A"

Attached is the Streambed Alteration Agreement from the California Department of Fish and Game issued under California Fish and Game Code Section 1602 on May 13, 2011 (Notification No. 1600-2010-0075-R6)

EXHIBIT "A"
(1 OF 2)

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.dfg.ca.gov

EDMUND G. BROWN, Jr., Governor
JOHN McCAMMAN, Director

May 13, 2011

Mr. Warren D. Williams, General Manager-Chief Engineer
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, CA 92501

Attn: Teresa Tung

Subject: Notification of Lake or Streambed Alteration No. 1600-2010-0075-R6
Day Creek Channel, Stage 6 Phase 2, Project No. 1-0-00250-06

Dear Mr. Williams:

The Department of Fish and Game (Department) had until April 18, 2011 to submit a draft Lake or Streambed Alteration Agreement (Agreement) to you or inform you that an Agreement is not required for your project. The Department did not meet that date. As a result, by law, you may now complete the project described in your notification without an Agreement.

Please note that pursuant to Fish and Game Code section 1602(a)(4)(D), if you proceed with this project, it must be the same as described and conducted in the same manner as specified in the notification and any modifications to that notification received by the Department in writing. This includes completing the project within the proposed term and seasonal work period and implementing all avoidance and mitigation measures to protect fish and wildlife resources specified in the notification. If the term proposed in your notification has expired, you will need to re-notify the Department before you may begin your project. Beginning or completing a project that differs in any way from the one described in the notification may constitute a violation of Fish and Game Code section 1602.

Your notification proposes work within Day Creek, tributary to the Santa Ana River, from Limonite Avenue south to the Goose Creek Golf Course, extending 1,100 feet downstream of Lucretia Avenue, northwest of the confluence of Day Creek and the Santa Ana River, near the community of Mira Loma, County of Riverside. Your project consists of: (1) extending the existing concrete-lined rectangular channel within Day Creek from near 63rd Street downstream to Lucretia Avenue for an approximate length of 2,700 linear feet; (2) replacing the existing culverts under Lucretia Avenue with a double reinforced concrete box culvert; (3) installing 15-foot wide access roads on both sides of the Day Creek channel upstream of Lucretia Avenue; (4) installing a 3-foot drop structure and 1,100 linear feet of rock trapezoidal channel within Goose Creek Golf

Course downstream of Lucretia Avenue; and (5) post-construction maintenance within Reach 1 of the project footprint (600 linear feet downstream of Limonite Avenue to approximately 55 linear feet downstream of Lucretia Avenue). The proposed project term is July 1, 2010 through July 31, 2015. The project will permanently impact a total of 3.07 acres of open channel, 0.02 acres of open water, and 0.01 acres of southern willow scrub habitat. You have proposed the following avoidance and minimization measures during project construction: vegetation removal activities downstream of Lucretia Avenue will be conducted outside of the bird nesting season, and an erosion and water quality control plan will be implemented throughout the entire project area during construction. You have proposed to mitigate project impacts by providing 2.1 acres of riverine preservation management and 2.0 acres of riparian habitat creation and management within the Inland Empire Conservation District's (IERCD) adjacent Goose Creek conservation easement site. You will provide funding to the IERCD to maintain and manage the designated mitigation area in perpetuity.

Also note that while you are entitled to complete the project without an Agreement, you are still responsible for complying with other applicable local, state, and federal laws. These include, but are not limited to, the state and federal Endangered Species Acts and Fish and Game Code sections 5650 (water pollution) and 5901 (fish passage).

Finally, if you decide to proceed with your project without an Agreement, you must have a copy of this letter and your notification with all attachments available at all times at the work site. If you have any questions regarding this matter, please contact Joanna Gibson, Environmental Scientist, at (909) 987-7449 or JGibson@dfg.ca.gov.

Sincerely,

Joanna Gibson

for Michael Flores
Senior Environmental Scientist
Habitat Conservation Planning

EXHIBIT "B"

Attached is the California Regional Water Quality Control Board – Santa Ana Region's Water Quality Standards Certification issued under Section 401 of the federal Clean Water Act on March 14, 2011 (SARWQCB Project No. 332010-15)

California Regional Water Quality Control Board
Santa Ana Region

Linda S. Adams
Acting Secretary for
Environmental Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288
www.waterboards.ca.gov/santaana

Edmund G. Brown, Jr.
Governor

March 14, 2011

Warren D. Williams
Riverside County Flood Control and
Water Conservation District
1995 Market Street
Riverside, CA 92501

CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS CERTIFICATION FOR THE DAY CREEK CHANNEL STAGE 6, PHASE 2 PROJECT, MIRA LOMA, COUNTY OF RIVERSIDE, CALIFORNIA (ACOE REFERENCE NO. SPL-2009-00882-FBV) (SARWQCB PROJECT NO. 332010-15)

Dear Mr. Williams:

On April 15, 2010, we received an application for Clean Water Act Section 401 Water Quality Standards Certification ("Certification") from the Riverside County Flood Control and Water Conservation District for the reconstruction of the interim earthen/riprap channel as a lined channel, with subsequent operations and maintenance (O & M). This letter responds to your request for certification that the proposed project, described in your application and summarized below, will comply with State water quality standards outlined in the Water Quality Control Plan for the Santa Ana River Basin (1995) (Basin Plan) and subsequent Basin Plan amendments:

Project Description: The project consists of the construction, operation, and maintenance of approximately 1,100 linear feet of rock lined, trapezoidal channel and 52 linear feet of concrete transition structure downstream of Lucretia Avenue, as shown on District Drawing No. 1-647 submitted with the District's letter dated January 18, 2011. Pending final Section 404 and Section 1602 permit approvals, the rock lined trapezoidal channel, downstream of the drop structure, will feature either ungrouted rock riprap (Sheet 8A) or concreted ¼ ton rock/cobble/gravel substrate (Sheet 8B). The project also includes the construction, operation, and maintenance of approximately 2,600 linear feet of concrete-lined rectangular channel upstream of Lucretia Avenue.

A 15-ft wide access road with base material will be constructed on each side of the rectangular channel upstream of Lucretia Avenue. Additional construction includes a double, reinforced concrete box culvert (each cell will be 19.5'W x 13'H) to replace four existing 72-inch diameter corrugated metal culvert pipes at Lucretia Avenue. Reconstruction of existing connector pipes and the relocation of any interfering utility lines within the same jurisdictional area that would be disturbed by the project are also be part of the proposed channel project. The work will take place within Section 29 of Township 2 South, Range 6 West, of the U.S. Geological Survey *Corona North* quadrangle map (33.97° N/ 117.533° W).

Receiving water:	Day Creek Channel
Fill area:	1.0 acre of permanent impact to riparian habitat (1,152 linear feet), and 2.10 acres of permanent impact to streambed habitat (2,600 linear feet)
Dredge/Fill volume:	Fill: 6700 cubic yards (cy) of concrete and 9,300 cy rock rip rap
Federal permit:	USACOE Section 404 Individual Permit No. SPL-2009-00882-FBV

You have proposed to mitigate water quality impacts as described in your Certification application. The proposed mitigation is summarized below:

Onsite Water Quality Standards Mitigation Proposed:

- None

Offsite Water Quality Standards Mitigation Proposed:

- The applicant will provide a total of 4.1 acres of compensatory mitigation acreage, at predetermined locations, as stated within application documents.
- The proposed mitigation acreage consists of providing 2.1 acres of riverine habitat enhancement and management by removing non-native vegetation to allow for natural re-colonization.

- The remaining 2.0 acres will be constructed riparian habitat, comprised of Southern Willow Scrub and Mulefat Scrub.
- The applicant will contract with the Inland Empire Resources Conservation District to maintain and manage the designated area in perpetuity.

Should the proposed project impact state- or federally-listed endangered species or their habitat, implementation of measures identified in consultation with U.S. Fish and Wildlife Service and the California Department of Fish and Game will ensure those impacts are mitigated to an acceptable level. Appropriate BMPs will be implemented to reduce construction-related impacts to Waters of the State according to the requirements of Order No. R8-2010-0033 (NPDES Permit No. CAS618033), commonly known as the Riverside County Municipal Storm Water Permit, and subsequent iterations thereof. Order No. R8-2010-0033 requires that you substantially comply with the requirements of State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activity, including the preparation of a SWPPP.

The proposed project is subject to an Individual Permit from the U.S. Army Corps of Engineers in compliance with Section 404 of the Clean Water Act. Pursuant to the California Environmental Quality Act (CEQA), the Riverside County Flood Control and Water Conservation District (District) adopted a Mitigated Negative Declaration for the project on May 18, 2010. Pursuant to California Code of Regulations, Title 14, Section 15096, subdivision (f), the Regional Board must consider the environmental effects of the project as shown in the associated negative declaration prior to reaching a decision on the project. The Regional Board has considered the District's Mitigated Negative Declaration in the issuance of this Certification and independently finds that changes or alterations have been required, or incorporated into the proposed project, which avoid or mitigate impacts to water quality to a less than significant level.

This 401 Certification is contingent upon the execution of the following conditions:

1) The applicant must comply with the requirements of the applicable Clean Water Act section 404 permit.

2) All materials generated from construction activities associated with this project shall be managed appropriately. This shall include identifying all potential pollution sources within the scope of work of this project, and incorporating all necessary pollution prevention BMPs as they relate to each potential pollution source identified.

3) The project proponent shall utilize Best Management Practices during project construction to minimize the controllable discharges of sediment and other wastes to drainage systems or other waters of the state and of the United States.

4) Substances resulting from project-related activities that could be harmful to aquatic life, including, but not limited to, petroleum lubricants and fuels, cured and uncured cements, epoxies, paints and other protective coating materials, portland cement concrete or asphalt concrete, and washings and cuttings thereof, shall not be discharged to soils or waters of the state. All waste concrete shall be removed.

5) Motorized equipment shall not be maintained or parked within or near any stream crossing, channel or lake margin in such a manner that petroleum products or other pollutants from the equipment may enter these areas under any flow conditions. Vehicles shall not be driven or equipment operated in waters of the state on-site, except as necessary to complete the proposed project. No equipment shall be operated in areas of flowing water.

6) Damage to vegetation within Day Creek and its tributaries must be minimized to the maximum extent practicable.

7) Rip rap and other similar non-native fill material which has been placed within waters of the State as an interim measure to address the channel erosion, must be removed from the work area and disposed of. In lieu of removal of the material, inert material may be buried in incidental excavations made during the course of the work or utilized in the repair, if suitable.

8) All vehicles and equipment entering the work area must be free of viable propagules of non-native plant species that could be discharged to waters of the State or to land where they may eventually be discharged to waters of the State.

9) A copy of this Certification and any subsequent amendments must be maintained on site as a denoted element of the project's storm water pollution prevention program.

10) Proposed mitigation shall be timely implemented. Materials documenting that the applicant has entered into an agreement for perpetual management of the project's off-site mitigation areas shall be provided to this office prior to the discharge of fill to, or the dredging or excavation of material from, waters of the state.

11) Applicant shall follow all procedures and policies specified for this project in the project's HMMP dated January 2011.

12) Applicant shall ensure compliance with all procedures and policies described and illustrated in the project's Operation and Maintenance Plan.

Under California Water Code, Section 1058, and Pursuant to 23 CCR §3860, the following shall be included as conditions of all water quality certification actions:

(a) Every certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section §13330 of the Water Code and Article 6 (commencing with Section 3867) of this Chapter.

(b) Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Subsection §3855(b) of this Chapter and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

(c) Certification is conditioned upon total payment of any fee required under this Chapter and owed by the applicant.

If the above stated conditions are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the Regional Board may require the applicant to submit a report of waste discharge and obtain Waste Discharge Requirements.

In the event of any violation or threatened violation of the conditions of this certification, the holder of any permit or license subject to this certification shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. Violations of the conditions of this certification may subject the applicant to civil liability pursuant to Water Code section 13350 and/or 13385.

This letter constitutes a Water Quality Standards Certification issued pursuant to Clean Water Act Section 401. I hereby issue an order certifying that any discharge from the referenced project will comply with the applicable provisions of Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and

307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law.

This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ (Order No. 2003-0017-DWQ), "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received Water Quality Certification" which requires compliance with all conditions of this Water Quality Standards Certification. Order No. 2003-0017-DWQ is available at: www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf

Should there be any questions, please contact Marc Brown at (951) 321-4584, or Mark Adelson at (951) 782-3234.

Sincerely,

Kurt V. Berchtold
Executive Officer

cc (via electronic mail):
U. S. Army Corps of Engineers, Prado Office – Crystal Doyle
Department of Fish and Game – Michael Flores
State Water Resources Control Board, Office of Chief Counsel – David Rice
State Water Resources Control Board DWQ – Water Quality Certification Unit
U.S. EPA – Supervisor of the Wetlands Regulatory Office WTR- 8

x:\401\certifications\day creek channel stage 6_final_14mar11.doc

EXHIBIT "C"

Attached is the U.S. Army Corps of Engineers' Permit issued under Section 404 of the federal Clean Water Act on October 3, 2011 (Permit No. File No. SPL-2009-00882)

LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY PERMIT

Permittee: Riverside County Flood Control and Water Conservation District; Warren Williams

Permit Number: SPL-2009-00882-CLD

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the Permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The proposed Day Creek Channel Stage 6 Phase 2 project entails the construction and subsequent maintenance of an improved flood control channel extension consisting of a combination of rock-lined and concrete lined channel within approximately 3,800 lineal feet of existing interim earthen channel. The proposed project consists of approximately 2,700 linear feet of concrete lined rectangular channel and approximately 1,100 linear feet of un-grouted riprap/rock lined trapezoidal channel. A 15-foot wide access road with base material would be constructed on each side of the rectangular channel upstream of Lucretia Avenue. A multi-cell reinforced concrete box is proposed to replace the existing corrugated metal pipes at Lucretia Avenue. Reconstruction of existing connector pipes would also be a part of the proposed channel project.

Specifically, you are authorized to:

1. To permanently discharge fill onto 3.09 acres of non-wetland waters of the U.S. and 0.01 acre of wetland waters of the U.S., in association with the Day Creek Channel, Stage 6 Phase 2 project.

Project Location: The project site is located within Day Creek Channel generally bound by Dana Avenue to the west, Charles Avenue to the east, Limonite Avenue to the north, and Goose Creek Golf Club to the South, in the City of Jurupa Valley, Riverside County, California (latitude 33.96945, longitude -117.53222).

Permit Conditions:

General Conditions:

1. The time limit for completing the authorized activity ends on August 12, 2016. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. The Permittee shall implement and abide by the Section 401 Water Quality Certification dated March 14, 2011 as prepared by the Santa Ana Water Quality Control Board. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions:

1. The Permittee shall mitigate for permanent impacts to 3.1 acre(s) of waters of the U. S., through 2.1 acre(s) of riverine preservation and management, and establishment of 2 acres of riparian habitat creation and management as described in the final, approved mitigation plan: "Final Habitat Mitigation and Monitoring Plan for Day Creek Channel Stage 6 Phase 2 Project" (dated March 2011, and prepared by Inland Empire Resource Conservation District). The Permittee shall complete site preparation and planting and initiate monitoring as described in the final, approved mitigation plan within 60 days of project completion. The Permittee retains ultimate legal responsibility for meeting the requirements of the final, approved mitigation plan. Detailed mitigation objectives, performance standards, and monitoring requirements are described in the above final, approved mitigation plan. Any requirements for financial assurances and/or long-term management provisions are also described in the above final, approved mitigation plan, as well as in special condition 4 below. Your responsibility to complete the required compensatory mitigation will not be considered fulfilled until you have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers Regulatory Division.

2. GIS DATA: Within 60 days following permit issuance for Standard Individual Permits or within 60 days following written Corps approval of the mitigation plan for General Permits, you shall provide to this office GIS data (polygons only) depicting the boundaries of all compensatory mitigation sites, as authorized in the above, final mitigation plan. All GIS data and associated metadata shall be provided on a digital medium (CD or DVD) or via file transfer protocol (FTP), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. GIS data for mitigation sites shall conform to the data dictionary, as specified in the current Map and Drawing Standards for the Los Angeles District Regulatory Division, and shall include a text file of metadata, including datum, projection, and mapper contact information.

3. Within 60 days following completion of compensatory mitigation construction activities, if any deviations have occurred, you shall submit as-built GIS data (polygons only) accompanied by a narrative description listing and explaining each deviation.

4. The Permittee and/or its agent shall record a Conservation Easement (CE in a form approved by the Corps Regulatory Division, which shall run with the land, obligating the Permittee, its successors and assigns to protect and maintain the 4.1-acre(s) (2.1 acres of riverine preservation and 2.0 acres of riparian creation) mitigation area as natural open space in perpetuity. The CE must include a 3rd party easement holder qualified to hold easements pursuant to California Civil Code 815.3 and Government Code section 65965. The Permittee must provide monies in the form of an endowment (endowment amount to be determined by Property Analysis Record or similar methodology) for the purposes of fulfilling the 3rd party easement holder's responsibilities under the CE. The CE shall preclude establishment of fuel modification zones, paved public trails, drainage facilities, walls, maintenance access roads and/or future easements, except as provided in the Project Description (described herein). Further, to the extent practicable, any such facilities outside the CE shall be sited to minimize indirect impacts on the avoided, created, restored and enhanced wetland and non-wetland waters of the U.S. Prior to its execution and within six months of issuance of this permit, the Permittee shall submit a draft CE to the Corps Regulatory Division for review. The Permittee shall receive written approval (by letter or e-mail) from the Corps Regulatory Division of this CE prior to it being executed and recorded. No later than 30 calendar days after receiving Corps Regulatory Division approval of the final draft CE, the CE shall be executed and recorded and a recorded copy furnished to the Corps Regulatory Division.

5. GIS DATA: Within 60 days following recordation, you shall provide to this office GIS data (polygons only) depicting the CE boundaries, as authorized by the Corps. All GIS data and associated metadata shall be provided on a digital medium (CD or DVD) or via file transfer protocol (FTP), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. GIS data for CE sites shall conform to the data dictionary, as specified in the current Map and Drawing Standards for the Los Angeles District Regulatory Division, and shall include a text file of metadata, including datum, projection, and mapper contact information.

6. Prior to initiating construction in waters of the U.S., the Permittee shall submit to the Corps Regulatory Division a complete set of final detailed grading/construction plans showing all work and structures in waters of the U.S. All plans shall be in compliance with the Final Map and Drawing Standards for the Los Angeles District Regulatory Division dated September 21, 2009 (http://www.spl.usace.army.mil/regulatory/pn/SPL-RG_map-drawing-standard_final_w-fig.pdf). All plan sheets shall be signed, dated, and submitted on paper no larger than 11x 17 inches. No work in waters of the U.S. is authorized until the Permittee receives, in writing (by letter or e-mail),

Corps Regulatory Division approval of the final detailed grading/construction plans. The Permittee shall ensure that the project is built in accordance with the Corps-approved plans.

7. The Permittee shall clearly mark the limits of the workspace with flagging or similar means to ensure mechanized equipment does not enter preserved waters of the U.S. and riparian wetland/habitat areas. Adverse impacts to waters of the U.S. beyond the Corps-approved construction footprint are not authorized. Such impacts could result in permit suspension and revocation, administrative, civil or criminal penalties, and/or substantial, additional, compensatory mitigation requirements.

8. Within 45 calendar days of completion of authorized work in waters of the U.S., the Permittee shall submit to the Corps Regulatory Division a post-project implementation memo indicating the date authorized impacts to waters of the U.S. ceased.

9. Within 45 calendar days of complete installation of all mitigation, the Permittee shall submit to the Corps Regulatory Division two copies of a memo indicating the following:
   A) Date(s) all mitigation was installed and monitoring was initiated;
   B) Schedule for future mitigation monitoring, implementation and reporting pursuant to final, Corps-approved HMMP;
   C) Summary of compliance status with each special condition of this permit (including any noncompliance previously occurred or currently occurring and corrective actions taken to achieve compliance);
   D) Color photographs taken at the project site before and after construction or those aspects directly associated with impacts to waters of the U.S.; and
   E) One copy of "as built" drawings for the entire project, including all mitigation sites (all sheets must be signed, dated, to-scale, and no larger than 11 x 17 inches).

Endangered Species Act:

1. This Corps permit does not authorize you to take any threatened or endangered species, in particular the least Bell's vireo (*Vireo belli pusillus*) or adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed Fish and Wildlife Service Biological Opinion (FWS-WRIV-08B0492-11F0446) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit.

Cultural Resources:

1. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff within 24 hours (Steve Dibble at 213-452-3849 or John Killeen at 213-452-3861). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural

resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as Permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

PERMITTEE

10/3/11
DATE

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

James E. Mace
Senior Project Manager
Riverside –Orange Counties Section
Regulatory Division

10/3/11
DATE

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

TRANSFEREE

DATE

EXHIBIT "D"
(1 OF 4)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011

In Reply Refer To:
FWS-WRIV-08B0492-11F0446

JUN 21 2011

Colonel R. Mark Toy
District Commander, Los Angels
U.S. Army Corps of Engineers
P.O. Box 532711
Los Angeles, California 90053-2325

Attention: James E. Mace, Regulatory Division (File No. SPL -2009-00882)

Subject: Formal Section 7 Consultation for the Day Creek Channel, Stage 6, Riverside County, California

Dear Colonel Toy:

This document transmits our biological opinion based on our review of the proposed Day Creek flood control project located within the County of Riverside, California, and its potential effects on the federally listed least Bell's vireo (*Vireo bellii pusillus*; "vireo"), and its designated critical habitat in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). We initiated formal consultation with your agency, the U.S. army Corps of Engineers (Corps), on October 20, 2010, the date we received your request.

On June 22, 2004, we issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. The proposed project is located within the plan area boundary of the MSHCP.

The project applicant, the Riverside County Flood Control and Water Conservation District (District), proposes to seek authorization for project-related incidental take through the MSHCP. In order for the applicant to receive incidental take through the MSHCP, the proposed action must be consistent with the MSHCP and its associated implementation agreement and permit. The proposed project is located within Existing Core A of the Jurupa Area Plan. The proposed project is not within an MSHCP Criteria Cell and is therefore not subject to the Joint Project Review process. However, MSHCP policies and procedures, such as the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP section 6.1.2; "Riparian

Policy"), Guidelines Pertaining to the Urban Wildlands Interface (MSHCP section 6.1.4), and Additional Survey Needs and Procedures (MSHCP section 6.3.2) apply to the subject project.

This biological opinion is based on information provided in the following documents: 1) *MSHCP Compliance Report Day Creek Channel, Stage 6 Phase 2 Flood Control Project*, dated March 2008; 2) *Regional Conservation Authority Joint Project Review Case* (JPR # 08-04-01-01 dated June 2, 2009); 3) *Public Notice SPL-2009-00882, Day Creek Flood Control Project*; 4) *Final CEQA Initial Study, Day Creek Channel, Stage 6 Phase 2 Project*, dated May 2010; 5) Letter report addressed to Randy Sheppard, providing the 2010 least Bell's vireo survey results for the Day Creek Stage 6, Phase 2 Project dated August 19, 2010; 6) Letter addressed to Crystal Doyle, Regulatory Division, dated January 18, 2011, summarizing proposed changes to the project and providing information to finalize the District's permit action for the proposed project; 7) *Habitat Mitigation and Monitoring Program for Day Creek Channel Stage 6, Phase 2 Project* dated January 2011; 8) Draft *Day Creek Channel Stage 6, Phase 2 Maintenance Plan* dated December 2010; 9) *Intra-Service Formal Section 7 Consultation/Conference for Issuance of Endangered Species Act Section 10(a)(1)(B) Permit TE-088609-0 for the Western Riverside County Multiple Species Habitat Conservation Plan* dated June 22, 2004 (FWS-WRIV-870.19); and 10) other information available in our files. The complete project file addressing this consultation is maintained at the Carlsbad Fish and Wildlife Office.

The originally proposed project included the following elements: 1) extension of the existing concrete-lined rectangular channel from near 63rd Street, down 2,700 linear feet to Lucretia Avenue; 2) replacement of existing culverts under Lucretia Avenue with a double reinforced concrete box; 3) installation of 15-foot wide access roads on either side of the channel upstream from Lucretia Avenue; and 4) installation of 1,100 linear feet of ungrouted riprap/rock-lined channel within Goose Creek Golf Course, downstream from Lucretia Avenue.

At the request of the U.S. Fish and Wildlife Service (Service) the design of the proposed project was modified to provide suitable substrate for the Santa Ana sucker (*Catostomus santaanae*). The District modified the rock-lined trapezoidal channel design downstream of Lucretia Avenue as follows: 1) The location of the proposed drop structure was moved 300 feet upstream; 2) Downstream of the drop structure, the channel base width was increased from 20 feet to 30 feet; 3) A flow feature was incorporated at the bottom of the channel to increase the depth of low flows; and 4) An alternative configuration for the rock trapezoidal section of the channel downstream of the drop structure was developed (Alternative 2).

The Service prefers Alternative 2 because it would make surface flows available to the Santa Ana sucker, should they be present. The design of Alternative 2 was provided to the Corps in District's letter of January 18, 2011. Santa Ana suckers do not currently occupy Day Creek. However, Day Creek is one of only five or six remaining tributaries to the portion of the Santa Ana River that is occupied by the Santa Ana sucker. Tributary streams are important to Santa Ana sucker because they can provide refuge during storm events. We appreciated the Districts

willingness to modify the Day Creek project to benefit the Santa Ana sucker even though the proposed project will not result in "incidental take" of the Santa Ana sucker.

Your agency, the Corps, proposes to authorize the action that includes the discharge of fill into 3.09 acres of non-wetland of waters of the United States and 0.01 acres of wetland waters of the United States. A total of 3.10 acres of impacts are proposed. All of the proposed impacts would be permanent. The proposed project includes maintenance of the constructed facilities, including sediment and vegetation removal to protect channel capacity.

To address the MSHCP Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy, a Determination of Biologically Equivalent or Superior Preservation and a Habitat Mitigation and Monitoring Plan was submitted to our office. There will be no removal of riparian vegetation during the period between March 15 and September 15. The project will provide for the restoration and management of 4.1 acres of riparian and riverine habitat (2.1 acres of riverine preservation and management and 2.1 acres of riparian restoration and management). The land will be placed under a conservation easement and managed by the Inland Empire Resource Conservation District. The Conservation easement will be recorded prior to the removal of riparian vegetation on the proposed project site.

In accordance with the Additional Survey Needs and Procedures of the MSHCP, focused surveys were conducted for burrowing owls and the results were negative. However, pre-construction burrowing owl surveys will need to be conducted within 30 days prior to ground disturbance per the MSHCP. The project site is within the MSHCP Narrow Endemic Plant Survey Area for *Ambrosia pumila* (San Diego ambrosia), *Phacelia stellaris* (Brand's phacelia), and *Satureja chandleri* (San Miguel Savory). No suitable habitat for these species is present on the project site.

Based on our review of the information provided to us we have determined that the proposed project is consistent with the relevant MSHCP policies and procedures. The status of the vireo and the vireo's designated critical habitat along with the effects of implementing the MSHCP were previously addressed in our biological opinion (FWS-WRIV-870.19) dated June 22, 2004, in which we concluded that the level of anticipated take in the MSHCP plan area was not likely to result in jeopardy to these species or adversely modify vireo critical habitat. We do not anticipate any adverse effects to these species or critical habitat that were not previously evaluated in the biological opinion for the MSHCP. Therefore, it is our conclusion that implementation of the proposed project will not result in jeopardy to the vireo.

This concludes formal consultation on the proposed action. As provided in 50 CFR 5402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded; 2) new information reveals effects of the proposed action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the agency action is subsequently modified in a manner that causes an effect to listed species

or critical habitat that was not considered in this opinion; or 4) a new species is listed or critical habitat is designated that may be affected by the proposed action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion, please contact Karin Cleary-Rose of this office at (760) 431-9440, extension 228.

Sincerely,

Kennon A. Corey
Assistant Field Supervisor

cc
Art Diaz, Riverside County Flood Control and Water Conservation District
Marc Brown, Santa Ana Regional Water Quality Control Board
Jeff Brandt, California Department of Fish and Game

EXHIBIT "E"

Attached is a copy of the addendum to the Determination of Biologically Equivalent or Superior Preservation dated August 2011 prepared pursuant to Section 6.1.2 of the Western Riverside County Multiple Species Habitat Conservation Plan

WARREN D. WILLIAMS
General Manager-Chief Engineer

1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

August 2011

MSHCP Section 6.1.2 Riverine/Riparian DBESP Addendum

Day Creek Channel, Stage 6 Phase 2 Project
Project No. 1-0-00250

Background

On June 2, 2009, the Regional Conservation Authority (RCA) found the Day Creek Channel, Stage 6 Phase 2 Project (Project) consistent with Section 6.1.2 in JPR #08-04-01-01 based on a summary of the expected riverine/riparian impacts and proposed mitigation. On October 7, 2009, a MSHCP Section 6.1.2 riverine/riparian Determination of Biologically Equivalent or Superior Preservation (DBESP) report was submitted to the U.S. Fish and Wildlife Service/California Department of Fish and Game (Wildlife Agencies), and no comments were received during the 60-day DBESP comment period. On May 18, 2010, the District's Board of Supervisors found the Project in compliance with the MSHCP, adopted a CEQA Mitigated Negative Declaration, and authorized the District to proceed with the project.

Since the project was subject to subsequent regulatory permitting, the mitigation proposed for MSHCP/CEQA purposes was again subject to review. During the Section 404 permitting process, the U.S. Fish and Wildlife Service (Service) requested focused least Bell's vireo (LBV) surveys for the project reach downstream of Lucretia Avenue due to the increase in riparian vegetation from the time that the original biological survey was completed. The 2010 LBV survey results, which also includes updated vegetation mapping, are enclosed herein. The compensatory mitigation included in the Final Habitat Mitigation and Monitoring Plan (HMMP) is based on the 2010 survey results/vegetation mapping, and is consistent with the regulatory permit requirements. Although there was an increase in riparian vegetation acreage within the Project limits and a corresponding increase in the proposed mitigation, the total impact acreage or location has not changed from the original DBESP report. This DBESP addendum was prepared to provide a final accounting of the riverine/riparian impacts and the associated mitigation.

MSHCP Section 6.1.2 DBESP

Riparian: Based on the 2010 LBV survey and vegetation mapping, two LBV were observed within the riparian habitat downstream of Lucretia Avenue. It was assumed that the LBV were paired, but breeding behavior was not observed during the focused surveys. The 2010 mapped riparian vegetation within the Project area consists of 0.46 acre of Southern Willow Scrub, 0.35 acre of Mulefat Scrub, $\leq$ 0.01 acre of Revegetated Mulefat Scrub, and 0.19 acre of Disturbed Mulefat Scrub. This riparian vegetation now occurs within areas that were mapped as unvegetated riverine in the original biological report. This indicates that such vegetation may be temporal due to high velocity erosive flows, and that such vegetation can self-reestablish following disturbance. The riparian vegetation is also located within the Project reach that will not be permanently acquired by the District, and will continue to be managed by the Goose Creek Golf Course.

Based on the existing conditions, the riparian vegetation does not meet the MSHCP LBV species objectives for conserved habitat (MSHCP Table 9-2). LBV Species Objective 3 describes the inclusion of additional areas identified as important for the LBV through the implementation of Section 6.1.2. If LBV surveys are positive, 90 percent of the occupied portions of the property that also provides long-term Conservation value for LBV shall be conserved consistent with Conservation for LBV. Such LBV Conservation involves the inclusion of 100 meters of undeveloped landscape adjacent to the Habitat Conserved. The 2010 LBV locations are within 100 meters of a developed and active golf course including the cart paths. The more westerly LBV location is also within 100 meters of Lucretia Avenue. Based on the above information, the occupied habitat does not provide MSHCP long-term Conservation value for LBV. Therefore, 90% avoidance of the occupied habitat requirement is not applicable.

LBV: The 2010 survey results indicate that approximately **0.23 acre** of the 1 acre mapped riparian vegetation within the project area was utilized by the two potentially paired LBV. The compensatory mitigation will include **2 acres** total riparian vegetation creation and management. The compensatory mitigation site will be located within a 53-acre conservation easement to be managed by the Inland Empire Resource Conservation District (IERCD). The conservation easement site is located within the Santa Ana River floodplain near Day Creek and will be protected in perpetuity. The IERCD has been working with the Goose Creek Golf Course and the California Department of Fish and Game on establishing the conservation easement for a number of years. The IERCD has also worked with golf course staff to allow for onsite care of pole cuttings. This early coordination should help ensure that the replacement riparian vegetation is planted close to the time of impact, if not before. In addition, the impacted LBV habitat primarily consists of Southern Willow Scrub, which is fast growing and is expected to become established within the mitigation site in a short amount of time, thereby further minimizing any temporal loss of the habitat.

Riverine: Based on the 2010 vegetation mapping, the project will now impact 2.1 acres of Riverine area compared to 3.1 acres in the original DBESP report. This is simply due to the one acre increase in Riparian area described above. The proposed project consists of a flood control channel that will still convey stormwater flows to downstream areas. Nonetheless, the loss of any biological resources within the Riverine area will be mitigated through the preservation and management of 2.1 acres of riverine area within the previously described IERCD conservation easement area.

Summary: Table 1 below provides a summary of the Project impacts/mitigation described in the October 7, 2009 DBESP report. Table 2 below describes the impacts/mitigation addressed in the final regulatory permits and HMMP.

Table 1
Project Impacts and Mitigation in October 2009 DBESP

Impacts	Mitigation
3.1 acres Riverine and 0.01 acre Riparian	Option 1: 3.1 acres of restoration, creation or enhancement through purchase of mitigation credits or in-lieu fee program Option 2: 3.1 acres of offsite acquisition of replacement habitat or the creation of new riparian/riverine resources

Table 2
Project Impacts and Mitigation Based on 2010 Survey/Vegetation Mapping

Impacts	Mitigation
2.1 acres Riverine and 1 acre Riparian	4.1 acres total compensatory mitigation consisting of: • 2.1 acres of Riverine preservation/management • 2 acres of Riparian creation and management

Conclusion: Based on the information contained herein, the project remains biologically equivalent or superior to an avoidance alternative.

Signature: _____ Dated: 9/6/11

WARREN D. WILLIAMS
General Manager-Chief Engineer

Enclosures

RS:mcv
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REFERENCE LIST

1. MSHCP Joint Project Review (JPR #08-04-01-01), Regional Conservation Authority, June 2, 2009

2. MSHCP Section 6.1.2 Determination of Biologically Equivalent or Superior Preservation, Riverside County Flood Control and Water Conservation District, October 2009

3. 2010 least Bell's vireo Focused Survey Results for the Day Creek Channel, Stage 6 Phase 2 Project, Dudek, August 19, 2010

4. Final Habitat Mitigation and Monitoring Plan for Day Creek Channel, Stage 6 Phase 2 Project, Inland Empire Resource Conservation District, June 2011

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EXHIBIT "F"

Attached is a copy of the "Final Habitat Mitigation and Monitoring Plan for Day Creek Channel Stage 6, Phase 2 Project" dated June 2011 ("HMMP")

EXHIBIT "F"
(1 OF 27)

Final
Habitat Mitigation and Monitoring Plan

for:

Day Creek Channel Stage 6, Phase 2 Project

Prepared for:

Riverside County Flood Control
and Water Conservation District
1995 Market Street
Riverside, CA 92501
Contact: Randy Sheppeard

Prepared by:

Inland Empire Resource Conservation District
25864-K Business Center Drive
Redlands, CA 92374
Contact: Mandy Parkes

June 2011

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I. FLOOD CONTROL PROJECT

1.1 DESCRIPTION

The proposed Day Creek Channel Stage 6 Phase 2 project (Project) entails the construction and subsequent maintenance of an improved flood control channel extension consisting of a combination of rock-lined and concrete-lined channel within approximately 3,800 lineal feet of existing interim earthen channel. The proposed project consists of approximately 2,700 lineal feet of concrete-lined rectangular channel and approximately 1,100 lineal feet of rock-lined trapezoidal channel that would end within the existing golf course channel

1.2 LOCATION

The project for which this mitigation is being proposed is located along the existing Day Creek Channel within the unincorporated Mira Loma area of Riverside County. The project area is generally bounded by Limonite Avenue to the north, the Santa Ana River to the south, Charles Avenue to the east, and Dana Avenue to the west. USGS "Corona North, California" 7.5 Topographic Quadrangle: Township 2 South, Range 6 West, Section 29.

1.3 EXISTING SITE CONDITIONS

The proposed channel system will be constructed along the Riverside County Flood Control and Water Conservation District (RCFC) interim Day Creek channel between Lucretia Avenue and Limonite Avenue. The downstream or southerly reach of the proposed channel would be constructed within the existing Goose Creek Golf Club which is located within the Santa Ana River 100-year floodplain. Upstream (northerly) of the proposed Stage 6 project, the master planned Day Creek Channel system has been completed within Riverside County. Within the project area, the existing facility consists of a series of road crossings and sparsely vegetated earthen/rock-lined channel with insufficient capacity and erosion protection to provide the required 100-year flood protection. The existing channel is routinely maintained and the District has had to conduct previous emergency repairs due to damages caused by high velocity storm flow. The existing channel within the golf course contains a greater quantity of riparian vegetation. Flows conveyed by the channel mostly consist of storm water runoff from surrounding urban areas. The Day Creek watershed generates an estimated 100-year flow rate of 10,000 cubic feet per second (CFS) according to the Federal Emergency Management Agency (FEMA) flood study. Surrounding land uses consist of mostly rural residential development, golf course, and public roads.

Day Creek is part of the Santa Ana River Watershed region, the largest stream system in southern California. The majority of acreage within the Santa Ana River region can be characterized as Mediterranean, with normal precipitation ranging from 10 inches to 24 inches annually, a figure which plummets during frequently experienced periods of drought. Drainages in this region are populated by variations of riparian and sage scrub populations, with vegetation on and adjacent to these riparian systems typically consisting of cottonwoods (*Populous fremontii*), willow species (*Salix spp.*), mulefat (*Baccharis salicifolia*), and sycamore (*Platanus racemosa*), among others.

The following surveys have been conducted along the portion of the proposed Project site, within the boundaries of the Goose Creek Golf Course from Lucretia Avenue to the north and the confluence with the Santa Ana River to the south:

- September 2009 breeding birds survey conducted by the Santa Ana Watershed Association, in which the following species were confirmed as present within the proposed project area:
    - Birds:
        - Common Yellowthroat (*Geothlypis trichas*) 5
        - Song Sparrow (*Melospiza melodia*) 8
        - House Wren (*Troglodytes aedon*) 3
        - House Finch (*Carpodacus mexicanus*) 50
        - Anna's Hummingbird (*Calypte anna*) 3
        - California Towhee (*Pipilo crissalis*) 1
        - Western Wood Pewee (*Contopus sordidulus*) 1
        - Lesser Goldfinch (*Carduelis psaltria*) 7
        - American Goldfinch (*Carduelis tristis*) 2
    - Mammals:
        - Audobon's Cottontail (*Sylvilagus audubonii)* 2
        - California Ground Squirrel (*Spermophilus beecheyi*) 2
- 2010 least Bell's vireo (*Vireo bellii pusillus*) – focused survey, conducted by Dudek:
    - Birds:
        - One pair of least Bell's vireo detected during 2010 nesting season.

This portion of Day Creek is one of the few remaining soft-bottomed tributaries to the Santa Ana River; however, its biological value and functionality is compromised by the presence of invasive vegetation and debris from the adjacent golf course, as well as velocity-related erosion problems. Attempts to remedy the erosion problems present in the creek have resulted in the installation of riprap and rock, as well as the piling of loose concrete adjacent to the affected banks.

1.4 PROJECT IMPACTS/MITIGATION

Project Impacts: Total jurisdictional impacts associated with the Project are estimated to be 2.1 acres of unvegetated open channel and 1 acre of riparian vegetation.

Compensatory Mitigation (Mitigation): The RCFC is proposing to provide a total of 4.1 acres of compensatory mitigation acreage. The proposed mitigation acreage consists of providing 2.1 acres (1:1 ratio) of riverine preservation and management. The remaining mitigation acreage would consist of 2-acres (2:1 ratio) of riparian habitat creation and management.

1.5 PERMIT INFORMATION

Permit application packages have been submitted for approval to the California Department of Fish and Game, the United States Army Corps of Engineers, and the Regional Water Quality Control Board. This HMMP is intended to meet the permitting requirements of

these regulatory agencies and to allow for the issuance of the Section 404, 401, and Section 1602 authorizations.

II. MITIGATION SITE SELECTION: GOOSE CREEK GOLF COURSE

2.1 BACKGROUND

The Goose Creek Golf Course (Course) is located within the unincorporated Mira Loma community, and County of Riverside, within Section 32 and the east ½ of Section 31, Township 2 South, Range 6 West, San Bernardino Base and Meridian. The Course is bound on the east and south by the Santa Ana River, on the west by agricultural property, and on the north by established single-family residential developments. Day Creek bisects the Course into two pieces, running northwest to southeast, until it finally connects with the Santa Ana River.

Mira Loma has historically been a largely agricultural community, and home to increasingly large confined feeding operations. As with other formerly rural areas, a rising population and corresponding increasing urbanization in Mira Loma has resulted in the need for stormwater conveyance systems to effectively drain runoff from heavy storm events. In response, the Riverside County Flood Control and Water Conservation District (the "District") adopted a master drainage plan that studies the drainage problems that exist in the area and provides a conceptual solution to those problems. Day Creek Channel is one of the projects proposed by the plan. Currently, the interim portions of Day Creek Channel and adjacent areas are within the Day Creek 100-year flood plain and are subject to flooding and erosion. The Project is designed to convey the Day Creek 100-year peak discharge safely past existing residential development and public roads.

In 2005, Goose Creek Golf Course was subjected to repeated flooding due to above average storm events. This flooding was caused by repeated breeching of banks, both of Day Creek and the Santa Ana River, resulting in considerable damage to the Course. In response, Course staff created an unauthorized earthen berm approximately 1.77-acres in size, along the southeastern edge of the course, in order to prevent future flooding. Over 2-acres of riverbed sediment was disturbed in the creation of the berm, as was adjacent functional riparian habitat known to support the endangered least Bell's vireo (*Vireo bellii pusillus*). Due to these impacts, the California Department of Fish and Game assigned mitigation to the Course, including:

- Revegetation of the unauthorized berm, in order to reestablish native riparian habitat heavily disturbed during its creation. This would be followed by five years of maintenance and monitoring activities in order to ensure full establishment of the desired vegetation community.
- Funding the creation and subsequent recordation of a conservation easement over 53-acres of property to the south and east of the Course, excluding the unauthorized berm. According to the terms of the mitigation, the Course must only preserve habitat, and is not required to perform tasks related to restoration other than to the excluded acreage comprising the berm. The easement area is irregularly shaped

and crosses the Santa Ana River to the south side at one point, into what is considered to be the service area of the Riverside Corona Resource Conservation District. The easement will be recorded in favor of the IERCD, but the Riverside Corona Resource Conservation District (RCRCD) will care for the approximately 8-acres located on the south side of the river in perpetuity.

Species used in the revegetation of the berm were all grown from cuttings taken from plants located on the Course, then nurtured in an on-site nursery, and included red willow (*Salix laevigata*), arroyo willow (*Salix laiolepis*), narrow-leafed willow (*Salix exigua*), Fremont cottonwood (*Populous fremontii*) and mulefat (*Baccharis salicifolia*). Overhead irrigation was installed by Course staff, and will be removed at the end of year three of the mitigation effort. In addition to the installation of native species, the Course has also been required to maintain a presence of less than 5% exotics, resulting in the removal of species including but not limited to tree tobacco (*Nicotiana glauca*), castorbean (*Ricinum communis*), perennial pepperweed (*Lepidium latifolium*), and giant cane (*Arundo donax*).

For the 53-acre easement site, the Course is required only to preserve habitat, and has not been mandated to perform any restoration or creation activities. For this reason, the California Department of Fish and Game (CDFG) has allowed the IERCD to place additional mitigation projects on the property comprising the easement site, once it has been executed and recorded. In order to prepare for placement of additional mitigation properties, IERCD performed multiple visits for the purposes of determining total acreage suitable for restoration and/or creation tasks. Of the approximately 45-acres located north of the Santa Ana River, and therefore within the territory of the IERCD, 29-acres were found to be comprised of functional riparian scrub and woodland habitat, dominated by Fremont cottonwood (*Populous* fremontii), a variety of willow species (*Salix spp.*) and mulefat (*Baccharis salicifolia*). The remaining 16-acres are appropriate for restoration efforts, due to degradation of habitat by presence of aggressive invasive species including giant cane (*Arundo donax*) and tree tobacco (*Nicotiana glauca*), erosion issues, the proliferation of trash, and a multitude of problems related to use by equestrians.

It is within these 16 identified acres that the 4.1 acres being proposed for satisfaction of this mitigation requirement will be placed. The 4.1-acre mitigation project will be placed alongside other mitigation responsibilities, but clear digital as well as visual delineation will enable the IERCD to maintain and monitor these sites separately, and report independently.

The following figures illustrate the mitigation project area, location, easement overlay, and also the acreage identified by the qualified habitat restoration specialist retained by the IERCD as suitable for placement of restoration-oriented mitigation. The Riverside County Flood Control and Water Conservation District mitigation will be placed within one of these polygons identified as suitable for such restoration.

- Figure 1: Vicinity Map
- Figure 2: Mitigation Project Location Map
- Figure 3: Available Mitigation Acreage

Currently, the property over which the mitigation is slated to be placed is owned by the Goose Creek Golf Course, which is adjacent to the easement side. As of the creation of this document, the IERCD and Course are in final negotiations regarding recordation of a conservation easement to be placed over the property, in order to place it under the long-term care of the IERCD. Currently, the easement has been drawn up by legal counsel working on behalf of the IERCD, and its language has been agreed upon by representatives of both the Course and the IERCD. The IERCD anticipates recordation to take place no later than February 28th 2011, with mitigation placement to begin immediately upon recordation.

2.2 OBJECTIVES

The site upon which this mitigation will be placed is adjacent to a dynamic, riparian environment subject to periodic flooding, erosion, and the resulting changes in vegetation structure brought about by these two elements. It is also home to a significant acreage comprised of functional native riparian woodland and scrub habitat, capable of providing support to dependent wildlife including the threatened least Bell's vireo (*Vireo bellii pusillus*). The creation and restoration of acreage capable of supporting threatened and/or endangered species is one method of ensuring no dire long-term impacts stem from the proposed Project.

The Santa Ana Watershed region is reflective of trends emerging in Mira Loma, on a much larger scale; these include rapid population growth, expansion of urban areas, proliferation of impervious surface, and increases in nuisance flows from an ever-growing number of residents. These dynamic elements, in combination with global climate change and increasing demand for water, have resulted in the need to conserve and/or restore existing riparian and wetland habitat for the benefit of dependent species. The restoration and creation of desired habitat within the Santa Ana River Watershed aids in the recruitment of functional riparian species, and the existence of such property in perpetuity for use by and sustenance of other species.

The 4.1 acre mitigation proposed for the Project involves the restoration, management and preservation of 2.1 acres of riverine area. An additional 2 acres would be specifically designated for riparian habitat creation, comprised of Southern Willow Scrub/Mulefat Scrub. The mitigation assigned for impacts to this sensitive habitat is being translated to a concept with the following goals in mind:

1. Ensure no net loss of Federal/State jurisdictional waters or streambed
2. Protect onsite riparian/riverine resources from human disturbance
3. Allow the existing riparian plants to recover from flooding disturbance
4. Establish native riparian species in areas previously dominated by non-natives
5. Maintain a self-supporting Southern Willow/Mulefat Scrub plant community
6. Ensure resulting acreage protects and supports suitable habitat for native species of wildlife
7. Ensure that the mitigation acreage is biologically equivalent or superior to the riverine/riparian areas impacted by the Project

2.3 SITE SELECTION

The Goose Creek conservation easement site was selected for the placement of this mitigation responsibility, largely due to its ability to accommodate the requirements for riverine/riparian mitigation. The position of the proposed easement is alongside the Santa Ana River, which provides adequate flow with which to support a variety of riparian restoration and/or creation undertakings.

The "Background" section of this document also details the rationale for placing this mitigation at this site, due to its projected protection in perpetuity by the IERCD as well as the ability of the IERCD to collectively place multiple micro-mitigations together in order to derive a larger regional benefit from their existence as a whole rather than as small and potentially isolated parcels. Table 2.12 demonstrating the projects and associated funding to be placed upon the Goose Creek conservation easement site is located in Section 2.12/Financial Assurances of this document.

2.4 SITE PROTECTION INSTRUMENT

The site proposed for the placement of this mitigation is currently the subject of negotiations between the Inland Empire Resource Conservation District and the Goose Creek Golf Course. After receiving permission from the permitting agency, the California Department of Fish and Game, the IERCD has moved forward in the process of easement execution and recordation, and is currently awaiting finalization of additional documentation and payment from the Course prior to addressing these last tasks. Once recorded, the easement will protect all underlying acreage in perpetuity, as it runs with the land and will therefore remain in effect, even land ownership changes hands.

The Inland Empire Resource Conservation District is a public agency organized under Section 9 of the Public Resources Code, and is therefore qualified to hold conservation easements. The IERCD's status as a public agency receiving annual property tax revenues and pass-thru monies makes the IERCD a stable entity capable of long-term maintenance and monitoring responsibilities.

2.5 BASELINE INFORMATION

2.5.1 LOCATION

The conservation easement area located to the south and east of the Goose Creek Golf Course can be characterized by riparian, riparian/upland transitional, and upland habitat, bounded by the Santa Ana River to the east and south, the Golf Course to the north, and agricultural lands to the west.

2.5.2 WEATHER/HYDROLOGY

Due to its position adjacent to the main conduit of the Santa Ana River watershed and the very arid Inland Empire region, the property is frequently inundated in the

winter but experiences heat stress in the hotter summer months. The Santa Ana River is a dynamic system, characterized by shifts in its course, resulting in large-scale changes in vegetation communities adjacent to and within the vicinity of the River. Current evidence gathered by the IERCD staff suggests hydrology able to support riparian habitat restoration and/or creation projects, although supplemental artificial watering may be required in order to initially establish vegetation.

2.5.3 SOILS

The mapped soils comprising the proposed easement site are shown on Figure 4, and on Table 1.

Table 1: Site Soil Information

Soil Type	Condition	Description
Dello Loamy Sand	Poorly Drained; 0-2% Slopes	This component makes up approximately 90% of the mitigation site. The parent material consists of wind-modified alluvium derived from granite, with depth to the restrictive root layer greater than 60 inches. Natural drainage is considered excessive, with water movement in the most restrictive layer being high and available water to a depth of 60 inches being low. Organic matter in the surface horizon is approximately 1%.
Dello Loamy Sand	0-5% slopes	This component makes up approximately 10% of the mitigation site. The parent material consists of wind-modified alluvium derived from granite, with depth to the restrictive root layer greater than 60 inches. Natural drainage is considered excessive, with water movement in the most restrictive layer being high and available water to a depth of 60 inches being low. Organic matter in the surface horizon is approximately 1%.

2.5.4 VEGETATION

Riparian habitats generally occur among mid- to large-order streams below 4,000 feet, primarily within the foothills and valleys. The present distributional ranges of riparian habitat apparently have been influenced more by long-term climatic history than the surrounding upland Habitats. Several million years ago California experienced considerable rain and a warm, humid climate. The flora and fauna that evolved during this period adapted to these conditions. Over the next few millennia, the climate gradually became cooler and drier with summer drought and winter rains. As a result, many plant species that require summer moisture were forced to contract their ranges to riparian zones. Those species not able to persist in the riparian refugia had to adapt to the progressively drier uplands. For these reasons, the dominant riparian tree species in California are not confined to any single floristic region or land form province, or to a single hydrologic or climatic regime.

Riparian communities typically consist of one or more deciduous tree species with an assorted understory of shrubs and herbs. Vegetation height can vary from one to

three meters in scrub Habitats to 30 meters in riparian forest Habitats. Riparian Habitats are successional in nature and undergo a predictable sequence of revegetation following flood events. Succession from exposed alluvial soil to mature riparian forest or woodland may take 50 to 75 years or more, and results in a multitude of vegetation associations and subassociations. The Goose Creek conservation easement area supports multiple communities of riparian forest/woodland/scrub associations, including riparian forest, riparian scrub, southern willow scrub, southern cottonwood/ willow riparian forest, and southern sycamore/alder riparian woodland:

Riparian Forest. Riparian forest can include any combination of the following species along stream channel banks: box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), Valley oak (*Quercus lobata*), coast live oak (*Q. agrifolia*), white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), California dogwood (*Cornus californica*), California bay (*Umbellularia californica*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), California walnut (*Juglans californica*), and several species of willow (*Salix lasiandra, S. lasiolepis, S. laevigata, S. gooddingii, S. exigua*), Mexican elderberry (*Sambucus mexicana*), wild grape (*Vitis girdiana*) and poison-oak (*Toxicodendron diversilobum*). Where the stream channel receives perennial flows in some years but intermittent flows in other years, alder species drop out of the vegetation. Where the stream channel receives only intermittent flow, the willow and cottonwood species become less common and the sycamore, coast live oak and California bay tend to move down into the channel. Along ephemeral stream channels, coast live oak and California walnut can grow within the channel as a continuum or ecotone from uplands on north-facing slopes.

Riparian Scrub. This Habitat type has the same potential species composition as riparian forest, but at a younger successional stage, either because of a more recent disturbance or more frequent flooding. In addition to the species listed in the description of riparian forest, riparian scrub also may include mulefat.

Southern Willow Scrub. Southern willow scrub is dominated by willow trees and shrubs (*Salix* spp.) and also may contain gooseberry (*Ribes* spp.) and elderberry. When disturbance is high within this Habitat type, the dominant species typically is sandbar willow (*Salix exigua*). When disturbance is less, the dominant species typically is Goodding's black willow (*Salix gooddingii*). Willows are fast-growing and can reproduce vegetatively from root sprouts. Red willow (*Salix laevigata*) occupies fast-flowing perennial streams at elevations up to 1,200 m and often occurs with yellow willow.

Yellow willow (*Salix lasiandra*) grows along stream channels and in perennially wet places at elevations of 2,500 m. Sandbar willow occurs along sandbars and riverbeds at elevations below 900 m. Arroyo willow occupies Habitat within perennial and intermittent stream channels at elevations up to 750 m. Goodding's black willow occurs along streambanks and in wet places within drier Habitats at elevations below 450 m.

Southern Cottonwood/Willow Riparian. Southern cottonwood and willow riparian Habitat is dominated by cottonwood (*Populus* spp.) and willow (*Salix* spp.) trees and shrubs. Understory species may include mugwort (*Artemisia douglasiana*), stinging nettle and wild cucumber (*Marah macrocarpus*). This riparian Habitat is considered to be an early successional stage as both species are known to germinate almost exclusively on recently deposited or exposed alluvial soils. Like the willow, the cottonwood can reproduce vegetatively from roots. In the absence of disturbance, this Habitat type will transition to include oaks (*Quercus* spp.) and sycamores or, at higher elevations, will include white alder.

Southern Sycamore/Alder Riparian Woodland. Below 2,000 m sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows also are often present. Poison-oak, mugwort, elderberry and wild raspberry (*Rubus* spp.) may be present in the understory. Sycamore and alder are both able to withstand long periods of flooding. The distribution of white alder is restricted to permanent streams and consistent saturation of the root zone by well-aerated, cool water.[1]

III MITIGATION WORK PLAN

3.1 GENERAL

For the proposed Day Creek Channel Stage 6 Phase 2 project, the District is estimating total jurisdictional impacts to be approximately 3.1-acres (2.1 acres open channel & 1 acre riparian scrub). For these impacts, the District is proposing to mitigate at a ratio of 1:1 for the open channel and of 2:1 for the riparian scrub, for a total of 4.1-acres of riverine/riparian compensatory mitigation to be performed at the Goose Creek Golf Course pending conservation easement site, further described in the following the mitigation table (Table 2). The District is contracting the Inland Empire Resource Conservation District (IERCD) to perform the mitigation requirements:

Table 2: Specific Impacts/Mitigation

Impacts	Mitigation
2.1-acre Open Channel	2.1-acre Riverine Habitat Management/Preservation
1-acre Riparian Scrub	2-acre Riparian Habitat Creation/Restoration

[1]Summary taken from Riverside County Integrated Plan, www.rcip.org

3.2 NON-NATIVE PLANT REMOVAL

In the areas of the easement identified as degraded, employees of the IERCD as well as contractors working on behalf of the IERCD have identified the presence of multiple species of aggressive, invasive weeds. The presence of these species poses fire and flooding risks, crowds out native vegetation, and provides little to no habitat value for local species of native wildlife. The removal of non-native vegetation is typically the first step in encouraging the process of passive revegetation, as well as beginning the process of active revegetation. Their removal allows for the natural re-colonization of restoration sites by species of native vegetation, as well as allows for the IERCD to actively plant these species in areas over which active restoration is slated to take place.

All species within the 4.1-acre Project mitigation area that are identified as invasive will be removed; currently, these include but are not limited to:

- Giant cane (*Arundo donax*)
- Tree of heaven (*Ailanthus altissima*)
- Tree tobacco (*Nicotiana glauca*)
- Mustard (*Brassica spp.*)
- Castorbean (*Ricinus communis*)
- Pampas grass (*Cortaderia selloana*)
- Washington fan palm (*Washingtonia filifera*)
- Perennial pepperweed (*Lepidium latifolium*)
- Russian thistle (*Salsola kali*)

The species that are part of the aforementioned list, as well as those identified after the creation of this document that are classified as non-native and/or invasive, will be removed from the 4.1-acre Project mitigation area. All work will be performed outside of the accepted nesting season, which occurs between March 15th and September 15th annually, in order to avoid impacts to local species of endangered, threatened, and otherwise marginalized avian species. Of particular concern is the least Bell's vireo (*Vireo bellii pusillus*), an endangered songbird, of which at least four are currently occupying territories within and adjacent to the Goose Creek Golf Course. These territories have been identified by and are also currently monitored by a licensed biologist working on behalf of the Santa Ana Watershed Association (SAWA). In the event that work must be scheduled within this season, it may be done using the least invasive methods of herbicide application and biomass removal, and must be monitored at all times by a licensed biologist, the selection of which will be performed by the Inland Empire Resource Conservation District.

Typical removal methodologies will involve the following steps and considerations, in addition to the previously cited appropriate working seasons:

1. All plant removal should occur at the beginning of the rainy season when plants are either dormant or beginning to sprout for the year but have not yet set seed. This would help to remove a large portion of the existing seedbank that has already begun to sprout for the year and eliminate the further spread of seeds before the young plants have matured.
2. Application will be done by a qualified herbicide applicator, with a current license allowing for such work to be done. The application will be done using

foliar spray for populations of invasives that are either in clumps of at least 100% non-native species, or are located at a distance from native vegetation that allows for such spraying to occur without negatively affecting nearby native plants.

3. On windy days or while treating populations of invasive plants located adjacent to or within stands of natives, the qualified herbicide applicator will use:
    a) The cut-and-daub method, where herbicide is applied directly to the stump of the plant being treated
    b) Hand-pulling for smaller species of non-natives, where cut-and-daub would be inappropriate.
4. Only wetlands-approved herbicides will be used, either for foliar application or for cut-and-daub application
5. Only cut-and-daub or hand-pulling techniques will occur within 300 feet of water features; otherwise, foliar spray within the previously stated parameter is acceptable.
6. Biomass will be removed and taken to an approved greenwaste facility, in order to prevent the spread of invasive vegetation downstream from the restoration site.
7. The licensed herbicide applicator will keep detailed records for each day invasive species are removed, being careful to note:
    a) Volume of herbicide used
    b) Species treated
    c) Biomass removed

Follow-up removal of missed or re-sprouted non-native plants will be conducted as part of routine mitigation maintenance visits. IERCD will utilize a qualified biologist onsite to monitor the non-native plant removal to ensure that native plants are not incidentally removed as part of eradication efforts.

3.3 RESTORATION OF SITE WITH NATIVE SPECIES

Following the treatment of on-site invasive species, including the removal of all post-treatment biomass, the IERCD will begin the process of active revegetation of the 2-acre riparian scrub mitigation site.

3.3.1 STOCK CUTTINGS

In order to preserve the natural genetic diversity existing within the plant communities that populate the Goose Creek conservation easement site, the IERCD will revegetate the mitigation areas with cuttings from existing site vegetation. Pole cuttings will be taken from the following native species already present on-site:

- Cottonwood (*Populous fremontii*)
- Narrow-leafed willow (*Salix exigua*)
- Red willow (*Salix laevigata*)
- Arroyo willow (*Salix lasiolepis*)

- Mulefat (*Baccharis salicifolia*)

Additional understory species that are part of the southern cottonwood/willow riparian sub-alliance, such as mugwort, wild cucumber, and stinging nettle, will be procured from appropriate native plant nurseries located within the vicinity of the easement site, as they are not candidates for pole-cutting propagation.

3.3.2 STOCK MAINTENANCE

IERCD staff has worked with staff from the Goose Creek Golf Course in order to allow for on-site care of pole cuttings at the Course site. The somewhat remote location of the proposed mitigation site makes the cutting and maintenance of pole cuttings somewhat difficult, and potentially could compromise the health of these cuttings. For this reason, the IERCD will be able to store and care for planted cuttings on-site, using Course property and water in order to coax them into developing roots substantial enough for survival in the mitigation process.

IERCD staff will place cuttings at a preapproved isolated site on Course property, adjacent to the proposed mitigation site, and will ensure monitoring of cuttings on at least a weekly basis, either by Course staff or IERCD staff.

Understory vegetation will be purchased from appropriate area native plant nurseries, and will be planted directly at the mitigation site, as they will be of a size no smaller than 1-gallon. This will allow for direct placement in the ground upon purchase, and will require no additional care. However, the IERCD also recognizes that inclement weather or other circumstances beyond the ICRCD's control may require a waiting period prior to planting these species at the mitigation site.

3.3.3 REVEGETATION

IERCD staff will work with a native habitat restoration specialist in order to perform the process of transferring pole cuttings and purchased container stock from the on-site Course nursery as well as purchasing locations, into the mitigation site. Cuttings will be placed at appropriate spacings in order to allow for development of appropriate understory, as well as to avoid crowding of pole cuttings. A minimum of twelve (12) species will comprise the final plant palette, which will include but not be limited to the following:

- Cottonwood (*Populous fremontii*)
- Narrow-leafed willow (*Salix exigua*)
- Red willow (*Salix laevigata*)
- Arroyo willow (*Salix lasiolepis*)
- Goodding's black willow (*Salix gooddingii*)
- Mulefat (*Baccharis salicifolia*)
- While alder (*Alnus rhombifolia*)
- Mexican elderberry (*Sambucus mexicana*)
- Wild grape (*Vitus girdiana*)

- Mugwort (*Artemesia spp.*)
- Wild cucumber *(Echinocystis lobata)*
- Stinging nettle (*Urtica dioica*)

In consideration of excessively sandy soils present for a majority of the restoration areas, IERCD staff will work with Course staff in order to ensure watering regimes consistent with anticipated rapid soil drainage. Periods of watering will be performed twice per week during weeks of no precipitation, and once per week during periods of precipitation. The duration will fluctuate according to the needs of the planted areas, but should not exceed thirty (30) minutes per watering.

Cuttings will be placed directly in the ground, with wells created to trap and allow water to percolate in toward root systems. Container stock purchased from area native plant nurseries will be planted in a similar fashion, ensuring established rootball is exposed to elements but also ensuring protection from pests. 25% over what is required to be planted within the riparian scrub mitigation area will be propagated and purchased in anticipation of die-off.

3.4 MAINTENANCE PLAN

IERCD staff has developed a budget for maintaining the mitigation site, allowing for a minimum of four full days per month for the field ecologist to maintain and monitor the site, including performing the following functions:

1. Abatement of trash:

   All nuisance pieces of litter, as well as larger and/or hazardous materials, will be removed from the site immediately. The presence of such refuse poses a threat to the biological functionality of the site, and therefore is considered by the District as an obstacle to site success. Smaller littler including food wrappers, chip bags, cans, bottles, and other items capable of being picked up and carried out by one employee will be removed upon site. Larger items, such as trash that cannot be physically carried out by one person, or trash considered to be hazardous waste, will be removed from the site as soon as it is possible.

2. Restriction of human presence

   The site will be restricted to IERCD and Course staff, as a condition of the easement arrangement. Due to the presence of equestrians, the site will be outfitted with multiple signs in an effort to secure the status of a prescriptive easement. This will allow for the ultimate banning of equestrians and other recreational users by legal means, despite their historical use of the site.

   Other non-IERCD and Course staff will be disallowed upon the site, except for certain key personnel and occasional student access. This will assist IERCD staff in preserving the functionality of the site, and will prevent unnecessary impacts

on native species of vegetation and wildlife as a result of human presence, thereby increasing chances for site success.

3. Removal of Invasive Vegetation

   All invasive vegetation previously identified on-site, as well as species identified after this document shall be removed as quickly as possible from the mitigation site. The presence of invasive vegetation is potentially dangerous to the sustainability of native species of vegetation and wildlife, as well as to human health due to fire and flooding risks posed. The removal will be done according to the methods listed in section 3.2.

4. Maintenance of planted native vegetation

   Native species of vegetation consisting of pole cuttings and container stock from local native nurseries will be maintained according to the watering regimes listed in section 3.3.3, and dead and/or dying plants will be removed and replaced immediately. IERCD staff will closely monitor progress of the site, and will use field data sheets on each visit to record general data, as well as specific sheets on a quarterly basis to record:

   a. Total cuttings alive
   b. Total deceased
   c. Presence of non-native species
   d. Action re: non-native species
   e. Presence of trash
   f. Presence of humans

3.5 PERFORMANCE STANDARDS

Key to the concept of this mitigation plan is the establishment of functional riverine/riparian scrub acreage, capable of supporting species of native vegetation as well as wildlife. The following standards will demonstrate the successful establishment of this habitat, five (5) years after initial planting takes place:

1. <1% total area containing refuse of any kind
2. <5% of total area containing species of invasive, non-native vegetation
3. Planted Area:
   a. >75% survival of pole cuttings and container stock
   b. >50% total cover, including overstory and understory
4. Presence of volunteer species of vegetation and/or wildlife, as documented by third-party licensed biologist such as from the Santa Ana Watershed Association.
5. Installation and maintenance of appropriate signage declaring area environmentally sensitive and prohibiting entry by general public

Much of the mitigation site is characterized by extremely sandy, quick-draining soils. Based on the challenges experienced by other projects with similar soil conditions, the proposed success percentages are considered reasonable for this site.

3.6 MONITORING REQUIREMENTS

The mitigation areas will be maintained for the duration of the five-year monitoring period to ensure the successful eradication of non-native vegetation and the natural establishment of native plants occurs.

The mitigation site will be monitored by a habitat restoration specialist or a qualified biologist for a 5-year period beginning with the first year after the successful eradication of non-native, invasive vegetation. The monitoring report will include a clear and detailed description of the mitigation measures undertaken during the preceding year. This will include percent cover, percent survival, trash removal effort and success, and photo documentation. An annual monitoring report will be completed and provided to the appropriate regulatory agencies, and any other responsible agencies by January 31 of each year.

1. Monitoring Schedule

   The mitigation sites will be inspected by a habitat restoration specialist or qualified biologist through a general site walkover on at least a quarterly basis for the first year of monitoring and at least a semi-annual basis for the remainder of the monitoring period. During these site inspections, a qualitative assessment of the site will be made by using the California Rapid Assessment Method (CRAM). General observations to be noted will include health and vigor of native plants; weed, herbivory, or pest problems. Quantitative data will be collected annually to determine plant cover, health and vigor.

2. Quantitative Monitoring Methods

   In Year 0, quantitative monitoring will begin with the collection of baseline data immediately following non-native, invasive plant eradication. The baseline monitoring will ensure that the eradication has been completed. Following the Year 0 monitoring, the mitigation site will be monitored quarterly for a 5-year period by the habitat restoration specialist or a qualified biologist. Monitoring for the final performance criteria will occur in Year 5.

   Each quarterly monitoring assessment will consist of documentation using established GPS-linked photo points; percent survival and percent cover determination over areas of active planting; determination of trash presence, followed by immediate removal of all incidental litter and notification of presence of any litter defined as "Major Trash" in the Conservation Easement document encumbering this property; and documentation and abatement of any other anthropomorphic activities determined by IERCD to be potentially harmful to the biological functionality of the site.

3. Baseline Monitoring (Year 0)

   Baseline monitoring for year zero will be performed in order to establish the existing biological health of the site, as well as to prepare for subsequent monitoring and/or maintenance visits, in order to ensure continued improvement upon the

original natural state of the property. This methodology will be performed according to the following steps:

- Vegetative transects will be established randomly throughout the mitigation site, at frequency of three 15' x 20' plots per acre of restoration.
- These transects will be tracked using handheld GPS units, then mapped using GIS software to ensure consistency in sampling and monitoring efforts.
- IERCD personnel will conduct quarterly monitoring of these transects, in order to determine percent survival and percent cover within each transect.
- In addition to the establishment of vegetative transects, the IERCD will also employ the Point/Intercept sampling method, which involves the use of sampling pins, placed at regular intervals along a linear measurement, established during Year 0 baseline monitoring. This method will allow the district to track trends in vegetative health, including changes in plant cover and height.

4. CRAM Assessment (Years 0-5)

CRAM is a rapid assessment tool to provide information about the functional condition of a wetland and the stressors that affect that wetland. CRAM develops a picture of reference condition for a particular wetland type or to create a landscape-level profile of conditions of different wetlands within a region of interest. (*CRAM v. 5.0.2, 2008*).

A CRAM assessment will be performed once a year for five years to determine health and success of the 4.1 acre mitigation site.

- Year 0 – Preliminary assessment to determine the need for more traditional intensive analysis or monitoring.
- Year 1-5 – IERCD staff will utilize the CRAM analysis to determine non-native plant removal success and natural revegetation of the site.

IERCD will take advantage of the developing quality assurance and control practices being designed to ensure that CRAM is appropriately applied in the ambient and regulatory applications.

5. Photo Documentation (Years 0-5)

At least one photo point will be established in each mitigation area during the Year 0 baseline monitoring. Representative photos will be taken in Year 0 to document baseline conditions and annually thereafter in order to document site conditions throughout the monitoring period.

6. Annual Monitoring Report

An annual monitoring report will be completed by the field ecologist and project manager and submitted to the appropriate regulatory agencies for review by

January 31st of each year. For the Year 0 baseline monitoring, elements contained in the report will include, but will not be limited to, the following:

- Map of removed non-native plants
- Map of revegetated areas
- List of species planted, including:
    - Total number of cuttings, per species
    - Total amount of container stock, per species
- A summary of the Year 0 baseline data collected immediately following plant removal
- A summary of Year 0 baseline data collected immediately following plant revegetation
- CRAM assessment results
- Point-intercept sampling results
- Vegetative transect results
- Photo documentation
- Summary of wildlife species present
- Summary of the trash removal efforts on-site, divided into:
    - Incidental trash – smaller litter capable of being transported off-site the same day it is encountered. It will be summarized during each quarterly monitoring effort.
    - Major trash: large, immobile pieces requiring assistance from outside entity to remove from site. These will be tracked with a handheld GPS unit and mapped, and communication to the landowner (who has responsibility for this category of trash removal) of their presence at the site will be tracked.

For the Year 1 through Year 4 monitoring, the annual monitoring report will include, but will not be limited to, the following:

- Results of monitoring efforts conducted during that monitoring year
- A discussion of all maintenance and adaptive management actions taken for the mitigation area(s) during that monitoring year
- CRAM assessment results
- Point-intercept sampling results
- Vegetative transect results
- Summary of wildlife species present
- Photo documentation
- A discussion of any performance criteria that were not met
- A map showing the removal and actively as well as naturally restored areas;
- Recommendations for adaptive management (e.g., additional removal and/or plantings to be installed)
- Summary of the trash removal efforts on-site, divided into:
    - Incidental trash – smaller litter capable of being transported off-site the same day it is encountered. It will be summarized during each quarterly monitoring effort.

- Major trash: large, immobile pieces requiring assistance from outside entity to remove from site. These will be tracked with a handheld GPS unit and mapped, and communication to the landowner (who has responsibility for this category of trash removal) of their presence at the site will be tracked.

Annual Reports 1-5 will include a discussion of trash removal efforts, results from point-intercept sampling (native veg cover) and native veg survival. Each annual report will also include a summary of wildlife species observed on site for each monitoring year.

For the Year 5 monitoring, elements contained in the report will include all of the elements contained in the Year 1 through Year 4 monitoring reports described above, as well as a discussion of any final success criteria that were not met.

3.7 LONG-TERM MANAGEMENT PLAN

Long-term management of the site will involve performance of quarterly inspection of elements outlined in the maintenance plan by the IERCD Field Ecologist. These include actively participating in as well as evaluative effectiveness of:

- Abatement of trash:
- Restriction of human presence
- Removal of Invasive Vegetation
- Maintenance of planted native vegetation

The Field Ecologist will provide data from each quarterly visit to IERCD management to allow for incorporation into annual monitoring plans as well as adaptive management plans. Issues with any of the aforementioned categories resulting in potential site failure will be addressed immediately, and maintenance and/or monitoring techniques will be adjusted accordingly. Funding for this mitigation project provides for long-term maintenance in perpetuity of the site, upon a property that will be conserved in perpetuity.

3.8 ADAPTIVE MANAGEMENT PLAN

IERCD will incorporate adaptive management strategies to determine if the performance criteria have been met, including:

1. Evaluation of non-native plant removal methods to determine if adjustments need to be made to frequency of herbicide applications
2. Evaluation of restoration methodologies including:
    - Planting technique
    - Watering regime
    - Maintenance of planted areas

A summary of all adaptive management actions taken during the year will be discussed in the annual monitoring report.

IV FINANCIAL ASSURANCES

The Inland Empire Resource Conservation District will be charged in establishing and implementing mitigation work in strict accordance with the RCFC's regulatory permits. IERCD is a public agency organized under Section 9 of the Public Resources Code, and is therefore qualified to hold and manage conservation easements. IERCD is considered financially stable as a result of the following elements:

- The IERCD receives annual property tax monies from both Riverside and San Bernardino Counties, with which to carry out its missions and goals.
- The IERCD receives pass-thru monies from redevelopment agencies located within IERCD boundaries.
- The IERCD is currently in possession of Federal Earmark funds, which have been entrusted in the IERCD's hands since 2004. These Earmark monies are for the purposes of education, outreach, and restoration within the IERCD's service area, and while they are not comingled with mitigation funding, they allow the IERCD to bank a large percentage of property tax dollars and pass-thru monies that would otherwise be spent on daily IERCD operations.

In addition to RCFC's contribution, the IERCD has secured commitments of over $321,000 from other sources for this mitigation site as demonstrated in the following table:

Table 3: Current Mitigation Projects (Funding Received)		
Site Name	**Restoration Requirement**	**Funding**
Alabama Box Culvert	Restoration, maintenance, and in-perpetuity care of habitat at a 2:1 ratio for original impacts; total to be restored is .11-acres	$25,000.00
ESRI Parking Lot	2.96-acres restoration	$150,000.00
Nevada Business Park	Restoration, maintenance, and in-perpetuity care of .003-acres of habitat in perpetuity	$15,000.00
ProLogis Beaumont	.55-acres comprising an effective conservation habitat project	$63,895.00
Riverside Flume Pipeline	.92-acres of restoration within the upper Santa Ana Watershed.	$52,000.00
Goose Creek Endowment	Preservation of 53-acre conservation easement	$16,000.00
	Totals	**$321,895.00**

The funding provided to the IERCD will ensure restoration/creation/management of the required 4.1-acres of riverine/riparian scrub habitat. Any remainder funds will be placed in a separate account maintained by the IERCD, set aside for the sole purpose of maintaining conservation easement funds. Tasks associated with this mitigation effort will be carefully tracked and it is the policy of the IERCD to ensure best management practices regarding finances in order to ensure all conservation easement endowments are efficiently managed.

V. CONTACT INFORMATION

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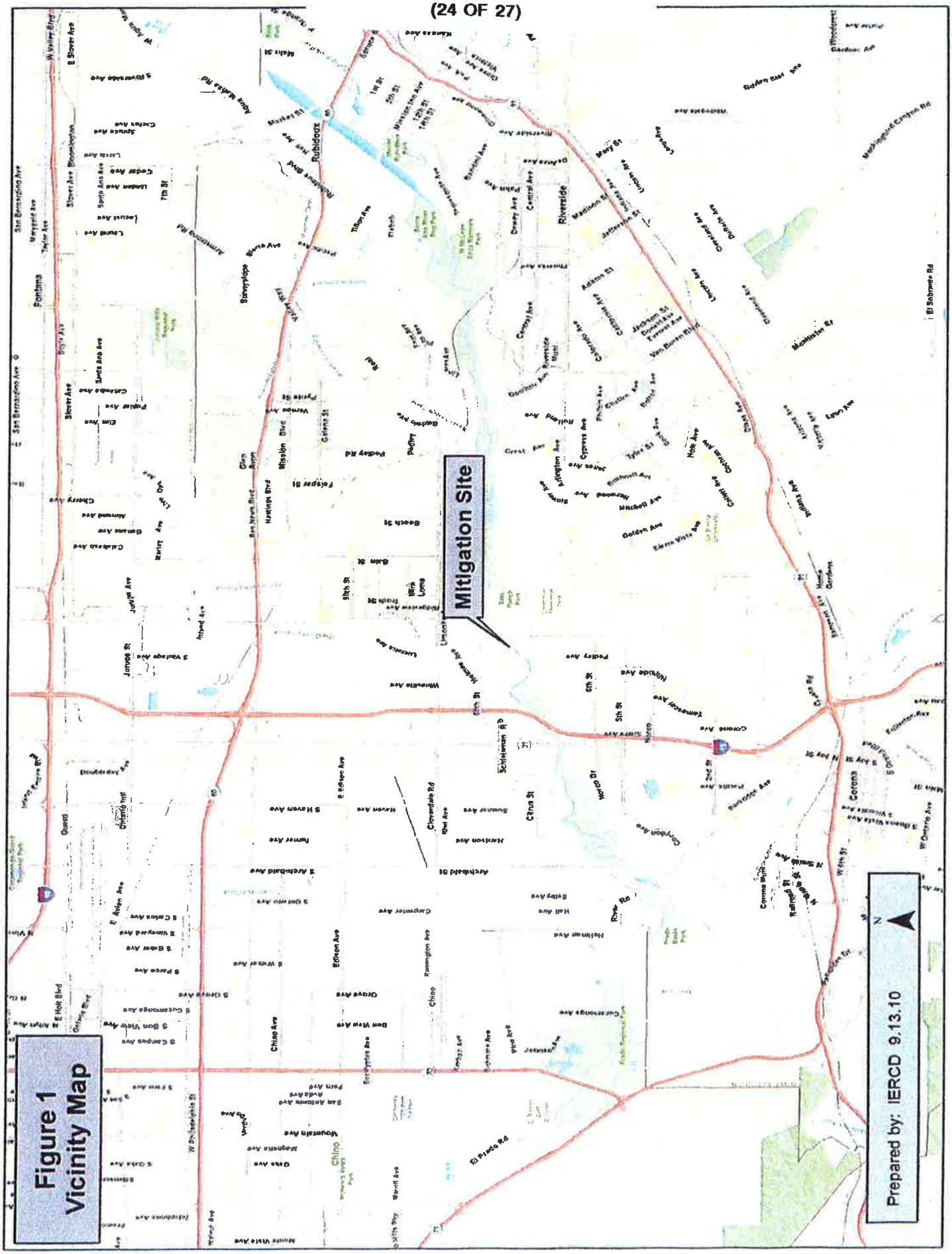
Mitigation Site
Figure 1
Vicinity Map
Prepared by: IERCD 9.13.10
N

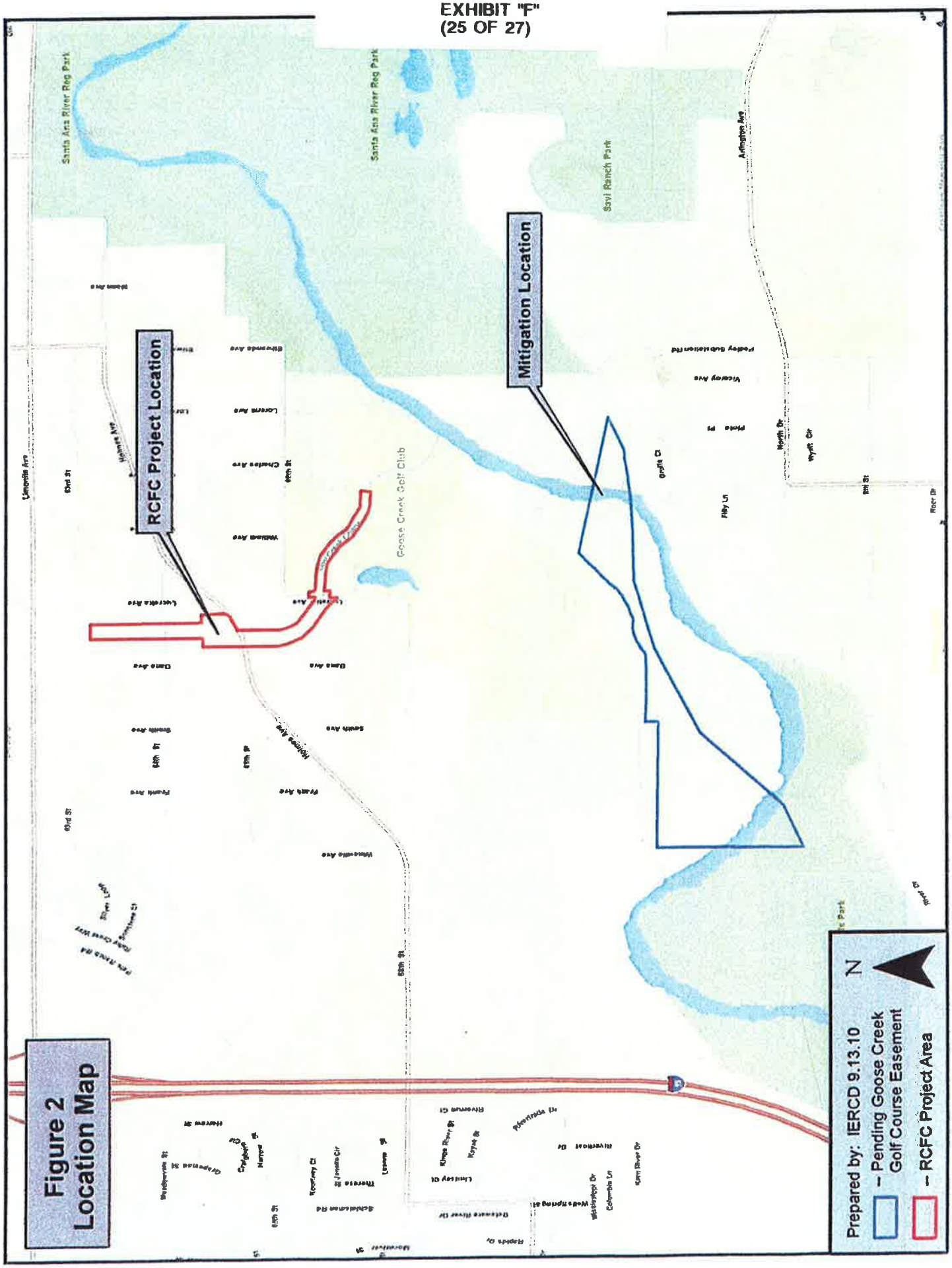

Figure 2
Location Map

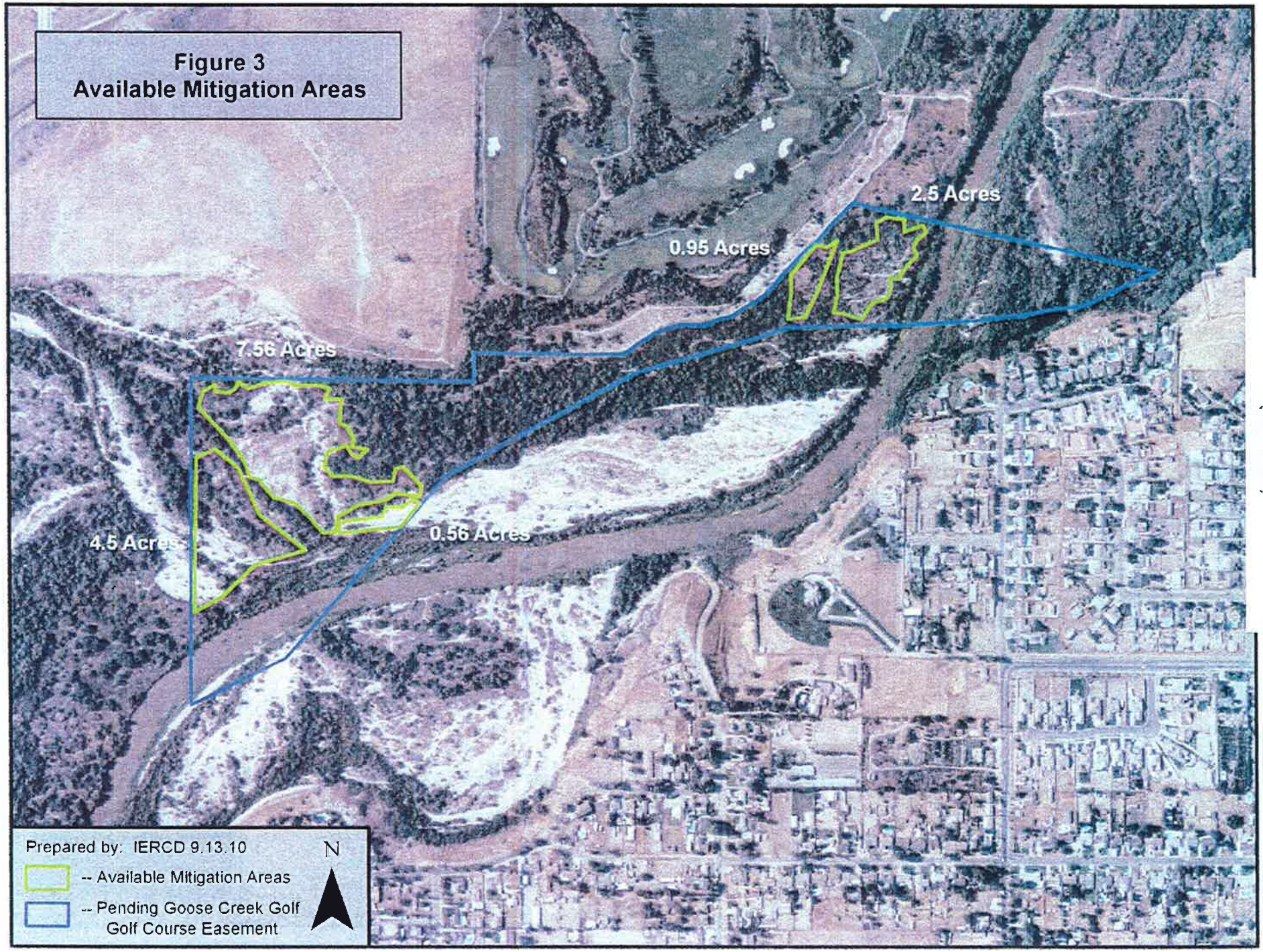

EXHIBIT "F"
(26 OF 27)

Figure 4 Site Soils Map

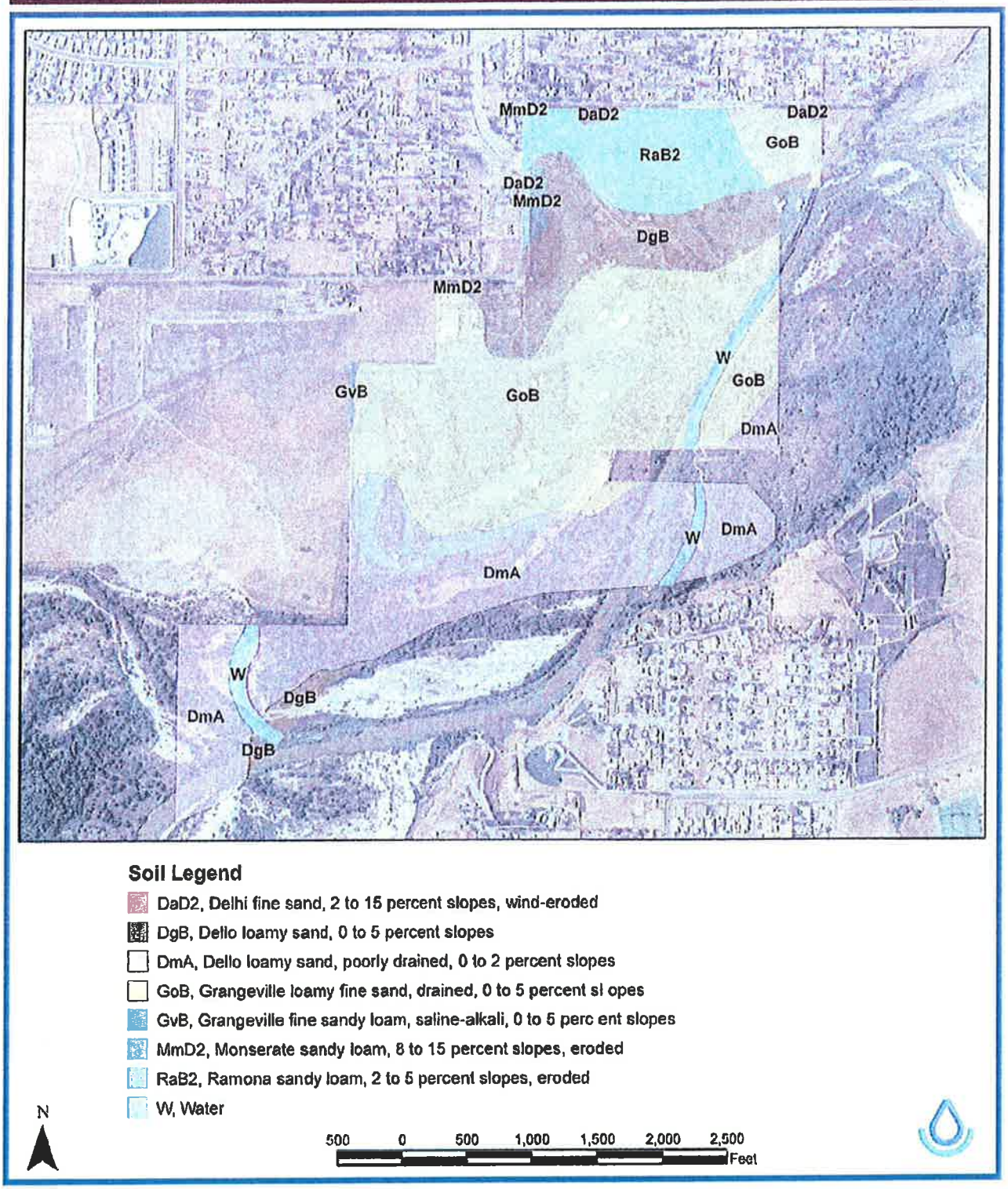

EXHIBIT "G"

Attached is a map of the Goose Creek Golf Club Conservation Easement

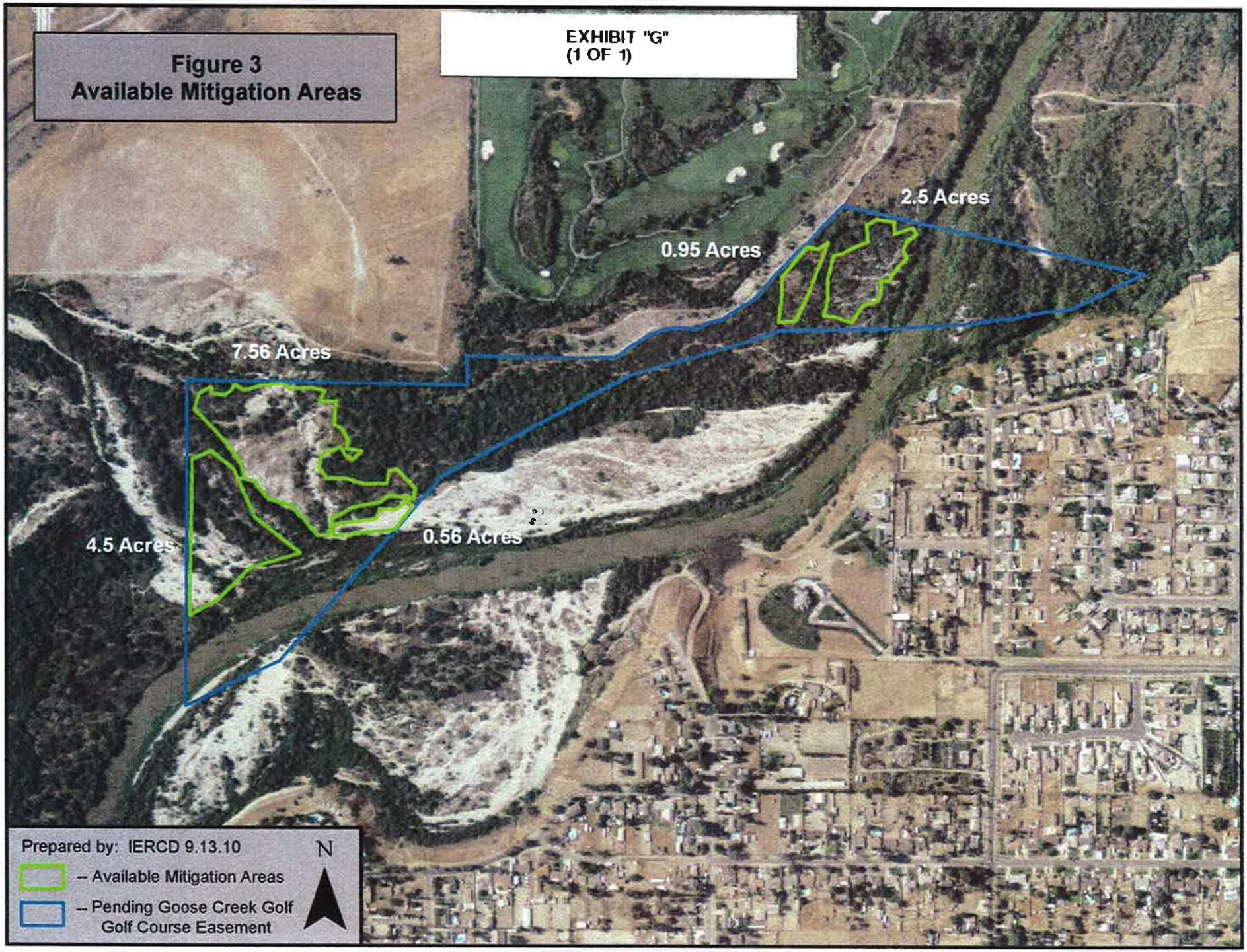
Figure 3
Available Mitigation Areas
EXHIBIT "G"
(1 OF 1)
2.5 Acres
0.95 Acres
7.56 Acres
4.5 Acres
0.56 Acres
Prepared by: IERCD 9.13.10
-- Available Mitigation Areas
-- Pending Goose Creek Golf
Golf Course Easement
N

EXHIBIT "H"

Attached is a copy of IERCD's Fee Invoice

FINAL ENDOWMENT SHEET, RCFCD DAY CREEK PROJECT

Date: September 16th, 2011

Project Permits:

- United States Fish and Wildlife Service Biological Opinion
  - FWS-WRIV-08B0492-11F0446
- United States Army Corps of Engineers Section 404 Permit
  - #SPL-2009-00882-CLD
- California Regional Water Quality Control Board Section 401 Permit
  - ACOE Reference #SPL-2009-00882-FBV
- California Department of Fish and Game Streambed Alteration Agreement
  - #1600-2010-0075-R6)

Inland Empire Resource Conservation District

- **Contact: Mandy Parkes**
  25864-K Business Center Drive
  Redlands, CA 92374
  909-799-7407 x106
  mparkes@iercd.org

CATEGORY I: FIXED COSTS

General: these costs are not factored into the calculation for the long-term endowment amount needed for the in-perpetuity care/maintenance of the site. They are one-time fixed costs for elements of the project separate from both the long-term maintenance/monitoring and the 5-year direct site restoration process.

- **Initial Stock Costs:**
  - Total Cost: $30,000.00
  - Direct purchase of container plants/seeds and taking/propagating cuttings from the Course for revegetation of 2.0-Acres of riparian habitat.
- **Stock Replacement Costs**
  - Total Cost: $10,000.00
  - Anticipated cost for replacement of any of the stock and/or cuttings installed in the restoration area.
- **Irrigation Supplies**
  - Total Cost: $65,000.00
  - This line item is for all supplies required for installation of irrigation system over the 2-acre site, as well as the cost of pumping water from the Course to the easement and the actual cost of the water. .
- **Enforcement**
  - Total Cost: $25,000.00

- This line item is required in order to ensure adequate funding for the in-perpetuity protection of RCFCD's restoration project on this site.

Total Fixed Costs: $130,000.00

CATEGORY II: RESTORATION COSTS

These costs encompass compensation for all tasks required for the successful active restoration of 2.0-A of riparian habitat and enhancement of 2.1-A of riparian habitat. They are not figured into the calculation to determine the endowment needed for long-term maintenance/monitoring of the site.

- Invasive Vegetation Removal
  - Total Cost: $16,558
  - Complete staff cost for time in assessing, data collection, map creation, initial treatment/biomass removal, and follow-up applications of herbicide to ensure minimal invasive re-growth.
- Site Preparation:
  - Total Cost: $1,994.00
  - This is a one-time cost to be executed in year 1 of the project. It consists of work required for post-invasive vegetation removal, in order to get the site ready for planting. Tasks include but are not limited to container stock location and procurement, site assessments, creation of baseline data set for property, assignment of photo points and project boundary for future reporting purposes.
- Revegetation
  - Total Cost: $13,900.00
  - This involves work required for the physical installation of plants outlined in the Habitat Mitigation and Monitoring Plan; tasks include but are not limited to taking pole/whip cuttings, caring for container stock and seed/cuttings, creation of map with plant locations by species, physical installation of plants, and creation of baseline data following planting.
- Watering
  - Total Cost: $19,200.00
  - This line item is for staff time only, in contrast to the materials/usage costs for irrigation listed in the fixed costs section. Tasks include designing/purchasing/installing drip irrigation system underground to prevent damage by area wildlife and equestrians, and physical watering of plants which in the sandy soils of Goose Creek will be as much as 3x/week in the hot summer months. The water will be pulled almost entirely after year two, and there will be periodic supplemental hand watering for the third year of the success criteria period.

CATEGORY III: LONG-TERM MAINTENANCE/MONITORING COSTS

General: This category is valued by the listing of tasks required for successful long-term maintenance/ monitoring of the property, followed by dividing total by 20 years to get averaged annual cost of

monitoring the property. This cost is then adjusted for the anticipated rate of return of IERCD investments over the course of the next 20 years, and is adjusted once more for a 5% contingency to ensure adequate funding in the absence of total site predictability. The total is what is required for the District to care for the property in perpetuity without dipping in to the corpus of the endowment funds.

- Site Maintenance:
  - Total Cost: $37,500.00 total, or $1,750.00/year
  - This encompasses tasks associated with active maintenance of the site which will be required going forward following agency approvals. Tasks include but are not limited to invasive vegetation assessment, mapping, and removal, replacement of damaged and/or diseased/dying native stock, and bio assessments to determine ongoing site success.
- Reporting
  - Total Cost: $14,000.00 total, or $400.00/year
  - Required in the permits, and included in the annual active work performed by the IERCD from project inception, going forward. Tasks associated with reporting include but are not limited to creation of annual report, GIS data storage and display, and report distribution.
- Incidentals:
  - Total Cost:$14,500.00 total or $450.00/year
  - This category involves unanticipated costs associated with the project.

EXHIBIT "H"
(4 OF 4)

Final Endowment Cost Calculation, Riverside County Flood Control District Day Creek Project
9/16/2011

Contact: Inland Empire Resource Conservation District
Mandy Parkes, District Manager
909-799-7407 x106
mparkes@ierccd.org

Invasive Vegetation Removal	
Field Ecologist	
FE Hours	
Field Technicians (4)	
FT Hours	
Total	$16,558.00
Site Preparation	
Project Manager	
PM Hours	
Field Ecologist	
FE Hours	
Total	$1,994.00
Revegetation	
Project Manager	
PM Hours	
Field Ecologist	
FE Hours	
Field Technicians (4)	
FT Hours	
Total	$13,900.00
Watering	
Field Ecologist	
FE Hours	
Field Technicians (4)	
FT Hours	
Total	$19,200.00
Biological Consultant	
Bio Consultant	
BC Hours	
Total	$3,500.00
Grand Total	$55,152.00

Site Creation Tasks	
Site Maintenance	
Field Ecologist	
FE Hours	
Field Technicians (4)	
FT Hours	
Total	$37,500.00
Reporting	
Project Manager	
PM Hours	
Field Ecologist	
FE Hours	
Total	$14,000.00
Incidentals	
Project Manager	
PM Hours	$14,500.00

	Year 1	Year 2
Fixed Costs:		
Initial Stock Costs	$30,000.00	
Stock Replacement Costs		$10,000.00
Irrigation Supplies	$50,000.00	$15,000.00
Enforcement	$25,000.00	
Fixed Costs: subtotal	$105,000.00	$25,000.00
Fixed Costs, Grand Total	**$130,000.00**	
Restoration Cost (Staff Time)	**$55,152.00**	
Long-Term M/M Costs	**$99,000.00**	
Endowment Needed	**$284,152.00**	

M/M Total Cost:	$66,000.00
Avg Yrly Cost:	$3,300.00
Investment Calculation (3.5%/20 yrs)	$94,285.71
Contingency	$4,714.29
Total Long-Term M/M Needed:	**$99,000.00**