ATTACHMENT 1

AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR

THIS AGREEMENT (hereafter Agreement) is made by and between the County of Santa Barbara, a political subdivision of the State of California (hereafter COUNTY) and MRS Environmental, Inc. with an address at 1306 Santa Barbara Street, Santa Barbara, CA 93101 (hereafter CONTRACTOR) wherein CONTRACTOR agrees to provide and COUNTY agrees to accept the services specified herein.

WHEREAS, CONTRACTOR represents that it is specially trained, skilled, experienced, and competent to perform the special services required by COUNTY and COUNTY desires to retain the services of CONTRACTOR pursuant to the terms, covenants, and conditions herein set forth;

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

1. DESIGNATED REPRESENTATIVE

Joseph Dargel at phone number (805) 568-3573 is the representative of COUNTY and will administer this Agreement for and on behalf of COUNTY. Greg Chittick at phone number (805) 289-3924 is the authorized representative for CONTRACTOR. Changes in designated representatives shall be made only after advance written notice to the other party.

2. NOTICES

Any notice or consent required or permitted to be given under this Agreement shall be given to the respective parties in writing, by personal delivery or facsimile, or with postage prepaid by first class mail, registered or certified mail, or express courier service, as follows:

To COUNTY:	Joseph Dargel, County of Santa Barbara, Planning & Development Department, 123 E. Anapamu Street, Santa Barbara, CA 93101, Fax (805) 568-2030
To CONTRACTOR:	Greg Chittick, MRS Environmental, 1306 Santa Barbara Street, Santa Barbara, CA 93101, (805) 289-3924

or at such other address or to such other person that the parties may from time to time designate in accordance with this Notices section. If sent by first class mail, notices and consents under this section shall be deemed to be received five (5) days following their deposit in the U.S. mail. This Notices section shall not be construed as meaning that either party agrees to service of process except as required by applicable law.

3. SCOPE OF SERVICES

CONTRACTOR agrees to provide services to COUNTY in accordance with EXHIBIT A attached hereto and incorporated herein by reference.

4. TERM

CONTRACTOR shall commence performance on July 3, 2018 and end performance upon completion, but no later than July 3, 2020 unless otherwise directed by COUNTY or unless earlier terminated.

5. COMPENSATION OF CONTRACTOR

In full consideration for CONTRACTOR's services, CONTRACTOR shall be paid for performance under this Agreement in accordance with the terms of EXHIBIT B attached hereto and incorporated herein by reference. Billing shall be made by invoice, which shall include the contract number assigned by COUNTY and which is delivered to the address given in Section 2 NOTICES above following completion of the increments identified on EXHIBIT B. Unless otherwise specified on EXHIBIT B, payment shall be net thirty (30) days from presentation of invoice.

6. **INDEPENDENT CONTRACTOR**

It is mutually understood and agreed that CONTRACTOR (including any and all of its officers, agents, and employees), shall perform all of its services under this Agreement as an independent contractor as to COUNTY and not as an officer, agent, servant, employee, joint venturer, partner, or associate of COUNTY. Furthermore, COUNTY shall have no right to control, supervise, or direct the manner or method by which CONTRACTOR shall perform its work and function. However, COUNTY shall retain the right to administer this Agreement so as to verify that CONTRACTOR is performing its obligations in accordance with the terms and conditions hereof. CONTRACTOR understands and acknowledges that it shall not be entitled to any of the benefits of a COUNTY employee, including but not limited to vacation, sick leave, administrative leave, health insurance, disability insurance, retirement, unemployment insurance, workers' compensation and protection of tenure. CONTRACTOR shall be solely liable and responsible for providing to, or on behalf of, its employees all legally-required employee benefits. In addition, CONTRACTOR shall be solely responsible and save COUNTY harmless from all matters relating to payment of CONTRACTOR's employees, including compliance with Social Security withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, CONTRACTOR may be providing services to others unrelated to the COUNTY or to this Agreement.

7. **STANDARD OF PERFORMANCE**

CONTRACTOR represents that it has the skills, expertise, and licenses/permits necessary to perform the services required under this Agreement. Accordingly, CONTRACTOR shall perform all such services in the manner and according to the standards observed by a competent practitioner of the same profession in which CONTRACTOR is engaged. All products of whatsoever nature, which CONTRACTOR delivers to COUNTY pursuant to this Agreement, shall be prepared in a first class and workmanlike manner and shall conform to the standards of quality normally observed by a person practicing in CONTRACTOR's profession. CONTRACTOR shall correct or revise any errors or omissions, at COUNTY'S request without additional compensation. Permits and/or licenses shall be obtained and maintained by CONTRACTOR without additional compensation.

8. **DEBARMENT AND SUSPENSION**

CONTRACTOR certifies to COUNTY that it and its employees and principals are not debarred, suspended, or otherwise excluded from or ineligible for, participation in federal, state, or county government contracts. CONTRACTOR certifies that it shall not contract with a subcontractor that is so debarred or suspended.

9. **TAXES**

CONTRACTOR shall pay all taxes, levies, duties, and assessments of every nature due in connection with any work under this Agreement and shall make any and all payroll deductions required by law. COUNTY shall not be responsible for paying any taxes on CONTRACTOR's behalf, and should COUNTY be required to do so by state, federal, or local taxing agencies, CONTRACTOR agrees to promptly reimburse COUNTY for the full value of such paid taxes plus interest and penalty, if any. These taxes shall include, but not be limited to, the following: FICA (Social Security), unemployment insurance contributions, income tax, disability insurance, and workers' compensation insurance.

10. **CONFLICT OF INTEREST**

CONTRACTOR covenants that CONTRACTOR presently has no employment or interest and shall not acquire any employment or interest, direct or indirect, including any interest in any business, property, or source of income, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by CONTRACTOR. CONTRACTOR must promptly disclose to COUNTY, in writing, any potential conflict of interest. COUNTY retains the right to waive a conflict of interest disclosed by CONTRACTOR if COUNTY determines it to be immaterial, and such waiver is only effective if provided by COUNTY to CONTRACTOR in writing.

11. **OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY**

COUNTY shall be the owner of the following items incidental to this Agreement upon production, whether or not completed: all data collected, all documents of any type whatsoever, all photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials, and any material necessary for the practical use of such items, from the time of collection and/or production whether or not performance under this Agreement is completed or terminated prior to completion. CONTRACTOR shall not release any of such items to other parties except after prior written approval of COUNTY.

Unless otherwise specified in Exhibit A, CONTRACTOR hereby assigns to COUNTY all copyright, patent, and other intellectual property and proprietary rights to all data, documents, reports, photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials prepared or provided by CONTRACTOR pursuant to this Agreement (collectively referred to as "Copyrightable Works and Inventions"). COUNTY shall have the unrestricted authority to copy, adapt, perform, display, publish, disclose, distribute, create derivative works from, and otherwise use in whole or in part, any Copyrightable Works and Inventions. CONTRACTOR agrees to take such actions and execute and deliver such documents as may be needed to validate, protect and confirm the rights and assignments provided hereunder. CONTRACTOR warrants that any Copyrightable Works and Inventions and other items provided under this Agreement will not infringe upon any intellectual property or proprietary rights of any third party. CONTRACTOR at its own expense shall defend, indemnify, and hold harmless COUNTY against any claim that any Copyrightable Works or Inventions or other items provided by CONTRACTOR hereunder infringe upon intellectual or other proprietary rights of a third party, and CONTRACTOR shall pay any damages, costs, settlement amounts, and fees (including attorneys' fees) that may be incurred by COUNTY in connection with any such claims. This Ownership of Documents and Intellectual Property provision shall survive expiration or termination of this Agreement.

12. NO PUBLICITY OR ENDORSEMENT

CONTRACTOR shall not use COUNTY's name or logo or any variation of such name or logo in any publicity, advertising or promotional materials. CONTRACTOR shall not use COUNTY's name or logo in any manner that would give the appearance that the COUNTY is endorsing CONTRACTOR. CONTRACTOR shall not in any way contract on behalf of or in the name of COUNTY. CONTRACTOR shall not release any informational pamphlets, notices, press releases, research reports, or similar public notices concerning the COUNTY or its projects, without obtaining the prior written approval of COUNTY.

13. **COUNTY PROPERTY AND INFORMATION**

All of COUNTY's property, documents, and information provided for CONTRACTOR's use in connection with the services shall remain COUNTY's property, and CONTRACTOR shall return any such items whenever requested by COUNTY and whenever required according to the Termination section of this Agreement. CONTRACTOR may use such items only in connection with providing the services. CONTRACTOR shall not disseminate any COUNTY property, documents, or information without COUNTY's prior written consent.

14. **RECORDS, AUDIT, AND REVIEW**

CONTRACTOR shall keep such business records pursuant to this Agreement as would be kept by a reasonably prudent practitioner of CONTRACTOR's profession and shall maintain such records for at least four (4) years following the termination of this Agreement. All accounting records shall be kept in accordance with generally accepted accounting principles. COUNTY shall have the right to audit and review all such documents and records at any time during CONTRACTOR's regular business hours or upon reasonable notice. In addition, if this Agreement exceeds ten thousand dollars ($10,000.00), CONTRACTOR shall be subject to the examination and audit of the California State Auditor, at the request of the COUNTY or as part of any audit of the COUNTY, for a period of three (3) years after final payment under the Agreement (Cal. Govt. Code Section 8546.7). CONTRACTOR shall participate in any audits and reviews, whether by COUNTY or the State, at no charge to COUNTY.

If federal, state or COUNTY audit exceptions are made relating to this Agreement, CONTRACTOR shall reimburse all costs incurred by federal, state, and/or COUNTY governments associated with defending against the audit exceptions or performing any audits or follow-up audits, including but not limited to: audit fees, court costs, attorneys' fees based upon a reasonable hourly amount for attorneys in the community, travel costs, penalty assessments and all other costs of whatever nature. Immediately upon notification from COUNTY, CONTRACTOR shall reimburse the amount of the audit exceptions and any other related costs directly to COUNTY as specified by COUNTY in the notification.

15. **INDEMNIFICATION AND INSURANCE**

CONTRACTOR agrees to the indemnification and insurance provisions as set forth in EXHIBIT C attached hereto and incorporated herein by reference.

16. **NONDISCRIMINATION**

COUNTY hereby notifies CONTRACTOR that COUNTY's Unlawful Discrimination Ordinance (Article XIII of Chapter 2 of the Santa Barbara County Code) applies to this Agreement and is incorporated herein by this reference with the same force and effect as if the ordinance were specifically set out herein and CONTRACTOR agrees to comply with said ordinance.

17. **NONEXCLUSIVE AGREEMENT**

CONTRACTOR understands that this is not an exclusive Agreement and that COUNTY shall have the right to negotiate with and enter into contracts with others providing the same or similar services as those provided by CONTRACTOR as the COUNTY desires.

18. **NON-ASSIGNMENT**

CONTRACTOR shall not assign, transfer or subcontract this Agreement or any of its rights or obligations under this Agreement without the prior written consent of COUNTY and any attempt to so assign, subcontract or transfer without such consent shall be void and without legal effect and shall constitute grounds for termination.

19. **TERMINATION**

A. By COUNTY. COUNTY may, by written notice to CONTRACTOR, terminate this Agreement in whole or in part at any time, whether for COUNTY's convenience, for nonappropriation of funds, or because of the failure of CONTRACTOR to fulfill the obligations herein.

1. **For Convenience**. COUNTY may terminate this Agreement in whole or in part upon thirty (30) days written notice. During the thirty (30) day period, CONTRACTOR shall, as directed by COUNTY, wind down and cease its services as quickly and efficiently as reasonably possible, without performing

unnecessary services or activities and by minimizing negative effects on COUNTY from such winding down and cessation of services.

2. **For Nonappropriation of Funds**. Notwithstanding any other provision of this Agreement, in the event that no funds or insufficient funds are appropriated or budgeted by federal, state or COUNTY governments, or funds are not otherwise available for payments in the fiscal year(s) covered by the term of this Agreement, then COUNTY will notify CONTRACTOR of such occurrence and COUNTY may terminate or suspend this Agreement in whole or in part, with or without a prior notice period. Subsequent to termination of this Agreement under this provision, COUNTY shall have no obligation to make payments with regard to the remainder of the term.

3. **For Cause**. Should CONTRACTOR default in the performance of this Agreement or materially breach any of its provisions, COUNTY may, at COUNTY's sole option, terminate or suspend this Agreement in whole or in part by written notice. Upon receipt of notice, CONTRACTOR shall immediately discontinue all services affected (unless the notice directs otherwise) and notify COUNTY as to the status of its performance. The date of termination shall be the date the notice is received by CONTRACTOR, unless the notice directs otherwise.

B. By CONTRACTOR. Should COUNTY fail to pay CONTRACTOR all or any part of the payment set forth in EXHIBIT B, CONTRACTOR may, at CONTRACTOR's option terminate this Agreement if such failure is not remedied by COUNTY within thirty (30) days of written notice to COUNTY of such late payment.

C. Upon termination, CONTRACTOR shall deliver to COUNTY all data, estimates, graphs, summaries, reports, and all other property, records, documents or papers as may have been accumulated or produced by CONTRACTOR in performing this Agreement, whether completed or in process, except such items as COUNTY may, by written permission, permit CONTRACTOR to retain. Notwithstanding any other payment provision of this Agreement, COUNTY shall pay CONTRACTOR for satisfactory services performed to the date of termination to include a prorated amount of compensation due hereunder less payments, if any, previously made. In no event shall CONTRACTOR be paid an amount in excess of the full price under this Agreement nor for profit on unperformed portions of service. CONTRACTOR shall furnish to COUNTY such financial information as in the judgment of COUNTY is necessary to determine the reasonable value of the services rendered by CONTRACTOR. In the event of a dispute as to the reasonable value of the services rendered by CONTRACTOR, the decision of COUNTY shall be final. The foregoing is cumulative and shall not affect any right or remedy which COUNTY may have in law or equity.

20. **SECTION HEADINGS**

The headings of the several sections, and any Table of Contents appended hereto, shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof.

21. **SEVERABILITY**

If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

22. **REMEDIES NOT EXCLUSIVE**

No remedy herein conferred upon or reserved to COUNTY is intended to be exclusive of any other remedy or remedies, and each and every such remedy, to the extent permitted by law, shall be cumulative and in addition to any other remedy given hereunder or now or hereafter existing at law or in equity or otherwise.

23. **TIME IS OF THE ESSENCE**

Time is of the essence in this Agreement and each covenant and term is a condition herein.

24. **NO WAIVER OF DEFAULT**

No delay or omission of COUNTY to exercise any right or power arising upon the occurrence of any event of default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Agreement to COUNTY shall be exercised from time to time and as often as may be deemed expedient in the sole discretion of COUNTY.

25. **ENTIRE AGREEMENT AND AMENDMENT**

In conjunction with the matters considered herein, this Agreement contains the entire understanding and agreement of the parties and there have been no promises, representations, agreements, warranties or undertakings by any of the parties, either oral or written, of any character or nature hereafter binding except as set forth herein. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the parties to this Agreement and by no other means. Each party waives their future right to claim, contest or assert that this Agreement was modified, canceled, superseded, or changed by any oral agreements, course of conduct, waiver or estoppel.

26. **SUCCESSORS AND ASSIGNS**

All representations, covenants and warranties set forth in this Agreement, by or on behalf of, or for the benefit of any or all of the parties hereto, shall be binding upon and inure to the benefit of such party, its successors and assigns.

27. **COMPLIANCE WITH LAW**

CONTRACTOR shall, at its sole cost and expense, comply with all County, State and Federal ordinances and statutes now in force or which may hereafter be in force with regard to this Agreement. The judgment of any court of competent jurisdiction, or the admission of CONTRACTOR in any action or proceeding against CONTRACTOR, whether COUNTY is a party thereto or not, that CONTRACTOR has violated any such ordinance or statute, shall be conclusive of that fact as between CONTRACTOR and COUNTY.

28. **CALIFORNIA LAW AND JURISDICTION**

This Agreement shall be governed by the laws of the State of California. Any litigation regarding this Agreement or its contents shall be filed in the County of Santa Barbara, if in state court, or in the federal district court nearest to Santa Barbara County, if in federal court.

29. **EXECUTION OF COUNTERPARTS**

This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the parties shall preserve undestroyed, shall together constitute one and the same instrument.

30. **AUTHORITY**

All signatories and parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement in the names, titles and capacities herein stated and on behalf of any entities, persons, or firms represented or purported to be represented by such entity(ies), person(s), or firm(s) and that all formal requirements necessary or required by any state and/or federal law in order to enter into this Agreement have been fully complied with. Furthermore, by entering into this Agreement, CONTRACTOR hereby warrants that it shall not have breached the terms or conditions of any other contract or agreement to which CONTRACTOR is obligated, which breach would have a material effect hereon.

31. **SURVIVAL**

All provisions of this Agreement which by their nature are intended to survive the termination or expiration of this Agreement shall survive such termination or expiration.

32. **PRECEDENCE**

In the event of conflict between the provisions contained in the numbered sections of this Agreement and the provisions contained in the Exhibits, the provisions of the Exhibits shall prevail over those in the numbered sections.

33. **SUBCONTRACTORS**

CONTRACTOR is authorized to subcontract with subcontractors identified in Contractor's Proposal. CONTRACTOR shall be fully responsible for all services performed by its subcontractor. CONTRACTOR shall secure from its subcontractor all rights for COUNTY in this Agreement, including audit rights.

34. **HANDLING OF PROPRIETARY INFORMATION**

CONTRACTOR understands and agrees that certain materials which may be provided by COUNTY may be classified and conspicuously labeled as proprietary confidential information. That material is to be subject to the following special provisions:

A. All reasonable steps will be taken to prevent disclosure of the material to any person except those personnel of CONTRACTOR working on the project who have a need to use the material.

B. Upon conclusion of CONTRACTOR'S work, CONTRACTOR shall return all copies of the material direct to party providing such material. CONTRACTOR shall contact COUNTY to obtain the name of the specific party authorized to receive the material.

35. **IMMATERIAL CHANGES**

CONTRACTOR and COUNTY agree that immaterial changes to the Statement of Work (time frame and mutually agreeable Statement of Work changes which will not result in a change to the total contract amount) may be authorized by Planning and Development Director, or designee in writing, and will not constitute an amendment to the Agreement.

36. **NEWS RELEASES/INTERVIEWS**

CONTRACTOR agrees for itself, its agents, employees and subcontractors, it will not communicate with representatives of the communications media concerning the subject matter of this Agreement without prior written approval of the COUNTY Project Coordinator. CONTRACTOR further agrees that all media requests for communication will be referred to COUNTY'S responsible personnel.

Agreement for Services of Independent Contractor between the **County of Santa Barbara** and **MRS Environmental, Inc.**

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective on the date executed by COUNTY.

ATTEST:

Mona Miyasato
County Executive Officer
Clerk of the Board

By: _____
Deputy Clerk

COUNTY OF SANTA BARBARA:

By: _____
Chair, Board of Supervisors

Date: _____

RECOMMENDED FOR APPROVAL:

Dianne M. Black, Director
Planning & Development

By: _____
Department Head

CONTRACTOR:

Greg Chittick, Project Manager
MRS Environmental, Inc.

By: _____
Authorized Representative

Name: _____

Title: _____

APPROVED AS TO FORM:

Michael C. Ghizzoni
County Counsel

By: _____
Deputy County Counsel

APPROVED AS TO ACCOUNTING FORM:

Theodore A. Fallati, CPA
Auditor-Controller

By: _____
Deputy

APPROVED AS TO FORM:

Risk Management

By: _____
Risk Management

ATTACHMENT 1
EXHIBIT A

STATEMENT OF WORK

CONTRACTOR shall render services in accordance with the Proposal for Preparation of the PetroRock UCCB project Environmental Impact Report, as shown in **Appendix 1** and incorporated herein by reference. The Proposal describes the Environmental Impact Report scope of work which includes the following: consultant qualifications and experience, key personnel and project management program, study methodology, document preparation, project schedule, and cost estimate.

Greg Chittick, John Peirson, Luis Perez, Edward Mullen, Steve Radis, Lauren Brown, Dean Dusette, Brittney Hendricks, Christopher Duran, Matthew Long, Aubrey Mescher, Walt Hamann, and Joe Fernandez shall be the individual(s) personally responsible for providing all services hereunder. CONTRACTOR may not substitute other persons without the prior written approval of COUNTY's designated representative.

Suspension for Convenience. COUNTY may, without cause, order CONTRACTOR in writing to suspend, delay, or interrupt the services under this Agreement in whole or in part for up to 30 days. COUNTY shall incur no liability for suspension under this provision and suspension shall not constitute a breach of this Agreement.

//

//

//

//

//

ATTACHMENT 1
EXHIBIT B

PAYMENT ARRANGEMENTS
Periodic Compensation at Selected Milestones

A. For CONTRACTOR services to be rendered under this Agreement, CONTRACTOR shall be paid a total contract amount, including cost reimbursements, not to exceed **$217,251** with a contingency amount of $32,588 for a total contract amount up to $249,839. Contingency expenditures shall be approved in advance by the County.

B. Payment for services and/or reimbursement of costs shall be made upon CONTRACTOR's satisfactory performance, based upon the scope and methodology contained in **Appendix 1** (MRS Technical Proposal) as determined by COUNTY.

C. Upon completion of the work for each milestone and/or delivery to COUNTY of item(s) specified below, CONTRACTOR shall submit to the COUNTY DESIGNATED REPRESENTATIVE an invoice or certified claim on the County Treasury for the service performed in accomplishing each milestone. These invoices or certified claims must cite the assigned Board Contract Number. COUNTY DESIGNATED REPRESENTATIVE shall evaluate the quality of the service performed and/or item(s) delivered and if found to be satisfactory shall initiate payment processing. COUNTY shall pay invoices or claims for satisfactory work within 30 days of receipt of correct and complete invoices or claims from CONTRACTOR.

Percentage of Total Contract Amount	Milestone Description	Maximum Amount Chargeable
50%	Administrative Draft EIR	$108,626
20%	Public Draft EIR	$43,450
20%	Proposed Final EIR	$43,450
10%	Final EIR	$21,725

The final milestone payment above shall not be made until all services have been completed and item(s) as specified in **EXHIBIT A** and in **Appendix 1** have been delivered and found to be satisfactory.

D. COUNTY's failure to discover or object to any unsatisfactory work or billings prior to payment will not constitute a waiver of COUNTY's right to require CONTRACTOR to correct such work or billings or seek any other legal remedy.

ATTACHMENT 1
EXHIBIT C

Indemnification and Insurance Requirements (For Professional Contracts)

INDEMNIFICATION

CONTRACTOR agrees to indemnify, defend (with counsel reasonably approved by COUNTY) and hold harmless COUNTY and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, judgments and/or liabilities arising out of this Agreement from any cause whatsoever, including the acts, errors or omissions of any person or entity and for any costs or expenses (including but not limited to attorneys' fees) incurred by COUNTY on account of any claim except where such indemnification is prohibited by law. CONTRACTOR's indemnification obligation applies to COUNTY's active as well as passive negligence but does not apply to COUNTY's sole negligence or willful misconduct.

NOTIFICATION OF ACCIDENTS AND SURVIVAL OF INDEMNIFICATION PROVISIONS

CONTRACTOR shall notify COUNTY immediately in the event of any accident or injury arising out of or in connection with this Agreement. The indemnification provisions in this Agreement shall survive any expiration or termination of this Agreement.

INSURANCE

CONTRACTOR shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the CONTRACTOR, his agents, representatives, employees or subcontractors.

A. Minimum Scope of Insurance Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than $1,000,000 per occurrence and $2,000,000 in the aggregate.
2. **Automobile Liability**: ISO Form Number CA 00 01 covering any auto (Code 1), or if CONTRACTOR has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation**: as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.
4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the CONTRACTOR'S profession, with limit of no less than $1,000,000 per occurrence or claim, $2,000,000 aggregate.

If the CONTRACTOR maintains higher limits than the minimums shown above, the COUNTY requires and shall be entitled to coverage for the higher limits maintained by

the CONTRACTOR. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the COUNTY.

B. Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. **Additional Insured** – COUNTY, its officers, officials, employees, agents and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONTRACTOR including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONTRACTOR's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used).
2. **Primary Coverage** – For any claims related to this Agreement, the CONTRACTOR's insurance coverage shall be primary insurance as respects the COUNTY, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the COUNTY, its officers, officials, employees, agents or volunteers shall be excess of the CONTRACTOR's insurance and shall not contribute with it.
3. **Notice of Cancellation** – Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the COUNTY.
4. **Waiver of Subrogation Rights** – CONTRACTOR hereby grants to COUNTY a waiver of any right to subrogation which any insurer of said CONTRACTOR may acquire against the COUNTY by virtue of the payment of any loss under such insurance. CONTRACTOR agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the COUNTY has received a waiver of subrogation endorsement from the insurer.
5. **Deductibles and Self-Insured Retention** – Any deductibles or self-insured retentions must be declared to and approved by the COUNTY. The COUNTY may require the CONTRACTOR to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.
6. **Acceptability of Insurers** – Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum A.M. Best's Insurance Guide rating of "A- VII".
7. **Verification of Coverage** – CONTRACTOR shall furnish the COUNTY with proof of insurance, original certificates and amendatory endorsements as required by this Agreement. The proof of insurance, certificates and endorsements are to be received and approved by the COUNTY before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONTRACTOR's obligation to provide them. The CONTRACTOR shall furnish evidence of renewal of coverage throughout the term of the Agreement. The COUNTY reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
8. **Failure to Procure Coverage** – In the event that any policy of insurance required under this Agreement does not comply with the requirements, is not procured, or is canceled and not replaced, COUNTY has the right but not the obligation or duty to terminate the Agreement. Maintenance of required insurance coverage is a material element of the Agreement and failure to maintain or renew such coverage or to provide evidence of renewal may be treated by COUNTY as a material breach of contract.
9. **Subcontractors** – CONTRACTOR shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and CONTRACTOR shall ensure that COUNTY is an additional insured on insurance required from subcontractors.

10. **Claims Made Policies** – If any of the required policies provide coverage on a claims-made basis:

    i. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
    ii. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
    iii. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the CONTRACTOR must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.

11. **Special Risks or Circumstances** – COUNTY reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this Agreement. CONTRACTOR agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of COUNTY to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of COUNTY.

ATTACHMENT 1
APPENDIX 1

MRS Technical Proposal

Proposal to Prepare an Environmental Impact Report

PetroRock UCCB Project

Case Nos. 15PPP-00000-00002 & 16DVP-00000-00015

AP Nos. 101-030-011, 101-040-026, 129-180-018, -037, & -038

April 16, 2018

Prepared for:

County of Santa Barbara

Planning & Development Dept.

123 East Anapamu Street

Santa Barbara, CA 93101

MRS Environmental Inc.

1306 Santa Barbara Street

Santa Barbara, CA 93101

Contact: Greg Chittick

Phone: 805.289.3924

April 16, 2018

Joseph Dargel, Planner
Energy & Minerals Division
Santa Barbara County P&D Department
123 E. Anapamu Street
Santa Barbara, CA 93101

Re: Proposal to Prepare the PetroRock UCCB Project EIR

Dear Mr. Dargel:

MRS Environmental Inc. is pleased to submit this Proposal to assist the County in preparing the PetroRock UCCB Project EIR. Per the Request for Proposal (RFP) requirements, we have included three (3) hard copies of our Technical Proposal and one (1) hard copy of the Cost Proposal in a separately sealed envelope. We have also included a CD with all submittals.

MRS Environmental is exceptionally well qualified to prepare the EIR for this important project. We have a long history of demonstrated responsiveness and creativity in addressing the challenges presented by developing EIRs for complicated oil and gas projects.

Our cost-effective approach relies on utilizing extensive technical and managerial expertise along with a long 30+ year history of oil and gas development CEQA analysis in Santa Barbara County, to produce a high-quality EIR document in an efficient and time-sensitive manner.

Our commitment to the project schedule is exemplified by the inclusion in the proposal of a detailed project schedule (Appendix C), developed through an application of our extensive experience with oil and gas CEQA projects in Santa Barbara County and the timelines provided in the RFP.

The experience of our firm is unparalleled in Santa Barbara County, with CEQA experience reaching as far back as the Pt. Arguello EIR in the 1980s, including an extensive biography of oil and gas project EIRs for a range of agencies, including Santa Barbara County, San Luis Obispo County and the California State Lands Commission. This "memory" of past projects and CEQA-related issues brings extensive expertise to the EIR process. MRS Environmental also has extensive experience with industry, allowing for insight into effective EIR and permit implementation.

MRS Environmental's proposed Project Manager has well-proven managerial experience coupled with high-quality technical expertise and writing capabilities, which ensures strong and defensible EIRs, technical studies, and effective testimony to decision makers and the public.

MRS Environmental has a high degree of flexibility and willingness to work closely with Santa Barbara County and other County staff as exemplified by our long history with County staff, our local presence in the City of Santa Barbara and our small size.

The figure at the end of this cover letter summarizes MRS Environmental's compliance with the selection criteria specific in the RFP.

The contents, including not-to-exceed cost, remain effective for a period of sixty (60) days from the proposal due date. MRS is not currently working for the Applicant, nor do we have a conflict of interest associated with the Applicant or the subject project facilities.

MRS Environmental concurs with the County's standard contract provisions included in the attached "Agreement for Services of Independent Contractor."

Thank you for inviting MRS Environmental to bid on this important project. We look forward to working with Santa Barbara County if we are the selected contractor. If you have any questions, please do not hesitate to give me a call at 805.289.3924.

Best Regards,

Greg Chittick

Greg Chittick
Senior Engineer and Project Manager

Summary of Compliance with RFP Section Criteria

Responsiveness to RFP and quality and creativity of proposal	• Proposals complies with all the provisions specified in the RFP. • Thorough assessment of approach for each issue area. • Identifies key issues associated with the EIR for the project, including early peer reviews, project component details and need for substantial evidence. • Preliminary Review of Applicant prepared technical studies. • Identifies several issue areas where additional studies may be needed and has provided detailed approaches to address these study deficiencies.
Cost Effectiveness	• Costs based upon recent experience in preparing EIRs for similar projects. • The management team are all issue area experts that serve both management and technical roles, which reduces costs. • The team has worked on recent, similar oil and gas development projects, which minimizes the learning curve.
Commitment and ability to meet or expedite the project schedule specified in the RFP	• Detailed schedule in the Technical Proposal meets the timelines specified in the RFP. • The schedule has accelerated some tasks such as the Project Description. • There are opportunities to accelerate the timelines specified in the RFP, such as combining the draft responses to comments with the ADEIR. • Team is available to start work on project quickly.
Experience of firm and personnel on similar projects	• MRS Environmental staff have been doing oil and gas development EIRs in Santa Barbara County for over 30 years. • Prepared PCEC Oil Development, Santa Maria Energy and Foxen Canyon Pipeline EIRs for Santa Barbara County. • Inglewood Oil Field Oil Field Development EIR for LA County. • Huasna Valley Oil Development EIR for SLO County. • Risk of upset technical work for Aera on East Cat Canyon EIR.
Qualifications of project manager and technical personnel	• 30 years' experience in oil and gas development projects for Project Manager. • All technical staff are experts in their fields. • MRS Environmental staff have proven track record working for government and industry on oil and gas projects.
Firm's flexibility and willingness to work closely with P&D and other County staff	• Most project staff are in Santa Barbara, close to P&D offices. • MRS Environmental staff has a history of working closely with P&D staff on other similar projects.

Table of Contents

List of Figures and Tables

List of Appendices

1.0 Introduction

MRS Environmental Inc. is pleased to submit this Proposal to Prepare an Environmental Impact Report (EIR) for the PetroRock UCCB Project. This proposal has been written to comply with all the requirements specified in the Request for Proposal (RFP) dated March 5, 2018.

This section includes an overview of the Project; a summary of our understanding of the Project and our proposed approach; a summary of our and our proposed subcontractor's qualifications; and an explanation of the proposal structure.

1.1 Proposed PetroRock UCCB Project

PetroRock, LLC (Applicant) is proposing the United California, California and Bradley Lease (UCCB) Project (Project) to reactivate oil production in the north central portion of the Cat Canyon Oil Field utilizing a thermally enhanced oil recovery process built out in two phases. In total, 231 new oil, steam injection, and water wells located on 29 well pads, a centralized tank battery, pipelines and ancillary equipment are proposed. The Project lands encompass approximately 710 gross acres, of which the Project development footprint would be approximately 28 acres. Current uses on the property include existing oil pads, cattle grazing, and vineyard operations. The property site would be accessed from the south via Dominion Road and from the north via Orcutt-Garey Road and is located in the Fifth Supervisorial District, approximately 5 miles southeast of the City of Santa Maria and 1.5 miles west of the town of Sisquoc.

The Project includes the following:

- An Oil Drilling and Production Plan (ODPP) (County Case No. 15PPP-00000-00002) to allow for establishment of oil and gas production operations;
- A Development Plan (County Case No. 16DVP-00000-00015) to allow for construction of an approximately 2.7-mile private natural gas pipeline and an oil sales pipeline to a connection with the future Foxen Canyon Pipeline along Foxen Canyon Road;
- The development of approximately 29 pads (including new construction and redevelopment of existing well pads and a Tank Battery pad), field access roads and the installation of up to 231 oil production, injection and water wells;
- The construction of new processing facilities including tanks, loading racks, separators, heater treaters, five (5) steam generators, and other associated equipment;

- The construction of field pipeline and water systems including a production gathering network, steam distribution network, and a supervisory control and data acquisition (SCADA) system to monitor wells and equipment;
- The transportation of crude oil out of the facility by truck or pipeline and the transportation of light crude oil in to the facility by truck for blending; and
- Additional items, including the construction of Project infrastructure; a new office building, workshop and operator building; and utility/electric lines to well pads.

1.2 Understanding of the Project Objectives

The primary objective of this process is the preparation of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) to meet the legal requirements of a complete, adequate, and objective report of the Project's environmental consequences. An essential element of the EIR is the inclusion of substantial evidence and supporting information to ensure that the EIR is defensible and does not require additional efforts, such as re-circulation.

Thorough review of Project materials, dissemination of assumptions, and peer review of Applicant studies early in the process are also critical steps in completing quality deliverables, as these activities will help to prevent conflicts and delays later on in the process.

The EIR will serve as an informational document for the public and County of Santa Barbara decision-makers. The process will culminate with a public comment hearing during public review of the Draft EIR followed by a public hearing before the County Planning Commission to consider certification of the Final EIR and approval of the Project. The Planning Commission action could then be appealed to the County Board of Supervisors.

Each member of a successful EIR team must have a complete understanding of Project-related issues and the ability to effectively communicate their understanding thereof. Many EIRs in Santa Barbara County are controversial with regard to issues such as fossil fuel use, oil spill potential, groundwater impacts and water use, and GHG emissions. The ability to communicate these complicated issues to the decision makers in an effective manner is critical to an effective and efficient EIR and permitting process.

The EIR will include sections that identify the Project setting, applicable thresholds of significance, Project impacts and, where a particular impact is potentially significant, mitigation measures that are feasible to avoid or reduce the impact below the threshold of significance. In

addition, as per CEQA requirements, alternatives will also be presented and addressed, which could reduce the significant impacts of the Project. Cumulative impacts that the Project, in combination with other past, present or future projects, may produce will also be addressed. Identifying the potential for additional impacts from mitigation measures for each issue area is also a vital component of CEQA and will also be included.

Our extensive in-field and legal experience informs our ability to develop effective mitigation measures that are technically feasible, commercially available and with measurable effects that can be quantified. Problems that sometimes arise in the EIR process, such as deferral of mitigation or the usage of ineffective criteria, can cause legal delays that can be avoided with appropriate mitigation development. One of the keys to a defensible EIR is to assure that the effects of mitigation measures are quantified and supported by substantial evidence in the record.

This EIR process will rely on effective peer review of the Applicant's submissions and a coordinated effort amongst team members to ensure that any conflicting issues are settled early in the EIR process. For example, the process of establishing a comprehensive project description early on in the process, with extensive information that can be used consistently across all issue area investigations, is a crucial element of ensuring an effective EIR process. MRS Environmental utilizes a ***"project component" sheet*** that includes all of the details of the features of the Project, including truck trips, pipeline sizes and lengths, durations, areas impacted, etc. The Project component sheet is developed early in the project description process and is shared with all issue area coordinators and principal investigators, to ensure a consistent and efficient EIR process. It is recommended that this project component sheet, and the project description, be submitted to the Applicant for comment and feedback to ensure consistency. MRS Environmental has found that this early level of attention to detail allows for a much smoother and more efficient EIR process.

The EIR will focus on areas where the Project could produce potentially significant and unavoidable impacts. The EIR will also briefly address issue areas where impacts are considered to be less than significant. It is important to analyze the issue areas with a wide enough scope, however, to ensure that any potential significant impacts are addressed. For example, although noise is not considered to have a high potential to produce significant impacts, substantial evidence will need to be developed to ensure that noise levels will not exceed acceptability criteria, particularly as baseline noise levels in the Project area can be very low, on the order of 30 dBA during nighttime hours. Any issue that may be a concern, such as noise levels, that is raised during the Planning Commission process could produce a substantial delay if not addressed with sufficient substantial evidence in the EIR documentation.

1.3 MRS Environmental Team

MRS Environmental is exceptionally well qualified to undertake this important Project. MRS Environmental staff have been performing complicated CEQA analysis for oil and gas related projects for almost 30 years in Central and Southern California. MRS Environmental staff have been working with industry and the Federal, State and local governmental agencies responsible for oil and gas development since the installation of the Pt. Arguello and Santa Ynez facilities in the 1980s, including BOEM, United States Department of Justice, California State Lands Commission

(CSLC), California Coastal Commission (CCC), the Santa Barbara County Energy Division and the Air Pollution Control District (APCD), the County of San Luis Obispo Planning Department and APCD and a range of industry including Chevron, FMO&G, Venoco, Sentinel Peak Resources, and Aera Energy. This level of familiarity with technical analysis, industry and regional agencies is unparalleled.

MRS Environmental proposes to team with Rincon Consultants, a multi-disciplinary environmental sciences, planning, and engineering consulting firm that provides quality professional services to government and industry. Founded in 1994, Rincon has grown to a firm of over 200 professionals located in 11 California offices (Ventura, San Luis Obispo, Santa Barbara, Monterey, Santa Cruz, Oakland, Fresno, Sacramento, Carlsbad, Los Angeles, and Redlands). Rincon's skilled professionals have extensive on the job experience and are formally trained to manage projects in water resources, urban, land use, and environmental planning; regulatory compliance; biological resource evaluation and habitat enhancement; soil evaluation and remediation; and related studies including problem-solving services in geology, hydrology, and waste management.

In addition, Central Coast Transportation Consulting (CCTC) will be assisting in the traffic analysis. Mr. Joe Fernandez, PE, AICP, who is a Principal with CCTC, has prepared the transportation sections of numerous EIRs for complicated, controversial projects throughout the State.

1.4 Proposal Structure

Our proposal includes a comprehensive discussion of our approach to this Project. The proposal has been divided into the following major sections.

Section 1 – Introduction: This section briefly discusses the Project and the team's understanding of and approach to the Project. This section also introduces the subcontracting firms on the proposed MRS Environmental team.

Section 2 – Qualifications and Experience: This section recognizes the capabilities of the firms on the project team. It provides a brief history of the firms, their relevant experience, and the organizational structure of the firms.

Section 3 – Personnel and Project Management: This section details the proposed organizational structure for the Project team. This section discusses the project management team, as well as the key staff members. Brief resumes of the key staff are provided in this section. Appendix A provides more detailed resumes of the key staff. This section also discusses MRS Environmental's approach to managing EIR projects. The topics covered in this section include management team roles and responsibilities, program management and control systems, communication, and management of subcontractors.

Section 4 – Study Methodology: This section provides an overview of our technical approach to preparing EIRs and addresses the development of the project description, alternative analysis, preparing issue area baselines, impact assessments, cumulative impacts, mitigation measures,

mitigation monitoring plans, and residual impact analyses. A detailed discussion of our proposed approach to each of the issue areas in the EIR is also presented.

Section 5 – Cost Quotation and Budget Summary: This cost proposal is presented separately from the technical proposal. This section presents the detailed cost estimate for the Project by issue area and task. This section also identifies the assumptions used in developing the cost estimate.

Section 6 – Schedule: This section presents a detailed schedule for the Project, which identifies the key tasks, deliverable dates, County and public reviews, and public hearings and workshops.

Section 7 – References: This section provides a list of references.

The proposal also includes three appendices:

Appendix A – Resume of Key Staff: This appendix contains more detailed resumes of the key issue area coordinators and management staff.

Appendix B – Relevant Projects: This appendix provides detailed descriptions of each of the projects listed in Table 1 – List of MRS Environmental Relevant Projects.

***Appendix C – Detailed Estimated EIR Schedule*:** This appendix provides a detailed schedule for the EIR project including elements such as comment periods, review periods, peer review and section submission timelines, and workshop and hearing dates. This pre-project planning and attention to detail is important to developing an efficient and timely EIR process.

2.0 Qualifications

MRS Environmental will provide the County with a group of highly qualified technical experts who understand complex oil and gas development. This knowledge is coupled with a strong understanding of CEQA and the local Santa Barbara County requirements. Together these skill sets enable MRS Environmental to produce high-quality EIRs for oil and gas development projects.

MRS Environmental staff has prepared more than 90 environmental reviews for oil and gas development projects. In particular, MRS Environmental has provided specialized services in the areas of system safety and risk of upset, air quality, biological resources, water quality, noise, land use, traffic, aesthetics, and fire protection. No CEQA document prepared by MRS Environmental staff members has ever been found inadequate by a court of law.

MRS Environmental staff specializes in and has a long history of providing specialized CEQA services related to oil and gas industrial projects to local, State, and Federal government agencies for development projects. MRS Environmental staff has also provided environmental review services to a number of private companies. MRS Environmental is currently providing environmental review services for the County of Los Angeles, County of San Luis Obispo, Santa Barbara County, California State Lands Commission, California Coastal Commission, and the Bureau of Ocean Energy Management (BOEM).

MRS Environmental has been working in Santa Barbara County for over 30 years, specifically conducting environmental review and compliance for oil and gas development projects located in the County. Recent EIR projects in the County by MRS Environmental include the Santa Maria Energy Oil Drilling and Production Project, the ERG Foxen Petroleum Pipeline EIR, Pacific Coast Energy Project EIR, the Venoco Line 96 Modification Pipeline Project, and the Venoco Ellwood Lease Line Extension Project EIR.

Table 1 List of MRS Environmental Relevant Projects	
Project	**Relevance**
Orcutt Hill Resource Enhancement Plan Project: Sana Barbara County EIR Finalized: April 2016	Prepared the EIR for the PCEC well development and steaming project in the Orcutt Hills.
ERG Operating Company Foxen Petroleum Pipeline Project: Sana Barbara County EIR Finalized: March 2015	Assisted the County in the preparation of the EIR, including air quality, biological resources, hazardous materials, transportation and water resources.
Santa Maria Energy Production Plan and Development Plan: Sana Barbara County EIR Finalized: April 2013	Assisted the County in the preparation of the EIR for the SME project, including air quality, GHG analysis, risk of upset, water and geology.
Venoco South Ellwood Field Project: California State Lands Commission EIR Drafted: Jan 2017	Detailed EIR analysis including air quality analysis, toxics analysis, risk of upset and oil spill analysis. Extensive agency coordination.
Phillips 66 Company Rail Spur Extension and Crude Unloading Project EIR: County of San Luis Obispo EIR Finalized: Dec 2015	Prepared the EIR for the proposed Rail Spur project in SLO County. Included detailed air quality spreadsheets, toxic health risk assessment, biological assessments, risk of upset analysis and extensive commission and supervisor testimony.
Becker and Legacy Wells Abandonment and Remediation Project: California State Lands Commission EIR Finalized: July 2017	Prepared and EIR for a near shore well abandonment, vessel, barge and construction activities project.
E&B Oil Drilling and Production Project EIR: City of Hermosa Beach EIR Finalized: Feb 2015	Developed a controversial EIR for an oil and gas project in a high density urban area, provided testimony to City Council and election material support.
Baldwin Hills Oil Field Monitoring Project: County of Los Angeles EIR Finalized: Jan 2006 Monitoring Ongoing	Developed an EIR for a Community Standards District with continuing oversight and compliance monitoring including SCAQMD air quality rules and regulations.
Assisting County of Santa Barbara for Analysis for Energy Projects Date of Contract: 6/2013 – Ongoing	Assisting County with various energy projects, including the Ellwood Marine Terminal abandonment.
City of Carson Oil and Gas Support Date of Contract: Jan 2015 – Ongoing	Oil code development, oil and gas industry oversight.
GHG CEQA Thresholds Development: Santa Barbara County APCD Date of Contract: Dec 2016	Assisted in the development of the County GHG thresholds criteria.
Huasna Valley Excelaron Oil Exploration and Production Project: County of San Luis Obispo EIR Finalized: January 2012	Prepared an EIR for the Excelaron project, which included the proposed exploration, testing and possible oil production in San Luis Obispo County.

3.0 Personnel

Given the unique nature of the Project site and the need for local knowledge to assess environmental impacts, MRS Environmental assembled a team of highly qualified professionals. MRS Environmental has selected Rincon Consultants, a diversified high-technology research, environmental and engineering company, to provide Geology, Water Resources/Wastewater, and Archaeological/Historic Resources expertise and Central Coast Transportation Consulting for traffic assessments. This EIR team has extensive knowledge and expertise in their specific issue areas, and has a proven ability to produce extremely high-quality work that will meet the requirements of MRS Environmental, the County and CEQA.

This section of the proposal presents a summary of the key personnel who will work on the Project and provides an overview of the project management program.

3.1 Key Personnel

MRS Environmental has selected a specialized team for this assignment based on the project type, location, affected resources, and the key issues concerning the public. MRS Environmental will manage the work for this assignment from our Santa Barbara office:

MRS Environmental, Inc.
1306 Santa Barbara Street
Santa Barbara, CA 93101
8085-289-3924
EIN# 81-5463132

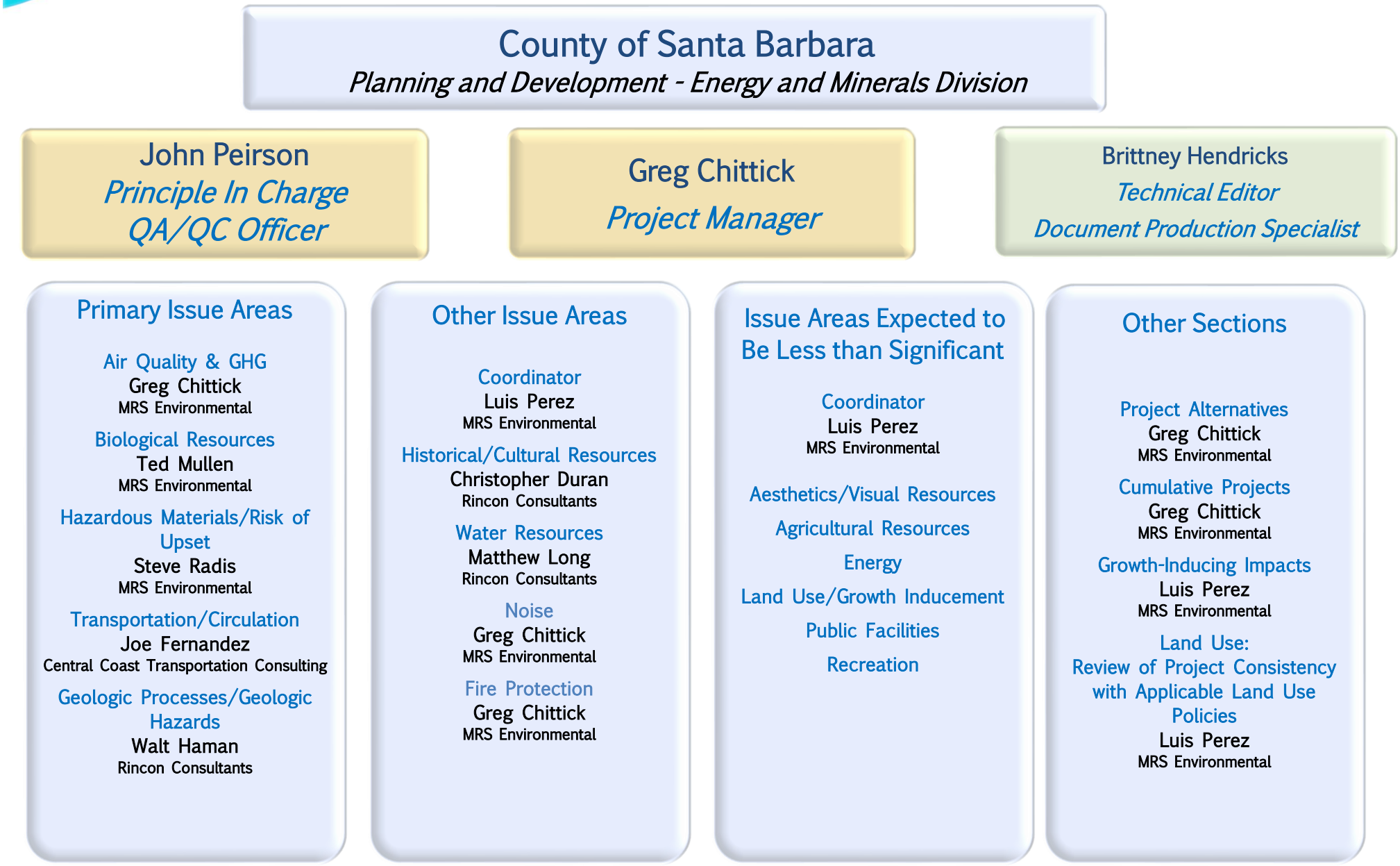
All MRS Environmental staff members can be reached at this location.

Figure 1 shows the proposed organizational structure for managing this Project and identifies issue area coordinators and their areas of responsibility. This section also includes brief biographical sketches of the team members and highlights their relevant experience working on similar environmental review projects. More detailed resumes for the key staff are located in Appendix A.

3.2 Management System

MRS Environmental uses a three-tiered approach to managing environmental review projects. The first tier is the Project Manager who will provide day-to-day direction to the team and who will interact with the County on a regular basis. The Project Manager will be assisted by the Principal In Charge, who provides quality control and review of deliverables, and contracting and issue expertise. The second level consists of the Issue Area Coordinators who are responsible for overseeing the development of their respective issue areas and conducting some of the technical work. The third level includes the Principal Investigators, who will also conduct the technical work. In many cases, the Issue Area Coordinator will also serve as the Principal Investigator. The Issue Area Coordinators are responsible for managing the technical experts within their issue areas.

Figure 1 Organizational Chart



3.2.1 Project Manager

Mr. Greg Chittick, the Project Manager, and Mr. John Peirson, the Principal in Charge and QA/QC Manager, will be responsible for the following major activities:

- Compliance with County Guidance. Includes regular working sessions with the County regarding the overall progress of the study.
- Contract Compliance. Systematic review of the contract to make certain that the individual provisions and commitments are being met.
- Progress Reporting. Includes preparation of the status reports, which will contain information on the technical progress as well as the Project expenditures.
- Budget Tracking. Includes monitoring expenditures and reporting this information.
- Interdisciplinary Coordination. Involves the identification of cross-disciplinary impacts and the coordination of information flow among the various issue areas.
- Staffing Adequacy. Ensures that key staff members are available when their input and participation are required.
- Management of Subcontractors. Includes establishing contractual agreements, as well as tracking deliverables and billing, to assure the coordination of subcontractor activities.
- Quality Control. Includes the review of all quality assurance guidelines and will provide a quality control function on the preparation of the environmental or technical review document.
- Report Production Control. Includes the organization of production requirements for the numerous draft and final report deliverables. These major deliverables will be coordinated by MRS Environmental's Santa Barbara Office.

3.2.2 Issue Area Coordinators

Serving as front line managers, the Issue Area Coordinators will direct the technical work of the Principal Investigators for their respective issue areas. Their responsibilities will include:

- Review and approval of work plans, schedules, and budgets for their Principal Investigators;
- Development of quality assurance guidelines for all field work being conducted by their Principal Investigators;
- Review and quality control of the technical documentation developed by their Principal Investigators, including peer review reports;
- Preparation of the document sections that cover the coordinators' respective issue areas; and
- Preparation of monthly progress reports for their respective issue areas.

3.2.3 Project Management and Control Systems

Project management, which will span the entire life of the Project, is extremely important to EIR projects, due to the considerable number of interested parties, and the complexity of the technical issues. Project management will provide the necessary interface among the County, other responsible agencies, and the consultant Project team. Formal communication with the County will center on time-designated progress reports, the deliverables agreed upon, and the program of scheduled meetings. At a minimum, MRS Environmental recommends monthly meetings with the County to review progress and discuss issues. There may be times when more frequent meetings will be required. MRS Environmental will work closely with the County for the duration of the Project to ensure that progress is carefully tracked, attention is drawn to any difficulties encountered, and the EIR project is conducted in a highly professional manner.

During the course of the EIR project, MRS Environmental's proven program management system and its associated defined controls will ensure consistent control of program costs, schedule, staffing, technical performance, deliverables, and subcontractors. The program management and control systems will ensure that the quality of the work will meet or exceed all the County's contract requirements.

Quality Assurance/Quality Control

MRS Environmental aims to provide every client with a high-quality product that meets expectations, all applicable professional standards, and regulatory requirements. To meet this quality standard, Quality Assurance/Quality Control (QA/QC) procedures are developed for each project during the planning stage. MRS Environmental uses several management techniques for assuring and controlling the quality of the work product. In the area of QA, the major focus is on staff integration, communication, and the development of QA guidelines for field work and document production. MRS Environmental's QC program uses a multi-tiered approach to assure that all work products are of the highest quality and meet or exceed all of the County's contractual requirements.

To facilitate coordination of the assessments and communication among staff members, MRS Environmental will implement a program of biweekly ***planning and coordination meetings***. The Project Manager will conduct these meetings to review work in progress, plans, and schedules and to ensure effective communication among the project team and with the County. The objective of these meetings is to ensure that the quality of communication—internal and external—is enhanced whenever possible.

In addition, MRS Environmental will utilize ***"peer review" meetings*** to coordinate the peer review of the different Applicant-prepared studies and to ensure that consistent analysis is conducted across all issue areas. ***Peer review "reports"*** will be prepared for each issue area, detailing the results of the peer review, the issues that are of concern and the resulting plan for correction of any issues. An information request will be generated based on the peer reviews early in the process to ensure a timely and efficient use of County and Applicant efforts.

MRS Environmental recognizes ***problem anticipation and management*** as an explicit aspect of its Project Management Plan for this assignment. Unanticipated problems, such as a change in the

project description by the Applicant, occur despite the best planning and intention. On task orders, MRS Environmental recognizes its obligation to anticipate, identify, and resolve all problems—technical and financial—as quickly as possible. Problems may be identified during the planning, execution, review, and reporting phases of the project. They can most often be avoided by thoroughly planning the program; realistically budgeting time, labor and costs; clearly communicating with County staff; and closely monitoring the actual performance of the MRS Environmental staff and any associated subcontractors.

A ***quality assurance and style guide*** will also be developed for the document preparation activities. This will cover the preparation of technical appendices as well as the environmental or technical document. During the first month of a project, the style guide will be developed to provide a detailed outline of the final report, a set of word processing templates that detail the style and structure of the report and technical appendices, a list of acceptable acronyms, requirements for the development of the administrative record, and a standard format for figures and tables. This document will be submitted to the County for review and comment and then distributed to the project team.

MRS Environmental maintains ***cost, schedule, and resource control*** via a four-step process. First, cost and schedule baselines are established, against which actual cost and schedule performance can subsequently be compared. Second, cost and schedule data are collected and reported on a weekly basis to the Project Manager. Third, actual performance is compared against baseline plans, identifying any deviations from plan. Fourth, deviations in cost or schedule performance are discussed internally and, if necessary, with County staff and corrective actions are taken. A detailed schedule has been developed for the project and included in Appendix C as a measure of the level of planning and anticipation of project coordination and efficiency recognized by MRS Environmental.

MRS Environmental has a long history of using subcontractors on assignments to enhance in-house capabilities. MRS Environmental has developed a comprehensive system for managing subcontractors. Each subcontractor will be issued a purchase order that defines the scope of their work, the deliverables and due dates, and the associated cost estimate. The purchase order also contains the required billing and progress reporting instructions. These purchase orders serve as contracts with each of the subcontractors. MRS Environmental's working relationship with subcontractors is based on the principle that subcontractors are extensions of in-house staff. Subcontractors will have unlimited access to all project data and project library information, and they will be provided office space and support in the MRS Environmental Santa Barbara office if needed. Subcontractors will also be given access to MRS Environmental's in-house computer network if needed, which allows for easy entry to email, documents, reports, and data. This in-house computer network can also be remotely accessed by staff. In addition, the Rincon Consultants Santa Barbara office is located immediately adjacent to the MRS Environmental Santa Barbara office, which allows for ready accessibility and enhanced coordination.

3.3 Resume Summaries

MRS Environmental proposes the following personnel for the project and commits that these personnel will be the actual personnel performing the work. Any modifications to staffing during the contract performance period will first be approved by the County.

Mr. Greg Chittick, MRS Environmental, will be the Project Manager and is a principal, senior project manager and engineer with more than 30 years' experience in quantitative analysis of environmental impacts and project management. He has conducted numerous technical analyses in multiple jurisdictions, including Santa Barbara County and the SBCAPCD and throughout California, and has conducted over 50 EIRs involving project management, technical analysis, air quality and GHG assessments, modeling, oil spill risk assessments, noise modeling and other issue areas. Mr. Chittick has worked extensively with multiple jurisdictions, including Santa Barbara County, San Luis Obispo County and the California State Lands Commissions, performing project management, testifying to decision makers as well as quantitative analysis rolls. Mr. Chittick has worked extensively with Santa Barbara County as a Project Manager with EIRs, including the PCEC, Foxen Canyon Pipeline and SME Energy Projects EIRs. His combination of effective and efficient project management with extensive experience in technical analysis makes him an exceptionally well qualified project manager.

Mr. John Peirson, MRS Environmental, will be the responsible Principal in Charge and QA/QC Manager for the Project. Before joining MRS Environmental, he was a Principal at Marine Research Specialists and a Director at Arthur D. Little's Environmental Health & Safety Practice. For 35 years, Mr. Peirson has been extensively involved in preparing CEQA and NEPA documents for various Federal, State and local agencies. Mr. Peirson has participated in the preparation and CEQA permitting of more than 60 major projects within California. Many of these projects have been controversial and involved considerable work in developing permitting strategies. None of the EIRs that John Peirson has led have ever been overturned in Court. Mr. Peirson has provided more than 600 hours of testimony to local and State decision makers which have included Planning Commissions, Boards of Supervisors, the CSLC and the California Coastal Commission. He also has extensive experience in working with local and State government staff in developing permit conditions and findings associated with development projects.

Mr. Luis Perez, MRS Environmental, will be the Issue Area Coordinator for the land use and policy consistency, and has been project manager for a number of complex environmental documents. Mr. Perez has extensive public agency experience working for Santa Barbara County, which included interpretation of land use and environmental policies and regulations for large development projects, recommendations to decision-makers, and public presentations. Mr. Perez was also the project manager for a number of oil and gas decommissioning projects that had reached the end of their economic life. Those projects included the abandonment of the Texaco Pipeline through Hollister Ranch, the decommissioning of the Unocal Cojo Marine Terminal and the decommissioning of the Texaco Gaviota Gas Plant, among others. Mr. Perez was also the County's representative and co-chair from 1997 to 2006 of the Interagency Decommissioning Work Group that comprised State, Federal and local regulatory agencies involved with decommissioning of onshore and offshore oil and gas projects.

Mr. Edward (Ted) Mullen, MRS Environmental, will be the Issue Area Coordinator for the Biological Resources section. He is an experienced biologist and technical contributor with 30 years of experience that includes preparing baseline biological resource studies, habitat evaluations, regulatory compliance, and environmental impact assessment under the CEQA and NEPA. Mr. Mullen's wildlife expertise includes birds, amphibians, and reptiles of southern California. He has Federal permits to sample and handle the California red-legged frog and has conducted numerous protocol surveys for this species. Mr. Mullen managed the biological surveys (e.g., sensitive species, native grasslands, wetlands) and survey report for numerous wildlife biological sections for EIRs. All of these projects included the assessment of wildlife habitat and importance to sensitive species. Mr. Mullen is a recognized expert on sensitive biological resources and has developed and implemented feasible measures consistent with USFWS requirements. He has worked on a large number of oil and gas development projects including the Orcutt Hill Resource Enhancement Plan Project EIR, the Baldwin Hills CSD EIR, the Whittier Main Oil Field EIR, among others.

Mr. Steve Radis, MRS Environmental, will be the Principal Investigator for the hazardous materials/risk of upset analysis and is a senior scientist with extensive experience in meteorological modeling and analysis, physical oceanographic modeling and analysis, consequence and risk analysis, fire and explosion dynamics, hazard evaluation, external events analysis, fault tree analysis, and model development. Mr. Radis has worked on a wide variety of studies for utilities, commercial, and government clients involving meteorological modeling, health risk assessments, and air quality modeling (inert/photochemical pollutants, toxic air contaminants), and EIRs and EISs. Mr. Radis also has a long history of air quality modeling, including AERMOD, HARP, HARP2, and the associated predecessor models ISC and ACE.

Ms. Lauren Brown, MRS Environmental, will be the Principal Investigator for the Biological Resources section. She is an experienced biologist and technical contributor with 25 years' experience conducting biological surveys, habitat/vegetation mapping, and monitoring for sensitive species protection and habitat recovery; coordinating and consulting with Federal, State and local regulatory agencies on scope and impact of projects; and preparing planning documents such as environmental impact reports, initial studies, and mitigated negative declarations. She has considerable expertise in delineation of wetlands throughout California using the USACE 1987 Wetland Delineation Manual, the 2008 Supplement for the Arid West Region, and the 2010 Supplement for Western Mountains, Valleys and Coast Region, and all State and local requirements. Additional resources include familiarity with different types of wetland functional assessments, and completion of the California Rapid Assessment Method (CRAM) training for Riverine, Estuarine, and Vernal Pool Modules.

Mr. Dean Dusette, MRS Environmental, will be the Principal Investigator for the land use section and has experience in permitting, environmental review, permit condition compliance, field inspections, air quality source testing and fugitive emissions compliance, and environmental data analysis as well as land use planning and policy consistency analysis. Mr. Dusette has extensive public agency experience including preparation and management of a variety of CEQA documents, staff reports, recommendations to decision makers and public presentations.

Mrs. Brittney Hendricks, MRS Environmental, will serve as support personnel with extensive experience in preparing style guides and templates, assisting with the implementation of QA/QC measures, and ensuring consistency in formatting for all sections of environmental documents as well as editing and proofreading. She is adept at controlling report production and distribution to ensure that quality is upheld and deadlines are met. Mrs. Hendricks has experience in the circulation of noticing to all agencies, private organizations and interested persons. Although this proposal includes this task as a County responsibility, Mrs. Hendricks would be available to complete this task upon the County's request.

Mr. Christopher Duran, Rincon Consultants, will be the Issue Area Coordinator for Historical/Cultural Resources and his qualifications meets and exceeds the SOI's Professional Qualification Standards and is listed on the Register of Professional Archaeologists. Mr. Duran is a Principal Investigator and Program Manager at Rincon Consultants, Inc. Mr. Duran has more than ten years of professional experience in cultural resources management and has worked extensively in Santa Barbara County. Mr. Duran has conducted numerous cultural resources investigations in support of CEQA and Section 106 of the National Historic Preservation Act in Santa Barbara County. Mr. Duran also has extensive recent experience consulting with local tribes concerning the mitigation of cultural resources identified during field investigations and has authored a variety of cultural resources studies including: archaeological survey, archaeological testing and eligibility evaluation, data recovery, mitigation monitoring plans and reports, and peer reviews throughout southern California. Mr. Duran has also extensive experience working with the tribes local to the Santa Barbara area and has assisted in numerous consultation efforts with the tribes for various project types including development, infrastructure, renewable energy, and water conveyance.

Mr. Matthew Long, Rincon Consultants, will be the Issue Area Coordinator for Water Resources and is a Senior Environmental Scientist responsible for managing and preparing CEQA and NEPA documentation and technical impact analyses for a variety of projects. His experience includes water quality and coastal impacts analysis, benefit-cost analysis, GIS modeling, and database management. Mr. Long has conducted numerous environmental impact analyses for a wide variety of projects throughout California and Arizona. Some key areas of experience include: flood control, dam operation, dredging projects, and water infrastructure projects. Recently Matthew prepared CEQA documentation for the Metropolitan Water District Jensen Water Treatment Plant Solar Facility Project, the Metropolitan Santa Ana River Bridge Seismic Retrofit and Routine Maintenance Project, and the City of Santa Monica Sustainable Water Infrastructure Project.

Ms. Aubrey Mescher, Rincon Consultants, will be a Principal Investigator for Water Resources and is a Senior Environmental Planner and has over 12 years of experience preparing CEQA and NEPA documentation and technical impact analyses for a variety of projects. She works extensively with local water agencies, including Coachella Valley Water District, United Water Conservation District, Metropolitan Water District of Southern California, and Las Virgenes Municipal Water District. In addition, Ms. Mescher regularly prepares Water Supply Assessments for a variety of projects throughout California, and is adept at developing creative solutions to water supply constraints, as needed to evaluate and accommodate project water requirements. Ms.

Mescher's overall project experience includes extensive work on southern California infrastructure projects, management and analysis for the entire array of CEQA and NEPA documents, and management and analysis of flood control and flood protection projects. Ms. Mescher is currently managing Rincon's on-call environmental services contract with Coachella Valley Water District, including execution of multiple water storage analyses within the District's service area.

Mr. Walt Hamann, Rincon Consultants, will be the Issue Area Coordinator for Geological Processes/Geological Hazards and is a Principal and Senior Engineering Geologist with Rincon Consultants. Mr. Hamann has over 30 years of experience preparing engineering geology and geologic hazards studies, geology/soils, hydrology/water quality, and hazards/hazardous materials sections for EIR documents for properties throughout California. Mr. Hamann is a California Certified Hydrogeologist (Certification #208) and is knowledgeable of soils and groundwater issues throughout California. His project experience includes big-box retail development EIRs in Santa Barbara, San Luis Obispo, Ventura, and Los Angeles counties; residential development EIRs in Los Angeles, Ventura, Santa Barbara, and San Luis counties; and commercial/industrial EIRs throughout southern California. In addition to his Hydrogeologist certification, Mr. Hamann holds the following certifications: Professional Geologist, California (#4742), Certified Engineering Geologist, California (#1635), and Qualified SWPPP Developer & Qualified SWPPP Practitioner (#22181). He is also registered as a Professional Geologist with the American Institute of Professional Geologists.

Mr. Joe Fernandez, Central Coast Transportation Consulting, will be the Issue Area Coordinator for Transportation/Circulation and is the founder of the company. Since 2002, his work has focused on transportation projects throughout California. He has successfully completed a wide variety of transportation projects including dozens of transportation impact studies, traffic operations analyses, travel forecasting, transportation planning studies, traffic engineering designs, and multi-modal planning projects. He has prepared the transportation sections of numerous EIRs for complicated, controversial projects throughout the State. Mr. Fernandez is a registered Civil Engineer in California and a certified Planner. He received a Master of Science degree in Civil Engineering and a Master of City and Regional Planning degree from Cal Poly San Luis Obispo with a focus in Transportation Planning. He received his Bachelor of Science degree in Civil Engineering from Vanderbilt University.

Table 2 provides a listing of the key personnel by issue area, with each staff member's estimated hours for the EIR project and those hours expressed as a percentage of the total.

Table 2 Summary of Project Team by Issue Area and Estimated Hours		
Issue Area/Personnel	**Hours on Project**	**% of Total Hours**
Project and Alternative Descriptions		
G. Chittick	40	3.4%
J. Peirson	6	0.5%
D. Dusette	22	1.9%
Air Quality & Greenhouse Gases		
G. Chittick	92	7.8%
S. Radis	8	0.7%
Biological Resources		
T. Mullen	36	3.0%
L. Brown	62	5.2%
Hazardous Materials and Risk of Upset		
G. Chittick	74	6.3%
S. Radis	10	0.8%
Transportation and Circulation		
G. Chittick	19	1.6%
J. Fernandez (CCTC)	52	4.4%
Geologic Processes/Geologic Hazards		
W. Haman (Rincon)	88	7.4%
Historic, Cultural and Paleontological Resources		
C. Duran (Rincon)	60	5.1%
Water Resources		
M. Long (Rincon)	52	4.4%
A. Mescher (Rincon)	26	2.2%
Initial Review of Project Consistency with Policies		
D. Dusette	16	1.4%
L. Perez	40	3.4%
Issue Areas with Less than Significant Impacts		
G. Chittick	15	1.3%
D. Dusette	48	4.1%
L. Perez	10	0.8%
Report Production		
B. Hendricks	120	10.2%
G. Chittick	70	5.9%
D. Dusette	44	3.7%
J. Peirson	52	4.4%
Project Management		
G. Chittick	88	7.4%
J. Peirson	32	2.7%
Totals	***1,182***	***100.0%***

4.0 Study Methodology

This chapter discusses the MRS Environmental approach to preparing the EIR for the Project. Throughout the Project, MRS Environmental will take direction from the County of Santa Barbara and follow the County's EIR standards, practices, and guideline documents including the Santa Barbara County Environmental Thresholds and Guidelines Manual and the Santa Barbara County Guidelines for the Implementation of the California Environmental Quality Act (CEQA) consistent with the CEQA Guidelines issued by the State Office of Planning and Research. As the Applicant has prepared a number of technical documents, the Applicant documents will be peer-reviewed, and the EIR will utilize the peer-reviewed documentation, with modifications as needed, in the preparation of the EIR. This peer-review will focus on adequacy and technical accuracy of the information. These documents are discussed below under the specific issue area discussions.

MRS Environmental will assist the County in identifying the necessary sequencing of additional technical studies, if any, deemed necessary to complete the environmental analysis and to ensure interactive production of the EIR. Additional technical studies could include studies related to risk of upset, such as Quantitative Risk Assessments, for example.

The main purposes of the EIR include:

- Evaluating the environmental impacts associated with the Project;
- Developing feasible alternatives that meet most of the basic objectives of the Project and can potentially eliminate or reduce in severity the significant impacts, if any, caused by the Project; and
- Developing mitigation measures that can reduce the level of significance, or level of severity, of impacts associated with the Project and the alternatives.

The results of the EIR analysis will be used by the public and governmental agencies in making decisions regarding the Project.

This section of the proposal is divided into two major areas. The first section provides the general approach to each of the major tasks listed in the Request for Proposals (RFP). The second section presents the detailed scope and approach to each of the environmental issue areas.

4.1 General Approach to Project Tasks

This section briefly discusses the proposed approach to each of the major tasks listed in the RFP and typically part of an EIR process.

4.1.1 Notice of Preparation, Scoping Meeting and Scoping Meeting Comments

Using the project description provided by the Applicant, the MRS Environmental team will prepare the Notice of Preparation (NOP) for the Project. The purpose of the NOP is to provide CEQA-responsible and trustee agencies, other interested agencies, community groups, and the general public with information on the Project and basis for the scope of the EIR.

The NOP will be developed using the County's standard checklist, based on the CEQA Guidelines, Appendix G and the County's Environmental Thresholds and Guidelines Manual. The Project will be assessed against the items in these documents to determine the potential level (e.g., significant, insignificant, insignificant with mitigation) of environmental impact. The results of this analysis will define the initial scope (Initial Study or Scoping Document) of the EIR. A draft NOP will be submitted to the County for review and comment.

The NOP will be mailed to all the interested parties and filed with the State Clearinghouse; MRS Environmental is available to perform these tasks if requested by the County. MRS Environmental will also work with the County in the consultation process that will occur with the CEQA responsible and trustee agencies. These may include, but are not limited to, the Santa Barbara County Air Pollution Control District, the California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service.

As part of the NOP process, one public scoping hearing will be conducted. MRS Environmental will assist in preparing the presentation materials if requested by the County. MRS Environmental will also be responsible for summarizing the scoping meeting and the comments received at the scoping meeting and providing an electronic copy to the County.

The input received from the agencies and the public will be used in preparing the EIR. At the end of the NOP comment period, a final scoping document will be prepared and submitted to the County and the project team. As per CEQA requirements, comments received on the NOP will be tabulated and included in the EIR with an indication of where the comment is addressed in the EIR.

4.1.2 Project Description

MRS Environmental will develop the project description based upon the information the Applicant has submitted as part of the Planning Application with the County. The project description chapter will address the need for the Project, as well as the Applicant's proposed objectives and actions to implement the Project. The project description will include details on the construction activities, drilling operations and production. As MRS Environmental begins developing the project description chapter, staff will work closely with the Applicant and the County to assure that the project description accurately reflects the Project. It is likely that as the project description is developed, additional information will be needed from the Applicant. MRS Environmental will submit data request forms to the County that describe in detail the data needed and the reason for the request. These requests will also include a due date for the information to maintain the overall schedule.

All efforts will be made to have only a ***single information request*** submitted, including peer review information, draft project description and "project component" sheet information reviews included.

As part of the information request process, the peer reviews for each of the issue areas technical studies will be completed and any additional information identified as part of the peer reviews will also be included in the information request.

An important aspect of the EIR is ensuring that all issues areas work off of a single set of project description components. This will be ensured by developing a ***"project component" sheet*** including items such as truck trips, transportation miles, pipeline lengths, etc. This listing will be shared with the County and Applicant for review to ensure that a single set of assumptions are propagated through the EIR process.

Once a draft project description is developed, along with the detailed listing of the "project components" and peer reviews completed along with associated information gaps, MRS Environmental will submit it to the County for review and comment. MRS Environmental suggests that the Applicant then be given an opportunity to review the project description and the detailed project components sheet to assure that it accurately reflects their Project. This is extremely important since the project description data will serve as the basis for assessing the impacts associated with the Project.

4.1.3 Alternatives Analysis

The CEQA Guidelines, Section 15126.6, requires an EIR to describe a reasonable range of alternatives to a project or to the location of a project which could feasibly attain its basic objectives and evaluate the comparative merits of the alternatives. Section 15126.6 also provides direction for the discussion of alternatives to the Project. The section requires:

- A description of "a range of reasonable alternatives to the project, or to the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives;" [15126.6(a)]
- Setting forth alternatives that "shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project;" [15126.6(f)]
- A discussion of the "No Project" alternative, and "if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives;" [15126.6I(2)] and
- A discussion and analysis of alternative locations "that would substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR." [15126.6(f)(2)(B)]

For this EIR, it is critical to develop a defensible alternatives analysis that meets the following objectives:

- The alternatives analysis is comprehensive enough to assure that it has looked at a reasonable range of feasible alternatives to the proposed action; and

- The alternatives analyzed throughout the document are limited to only those that could feasibly attain the Applicant's basic objectives for the Project and that have the ability to reduce significant impacts associated with the proposed action.

In order to accomplish these objectives, MRS Environmental proposes an alternative screening analysis that uses the "rule of reason" approach to alternatives as discussed in CEQA (Guidelines Section 15126.6(f)). An alternative screening analysis provides the basis for selecting alternatives that meet the second objective listed above, provides a detailed explanation of why other alternatives were rejected from further analysis, and assures that only feasible alternatives that can reduce significant impacts and meet the basic objectives of the Project are evaluated and compared in the EIR.

If an alternative is found to be technically infeasible, then it would be dropped from further consideration. Typically, this is the primary feasibility factor used to eliminate an alternative without further screening analysis. For example, other onshore locations for the drilling operations may be found infeasible given the current state of the technology and the need to be close to the area associated with production for a field that utilizes steam extraction, instead of utilizing long-reach wells, as may be proposed by members of the public.

In addition, CEQA states that alternatives should "attain most of the basic objectives of the project" (Section 15126.6(a)). If an alternative is found to not obtain the basic objective, then it would also be eliminated.

The use of a screening analysis for the alternatives ensures that the full spectrum of environmental concerns is adequately represented and that a reasonable choice of alternatives is selected for evaluation in the EIR. It also provides for a broad range of alternatives to be discussed in the EIR as to their applicability and reasons for inclusion or dismissal, thereby addressing any potential concerns of the public or decision makers that a specific alternative was not addressed.

Alternatives examined will include, at a minimum, the No Project Alternative and a Reduced Project Alternative (that would include fewer wells drilled or fewer pads sites). In addition, a consolidated alternative may be reasonable to reduce the area of impact and consolidate the construction and operations into a smaller area, thereby reducing potential construction-related impacts.

The description of alternatives and the alternative screening analysis will be prepared and submitted to the County for review. MRS Environmental will also recommend that County have the Applicant review the alternative descriptions to make sure they are technically accurate.

The issue area coordinators will be responsible for preparing their portion of the environmental analysis section for each of the selected alternatives.

4.1.4 Peer Reviews

The Applicant for this Project has prepared several studies that provide a considerable amount of information associated with the baseline conditions at the site as well as the impacts of the Project.

These documents will be peer-reviewed before the information is used as part of the EIR. One of the first tasks that will be undertaken will be a comprehensive review of the Applicant prepared documents. This peer-review will focus on adequacy and technical accuracy of the information. These documents include:

- Air Quality Technical Report, InterAct, December 2016;
- Biological Assessment June 2015 and the Biological Assessment Addendum December 2015, Garcia and Associates;
- Biological Restoration Plan, Garcia and Associates, December 2015;
- Health Risk Assessment, InterAct, February 2016;
- Traffic Study, Stantec Consulting Services, June 2015;
- Geotechnical Investigation, GSI Soils Inc., September 2015;
- Report on Phase 1 Archaeological Investigation, Archaeological Assessment and Management, April 2015;
- Phase 1 Archaeological Investigation, Dudek, December 2015; and
- Preliminary Mater Fire Protection Engineering and Planning Review, Collins and Associates, May 15, 2015.

The peer review process is a critical phase of the EIR development. Any inconsistencies and inaccuracies in the technical reports could potentially be carried through to the Final EIR stage and cause delays and inconsistencies in the EIR effort. MRS Environmental proposes to conduct the peer reviews very early in the process, in parallel with the project description development, in order to provide input to the information request and to ensure that any inconsistencies are corrected early in the EIR process. Peer reviews will generate standardized "***peer review summary reports***", which will highlight any issues in the technical reports and utilize checklists, where applicable, to ensure a comprehensive review. The peer review summary reports will be included as an appendix to the EIR. For example, MRS Environmental has conducted Health Risk Assessment reviews for the Santa Barbara County APCD and has developed a detailed checklist, including over 75 items such as source terms, meteorological data, etc. This checklist will be used as part of the Health Risk Assessment peer review summary report.

Based on a preliminary assessment, the documents provided by the Applicant and listed above satisfy most of the data needs associated with the EIR preparation. However, it does not appear that the Applicant has conducted risk assessments for the natural gas pipeline, oil pipeline or for the light and crude oil trucking as well as propane trucking. MRS Environmental has included the preparation of these risk assessment studies as an optional task.

As a result of the peer review, MRS Environmental might determine whether the completion of additional studies would be necessary to assure a defensible EIR. MRS Environmental will work with the County early in the EIR process to identify any additional studies that the Applicant may need to prepare to allow for the completion of the EIR.

4.1.5 Administrative Draft EIR

Preparing the Administrative Draft EIR will constitute the majority of the work effort. A possible top-level outline of the Administrative Draft EIR is as follows:

- Executive Summary
- Impact Summary Tables
- Introduction
- Project Description
- Cumulative Methodology and Project List
- Environmental Analysis of the Proposed Project
- Alternatives Analysis
- Other CEQA-Mandated Sections

The major task for the Administrative Draft EIR is analyzing the environmental issue areas identified in the NOP and the final scoping document that were found to have potentially significant impacts. Environmental issue area where potentially significant impacts have been identified as part of the scoping process will contain the following major sections:

- Environmental Setting (Baseline);
- Project Impact and Mitigation Assessment;
- Cumulative Impacts; and
- Mitigation Monitoring Plan.

The overall approach to the development of each of these major sections is discussed further below. Section 4.2 below details the methodology that will be used for each of the key issue areas that were identified as primary issue areas in the RFP. Section 4.3 discusses issue areas that were not identified in the RFP as potentially significant, but might produce significant impacts and additional analysis may be required. The EIR chapter covering the environmental analysis of the Project will also include a section that discusses the issue areas where the scoping process found the effects to be not significant. This section of the Administrative Draft EIR will provide the substantial evidence to support the finding of no significant effects. Issue areas that may fall into this category are discussed in Section 4.4 below.

Environmental Setting

For most issue areas, the baseline information is expected to be developed from the Applicant's technical studies, previous studies in the area, including technical studies, field investigations, long-term monitoring activities, regulatory requirements, other EIRs, etc. The sources of information will likely include State and local agencies, reports prepared for the Applicant, and previous CEQA documents prepared within the study area. MRS Environmental assumes that some field surveys will be necessary to verify existing data.

The environmental setting section of the EIR will also include a regulatory setting section for each of the relevant issue areas.

MRS Environmental proposes to submit a draft of the environmental setting section of the EIR to the County for review and comment prior to the release of the Administrative Draft EIR (see Project Schedule, for more information).

Project Impact and Mitigation Assessment

One of the most important tasks in evaluating impacts is developing a set of well-defined significance criteria (or environmental thresholds) for each of the issue areas evaluated in the EIR. MRS Environmental proposes to develop the significance criteria prior to the assessment of impacts and to agree on these with the County in advance. The significance criteria will be submitted along with the environmental setting sections. Where available, significance criteria will be based upon the current County environmental thresholds in the *Santa Barbara County Environmental Thresholds and Guidelines Manual (County of Santa Barbara; revised July 2015).* Where criteria do not exist, they will be developed based on criteria used in previous EIRs or existing CEQA Guidelines. With well-defined criteria, the impacts can be classified in terms of significance with a greater degree of confidence.

The approach to the impact assessment for each issue area is discussed in more detail in Sections 4.2 through 4.4.

Any additional technical studies, and the Applicant-prepared technical studies peer review summary reports, will be included as appendices to the administrative draft EIR and also provided to the County.

One of the major goals of an EIR is identifying potential significant impacts and then developing reasonable, feasible, and effective mitigation measures to reduce the impacts to less than significant. During the course of preparing an EIR, mitigation measures are identified by issue area. Coordination between issue areas is important; otherwise mitigation measures in one issue area are not carried through into other issue areas to determine if any residual impacts exist. In order to facilitate the coordination of impacts and mitigation measures, MRS Environmental proposes incorporating a section into each issue area that specifically discusses the impacts of other issue area mitigation measures. This approach assures that each mitigation measure is evaluated thoroughly and that all potential residual impacts are addressed for each of the issue areas. Recent court cases have emphasized the importance of examining the impacts not only of the project, but also of the mitigation measures themselves.

The mitigation measures that MRS Environmental develops may be design changes, technology-based measures, new or revised management systems for Project operation, or administrative procedures to ensure that certain processes or environmental conditions are carefully monitored. The mitigation measures will address primary and secondary impacts associated with the Project.

MRS Environmental has extensive in-field experience in monitoring of construction, remediation and operational oil and gas fields, including Guadalupe Oil Field and the Baldwin Hills Oil Field. That extensive in-field experience will be brought to bear on the development of effective, innovative, and realistic mitigation measures that have been proven through in-field application.

In the approach to the evaluation of impacts, MRS Environmental will distinguish between impacts before and after mitigation. Significant impacts that cannot be mitigated to a level of insignificance will be categorized as Class I impacts. Class II impacts are those that are significant prior to mitigation but can be mitigated to a level of insignificance. Class III impacts are adverse but not significant. For Class III impacts, mitigation measures may be recommended if they could reduce the adversity of the impact. Class IV impacts are beneficial impacts.

Cumulative Impacts

The cumulative impact portion of the assessment is designed to address the cumulative impacts associated with reasonable, foreseeable projects within the study area. One of the first steps in the cumulative analysis will be to work with the County and other agencies in developing a cumulative projects list.

MRS Environmental proposes to work with the County and other responsible agencies to determine which of these projects should be included in the cumulative analysis. Using this information, a cumulative projects description will be developed, which will detail all projects on the cumulative list. The cumulative projects description will be submitted first to the County for review and approval, and then to the project team.

As an example, cumulative projects, such as the approved Foxen Canyon Pipeline Project proposed for an oil field to the north of the Project area, or the Aera East Cat Canyon Project located to the south-east of the Project site, could have overlapping impacts should those projects be built in a similar timeframe, and these projects will be assessed in the cumulative analysis within the applicable issues area.

Mitigation Monitoring Plan

The mitigation measures and the mitigation monitoring plans developed for each issue area will be consolidated into a comprehensive mitigation monitoring plan. The monitoring plan will identify all mitigation monitoring requirements placed by the County and other agencies and also the reporting requirements of the Applicant. The need for subsequent verification by on-site inspection will also be defined in the monitoring program, together with any post-construction monitoring that may be required to evaluate the effectiveness of the mitigation measures. The draft mitigation monitoring plan will be provided to the County at the same time as the Administrative Draft EIR. A summary of the plan will be included in the Executive Summary of the EIR.

4.1.6 Prepare Public Draft EIR

Preparation of the Public Draft EIR will incorporate all of the comments received from the County on the Administrative Draft EIR and produce a “camera ready” copy of the EIR for final review by the County. Once the County has signed off on the “camera ready” document, MRS Environmental will be responsible for printing and mailing the Public Draft EIR. MRS Environmental will print bound copies of the Public Draft. MRS Environmental has a large-scale CD/DVD printer which enables the production of hundreds of CDs if needed. MRS Environmental will work with the County to make sure that the Public Draft EIR is available online for download.

As part of the mailing process, MRS Environmental will complete the Notice of Completion and file it with the State Clearinghouse. MRS Environmental will also prepare the Administrative Record ensuring that all references in the DEIR are made available to the public as part of the EIR process.

All copies of the EIR will be double-sided, printed in color on recycled paper and spiral-bound. All electronic submittals will be divided into chapters and file sizes that can be easily published on County's website. All electronic submittals shall be in a format that is compatible with County's computers.

4.1.7 Prepare Summary of Comments from Public Hearing on Draft EIR

Upon completion of the public comment hearing on the Draft EIR, MRS Environmental will prepare a written summary of the verbal comments presented at the hearing. This package will also include any written comments received at the hearing. All of the comments will be numbered with unique codes.

4.1.8 Prepare Response to Comments

At the close of the Public comment period, all the comments received on the Draft EIR will be reviewed and given a unique number by the management team. The comments will then be distributed to the appropriate issue area coordinators and technical staff, who will be responsible for developing the written responses.

Written responses to each comment will be developed, and as needed, text in the Draft EIR will be modified to address comment. The response to comments will include a list of all of the comment letters received, the code used for each letter, and section where each comment letter and associated responses can be found. For costing purposes, it has been assumed that no new analysis will be required to respond to the comments on the Draft EIR and that the number of unique comments to which MRS Environmental will need to respond to will not exceed 300.

The RFP from the County asks that the response to comments be submitted prior to the County receiving the Administrative Final EIR, which is the way we have structured it in the proposal. It is MRS Environmental's experience that development of the Administrative Final EIR goes hand-in-hand with preparation of the response to comments. This is because if a comment requires a modification to the Draft EIR, it is best to make that change when preparing the response to assure consistency between the response and the changes in the EIR. Also, it is easier for the County to review these two documents together to allow for review of the changes in the EIR that are discussed in the response to comments.

4.1.9 Prepare Administrative Final EIR

At the close of the public comment period on the Draft EIR, MRS Environmental will prepare the Administrative Final EIR. This task involves making changes to the Draft EIR as a result of comments, updating various sections of the EIR to cover the discussion of the public review process and incorporating the response to comments.

Areas of the EIR that are modified in response to the comments will be marked with revision marks. As needed, the Response to Comments section will guide the reader to changes in the EIR and to additional information in the EIR that addresses the comment.

MRS Environmental will submit an Administrative Final EIR to the County that includes all of the responses to comments, as well as all of the changes to the Public Draft EIR. This will allow the County to review the responses and confirm that the appropriate changes were made to the EIR.

4.1.10 Prepare Proposed Final EIR

Preparation of the Proposed Final EIR will incorporate all of the comments received from the County on the Administrative Final EIR; the Proposed Final EIR will also include the Response to Comments section. MRS Environmental will produce a "camera ready" copy of the EIR for final review by the County. Once the County has signed off on the "camera ready" document, MRS Environmental will be responsible for printing and mailing the Proposed Final EIR. These copies will be spiral bound. MRS Environmental will also provide the County with one unbound reproducible master copy and a reproducible electronic copy on CD. MRS Environmental will also work with the County to make sure that the Proposed Final EIR is available online for download. As part of the mailing process, MRS Environmental will complete the Notice of Determination and file it with the State Clearinghouse.

4.1.11 Prepare Final EIR

Once there has been a final decision on the project, MRS Environmental will make any final changes to the EIR that may be needed and then provide the County with the Final EIR.

4.1.12 Public Meetings and Hearings

In developing the cost proposal for this project, MRS Environmental assumed that team members will participate in five public meetings/hearings/workshops plus an initial kick-off meeting at the Project site. MRS Environmental will be available for assisting in developing presentations for these meetings/hearings/workshops. MRS Environmental will also be available for developing the agenda for all of the public meetings and documenting the results. Costing for hearing/workshops are broken out in the costing proposal.

Costing for meetings at the County Planning & Development Santa Barbara office are included in the proposal at no additional cost as the EIR team offices are located within one block of the P&D offices.

Included in the public meetings/hearings/workshops is costing for the MRS Environmental team to attend (and assist County in planning & coordinating) one NOP scoping meeting; one DEIR public comment hearing, designed for informal Q&A centered around key environmental issues; two planning commission hearings and one supervisor hearing. Public comment hearings are valuable for helping the public to understand the EIR and are generally held near the Project site (in Santa Maria) after the DEIR has been issued.

MRS Environmental will be available at the County's discretion for the possibility of additional public comment hearings or workshops in smaller settings as part of the scoping process and/or DEIR outreach. MRS Environmental has assumed that the County will be responsible for recording and transcribing the public meetings, if needed, for the official record, although MRS Environmental is available for this service if needed (at additional cost).

4.1.13 Assistance with Findings/Staff Reports

MRS Environmental included time to assist the County with the preparation of various sections of staff reports. The sections where MRS Environmental will provide assistance to the County include CEQA and policy findings, conditions of approval, EIR certification resolution, and any statement of overriding consideration.

4.2 Methodologies for Issue Areas with Potentially Significant Impacts as Identified in the RFP

The RFP issued by the County identified a list of preliminary issue areas where the Project is likely to have potentially significant impacts. The approach and methodology to each of these issue areas is discussed below.

4.2.1 Air Quality and Greenhouse Gases

The general approach to the air quality assessment will involve addressing baseline conditions and impacts associated with the Project and alternatives in accordance with requirements and guidelines established by the County and the Santa Barbara County Air Pollution Control District (SBCAPCD). Although the air quality thresholds established by the County will be utilized as the County will be the lead agency, guidelines and requirements of the APCD will be incorporated as required.

MRS Environmental's analysis will consist of reviewing the Project and alternative development scenarios, developing emissions inventories for these scenarios, modeling the impacts where appropriate, and developing mitigation measures for the significant impacts. MRS Environmental will then develop a mitigation monitoring plan for the mitigation measures. Analysis of cumulative impacts will consider future activities at the affected facilities and other projects in the area.

Peer Review

The Applicant has prepared studies addressing the criteria, toxic and GHG emissions and these will be peer reviewed for the inclusion of all emissions sources, the use of the correct equations and emission factors and the appropriate approach. These technical studies include:

- Air Quality Technical Report, InterAct, December 2016; and
- Health Risk Assessment, InterAct, February 2016.

MRS Environmental will peer review the Air Quality Technical Report for adequacy and technical accuracy. Emission equations and emission factors associated with the CalEEMod program, version 2016.3.2, the most recent version, and EMFAC2014 and EMFAC2017 (for mobile sources) will be assessed to ensure that correct factors are utilized. MRS Environmental will utilize health risk assessment review checklists, prepared based on the SBCAPCD Form 15i HRA Guidance document, dated May 2017, to ensure that the HRA is completed with the appropriate factors as approved by the SBCAPCD. MRS Environmental will ensure that the HRA uses the most recent version of the Hotspots Analysis and Reporting Program (HARP2 version 17320) developed by CARB. Meteorological conditions, emission factors, and emission source parameters (e.g., stack dimensions, gas velocities, exhaust temperatures, equipment coordinates, capped-stacks, etc.) used in the modeling will be reviewed. MRS Environmental has extensive experience reviewing HRAs for Districts, as well as preparing HRAs for oil and gas projects.

Baseline Environmental Setting

MRS Environmental will characterize the existing air quality and meteorological conditions to provide an environmental setting that the Project emissions will impact. Information will be based on the Applicant technical studies as well as information from the SBCAPCD and other, regional EIRs. The attainment status in regard to the Ambient Air Quality Standards, particularly for ozone (for State and Federal standards) and particulate matter (for State standards), will indicate the area's most sensitive to increases in ambient concentrations of the air pollutants. Data from the SBCAPCD air monitoring station network will be utilized and characterized based on available data from the SBCAPCD and CARB.

MRS Environmental will review Federal, State, and County air quality regulations to identify those items that apply to the Project, based on the preliminary issues identified in the RFP and other potential issues such as toxic emissions and GHG. MRS Environmental will identify pending regulations that might affect the Project through discussions with regulatory agencies.

The baseline will also include an assessment of the potential for odor and an assessment of violations and complaints in the region and at other oil fields.

Impact Assessment of the Project and Alternatives

Criteria Toxic Pollutants

MRS Environmental will assess both short-term construction emissions and long-term emissions from the operation of the Project. Construction emissions include those associated with the development of the new wells/equipment sites (grading, cut/fill movement), installation of new oil well pads, and proposed pipelines. Long term operational emissions will result from the operation of the new cyclic steam wells, increased operations of Project related equipment (both baseline, as applicable, and new equipment), and increased emissions from the existing equipment, if applicable, due to increased throughput.

The development of technically sound emissions inventories for the Project will be one of the most important aspects of the air quality assessment. Emissions from all equipment used in construction and operations, including pumps, compressors, mobile equipment, fugitive dust and other miscellaneous sources, will be estimated using the appropriate emission factors from the SBCAPCD, EPA's AP-42, and CARB emission factors as well as the CalEEMod version 2016.3.2 program. For any source of toxic air contaminants, MRS Environmental will ensure emissions estimates in the Applicants technical studies use the appropriate ARB or EPA emission factors and source speciation profiles and the CAPCOA Technical Guidance document developed for estimating toxic emissions for the Hot Spots program.

Air quality modeling related to operational inert, non-toxic pollutants is not anticipated. However, if any given segment or phase of the Project exceeds the County emissions significance threshold or appears to impact sensitive receptors, air quality modeling will be utilized to establish the potential significance of the activity.

Impacts related to toxic emissions are assessed in the Applicant technical study HRA. MRS Environmental will ensure that all sources are included and that the long-term trends and plans for the Project are appropriately included in the technical study.

An analysis of the potential sources of odors and their frequencies from the Project will also be assessed. This analysis may lead to mitigation measures, which would reduce the potential for odors.

Greenhouse Gases

MRS Environmental will assess emissions of greenhouse gasses (GHG) for all construction activities and operations. The GHG analysis will be compiled into a separate section of the EIR. Much of the baseline information has already been compiled in the air quality technical report

prepared for the Project by the Applicant. MRS Environmental will peer review the Technical Report for adequacy and technical accuracy and update and refine existing data as it applies to this Project. Regulatory requirements will address recent GHG emission regulation, such as recent Scoping Plan updates and revisions to long-term goals and developments at the SBCAPCD. MRS Environmental will address GHGs including carbon dioxide (from combustion), methane (from combustion and fugitive emissions), nitrous oxide, and hydro fluorocarbons. MRS Environmental will also assess GHG emissions from both direct (located on-site) and indirect (from mobile sources and electricity generation) sources and will address sources such as transportation as well as the role of the Cap-and-Trade program.

MRS Environmental will also assess emissions of GHG for all construction processes and operations utilizing the CARB Mandatory reporting requirements, CalEEMod and other sources as needed. Estimates of GHG emissions have already been compiled by the Applicant in their studies and these will be reviewed for consistency with acceptable procedures.

The Applicant calculations indicate the annual GHG emissions would total more than 166,000 metric tons of carbon dioxide equivalent (MTCO2e). As this is above the thresholds adopted by the County, mitigation measures would be required to reduce or offset these emissions. MRS Environmental has a good working relationship with the SBCAPCD and coordination with both agencies on this important issue will be critical. Assessment of a number of factors, including the use of field gas and flaring, the Cap-and-Trade applicability of fuel sources all play in to the complicated analysis of GHG emissions and the assessment of impacts. MRS Environmental has extensive experience in GHG assessments.

Mitigation Measures

MRS Environmental will quantify impacts associated with both temporary construction and long-term operational activities. For significant impacts, emissions from the Project will need to be mitigated. Generally, for non-attainment pollutants, mitigation measures will be based on the guidance by the County and the SBCAPCD, the County grading ordinance and recently prepared EIRs for similar projects (particularly related to GHGs). The EIR will include a discussion of feasible mitigation measures to reduce or offset GHG emissions.

Cumulative Impact Assessment

Cumulative air quality impacts associated with other projects in the area are of primary interest to County regulators and planners especially with the stringent requirements for emissions controls required in non-attainment areas under the California Clean Air Act. The cumulative impacts analysis will utilize EIR/EIS documents for similar projects, permits issued by the County and the SBAPCD, the recent Clean Air Plan, and the cumulative projects list approved by the County for this analysis.

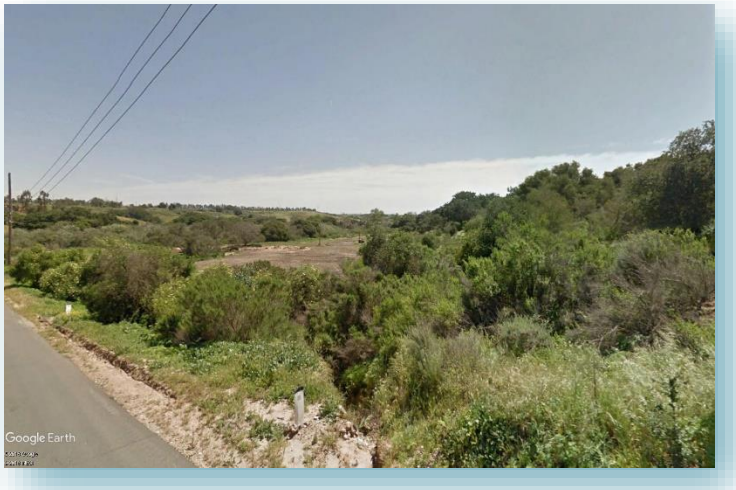
4.2.2 Biological Resources

This section presents the scope and approach for assessing the biological impacts of the Project, alternatives, and cumulative projects.

Peer Review

The biological resources analysis will begin with a comprehensive peer review of all relevant background materials including those related to sensitive habitats or species that might be impacted by the Project. This will include peer review of the technical studies listed below prepared on behalf of the Applicant in support of the Project.

- Garcia and Associates, June 25, 2015: Biological Assessment, United California, California and Bradley Energy Project.
- Garcia and Associates, December 8, 2015: Biological Assessment Addendum, United California, California and Bradley Energy Project.
- Garcia and Associates, December 8, 2015: Biological Restoration Plan, United California, California and Bradley (UCCB) Production Plan Project.



MRS Environmental biologists will conduct one to two days of field reconnaissance-level surveys of the Project site to field truth the existing conditions information found in the Garcia and Associates Biological Assessment and Supplemental Biological Assessment. Field verification will confirm the accuracy of resource maps and identify the need for additional or revised mapping.

An initial review of the Applicant biological studies indicates the potential for Fairy Shrimp habitat near some of the pads. The presence of Fairy Shrimp habitat is usually an indication of vernal pools, which could be State or Federal wetlands. The Applicant studies do not appear to identify or delineate State or Federal wetlands. The peer review will determine if wetland delineation work may be warranted to assure a defensible EIR.

Baseline Environmental Setting

The Biological Resources section of the Draft EIR will contain a description of the site's biological attributes (derived largely from the background review as noted above), as well as individual narratives on the current status of sensitive and special status plants, animals, and habitats, if any.

The environmental setting will provide adequate information to accurately and comprehensively address potential Project impacts, relying on existing information to the maximum extent feasible. Existing information will be augmented by a broader background search for relevant sources of information, which may include other environmental studies in the Project area, searches of museum collections, consults with local biologists familiar with the flora and fauna of the Project

area, and a more current review of the California Natural Diversity Database (CNDDB), the USFWS Information for Planning and Consultation (IpaC) website, and NOAA Fisheries website (to determine potential steelhead streams in the Project vicinity). Communication with State and Federal wildlife agencies, such as CDFW and USFWS, will be conducted as appropriate on specific issue areas, such as Waters of the US and State and Federally-listed species.

Biological resources include terrestrial habitats and biota, including sensitive and non-sensitive vegetation communities, plants, and wildlife. The baseline conditions will include a discussion of biological resources including coastal scrub, oak woodland, and riparian plant communities, oak trees, Wetlands and Waters of the U.S., sensitive plant species, and sensitive wildlife species that will include at the least, California tiger salamander, California red-legged frog, vernal pool fairy shrimp, western spadefoot, legless lizards, coast horned lizards, migratory bird nesting, and raptors.

Certain types of riparian plant communities may be considered a natural community of special concern by the California Department of Fish and Wildlife. MRS Environmental biologists will field check the Garcia and Associates habitat mapping and plant community classifications to ensure sensitive plant communities are appropriately portrayed in habitat mapping and subsequent impact calculations.

California Tiger Salamander (CTS) and California Red-legged Frog (CRLF)
MRS Environmental biologists will field truth data provided by Garcia and Associates and will pay special attention in the field to assess the topography, vegetation communities, presence of small mammal burrows, and other constituent elements of CTS and CRLF upland habitat in the area of the Project to adequately assess impacts to these federally listed species. Prior to conducting a field survey, MRS Environmental will review available databases and literature relevant to the Project. Such sources would include the CNDDB, the U.S. Fish and Wildlife Service (USFWS) 2010 CTS map, the Biological Assessment report prepared by Garcia and Associates, and other applicable reports.

Impact Assessment of the Project and Alternatives

The EIR will include a thorough discussion of potential permanent and temporary impacts to biological resources that could result from the proposed actions, including the installation and operation of new oil wells on drilling pads, a centralized tank facility, pipelines, and ancillary equipment. It is our understanding that the majority of the Project is located on existing drill pads or currently disturbed ground and will utilize existing public or private roads for operations and transportation. One new pad (Site Z), proposed for the centralized tank facility (consisting of one scrubber, a permanent steam generator and distribution lines for hot water, soft water, blend oil group flow lines, fuel gas, casing vapor recovery, and a spare line), has been used heavily in the past and currently supports little natural vegetation, although it is located adjacent to agricultural fields. The proposed pipelines would be located along existing roads and across grassland, coastal scrub, and riparian habitats using methods designed to minimize impacts to biological resources (including boring and placing pipeline on sleepers) where feasible. While locating a majority of new Project elements in previously disturbed habitats would minimize disturbances to biological resources, the EIR analysis will still consider other potential impacts resulting from increased

traffic, new pipelines near riparian habitats, the potential for spills (including the potential for spills to affect downstream resources), the loss of upland movement for sensitive amphibian species, and effects to wildlife corridors.

The EIR will analyze the direct, indirect, and cumulative impacts consistent with criteria set forth by CEQA. MRS Environmental will discuss impacts in context with local land use policies and ordinances. Both short- and long-term impacts to biological resources will be considered for the Project. The analysis will specifically focus on Project actions, including operation and maintenance of the oil field. An evaluation of monitoring and maintenance components of the Project will determine the possibility of long-term impacts.

Sensitive Habitats

Santa Barbara County's Environmental Thresholds and Guidelines manual provides habitat-specific impact assessment guidelines for biological communities including native grasslands, riparian, oak tree protection, and wetland habitats. These guidelines are to be used in conjunction with the general impact assessment conducted for the environmental review. The MRS Environmental biological team will review the existing documents and evaluate the Project in accordance with the County's guidelines, as well other regulatory agency requirements. Of particular concern are riparian habitats crossed by or adjacent to the proposed pipelines, oak trees, and aquatic habitat associated with vernal pools and downstream aquatic habitats. The EIR will include an assessment of the potential for the Project to affect these resources on-site during construction, as well as the potential for offsite (i.e., downstream riparian and aquatic habitat) impacts in the case of accidental spills and cleanup

Mitigation Measures

Mitigation proposed as part of the Project design will be evaluated for adequacy, efficacy and consistency with accepted standards. MRS Environmental will review the Applicant provided mitigation and will develop additional measures designed to avoid or offset significant impacts to biological resources as necessary. Mitigation measures will be consistent with the planning and land use documents adopted by the County including the County Environmental Thresholds and Guidelines Manual and Guidelines for the Implementation of the California Environmental Quality Act of 1970. In addition, MRS Environmental will use the recent experience with preparing the PCEC EIR to provide appropriate mitigation, if needed, for the loss of sensitive amphibian species upland habitat that has already been reviewed and approved by regulatory agencies. A discussion of residual impacts of the Project that are expected to remain after implementation of recommended mitigation measures, if any, will be included.

Measures to improve or enhance site restoration, habitat rehabilitation, and resource management plans will be included as mitigation, as appropriate.

Cumulative Impact Assessment

Cumulative impacts will be evaluated from local and regional perspectives. Development projects approved, pending, or planned for the Project area will be considered in the cumulative impact analysis. The cumulative analysis will be based upon the County approved cumulative project list.

4.2.3 Hazardous Materials and Risk of Upset

The Project could increase the number of potentially hazardous activities in the area by increasing the number of wells and the introduction of new equipment. Production wells and processing equipment have the potential for risk of upset impacts. However, given the remote location of the proposed Project it is unlikely that there will be significant risk of upset impacts from field equipment and operations. Drilling and oil production operations also use several hazardous materials, which can have significant impacts if released to the environment. For the proposed Project transportation of propane, light oil and crude oil by truck have the potential to result in significant risk of upset impacts. Also, depending upon the location of the natural gas pipeline, significant risk of upset impacts could occur.

In reviewing the Applicant documents on the County website, it does not appear that any quantitative risk assessments (QRAs) were conducted to address the risk of upset impacts associated with onsite oil and gas production operations, trucking and pipeline operations. These types of studies were included as part of the applications for the Aera East Cat Canyon Project and the ExxonMobil Las Flores Canyon Crude Oil Trucking Project. Since risk of upset is an issue that receives considerable attention as part of oil and gas development projects, these QRAs are typically done to determine the level of significance of risk of upset impacts. Without these technical studies, it will be difficult to assess the level of significance of the risk of upset impacts since the County's thresholds are based upon the use of a QRA.

In order to have a technically defensible analysis for risk of upset, the County could request that the Applicant prepare the necessary QRAs. This will include a Facilities QRA, a Transportation QRA, and possibly a Natural Gas Pipeline QRA. These are the three QRAs that the County required from the Applicant as part of the Aera East Cat Canyon EIR Project.

These technical reports could also be prepared as part of the EIR, which will likely save time in the overall completion of the EIR. MRS Environmental has included an optional task to prepare the necessary QRA technical reports. The approach to this optional task is discussed below.

Peer Review

If the Applicant prepares the QRA technical studies, then MRS Environmental will peer review the reports and prepare the EIR section based upon the information in the Applicant prepared studies. The technical reports will be reviewed to assure they address a reasonable range of release scenarios, adequately document the basis for release probabilities, meet regulatory protocols for consequence modeling, and comply with the County's guidelines on conducting QRAs.

Baseline Environmental Setting

MRS Environmental will characterize the existing baseline in terms of oil development and transportation currently ongoing at the oil field. The baseline will allow for a determination of the change in risk levels associated with the introduction of the Project activities. As the area has a long history of oil and gas activity, the area could have some existing soil contamination that could be uncovered with the extensive area grading. The State Envirostor and GeoTracker databases show some currently open clean-up site issues in the area, and these will be assessed and reported by the MRS Environmental team as part of the Hazardous Materials issue area.

Impact Assessment of the Project and Alternatives

The risk of upset impact section will address the risks associated with (1) the proposed facility and transportation routes and the impact of upset scenarios on nearby sensitive receptors (e.g., residences, schools and hospitals); (2) increases in risks due to oil spills associated with crude use, storage and transportation; and (3) increased use of other hazardous materials and potential impacts on sensitive receptors.

Risk of Upset **–** Accidental release of propane, produced gas, natural gas, and crude oil could result in flammable vapor, thermal radiation or toxic hazards that have the potential to impact sensitive receptors. The significance of these types of impacts are typically determined using a QRA, which looks at the frequency of an accident occurring and the consequence if it does occur. The impact section will summarize the results of the peer reviewed Applicant studies, focusing the types of hazards and possible consequences.

Oil Spills **–** Releases of crude oil could impact biological or hydrological resources in the area. Releases could be associated with accidental scenarios where piping ruptures. Increases in crude oil production levels will increase the potential spill sizes if a pipeline rupture were to occur, or increases in frequency if new equipment is added. These impacts will be assessed in both the risk of upset issue area and the biological and hydrological issue areas. The significance will be based on the increase in the volume or frequency of material releases as per County guidelines and past environmental assessments.

Hazardous Materials **–** During construction activities, contaminated areas could be encountering that could have hazardous material impacts. For oil fields, the contamination is usually related to hydrocarbon impacted soils that resulted from spills of oil or other drilling fluids. In northern Santa Barbara County, most hydrocarbon impacted soils are trucked to the Santa Maria Regional Landfill for use in cover as part of the landfill closure process. The impacts section will include a discussion of potential impacts from removal of any hydrocarbon impacted soil contamination or use of hazardous materials used during well drilling and processing operations.

Mitigation Measures

MRS Environmental will propose mitigation measures for risk levels that exceed the thresholds or for spills that increase the volume or frequency of crude oil releases. The mitigation measures will be evaluated in terms of feasibility, adequacy, and, most importantly, effectiveness. Risk-reducing measures may include pipeline measures, such as thickness or burial depth, or, for field related impacts, if applicable, setbacks from public areas to ensure that the receptors are outside the thermal or vapor cloud impact zones; automatic shut-off valves; leak detection systems; hydrogen sulfide ambient detection and shutdown systems or drilling protection measures such as drilling flares, depending on the gas volumes expected.

Cumulative Impacts

The cumulative impact analysis will consider future oil and gas development projects, as well as the expansion of existing oil and gas facilities in the region, based upon the County approved cumulative project list. While unlikely, the cumulative analysis will also evaluate the cumulative risk associated with future development in the immediate vicinity (i.e., any location where

potential risks can overlap). As an example, another oil project may propose installing a pipeline in the same area. If additional crude oil were to be transported and a spill could affect the same drainages, there could be cumulative impacts, and these will need to be examined.

Optional Task – Quantitative Risk Assessment (QRA) Technical Reports

Since it does not appear the Applicant has prepared the QRAs that are typically required for this type of project, MRS Environmental has included an optional task to conduct the necessary QRAs. The QRAs will cover the fixed facilities, truck transportation of hazardous materials (propane, light oil, crude oil) as well as possibly the natural gas pipeline, depending upon the location of the pipeline route.

The risk assessment will evaluate the potential changes in risk associated with the proposed activities and alternatives including risk levels to the public through potential accidents and risk levels to the environment through the potential for spills. The analysis will utilize established risk guidelines to evaluate the significance of potential incremental risk increases/decreases associated with the Project and alternatives. The analysis will focus on evaluating the proposed production, processing, storage, use, and transportation of hazardous materials.

The significance of potential impacts will be quantified using significance criteria for public safety (Santa Barbara County adopted Public Safety Thresholds in August 1999). These criteria will be used for potential toxic exposure, fires, and explosions as well as transportation risk. The thresholds provide three zones – green, amber, and red – for guiding a determination of significance or insignificance, based on the estimated frequency and consequences of an accident. In addition, a Safety Element Supplement was adopted in February 2000 (Board of Supervisors Resolution 00-56) covering hazardous materials (Santa Barbara County 2000). The objective of the Safety Element is to define unacceptable risk in a manner that guides consistent and sound land-use decisions involving hazardous facilities. As part of this objective, the County has defined criteria applicable to new development as well as modifications to existing development if those modifications increase risk. MRS Environmental will evaluate the Project impacts with the criteria above and if potentially significant impacts are identified, mitigation measures will be proposed, where possible, to reduce the impact to a level of insignificance.

In order to establish the baseline risk for the proposed facilities, MRS Environmental will assess the potential for the Project site activities to produce offsite impacts. If offsite impacts are possible, MRS Environmental will conduct a QRA according to the recommendations of the Center for Chemical Process Safety and the Health and Safety Executive of the United Kingdom. These guidelines have been used before as the basis for other QRAs conducted for oil and gas facilities in the County. Figure 1 shows the steps involved in developing a QRA.

The development of the QRA will involve five major tasks:

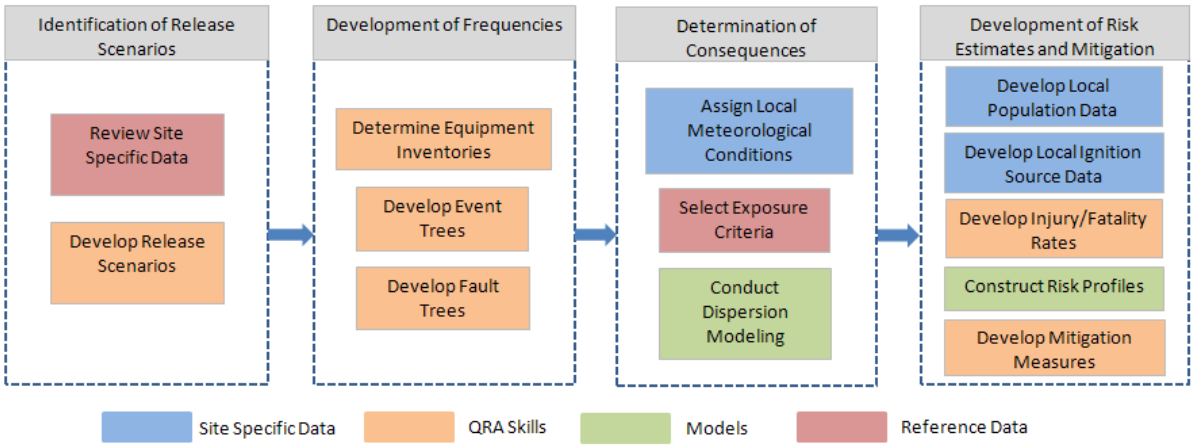
- Identifying release scenarios;
- Developing frequencies of occurrence for each release scenario;
- Determining the consequences of each release scenario;
- Developing risk estimates and profiles for the proposed facilities; and

- Developing risk-reducing mitigation measures.

Risks can also be associated with transportation activities, such as the transportation of propane, light oil, and crude oil in trucks or the transportation of natural gas or crude oil in pipelines. These risk levels will be assessed for the Project based on the characteristics listed in the Application materials (pipe sizes, number of truck trips, etc.). At this time, it does not appear that a QRA will be needed for the field components as all of the field components are located far enough away from sensitive receptors, although an assessment of the distances to public areas and the impact distances will be completed to ensure that a QRA is not needed for the field facilities. A QRA may be needed for the transportation components of the Project and this proposal includes the development of a QRA for truck and pipeline transportation requirements.

The results of the QRA analysis will be documented in separate technical reports that will be included as part of the EIR technical appendices.

Figure 2 Steps Involved in Developing a Quantitative Risk Assessment



4.2.4 Transportation and Circulation

Transportation and circulation issues will be assessed by examining the construction and operational traffic associated with the Project. Although the construction impact may be relatively short-term, the workers' vehicles and trucks hauling equipment and/or material traveling to and from the site could have an adverse effect on traffic flow and safety.

The study area will include the Santa Barbara County roadway networks that could be affected by the Project and alternatives as they pertain to construction and operations-related traffic. Transportation impacts will be compared to the significant threshold criteria in the County's Environmental Thresholds and Guidelines Manual.

Peer Review

The Applicant has prepared a traffic study that will be peer reviewed by MRS Environmental and Central Coast Transportation Consultants to ensure accurate and consistent use of Project

characteristics (*Traffic Study, Stantec Consulting Services, June 2015*). The Applicant study will be compared with existing traffic count data from the County and Caltrans, and the approach used to assess impacts will be verified that it meets an approved traffic analysis methodology.

Baseline Environmental Setting

Access to the Project site is from Highway 101, Clark Avenue exit to Dominion Road from the south and via the Orcutt-Gary Road from the north. MRS Environmental will confirm the baseline environmental setting by reviewing various County resources including County and Caltrans traffic counts, plans, maps, and aerials to ensure that all potentially affected transportation resources are identified.

Impact Assessment of the Project and Alternatives

MRS Environmental and Central Coast Transportation Consultants will review the Project for impacts to transportation and circulation resources. Short term construction traffic will be generated by the Project. Long term impacts to traffic and circulation resources will be associated with the transportation of crude oil from the site (if the pipeline is not available) and the importation of light crude oil and propane (in the early years) to the site.

The traffic study indicates a peak traffic level of 320 average daily trips occurring between years 2 and 3 of the Project. Potential impacts could occur due to the use of the Clark Avenue/Highway 101 intersection, which could operate at an inefficient level of service in the future with cumulative impacts. Planned improvements to the intersection would improve the level of service to acceptable.

Mitigation Measures

Mitigations may include limits on traffic or limits on construction activities to avoid peak traffic periods. Cumulative projects will also be examined in the area to assess cumulative traffic impacts. Cumulative impacts associated with traffic are incorporated into the traffic analysis to account for potential impacts in the future of area growth. Potential congestion at some intersections was identified in the Stantec report. Other impacts from projects in the area will be included to ensure that all cumulative impacts have been addressed.

Cumulative Impact Assessment

An evaluation of potential cumulative impacts will be performed for this project. The County approved cumulative list of projects and the County's future traffic projections in the Project area will be used to help assess cumulative traffic impacts.

4.2.5 Geologic Processes/Geologic Hazards

This section presents the scope and approach for assessing the geologic impacts of the Project, alternatives, and cumulative projects.

Peer Review

MRS Environmental and Rincon Consultants will review the existing geotechnical and geological conditions of the project area. This will include review of technical documents provided by the Applicant as well as published geological maps and geologic reports of the project area. The following Applicant technical study will be independently evaluated and peer reviewed:

- GSI Soils Inc., September 2015. Geotechnical Investigation, UCCB Production Plant Section 14 & 23, T9N/R33W, Cat Canyon, Santa Barbara County, California

The Rincon geologist will conduct a one-day field reconnaissance-level survey of the Project site to field truth the existing conditions information found in the GSI Soils, Inc. Report. Field verification will help to confirm the accuracy of the report and determine the need for any additional studies.

Baseline Environmental Setting

The baseline section will be developed using information from the Applicant's geotechnical investigation as well as other State and local documents that cover geology of the Cat Canyon area. The baseline evaluation is designed to establish the pre-project conditions and compare the pre-Project conditions to the proposed Project activities. The baseline environmental setting will include the following:

- Review of published geologic and topographic maps, published geologic reports, the Santa Barbara County Seismic Safety and Safety Element, other EIRs completed for projects in the vicinity of the site, and a recently prepared, site-specific geology report by AMEC (2013);
- Description of the regional and local geologic setting, including stratigraphy, soils, faulting, and earthquakes; and
- Characterization of the potential or lack of potential, for natural and steam injection induced oil seeps or surface expressions (as occurred in other oil fields in the County) to form a basis for analysis in other issue areas such as water quality and air quality.

Geologic hazards at the site may include liquefaction, lateral spreading, seismic settlement, surface expressions of oil due to steam flooding, and high groundwater along areas within tributary and alluvial basins.

MRS Environmental will review other available reports prepared for the site and surrounding area to assess the regional and local geologic conditions. Available published geologic and geotechnical data for the site and surrounding area available from the State and other sources will be reviewed and assessed.

Impact Assessment of the Project and Alternatives

Rincon Consultants will review the proposed Project plans and alternatives to evaluate if the Project will result in an increase or decrease of geological or geotechnical hazards. The impact assessment will include the evaluation of the effect of geologic hazards on the Project (e.g., liquefaction, erosion, seismic, etc.), measures to mitigate specific geologic hazards, and a discussion of additional geologic and soils analysis that may be necessary to ensure adequate mitigation of geologic hazards. The impact assessment will also evaluate whether the Project will have an adverse effect on geologic resources found in the Project area.

A detailed analysis of impacts associated with facility expansion and oil and gas development operations will be provided. Potential geologic hazards, such as seismically induced ground shaking and erosion will be discussed in general terms with respect to potential infrastructure failure.

Proposed production from the facility could result in oil spills due to seismically induced ground failure or other geologic hazards, such as corrosion or excessive erosion as well as the potential for surface expressions or uplifting associated with steam injection. Remediation of such issues could, in turn, potentially cause soil erosion-induced water quality impacts to water courses. Similarly, grading could potentially cause soil erosion-induced water quality impacts. Examples of impacts that will be addressed include:

- Affects from several potentially active and active faults in the project region;
- Potential for surface expressions of oil due to the steam flooding operations; and
- Potential for construction to increase slope failures and cause erosion induced sedimentation of on-site and downstream creeks and drainages.

Mitigation Measures

Rincon Consultants will propose mitigation measures for each identified hazard that poses a significant risk if left unmitigated. Mitigation measures may include further geotechnical studies, setbacks from geological or seismic hazards, or modification of site soils to mitigate for adverse geotechnical conditions resulting from liquefaction, settlement, or other geotechnical hazard.

Cumulative Impact Assessment

An evaluation of potential cumulative impacts will be performed for this project using the County approved list of cumulative projects. Rincon will evaluate the cumulative effect of the project on geologic resources of the Project area.

4.2.6 Water Resources

The Project will require a water supply during construction and operation. The Project could also introduce the potential for surface and/or groundwater contamination to occur, should there be an accidental spill or release of hazardous materials during Project implementation or operation. The water resources assessment will evaluate water supply availability and reliability in the Project area and will identify best management practices (BMPs) to minimize or avoid the potential for

water quality degradation to occur as a result of the Project. Preparation of this analysis will occur in close coordination with the preparation of related analyses, including but not limited to Geologic Processes/Geologic Hazards, and Hazardous Materials/Risk of Upset. The purpose of this coordination is to streamline BMPs and avoid repetitive work during Project implementation.

Peer Review

Rincon Consultants will conduct a peer review of the technical document provided by the Applicant as well as other published water resource reports that cover the Project area. The following Applicant technical study will be independently evaluated, and peer reviewed:

- Katherman Exploration Co., LLC, Water Source Study UCCB Project Cat Canyon Oil Field Santa Barbara County, June 24, 2015

The Rincon hydrologist will conduct a one-day field reconnaissance-level survey of the Project site to field truth the existing conditions information found in the Katherman Report as well as other relevant documents. Field verification will help confirm the accuracy of the report and the need for any additional studies.

Baseline Environmental Setting

The water resources analysis will characterize existing baseline conditions on the Project site and adjacent areas, as related to surface water and groundwater supply and quality. This baseline assessment will be used to determine how implementation of the Project could affect water resources supplies and quality. It is understood that the Project site is located within the Santa Maria Groundwater Basin in the Central Coast Hydrologic Region. This groundwater basin is adjudicated, which means that any groundwater use must occur within the constraints and requirements of the Adjudication Judgement, which is administered by the local Watermaster. The purpose of this Adjudication Judgement is to facilitate a state of sustainability and water supply reliability within the region. We also understand that there are alluvial groundwater resources in the area (i.e., groundwater not constrained within a defined basin, and which may occur in direct response to climate and weather conditions); the baseline environmental description will assess these conditions, including thorough coordination with local agencies and review of published information relevant to the site. Additionally, this assessment will characterize local water districts, in terms of their water sources and territories, although, based on existing Project information, it does not appear that the Project site is located within the boundaries of an existing water district (the closest district at this time has been identified as the Golden State Water Company in east Orcutt).

Impact Assessment of the Project and Alternatives

Under Project activities, water would be used to generate steam that would then be injected into the oil-bearing reservoir in order to enhance oil recovery. This assessment will consider the potential for new groundwater wells being drilled on the Project site, with respect to both groundwater supply reliability and quality.

At peak oil production, the Project may require up to 300-acre feet per year (AFY) of water. The produced water will be processed through an on-site water recycling plant to treat for high levels

of total dissolved solids (TDS), or high salt/brine content, which are typical of the Project area. An existing on-site groundwater well will also be used for the production of potable water, which will not need to be treated through the recycling plant. The potable groundwater well is proposed to not be located within 250 feet of a proposed oil well or water injection well, which will protect water quality. The impacts section will also address the potential for impacts to groundwater and surface water quality from steam injection and oil production operations. The assessment may propose additional BMPs to protect water quality and avoid adverse impacts from the Project.

As described under Hazardous Materials/Risk of Upset, oil releases into the environment can produce impacts to hydrological resources, particularly as related to water quality. These issues will be assessed in terms of the potential for upset, as well as BMPs or mitigation measures that will minimize the severity of impacts, should an upset or accident condition occur. Impact significance determinations will be based on CEQA significance criteria and/or County-specific criteria, as applicable.

Mitigation Measures

Mitigation measures will be developed and customized for the Project, in order to minimize or avoid potential impacts associated with hydrology and water quality. Measures may include (but would not be limited to) stipulations regarding the location of groundwater production wells from oil production wells, maintenance requirements for vehicles and equipment, emergency response measures, and worker training procedures.

Cumulative Impact Assessment

The cumulative impacts analysis for water resources will consider other projects within the area, and particularly within the same surface watershed and groundwater basin as the project site, which could result in similar impacts as the proposed project. With respect to water resources, cumulative impacts could occur if other existing or anticipated projects within the same groundwater basin will require water supplies during the same timeframe as the proposed project that could exceed the sustainable yield of the basin. As discussed above, water supply reliability will be monitored through implementation of the Adjudication Judgment for the Santa Maria Groundwater Basin; this analysis of cumulative impacts will include coordination with the Watermaster to assess water supply availability and stressors in the area. The cumulative analysis will be based upon the County approved list of cumulative projects.

4.2.7 Historic and Cultural Resources

The project Applicant has completed two archaeological studies for the subject property and has found that two historical resources are present within the Project site. The studies also identified that the two resources will not be adversely impacted by the Project.

Peer Review

A peer review and independent evaluation of the two supporting cultural resources reports will be conducted by a Principal Investigator level cultural resources specialist meeting the Secretary of Interior Standards for Archaeology and Historic Preservation. These two Applicant prepared reports are:

- Archaeological Assessment and Management, April 2015. Report on Phase 1 Archaeological Investigation for UCAL-CAL Production Facility, Santa Barbara County, California. Prepared for PetroRock, LLC.
- Dudek, December 2015. Phase 1 Archaeological Investigation Vaquero Energy PetroRock UCAL-CAL Production Plan and Pipelines Project, Cat Canyon, California.

The peer review will aim at reviewing the existing cultural resources documents for clarity, completeness, and compliance with applicable regulations to assist in determining the adequacy of the cultural resources studies against the County and industry standards. The peer review will be summarized in a peer review report. It is assumed that no additional any supplemental efforts will be required (e.g., survey, records searches, technical reporting).

Baseline Environmental Setting

The baseline for cultural resources will be set based on the existing activities within the project site and the potential for the project execution to affect existing or previously undiscovered resources. An overview of the cultural resources setting will be provided with a history of cultural resources investigations based on the data provided in the two Applicant prepared cultural resources studies. These data will be used in developing a general cultural resources sensitivity assessment for the project site. The sensitivity assessment will address archaeological sensitivity and paleontological sensitivity. The paleontological sensitivity will require a review of existing geological maps and a paleontological locality search.

Impact Assessment of the Project and Alternatives

The impact assessment will analyze the potential impacts to known resources identified within the Applicant prepared documents as well as unanticipated resources that may be identified during project execution. These resources may include archaeological sites, the historic built environment, and paleontological resources. The impacts analysis will discuss the potential impacts from the proposed project and alternatives.

Mitigation Measures

Based on the cultural resources sensitivity of the Project site and the data from the existing cultural resources documents, mitigation measures will be developed in consideration of the Project activities and how they may affect known or unknown resources. Assuming the peer review concurs with the findings of the existing studies, the mitigation measures drafted for the EIR will address the potential and procedures for unanticipated discoveries during the execution of the Project. Depending on the cultural resources sensitivity of the area, additional measures such as archaeological and Native American monitoring may be recommended.

Cumulative Impact Assessment

The cumulative analysis will also evaluate the cumulative risk associated with future development and the potential impacts to known and unknown cultural resources. Should additional developments be needed, there could be an impact to a number of known and unknown resources. These future developments may cause cumulative impacts to cultural resources that will need to be examined.

4.3 Methodologies for Other Issues Areas with the Potential for Significant Impacts

The following issues areas were determined to be less than significant in the RFP but may require additional analysis in order to provide substantial evidence for the record to ensure that impacts will be below the threshold criteria.

4.3.1 Noise

Although noise was not identified in the RFP as an issue area of concern, other oil and gas projects, such as Excelaron in San Luis Obispo County, with similar activities and distance to noise receptors, have generated potential impacts due to the very low baseline noise levels associated with the area. The RFP did acknowledge that no noise study had been conducted by the Applicant and the costs for such as study should be included in the proposal. MRS Environmental has included a detailed noise study, including modeling, as an optional task in the costing proposal.

As it is important to establish substantial evidence for a defensible EIR, MRS Environmental proposes to conduct a noise level screening analysis to ensure that the noise levels from the Project do not exceed acceptability criteria that have been used in other EIRs utilizing a screening approach. Due to the fact that the Project site is located in a very rural area and the nearest sensitive receptor is approximately 2,000 feet away, noise impacts from the Project, if determined to be significant, should be easily mitigated.

Construction and operations activities for the Project and alternatives will have the potential to increase noise levels in the vicinity of the site. The noise impact analysis will focus on construction, drilling, and operational noise as compared to acceptability criteria, County, State and Federal thresholds.

Baseline Environmental Setting

The Project site is located in a rural area. Noise levels at nearby residential receptors will be estimated based on County noise studies and other, similar locations in other EIRs. Noise monitoring may need to be conducted to establish baseline noise levels, if sufficient baseline data is not available and the screening analysis determines that potential impacts could occur. Establishing baseline noise levels specific to the Project site is important to ensure that substantial evidence has been presented to the decision makers to ensure that impacts will be mitigated to below significance. The location of the noise monitoring will focus on the nearest sensitive receptors.

Impact Assessment of the Project and Alternatives

MRS Environmental will discuss noise impacts on the basis of the existing codes and potential changes in the ambient noise environment in the study area that will be caused by construction, transportation, drilling, and operational activities. The various elements of the Project will be evaluated to determine which of them will influence ambient noise levels as well as how much change in noise levels will be expected.

In noise studies that MRS Environmental has conducted for other oil and gas projects, construction and operation noise is modeled using screening-level acoustic algorithms, such as the one

developed for the EPA titled "Regulation of Construction Activity Noise," in which construction equipment source levels are defined and combined with information on distance to receiver, duration of equipment usage, and operating characteristics. These methods define peak and average noise exposure levels (Leq and CNEL). MRS Environmental obtains source noise levels from available technical literature and previous equipment measurements conducted by MRS Environmental on other oil field operations. Traffic noise is modeled using an existing model, such as the Federal Highway Administration's "Traffic Noise Prediction Model," a highway noise model which will be used to analyze trucking impacts to community noise levels.

Equipment-specific noise data will be utilized where appropriate. Some activities might be conducted over a 24 hour per day basis, which could increase the potential for nighttime impacts to areas as it is normally quieter during the night.

The results of the noise screening will be compared against the significance criteria to determine the potential for significant impacts.

Mitigation Measures

MRS Environmental has documented mitigation measures specific to drilling for a number of drilling projects, including the Baldwin Hills Oil Field EIR Project, which included drilling in close proximity to residential areas. Studies conducted by MRS Environmental indicate that these measures can substantially reduce noise levels from drilling operations. Although the Project is not expected to produce significant noise impacts, MRS Environmental will develop mitigation measures if the noise analysis results deem them necessary.

Cumulative Impacts

MRS Environmental will assess the potential cumulative noise impacts associated with the cumulative projects list approved by the County for this analysis.

Optional Task: Detailed Noise Modeling Analysis

MRS Environmental has extensive noise modeling capabilities, including the use of the SoundPlan model, which takes in to account terrain and frequency effects, and these models will be utilized as part of an optional task if noise levels are a potential concern. The detailed modeling will establish noise levels at the closest receptors taking into account extensive data, such as source octave band characteristics, and will be presented with detailed noise contour maps and impacts at difference sensitive receptors as a function of time-of-day.

4.3.2 Fire Protection and Emergency Services

Although fire protection was also not identified as an impact that could be significant, fire protection is often an issue of concern for the public and decision makers. Providing substantial evidence in the EIR of the impacts of the project on fire protection is an important part of making the EIR defensible. MRS Environmental has included an optional task in the cost proposal to address fire protection issues. This analysis will address possible facility equipment and fire suppression systems for the Project and alternatives. The risk of upset analysis (i.e., Risk Assessment) discussed in the Safety, Risk of Upset, and Hazards section will be used to evaluate

potential scenarios that could require the use of fire suppression equipment, or impact processing equipment, and ultimately place additional demands on fire protection or emergency services.

Peer Review

The Applicant has prepared a document by Collins and Associates titled *"Preliminary Master Fire Protection Engineering & Planning Review*", and this letter report will be reviewed and assessed for any information related to fire protection issues.

Baseline Environmental Setting

The baseline will discuss the current emergency response times and capabilities that exist to respond to a fire, oil spill or any other emergency. In addition, the area is classified as a High Fire Hazard area, with some areas near the Project site being Very High Fire Hazard areas, for wildfire risk.

Impact Assessment of the Project and Alternatives

The impact section will be coupled closely with the risk of upset impact and the transportation and circulation impact sections. The results from the hazardous materials and risk of upset analysis will provide an estimate of the increased risk of a fire, explosion, oil spill, or other emergency that could result from facility operations. The analysis will also provide information on the hazard zones associated with potential accidents. MRS Environmental proposes to work closely with the County Fire Department in developing this analysis including a review of any fire protection plan requirements that addresses the fire protection equipment, hydrant and water availability locations, and hazardous material storage sites as well as response timing.

In addition, issues related to wildfire risks, including setbacks, brush clearance and maintenance related to brush clearance, will be addressed.

Mitigation Measures

If potentially significant impacts are identified, mitigation measures will be proposed, where possible, to reduce the impact to a level of insignificance. MRS Environmental will identify practical, feasible measures to mitigate the adverse impacts of the Project and alternatives on fire protection and emergency services. For each measure, a discussion will be provided as to whether the mitigation measure will, by itself or in concert with other proposed measures identified in this analysis, fully or partially mitigate the impact it addresses. Mitigation measures will be developed in consultation with the County and responsible agencies as appropriate.

Cumulative Impacts

MRS Environmental will determine whether other projects may coincide with facility construction and operational activities and thereby increase demand for fire protection and emergency services. Cumulative long-term impacts will also address future activities in the Project area. Potential long-term impacts will ultimately depend on the location and time frame associated with the cumulative projects. The cumulative impact assessment will be based upon the County approved cumulative project list.

Optional Task: Fire Protection Analysis

As part of an optional task, MRS Environmental will examine plot plans to assure there is adequate spacing to help prevent fires and impacts on adjacent equipment as part of NFPA requirements. The hazardous materials risk of upset section derived maximum oil spill volumes will be used to address the adequacy of containment systems. As part of the fire protection services analysis, MRS Environmental will address compliance with API guidelines and NFPA requirements, with a particular focus on the adequacy of the fire suppression systems, include adequate firewater supplies, foam systems, water flow rates and storage volumes.

The significance of potential impacts will be qualified using significance criteria that focus on compliance with NFPA requirements and API guidelines and the ability to adequately respond to an emergency. This impact assessment is critical to developing substantial evidence that the Project will produce less than significant impacts to fire protection.

4.4 Methodologies for Issue Areas with Less than Significant Impacts

The following issue areas were identified in the RFP to have less than significant impacts and will be analyzed with only sufficient detail to ensure that the conclusion of less than significant impacts are confirmed, and substantial evidence is in the record. Based upon the results of the scoping process, issue areas that are determined to have less than significant impacts will be addressed in a separate section of the EIR. The final decision on what issues area can possibly be covered under the less than significant impact section can only be made once the scoping process is complete.

4.4.1 Aesthetics

The Project is not expected to cause significant impacts to aesthetics or visual resources. The Project generally will not be visible from public roadways except possibly along portions of Dominion Road. The nearest residence is east of the Tank Farm area. MRS Environmental will provide a summary analysis documenting the requisite components of an EIR pursuant to CEQA requirements for aesthetic and visual resources.

MRS Environmental will review the Project for impacts to aesthetics and visual resources. MRS Environmental will conduct a screening level viewshed analysis to determine the locations from which processing equipment, tanks and drilling rigs might be visible. MRS Environmental will also assess the increased night lighting due to the Project and estimate the extent of illumination generated by the facilities on the surrounding area. While the safety lighting required for night operations is mandatory and could be shielded, the increased light glare could generate impacts.

MRS Environmental will also assess the visual impacts associated with the Project alternatives that are identified for further analysis as part of the alternative screening.

MRS Environmental will identify mitigation measures, as appropriate, including screening of processing and drilling areas from view using vegetation and walls.

4.4.2 Agriculture

The Project is not expected to cause significant impacts to agricultural resources. The Project is located within the UCCB leases with current agricultural uses at the site and nearby including cattle grazing and vineyards. The Project will be located primarily on previously disturbed areas and thus will not displace any potential agricultural uses. The Project is consistent with the existing use of the Project site. MRS Environmental will provide a summary analysis documenting the requisite components of an EIR pursuant to CEQA requirements for agricultural resources.

4.4.3 Energy

With the development of any oil and gas resource, a large amount of energy is consumed and produced. Drilling operations, processing, and transportation require electricity and diesel fuel. Energy is produced in the form of natural gas and oil, which is refined to produce gasoline, diesel fuel, jet fuel, and other fuels. The overall approach to this section will be to determine the increased consumption of energy that will occur with the Project or alternatives. This energy consumption will be compared with the amount of energy that will be produced by the Project. As per recent legal decisions, Appendix F to the CEQA Guidelines will be addressed and included in the assessment.

4.4.4 Land Use

The land use and policy consistency analysis issue area will include consideration of the direct and indirect impacts associated with the Project activities in terms of effects on existing, planned, and future land uses in the Project vicinity. Given the location of the proposed Project, it is not expected that land use impacts will be significant. This section will build on the impact analyses from other issue areas to document that land use impact on surrounding land uses are less than significant.

4.4.5 Public Facilities

The public services and utilities section of an EIR typically addresses a suite of local government and district provided services, including water supply, wastewater treatment, solid waste disposal, schools, libraries, police and fire protection, and emergency response. Given the nature of the Project, fire protection and emergency response services will be addressed in a separate section of the EIR.

The Project is not expected to result in a significant increase (greater than 3 percent) in the population of Project area. Therefore, the population-driven public services (i.e., schools, libraries, police protection) will not be expected to experience impacts and will not be addressed in the EIR. If, however, the results of the Scoping Hearing indicate that there may be impacts to these services, MRS Environmental will include them in the analysis.

4.4.6 Recreation

The Project is not expected to have direct impacts to recreational resources due to the fact that the Project site is not near any properties or features designated by the County for public recreational

use, and the site is private property, accessibility to which is not available to the general public. Given the location of the Project, it is unlikely that there will be any significant recreational impacts. However, MRS Environmental will review the Project for impacts to recreational resources, including transportation routes. Potential recreational impacts will be associated with impacts from noise, odors, visual, and accidental oil spills precluding use of resources and visually soiling the affected areas. Impacts identified in other issue areas will be combined and translated into recreational impacts in close consultation with other issue area specialists and agency representatives. This comprehensive analysis will provide the necessary basis for providing the substantial evidence that the Project will have less than significant recreational impacts.

4.5 Initial Review of Project Consistency with Applicable Policies

The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), states, "The EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." While CEQA requires a discussion of consistency with applicable plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect will result from the inconsistency.

It is the responsibility of the County, the lead CEQA decision maker, to make the final determination regarding consistency issues as it relates to applicable plans and policies. As part of the EIR, an initial review of project consistency with applicable plans and policies will be developed. The first step will be to determine which specific policies may apply to the Project. Using the result from the impact analysis for the proposed Project, an initial consistency analysis will be developed. The results of this consistency analysis will be presented in tabular form divided by plans and policies.

What will be presented will only be an initial review since it is the responsibility of the Santa Barbara County decision makers to make the final determination regarding consistency issues.

5.0 Cost Proposal

The cost proposal is presented separately from this technical proposal. See separate cost proposal.

6.0 Schedule

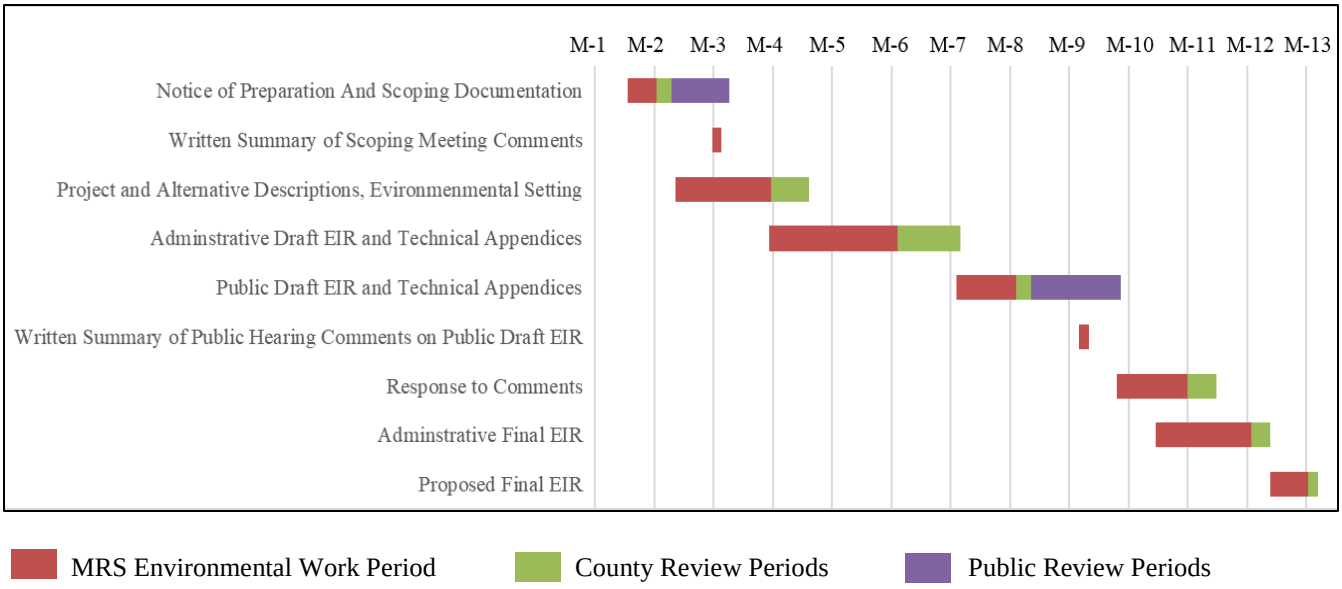
Table 3 provides the product deliverables and Project schedule requirements as specified in the RFP. These deadlines will be strictly followed. Any deviations from this schedule will be coordinated in advance with the County.

Table 3 List of Deliverables

Deliverable	Description	Schedule
Notice of Preparation and Scoping Document	One reproducible unbound copy, 15 bound copies, 15 electronic copies on compact discs, and one electronic copy on compact disc.	Submit within 15 working days after the County authorizes work to proceed on the contract.
Written Summary of Comments at the Scoping Meeting	One electronic copy on compact disc or via email, size permitting.	Submit within 5 working days after the Scoping Meeting.
Project Description, Environmental Setting, and Description of Project Alternatives	One electronic copy on compact disc or via email, size permitting.	Submit within 20 working days after the Scoping Meeting.
Administrative Draft EIR and Technical Studies	One reproducible unbound copy, three bound copies, and one electronic copy on compact disc, with files divided into chapters.	Submit within 70 working days after the scoping meeting.
Draft EIR and Technical Appendices	One reproducible unbound copy, 25 bound copies, 25 electronic copies on compact discs, and one electronic copy on compact disc with the files divided into chapters and in searchable pdf format.	Submit within 25 working days after receipt of the County's final comments on the Administrative Draft EIR.
Written Summary of Comments at the Public Hearing on the Draft EIR	One reproducible unbound copy and one electronic copy on disc or via email, size permitting.	Submit within 5 working days after the public comment hearing.
Responses to Comments on Draft EIR	One reproducible unbound copy and one electronic copy on disc or via email, size permitting.	Submit within 25 working days after the close of the public comment period on the Draft EIR.
Administrative Final EIR	One reproducible unbound copy, three bound copies, and three electronic copies on compact discs with the files divided into chapters.	Submit within 15 working days after receipt of the County's final comments on the responses to comments on the Draft EIR.
Proposed Final EIR	One reproducible unbound copy, 20 bound copies, 20 electronic copies on compact discs, and two electronic copies on compact discs with the files divided into chapters.	Submit within 10 working days after receipt of the County's final comments on the Administrative Final EIR.
Final EIR	One reproducible unbound copy, five bound copies, one electronic copy on compact disc, and two electronic copies on compact discs with the files divided into chapters.	Submit within 10 working days after final decision-maker action.

Figure 3 provides an estimated timeline for preparation of the EIR that was developed using the working day requirements specified in the RFP. The timeline is broken out by the major tasks identified in the RFP. In developing this estimated timeline, assumptions were made about the County review periods for the various deliverables. Appendix C to the technical proposal provides a detailed estimated schedule for preparation of the EIR.

Figure 3 Estimated EIR Preparation Timeline



7.0 References

Below are former clients for which MRS Environmental has provided comparable services.

Ellen L. Carroll
Planning Manager/Environmental Coordinator
San Luis Obispo County
Planning and Building Department
976 Osos St.
San Luis Obispo, CA 93402
805-781-5028

Timothy Stapleton, AICP
Land Use Regulations Division
Department of Regional Planning
County of Los Angeles
320 W. Temple Street
Los Angeles, CA 90012
213-974-6453

Alison Dettmer
Deputy Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
415-904-5205

Eric Gillies, Asst. Chief
Div. of Environmental Planning and Management
California State Lands Commission
100 Howe Ave., Suite 100-South
Sacramento, CA 95825
(916) 574-1897

Steve Goggia
Community Development Director
City of Carpinteria
5775 Carpinteria Avenue, Carpinteria, CA 93013
(805) 755-4414

Susan Perrell
Environmental Advisor
Aera Energy LLC
P.O. Box 5639 / Santa Maria, CA 93456-5639
714-743-4396

John Martini
Governmental Affairs
Chevron U.S.A. Inc.
6011 Bollinger Canyon Road, Bldg G, Rm G1260
San Ramon, CA 94583
925-842-2550

David Rose
Manager Environmental, Health and Safety
FMOG
201 S. Broadway
Orcutt, CA 93455
805-934-8220

Appendix A: Resumes of Key Staff

This appendix contains more detailed resumes of the key issue area coordinators and management staff.

This page left intentionally blank.

GREG CHITTICK

Project Role: Project Manager and Technical Manager

Education: M.S. Mechanical Engineering, B.S Mechanical Engineering, UC Berkeley

Expertise: Project Management, Air Quality, Risk Assessments, Technical Analysis - 30 years

Mr. Chittick is a Senior Scientist and Project Manager with MRS Environmental with more than 30 years of experience specializing in project management in combination with the technical analysis areas of safety, risk, air quality analysis, noise, aesthetics, visual, traffic and GIS systems. At MRS, he has been involved in preparing and managing air quality studies and environmental impact assessments, environmental technology studies, computer mapping analysis, modeling accidental releases of hazardous materials, and conducting risk analysis studies for small and large facilities. Mr. Chittick has worked with the County of Santa Barbara for over 20 years on an extensive range of projects. His combination of effective and efficient project management with extensive experience in technical analysis makes him an exceptionally well qualified project manager.

Mr. Chittick also worked for more than 10 years with Arthur D. Little, Inc., based in Boston, on risk, air quality and EIR analysis. Mr. Chittick previously worked at Lawrence Berkeley Laboratory on studies related to building energy efficiency. Mr. Chittick is a member of the American Society of Mechanical Engineers, Southern California Association of Risk Analysis, the Chlorine Institute, and the International Institute of Ammonia Refrigeration.

Mr. Chittick's areas of expertise include:

ENVIRONMENTAL IMPACT ASSESSMENT

- Mr. Chittick has managed a number of environmental impact studies, including analysis on pipeline transportation of crude oil and oil and gas processing facilities. Specific to Santa Barbara County recent projects include the PCEC EIR, Santa Maria Energy EIR and the Foxen Canyon Pipeline EIR. These projects were all related to CEQA.

- Mr. Chittick has performed technical impact analysis related to EIR and EIS projects in a number of different impact areas including risk and hazardous materials, air quality, traffic analyses, noise analysis, traffic analysis visual impacts, and environmental justice.

- Mr. Chittick has completed numerous air quality analyses for over 30 CEQA documents over the past 20 years. Analysis have included assessment of criteria pollutants, including emissions from hydrocarbon impacted soil handling activities associate with the Guadalupe project; toxic pollutants, including AB2588 health risk assessments; CO hot spots analysis and greenhouse gas emissions analysis, including electrical grid assessments; and indirect emissions. Modeling conducted as part of these analyses included ISC, AERMOD, SLAB, ACE, HARP, HARP2, CALINE4, URBEMIS and CalEEMod, among numerous others.

- Mr. Chittick assessed the quantitative risk impacts using QRA techniques on oil and gas projects, hydrogen plants and pipelines, offshore drilling, and production units as well as pipelines and

marine terminals. Risk analysis examines risks to public health as well as the quantitative analysis of oil spill probabilities and impacts to the environment. Recent local analysis includes the Venoco Ellwood Lease Line Adjustment Project (for the CSLC).

- Mr. Chittick has conducted quantitative risk analysis for a large range of transportation related projects, including transportation of gas liquids and ammonia on highways and pipeline transportation of crude oils. His studies have included developing QRA models, FN curves and mitigation measures to reduce risk impacts. Recent local projects include review of the East Cat Canyon project QRA for Aera Energy.

- Mr. Chittick has conducted numerous chemical release and dispersion modeling analyses, including releases of hydrogen, ammonia, gas liquids, hydrocarbons, produced gas containing hydrogen sulfide, and vapor from spilled combustible liquids, including crude oil. Models include SuperChems, SLAB, AERMOD, Aloha, and multi-component models.

- His experience with noise analysis has included impacts of increased traffic, construction equipment operations, as well as in-field measurements of noise levels. Analysis included modeling of noise generated from a range of equipment, including assessing the attenuation of noise levels over barriers and terrain and assessing the effectiveness of a range of noise mitigation methods. The analysis included the development of location-specific models to assess potential noise impacts.

- Mr. Chittick has conducted over 20 in-field noise measurement and assessments studies, including noise associated with construction equipment, sheetpile installation, railway noise, truck noise, processing equipment noise, including pumps and compressors, and natural noise sources, including ocean waves and surf. Studies of noise mitigation have included the measurement of the effect of noise barriers, noise blankets and the effects of vegetation on noise attenuation. Assessments have included A weighted, linear, and octave band analysis.

- Mr. Chittick's traffic impact experience includes analysis of level of concern and intersection traffic flow changes due to project related increases in traffic volumes utilizing the Intersection Capacity Utilization approach and the Highway Capacity Manual software.

- His experience with visual impacts have been conducted with visual simulations of proposed projects, including oil and gas processing plant equipment removals and additions, grading and land contouring impacts on visual resources, drill rig impacts. Mr. Chittick conducted extensive visual analysis including viewpoint analysis, 3D flythrough assessment, and visual simulations. Viewpoint assessments involve the development of maps showing locations of areas where towers and drilling rigs are visible over complex terrain and manmade features. 3D simulations have included the assessment of terrorist risk on Diablo Canyon nuclear power plant and the location of storage casks to minimize view and target accessibility. Mr. Chittick has conducted numerous visual simulations of proposed development projects for CEQA documents, placing drilling rigs, tanks, storage areas, building, vegetation, roadways and other objects within visual simulations. His visual impacts analysis has utilized BLM VRM, USDA SMS, and US DOT VRM assessment techniques.

- Mr. Chittick has also conducted fire protection and emergency response analysis associated with many oil and gas project EIRs in Santa Barbara County. All included analysis of pertinent issues, including water supply and demand estimates and availability of emergency response and mutual aid assistance. He also examined and compared projects to applicable codes and guideline, including IRI, ANSI, and NFPA.

He has extensive experience with PC and Macintosh computers, including software and hardware expertise, networking, programming, installation, and optimization. Projects include customized macro/program development, database development, AutoCAD drawings and graphics, and computer GIS mapping analysis including demographic data analysis.

PUBLICATIONS

Risk Management Program Handbook, Accidental Release Prevention Under the 1990 Clean Air Act, Contributing author, Thompson Publishing Group, Washington DC, August 1997.

Chemical Incident Data Helps Facilities Manage RMP, Contributing author, Thompson Publishing Group.

JOHN F. PEIRSON, JR.

Project Role: Principal in Charge, QA/QC Manager and Contracting Manager

Education: M.S. Chemical Engineering Columbia University, B.S. Mathematics, Hartwick College

Expertise: Project Management, Air Quality - 35 years

Mr. Peirson is a Principal of MRS. Before joining MRS, he was a Principal in Arthur D. Little's Environmental Health & Safety Practice and Director in their Santa Barbara and Ventura offices. For more than 25 years, Mr. Peirson has been extensively involved in preparing CEQA documents for various state and local agencies.

Mr. Peirson has been involved CEQA permitting activities since 1983. He has participated in the preparation and CEQA permitting of more than 60 major projects within California. Most of these projects have been very controversial and involved considerable work in developing permitting strategy. None of the EIR that John Peirson has led have ever been overturned in Court.

Mr. Peirson has provided more than 600 hours of testimony to local and state decision makers which have included Planning Commissions, Boards of Supervisors, the State Lands Commission and the California Coastal Commission. He also has extensive experience in working with local and state government staff in developing permit conditions and findings associated with development projects.

PROFESSIONAL EXPERIENCE

Mr. Peirson's relevant assignments include the following:

- Mr. Peirson is currently the Project Manager for the Guadalupe Oil Field Remediation Environmental Monitoring Project. He has been managing this ongoing project since 1998. Mr. Peirson oversees a team of biologists and engineers who have developed strong working relationships with the field personnel at the Guadalupe site, as well as with the regulatory staff who are responsible for overseeing the remediation and abandonment activities. Mr. Peirson stays in close contact with staff from the California Coastal Commission, Regional Water Quality Control Board, San Luis Obispo County Air Pollution Control District, California Department of Fish and Game, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers.
- Mr. Peirson was Project Manager for the Guadalupe Oil Field Remediation and Abandonment EIR. This EIR evaluated environmental impacts associated with the remediation and abandonment of the Guadalupe Oil Field by Unocal. This highly environmentally sensitive site covers approximately 3,000 acres within the Guadalupe-Nipomo Dunes system. This highly complex project assessed a number of remediation technologies and assessed their impacts and effectiveness on various spill locations with diverse characteristics. The project, which lasted more than two years, involved extensive field work both onshore and offshore. The project also included a six-month remedial investigation of the extent of the contamination. The site contains more than 90 petroleum plumes. The project involved over 100 staff members working in 18 different environmental issue areas.

- Mr. Peirson recently completed an EIR for the County of Los Angeles covering the development of a Community Standards District (CSD) for the Baldwin Hills Oil Field. The project involved the evaluation of a hypothetical development scenario to determine the level of impacts and associated mitigation measures. The mitigation measures were then used to develop a CSD, which would serve to regulate any future development within the Boundaries of the CSD. Mr. Peirson was responsible for managing the preparation of the EIR and for drafting the CSD provisions. This project required working closely with the landowners and concerned citizens in the preparation of the EIR and the CSD.
- Mr. Peirson was Project Manager for the City of Carpinteria's Consolidation of Pitas Point and Carpinteria Gas Odorant Station EIR. This project would consolidate two existing facilities by dismantling and removing the odorant equipment at the Carpinteria Odorant Station, constructing a new natural gas pipeline, and installing new equipment at the Pitas Point Odorant Station. Although the project would result in reduced public health and safety impacts, reduced air emissions, and upgraded equipment, it generated significant public controversy due to the proximity of residential and public use areas.
- Mr. Peirson was Project Manager for Santa Barbara County's Tranquillon Ridge Oil and Gas Development Project, LOGP Produced Water Treatment System Project, and Sisquoc Pipeline Bi-Directional Flow Project EIR. This complicated EIR assessed the environmental impacts associated with three different but interrelated projects proposed by three applicants. The proposed Tranquillon Ridge Project would involve the development of oil and gas wells in a proposed State Tidelands Lease from Platform Irene, which is in Federal Waters and is currently used to develop and produce the Point Pedernales Field. This EIR involved a wide range of alternatives for oil development, pipeline replacement, processing facility location, and drill mud/cuttings disposal.
- Mr. Peirson was a Project Manager for the Chevron Point Arguello Field EIR/EIS which evaluated the environmental impacts of three offshore oil and gas platforms, oil and gas pipelines, and a large oil and gas processing facility.
- Mr. Peirson was the program manager for the Chevron Point Arguello Field Q-6 Supplemental EIR, which addressed the transportation of oil by tanker from the Gaviota Interim Marine Terminal. As part of this Supplemental EIR, he helped develop an air quality impact analysis for various tanker routes as well as for most of the alternatives covered in the Gaviota Marine Terminal Supplemental EIR/EIS. Mr. Peirson was also responsible for the preparation of the alternatives description and screening analysis done as part of the Q-6 Supplemental EIR.
- In addition, Mr. Peirson was the Project Manager for the Unocal Point Pedernales Supplemental EIR prepared for Santa Barbara County. This document addressed the impact associated with the construction of a new gas plant near Lompoc, as well as the effect that the closing of the Battles Gas Plant would have on other gas producers within Northern Santa Barbara County and Southern San Luis Obispo County. This study required existing oil and gas facilities in the study area to be evaluated, which include all of the existing Unocal facilities. This document presented one of the most comprehensive insights into oil and gas development activities within Northern Santa Barbara County.

EDWARD B. MULLEN

Project Role: Biological resources Coordinator

Education: M.A. Biological Sciences Biological Sciences from the University of California, Santa Barbara, B.S. Biological Sciences, Loyola Marymount University

Expertise: Biological Resources - 30 Years

Mr. Mullen joined the staff from MRS Environmental as a Senior Biologist in June of 2009. Before joining MRS, Mr. Mullen managed a team of nine biologists for Science Applications International Corporation, in Santa Barbara, California. Mr. Mullen has extensive experience in terrestrial ecology and environmental analysis. His experience as a Project Manager and technical contributor includes managing the Natural Resource sections of several California Environmental Quality Act documents and preparing baseline biological resource studies, habitat evaluations, regulatory compliance, and environmental impact assessment under the National Environmental Policy Act and CEQA.

Mr. Mullen has also managed large-scale monitoring programs with specific emphasis on issues concerning sensitive wildlife species. He has many years of experience with sensitive species protection plans and technical exchange meetings with industry and agency representatives. He conducted field surveys in more than 20 states and has conducted sensitive species surveys or prepared management plans for tidewater goby, desert tortoise, California red-legged frog, California tiger salamander, southwestern pond turtle, American badger, San Joaquin kit fox, light-footed clapper rail, Belding's savannah sparrow, western snowy plover, southwestern willow flycatcher, and burrowing owl. He managed the research and reporting on a desert tortoise mitigation project, managed biological resources inventories on Vandenberg AFB, supervised field crews on a pipeline project spanning three states, and participated in creating and implementing a monitoring plan for an extensive California pipeline project.

Mr. Mullen served as the Onsite Environmental Coordinator at the Unocal Guadalupe Oil Field in support of San Luis Obispo County, California Coastal Commission, California Department of Fish and Game, U.S. Fish and Wildlife Service, and the Regional Water Quality Control Board. Mr. Mullen managed the onsite monitoring efforts of the long-term oil field clean-up remediation project. His responsibilities included coordinating permit compliance, directing field monitors, and preparing status reports for all agencies on issues concerning water quality, listed species protection, wildlife and botanical resources, air quality, habitat protection, and remediation techniques. Listed species prevalent on the site and relative to day-to-day environmental decision-making included western snowy plover, California red-legged frog, tidewater goby, la Graciosa thistle, and Surf thistle.

PROFESSIONAL EXPERIENCE

- Mr. Mullen managed the Biological Resource sections and contributed biological resources analyses to several local complex environmental impact reports or general plans in compliance with CEQA for the Santa Barbara County Department of Planning and Development. The projects included the PCEC Project EIR, the Foxen Pipeline Project EIR, and the Venoco Ellwood Full Field Development EIR.

- Mr. Mullen served as the Onsite Environmental Coordinator for the Chevron-Unocal Guadalupe Oil Field Remediation Project for the County of San Luis Obispo Department of Planning and Development. For this $3 million project, Mr. Mullen coordinated and managed the mitigation monitoring program of a long-term, large-scale oil field clean-up project in support of San Luis Obispo County, California Coastal Commission, California Department of Fish and Game, U.S. Fish and Wildlife Service, and the Regional Water Quality Control Board. Responsibilities included coordinating permit compliance, directing field monitors, and preparing status reports for all agencies on issues concerning water quality, listed species protection, wildlife and botanical resources, air quality, habitat protection, and remediation techniques. Listed species that are prevalent on the site and relevant to day-to-day environmental decision-making included western snowy plover, California red-legged frog, tidewater goby, la Graciosa thistle, and Surf thistle.

- Mr. Mullen prepared the revised biological baseline and analysis for the Lompoc Windfarm EIR for the County of Santa Barbara. This project, located in Lompoc, California, assessed the impact of the installation and operation of an 80-turbine wind farm on biological resources, specifically, avian and bat species.

- Mr. Mullen managed the preparation of four Natural Resource sections (Biology, Archaeology, Geology, and Water Resources) of the PXP Baldwin Hills Community Standards District EIR for the County of Los Angeles. The EIR analyzed the effects of an application to establish a Community Standards District for the continued use of the Inglewood Oil Field.

- Mr. Mullen managed several resource areas (e.g., biology, agriculture, geology, water resources) for the MRS-SAIC jointly prepared Guadalupe Unocal Oil Field Restoration EIR to consider complex environmental issues for San Luis Obispo County.

- Mr. Mullen served as the Project Manager for biological resource surveys and reporting for the Santa Barbara Ranch property to be used as part of the baseline EIR for the 484-acre site in Gaviota Coast in Santa Barbara County. He managed a team of biologists that conducted surveys for sensitive wildlife species, native grasslands, general vegetation, and rare plants; performed wetland delineation surveys; and prepared a vegetation habitat map of the site.

PUBLICATIONS AND PRESENTATIONS

Mullen, E.B. 1990. The Evolutionary Stability of Signals of White-Crowned Sparrows. Masters thesis, University of California, Santa Barbara.

_____. 1993. Survival of Relocated Tortoises: Feasibility of Relocating Tortoises as a Successful Mitigation Tool. Presented at the Conservation, Management, and Restoration of Tortoises and Turtles — An International Conference. American Museum of Natural History, July.

_____. 1993. Health and Condition Index of Relocated Tortoises: Feasibility of Relocating Tortoises as a Successful Mitigation Tool. Symposium Proceedings of the Desert Tortoise Council.

Ross, P. and E.B. Mullen. 1993. Terrain Use and Movement of Relocated Tortoises: Feasibility of Relocating Tortoises as a Successful Mitigation Tool. Symposium Proceedings of the Desert Tortoise Council.

Mullen, E.B. 1995. Wildlife Monitoring of Created Dune Swale Wetlands on the San Antonio Terrace, Vandenberg Air Force Base, California. Wetland Interagency Workshop on Wetlands.

_____. 1999. Analyzing the Success of Recommended Mitigation and Protection Measures for California Red-legged Frogs and California Tiger Salamanders. The Wildlife Society Western Section Annual Conference.

_____. 1999. Wildlife Monitoring of Created Wetland Habitat at Vandenberg Air Force Base, California. Presentation for the U.C. Santa Barbara University's Habitat Restoration Group.

_____. 1999. Analyzing the Success of Recommended Mitigation Measures for California Red-Legged Frogs and California Tiger Salamanders. Presented at the Annual Conference of The Wildlife Society's Western Division in Monterey, California, January 23.

LUIS F. PEREZ

Project Role: Land Use Coordinator

Education: M.A. Organizational Management Fielding Graduate University, B.A. Environmental Science and Public Relations, Northern Arizona University

Expertise: Permitting and Compliance - 29 years

Mr. Perez is a Senior Project Manager and Land Use Issue Area Coordinator with MRS. Before joining MRS, Mr. Perez acquired extensive public agency experience working for Santa Barbara County, which included interpretation of land use and environmental policies and regulations for large development projects, recommendations to decision-makers and public presentations. He was an Energy Specialist with the Santa Barbara County Energy Division for 16 years, working on permitting and environmental review for onshore and offshore oil and gas projects. Mr. Perez is involved with the management and preparation of environmental studies, primarily focusing on the implementation of CEQA for oil and gas development projects in California. His major areas of expertise are in land use issues of major oil and gas development and transportation projects. Mr. Perez has extensive experience in the preparation of environmental documents, staff reports for decision-makers, presentation for decision-makers, public workshops and hearings.

PROFESSIONAL EXPERIENCE

While working for MRS, Mr. Perez has worked on the preparation of the Hermosa Beach Oil Development Project EIR, the Whittier Main Oil Field EIR, Paredon EIR, the Baldwin Hills Community Standards District EIR, the Conoco-Phillips Santa Maria Refinery Expansion EIR, the Chevron El Segundo Marine Terminal Lease Extension EIR, the Guadalupe Oil field Fencing Plan, and the preparation of the Venoco Full Field Development Project EIR.

- Mr. Perez was also the Project Manager for a number of decommissioning of oil and gas projects that had reached the end of their economic life. Those projects included the abandonment of the Texaco Pipeline through Hollister Ranch, the decommissioning of the Unocal Cojo Marine Terminal and the decommissioning of the Texaco Gaviota Gas Plant, among others. In addition, Mr. Perez led the team effort required to oversee the compliance with mitigation required for the execution of the different projects.
- While working for the County, Mr. Perez was also tasked with the management and supervision of the contract to provide Oil and Gas permitting and compliance services to the City of Goleta by Santa Barbara County. The efforts included to manage and supervise teams, report writing, public hearings and presentations for the Venoco Full Field Development Project, Venoco State Lease 421 Repairs, and Venoco Line 96 SCADA system.
- Mr. Perez also managed the contract to provide Oil and Gas permitting and compliance services to the City of Carpinteria, which included application completeness review, policy considerations, preparation of environmental documents.
- Mr. Perez has also acquired significant experience in the implementation and compliance of oil and gas and construction projects by overseeing the operation of the All American Pipeline Project,

The Chevron Point Arguello Project, the Gaviota Marine Terminal Project, the Exxon Santa Ynez Unit Project, the Santa Maria Asphalt Refinery, among others.

STEVEN RADIS

Project Role: Air Quality and Risk Analysis

Education: M.A. Climatology, B.A. Climatology, California State University, Northridge

Expertise: Air Quality, Risk Analysis, Modeling, HARP2, AERMOD, Meteorological Development - 30 years

Mr. Radis' expertise includes meteorological modeling and analysis, physical oceanographic modeling and analysis, consequence and risk analysis, fire and explosion dynamics, hazard evaluation, external events analysis, fault tree analysis, quantitative risk analysis and model development. Mr. Radis has worked on a wide variety of studies for oil and gas projects, utilities, commercial, and government clients involving meteorological modeling, quantitative risk assessments, health risk assessments, consequence analysis, risk management, air quality modeling (inert/photochemical pollutants, toxic air contaminants), and EIR/EIS.

PROFESSIONAL EXPERIENCE

His experience includes the following:

- For the County of San Luis Obispo, Mr. Radis completed a safety and vulnerability analysis of the Diablo Canyon Power Plant (DCPP) Independent Spent Fuel Storage Installation (ISFSI). The EIR analysis evaluated a range of equipment and operational failure modes and quantitatively evaluated the associated radiological consequences of spent fuel pool and dry cask storage accidental releases. Failure modes, release mechanisms and consequences associated with terrorist attacks were also evaluated.
- Mr. Radis was the Project Manager and Public Safety coordinator for the Venoco Ellwood Marine Terminal Lease Renewal Project EIR. This is the last marine oil terminal in Santa Barbara County and the continuing operation of the terminal is raising a lot of public outcry. Critical environmental issues include the increased risk of an accidental release of oil and its impact on marine and terrestrial water quality and biological resources, recreation, land use, and visual resources.
- Mr. Radis managed the preparation of an Environmental Impact Report for the Nacimiento Water Project. The EIR that evaluated environmental impacts associated with construction and operation of a 65-mile water pipeline and associated facilities in San Luis Obispo County. The pipeline would draw water from Nacimiento Reservoir and deliver it to various purveyors in the County. The pipeline would cross numerous jurisdictions and would affect a number of landowners and agencies. The proposed project included two equal options: (1) Raw Water Option that entailed construction of the pipeline and facilities that would deliver raw water to the purveyors; and (2) Treated Water Option that also entailed construction of a water treatment plant; in this case, potable water would be delivered to the purveyors. This EIR contained more than 800 pages, not including the Executive Summary and technical appendices. Over 140 mitigation measures were developed to lessen impacts from the proposed project.
- Mr. Radis conducted system safety and reliability studies for several oil and gas projects for Santa Barbara County. These studies included hazard identification, external event and offsite consequence analyses. Facilities included oil and gas processing plants, offshore platforms,

onshore production facilities, as well as sour gas and crude oil pipelines. QRAs were prepared for several of the projects.

- As part of an EIR/EIS for the Unocal Avila Beach Cleanup Project, Mr. Radis served as the Project Manager for San Luis Obispo County, California Regional Water Quality Control Board, and the U.S. Army Corps of Engineers. The EIR/EIS included the evaluation of site contamination and a variety of cleanup strategies, including air sparging/bioventing, solidification/ stabilization, solvent flooding, steam stripping, excavation, and thermal desorption. Leaking Unocal Marine Terminal pipelines had resulted in approximately 400,000 gallons of petroleum hydrocarbon contamination beneath the town of Avila Beach and the adjacent beach and intertidal zone. San Luis Obispo County certified the EIR/EIS, and Mr. Radis assisted the Regional Water Quality Control Board in establishing cleanup levels for the site.
- Mr. Radis conducted oil spill modeling simulations for several oil and gas projects in California. These analyses included the simulation of multi-component land based spills, spills to rivers and creeks, as well as ocean and harbor spills. Local oil spill modeling projects include simulations of spills in the Ventura River and existing and proposed pipelines along the Ventura coastline.
- For the Center for Chemical Process Safety of the American Institute of Chemical Engineers, Mr. Radis co-authored a book entitled *Guidelines for Postrelease Mitigation Technology in the Chemical Process Industry*. As part of this effort, Mr. Radis quantitatively evaluated the effectiveness of a variety of hazardous chemical mitigation technologies.
- Mr. Radis has been involved in the preparation of EIR/EISs for a wide variety of facilities including power generating facilities (coal, fuel oil, natural gas, geothermal, hazardous waste), hazardous waste disposal facilities (chemical and nuclear), crude oil and natural gas transmission pipelines and distribution networks, oil and gas development projects, and military development or conversion projects. Mr. Radis has managed a majority of these projects and was also responsible for the system safety, public health, and air quality issue areas.
- Mr. Radis has worked on the development of several models, including the development or revisions to several accidental release models, an oil spill model, a multi-component pool model, atmospheric diffusion models, an integrated human exposure and health risk assessment model, and several meteorological models.

Mr. Radis is a member of the American Meteorological Society and the Air and Waste Management Association. He has also periodically served as a guest lecturer at the University of California Santa Barbara in the areas or meteorology and atmospheric diffusion modeling.

DEAN DUSETTE

Project Role: Land Use and Other Issues Areas

Education: B.A. Geography, University of California Santa Barbara

Expertise: Land Use, Permitting, Air Quality, Auditing, Mitigation Measure Development - 25 years

Mr. Dusette is a Senior Scientist with MRS. Mr. Dusette's public agency work included project management, permitting, environmental review, permit condition compliance, field inspections and environmental data analysis for oil and gas projects. Additional public agency experience included preparation and management of a variety of CEQA documents, staff reports, recommendations to decision makers and public presentations. Mr. Dusette has worked on oil and gas related projects in California for 25 years.

Mr. Dusette spent 15 years working as an environmental consultant on a variety of environmental analysis and environmental compliance projects in California, Texas and Alaska. His major areas of expertise include environmental permitting and permit compliance, data analysis, report preparation, and environmental impact assessment. Mr. Dusette has prepared and managed air quality permits for local, state and federal agencies. Mr. Dusette worked as a contract technical expert to the Santa Barbara County Air Pollution Control District providing air quality and meteorological monitoring data quality assurance/quality control reviews and as field auditor of air and meteorological monitoring stations. Mr. Dusette also provided technical review and auditor services for air monitoring stations for the State of Texas. Mr. Dusette's environmental monitoring experience includes the preparation and implementation of Surface Water Quality Management Programs, Storm Water Pollution Prevention Plans and Ground Water Management Plans.

PROFESSIONAL EXPERIENCE

Mr. Dusette was involved with a variety of permitting, environmental review, compliance, and monitoring projects at Santa Barbara County. Those projects included:

The Venoco Line 96 Modification Project, installation of a new pipeline from an existing oil and gas processing facility to a pipeline tie-in on the Gaviota Coast. The project involved permitting and oversight from multiple local and state agencies including the City of Goleta, California State Lands Commission and California Coastal Commission. Santa Barbara County acted as lead CEQA agency and Mr. Dusette, as Project Manager/Planner, performed application review, preparation and review of the project EIR, preparation of recommendations to decision makers, and made public presentations.

System Safety Reliability Review Committee, a County working group made up of representatives from Fire, Air Pollution Control District, Building & Safety, and Office of Emergency Management tasked with oversight of major oil and gas facility safety compliance. Mr. Dusette was Chair of the Committee and managed the annual safety audits of seven facilities in Santa Barbara County.

Remediation Projects, Mr. Dusette was Project Manager/Planner for several remediation projects generated from past oil and gas development activities. Projects included the Shell/Aera PCB Remediation Project on the Gaviota Coast, the Shell/Aera abandoned gravel road located in the Guadalupe Dunes, multiple

hydrocarbon cleanup sites managed Chevron in Casmalia, and several oil and gas remediation sites in the Cat Canyon area. For the Shell/Aera PCB project, Mr. Dusette represented Santa Barbara County on the project Interagency Working Team consisting of staff from the State Department of Toxics Substances Control, the State Regional Water Quality Control Board, California Department of Fish & Wildlife, and County Fire.

Oil and Gas Permit Compliance, Mr. Dusette was Project Manager/Planner overseeing compliance and new permitting for many of the larger oil and gas projects in Santa Barbara County. Project activities included permit condition effectiveness review, review of monitoring data and compliance reports, safety audits, and permitting for facility modifications and new equipment. Projects included ExxonMobil Santa Ynez Unit, FMO&G Pt. Arguello and Pt. Pedernales Projects, Phillips 66 Orcutt Pump Station/Santa Maria Tank Facility, Venoco Ellwood Onshore Facility, Venoco Ellwood Marine Terminal, and E&B Resources Cuyama Gas Plant.

Air Quality Impact Assessment and Permitting, as an environmental consultant, Mr. Dusette prepared air quality impact assessments and associated permit applications for a variety of clients and jurisdictions in California. Projects included an air toxic air quality risk assessment for SCE's Mandalay Beach Power Plant, compliance permitting for the City of Burbank, Air Toxic Inventory and Plan reporting for Venoco's Ellwood Onshore Facility, and air quality permit compliance for ExxonMobil's Santa Ynez Unit. Mr. Dusette has coordinated air quality permitting projects with Santa Barbara County Air Pollution District, Ventura County Air Pollution District, South Coast Air Quality Management District, the California Air Resources Board and the EPA.

Mr. Dusette is a CalEPA Registered Environmental Assessor and has 40 Hour Hazwoper Certification.

LAUREN M BROWN

Project Role: Biological Resources

Education: B.S. Ecology & Systematic Biology' Environmental Horticulture, California Polytechnic State University, San Luis Obispo

Expertise: Biological Resources, Surveys, Restoration - 25 Years

Ms. Brown is a Senior Botanist with more than 25 years' experience conducting biological surveys, habitat/vegetation mapping, and monitoring for sensitive species protection and habitat recovery; coordinating and consulting with federal, state and local regulatory agencies on scope and impact of projects; and preparing planning documents such as environmental impact reports, initial studies, and mitigated negative declarations. She has considerable expertise in delineation of wetlands throughout California using the USACE 1987 Wetland Delineation Manual, the 2008 Supplement for the Arid West Region, and the 2010 Supplement for Western Mountains, Valleys and Coast Region, and all State and local requirements. Additional resources include familiarity with different types of wetland functional assessments, and completion of the California Rapid Assessment Method (CRAM) training for Riverine, Estuarine, and Vernal Pool Modules.

Ms. Brown is an active member of the California Native Plant Society San Luis Obispo Chapter, previously served on the State Board of Directors and as San Luis Obispo Chapter President and received the Hoover Award from the San Luis Obispo Chapter as recognition for long-time volunteer service to the organization. As a volunteer, she provides information to local organizations on native and invasive plant issues, including docent led hikes and presentations at workshops and meetings. Ms. Brown also represents CNPS as a member of the Dune Restoration Task Force, a group of property managers, agency representatives, and local experts that come together to provide recommendations for restoration and long-term management of the Guadalupe-Nipomo Dunes.

Ms. Brown has her 40-hour HAZWOPER certification and is current with the required annual 8-hour refresher and Certificate of Completion for Adult First Aid/CPR/AQED from the American Red Cross.

BRITTNEY C. HENDRICKS

Project Role: Production, QA/QC, Administration

Education: B.S. Business Administration, Chapman University

Expertise: Technical Editing and Administrative Support - 5 years

Mrs. Brittney Hendricks serves as Technical Editor and Office Manager at MRS. Her role as support staff is pertinent to company-wide adherence of office standards. As Technical Editor, her responsibilities include the oversight of consistency within style parameters for large multi-section documents including proposals, annual reports/periodic reviews, EISs and EIRs. She also organizes and responds to comments for each phase of these projects. She performs assignments relative to the organization and coordination of shared drives, editing and proofreading, word processing and formatting, and the modification and design of graphics. She controls all aspects of report production.

As Office Manager, Mrs. Hendricks assists with administrative, bookkeeping, marketing and human resources matters. She is proficient in multiple software programs within the Microsoft Office Suite and the Adobe Creative Suite. Mrs. Hendricks also attends meetings such as community workshops, certification hearings, and advisory panel meetings to provide administrative tasks.

More recently, Mrs. Hendricks has participated in the technical research and writing for EIRs and proposals, specifically under the issue areas of Energy and Mineral Resources and Public Services and Utilities. She has also contributed to writing introductory and cumulative projects chapters.

Mrs. Hendricks has contributed to the successful completion, production and delivery of numerous EIRs including the E&B Oil Drilling and Production Project EIR for the City of Hermosa Beach, the Chevron Tank Farm Remediation and Development Project EIR for the City and County of San Luis Obispo, the Phillips SMR Rail Project EIR for the County of San Luis Obispo, the Carpinteria Offshore Field Redevelopment Project DEIR/EIS for the California State Lands Commission and Bureau of Ocean Energy Management, the Alon Bakersfield Refinery Crude Flexibility Project EIR for Kern County, and the Orcutt Hill Resource Enhancement Plan Project DEIR for the County of Santa Barbara. She has also contributed to Oil Code Amendments for the City of Carson and the City of Baldwin Hills.

Mrs. Hendricks is also a website administrator, producing myriad online marketing campaigns through Google and Yahoo while comprehensively managing an expansive online retail store and its order management operations.

EDUCATION

M.A., Anthropology, Northern Arizona University (2009)

B.S., Anthropology-Cultural Resources Management, California State Polytechnic University, Pomona (2007)

AFFILIATIONS

Registered Professional Archaeologist (ID# 415730)

Section 106 Compliance (2010)

Advanced Section 106 (2013)

Society for American Archaeology

Society for California Archeology

EXPERIENCE

Rincon Consultants, Inc. (2015 – present)

Leidos, Inc. (2014 – 2015)

CH2M HILL (2013 – 2014)

Epsilon Systems Solutions, Inc. (2009 –2013)

National Park Service (2008)

PERMITS

Principal Investigator, California Bureau of Land Management statewide FLPMA permit (CA-15-27) (2015-2018)

Christopher A. Duran

PRINCIPAL INVESTIGATOR/PROGRAM MANAGER

Chris Duran is a Principal Investigator and Program Manager at Rincon Consultants, Inc. Mr. Duran has more than ten years of professional experience in cultural resources management and has worked extensively in Santa Barbara County. Mr. Duran has conducted numerous cultural resources investigations in support of CEQA and Section 106 of the National Historic Preservation Act in Santa Barbara County. Mr. Duran also has extensive recent experience consulting with local tribes concerning the mitigation of cultural resources identified during field investigations and has authored a variety of cultural resources studies including: archaeological survey, archaeological testing and eligibility evaluation, data recovery, mitigation monitoring plans and reports, and peer reviews throughout southern California. Mr. Duran has also extensive experience working with the tribes local to the Santa Barbara area and has assisted in numerous consultation efforts with the tribes for various project types including development, infrastructure, renewable energy, and water conveyance.

PROJECT EXPERIENCE

- Principal Investigator, Hollister Avenue Road Widening Project Cultural Resources Investigation, Cities of Goleta and Santa Barbara, Santa Barbara County, CA The project included the survey and documentation of a roadway interchange. Mr. Duran led the field survey effort, document production, and recommendations for the project. Mr. Duran is also leading a Phase II investigation for the project that included the development of a testing plan that was reviewed and approved by Caltrans. The project revealed human remains and Mr. Duran is currently coordination the repatriation of those remains to the MLD and working with the County of Santa Barbara and the Union Pacific Railroad for to coordinate the recovery of any possible remains still within the right of way. Client: Caltrans
- Principal Investigator, Black Road/SR 166 Interchange Improvement Project Cultural Resources Investigation, Santa Barbara County, CA. The project included the survey and documentation of a roadway interchange. Mr. Duran led the field survey effort, document production, and recommendations for the project. Client: Caltrans
- Principal Investigator, San Joaquin Valley Habitat Conservation Plan Environmental Assessment, Santa Barbara County, San Luis Obispo County, Ventura County, Los Angeles County, Kern County, and Kings County, CA. The project included the analysis and synthesis of cultural resources data across multiple counties to provide guidance and measures for a programmatic level management document. Mr. Duran served as principal investigator and coordinated cultural resources efforts for the document.
- Principal Investigator, Guadalupe Intersection Improvement Project Cultural Resources Investigation, Santa Barbara County, California. Mr. Duran was responsible for document production and recommendations for the project. Client: Santa Barbara County

PROJECT EXPERIENCE, CONT'D

- Principal Investigator, San Miguel Community Plan Environmental Impact Report. Client: County of San Luis Obispo: Prepared cultural resources sections. Client: County of San Luis Obispo
- Principal Investigator Piru Spreading Grounds 2.5 MW Solar Project, Piru, Ventura County, California.
- Gold Coast Transit Oxnard Transportation Facility Cultural Resources Monitoring Project, City of Oxnard, CA
- Principal Investigator, Phase I Archaeological Study for a 6-Home Development, City of Carpinteria, California
- Principal Investigator, Phase I Archaeological Study for the Property at 3720 Broad Street, San Luis Obispo, California
  Project Manager: Lemonwood elementary School Reconstruction Phase I Cultural Resources Investigation, City of Oxnard, Ventura County, California (2015): Managing field crews and reporting.
- Principal Investigator: City of San Luis Obispo Waste Water Recovery Facility Project, San Luis Obispo County, California
- Co-Principal Investigator, Clark Avenue/HWY 101 Interchange Improvement Project Cultural Resources Investigation, Santa Barbara County, CA.
- Project Manager, Ortega Hill-Ortega Ridge Road Anomaly Pipeline Cultural Resources Monitoring Project, City of Carpentaria, Santa Barbara County, CA.
- Project Manager, Line 122 Storage Facility Cultural Resources Monitoring Project, Santa Barbara County, California.
- Principal Investigator, Santa Barbara Desalinization Plan Reactivation Cultural Resources Monitoring, Santa Barbara, California.
- Principal Investigator, Lompoc Gardens Cultural Resources Monitoring, City of Lompoc, California.
- Cultural Resources Principal Investigator, Medea Creek Restoration Project Phase II Cultural Resources Investigation, City of Agoura Hills, Los Angeles County, California.
- Cultural Resources Principal Investigator, Courtyard and Townplace Suites Hotel Cultural Resources Investigation, City of Agoura Hills, Los Angeles County, California.
- Principal Investigator, Templeton to Atascadero Connector Project, San Luis Obispo County, California
- Cultural Resources Principal Investigator, 001B Turn-out Structure and Basin No. 2 Inlet/Turn-out Structure Projects, City of Pico Rivera, Los Angeles County, California.
- Cultural Resources Principal Investigator, Woodland Hills Water Recycling Project, Phase I Cultural Resources Study, Los Angeles County, California.
- Principal Investigator, Cultural Resources Study for the Cherry Canyon Citizens' Trail Project, La Cañada Flintridge, Los Angeles County, California.
- Principal Investigator, Sharon Heights Satellite Treatment Facility, Phase I Cultural Resources Study, San Mateo County, CA. Project conducted in compliance with CEQA-Plus regulations.
- Principal Investigator, Transmission Line Rating Remediation Program Tower Replacement Project Cultural Resources Study, Los Angeles, Riverside, San Bernardino, and Ventura Counties, CA.
- Principal Investigator, Phase I Archaeological Resources Report for 220 West Gutierrez Street Project, City of Santa Barbara, California
- Principal Investigator, Thacher School Dining Hall Cultural Resources Study, Ventura County, California
- Principal Investigator, Thacher School Master Conditional Use Permit Cultural Resources Study, Ventura County, California

Matthew Long, MESc, MPP

SENIOR ENVIRONMENTAL SCIENTIST

Matthew Long is a Project Manager and Senior Environmental Scientist for Rincon's Environmental Sciences and Planning group responsible for managing and preparing CEQA and NEPA documentation and technical impact analyses for a diverse range of projects. His experience includes water quality and coastal impacts analysis, benefit-cost analysis, and GIS modeling. Mr. Long conducts environmental impact analyses for a wide variety of projects throughout California and Arizona. Some key areas of experience include: recycled water, flood control, dam operation, and dredging projects; oil and gas regulation and planning; high-voltage transmission line construction, upgrade, and maintenance projects; large- and small-scale renewable energy construction projects; and county- and region-wide planning for renewable energy siting.

EDUCATION

M.E.Sc., Water Resources Specialization, Yale School of Forestry & Environmental Studies (2013)

M.P.P., Natural Resource Management Concentration, UCLA Luskin School of Public Affairs (2006)

B.A., Comparative Literature, UC Berkeley (2000)

AFFILIATIONS

Member, American Water Resources Association

EXPERIENCE

Rincon Consultants, Inc. (2015 – present)

Aspen Environmental Group (2007 – 2010; 2014 – 2015)

The Nature Conservancy (2013 – 2014)

Yale Center for Earth Observation (2012 – 2013)

Los Angeles Regional Water Quality Control Board (2005 – 2006)

Institute of the Environment, UCLA (2005)

SELECT PROJECT EXPERIENCE

- California Department of Conservation, Division of Oil, Gas, and Geothermal Resources - Senate Bill 4 Analysis of Oil and Gas Well Stimulation Treatments in California EIR
- BLM Hollister Field Office Oil & Gas Leasing and Development EIS
- Metropolitan Water District of Southern California - Santa Ana River Bridge Seismic Retrofit Routine Maintenance Project IS-MND
- Metropolitan Water District of Southern California - Jensen WTP Solar Project
- Coachella Valley Water District - Non-Potable Water Connection Project IS-MND
- City of Santa Monica - Sustainable Water Infrastructure Project IS-MND
- City of Pismo Beach - Regional Groundwater Sustainability Project EIR
- Port of Hueneme - Berth Deepening and Wharf Improvement Project IS-MND
- Port of Los Angeles - Channel Deepening Project Supplemental EIS/EIR
- Presidio of Monterey - Integrated Water Sustainability Concept Plan Programmatic Environmental Assessment
- Ventura County Watershed Protection District - Santa Clara River Levee Improvements Downstream of Union Pacific Railroad (SCR-3) Project EIR
- Los Angeles Department of Water and Power - District Cooling Plant and Distribution System IS-MND
- Los Angeles Department of Water and Power - Redmont Pump Station Replacement Project IS-MND
- County of San Bernardino Department of Public Works - Rimforest Storm Drain Project EIR
- Palmdale Water District - Littlerock Reservoir Sediment Removal EIS/EIR
- Riverside County Flood Control and Water Conservation District - March Air Reserve Base Heacock and Cactus Channel Flood Damage Reduction Project 404(b)(1)

Aubrey Mescher, MESM

SENIOR ENVIRONMENTAL PLANNER

Aubrey Mescher is an environmental planner for Rincon's Environmental Sciences and Planning group responsible for managing and preparing CEQA and NEPA documentation and technical impact analyses for a variety of projects. She specializes in hydrology and water quality issues for infrastructure projects of varying size and location, including drainage pattern alterations, the use of potentially hazardous materials, and consideration of existing hydrology-related hazards such as flooding, landslide, and runoff potential. Her experience includes but is not limited to the following: preparation and management of CEQA/NEPA documentation for project across California; management and analysis of General Plan development and amendments; management and analysis of flood control / protection projects in alluvial fan areas; environmental analysis of large-scale renewable energy projects; linear (transmission line) projects traversing multiple jurisdictions, topographies, and resource areas. Ms. Mescher is also experienced in public outreach processes, and is skilled in communicating CEQA/NEPA processes and findings with the public in a variety of venues, including but not limited to public hearings, scoping meetings, and informational workshops.

EDUCATION

M.E.S.M., Water Resources Management; University of California Santa Barbara (2005)

B.A., Environmental Studies/Film Studies; Emory University (2000)

AFFILIATIONS

California Association of Environmental Professionals

Water Education Foundation, Water Leaders Class 2014

EXPERIENCE

Rincon Consultants, Inc. (2015 – present)

Aspen Environmental Group (2005 – 2015)

Sonoma Ecology Center (2005)

PROJECT EXPERIENCE

CEQA DOCUMENTATION

- Palm Desert Groundwater Replenishment Project EIR, Coachella Valley Water District
- Whitewater River Stormwater Channel Flood Easement Renewal IS/EA, Coachella Valley Water District
- Los Angeles County Jed Smith Pipeline Replacement Project CE, Cannon Corporation
- Oxnard Recycled Water Pipelines Project IS-MND, United Water Conservation District
- Pothole Trailhead Improvement Project, United Water Conservation District
- Sustainable Water Infrastructure Project IS-MND, City of Santa Monica
- California High Speed Rail Project Bakersfield F Street Station EIR/EIS, TY Lin

PERMITTING ASSISTANCE

- United Water Conservation District Santa Felicia Dam Project, Ventura County
- Lincoln Avenue Water Company – Permitting Support Services, Los Angeles County

WATER SUPPLY PLANNING

- San Bernardino Solar Development Water Supply Assessment (WSA), Confidential Client
- Colorado River Substation Supplemental EIR, California Public Utilities Commission (CPUC)
- Sunrise Powerlink Transmission Project Water Availability Study, San Diego Gas & Electric

PROJECT EXPERIENCE, CONT'D

- Topaz Solar Farm WSA, San Luis Obispo County
- California Valley Solar Ranch WSA, San Luis Obispo County
- Solargen Panoche Valley Solar Farm WSA, San Benito County
- Antelope Valley Solar Farm WSA, Kern County.
- RE Garland Solar Facility (Antelope Valley and Weldon Projects) WSA, Kern County
- Morgan Hills Wind Energy Project WSA (Review), Kern County
- Alta East Wind Project and Alta Wind Infill II Project WSA (Review), Kern County
- Ocotillo Express Wind Energy Project WSA (Review), Imperial County

FLOOD CONTROL PROJECTS

- Santa Felicia Dam Outlet Works and Spillway Improvement Project, Ventura County
- Thousand Palms Flood Control Project EIR/EIS, Riverside County
- Whitewater River Basin Flood Control Project EIR/EIS, Riverside County
- Rimforest Storm Drain Project EIR, San Bernardino County
- Santa Clara River Levee Project SCR-2, Ventura County
- Lake Gregory Dam Rehabilitation Project EIR, San Bernardino County
- Sespe Creek Levee Improvements Project IS/EA, Ventura County
- Alcoa & Auxiliary Dike Projects, Riverside County
- Santa Maria River Levee Repair Project EA, Santa Barbara County
- Lake Canyon Dam and Detention Basin IS, Ventura County Transportation & Utility Developments
- CHSR, Shafter to Bakersfield Section, EIR/EIS (Utilities & Public Services; Community Impact Assessment)
- Tehachapi Renewable Transmission Project EIR/EIS, CPUC
- Coolwater Lugo Transmission Project (CLTP), San Bernardino County
- Antelope Transmission Project, Segments 2 & 3 EIR/EIS
- Antelope-Pardee Transmission Project EIR/EIS
- CPUC When-Needed Environmental Services
  - SCE Banducci 66 kV/12 kV Substation Project, Kern County
  - PG&E Embarcadero-Potrero 230 kV Transmission Project IS/MND, City and County of San Francisco
  - PG&E Cressey-Gallo 115 kV Powerline Project Draft IS/MND, Merced County
  - Indian Springs Telecomm Project IS/MND, Shasta County

EDUCATION

M.S., Geology, University of California, Los Angeles

B.A., Geological Sciences, University of California, Santa Barbara

CERTIFICATIONS

Professional Geologist, California (#4742)

Certified Engineering Geologist, California (#1635)

Certified Hydrogeologist, California (#208)

Qualified SWPPP Developer & Qualified SWPPP Practitioner (#22181)

American Institute of Professional Geologists, Registered Professional Geologist

EXPERIENCE

Rincon Consultants, Inc. (1994 – present)

Fugro West, Inc. (1987 – 1994)

Enviropro, Inc. (1986 – 1987)

ESSO Exploration, an Exxon Company (1985 – 1986)

US Borax (1984)

Walt Hamann, PG, CEG, CHG, QSP, QSD

VICE PRESIDENT

Mr. Hamann is a founding Partner, Principal and Senior Geologist with Rincon Consultants and provides technical support and expertise with regard to groundwater, geology, and contaminated materials. He holds a Bachelor of Arts degree in geology from the University of California, Santa Barbara and a Master of Science degree in geology from the University of California, Los Angeles. Mr. Hamann is a Professional Geologist (#4742), Certified Engineering Geologist (#1635), and Certified Hydrogeologist (#208) with the State of California. Mr. Hamann has over 30 years of experience preparing engineering geology and geologic hazards studies, geology/soils, hydrology/water quality, and hazards/hazardous materials sections for EIR documents for properties throughout California. A certified engineering geologist, Mr. Hamann has performed modeling for seismic risk and ground shaking, fault rupture potential soils, and overseen numerous geologic and geologic hazards studies, including the recently completed geologic hazards study for the proposed Plains All American Pipeline Company Line 901/903 replacement project through Santa Barbara, San Luis Obispo, and Kern counties. Mr. Hamann has also overseen Seismic Safety/Safety Element studies for several California municipalities, and has provided expert review of third-party reports.

PROJECT EXPERIENCE

ENGINEERING GEOLOGY PROJECTS

- Geologic hazards study of the Plains All American Pipeline route through Santa Barbara, San Luis Obispo, and portions of Kern County, California
- Geologic and Geotechnical document review of a large commercial property to be developed with a residential structure, Burbank, California
- Geologic evaluation of the former Casmalia landfill, Santa Barbara County, California
- Groundwater flow and quality evaluation, community of Los Osos, San Luis Obispo County, California
- Groundwater flow and quality evaluation, City of Malibu, California

SEISMIC EVALUATIONS

- Fault study, Ventura Fault, Ventura, California
- Geologic and fault evaluation, San Cayetano Fault, Fillmore, California
- Geologic hazards and fault evaluations, school projects throughout California

PROJECT EXPERIENCE, CONT'D

REMEDIATION PROJECTS

- EPA Superfund site, chlorinated solvents in soil and groundwater, soil vapor extraction
- Dry cleaners, air sparging and soil vapor extraction for chlorinated solvents, multiple sites
- Military installation, Santa Cruz Island, enhanced bioremediation of fuel hydrocarbons
- Excavation and offsite disposal of fuel, pesticides, and heavy metals, multiple sites
- Free-phase cutting oil recovery, manufacturing site
- Gasoline service stations, soil excavation, soil vapor extraction, free phase recovery, multiple sites

FIELD ASSESSMENTS

- Nuevo Energy/Torch Operating Company, Ventura and Santa Barbara Counties
- Seneca Resources, Kern County, California
- Unocal, Santa Barbara County, California
- Stocker Resources, Los Angeles, Santa Barbara offshore, and San Luis Obispo Counties, California

SWPPP PROJECTS

- Interstate 5 expansion, Burbank and Los Angeles, California
- Harbor Freeway Expansion, Los Angeles, California
- US 101 Widening, Santa Barbara, California
- California Polytechnic University, San Luis Obispo Recreation Facility Expansion
- Residential Development, Carpinteria, California

EXPERT WITNESS/LITIGATION SUPPORT

- Charnock MTBE Superfund site responsible party, Culver City, California
- Burbank-Glendale US EPA Superfund area designated expert
- Solvent and nickel contaminated property, Torrance, California
- Contamination in a municipal water supply well, Norwalk, California
- Environmental assistance and review, Halaco EPA Superfund Site, Oxnard, California
- Environmental assistance and sampling, Omega Chemical EPA Superfund Site, Whittier, California

EDUCATIONAL FACILITIES

- Elementary 14 – Phase I ESA, Preliminary Environmental Assessment (PEA), Subsurface Site Investigation (SSI), Remedial Action Workplan (RAW), Geologic Study, Ceres Unified School District
- Whitmore Junior High School – Phase I ESA, PEA, IS-MND, Geologic Study, Ceres Unified School District
- Camarillo Special Education School– Phase I ESA, IS-MND, Geologic Study, PEA, CDE Consulting, Ventura County Office of Education
- Alessandro II Elementary – PEA, SSI Technical Memo, SSI, San Bernardino City Unified School District
- Westside Elementary – Phase I ESA, PEA, Remediation, Ventura Unified School District
- Miscellaneous School Projects – Phase I and II ESA, Soil Vapor Assessment, Ventura Unified School District School Assessments or PEAs for Irvine, Santa Ana, Ventura, Ceres, and Saugus school districts

Joe Fernandez, PE, AICP

Summary

Mr. Fernandez has worked as a transportation planner and traffic engineer in California since 2002. He has successfully managed dozens of complex studies including transportation impact analyses, travel demand forecasting studies, traffic operations studies, traffic engineering designs, and multimodal planning studies. As both a Certified Planner and Professional Engineer, he specializes in the development of solutions that are both technically sound and fitting with communities' planning principles.

Career History

Principal, *Central Coast Transportation Consulting* *2011-Present*

- Founder and lead project manager.
- Responsible for project scoping, budgeting, schedule adherence, and overall client satisfaction.

Senior Engineer/Planner, *Fehr & Peers Transportation Consultants* *2004-2010*

- Served as project manager for complex transportation projects. Responsible for project scoping, budgeting, schedule adherence.
- Led companywide multi-modal level of service research effort.
- Responsible for technical analysis and quality control for a wide variety of projects, including traffic operations, travel demand forecasting, multi-modal planning, and traffic engineering design.

Transportation Planner, *San Luis Obispo Council of Governments (SLOCOG)* *2003*

- Assisted with Regional Transportation Plan, transit unmet needs analysis.

Planning Intern, *City of Arroyo Grande* *2002*

- Prepared staff reports, assisted in bike plan update.

Education

Master of Science, Civil Engineering *2004*
***California Polytechnic State University**, San Luis Obispo, CA*

Master of City and Regional Planning *2004*
***California Polytechnic State University**, San Luis Obispo, CA*

Bachelor of Science, Civil Engineering *2002*
***Vanderbilt University**, Nashville, TN*
Graduated magna cum laude.

Awards and Publications

- Award of Excellence: Central Coast APA, City of Paso Robles Circulation Element
- Transportation Excellence Award, Transportation Agency of Monterey County, Seaside West Broadway Specific Plan
- Neighborhood Planning Award, NorCal APA, Seaside West Broadway Specific Plan
- *Network Planning: Developing a Multimodal Approach,* ITE Journal, September 2009 issue
- *Achieving Sustainable Results: Public-Private Efforts and Coordination,* California APA Annual Conference, 2008
- *Another Case Against Roadway Widening: This Time It's For Drivers*, ITE District 6 Annual Conference Paper, 2006

(805) 316-0101
895 Napa Ave, Suite A-6, Morro Bay, CA 93442

Selected Project Experience- Environmental Impact Reports

Avila Ranch EIR
CCTC prepared the Transportation Impact Study used in the EIR for this project, which consists of 720 residential units and 15,000 square feet of neighborhood commercial space in the City of San Luis Obispo. The TIS included a phasing analysis of the project, evaluated near term and cumulative conditions, and included extensive evaluation of multi-modal level of service.

Menlo Park El Camino Real/Downtown Specific Plan and EIR
Mr. Fernandez managed the transportation component of the El Camino Real/Downtown Specific Plan, which addressed pedestrian and bicycle connectivity, links to transit, vehicular operations along a Caltrans facility, and parking concerns in the downtown. The project included extensive community outreach, where Mr. Fernandez lead breakout groups and responded to the community's questions related to transportation.

Rancho Canada EIR Carmel Valley
CCTC prepared the Transportation Impact Study used in the EIR for this project, which consists of 281 residential units in Carmel Valley, in unincorporated Monterey County. Mr. Fernandez managed the project and assisted in preparing responses to comments on the DEIR on this controversial, heavily scrutinized project.

Laetitia Agricultural Cluster EIR
Mr. Fernandez managed this project, which consisted of the development of an agricultural cluster development in San Luis Obispo County. The project included the evaluation of numerous sub-standard roadways and extensive coordination with Caltrans and Cal Fire.

Chevron Tank Farm EIR
This project consists of the remediation and redevelopment of an oil storage facility along Tank Farm Road in San Luis Obispo County. CCTC conducted the technical analysis and prepared the transportation section of the EIR. The evaluation included estimates of truck traffic related to the transport of contaminated soils and the evaluation of the project's five-phased redevelopment.

City of San Luis Obispo Circulation Element Update and EIR
CCTC provided extensive support services to assist the consultant team and City staff in delivering the updated Land Use and Circulation Elements within tight scheduling constraints. Tasks included travel demand modeling support, including alternatives testing and sensitivity analyses; mode split adjustments to the model; operational tests using the City's Synchro network; public meeting facilitation; and document review acting as an extension of City staff.

Carmel Canine Sports Center EIR
CCTC prepared the transportation impact study and assisted with preparation of the EIR for this project in Monterey County. The project included development of non-standard trip generation rates to reflect the unique operating conditions on the site, and a detailed evaluation of special events during off-peak time periods. Mr. Fernandez managed this project.

San Luis Obispo Chinatown Mixed Use Project EIR
This project consisted of the redevelopment of a city block in Downtown San Luis Obispo, to include a hotel, restaurant, residential units, retail and office space, and underground parking. Mr. Fernandez managed the project and attended the project's public hearings to address transportation issues.

Appendix B: Relevant Projects

This appendix provides detailed descriptions of each of the projects listed in Table 1 – List of MRS Environmental Relevant Projects.

This page left intentionally blank.

ORCUTT HILL RESOURCE ENHANCEMENT PLAN PROJECT EIR

CLIENT: SANTA BARBARA COUNTY

In May 2016, MRS completed the final draft of the Orcutt Hill Resource Enhancement Plan Project EIR. Pacific Coast Energy Company (PCEC), the Applicant, was proposing to replace and expand its existing diatomite Oil Drilling and Production Plan. The project included eight new well pads (called pods), two new equipment pads, and drilling of up to 144 oil and gas wells. The Oil Drilling and Production Plan, approved in 2006, permits the operation of the existing 96 diatomite cyclic steamed wells on seven surface well pods.

This highly controversial project, was considered by the County of Santa Barbara shortly after oil drilling opponents had in 2014 placed on the November Ballot Measure P, which would have potentially banned all cyclic steaming, hydraulic fracturing and other high intensity completion methods in the County.

ERG OPERATING COMPANY FOXEN PETROLEUM PIPELINE PROJECT

CLIENT: COUNTY OF SANTA BARBARA ENERGY DIVISION

MRS assisted the Santa Barbara County Energy Division in the preparation of the ERG Operating Company Foxen Pipeline Petroleum Project EIR including air quality, biological assessments, hazardous materials, cultural, water, transportation and alternatives analysis. Assistance included support at hearings and scoping and workshop meetings, as well as the development of the detailed analysis and EIR sections. The pipeline would connect the Cantin Lease to the Sisquoc Pipeline system to transport crude oil from the Cat Canyon area to the Santa Maria Pump Station and the Santa Maria Refinery.

EIR Sections for Santa Maria Pacific Drilling Production Plan / Laguna County Sanitation District Phase 3 Recycled Water Pipeline

Client: Santa Barbara County

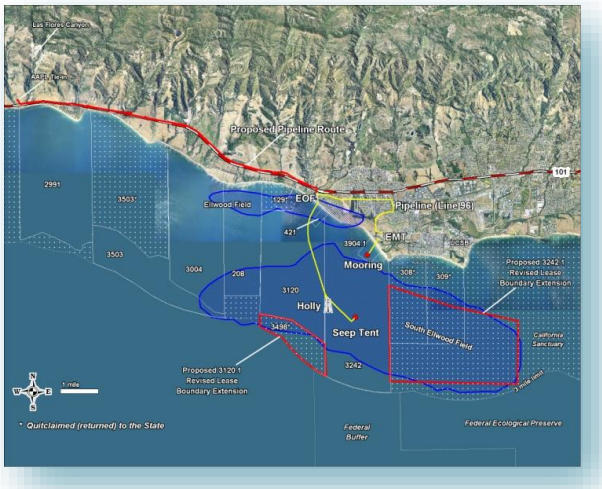
MRS was tasked with writing sections of an EIR for the County of Santa Barbara for a proposed project consisting of two interrelated but independent projects, each with major components for the County of Santa Barbara. MRS was responsible for authoring sections related to air quality and hazards and hazardous materials.

The first project that was evaluated within the EIR included the Oil Drilling and Production Plan for Santa Maria Pacific LLC. This proposed plan would provide for: a) a total of 136 production oil wells (26 existing); b) two new 62.5 million BTU/hour gas-powered steam generators; and 3) associated production equipment including pipelines, oil treatment facilities and ancillary equipment. The plan would also include a Utility Corridor containing pipelines for oil sales, gas transmission, recycled water, and fiber optics connecting the project site with existing and proposed pipelines within the Graciosa Road right-of-way. The proposed pipeline corridor would be approximately 3 miles in length.

The second project evaluated within the EIR included the Laguna County Sanitation District Phase 3 Recycled Water Pipeline. This proposed project included construction and installation of a Polyvinyl Chloride line, approximately eight miles in length and 16" in diameter (3' to 4' below ground) with a peak flow rate of 2,000 gallons per minute for delivery of tertiary treated recycled water. Two booster pump stations would be required.

Venoco Ellwood Oil Development Projects EIRs

Client: California State Lands Commission



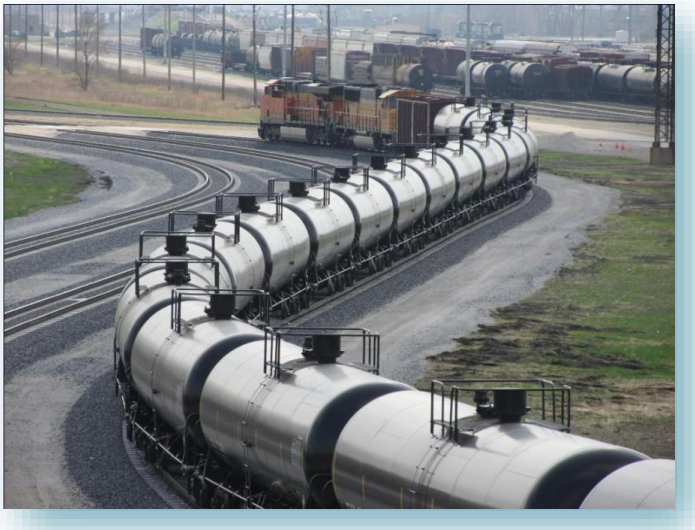
MRS prepared EIR sections for the California State Lands Commission Venoco Lease Line Extension Project DEIR, investigating the potential impacts from Venoco's proposed extension of the oil and gas lease boundaries of PRC-3120 and -3242 to encompass more of the South Ellwood field and the drilling new wells from Platform Holly. The project objectives included providing for improvements and upgrades at the existing Ellwood Onshore Facility (EOF) and changes at Platform Holly.

MRS also developed an EIR for the Full Field Development Project, including changes to

operations at the Ellwood Facility and at Platform Holly and the installation of new pipeline systems, and the analysis included air quality, health risk, risk of spills and upsets and all other issue areas. Involved working in close coordination with local agencies.

PHILLIPS 66 RAIL SPUR PROJECT EIR

CLIENT: THE COUNTY OF SAN LUIS OBISPO



The County of San Luis Obispo called upon MRS to conduct an environmental review for the proposed Rail Spur Project. The Proposed Project would entail installation of a rail spur and crude oil unloading facility along with the importation of 5 trains per week of crude oil.

The analysis involved assessing the transportation risks of crude oil along railroads through the numerous communities within California, including Los Angeles, the San Francisco Bay Area, the Central Valley, Sacramento and rural areas. Performing a quantitative risk assessment including assessing train derailment frequencies as a function of track class, tank car condition probabilities based on tank car design, including the currently proposed Option 1 tank car design, as well as examining populations in detail along the potential routes to examine

consequences of a crude oil spill. The resulting risks were plotted on FN curves to determine

significance.

The analysis also included examining air emissions, including GHG emissions, along the entire rail route. Toxic emissions were examined, including quantification of cancer, acute and chronic risks, using models.

Response to Comments

- Nearly 2,200 individual comments from 470 commenters were submitted in response to the Draft EIR for this project.
- MRS authored a response to comments volume, which totaled to over 38,000 pages in length.
- MRS authored an executive summary of the response to comments to provide information to the public on the organization of the response to comments volume of the Final EIR and on the responses to the key comments.

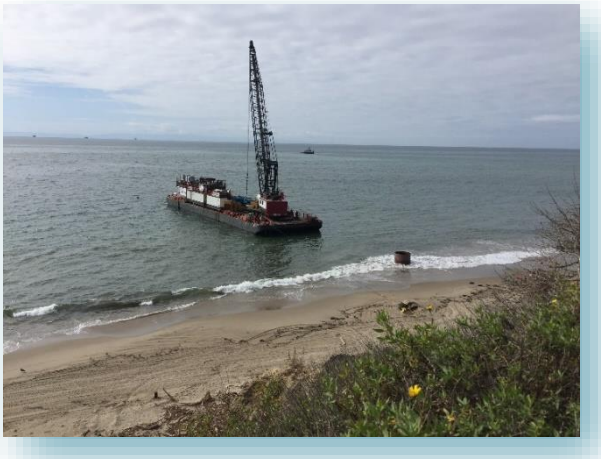
Noise was assessed utilizing sophisticated noise models SoundPlan, along with in-field noise monitoring conducted specifically for the project, in order to calibrate FTA train models.

Many points were debated as the EIR was brought from draft form to its final phase, including the role of Canadian crude oil and Climate Change, as well as emergency response preparedness along rail routes and the potential for preemption of mitigation measures by the Federal government. The environmental assessment is to be issued final in the near term.

BECKER AND LEGACY WELLS ABANDONMENT AND REMEDIATION PROJECT SUMMERLAND EIR

CLIENT: CALIFORNIA STATE LANDS COMMISSION

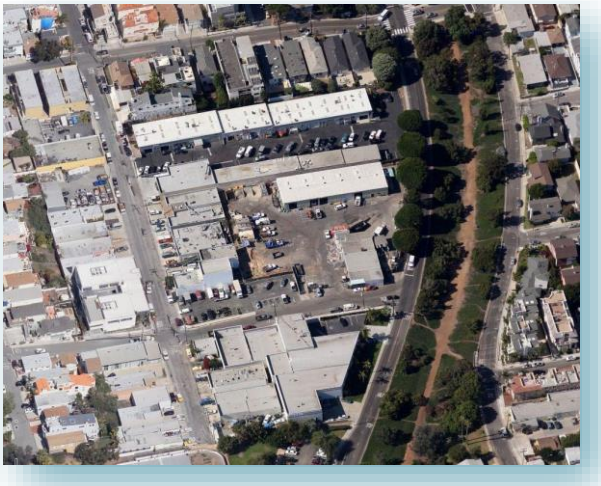
Developed a fast-track EIR for the CSLC project of abandoning a legacy well (the "Becker Well") on the beach in Summerland, CA. Developed specific design-data for the project and alternatives, as well as compiled detailed air quality analysis on barge and tug transport to/from POLB and abandonment of wells located near-shore. Worked with SBCAPCD to implement mitigation measures to reduce air and odor emissions.



E&B OIL DRILLING AND PRODUCTION PROJECT EIR

CLIENT: THE CITY OF HERMOSA BEACH

The City of Hermosa Beach called upon MRS to conduct an environmental review for the proposed E&B Oil Drilling and Production Project. The Proposed Project was the result of a 2012 Settlement Agreement between the City of Hermosa Beach, E&B, and Macpherson Oil Co. to comply with the California Environmental Quality Act and place on the ballot a measure allowing the City of Hermosa Beach electorate to decide whether or not to approve the Applicant's Proposed Oil Project and a Development Agreement to vest the Project so that, if approved, the Project could not later be invalidated by a vote of the people.



Proposed was the development of 30 oil wells and four wells for water disposal/injection to access the oil and gas reserves in the tidelands. The Proposed Project would be composed of two parts: the relocation of the City Maintenance Yard to make room for the Project Site and the development of the oil and gas facility. The existing lease would grant for a 35-year Project lifespan. The Proposed Project garnered much attention in the community of Hermosa Beach because of the small 1.3-acre site on which the drilling was to take place, the absence of adequate setbacks to avoid impacts related to safety and hazards, and the high-level of population density in the City.

Many points were debated as the EIR was brought from draft form to its final phase. The Applicant suggested that one such impact, potential odors emanating from the Project Site, would be fully mitigable by a proposed closed loop system; however, upon analysis, MRS found that odors would not be fully mitigable under this system. Alternatives to the Project suggested by MRS included utilizing a different site, developing oil with reduced wells, shortening the life of the Project, and the use of existing pipelines, all of which would meet or nearly meet the Applicant's objectives with reduced impacts. The FEIR was certified in July 2014, and the Project was rejected on a ballot in March 2015.

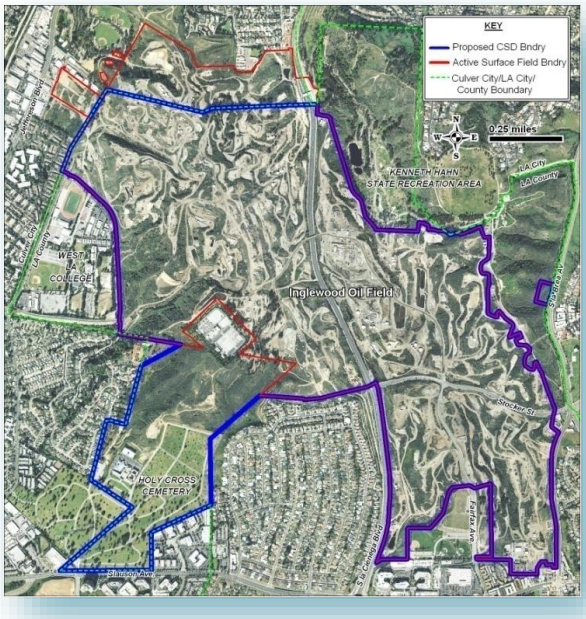
"Thanks to MRS, we were not only able to complete our settlement commitment with integrity but your work also helped us treat residents as full-fledged decision makers. Simply put, I could not be more pleased."

Michael DiVirgilio, Councilman, City of Hermosa Beach

BALDWIN HILLS COMMUNITY STANDARDS DISTRICT EIR

CLIENT: LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING

MRS was the lead consultant in preparing an EIR for a proposed Community Standards District (CSD) for the Baldwin Hills Oil Field located in unincorporated portions of Los Angeles County. The purpose of the CSD is to develop regulations to control oil and gas development activities at an oil field near residential areas. MRS managed a team of over 30 professionals to develop the EIR. The EIR evaluated a hypothetical development scenario for the oil field and then assessed the impacts of this development. Based upon the impacts identified, a set of mitigation measures were developed to reduce the level of impacts to less than significant. MRS then used these mitigation measures to develop standards that were incorporated into the CSD.



Some of the most salient issues associated with the project were public health, noise, site cleanup and remediation, air quality, and geology. MRS worked closely with the County of Los Angeles, the landowners, and the affected public in developing the EIR and the CSD.

MRS organized more than 20 public meetings with the community as part of this project. MRS used small neighborhood meeting to work with the community on the EIR and the CSD.

"I can't say enough for the knowledge, skill and professionalism you all demonstrated on what was one of the most challenging projects in my career. We were very fortunate to have MRS assisting us. I don't think any other consultant could have accomplished as much as you all have in such a short period of time."

Russell J. Fricano, Ph.D., AICP, Section Head, Community Studies
Los Angeles County Department of Regional Planning

SANTA BARBARA COUNTY OIL AND GAS DEVELOPMENT EIRS AND ASSESSMENTS.

CLIENT: COUNTY OF SANTA BARBARA

MRS has worked extensively with the County of Santa Barbara Energy Division for almost 30 years reviewing oil and gas development projects, conducting risk assessments, air quality analysis and completing EIRs. MRS recently completed the PCEC EIR for development within the Orcutt Oil Field, contributed to the ERG Foxen Petroleum Pipeline Project EIR by completing the Air Quality and Risk of Upset sections, contributed to the Santa Maria Energy Project EIR by completing the air quality, GHG and risk of upset sections and has conducted numerous individual risk assessments for the County on projects by Amrich, Vaqueros, Petrorock, and Greka. MRS has provided technical expertise in developing the recently adopted GHG thresholds, conducted analysis related to the La Goleta project, as well as extensive analysis related to the Venoco Ellwood facilities risk assessments.

OIL AND GAS SUPPORT

CLIENT: CITY OF CARSON

MRS recently worked closely with the City of Carson to construct an update to its current oil and gas drilling and extraction regulations. As the oil code had previously been written, the public and the environment were not well protected from any potential hazards or nuisances caused by any existing or future oil and gas drilling and extraction facilities and operations in the City. The draft Code Update remedied this lack of adequate protection and included a prohibition on the use of hydraulic fracturing and acid well stimulation.

This Project was very controversial since the City was trying to pass an oil code in response to having an antiquated oil code and in response to an application by Oxy for a Project to drill 200 wells in the city after many years of low to no activity. Opposition to the Oxy project by citizens had also created distrust and opposition to the development of the new oil code.

GHG CEQA THRESHOLDS DEVELOPMENT

CLIENT: SANTA BARBARA COUNTY APCD

MRS staff recently assisted the County of Santa Barbara and the Santa Barbara County APCD in the research, analysis, and development of significance thresholds for GHGs, leading to implementation of thresholds at both agencies. Involved researching federal, state and local jurisdiction programs and thresholds, providing technical expertise and testimony at hearings.

HUASNA VALLEY OIL EXPLORATION AND PRODUCTION PROJECT EIR (EXCELARON PROJECT)

CLIENT: COUNTY OF SAN LUIS OBISPO

MRS was the lead consultant in preparing an EIR for the Huasna Valley Oil Exploration and Production Project for the County of San Luis Obispo. Excelaron leased more than one thousand net mineral acres in the Huasna Valley area, including the project site, and proposes exploring, testing, and possibly producing oil on the western edge of the Huasna Basin in an existing oilfield designated by the California Department of Oil, Gas and Geothermal Resources.

Although the project site is on private property, Excelaron obtained exclusive easements over the Mankins Ranch and Porter Ranch to access the area.

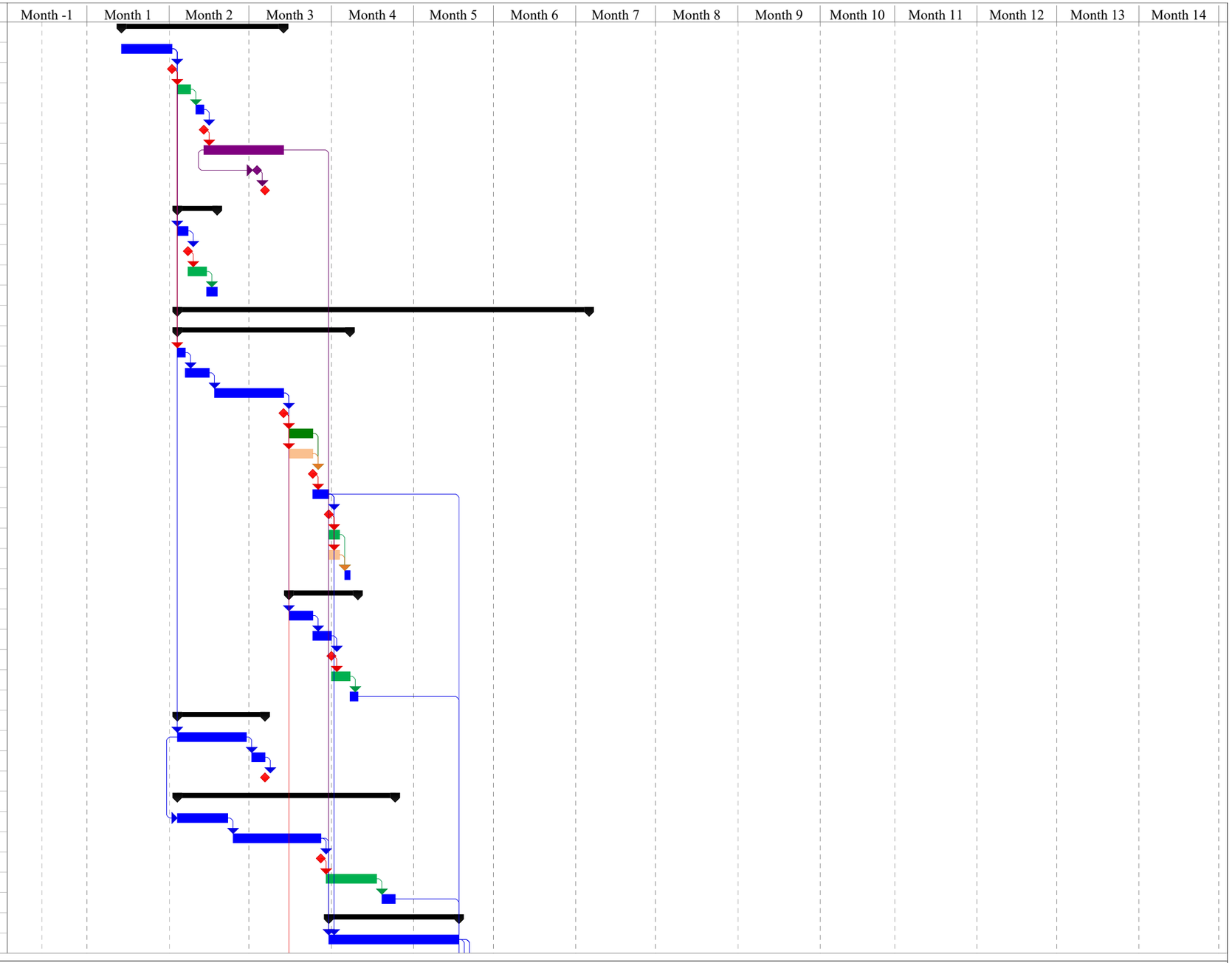
The four-phased proposed project involves exploration and testing, production, cleanup and abandonment, and development. At the time the EIR was completed, the applicant had planned for 13 wells producing up to 1,000 barrels per day operating at peak production.

Appendix C: Detailed Estimated EIR Schedule

This appendix provides a detailed schedule for the EIR project including elements such as comment periods, review periods, peer review and section submission timelines, and workshop and hearing dates. This pre-project planning and attention to detail is important to developing and efficient and timely EIR process.

This page left intentionally blank.

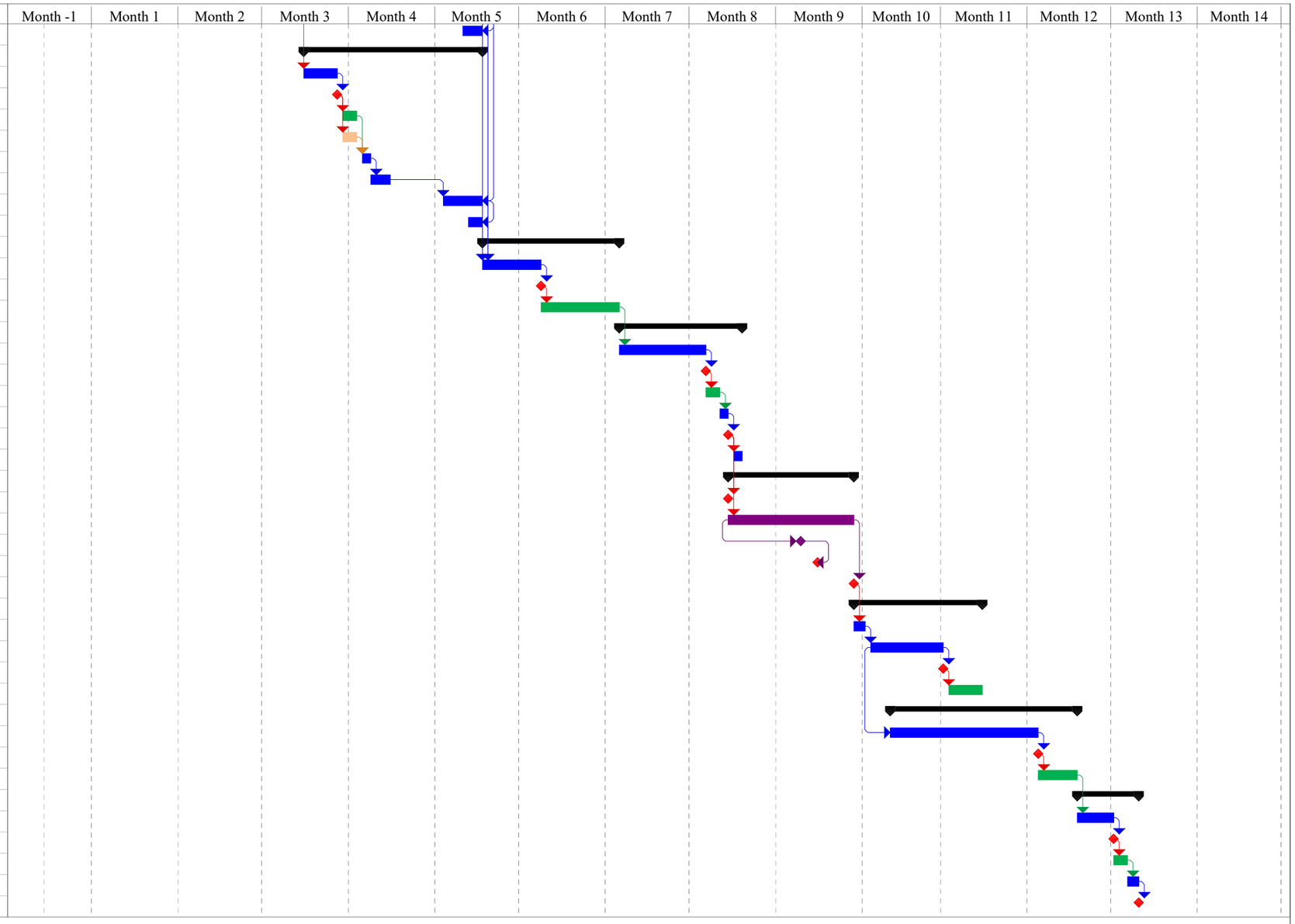
ID	Task Name
1	**Notice of Preparation and Scoping Documentation**
2	Draft NOP
3	Submit Draft NOP to County
4	County Review of NOP
5	Finalize NOP
6	Release NOP
7	30-Day NOP Comment Period
8	NOP Scoping Meeting
9	Summary of NOP Scoping Comments to County
10	**Document Style Guide**
11	Develop Style Guide
12	Submit to County
13	County Review
14	Finalize Style Guide
15	**Administrative Draft EIR**
16	**Project Description**
17	Prepare Information Request to Applicant
18	Applicant Response to Information Request
19	Draft Project Description
20	Submit to County and Applicant
21	County Review
22	Applicant Review
23	Meeting with County and Applicant to Review Project Description
24	Update Project Description
25	Submit to County and Applicant for Final Review
26	County Review
27	Applicant Review
28	Finalize Project Description
29	**Cumulative Project Description**
30	Data Collection
31	Draft Cumulative Project Description
32	Submit to County
33	County Review
34	Finalize Cumulative Project Description
35	**Peer Review of Applicant Documents**
36	Conduct Peer Review of Applicant Documents
37	Develop Peer Review Report
38	Submit Peer Review Report to County
39	**Environmental Setting**
40	Data Collection/Field Work
41	Draft Environmental Setting
42	Submit to County
43	County Review
44	Finalize Environmental Setting Sections
45	**Impact/Mitigation Assessment**
46	Project Impact/Mitigation Assessment



PetroRock UCCB Project EIR

Task
Milestone
Summary
County Review
Public Workshop/Meeting
Public Review Period
Applicant Review

ID	Task Name
47	Cumulative Impact Mitigation Assessment
48	**Alternatives Analysis**
49	Draft Alternative Descriptions
50	Submit to County and Applicant for Review
51	County Review
52	Applicant Review
53	Finalize Alternative Descriptions
54	Conduct Alternative Screening Analysis
55	Alternative Impact/Mitigation Assessment
56	Environmentally Superior Alternative Analysis
57	**Finalize Administrative Draft EIR**
58	Finalize Sections of ADEIR
59	Submit to County
60	County Review
61	**Public Draft EIR**
62	Finalize Public Draft EIR
63	Submit to County
64	County Review of Camera Ready Copy
65	Print Public Draft EIR
66	Deliver Public Draft EIR to County and State Clearinghouse
67	County Distribute Draft EIR
68	**Public Comment Period**
69	Start of 45-Day Public Comment Period
70	45-Day Public Comment Period
71	Public Hearing on Public Draft EIR
72	Written Summary of Draft EIR Public Comment Meeting to County
73	Close of Public Comment Period
74	**Response to Comments**
75	Review and Assign Responsibility for Comments
76	Draft Response to Comments
77	Submit Response to Comments to County
78	County Review of Response to Comments
79	**Admin Final EIR**
80	Complete AFEIR
81	Submit AFEIR to County
82	County Review of ADEIR
83	**Proposed Final EIR**
84	Finalize Proposed Final EIR
85	Submit to County
86	County Review of Camera Ready Copy
87	Print Proposed Final EIR
88	Release Proposed Final EIR



PetroRock UCCB Project EIR

Task
Milestone
Summary
County Review
Public Workshop/Meeting
Public Review Period
Applicant Review

ATTACHMENT 1
APPENDIX 2

MRS Cost Proposal

Cost Proposal

PetroRock UCCB Project

Case Nos. 15PPP-00000-00002 & 16DVP-00000-00015

AP Nos. 101-030-011, 101-040-026, 129-180-018, -037, & -038

April 16, 2018

Prepared for:

County of Santa Barbara

Planning & Development Dept.

123 East Anapamu Street

Santa Barbara, CA 93101

MRS Environmental Inc.

1306 Santa Barbara Street

Santa Barbara, CA 93101

Contact: Greg Chittick

Phone: 805.289.3924

Cost Proposal

MRS Environmental is pleased to submit this cost proposal to the County of Santa Barbara (County) to prepare an Environmental Impact Report (EIR) for the PetroRock UCCB Project. This cost proposal has been prepared to meet the requirements of the Request for Proposal (RFP), dated March 5, 2018.

MRS Environmental proposes to perform, on a best efforts basis, the work described in the Technical Proposal (prepared separately), at a time and materials budget for professional services and expenses not to exceed $217,251 plus a 15 percent contingency of $32,588 for a total of $249,839. The costs were developed based upon our work on similar projects and our review of the Applicant prepared technical reports that were available on the County website.

Table 1 provides a summary of the total costs by issue area. Table 2 provides a summary of the total costs by task. Table 3, which is at the end of the cost proposal, provides a detailed cost breakdown by task for each issue area, and includes staff hours and billing rates.

Table 1 Cost Summary By Issue Area

Issue Area	Hours	Costs	% of Total Labor Cost
Direct Labor			
A. Project and Alternative Descriptions	68	$12,880	6.2%
B. Air Quality & Greenhouse Gases	100	$19,080	9.2%
C. Biological Resources	98	$15,520	7.5%
D. Hazardous Materials and Risk of Upset	84	$16,060	7.7%
E. Transportation and Circulation	71	$13,906	6.7%
F. Geologic Processes/Geologic Hazards	88	$15,972	7.7%
G. Historic and Cultural Resources	60	$9,900	4.8%
H. Water Resources	78	$12,441	6.0%
I. Initial Review of Project Consistency With Policies	56	$10,880	5.2%
J. Issue Areas with Less than Significant Impacts	73	$13,490	6.5%
K. Report Production	286	$43,620	21.0%
L. Project Management	120	$23,760	11.5%
Total Direct Labor	***1,182***	***$207,509***	***100.0%***
Other Direct Costs		**$9,742**	
Total Costs		**$217,251**	
Contingency (15%)		**$32,588**	
Total Cost with Contingency		**$249,839**	

Table 2 Cost Summary By Task

Category	Task 1 NOP and Comments	Task 2 Project and Alternative Descriptions	Task 3 Peer Review and Information Requests	Task 4 Admin Draft EIR and Technical Appendices	Task 5 Public Draft EIR and Technical Appendices	Task 6 Admin Final EIR Response to Comments	Task 7 Final EIR and Mitigation Monitoring Plan	Task 8 Meetings and Hearings	Total
Labor Costs	$8,726	$8,240	$22,683	$83,196	$23,750	$25,888	$14,765	$20,261	$207,509
Other Direct Costs	$440	$0	$0	$2,028	$2,750	$880	$2,420	$1,224	$9,742
Total Costs	***$9,166***	***$8,240***	***$22,683***	***$85,224***	***$26,500***	***$26,768***	***$17,185***	***$21,485***	***$217,251***
% of Total Cost	4.2%	3.8%	10.4%	39.2%	12.2%	12.3%	7.9%	9.9%	100.0%
15% Contingency									$32,588
Total Cost with 15% Contingency									**$249,839**

As part of this project, MRS Environmental team members will attend meetings with Planning and Development as well as attend workshops and public hearings. As stated in the RFP, these meetings, workshops and hearings have not been scheduled. The RFP requests that the cost proposal include an estimated number of meetings with Planning and Development, as well as attendance at one public comment hearing and two public hearings with the County Planning Commission/Board of Supervisors. The RFP also requests that the cost proposal contain unit costs for attendance at meetings and workshops/hearings. Table 4 provides a breakdown of the meetings and workshop/hearing costs, as well as unit costs, that have been included in the cost proposal.

Table 4 Meeting and Hearing Budgeted and Unit Costs

Project Team Member	Meetings with Planning & Development		Public Meetings and Hearings	
	# of Meetings Assumed in Costing[1]	Additional Meeting Unit Costs[2]	# of Public Meeting and Hearings Assumed in Costing[3]	Additional Hearing Attendance Unit Costs[4]
G. Chittick, Project Manager/Air Quality/Risk of Upset	12	190	3	$1,592
J. Peirson, Principal-in-Charge	4	220	3	$1,832
T. Mullen, Biological Resources	2	190	1	$1,592
L Perez, Land Use and Policy	2	180	0	$1,512
J. Fernandez, Transportation and Circulation	1	198	0	$1,616
W. Haman, Geologic Processes/Geologic Hazards	2	182	1	$1,528
M. Long, Water Resources	2	165	1	$1,392

1. All staff except J. Fernandez are in Santa Barbara so would attend meetings in person. J. Fernandez would be via conference call. Assumes the average length of the meeting would be two-hours.
2. Additional meeting unit costs assume 1-hour in person at the County except for J. Fernandez who is assumed to be via conference call.
3. Assumes attendance at one comment hearing on Draft EIR and two public hearings for the Planning Commission/Board of Supervisors. All hearings are assumed to be in Santa Maria. Hearing are assumed to be four hours long and include travel time and expenses.
4. Hearing attendance unit costs assume four-hour hearings and include travel time and expenses. Assumes all hearing are in Santa Maria.

Optional Tasks

As discussed in the Technical Proposal several optional tasks for technical studies have been recommended to assure a complete and defensible EIR. The optional technical studies include the following:

- Quantitative Risk Assessments (QRAs) for the Fixed Facilities and Transportation,
- Noise Study, and
- Fire Protection/Emergency Response Assessment.

The costs associated with these optional tasks are provide in Table 5.

Table 5 Costs for Optional Task

Key Staff	Labor Classification	Rate	Quantitative Risk Assessment Technical Studies		Noise Analysis Technical Study		Fire Protection and Emergency Response Technical Study	
		($/hr)	Hours	Cost	Hours	Cost	Hours	Cost
G. Chittick	Principal Engineer II	$190	80	$15,200	40	$7,600	24	$4,560
J. Peirson	Managing Engineer III	$220	32	$7,040	4	$880	4	$880
S. Radis	Principal Scientist I	$200	80	$16,000	0	$0	0	$0
D. Dusette	Principal Planner III	$180	32	$5,760	14	$2,520	8	$1,440
Total Optional Tasks			***224***	***$44,000***	***58***	***$11,000***	***36***	***$6,880***

Costing Assumptions

The cost estimates include all activities associated with development of an EIR as discussed in Section 4.0 of the Technical Proposal. The estimated costs for the EIR project rely on the following major assumptions:

- Field work will be limited to what is described in Section 4.0 of the Technical Proposal.
- The Applicant prepared technical studies will be complete enough to not require any substantial additional field work by the EIR consultant beyond what is discussed in Section 4.0 of the Technical Proposal.
- The Applicant will provide final versions of all their technical studies submitted to the County in pdf format.
- The Applicant will respond to requests for information in a timely manner, and no substantial changes to the Applicant prepared technical studies will be required. If substantial deficiencies are found in the Applicant prepared technical studies, then the estimated schedule may slip, and additional costs may be needed to conduct a second peer review.
- The County Planning and Development Department will provide one set of written or electronic comments on the Project Description, Alternative Description, Administrative Draft EIR, Camera Ready Public Draft EIR, Response to Comments, and Administrative Final EIR.

- The Public Draft EIR will not exceed 300 pages, not including the Technical Appendices. The Technical Appendices will only be produced in electronic format.
- The Final EIR will not exceed 350 pages, not including the Technical Appendices and Response to Comments. The Technical Appendices and Response to Comments will only be produced in electronic format.
- 300 comments will be addressed as part of the Response to Comments, and no new analysis will be required as a result of the comments received on the Public Draft EIR.
- County Planning and Development will be responsible for mailing the NOP related documents, posting and mailing any CEQA required notices.
- MRS Environmental will be responsible for mailing hard copies and CDs of the Public Draft EIR, Proposed Final EIR, and Final EIR, based upon a mailing list provide by the County.
- Deliverables to the County will be limited to those specified in Section 5.0 of the Technical Proposal.

Payment Schedule

The RFP states that payment will be a percentage of the contract based upon milestone deliverables. Reimbursement will be provided on a time and materials basis, with partial payment not-to-exceed amounts contingent upon specific delivery milestones. As requested in the RFP, Table 6 provides the suggested breakdown of milestones and the not-to-exceed amount for each milestone.

Table 6 Milestone for Not-To-Exceed Payments

Milestone	% of Costs	Amount
Administrative Draft EIR	50%	$108,626
Public Draft EIR	20%	$43,450
Proposed Final EIR	20%	$43,450
Final EIR	10%	$21,725
Total	***100%***	***$217,251***

Amount does not include any of the contingency. If the County authorizes use of contingency funds, they would be added to the total not-to-exceed amounts based upon the percentages.

Conflict of Interest

Neither MRS Environmental, nor any of the members of the project team, has been hired by the Applicant to assist in the preparation of materials directly related to any component of the proposed project. No member of the contractor's team has a financial gain or an interest in the outcome of the project. MRS Environmental hereby certifies that MRS Environmental and its subcontractors have the capacity to submit a neutral and unbiased environmental document.

MRS Environmental is a Certified Small Business (OSDS Ref #8017). All of MRS Environmental's insurance and workers compensation documentation are currently on file with the County of Santa Barbara.

Table 3 Detailed Cost Breakdown

Key Staff	Labor Classification	Rate	NOP and Comments		Project and Alternative Descriptions		Peer Review and Information Requests		Admin Draft EIR and Technical Appendices		Public Draft EIR and Technical Appendices		Admin Final EIR Response to Comments		Final EIR and Mitigation Monitoring Plan		Meetings and Hearings		Total	
		($/hr)	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Hrs	Hrs	Cost	Hrs	Cost
Direct Labor																				
A. Project and Alternative Descriptions																				
G. Chittick	Principal Engineer II	$190	8	$1,520	20	$3,800	2	$380	4	$760	2	$380	2	$380	0	$0	2	$380	40	$7,600
J. Peirson	Managing Engineer III	$220	0	$0	2	$440	0	$0	2	$440	0	$0	0	$0	0	$0	2	$440	6	$1,320
D. Dusette	Principal Planner III	$180	0	$0	16	$2,880	0	$0	0	$0	2	$360	0	$0	4	$720	0	$0	22	$3,960
Total Project Description and Alternatives			***8***	***$1,520***	***38***	***$7,120***	***2***	***$380***	***6***	***$1,200***	***4***	***$740***	***2***	***$380***	***4***	***$720***	***4***	***$820***	**68**	**$12,880**
B. Air Quality & Greenhouse Gases																				
G. Chittick	Principal Engineer II	$190	2	$380	0	$0	16	$3,040	40	$7,600	8	$1,520	20	$3,800	4	$760	2	$380	92	$17,480
S. Radis	Principal Scientist I	$200	0	$0	0	$0	2	$400	4	$800	2	$400	0	$0	0	$0	0	$0	8	$1,600
Total Air Quality and Greenhouse Gases			***2***	***$380***	***0***	***$0***	***18***	***$3,440***	***44***	***$8,400***	***10***	***$1,920***	***20***	***$3,800***	***4***	***$760***	***2***	***$380***	**100**	**$19,080**
C. Biological Resources																				
T. Mullen	Principal Biologist I	$190	0	$0	0	$0	8	$1,520	12	$2,280	2	$380	4	$760	0	$0	10	$1,900	36	$6,840
L. Brown	Biologist I	$140	4	$560	0	$0	16	$2,240	24	$3,360	4	$560	12	$1,680	2	$280	0	$0	62	$8,680
Total Biological Resources			***4***	***$560***	***0***	***$0***	***24***	***$3,760***	***36***	***$5,640***	***6***	***$940***	***16***	***$2,440***	***2***	***$280***	***10***	***$1,900***	**98**	**$15,520**
D. Hazardous Materials and Risk of Upset																				
G. Chittick	Principal Engineer II	$190	2	$380	0	$0	16	$3,040	36	$6,840	8	$1,520	10	$1,900	2	$380	0	$0	74	$14,060
S. Radis	Principal Scientist I	$200	0	$0	0	$0	4	$800	4	$800	2	$400	0	$0	0	$0	0	$0	10	$2,000
Total Hazardous Materials and Risk of Upset			***2***	***$380***	***0***	***$0***	***20***	***$3,840***	***40***	***$7,640***	***10***	***$1,920***	***10***	***$1,900***	***2***	***$380***	***0***	***$0***	**84**	**$16,060**
E. Transportation and Circulation																				
G. Chittick	Principal Engineer II	$190	0	$0	0	$0	3	$570	8	$1,520	2	$380	2	$380	4	$760	0	$0	19	$3,610
J. Fernandez (CCTC)	Principal	$198	2	$396	0	$0	12	$2,376	24	$4,752	4	$792	4	$792	4	$792	2	$396	52	$10,296
Total Transportation and Circulation			***2***	***$396***	***0***	***$0***	***15***	***$2,946***	***32***	***$6,272***	***6***	***$1,172***	***6***	***$1,172***	***8***	***$1,552***	***2***	***$396***	**71**	**$13,906**
F. Geologic Processes/Geologic Hazards																				
W. Haman (Rincon)	Senior Professional II	$182	4	$726	0	$0	22	$3,993	34	$6,171	6	$1,089	8	$1,452	4	$726	10	$1,815	88	$15,972
Total Geologic Processes/Geologic Hazards			***4***	***$726***	***0***	***$0***	***22***	***$3,993***	***34***	***$6,171***	***6***	***$1,089***	***8***	***$1,452***	***4***	***$726***	***10***	***$1,815***	**88**	**$15,972**
G. Historic and Cultural Resources																				
C. Duran (Rincon)	Senior Professional I	$165	2	$330	0	$0	14	$2,310	33	$5,445	3	$495	6	$990	2	$330	0	$0	60	$9,900
Total Historic and Cultural Resources			***2***	***$330***	***0***	***$0***	***14***	***$2,310***	***33***	***$5,445***	***3***	***$495***	***6***	***$990***	***2***	***$330***	***0***	***$0***	**60**	**$9,900**
H. Water Resources																				
M. Long (Rincon)	Senior Professional I	$165	0	$0	0	$0	4	$660	24	$3,960	4	$660	8	$1,320	2	$330	10	$1,650	52	$8,580
A. Mescher (Rincon)	Professional IV	$149	4	$594	0	$0	4	$594	8	$1,188	4	$594	4	$594	2	$297	0	$0	26	$3,861
Total Water Resources			***0***	***$594***	***0***	***$0***	***4***	***$1,254***	***24***	***$5,148***	***4***	***$1,254***	***8***	***$1,914***	***2***	***$627***	***10***	***$1,650***	**78**	***$12,441***

Table 3 Detailed Cost Breakdown (cont.)

Key Staff	Labor Classification	Rate	NOP and Comments		Project and Alternative Descriptions		Peer Review and Information Requests		Admin Draft EIR and Technical Appendices		Public Draft EIR and Technical Appendices		Admin Final EIR Response to Comments		Final EIR and Mitigation Monitoring Plan		Meetings and Hearings		Total	
		($/hr)	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Cost	Hrs	Hrs	Hrs	Cost	Hrs	Cost
I. Initial Review of Project Consistency With Policies																				
D. Dusette	Principal Planner III	$180	0	$0	0	$0	0	$0	8	$1,440	4	$720	2	$360	2	$360	0	$0	16	$2,880
L. Perez	Principal Planner I	$200	0	$0	0	$0	0	$0	24	$4,800	4	$800	4	$800	4	$800	4	$800	40	$8,000
Total Land Use			***0***	***$0***	***0***	***$0***	***0***	***$0***	***32***	***$6,240***	***8***	***$1,520***	***6***	***$1,160***	***6***	***$1,160***	***4***	***$800***	**56**	**$10,880**
J. Issue Areas with Less than Significant Impacts																				
G. Chittick	Principal Engineer II	$190	0	$0	0	$0	0	$0	8	$1,520	2	$380	4	$760	1	$190	0	$0	15	$2,850
D. Dusette	Principal Planner III	$180	6	$1,080	2	$360	0	$0	24	$4,320	4	$720	8	$1,440	4	$720	0	$0	48	$8,640
L. Perez	Principal Planner I	$200	0	$0	0	$0	0	$0	4	$800	2	$400	4	$800	0	$0	0	$0	10	$2,000
Total Less Than Significant Issue Areas			***6***	***$1,080***	***2***	***$360***	***0***	***$0***	***36***	***$6,640***	***8***	***$1,500***	***16***	***$3,000***	***5***	***$910***	***0***	***$0***	**73**	**$13,490**
K. Report Production																				
B. Hendricks	Consultant II	$100	8	$800	0	$0	0	$0	48	$4,800	24	$2,400	24	$2,400	16	$1,600	0	$0	120	$12,000
G. Chittick	Principal Engineer II	$190	2	$380	0	$0	0	$0	36	$6,840	16	$3,040	8	$1,520	8	$1,520	0	$0	70	$13,300
D. Dusette	Principal Planner III	$180	0	$0	0	$0	0	$0	20	$3,600	8	$1,440	8	$1,440	8	$1,440	0	$0	44	$7,920
J. Peirson	Managing Engineer III	$200	6	$1,200	0	$0	0	$0	30	$6,000	8	$1,600	4	$800	4	$800	0	$0	52	$10,400
Total Report Production			***16***	***$2,380***	***0***	***$0***	***0***	***$0***	***134***	***$21,240***	***56***	***$8,480***	***44***	***$6,160***	***36***	***$5,360***	***0***	***$0***	**286**	**$43,620**
L. Project Management																				
G. Chittick	Principal Engineer II	$190	2	$380	4	$760	4	$760	12	$2,280	12	$2,280	8	$1,520	8	$1,520	38	$7,220	88	$16,720
J. Peirson	Managing Engineer III	$220	0	$0	0	$0	0	$0	4	$880	2	$440	0	$0	2	$440	24	$5,280	32	$7,040
Total Program Management			***2***	$380	***4***	$760	***4***	$760	***16***	$3,160	***14***	$2,720	***8***	$1,520	***10***	$1,960	***62***	$12,500	**120**	**$23,760**
Total Direct Labor			**48**	**$8,726**	**44**	**$8,240**	**123**	**$22,683**	**467**	**$83,196**	**135**	**$23,750**	**150**	**$25,888**	**85**	**$14,765**	**104**	**$20,261**	**1,182**	**$207,509**
Other Direct Costs																				
Travel				$0		$0		$0		$0		$0		$0		$0		$1,113		$1,113
Mailing				$0		$0		$0		$0		$500		$0		$500		$0		$1,000
Printing and Binding				$400		$0		$0		$800		$2,000		$800		$1,700		$0		$5,700
Communication				$0		$0		$0		$0		$0		$0		$0		$0		$0
Records Search				$0		$0		$0		$0		$0		$0		$0		$0		$0
Subcontractor costs				$0		$0		$0		$1,044		$0		$0		$0		$0		$1,044
Miscellaneous				$0		$0		$0		$0		$0		$0		$0		$0		$0
G&A on Other Direct Costs				$40		$0		$0		$184		$250		$80		$220		$111		$886
Total Other Direct Costs				***$440***		***$0***		***$0***		***$2,028***		***$2,750***		***$880***		***$2,420***		***$1,224***		**$9,742**
Total EIR Amount				***$9,166***		***$8,240***		***$22,683***		***$85,224***		***$26,500***		***$26,768***		***$17,185***		***$21,485***		**$217,251**
Contingency at 15%																				**$32,588**
Total EIR with Contingency																				**$249,839**