

# Attachment A

Agreement with Dudek including Appendix 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 Dudek with an address at 621 Chapala Street, Santa Barbara, CA 93101 (hereafter CONTRACTOR) wherein CONTRACTOR agrees to provide and COUNTY agrees to accept the services specified herein.

**WHEREAS**, COUNTY has been awarded a federal grant through the State of California Department of Housing and Community Development (HCD) to develop a Community Wildfire Protection Plan and Transportation Study (CWPP) for the Santa Barbara Foothill Communities and;

**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**

Fire Chief Mark Hartwig, or his designee(s) at phone number (805) 681-5500 is the representative of COUNTY and will administer this Agreement for and on behalf of COUNTY. Dana Link-Herrera at phone number (949) 391-0299 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:                    Mark Hartwig  
Santa Barbara County Fire Department  
4410 Cathedral Oaks Road, Santa Barbara, CA 93110  
FAX Number: (805) 681-5563  
Email: mhartwig@countyofsb.org

To CONTRACTOR:            Dana Link-Herrera  
Dudek  
621 Chapala Street, Santa Barbara, CA 93101  
FAX Number: N/A  
Email: dlinkherrera@dudek.com

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 September 15, 2023 and end performance upon completion, but no later than June 25, 2025 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. SUSPENSION FOR CONVENIENCE**

COUNTY 's designated representative 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 \_\_ days. COUNTY shall incur no liability for suspension under this provision and suspension shall not constitute a breach of this Agreement.

**34. 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.

**35. IMMATERIAL CHANGES**

CONTRACTOR and COUNTY agree that immaterial amendments to the work program (mutually agreeable work program changes which will not result in a change to the total Agreement amount) may be authorized by the Fire Chief, or designee in writing, and will not constitute an amendment to the Agreement.

**36. FEDERAL REQUIREMENTS**

The parties agree to the terms and conditions set forth in Exhibit D – Federal Requirements, attached hereto and incorporated herein by reference.

*[This area intentionally left blank. Signatures on following page.]*



Agreement for Services of Independent Contractor between the **County of Santa Barbara** and Dudek.

**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

**COUNTY OF SANTA BARBARA:**

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Chair, Board of Supervisors

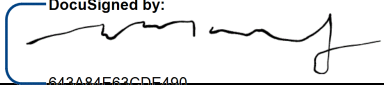
Date: \_\_\_\_\_

**RECOMMENDED FOR APPROVAL:**

Santa Barbara County Fire Department

**CONTRACTOR:**

Dana Link-Herrera

By:   
\_\_\_\_\_  
643A84E63CDE400...  
Department Head

By:   
\_\_\_\_\_  
61A12CB5E28E42E...  
Authorized Representative

Name: Joseph Monaco

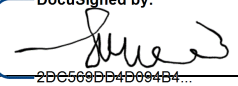
Title: President and Chief Executive Officer

**APPROVED AS TO FORM:**

Rachel Van Mullem  
County Counsel

**APPROVED AS TO ACCOUNTING FORM:**

Betsy M. Schaffer, CPA  
Auditor-Controller

By:   
\_\_\_\_\_  
2DC569DD4D094B4...  
Deputy County Counsel

By:   
\_\_\_\_\_  
D25019F2AF094BE...  
Deputy

**APPROVED AS TO FORM:**

Risk Management

By:   
\_\_\_\_\_  
DC240AC1E64247D...  
Risk Management

## EXHIBIT A

### STATEMENT OF WORK

CONTRACTOR shall render services in accordance with the Community Wildfire Protection Plan and Transportation Study for the Santa Barbara Foothill Communities, dated June 1, 2023 (**Appendix 1**), incorporated herein by reference and referred to hereafter as the "Proposal". The Proposal describes the technical services scope of work which includes the following: CONTRACTOR qualifications, capabilities and experience, key personnel, plan preparation, transportation study, and billing rates.

Dana Link-Herrera, Scott Eckardt, Noah Stamm, Alison Sells, Matthew Crockett, Jane Gray, Kristen Zecher, Raoul Ranao, Christopher Starbird, and Matthew Palavido, 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.

**Appendix 1:** Community Wildfire Protection Plan and Transportation Study for the Santa Barbara Foothill Communities, dated June 1, 2023.

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## EXHIBIT B

### PAYMENT ARRANGEMENTS

#### Periodic Compensation (with attached Schedule of Fees)

- A. For CONTRACTOR services to be rendered under this Agreement, CONTRACTOR shall be paid a total contract amount, including cost reimbursements, not to exceed **\$240,500**.
- 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 **EXHIBIT A** as determined by COUNTY. Payment for services and/or reimbursement of costs shall be based upon the costs, expenses, overhead charges and hourly rates for personnel, as defined in **Attachment B1** (Schedule of Fees). Invoices submitted for payment that are based upon **Attachment B1** must contain sufficient detail to enable an audit of the charges and provide supporting documentation if so specified in **EXHIBIT A**.
- C. Monthly, CONTRACTOR shall submit to the COUNTY DESIGNATED REPRESENTATIVE an invoice or certified claim on the County Treasury for the service performed over the period specified. These invoices or certified claims must cite the assigned Board Contract Number. COUNTY DESIGNATED REPRESENTATIVE shall evaluate the quality of the service performed and if found to be satisfactory and within the cost basis of **Attachment B1** 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.
- 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.

*[This area intentionally left blank.]*

**EXHIBIT B1**  
**RATE SCHEDULE**

| <b>Billing Title &amp; Role</b> | <b>Hourly Rate</b> |
|---------------------------------|--------------------|
| Project Director/Environmental  | \$265.00           |
| Senior Specialist IV            | \$235.00           |
| Specialist III                  | \$165.00           |
| Specialist II                   | \$155.00           |
| Analyst III                     | \$115.00           |
| Creative Services IV            | \$165.00           |
| GIS Analyst IV                  | \$165.00           |
| Application Developer II        | \$195.00           |
| GIS Analyst IV                  | \$165.00           |

## EXHIBIT C

### Indemnification and Insurance Requirements

#### 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, its 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:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if CONTRACTOR has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation:** Insurance 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. *(Not required if CONTRACTOR provides written verification that it has no employees)*
4. **Professional Liability:** (Errors and Omissions) Insurance appropriate to the CONTRACTOR'S profession, with limit no less than \$2,000,000 per occurrence or claim, \$2,000,000 aggregate.

If the CONTRACTOR maintains broader coverage and/or higher limits than the minimums shown above, the COUNTY requires and shall be entitled to the broader coverage and/or 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 ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).
2. **Primary Coverage** – For any claims related to this contract, the CONTRACTOR'S insurance coverage shall be primary insurance primary coverage at least as broad as ISO CG 20 01 04 13 as respects the COUNTY, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the COUNTY, its officers, officials, employees, 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.

*[This area intentionally left blank.]*

## EXHIBIT D Federal Requirements

*This Agreement is federally funded and subject to the clauses contained herein in accordance with the Department of Housing and Community Development Agreement No. 17-MITPPS-21021*

### THE CONTRACTOR AGREES:

#### 1. EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS AND RESPONSIBILITIES

During the performance of this Agreement, the obligations undertaken by CONTRACTOR include, but are not limited to, the obligation to comply with all federal laws and regulations described in Subpart K of 24 CFR Part 570 and specifically with each of the following, among other things, as the same may be amended from time to time:

- A. **Title VI of the Civil Rights Act of 1964:** This act provides that no person shall be excluded from participation, denied program benefits, or subject to discrimination based on race, color, and/or national origin under any program or activity receiving federal financial assistance.
- B. **Title VII of the Civil Rights Act of 1968 (The Fair Housing Act):** This act prohibits discrimination in housing on the basis of race, color, religion, sex and/or national origin. This law also requires actions which affirmatively promote fair housing.
- C. **Restoration Act of 1987:** This act restores the broad scope of coverage and clarifies the application of the Civil Rights Act of 1964. It also specifies that an institution which receives federal financial assistance is prohibited from discriminating on the basis of race, color, national origin, religion, sex, disability or age in a program or activity which does not directly benefit from such assistance.
- D. **Section 109 of Title 1 of the Housing and Community Development Act of 1974 [42 U.S.C. 5309]:** This section of Title 1 provides that no person shall be excluded from participation (including employment), denied program benefits, or subject to discrimination on the basis of race, color, national origin, or sex under any program or activity funded in whole or in part under Title 1 of the Act.
- E. **The Fair Housing Amendment Act of 1988:** This act amended the original Fair Housing Act to provide for the protection of families with children and people with disabilities, strengthen punishment for acts of housing discrimination, expand the Justice Department jurisdiction to bring suit on behalf of victims in federal district courts, and create an exemption to the provisions barring discrimination on the basis of familial status for those housing developments that qualify as housing for persons age 55 or older.
- F. **The Age Discrimination Act of 1975:** This act provides that no person shall be excluded from participation, denied program benefits, or subject to discrimination on the basis of age under any program or activity receiving federal funding assistance. Effective January 1987, the age cap of 70 was deleted from the laws. Federal law preempts any State law currently in effect on the same topic.
- G. **Section 504 of the Rehabilitation Act of 1973:** It is unlawful to discriminate based on disability in federally assisted programs. This Section provides that no otherwise qualified individual shall, solely by reason of his or her disability, be excluded from participation (including employment), denied program benefits, or subjected to discrimination under any program or activity receiving federal funding assistance.
- H. **The Americans with Disabilities Act of 1990 (ADA):** This act modifies and expands the Rehabilitation Act of 1973 to prohibit discrimination against "a qualified individual with a disability" in employment and public accommodations. The ADA requires that an individual with a physical or mental impairment who is otherwise qualified to perform the essential functions of a job, with or without reasonable



accommodation, be afforded equal employment opportunity in all phases of employment.

- I. **Executive Order 11063:** This executive order provides that no person shall be discriminated against on the basis of race, color, religion, sex, or national origin in housing and related facilities provided with federal assistance and lending practices with respect to residential property when such practices are connected with loans insured or guaranteed by the federal government.
- J. **Executive Order 12259:** This executive order provides that the administration of all federal programs and activities relating to housing and urban development be carried out in a manner to further housing opportunities throughout the United States.
- K. **The Equal Employment Opportunity Act:** This act empowers the Equal Employment Opportunity Commission (EEOC) to bring civil action in federal court against private sector employers after the EEOC has investigated the charge, found "probable cause" of discrimination, and failed to obtain a conciliation agreement acceptable to the EEOC. It also brings federal, state, and local governments under the Civil Rights Act of 1964.
- L. **The Uniform Guidelines on Employee Selection Procedures adopted by the Equal Employment Opportunity Commission in 1978:** This manual applies to employee selection procedures in the areas of hiring, retention, promotion, transfer, demotion, dismissal and referral. It is designed to assist employers, labor organizations, employment agencies, licensing and certification boards in complying with the requirements of federal laws prohibiting discriminatory employment.
- M. **The Vietnam Era Veterans' Readjustment Act of 1974 (revised Jobs for Veterans Act of 2002):** This act was passed to ensure equal employment opportunity for qualified disabled veterans and veterans of the Vietnam War. Affirmative action is required in the hiring and promotion of veterans.

## 2. CLEAN AIR ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 USC § 7401 et seq.
- B. CONTRACTOR agrees to report each violation to the California Environmental Protection Agency and understands and agrees that the California Environmental Protection Agency will, in turn, report each violation as required to assure notification to the COUNTY, the Federal Agency which provided funds in support of this Agreement, and the appropriate Environmental Protection Agency Regional Office.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance.

## 3. FEDERAL WATER POLLUTION CONTROL ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq.
- B. CONTRACTOR agrees to report each violation to the California State Water Resources Control Board and understands and agrees that the California State Water Resources Control Board will, in turn, report each violation as required to assure notification to the COUNTY, the Federal Agency which provided funds in support of this Agreement, and the appropriate Environmental Protection Agency Regional Office.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance.

## 4. DEBARMENT AND SUSPENSION

- A. 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.

- B. This certification is a material representation of fact relied upon by COUNTY. If it is later determined that CONTRACTOR did not comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C, in addition to remedies available to the California Governor's Office of Emergency Services and COUNTY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- C. This Agreement is a covered transaction for purposes of 2 CFR pt. 180 and 2 CFR pt. 3000. As such CONTRACTOR is required to verify that none of the contractor, its principals (defined at 2 CFR § 180.995), or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935).
- D. CONTRACTOR must comply with 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- E. The proposer agrees to comply with the requirements of 2 CFR pt. 180, subpart C and 2 CFR pt. 3000, subpart C while this offer is valid and throughout the period of any Agreement that may arise from this offer. The proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

#### 5. **LOBBYING RESTRICTIONS**

CONTRACTOR shall file the required certification attached as Exhibit D1, *Certification for Contracts, Grants, Loans, and Cooperative Agreement (Byrd Anti-Lobbying Amendment, 31 USC § 1352 (As Amended))*, which is incorporated herein by this reference. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

#### 6. **PROCUREMENT OF RECOVERED MATERIALS**

- A. In the performance of this Agreement, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA- designated items unless the product cannot be acquired—
  - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
  - ii. Meeting contract performance requirements; or
  - iii. At a reasonable price.
- B. Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

#### 7. **DOMESTIC PREFERENCES FOR PROCUREMENTS**

- A. As appropriate and to the extent consistent with law, the CONTRACTOR should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subcontractor agreements.
- B. For purposes of this section:
  - i. "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the

United States.

- ii. “Manufactured products” means items and construction materials composed in whole or in part of nonferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

**8. PROHIBITION ON CERTAIN TELECOMM PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT**

- A. CONTRACTOR is prohibited from obligating or expending loan or grant funds to:
  - i. Procure or obtain;
  - ii. Extend or renew a contract to procure or obtain; or
  - iii. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- B. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- C. Telecommunications or video surveillance services provided by such entities or using such equipment.
- D. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- E. In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- F. See Public Law 115-232, section 889 for additional information.
- G. See also 2 CFR § 200.471.

**9. MANDATORY DISCLOSURE**

CONTRACTOR must disclose, in a timely manner, in writing to the COUNTY all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the award. CONTRACTOR is required to report certain civil, criminal, or administrative proceedings to the System for Award Management (SAM) located at [www.sam.gov](http://www.sam.gov). Failure to make required disclosures can result in any of the remedies described in 2 CFR §200.338 Remedies for noncompliance, including suspension or debarment. (See also 2 CFR part 180 and 31 USC 3321.)

**10. MITIGATION PLANNING AND PUBLIC SERVICES (MMIT-PPS)**

CONTRACTOR shall comply with all local, state, and federal laws, statutes, and regulations, as well as policies and procedures established by the Department for the administration of MIT-PPS, as the same may be amended from time to time available here: [Mitigation Planning and Public Services | California Department of Housing and Community Development](#)

**11. THE TRAINING, EMPLOYMENT, AND CONTRACTING OPPORTUNITIES FOR BUSINESS AND LOWER INCOME PERSONS ASSURANCE OF COMPLIANCE (SECTION 3)**

CONTRACTOR shall comply with Section 3 of the Housing and Urban Development (HUD) Act of 1968 (12 U.S.C. 1701u), and implementing regulation at 24 CFR, Part 75 as follows:

- A. During the performance of this Agreement CONTRACTOR agrees the work to be performed under this Agreement is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- B. The parties to this Agreement agree to comply with HUD's regulations in 24 CFR, Part 75, which implement Section 3. As evidenced by their execution of this Agreement, the parties certify that they are under no contractual or other impediment that would prevent them from complying with the Part 75 regulations.
- C. The CONTRACTOR agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and subrecipients for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- D. The CONTRACTOR agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 75 and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 75. The CONTRACTOR will not subcontract with any subcontractor where the CONTRACTOR has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 75.
- E. The CONTRACTOR acknowledges that subrecipients, contractors, and subcontractors are required to meet the employment, training, and contraction requirements of 24 CFR 75.19, regardless of whether Section 3 language is included in recipient or subrecipient agreements, program regulatory agreements, or contracts.
- F. The CONTRACTOR will certify that any vacant employment positions, including training positions, that are filled (1) after the CONTRACTOR is selected but before the Agreement is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 75 require employment opportunities to be directed, were not filled to circumvent the CONTRACTOR's obligations under 24 CFR Part 75.
- G. Noncompliance with HUD's regulations in 24 CFR Part 75 may result in sanctions, termination of this Agreement for default, and debarment or suspension from future HUD assisted contracts.

**12. DRUG-FREE WORKPLACE ACT OF 1988**

During the performance of this Agreement CONTRACTOR agrees to:

- A. Publish and give a policy statement to all covered employees informing them that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in the covered workplace and specifying the actions that will be taken against employees who violate the policy.
- B. Establish a drug-free awareness program to make employees aware of a) the dangers of drug abuse in the workplace; b) the policy of maintaining a drug-free workplace; c) any available drug counseling, rehabilitation, and employee assistance programs; and d) the penalties that may be imposed upon

employees for drug abuse violations.

- C. Notify employees that as a condition of employment on a federal contract or grant, the employee must a) abide by the terms of the policy statement; and b) notify the employer, within 5 calendar days, if he or she is convicted of a criminal drug violation in the workplace.
- D. Notify the contracting or granting agency within 10 days after receiving notice that a covered employee has been convicted of a criminal drug violation in the workplace.
- E. Impose a penalty on or require satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is convicted of a reportable workplace drug conviction.
- F. Make an ongoing, good faith effort to maintain a drug-free workplace by meeting the requirements of the act.

**13. MITIGATION PLANNING AND PUBLIC SERVICES (MMIT-PPS) CONFLICT OF INTEREST**

Pursuant to 24 CFR 570.489(h), no member, officer, or employee of the CONTRACTOR, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercise or have exercised any functions or responsibilities with respect to MIT-PPS activities assisted under this part, or who are in a position to participate in a decision making process or gain inside information with regard to such activities, including members and delegates to the Congress of the United States, may obtain a financial interest or benefit from a MIT-PPS assisted activity, or have a financial interest in any contract, subcontract or agreement with respect to a MIT-PPS assisted activity or its proceeds, either for themselves or those with whom they have business or immediate family ties, during their tenure, or for 1 year thereafter. The CONTRACTOR shall incorporate, or cause to be incorporated, in all such contracts or subcontracts a provision prohibiting such interest pursuant to the purposes of this section.

**14. REMEDIES FOR NONCOMPLIANCE**

- A. Wholly or partly suspend or terminate the Agreement.
- B. Require payments as reimbursements rather than advance payments;
- C. Withhold authority to proceed to the next phase until receipt of evidence of acceptable performance within a given period of performance;
- D. Require additional, more detailed financial reports;
- E. Require additional project monitoring;
- F. Requiring CONTRACTOR to obtain technical or management assistance; or
- G. Establish additional prior approvals.

Take other remedies that may be legally available.

*[This area intentionally left blank.]*

**EXHIBIT D1**

**CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS  
(Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (As Amended))**

The undersigned CONTRACTOR certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

CONTRACTOR certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, CONTRACTOR understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

DocuSigned by:  
*Joseph Monaco*  
61A12CB5E28E42E...

Signature of Contractor's Authorized Official

Joseph Monaco President and Chief Executive Officer

Name and Title of Contractor's Authorized Official

8/25/2023 | 1:57 PM PDT

Date

# Appendix 1



PROPOSAL

# COMMUNITY WILDFIRE PROTECTION PLAN AND TRANSPORTATION STUDY FOR THE SANTA BARBARA FOOTHILL COMMUNITIES

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**COUNTY OF SANTA BARBARA**

JUNE 1, 2023

621 Chapala Street / Santa Barbara, CA 93101 / 805.963.0651

**DUDEK**

# Cover Letter

June 1, 2023

Christian Garcia  
General Services Department, Procurement Division  
County of Santa Barbara  
Submitted via Public Purchase

**Subject: Proposal to Provide Community Wildfire Protection Plan and Transportation Study for the Santa Barbara Foothill Communities**

Dear Christian Garcia:

We are pleased to provide the following proposal to prepare a new community wildfire protection plan (CWPP) and transportation study for the Santa Barbara foothill communities. We are committed to working collaboratively with the County of Santa Barbara to provide wildfire planning services in the most efficient and responsive manner possible. Dudek understands the importance of strategic fire plans and CWPPs as tools for proactively managing wildfire risk and has extensive experience working in the project area. Our team has local ties to Santa Barbara County and is very excited by the opportunity to work on this CWPP and transportation study. Dudek will serve as the primary consultant and will work with a traffic subconsultant, Fehr & Peers, to prepare the transportation study.

Dudek combines a rare in-house mix of fire protection planning, forestry, environmental planning, geographic information system (GIS), and fuel treatment/habitat restoration expertise under one roof. We can draw from this expertise as necessary, depending on the needs of the project. We have experience preparing CWPPs in California, and specifically in the project area. We recently prepared the Gaviota Coast CWPP for the Santa Barbara County Fire Safe Council (adopted in 2023), a CWPP and accompanying environmental impact report for the City of Santa Barbara (adopted in 2021), and a draft CWPP for the County of Los Angeles (completed in 2023), and we are currently preparing a CWPP for the Monterey Fire Department for the cities of Monterey, Pacific Grove, and Carmel-by-the-Sea. We have also successfully teamed with our project partners, Fehr & Peers, on previous wildfire-related evacuation planning projects in Santa Barbara County, including projects for the City of Santa Barbara and the Montecito Fire Protection District.

Project Manager Dana Link-Herrera is local to Santa Barbara County and will work collaboratively with Project Director Scott Eckardt. They have extensive experience in wildfire resiliency planning, urban forestry, and hazard assessment and have worked collaboratively on numerous wildfire planning documents. Ms. Link-Herrera will serve as the primary point of contact and will be supported by our fire planning team and technical staff, who have experience in hazard assessments, community engagement, GIS and mapping, and plan development.

The contents of this proposal, including the not-to-exceed cost, remain effective for a period of not less than 60 days from the proposal due date.



We appreciate the opportunity to support Santa Barbara County with this timely and important work. If you have any questions regarding our qualifications or need any additional information, please feel free to contact Ms. Link-Herrera at 949.391.0299 or dlinkherrera@dudek.com.

Sincerely,



**Joseph Monaco, AICP**  
President/CEO



**Dana Link-Herrera**  
Project Manager

*Joseph Monaco is authorized to sign on behalf of Dudek.*

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## APPENDIX

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# a. Introduction

## Project Understanding and Approach

Dudek understands that the project involves preparation of a Community Wildfire Protection Plan (CWPP) and a Transportation Study for the Santa Barbara Foothill communities. Dudek will serve as the primary consultant, and will work with traffic sub-consultant, Fehr & Peers, to complete the Transportation Study. Dudek has successfully worked with Fehr & Peers to complete similar projects in the Santa Barbara County south coast area. The CWPP will fulfill the requirements of the Healthy Forest Restoration Act of 2003, as well as the County's local guidelines "CWPP Development Process for Santa Barbara County", found in Attachment A of the RFP.

Through our experience developing CWPPs, we understand the importance of community engagement and local considerations to success of the plan. We are committed to developing CWPPs that are tailored to the plan area, address the plan area's unique wildfire risks, address the needs and priorities of the communities therein, and consider all stakeholders, regulations, and existing and planned wildfire risk mitigation efforts in the plan area. The project will need to take into consideration individual community plans, environmental guidelines, a State Route 192/roads program, local CWPPs previously prepared for adjacent communities, and the Regional Wildfire Mitigation Plan (RWMP) for the Santa Barbara County South Coast Region. We understand that fire agencies that serve the Santa Barbara South Coast (Santa Barbara County Fire Department, Santa Barbara City Fire Department, Montecito Fire Protection District, Carpinteria/Summerland Fire Protection District, and Los Padres National Forest) have been working collaboratively to create a regional fuel treatment network, and this CWPP will address gaps in the fuel treatment network within the plan area. Continued cross-collaboration with adjacent jurisdictions and affiliated organizations will help garner support for fire risk reduction projects as well as boost efficacy of these projects.

The wildland urban interface, fire history, and regional topography, vegetation and weather (including Sundowner winds) create a unique fire environment that has produced catastrophic wildfires that have affected the plan area. Wildland urban interface areas within the foothills of the Santa Ynez Mountains and bordering the Los Padres National Forest are adjacent undeveloped wildland areas with continuous vegetation and steep rugged terrain. Combined with extreme fire weather conditions, the plan area is susceptible to significant wildfire threats. Significant recent wildfires have affected the plan area, and past events in or near the plan area have resulted in devastating impacts, as demonstrated by the 2017 Thomas Fire followed by the 2018 Montecito debris flow. Severe impacts to communities, critical infrastructure, and values at risk have occurred and would be evaluated during the CWPP process. Evacuation will be a critical concern in the plan area, as there are many communities with narrow, windy roads and low visibility. The Transportation Study included as part of this CWPP is intended to evaluate community transportation infrastructure, evacuation capabilities and plans, and develop recommendations for improvements.

The CWPP will identify fire hazard reduction strategies for the Santa Barbara foothills community in an effort to reduce the impact of wildfires. These strategies will focus on communities, natural assets, and critical infrastructure at risk, as well as building upon a larger multi-jurisdictional fuel treatment network already established in the region. Such strategies must consider the plan area as well as the larger surrounding region. Proposed wildfire mitigation strategies will be in balance with sustainable ecological management and fiscal resources and will include strategies such as (but not limited to) hazardous fuels reduction projects, educational resources and outreach for community members, reduced structure ignitability, defensible space creation and enforcement, fire preparedness and evacuation planning.

## b. Qualifications

### Dudek History

Dudek was founded in 1980 in Encinitas, California, as a small civil engineering consulting practice working for municipal wastewater agencies and private land developers in San Diego County. The firm steadily grew its civil engineering practice through the 1980s, serving clients throughout Southern California. In 1990, Dudek started an environmental practice in response to expanding state and federal environmental regulations. In 2004, Habitat Restoration Sciences Inc. was founded as a habitat restoration construction subsidiary branching out from the restoration design practice. Primarily through organic growth and limited acquisitions of small firms, the firm has continued to expand its service offerings outside of California by opening offices in Oregon, Washington, Hawai'i, Virginia, Colorado, and Florida.

Dudek started an employee stock ownership plan (ESOP) in the early 2000s and has regularly funded the ESOP from profits. The result of this continuous commitment to employee ownership culminated with Dudek transitioning to a 100% ESOP structure in 2021. As the firm has grown and evolved, the ESOP has become a defining tool in driving employee engagement by promoting an ownership culture, enhancing employee retirement planning, and bolstering employee retention.

The firm maintains an organizational structure that empowers project managers to be decision makers and entrepreneurs. Internal administrative processes are kept to a minimum, limiting internal bureaucracy and enabling project managers to be flexible and responsive to client needs.

Dudek celebrated its 40th anniversary in March 2020. The firm now serves clients in the energy, transportation, municipal, education, and healthcare sectors; consists of 15 major practices; employs over 700 employees in 18 offices across the nation; and has projects spanning over 40 U.S. states. Joseph Monaco serves as president and CEO.

### Dudek Profile

Dudek assists municipalities on a broad range of projects that improve California's communities, infrastructure, and natural environment. From planning, design, and permitting through construction, we move projects through the complexities of regulatory compliance, budgetary and schedule constraints, and conflicting interests. We have a long history of providing environmental services to municipalities throughout California and know the local environmental resources and agency policies pertaining to resource management, development impact assessment, and mitigation.

Dudek brings extensive experience in wildfire planning services, as well as forest/urban forest management, civil engineering, biological and botanical assessments, regulatory permitting, stormwater compliance, unmanned aerial vehicle (drone) mapping, geographic information system (GIS) modeling and analysis, and California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) compliance. The Dudek advantage is

#### DUDEK AT A GLANCE

- California S-Corporation
- Tax ID: 95-3873865
- Founded in 1980
- 18 offices
- 700+ employees
- 100% employee-owned
- Top 120 U.S. Environmental Firms (Engineering News-Record, 2021)
- Silver medal in sustainability achievement (EcoVadis, 2021)

that we can truly take a project from conception through construction, setting us apart from traditional arboricultural and forestry firms that often lack environmental and other supporting services, and from smaller multidisciplinary companies that may not employ engineers or cultural resources specialists.

## SERVICE COMMITMENT

Our project managers are empowered to solve problems and make decisions in a timely fashion to keep project momentum moving forward. With low employee turnover, our staff's long tenure means the team you meet at project start will see your projects through to completion. We offer the most value for clients by doing the following:

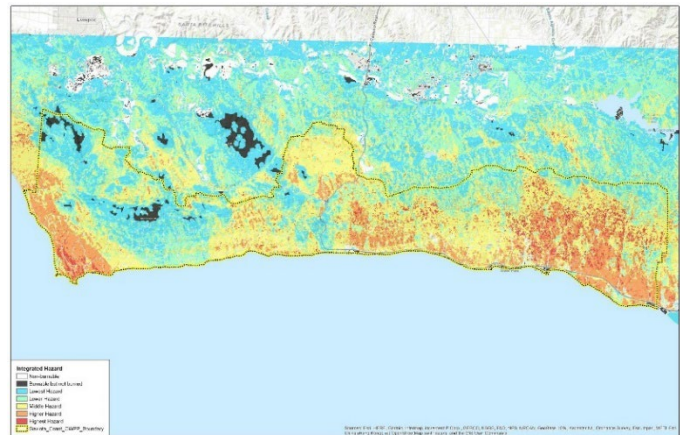
- Being the best integrated, multifaceted team in the industry, with high-quality work products and client-focused service
- Being engaged listeners to understand problems and think through the highest value-oriented approach
- Anticipating and planning for the needs of our clients and other interested parties
- Focusing on innovation to make smarter progress
- Being easy to work with because we are structured to support clients
- Understanding the stakes and the price of delays or failure

## WILDFIRE RESILIENCE PLANNING

Dudek's Wildfire Resilience Planning team develops high-quality planning documents focused on reducing wildfire risk to communities and resources. Our planning documents are supported by thorough technical analyses of wildfire hazard and potential fire behavior, which support development and prioritization of risk mitigation strategies. We have completed numerous plans across a variety of vegetation communities and land management jurisdictions. Our knowledge of the regulatory environment results in plans that are effective and implementable.

Our wildfire resilience planning professionals prepare the following planning documents:

- CWPPs
- Regional priority plans
- Vegetation/fuel management plans
- Wildland fire management plans
- Forest health plans
- Wildfire risk analyses
- Wildfire hazard and fire behavior modeling analyses
- CEQA and NEPA documents
- California Department of Forestry and Fire Protection (CAL FIRE) plan, exemption, and emergency notices



## VEGETATION MANAGEMENT

Dudek's foresters and fire planners understand the need to maximize the ecological and aesthetic benefits of forests and native vegetation communities while balancing the need for fire hazard reduction. Dudek foresters analyze and model wildfire hazard conditions, conduct site assessments and associated resource mapping,

identify and prioritize project areas, and develop plans and vegetation management prescriptions to strategically reduce fuel loads while considering potential impacts to natural resources. We understand the regulatory environment in California, have drafted numerous management plans, have processed plans and permits through various lead agencies, and can evaluate projects thoughtfully and critically.

Our fire and fuel management professionals provide the following professional services:

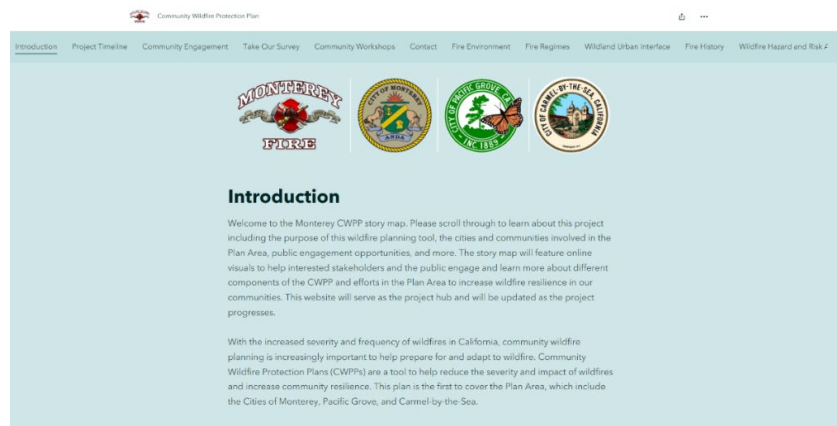
- Vegetation management plan (VMP) preparation
- Wildfire hazard evaluations and management plan preparation
- Defensible space inspections
- Development of fuel treatment prescriptions
- GPS mapping
- GIS analysis and modeling of fire behavior
- Contractor bid package preparation
- Preparation of technical reports, management plans, and CEQA documents related to forest and fire management
- Presentation of findings to decision-making bodies

Dudek has provided wildfire prevention and mitigation services for municipalities throughout California, including CWPP hazard assessments, safety plans, and evacuation plans. Additionally, we have led or supported clients in outreach to and engagement with the community and interested parties to educate and gain consensus among diverse participants. Following is a representative sample of projects completed by Dudek that demonstrate our ability to perform the services outlined in the RFP.

## VISUAL STORYTELLING

Dudek's Visual Storytelling team specializes in creating simple, elegant, and compelling visualizations to communicate complex data and ideas. We understand that simplifying complex concepts (and stripping them of jargon) is the first critical step in conducting informed conversations with the public. Our visualizations harness multiple techniques—3D renderings, photo-realism, GIS, animation, interactivity, illustrative novels, and technical

illustrations—to engage and inform both expert and non-expert audiences. This visual approach works equally well in multiple mediums such as (but not limited to) long-form printed documents, Esri tools like ArcGIS StoryMaps and Experience Builder, social media, virtual presentations, and posters. Our technical storytelling team's well-rounded, multi-industry background comes from decades of experience at major media outlets such as the Los Angeles Times and scientific research institutions like the Jet Propulsion Lab in Pasadena. This varied experience, combined with expertise in environmental consulting, makes Dudek's Visual Storytelling team exceptionally qualified at visualizing data regarding vitally critical public issues such as wildfire planning and regional priority plans.



Dudek's design portfolio can be viewed here: <https://dudek.com/our-work/design-portfolio>.

## TRANSPORTATION STUDY SUBCONSULTANT – FEHR & PEERS

Dudek has partnered with Fehr & Peers for the proposed project. Dudek, as the prime consultant, will contribute 77% of the total work, and subconsultant Fehr & Peers will contribute 23%. Fehr & Peers works with multiple agencies to address a wide range of questions asked about evacuation. These include design-related requirements (such as work with CAL FIRE on the Fire Safe Regulations update), Senate Bill 99 assessments to identify parcels with only one point of access, and emergency evacuation capacity assessments using in-house tools, such as EVAC+ and Resilience+. EVAC+ was specifically created to address some of the most complex emergency evacuation questions. It begins by interfacing with a regional travel demand model, refining it to estimate trips associated with an evacuation event (such as number of vehicles per household, number of people, number of employees) and the distribution of those trips during the event (using distribution curves depending on the time needed during an evacuation), and ending with a dynamic traffic assignment (DTA) model to capture evacuation times as queues build over space and time. Resilience+ is a GIS tool that utilizes roadway capacity and expected travel demand based on nearby population and employment to paint a broader picture of limited or sufficient capacity during evacuation conditions. Fehr & Peers' understanding of traffic operations and travel demand forecasting, as well as their extensive experience in the County, provides a unique platform to support the CWPP and transportation study.

### Fehr & Peers Top Management and Firm Organizational Structure

Fehr & Peers has five offices in Southern California, including our Los Angeles office where the majority of the work will be performed. Furthermore, Fehr & Peers has 70+ transportation professionals in the region and 340 professionals nationwide who are able to support the County.

Fehr & Peers is organized along geographic lines with office leaders and/or operations managers in charge of each office reporting to a regional principal-in-charge. Also located in many Fehr & Peers offices are senior market leaders, who are senior members of the firm responsible for marketing and directing a wide range of projects within a geographic region.

Fehr & Peers also includes a robust technical component led by company-wide discipline leaders of key technical areas and initiatives who report to a technical principal-in-charge.

**Firm TAX ID Number: 68-0065540**

**Firm Type: S-Corporation**

## Relevant Experience

### GAVIOTA COAST COMMUNITY WILDFIRE PROTECTION PLAN

**Client:** Santa Barbara County Fire Safe Council

Dudek worked with the Santa Barbara County Fire Safe Council to develop the CWPP for the Gaviota Coast. The plan area encompasses approximately 106,000 acres extending from the City of Goleta in the east to Point Conception in the west. The plan area includes a variety of land uses, including residential, recreation, ranching, agriculture, and open-space management. Dudek completed a wildfire hazard analysis for the plan area using the fire-behavior modeling and integrated hazard mapping tools included in the Interagency Fuels Treatment Decision Support System (IFTDSS) application. Dudek also conducted multiple development team, interested party, and agency meetings throughout the CWPP development process to gain consensus on CWPP content and recommendations. Several public meetings were held, and a public survey and webpage were developed to host plan development information and seek community feedback. Community feedback and hazard-modeling information were critical in developing the CWPP's action plan, which identified and prioritized actions and projects that the community could implement to mitigate wildfire risk. The Draft CWPP was released for public review in July 2022. The CWPP was finalized and adopted by the Santa Barbara County Board of Supervisors in February 2023.



February 2023  
Santa Barbara County Fire Safe Council  
P.O. Box 31052  
Santa Barbara, CA 93130-1052



### COMMUNITY WILDFIRE PROTECTION PLAN AND PROGRAM ENVIRONMENTAL IMPACT REPORT

**Client:** City of Santa Barbara Fire Department

Dudek worked with the City of Santa Barbara to develop their CWPP, a comprehensive plan intended to mitigate the impact of wildland fire to the city. The project was funded through a grant from CAL FIRE. The City of Santa Barbara initiated the project to update their 2004 Wildland Fire Plan, an important document guiding Santa Barbara toward greater fire resilience. Changes in Santa Barbara's development patterns, policies, and fire environment since 2004 necessitated a plan update to guide wildfire hazard reduction efforts into the future. Dudek worked closely with the Santa Barbara Fire Department and City Planning staff while developing the CWPP. The initial project task involved conducting a wildfire hazard assessment, which involved field evaluations, research, spatial data analysis, and fire behavior modeling. Fire behavior modeling utilized FlamMap software to evaluate the potential for extreme fire behavior (e.g., high flame lengths, crown fire activity, spotting). FlamMap is a GIS-based software; it provides modeling outputs in a spatial data format that can be analyzed to determine what portions of the city presented greater fire hazard. Dudek also modeled structure (building) densities and fire department response capabilities in GIS to inform project prioritization.





Based on the results of the fire hazard assessment, Dudek worked with the City of Santa Barbara to develop policies and action items to mitigate wildfire risk. Two of the primary recommendations in the CWPP were to expand the city's High Fire Hazard Area and add to the city's network of vegetation management units where ladder fuels and readily ignitable vegetation would be treated routinely to reduce the potential for extreme fire behavior in strategic locations in the city. Prioritization of vegetation management units was based on treatment history, adjacent structure density, and distance from fire stations. The CWPP also included recommended action items associated with fire codes and standards, funding, fire rehabilitation, evacuation, fire protection, and public education.



A key component of CWPP development was preparation and implementation of a robust community outreach plan to engage the community and gather input on CWPP development. The community outreach plan was supported by Dudek's technical and graphics team and included online surveys and development and maintenance of a project website (<https://cwpp.santabarbaraca.gov/>) to host project-related resources (e.g., maps, meeting information, CWPP drafts, surveys). Our team also facilitated two community meetings, both of which were well attended, and community feedback gathered was included in the CWPP.

Dudek also prepared the program environmental impact report (EIR) for the CWPP. This document evaluated environmental effects of CWPP implementation and identified mitigation measures to reduce such effects. The program EIR allows the City of Santa Barbara to implement the action items identified in the CWPP over time as staffing and funding allow. The final program EIR was adopted by the city in early 2021.

## WILDLAND FIRE EVACUATION PROCEDURES ANALYSIS

**Client:** City of Santa Barbara Fire Department

Dudek teamed with Fehr & Peers to complete a wildland fire evacuation procedures analysis for the City of Santa Barbara Fire Department. This multifaceted project involved a detailed analysis of traffic patterns and flows within Santa Barbara's Wildland Fire Suppression Assessment District using GIS-based network modeling. In addition, the project included detailed wildfire behavior modeling within the Wildland Fire Suppression Assessment District using FlamMap and FARSITE software packages.

Fire behavior modeling involved a significant effort to develop appropriate fuel models, using remotely sensed data products (vegetation data; satellite and aerial imagery; and other derived products such as normalized difference vegetation index, impervious surfaces, and color infrared) coupled with field observations and information provided by the Santa Barbara Fire Department. Once developed, the fuel models were used to build a landscape file for the Wildland Fire Suppression Assessment District so that wildfire modeling scenarios could be run, evaluated, and compared with the evacuation traffic analysis. The result was a series of recommendations for the Santa Barbara Fire Department to improve evacuation capabilities during a wildfire event. As a component of the project, Dudek also provided the City of Santa Barbara all GIS datasets, including the landscape file, so that future wildfire behavior modeling scenarios could be run and analyzed. This project was completed on time and within budget.

## LA PURISIMA RIDGE FUEL BREAK PROJECT SPECIFIC ANALYSIS

**Client:** Santa Barbara County Fire Department

Dudek supported the Santa Barbara County Fire Department in its efforts to implement proposed vegetation treatment activities on approximately 598 acres of private property. The vegetation treatment project would implement an approximately 16-mile fuel break atop La Purisima Ridge. The project was funded by a grant from the CAL FIRE California Climate Investments Fire Prevention Grant Program.

The purpose of the proposed project was to reduce flammable vegetation, improve environmental conditions (e.g., forest health), and provide a strategic location between Los Alamos Valley and the City of Lompoc where firefighting ground and air resources can gain access and provide firefighters the ability to safely reduce the intensity of, slow down, or stop the spread of a wildfire that may occur on either side of the ridge. Pursuant to CEQA, Dudek prepared a project-specific analysis tiering from the CalVTP EIR. Proposed fuel management activities include manual (hand crew), mechanical (masticator and track chipper), and prescribed pile burning. Dudek conducted biological and cultural resources field surveys and assisted the Santa Barbara County Fire Department with contacting regulatory agencies, preparing fuel treatment prescriptions, and refining work areas based on sensitive resources and site constraints.

## INTEGRATED WILDFIRE SAFETY PROGRAM

**Client:** County of Los Angeles

Dudek supported the County of Los Angeles in the development of its Integrated Wildfire Safety Program. To support this program, Dudek worked closely with Los Angeles County Department of Regional Planning and Los Angeles County Fire Department staff, conducted a wildfire risk assessment (WRA), and prepared a unified land management plan and a countywide Draft CWPP. The WRA involved modeling wildfire hazard conditions for the entire Los Angeles County, utilizing the fire behavior and risk-modeling tools embedded in the IFTDSS software package. For modeling purposes, Los Angeles County was broken into five separate forecast zones to better capture unique weather conditions present in different parts of the county.

Wildfire hazard modeling included assessments of burn probability and wildfire intensity. Hazard data was further analyzed in comparison with community and natural resource data to evaluate wildfire risk to these assets. Model output maps were useful in identifying and prioritizing project areas for hazardous fuels reduction. The unified land management plan outlines a framework for managing vegetation within the county under an adaptive management approach. This document is intended to guide implementation of vegetation management projects by outlining management types and fire risk-reduction techniques and identifying a series of best management practices to be implemented during vegetation management activities to reduce or avoid impacts to natural resources.

The countywide Draft CWPP evaluated Los Angeles County's wildfire environment and includes recommended actions and projects intended to reduce wildfire risk to communities. The countywide Draft CWPP includes recommendations for the development and implementation of specific wildfire risk-reduction projects and resources for community members to proactively reduce wildfire risk at their homes, on their properties, and in their communities. As a part of the countywide Draft CWPP development, Dudek developed a communication and engagement plan to guide outreach and engagement efforts during the plan development process.

## COMMUNITY WILDFIRE PROTECTION PLAN

**Client:** City of Monterey Fire Department

Dudek recently began working with the City of Monterey Fire Department to develop a CWPP for the Cities of Monterey, Pacific Grove, and Carmel-by-the-Sea. The initial project task involved conducting a review of existing information regarding wildfire and emergency hazards and conducting wildfire hazard assessments, which involved field evaluations, research, spatial data analysis, and fire-behavior modeling using IFTDSS software. Based on the results of the fire hazard assessment, Dudek will work with the cities to develop policies and action items to mitigate wildfire risk in the plan area. The project includes outreach, including a Stakeholder Working Group; a workshop for interested parties within each city; a public survey; and outreach materials. The project will be communicated to the public using an ArcGIS StoryMaps platform, which will contain information regarding hazard- and risk-assessment modeling results, public engagement opportunities, and the CWPP documents.

## Fehr & Peers Relevant Experience

### MONTECITO EVACUATION STUDY

**Client:** Montecito Fire Protection District

Fehr & Peers partnered with Dudek to support the Montecito Fire Protection District in understanding more about evacuation patterns and outcomes related to wildfire risk. Using a subarea extraction from the Santa Barbara County Association of Governments (SBCAG) Travel Demand Model, Fehr & Peers utilized EVAC+ to run dynamic traffic scenarios in response to input parameters that reflect conditions that the Montecito Fire Protection District is interested in testing. EVAC+ produces a variety of metrics related to evacuation outcomes, such as average evacuation times for an area, location of bottlenecks on the network, and number of evacuating vehicles for an area. Dudek assisted with community outreach and engagement during the analysis and plan development. Dudek conducted a community survey to gain an understanding of community concerns. Additionally, lessons learned from previous wildfire evacuation events were gleaned from interviews with various fire agencies that had experienced large fire events and review of after-action reports. Dudek also provided input on the types of wildfires and expected wildfire behavior in Montecito. Following the analysis, the team developed recommendations to manage the congestion, improve communication with residents, and strategically allocate staff resources during an evacuation.

### CALABASAS SAFETY ELEMENT UPDATE

**Client:** City of Calabasas

Fehr & Peers is conducting emergency evacuation analysis in support of the City of Calabasas Safety Element Update. In response to 2019 legislation (Assembly Bill 747), safety element updates must include capacity evaluation for evacuation routes in high-risk areas. The analysis includes working with City of Calabasas staff to develop emergency evacuation scenarios, analyzing traffic operations under each scenario to identify congestion hot spots and bottlenecks on the city's evacuation routes, and developing recommendations to improve traffic flows during each evacuation scenario. In addition to coordinating with city staff, Fehr & Peers is coordinating with the Los Angeles County Fire Department, Sheriff's Department, and Office of Emergency Management.

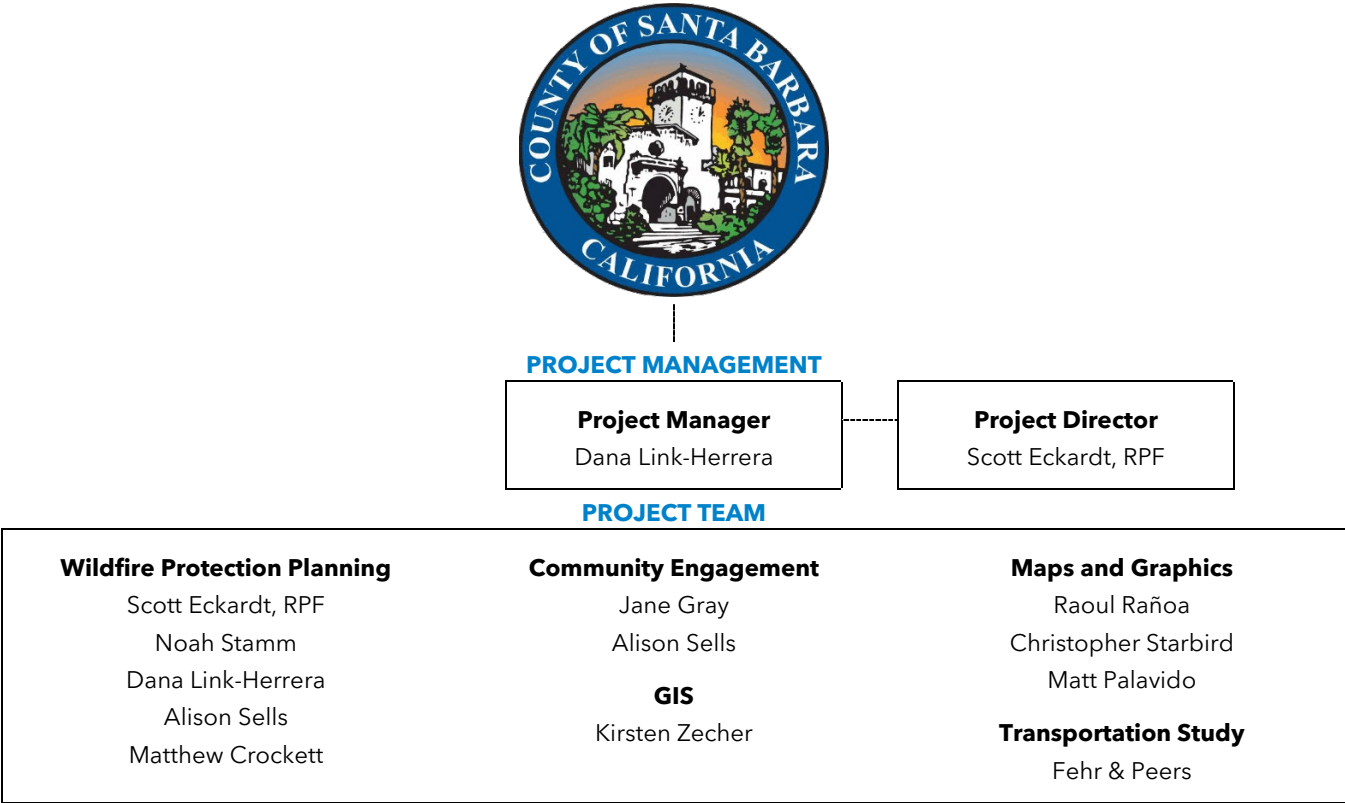
# c. Personnel

We have assembled a team with the knowledge and specific expertise to complete the scope of services outlined in the RFP.

Dana Link-Herrera will serve as the project manager and primary point of contact for the County. Ms. Link-Herrera is an urban forestry specialist and environmental planner with expertise in natural resource management, wildfire planning, and CEQA/NEPA compliance and documentation. She will be supported by Project Director Scott Eckardt and a technical team with expertise in wildfire resiliency planning and urban forestry. Mr. Eckardt is a Registered Professional Forester (RPF) and wildfire protection planner with expertise in forest resources and fire management issues in open space and wildland-urban interface (WUI) areas throughout California.

The Dudek team includes Fehr & Peers as a subconsultant responsible for the transportation study task. Our proposed team has extensive wildfire and urban forestry planning as well as CEQA analysis and documentation experience throughout California. **Figure 1** presents the Dudek team organization, including roles and responsibilities for the proposed staff members. Dudek understands that any modifications to staffing during the contract performance period must first be approved by County Fire. Brief biographies highlighting the qualifications and experience of key personnel follow the organization chart. Full resumes are provided in **Appendix A**.

Figure 1. Dudek Team Organization



## Dana Link-Herrera

### PROJECT MANAGER; WILDFIRE PLANNER

Dana Link-Herrera is an urban forestry and wildfire planner with 7 years' experience and a strong foundation in environmental and urban planning and CEQA/NEPA analysis and documentation.

Ms. Link-Herrera provides project management and analytical support for various projects in rural, suburban, and urban communities, and specializes in completing CEQA/NEPA compliance for forest health, vegetation management, and fuels reduction projects in California. She has experience working with federal, state, and local agencies, as well as with public universities and tribal communities. She works collaboratively with Dudek's certified arborists, fire planners, and licensed foresters to prepare CWPPs, fire protection plans (FPPs), urban forest management plans, and technical analyses in accordance with CEQA/NEPA and local/regional policies.

### Relevant Projects/Experience

- CWPP and Program EIR | CITY OF SANTA BARBARA FIRE DEPARTMENT
- La Purisima Ridge Fuel Break Project | SANTA BARBARA COUNTY FIRE DEPARTMENT
- Gaviota Coast CWPP | SANTA BARBARA COUNTY FIRE SAFE COUNCIL
- Hitch Ranch FPP and EIR | CITY OF MOORPARK
- Montecito Evacuation Plan | MONTECITO FIRE PROTECTION DISTRICT
- Integrated Wildfire Safety Program | COUNTY OF LOS ANGELES



#### *Education*

California Polytechnic State University, Pomona  
MURP, Urban and Regional Planning

University of California, San Diego  
BA, International Studies (Environmental Studies minor)

#### *Professional Affiliations*

APA, AEP

#### *Estimated Hours*

218 (16% of total)

## Scott Eckardt, RPF

### PROJECT DIRECTOR, FORESTER

Scott Eckardt is a project manager and RPF with 23 years' professional experience in the natural resource management field, specializing in fire protection planning, fire hazard assessment, forest/woodland management, and fuel management in open space and WUI areas. His experience includes assessing fire and fuel hazard conditions; inspecting WUI areas for fire departments; preparing CWPPs and VMPs; modeling fire hazard and fire behavior; and preparing technical reports, forest and fuel management plans, and environmental review documents. Additionally, Mr. Eckardt has managed the preparation of CWPPs and assisted with the development of urban forest master plans (UFMPs), street tree master plans, and hazard tree identification and assessment projects. He also routinely utilizes GIS to analyze resource data, model fire behavior and wildfire hazard, and develop mitigation plans and programs.

### Relevant Projects/Experience

- Gaviota Coast CWPP | **SANTA BARBARA COUNTY FIRE SAFE COUNCIL**
- CWPP and Program EIR | **CITY OF SANTA BARBARA FIRE DEPARTMENT**
- Integrated Wildfire Safety Program | **County of LOS ANGELES**
- Oakland Hills VMP | **OAKLAND FIRE DEPARTMENT**
- Los Altos Hills CWPP Annex | **LOS ALTOS HILLS COUNTY FIRE DISTRICT**
- San Mateo County Hazardous Fuels Reduction Program | **FIRE SAFE SAN MATEO**



#### *Education*

California State University,  
Long Beach  
MA, Geography

California Polytechnic State  
University, San Luis Obispo  
BS, Forestry and Natural  
Resources Management

#### *Certifications*

RPF, No. 2835

ISA Certified Arborist,  
No. WE5914A

Association for Fire Ecology  
Certified Wildland Fire Manager

#### *Professional Affiliations*

Association for Fire Ecology  
ISA

#### *Estimated Hours*

100 (7% of total)

## Noah Stamm

### WILDFIRE PLANNER

Noah Stamm is an urban forestry analyst with 13 years' experience in fire prevention, wildland fire and fuels management, WUI fire protection, urban forestry consulting, make-ready engineering, and GIS. Mr. Stamm has participated in numerous projects throughout California dealing primarily with fuel hazard reduction in the WUI communities. He also has experience with consulting utility forestry, impact analysis studies, tree hazard evaluations, and on-site tree monitoring and protection. These projects include assessment and inspections of hazardous fuel reduction modifications to communities within the WUI, inventory of oak woodlands, monitoring of native oaks and other trees on development sites, GPS mapping, data analysis, and preparation of assessment preservation plans.

### Relevant Projects/Experience

- CWPP | CITY OF BRADBURY
- WUI Site Assessments | CITY OF NEWPORT BEACH
- Hazard Tree Assessment and Mapping | COUNTY OF FRESNO



#### *Education*

California Polytechnic State University, San Luis Obispo BS, Forestry and Natural Resources (Wildland Fire and Fuels Management concentration)

#### *Certifications*

Oxnard College Regional Firefighter Academy, Firefighter 1

#### *Professional Affiliations*

ISA

#### *Estimated Hours*

18 (1% of total)

## Alison Sells

### WILDFIRE PLANNER

Alison Sells is a wildfire planner who recently completed her master's degree from the University of California, Santa Barbara. She has experience working with fire safe councils and local community groups for CWPP development, community engagement with underserved communities, CEQA documentation, defensible space procedures, environmental economic models of wildfire, and grant writing.

### Relevant Previous Experience

- CWPP for the Cities of Monterey, Pacific Grove, and Carmel-by-the-Sea | **CITY OF MONTEREY FIRE DEPARTMENT**
- Integrated Wildfire Safety Program | **County of LOS ANGELES**
- Ventura County CWPP | **VENTURA REGIONAL FIRE SAFE COUNCIL**
- Community Programs and Development Intern | **VENTURA REGIONAL FIRE SAFE COUNCIL**

## Matthew Crockett

### WILDFIRE PLANNER

Matthew Crockett is a wildfire planner currently completing his master's degree program at California Polytechnic State University, San Luis Obispo. He has experience with wildfire risk evaluation, CWPP development, academic research, wildfire hazard and vegetation growth modeling, and forest inventory field work and surveys supporting management plans.

### Relevant Previous Experience

- CWPP for the Cities of Monterey, Pacific Grove, and Carmel-by-the-Sea | **CITY OF MONTEREY FIRE DEPARTMENT**
- Los Altos Hills CWPP Annex | **LOS ALTOS HILLS COUNTY FIRE DISTRICT**
- Integrated Wildfire Safety Program | **County of LOS ANGELES**
- Pismo Beach CWPP | **FIRE SAFE COUNCIL OF SAN LUIS OBISPO COUNTY**



#### *Education*

*University of California, Santa Barbara  
MESM, Environmental Science and Management*

*California Polytechnic State University, San Luis Obispo  
BS, Environmental Management and Protection*

#### *Estimated Hours*

*168 (12% of total)*



#### *Education*

*California Polytechnic State University, San Luis Obispo  
MS, Environmental Sciences and Management (underway)*

*California Polytechnic State University, San Luis Obispo  
BS, Environmental Management and Protection*

#### *Estimated Hours*

*360 (27% of total)*



## Jane Gray

### COMMUNITY OUTREACH

Jane Gray is an environmental specialist and project manager with 26 years' project management experience. Ms. Gray has more than a decade of environmental planning experience, specializing in water planning, agricultural resource and policy planning, policy analysis, land use planning, and project development and entitlement services as well as grant writing and administration. She has worked as a project manager, analyst, and environmental planner for various nongovernmental and public agencies responsible for projects varying from small-scale development and infrastructure planning in developing economies to private residential and commercial development.

### Relevant Previous Experience

- Public Outreach, Planning and Development Department | **COUNTY OF SANTA BARBARA**
- Groundwater Sustainability Agency Engagement and Facilitation Services | **MONTECITO WATER DISTRICT**
- On-Call Grant Services, Water and Wastewater Divisions of Public Works | **CITY OF SANTA BARBARA**



#### *Education*

Universität Dortmund, Germany  
MS, Regional Planning and Management

State University of New York,  
Buffalo

BS, Social Work

#### *Professional Affiliations*

Santa Barbara County  
Agricultural Advisory  
Committee, 2nd District  
Supervisory Appointee

Central Coast Regional Water  
Quality Control Board, Vice  
Chair, Gubernatorial Appointee

#### *Estimated Hours*

10 (1% of total)

## Kirsten Zecher

### GIS TECHNICIAN

Kirsten Zecher is a senior geographic information system (GIS) analyst with 31 years' experience working in the geospatial field, specializing in the management of GIS projects requiring complex spatial analysis and cartographic excellence. Kirsten has had significant experience as the lead GIS analyst for the preparation of hundreds of environmental planning documents, involving data inventory, design, analysis, modeling, mapping, and impact reporting for multilayered, large-scale projects. Kirsten has supported numerous biological resources reports, wetlands permitting and jurisdictional delineation reports, and community wildfire protection plans throughout California. Kirsten has specific expertise in presenting complicated data with clarity and visual appeal.

### Relevant Projects/Experience

- CWPP | CITY OF SANTA BARBARA
- Bacara Resort and Spa Completion Phase | CITY OF GOLETA
- Community Plan Documents, Planning and Development Department | COUNTY OF SANTA BARBARA
- Long Range Development Plan/Open Space Management Plan | UNIVERSITY OF CALIFORNIA, SANTA BARBARA



#### *Education*

University of California,  
Santa Barbara  
BA, Geography (GIS, Remote  
Sensing, and Cartography  
emphasis)

#### *Certifications*

Certified GIS Professional,  
Permit No. 00041197  
FEMA Integrated Computer  
Solutions-100, Introduction to  
the Incident Command System

#### *Professional Affiliations*

Association of America  
Geographers  
Urban and Regional Information  
Systems Association, Southern  
California Chapter

#### *Estimated Hours*

42 (3% of total)

## Raoul Rañoa

### VISUAL/TECHNICAL STORYTELLING PRACTICE LEAD

Raoul Rañoa is the lead of Dudek's Visual Storytelling practice. His 24-year career includes roles at the Los Angeles Times and JPL/NASA where he honed his expertise in breaking down complex data and processes into visual stories suitable for both expert and general audiences. Mr. Rañoa has prepared print, online, and animated visuals covering every facet of the environmental consulting industry, including Urban Forestry Management programs, large-scale construction projects, unmanned aerial survey missions, sea-level-rise, hydrological processes, and green technology. He is knowledgeable in print and Web graphics production, including prepress, vector, and 3-D illustration; GIS; social media; video; and motion graphics. He also has management and university-level teaching experience, as well as experience in technical editing, writing, reporting, and cartography. Additionally, Mr. Rañoa's work is nationally recognized, having been featured in the Best American Infographics book series 2 years in a row.

### Relevant Projects/Experience

- Urban Forest Master Plan | CITY OF DOWNEY
- San Diego Tour Storymap | AMERICAN PLANNING ASSOCIATION
- Fanita Rancho Interpretive Signs – Santee, CA | HOMEFED CORPORATION
- Native Peoples Trade and Historic Hangar Interpretive Display | PORT OF PORTLAND, OREGON



#### *Education*

California Polytechnic State University, Pomona  
BA, Communications  
(Journalism Focus)

#### *Estimated Hours*

82 (6% of total)

## Christopher Starbird

### GIS ANALYST

Christopher Starbird is a geographic information systems (GIS) analyst with 17 years' experience in environmental projects for municipal, regional, and federal public agencies and non-profit organizations. Mr. Starbird uses the latest in mapping software from the Environmental Systems Research Institute (ESRI). His skills include database design, spatial analyses, three-dimensional (3D) modeling with shade and shadow analysis, glint and glare analysis, interactive web development and design, web-based mapping, and high-quality cartographic design. Mr. Starbird has completed course work in the areas of computer programming, GIS, cartography, and field techniques in geographic research, web-based interactive map presentation, and digital graphics design.

### Relevant Projects/Experience

- CWPP Community Outreach Website | CITY OF SANTA BARBARA
- Creative Office Project EIR | CITY OF BEVERLY HILLS
- Pacific Coast Commons Specific Plan EIR | CITY OF EL SEGUNDO



#### *Education*

University of California,  
Santa Barbara  
BA, Geography

#### *Estimated Hours*

34 (3% of total)

## Matthew Palavido

### GEOSPATIAL APPLICATION DEVELOPER

Matthew Palavido is a geospatial application developer with 25 years' experience. He is knowledgeable about geographic information systems (GIS), GIS needs assessments, spatial analysis, GPS, cartography, databases, geography, environmental awareness, sustainability, spatial databases, asset management, and web mapping. Mr. Palavido is proficient at several programming languages, including Python, JavaScript, and Arcade. He also has experience using the following software: VertiGIS Workflow Studio, ArcGIS Pro, ArcGIS Online, ArcGIS Enterprise, Field Maps for ArcGIS, Survey123, PowerBI, and Power Automate.

### Relevant Projects/Experience

- Reservoir Hydrography Reporting Tool | CITY OF SAN DIEGO
- Regional Conservation Investment Strategy | COUNTY OF SAN BERNARDINO
- Climate Adaptation Plan | CITY OF RIALTO



#### *Education*

University of North Carolina at  
Wilmington  
BS, Geography, 1999  
Pennsylvania State University  
Post Baccalaureate Certificate,  
GIS

#### *Certifications*

IT Service Management,  
PeopleCert,  
No. GR750479163MP

#### *Estimated Hours*

10 (1% of total)



# Sarah Brandenberg, PE

**Principal-in-Charge**

Estimated Hours: 28 (2% of total)

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## EDUCATION

Bachelor of Science, Civil and Environmental Engineering, Cal Poly San Luis Obispo

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## REGISTRATIONS

Licensed Traffic Engineer, State of California (#2213)

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## ABOUT

Sarah Brandenberg has over 20 years of experience with Fehr & Peers and is a licensed Traffic Engineer. Sarah served as the Operations Manager of the Los Angeles office for seven years and is currently the Regional Principal-in-Charge of Southern California. Sarah has managed a variety of complex studies, such as emergency evacuation studies, transportation impact studies, EIR transportation sections, transportation planning studies, and corridor studies focused on roadway operations, transit and active transportation. Sarah has worked on multiple studies requiring VMT analysis in adherence with new CEQA guidelines. Other key projects include the City of Los Angeles Mobility Plan 2035 EIR, Beverly Hills On-Call Transportation Services, Westside Mobility Plan, Marina del Rey Mobility Plan, and Hollywood Community Plan Update. Sarah's ability to work closely with clients, complete a high-quality technical analysis, and clearly communicate study findings have been and will continue to be critical to project success.

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## PROJECT EXPERIENCE

**Montecito Evacuation Study (Montecito, CA)**

**Calabasas Safety Element Update (Calabasas, CA)**

**UC Santa Barbara Long Range Development Plan**

**UC Santa Barbara Ocean Road Housing Project and Bicycle Planning**

**UC Santa Barbara San Joaquin Housing EIR**



## Chelsea Richer, AICP

Senior Associate

Estimated Hours: 64 (5% of total)

### EDUCATION

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Master of Urban & Regional Planning University of California, Los Angeles, 2014

Bachelor of Arts, Environmental Studies and Public Policy, University of Chicago, 2008

### REGISTRATIONS

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American Institute of Certified Planners (027878)

### AFFILIATIONS

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California Planning Foundation Board Member

APA Los Angeles Section Member

### ABOUT

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Chelsea has over 10 years of experience in transportation planning, focusing on first/last mile planning, multi-modal safety, climate change, and transportation demand management (TDM). Chelsea leads Fehr & Peers' companywide discipline group on Climate Change & Resilience. With experience working in diverse communities in Los Angeles, Chelsea excels on projects that center transportation equity, data analysis, project evaluation, and community engagement as the tools to inform better decision-making and better outcomes. Her technical practice areas are underpinned by strong communication skills, attention to detail, and experience managing complex planning projects with interdisciplinary teams.

### PROJECT EXPERIENCE

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**Montecito Evacuation Study (Montecito, CA)**

**Calabasas Safety Element Update (Calabasas, CA)**

**Beverly Hills Evacuation Study (Beverly Hills, CA)**

**OCTA Rail Defense Against Climate Change (Orange County, CA)**

**Oxnard Sustainable Transportation Plan (Oxnard, CA)**

**Oxnard Climate Action Plan (Oxnard, CA)**

**Advisory Services for the Transportation Electrification Partnership (Los Angeles, CA)**

**Transportation Technology Strategy Implementation (Los Angeles, CA)**

## d. Methodology

We have reviewed the project's RFP to develop our proposed approach, which is consistent with our approach on CWPP projects and transportation studies in the County and other areas of California. We can work with the County to modify this approach to meet project goals, as necessary, at the start of the project as well as throughout the CWPP development process. The Dudek team also understands that the CWPP plan area will encompass the geographic extent identified in the RFP, though we will coordinate with the County to modify this area if appropriate.

### Task 1: Review Existing Information

#### Task 1.1 Kickoff Meeting

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We will schedule and host a kickoff meeting (proposed to be held virtually via Zoom) to coincide with our initial data gathering and review effort. The kickoff meeting will enable the County and the Dudek team to establish lines of communication, discuss milestones/critical paths, and begin the CWPP process. The kickoff meeting will also provide a forum to discuss the schedule for outreach meetings. In our experience, gaining input from interested parties in the early stages of the CWPP process is critical to develop a document that will be approved and implemented. We anticipate that, at minimum, currently identified Development Team members (or a subset thereof) and the County's project manager will be in attendance at the kickoff meeting.

#### Task 1.2 Review Existing Information

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We will compile and review existing local policy, planning, and management documents, including any proposed VMPs or projects, for the County and other applicable jurisdictions (e.g., CAL FIRE, U.S. Forest Service [USFS], adjacent communities). We will also review existing information related to transportation and mobility during evacuations, including the roadway network and transportation goals and policies contained in Community Plans and the County's digital map database. We will review deliverables that may be available from the County's evacuation study that is currently underway.

This task will also include collecting, processing, and managing all relevant datasets for the CWPP and transportation study development process. Review of these materials and data will be critical to understanding the existing fire environment, transportation network, regulatory framework, and collaborative opportunities, which will inform our analysis, recommendations, and action plan for the CWPP. The CWPP would aim to build upon and complement existing planning efforts. Data review will also include identification of data gaps, which will be discussed with the County. We expect to review and/or process the following background information:

- Relevant fire and ignition history datasets
- Local community plans, policies, and regulations (e.g., General Plan, Community Plan, County Code of Ordinances)
- Local fire planning documents (e.g., CWPPs for adjacent communities, previous CWPP)
- City digital map databases
- Roadway network data
- Available fire hazard mapping data and other pertinent GIS files (e.g., vegetation/land cover, terrain, roads, assets, parcels, communities)
- Fuel treatment datasets
- Local weather data

- Current literature regarding fuel reduction treatments and community protection
- Any additional relevant documents identified by the County during the kickoff meeting

**Deliverables:**

- None

**Assumptions:**

- All relevant GIS files for CWPP and transportation study development (e.g., communities, roads, assets, infrastructure locations) will be provided by the County or will otherwise be publicly available

## Task 2: Conduct Hazard and Risk Analysis

### Task 2.1 Field Assessment

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Our initial effort in developing the hazard and risk analysis will involve a field assessment to better understand the fire environment present in the plan area. The field assessment will include an evaluation of terrain, vegetation/fuel types, treatment areas, road/access conditions, landscape characteristics, structure conditions, and other environmental variables that may increase wildfire risk or prohibit fuels treatment activities. Where feasible, we will conduct some or all fire-focused field assessment with representatives from Santa Barbara County Fire. Presence of local fire experts during our field evaluations will result in greater efficiency as well as important information exchange. Field evaluations are intended to be general, without detailed property and site mapping. The field assessment will also be useful in field verification of base datasets to be used for hazard and risk modeling.

### Task 2.2 Hazard Modeling

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We propose utilizing the fire hazard modeling tools embedded in the GIS-based IFTDSS application to model wildfire hazard for the plan area. IFTDSS utilizes two embedded models, FlamMap and Minimum Travel Time. IFTDSS models fire behavior in a spatial GIS environment to determine wildfire hazard. The IFTDSS modeling approach incorporates LANDFIRE vegetation/fuel and terrain data, as well as user-input wind and weather data. For hazard modeling purposes, we propose to model Integrated Hazard (a combination of modeled wildfire intensity and burn probability) within IFTDSS's Landscape Burn Probability tool. We will also model flame length, rate of spread, and fire line intensity in IFTDSS under the Landscape Fire Behavior tool.

To evaluate wildfire ember generation, we propose to use FlamMap software to model fire behavior, specifically spotting potential. FlamMap operates in a GIS/spatial environment, which allows for exporting data layers to evaluate along with other hazard modeling results. The spotting potential analysis in FlamMap models ember generation from torching trees and calculates spotting distance. This output data will be used to generate spotting potential GIS data layers for further analysis and mapmaking. For IFTDSS and FlamMap modeling, we also anticipate using historical weather data from the Weather Information Management System and/or Remote Automated Weather Stations to determine appropriate weather inputs (e.g., fuel moisture, wind speeds) for the modeling runs. We anticipate using 97th percentile weather outputs (associated with a sundowner wind event) from the FireFamily Plus software package in fire behavior modeling efforts.

### Task 2.3 Risk Modeling

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We propose also utilizing the GIS-based IFTDSS application to model wildfire risk for the plan area by performing a quantitative wildfire risk assessment (QWRA). The QWRA utilizes the IFTDSS Integrated Hazard modeling output (described above) in a spatial GIS environment and compares the Integrated Hazard modeling results with assets at risk from wildfire (e.g., communities, infrastructure, natural resource values) to determine and quantify wildfire risk. We will work with the County to determine the assets to evaluate in the QWRA.



The wildfire risk assessment output will include a GIS data layer representing the QWRA outputs for the plan area as well as an IFTDSS-generated report quantifying the risk associated with analyzed assets. The results of the Integrated Hazard analysis and QWRA will also be analyzed with other GIS datasets (e.g., transportation networks, structure locations, habitat areas) to further evaluate risk in the plan area. The results of this analysis will inform preparation of the CWPP.

We will also prepare a document summarizing the wildfire risk analysis and identifying model inputs, assumptions, and constraints to be included as an appendix to the CWPP. The Integrated Hazard QWRA data and relevant fire behavior, burn probability, and vegetation mapping data from the IFTDSS program will be made available for use in further analysis and/or mapmaking. All data will be managed in Esri ArcGIS, and all data products delivered to the County will be in Esri format (i.e., shapefile, grid, or geodatabase).

#### **Deliverables:**

- GIS mapping files for Integrated Hazard and QWRA modeling
- Document summarizing the wildfire risk analysis process

#### **Assumptions:**

- Field assessment will be 2 days
- Asset data will be publicly available or made available by the County

### **Task 3: Conduct Community Outreach**

Long-term community involvement and education is an important component of any successful CWPP. We recognize that each community is unique and requires a tailor-made community engagement plan to meet community member needs. The Dudek team will first consult with County staff to identify interested parties, key residents, and/or organizations to accomplish goals and priorities for fostering participation of diverse interested parties and public education avenues. The following community outreach activities are based on the core values and public participation goals of the International Association for Public Participation and aim to ensure that those affected by the CWPP and wildfire management have a voice in the process:

- **Inform:** To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, and/or solutions
- **Consult:** To obtain public feedback on analysis, alternatives, and/or decisions
- **Involve:** To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered
- **Collaborate:** To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution
- **Empower:** To place final decision-making in the hands of the public

#### **Task 3.1 Development Team Establishment and Coordination Meetings**

We will work with the County's project manager to identify and formalize a CWPP Development Team. We understand that some potential members may have already been identified, and we will work to finalize this team. Members of this team are anticipated to include representatives from land management agencies, neighboring fire management agencies, neighborhood associations, community groups, and community members, amongst others. The Development Team will be engaged throughout each stage of the project.

We anticipate holding regular meetings with the Development Team to provide updates on project progress and to receive feedback on drafted sections of the CWPP. We will schedule and organize the meetings and propose to host them via Zoom. We anticipate no more than 18 Working Group meetings (held approximately once per month), each estimated at 1 hour in duration.

We also understand that a Working Group has been established. We anticipate that the Working Group will include representatives from Santa Barbara County Fire, County Planning and Development, the County Executive Officer, and CAL FIRE. Based on our previous CWPP experience in the County, we anticipate one Working Group meeting following completion of the Draft CWPP. We also propose to host this meeting via Zoom and estimate it will be 2 hours in duration.

Finally, we anticipate one focused agency meeting to be held with members of land management and regulatory agencies (e.g., USFS, CAL FIRE, CDFW, County Sheriff) that may have input on CWPP recommendations. We also anticipate hosting this meeting via Zoom and estimate that it will be 2 hours in length. We will work with the County to determine the appropriate timing for this meeting.

Should the County desire modifications to the quantity or timing of the Development Team, Working Group, and agency meetings discussed above, we can modify our approach and cost.

### Task 3.2 Community Workshops

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We will work with the County's project manager to conduct three community workshops. We will facilitate these community workshops to better understand the community's perspectives and priorities related to reducing wildfire risk. Potential interested parties are anticipated to include those listed in the RFP, as well as others identified during completion of Task 3.1. We anticipate that community workshops will be held in person and that the County will be able to assist with scheduling and reserving appropriate meeting spaces.

We anticipate that one community workshop would occur after the hazard and risk analysis (Task 2) is complete and preliminary analysis data can be shared. We anticipate that one community workshop will be held after the draft CWPP has been prepared so it can be presented and discussed. We will work with the County to identify optimal timing of the third community workshop.

As an optional task for the County to consider, we can host additional community workshops via Zoom. These can be held close to (i.e., the same week as) the in-person workshops and cover the same material. These could allow for better attendance overall should some community members be unable to attend the in-person workshops. We have successfully conducted community meetings using this platform on other projects and would bring that experience to this project. If desired, we can provide a revised scope of work to conduct virtual community workshops.

### Task 3.3 Public Survey

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Our experience with community engagement indicates that online surveys result in significantly higher public input than surveys conducted during community meetings. As such, we will develop a multilingual online survey using the SurveyMonkey platform. Questions will consist of topics related to wildfire risk, wildfire preparedness, and ways the County can support community wildfire preparedness efforts. Demographic questions will be included as well, to determine whether the survey is equitably distributed and representative of the County's community members. If desired, we can provide a revised scope of work to distribute paper surveys to a random sample of households to solicit input from residents that may not have access to the internet or a Wi-Fi-enabled device. Results of the surveys will be compiled in an electronic file, summarized, and included in the CWPP.

A link to this survey would be provided on the project web page (see Task 3.4) and promoted through outreach materials (see Task 3.5).

### Task 3.4 Project Story Map Website

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We will work with the County in developing a project web page, to be hosted on the Esri ArcGIS StoryMaps platform. The CWPP web page will function as a platform for disseminating project information, including meeting schedules, CWPP drafts, maps, and other public information related to the CWPP project. Additional details regarding the project web page and story map are discussed in Task 5.

### Task 3.5 Supporting Materials

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Dudek's marketing and graphics team will prepare multilingual outreach materials that will communicate the purpose, goals, and objectives of the CWPP and promote the public survey and wildfire educational materials through infographics. With input from key community members and the County, we will identify strategic media outlets for these outreach materials, such as social media, radio, local television, newspapers, and other venues to engage the public in the CWPP process.

#### Deliverables:

- Development Team/Working Group meeting agendas
- Public survey
- Facilitation of community workshops
- Project story map website
- Outreach and educational materials

#### Assumptions:

- County project manager will assist with identifying and obtaining contact information for Development Team and Working Group members
- County project manager and/or County staff will assist with disseminating information to the public

## Task 4: Mapping

Dudek will prepare a series of base maps to be included in the CWPP. Several of these maps will also be used during community outreach efforts. Some maps will be generated following completion of the hazard and risk analysis, utilizing IFTDSS model out data layers, and some following completion of the transportation study (Task 6). We anticipate the following datasets will be used in CWPP mapping:

- WUI boundary and adjacent jurisdiction's WUI area
- Fire hazard severity areas
- Vegetation/fuel type
- Terrain (slope)
- Fire and ignition history
- Land use
- Assets (e.g., community areas, infrastructure, existing fuel treatment areas)
- Sensitive resource areas
- Fire hazard and risk modeling results
- Ember spotting distance

- Potential fuel treatment areas
- Transportation study results
- Potential evacuation routes
- Community-specific project recommendations

As presented below, we propose utilizing a digital, online format for CWPP presentation (ArcGIS StoryMaps). Therefore, some of the map layers identified above may be utilized in online map presentation. Hard copy and static digital maps (PDF) can also be generated, should the County prefer that approach.

#### **Deliverables:**

- Hard copy maps (one printed/plotted set if desired)
- Digital map files (PDF)
- Digital GIS files in Esri ArcGIS compatible format (shapefile, grid, geodatabase, map package)

#### **Assumptions:**

- All available and relevant GIS data will be made available by the County
- Publicly available GIS datasets will be utilized where necessary

## **Task 5: Prepare Community Wildfire Protection Plan**

### **Task 5.1 Draft Community Wildfire Protection Plan**

Following data acquisition, map development, community risk assessment, and community outreach, we will prepare a Draft CWPP. The Draft CWPP will reflect current conditions and priorities and will use the results of the hazard and risk analysis and transportation study (Task 6) as a basis for project identification and prioritization.

The following components will be included in the Draft CWPP:

- Community overview (values at risk, land use/zoning, land ownership, fire protection capabilities)
- Wildfire environment (vegetation/fuels, weather/climate, fire history, topography, potential fire behavior)
- Communities and resources at risk (WUI, assets, infrastructure, sensitive resource areas)
- Wildfire hazard and risk analysis (summary of wildfire modeling and transportation analyses, identification of hazard and risk areas)
- Action plan (community education/preparedness, structural ignitability, fuel management, evacuation, asset protection, and others as identified during CWPP development)
- CWPP maintenance and monitoring
- Plan recommendations

The Draft CWPP will be prepared in coordination with the County and the Development Team. As discussed in Task 3, we propose presenting the CWPP and supporting materials in a story map format. To begin the story map development, we will compile necessary GIS data, photos, and text to be included in the CWPP. We anticipate that the story map will be a more graphical and map-based document, with a reduced volume of text. Where necessary, we can link to documents where longer written explanations are necessary to explain datasets (e.g., QWRA methodology) or wildfire mitigation concepts. We will work with the County to determine the preferred story map template to be used for the CWPP. We will develop an outline of the proposed ArcGIS story map for County/Development Team review and comment. Following approval of the proposed story map, we will create a

desktop ArcGIS document that forms the basis of the interactive map. The layers will be organized in the table of contents and symbolized appropriately, and the map will be published to Dudek's ArcGIS server.

We will then begin creating the story map tour using Esri's configurable online tools. Images will be uploaded, and we will work through building the tour to add the interactive functionality. Various configuration settings will be selected such as the layout, colors, and headers. We will then add the titles and captions for the main application and each photo. This is a critical step, and care will need to be taken to ensure concise and well-written descriptions will be used. The photos and text will then be organized to ensure the application functions elegantly for the end user. During the story map development process, Dudek's GIS staff will work with our graphics team to ensure the story map application is visually appealing. This will involve the placement of the application components such as the photos, text, and interactive map. In addition, Dudek's graphics team will use the GIS data to determine text font, symbols, and color choice of the application features.

### Task 5.2 Final Community Wildfire Protection Plan

This task involves finalizing the CWPP in story map format following review and comment by the Development Team and Working Group. This task includes delivery of the story map document. A PDF format document will also be provided, inclusive of all maps and graphics.

This task also includes attendance and presentation at a County Board of Supervisors meeting to present the Final CWPP for approval. We anticipate this meeting will be held in person. We will prepare a PowerPoint presentation, to be provided in advance of the meeting for Board docketing purposes.

#### Deliverables:

- Outline of the proposed ArcGIS story map for City review and comment
- Draft story map CWPP
- Final story map CWPP
- PDF of CWPP document inclusive of supporting maps and graphics
- PowerPoint or StoryMaps presentation for County Board of Supervisors Meeting

#### Assumptions:

- Timely review and comment on the CWPP outline, Draft CWPP, and Final CWPP story maps

## Task 6: Prepare Transportation Study

Fehr & Peers will prepare a transportation study in support of the CWPP. The transportation study will utilize data collected in the earlier tasks and account for input and feedback received during the Working Group and Development Team meetings and interested party workshops. The transportation study will contain the following information:

- Current access and egress routes: The roadway network providing access to the Santa Barbara Foothill communities will be identified through the County's digital map database and the SBCAG regional travel demand model. The characteristics of the roadway network, such as number of lanes, posted speed limits, roadway classifications, and vehicle capacity will be incorporated into a GIS database. The study area will contain the local roadway network north of SR-192/Foothill Road.
- Areas identified with limited access and egress: Fehr & Peers will identify areas with limited access/egress and areas that may lose access or experience changes to network availability during network interruptions. The limited access areas will be identified by comparing the evacuation travel

demand based on nearby population to static roadway capacities of the network segments that make up access/egress routes to paint a broader picture of roadway capacity during evacuation conditions in the Santa Barbara Foothill communities during an evacuation. Population and employment data will be obtained from the SBCAG model and census data to estimate travel demand during an evacuation.

- Areas identified with sufficient access and egress: The evaluation described above will also be used to identify areas in the Santa Barbara Foothill communities with sufficient access and egress. The findings will be illustrated to highlight areas with limited—but sufficient—access and egress. The findings will be used to identify the existing capabilities of the current road, highway, and access infrastructure that will be incorporated into the hazard and risk analysis described in Task 2.
- Recommendations to improve emergency access and resident evacuations, including infrastructure recommendations to improve public safety, access, and egress: Based on the results of the roadway capacity evaluation, recommendations will be made to improve emergency access during evacuations for Santa Barbara Foothills community residents. Recommendations will be grouped into three categories:
  1. Demand-side: when, how, and where people evacuate in an emergency
  2. Supply-side: the physical and operational infrastructure that facilitate an emergency evacuation
  3. Information-side: how information is shared and received in an emergency
- Community-specific recommendations: The recommendations included in the transportation study will also consider community-specific recommendations received during the interested party workshops. Hearing directly from the local residents, many of whom have experienced evacuations in the area firsthand, is very beneficial to understanding the challenges of evacuating during an emergency event and developing recommendations to address the specific concerns raised.

A draft transportation study will be prepared for review by the County and project team. One round of revisions will be made to the report based on comments received, and a final transportation study will be submitted.

## Task 7: Project Management

This task includes necessary activities to manage the project, including correspondence, invoicing, oversight, and quality assurance/quality control tasks to be conducted by Dudek’s project manager and/or designee over the project period. As requested, Dudek will provide necessary documentation to the County to support grant reporting. Project invoices will be submitted monthly and will include supporting documentation required by the County.

Dudek Project Manager Dana Link-Herrera will oversee Dudek’s successful completion of all tasks and deliverables for this contract. Ms. Link-Herrera will direct Dudek’s efforts in accordance with the project schedule and budget. We believe that frequent and responsive communication is the best management practice to keep the project moving forward, and we will apply this management approach to this project. As the project manager, Ms. Link-Herrera will do the following:

- Establish a regular reporting and communication process for project status, budget and schedule updates, and problem/resolution identification
- Hold regular project management meetings with key project staff to coordinate work efforts, check on task completion, and review budget conformance
- Update the project scope, schedule, progress reports, and inventories of available data, as necessary, so that all team members are aware of information that may affect their work products and schedules

## e. Cost Proposal

Per the County's RFP requirements, Dudek has submitted our cost proposal separately from this technical proposal document.

## f. Schedule



## g. References

### Attachment C – Mandatory Reply Form: References

#### Attachment C

|      |                               |  |
|------|-------------------------------|--|
| R-1. | Company Name                  | Montecito Fire Protection District   |
|      | Address                       | 595 San Ysidro Road  |
|      | City / State / Zip            | Santa Barbara, CA 93108  |
|      | Contact Person / Title        | Nic Elmquist   |
|      | Phone                         | (805) 969-7762   |
|      | Date Services Began and Ended | 4/2021 - Ongoing   |
|      | Brief Description of Services | Dudek has worked with Mr. Elmquist on several wildfire planning projects over the past several years. We recently completed CEQA review (Project Specific Analysis [PSA] under the CalVTP) for MFPD's Vegetation Management Program, working closely with Mr. Elmquist and his team throughout the process. Dudek (and Fehr & Peers) also worked closely with Mr. Elmquist to successfully complete MFPD's Evacuation Study. Additionally, Mr. Elmquist was a member of the Development Team for the Gaviota Coast CWPP that Dudek completed in 2023.                          |
| R-2. | Company Name                  | Santa Barbara County Fire Department   |
|      | Address                       | 4410 Cathedral Oaks Road   |
|      | City / State / Zip            | Santa Barbara, CA 93110  |
|      | Contact Person / Title        | Rob Hazard   |
|      | Phone                         | (805) 681-5554   |
|      | Date Services Began and Ended | 2/2021 - Ongoing   |
|      | Brief Description of Services | Dudek has worked with Mr. Hazard on several projects in Santa Barbara County over the past several years. From February to June 2021, Dudek prepared the PSA for the La Purisima Ridge Fuel Break Project for SBC Fire. Mr. Hazard was routinely involved with this project. Mr. Hazard was also part of the Project Team for the Gaviota Coast CWPP. Dudek worked closely with Mr. Hazard and the Project Team throughout development of this CWPP from early 2021 to early 2023. Dudek is currently working with SBC Fire to update Development Standards.                   |
| R-3. | Company Name                  | Santa Barbara County Fire Safe Council   |
|      | Address                       | PO Box 31052   |
|      | City / State / Zip            | Santa Barbara, CA 93110  |
|      | Contact Person / Title        | Paul Van Leer, President   |
|      | Phone                         | (805) 896-2166   |
|      | Date Services Began and Ended | 1/2021 - 3/2023  |
|      | Brief Description of Services | Mr. Van Leer was a member of the Project Team for the Gaviota Coast CWPP. Dudek developed this CWPP from early 2021 to early 2023. Dudek worked closely with Mr. Van Leer during CWPP development, where he was involved in field assessments, community coordination, and draft plan review. The CWPP was finalized and adopted by the Santa Barbara County Board of Supervisors in February 2023. Dudek is also currently preparing a PSA for the Fire Safe Council's South Coast Herbivory Project and Mr. Van Leer has been involved in a review capacity for the project. |



## h. Insurance

The Dudek team, including our subconsultant Fehr & Peers, maintains insurance coverage that meets or exceeds the minimum coverage amounts and included the coverage types identified in the RFP.

## i. Contract

### Compliance with Standard Terms and Conditions

Dudek agrees to be bound by the County's standard "boilerplate" terms and conditions for Board Contracts, a sample of which is attached to the County's RFP, including the indemnification and insurance requirements included therein.

# Appendix A

Resumes

# Dana Link-Herrera, AICP

## PROJECT MANAGER

Dana Link-Herrera is a project manager and urban forestry and wildfire planner with 7 years' experience and a strong foundation in environmental and urban planning as well as the California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA). She has a diverse background working in natural resource management, public universities, tribal communities, community outreach, permitting support, and environmental analysis.

Ms. Link-Herrera specializes in providing analytical, technical, and project management support for wildfire planning, fuel reduction, vegetation thinning, and forest rehabilitation projects. She is experienced in managing such projects and preparing planning documents that are implementable and achievable for creating more resilient communities. She is skilled at analyzing and synthesizing highly technical information into comprehensive plans. She works collaboratively with Dudek's technical specialists to prepare urban forest management plans (UFMP), fire protection plans (FPPs), community wildfire protection plans (CWPP), and technical analyses in accordance with CEQA/NEPA, CAL FIRE, and local/regional guidelines.

## Project Experience

**Montecito Vegetation Management Plan, California Vegetation Treatment Program (CalVTP) Project Specific Analysis/Addendum, Montecito Fire Protection District. Montecito, California.** Served as project manager in preparation of a tiered project specific analysis/addendum under the CalVTP PEIR for the proposed Vegetation Management Program (VMP) in the community of Montecito, which would be implemented over a 10-year timeframe. The VMP includes a network of roadside fuels treatment using manual treatment methods as well as vegetation reduction in interspersed open space areas using prescribed herbivory in areas of steep slopes. Worked collaboratively with Dudek biologists, archaeologists, geologists, GIS specialists, CEQA analysts and the Montecito Fire Protection District to implement Standard Project Requirements, coordinate field surveys, consult regulatory agencies, revise fuel treatment prescriptions, prepare project maps, and refine work areas based on sensitive resources and site constraints. Created a tool for use in the field to facilitate implementation of standard project requirements and mitigation measures.

**La Purisima Fuel Reduction Project, CalVTP Program EIR Project Specific Analysis/Addendum, Santa Barbara County Fire Department. Santa Barbara County, California.** Provided project management support and served as lead environmental analyst in preparation of a tiered project specific analysis/addendum under the CalVTP PEIR for the proposed fuel reduction project along La Purisima Ridge in northern Santa Barbara County. Worked collaboratively with Dudek technical staff and the Santa Barbara County Fire Department to conduct site visits, coordinate field surveys, contact regulatory agencies, prepare fuel treatment prescriptions, prepare project maps,



### **Education**

California State  
Polytechnic University,  
Pomona  
MURP, Urban and  
Regional Planning  
University of California,  
San Diego  
BA, International Studies  
(Environmental Studies  
minor)

### **Professional Affiliations**

American Planning  
Association (APA)  
American Institute of  
Certified Planners (AICP)  
Association of  
Environmental  
Professionals (AEP)

and refine work areas based on sensitive resources and site constraints. Created a program tracker for use in the field to facilitate implementation of standard project requirements and mitigation measures.

**Community Wildfire Protection Plan for the Cities of Monterey, Pacific Grove, and Carmel-by-the-Sea. Monterey Fire Department. Monterey, California.** Currently serving as project manager for development of the CWPP for the three plan area cities on the Monterey peninsula. The project includes review of existing materials, a fire hazard and risk assessment, and a robust community engagement approach. Worked collaboratively with the Monterey Fire Department and plan area cities to host in-person community workshops.

**The SB South Coast Herbivory Project, CalVTP Program EIR Project Specific Analysis/Addendum, Santa Barbara County Firesafe Council. Santa Barbara County, California.** Currently serving as project manager for preparation of a project specific analysis/addendum under the CalVTP PEIR for a network of proposed herbivory treatments throughout Santa Barbara County. Working collaboratively with Dudek's technical staff, the Santa Barbara County Fire Department, Santa Barbara County Firesafe Council, and land managers/owners to conduct appropriate field work and complete analysis under the PEIR.

**Integrated Wildfire Safety Program, Unified Land Management Plan, Wildfire Risk Analysis and County-wide Community Wildfire Protection Plan, County of Los Angeles, California.** Provided project management support and assisted with preparation of the Integrated Wildfire Safety Program (IWSP) for Los Angeles County, which includes a wildfire risk assessment (WRA), unified land management plan (ULMP), and a county-wide community wildfire protection plan (CCWPP). The IWSP includes extensive community engagement, analysis of wildfire risks by forecast zone, coordination with stakeholders, and identification of risk reduction projects.

**Santa Barbara Community Wildfire Protection Plan (CWPP) and EIR, City of Santa Barbara, California.** Assisted with preparation of the Santa Barbara CWPP and the accompanying program-level EIR. Worked collaboratively with the project team to prepare and update the citywide CWPP and conduct an in-depth program-level environmental analysis in accordance with CEQA and local and regional policies while meeting the CAL FIRE grant funding guidelines and schedule. The project served to update the City's 2004 Wildland Fire Plan and involved conducting a wildfire hazard assessment, which involved field evaluations, research, spatial data analysis, and fire behavior modeling.

**Sanborn and Upper Stevens Creek Forest Health Plan, CalVTP Project Specific Analysis/Addendum, Santa Clara County Parks, California.** Served as project manager in preparation of a tiered project specific analysis/addendum under the CalVTP PEIR for the proposed Sanborn and Upper Stevens Creek County Parks Forest Health Plan, which provides vegetation management prescriptions to be implemented over a 10-year time frame in two County parks. Worked collaboratively with Dudek technical staff and Santa Clara County Parks staff to implement Standard Project Requirements and coordinate field surveys in both parks simultaneously. Consulted regulatory agencies and refined work areas and treatment prescriptions based on sensitive resources and site constraints. Created an implementation tool for use by field staff to implement Standard Project Requirements and mitigation measures prior to, during, and after treatment activities.

**Ventura Botanical Gardens Fire Protection Plan and Evacuation Plan, Ventura Botanical Gardens, Inc. Ventura, California.** Assisted with preparation of a fire protection plan and evacuation plan for the Ventura Botanical Gardens, which included exploring unique wildfire mitigation approaches to reduce wildfire risk for the gardens and consider shelter-in-place scenarios. Special consideration of the 2017 Thomas Fire wildfire conditions at the gardens and how to prevent such catastrophic events in the future.

# Scott Eckardt, RPF

## FORESTER/FIRE PROTECTION PLANNER

Scott Eckardt is a project manager, licensed forester, and certified wildland fire manager with 23 years' professional experience in the natural resource management field, specializing in forest resource and fire and fuels management in open-space and wildland-urban interface (WUI) areas throughout California. His professional experience includes assessment of fire and fuel hazard conditions, wildland-urban interface inspections, preparation of fire protection plans (FPPs) and community wildfire protection plans (CWPPs), development of fuels management prescriptions, preparation of vegetation management plans (VMPs), and preparation of California Environmental Quality Act (CEQA) environmental review documents and supporting technical reports. In addition, he routinely utilizes geographic information system (GIS) to analyze spatial data sets, evaluate resource data, and model potential wildfire behavior and wildfire hazard conditions. He is proficient with wildfire behavior, wildfire hazard, and weather modeling tools (IFTDSS, FlamMap, FARSITE, BehavePlus, FireFamilyPlus, WindNinja) and integrates results into project planning efforts.

## Project Experience

**Gaviota Coast Community Wildfire Protection Plan (CWPP).** Worked with the Santa Barbara Fire County Safe Council and drafted the Gaviota Coast CWPP. The plan area encompasses 106,000 acres from the City of Goleta in the east to Point Conception in the west. The plan area includes a variety of land uses, including residential, recreation, ranching, agriculture, and open space management. Mr. Eckardt completed a wildfire hazard analysis for the plan area using the fire behavior modeling and integrated hazard mapping tools included in the Interagency Fuels Treatment Decision Support System (IFTDSS) application, led community and stakeholder engagement efforts, and prepared the CWPP document. The CWPP includes an action plan, which identifies and prioritizes projects focused on mitigating wildfire hazard to the Gaviota Coast community. The CWPP was finalized and adopted in February 2023.

**CWPP and Program Environmental Impact Report (PEIR), Santa Barbara Fire Department, City of Santa Barbara, California.** Served as the lead author and prepared the CWPP for the City of Santa Barbara, a comprehensive plan intended to mitigate the impact of wildland fire to the City. The project served to update the City's 2004 Wildland Fire Plan and involved conducting a wildfire hazard assessment, which involved field evaluations, research, spatial data analysis, and fire behavior modeling. Fire behavior modeling utilized FlamMap software to evaluate the potential for extreme fire behavior. The results of this assessment helped to identify and prioritize projects to be included in the CWPP. Also supported the project's community outreach component, drafted sections of the PEIR, and worked closely with other Dudek technical staff to clarify the recommend actions included in the CWPP. The CWPP and PEIR were finalized and adopted in February 2021.

**Integrated Wildfire Safety Program, County of Los Angeles, California.** Served as the project manager and led Dudek's team supporting Los Angeles County in the development of their Integrated Wildfire Safety Program (IWSP).



### *Education*

*California State University,  
Long Beach  
MA, Geography*

*California Polytechnic  
State University,  
San Luis Obispo  
BS, Forestry and Natural  
Resources Management*

### *Certifications*

*Registered Professional  
Forester (RPF), No. 2835*

*Certified Arborist,  
No. WE-5914A*

*Association for Fire  
Ecology Certified Wildland  
Fire Manager*

### *Professional Affiliations*

*International Society of  
Arboriculture (ISA)*

*Association for Fire  
Ecology*

Mr. Eckardt worked closely with Los Angeles County Planning and Los Angeles County Fire Department staff, conducted a wildfire risk assessment (WRA), prepared a unified land management plan (ULMP), and prepared a draft Countywide CWPP (CCWPP). The WRA involved modeling wildfire hazard conditions for the entire County, utilizing the fire behavior and risk modeling tools embedded in the Interagency Fuel Treatment Decision Support System (IFTDSS) software package. The ULMP outlines a framework for managing vegetation within the County under an adaptive management approach and outlines management types and fire risk reduction techniques. The draft CCWPP evaluated the County's wildfire environment and includes recommended actions and projects intended to reduce wildfire risk to unincorporated communities in the County.

**Regional Forest and Fire Capacity Plan, Santa Monica Mountains Conservancy, Los Angeles and Ventura Counties, California.** Mr. Eckardt is working with the Mountains Recreation and Conservation Authority (MRCA) and the Santa Monica Mountains Conservancy (SMMC) in preparing a Regional Priority Plan (RPP), as identified under the state's Regional Forest and Fire Capacity Program. The RPP is a joint effort of the MRCA and SMMC and incorporates input from stakeholders and regional partners. The RPP Area covers approximately 887,000 acres of the Santa Monica, San Gabriel, and Santa Susana Mountains in of Southern California, within both Los Angeles and Ventura Counties. Project tasks to date include meeting with stakeholders, gathering and analyzing wildfire-related research and mapping data, analyzing plan area resources (i.e., vegetation, carbon stocks), and conducting an analysis of wildfire hazard and potential wildfire risk mitigation projects in the plan area. He also led development of a digital StoryMap which serves as a public-facing platform to share project-related information and gather further public input.

**Vegetation Management Plan, Oakland Fire Department, City of Oakland, California.** Prepared a Vegetation Management Plan (VMP) for the City of Oakland Fire Department. The scope of the VMP covers nearly 2,000 acres of City-owned land, along with over 300 miles of roadside treatment areas in the City's designated Very High Fire Hazard Severity Zone. The VMP outlines vegetation management techniques and standards to reduce the likelihood of extreme fire behavior and promote public and firefighter safety. Prioritization of vegetation treatment areas considers these variables and the size, physical characteristics, and spatial distribution of City-owned parcels throughout the VMP area.

**Forest Health Plan for Mt. Madonna County Park, Santa Clara County Parks, Santa Clara County, California.** Served as the lead forester and project manager and developed a forest health plan for the 4,600-acre Mt. Madonna County Park. Santa Clara County Parks engaged Dudek to develop a plan to proactively address management of forest threats (pests, diseases, fire hazard) to maintain high recreational value in the Park. The Park is in the southern Santa Cruz Mountains and is characterized by varied terrain redwood forests and oak woodlands, and includes numerous recreational amenities (campsites, trails, picnic areas). The Park is used by the public year-round.

**Wildfire Specialist, Hazard Mitigation Grant Program (HMGP), National Technical Review (NTR), and Pre-Disaster Mitigation (PDM) Programs Feasibility and Effectiveness Reviews, FEMA.** Supported the HMGP, NTR, and PDM review processes for FEMA by conducting initial reviews of subapplications for wildfire mitigation projects, focusing on evaluating whether proposed projects meet FEMA standards for inclusion in these grant programs, whether the projects were feasible, and whether the projects would effectively mitigate wildfire hazard. Project locations are spread across the United States. Mr. Eckardt also coordinated with other members of the review team and ran Benefit-Cost Analyses reviews where necessary and where project documentation supported a re-analysis.

**Professional Forestry Services for Fuel Management Grant, City of San Carlos, California.** Managed planning and environmental review services in support of a FEMA grant-funded fuel management project being implemented by the City of San Carlos. The project involved field assessment, biological and cultural resource surveys, and environmental review under CEQA. Proposed fuel management activities are planned on approximately 100 acres of community open space in the City's wildland urban interface (WUI) and include grazing, brush and tree thinning/pruning, herbicide treatment of invasive species, and vegetation chipping and mastication.

# Noah Stamm

## URBAN FORESTRY ANALYST

Noah Stamm is an urban forestry analyst with 13 years' experience in fire prevention, wildland fire and fuels management, wildland-urban interface (WUI) fire protection, urban forestry consulting, make-ready engineering, and geographic information system (GIS). Mr. Stamm has participated in numerous projects throughout California dealing primarily with fuel hazard reduction in the WUI communities. He also has experience with consulting utility forestry, impact analysis studies, tree hazard evaluations, and on-site tree monitoring and protection. These projects include assessment and inspections of hazardous fuel reduction modifications to communities within the WUI, inventory of oak woodlands, monitoring of native oaks and other trees on development sites, GPS mapping, data analysis, and preparation of assessment preservation plans. In addition, he routinely used GIS, including Microstation, Pole Foreman, ArcMap, and ArcGIS to perform make-ready engineering to utility poles.

## Project Experience

**WUI Site Inspections, City of Newport Beach Fire Department, California.** Served as urban forester and performed site visits and inspections of vegetation within 100 feet of homes located within the WUI. If vegetation that is found to be highly flammable or on the list of non-compliance, recommendations were made to remove such vegetation.

**Bradbury Community Wildfire Protection Plan (CWPP), City of Bradbury, California.** Assisted with fire behavior modeling for a CWPP to protect the lives, property, and environment for the residents of Bradbury and of the San Gabriel Mountain communities. Dudek has worked closely with the City while developing the Draft CWPP, which will serve as a framework for a comprehensive long-term resiliency plan for the City of Bradbury and used to prioritize future wildfire hazard protection in the Bradbury community. The initial project task involved conducting a review of existing City of Bradbury information regarding wildfire and emergency hazards, conduct wildfire hazard assessments, which involved field evaluations, research, spatial data analysis, and fire behavior modeling.

**Rancho Santa Fe Covenant Forest Analysis, Rancho Santa Fe Association, San Diego County, California.** Wrote Notices of Violation for non-compliant properties in accordance with Public Resources Code 4291 and Rancho Santa Fe Fire Protection District International Code Council-Wildland Urban Interface Code, 2008 Edition. Provided daily and weekly home/community inspections and re-inspections of hazardous fuel reduction modifications for those who do not comply with department codes and regulations. Created a Homeowners Firescape Landscape Guide. Reviewed, commented on, and inspected landscape plans and fuel modifications.

**Hollywood Terrace Monitoring Project, Universal City Studios LLC, Los Angeles, California.** Served as urban forester for Universal Studios monitoring project. Protected California live oaks (*Quercus agrifolia*) near various project sites on the studio's back lot. Tasks included inspecting overall health of trees, including looking for new growth from previous rains and inspecting the root or trunk damage.



### *Education*

*California Polytechnic State University, San Luis Obispo  
BS, Forestry and Natural Resources (Wildland Fire and Fuels Management concentration)*

### *Certifications*

*Oxnard College Regional Firefighter Academy,  
Firefighter 1*

### *Professional Affiliations*

*International Society of Arboriculture*

**Starway Expansion Project, Universal City Studios LLC, Los Angeles, California.** Served as urban Forester and inspected the protected California live oaks near the construction job site. Tasks included inspecting overall health of trees, making sure fencing surrounded the tree protection zone, and providing clients with tree protection measures and recommendations.

**Area 71 Oak Tree Support Project, Universal City Studios LLC, Los Angeles, California.** Served as urban forester and monitored the protected California live oaks near the Area 71 job site, which is located on the back lot of Universal Studios. Inspected overall health of trees, including looking for new growth from previous rains and inspecting the root or trunk damage.

**Universal Drive and Fung Lum Oak Monitoring Project, Universal City Studios LLC, Los Angeles, California.** Served as urban forester. Monitored the protected California live oaks near the old Fung Lum job site along Universal Drive outside of Universal Studios. Tasks included inspecting overall health of trees, including looking for new growth from previous rains and inspecting the root or trunk damage.

**Eucalyptus Internal Decay Evaluations, Irvine Community Development Company, California.** Served as urban forester. Performed inventory and inspection for internal rot and decay of the eucalyptus trees throughout the Orchard Hill developments. Tasks included the use of Resistograph to determine the health of the eucalyptus trees by drilling into the trees' trunk 3, 6, and 9 inches from the ground, looking for cavities and rot.

## Relevant Previous Experience

**Consumer's Energy Make-Ready Engineering, Michigan.** Served as a make-ready engineer. Analyzed power/utility poles in their current state, making sure the poles were not overloaded with the current equipment. Performed make-ready engineering using Microstation and ArcMap to allow new applicant to attach their fiber optic cable to the pole without adding stress to the pole.



# Alison Sells

## WILDFIRE PLANNING ANALYST

Alison Sells is a wildfire planning analyst who recently completed her master's degree from the University of California, Santa Barbara. Her experience includes working with Fire Safe Councils and local community groups for Community Wildfire Protection Plan (CWPP) development, focusing on community engagement and input from underserved communities. She has a background in California Environmental Quality Act documentation, defensible space procedures, environmental economic models of wildfire, and grant writing.

## Relevant Previous Experience

**Master's Group Project for the Bren School of Environmental Science and Management, University of California, Santa Barbara, Ventura County, California.** Identified socially vulnerable communities in Ventura County that face high biophysical risk of wildfire using ArcGIS to inform our survey's focus and provide programmatic recommendations for our client. Developed a 30-question survey that received more than 480 responses from county residents on how they prepare and evacuate during wildfire, barriers to doing so adequately, and ideas for future wildfire planning. Conducted two focus groups with 20 lower-income and Spanish speaking residents to provide insights on wildfire's impact on their daily lives to influence the newest county-wide CWPP. Discovered gaps in Ventura's community wildfire planning identified by community members through data analysis to provide Ventura Regional Fire Safe Council-specific programmatic, policy, and community engagement recommendations. (2021–2022)

**CWPP Development Intern, Ventura Regional Fire Safe Council, Ventura, California.** Designed and launched a pilot Home Ignition Zone (HIZ) Assessment program with 60 homes to make residents and homes safer within the Ventura County Wildland–Urban Interface. Identified potential hazards and mitigations to reduce the risk of ember intrusion from wildfire to inform the above pilot program through mapping of a home's relation to high fuel areas and wind patterns. Conducted community outreach to educate the public about the importance of Home Hardening and defensible space to increase participation via town halls, social media, and phone/email correspondence. Wrote a 20-page HIZ Coordinator guide with linked templates and sample National Fire Prevention Association assessment forms, which were distributed to more than 100 California Fire Safe Councils to increase adoption and impact of HIZ assessments. Relaunched an ArcGIS mapping program to inform ranch and farm owners of key information specific to their property in a format that can be interpreted by mutual aid fire resources during a wildfire incident. (2021)



### *Education*

*University of California,  
Santa Barbara  
MESM, Master of  
Environmental Science  
and Management, 2022  
California Polytechnic  
State University,  
San Luis Obispo  
BS, Environmental  
Management and  
Protection, 2020*

# Matthew Crockett

## WILDFIRE PLANNING ANALYST

Matthew Crockett is a wildfire planning analyst with 3 years' cumulative experience in the natural resources management field, with expertise in forest science and community wildfire planning. Mr. Crockett's relevant work experiences include authoring community wildfire protection plans (CWPPs) and Fire Protection Plans (FPPs), conducting private forestry work, and advocating for environmental policy at the State Capital. His technical skills include geographic information system (GIS) analysis, fire behavior modelling, post-fire risk assessment, and carbon accounting. Mr. Crockett previously worked for the San Luis Obispo Fire Safe Council as a project manager for community wildfire risk reduction projects.

## Dudek Project Experience

### **Los Angeles County Integrated Wildfire Safety Program, County of Los Angeles Department of Regional Planning, Los Angeles, California.**

Served as a supporting analyst and identified communities and critical infrastructure at risk from wildfire throughout Los Angeles County based on integrated wildfire hazard modelling.

**Whitewood Condo/Apartment FPP, Melissa Krause, Murietta, California.** Served as a supporting analyst and prepared the FPP for a residential development project. The FPP identified wildfire risk and identified fire protection measures that addressed structural hardening and fuels modification.

## Relevant Previous Experience

### **City of Pismo Beach CWPP, City of Pismo Beach Fire Department (CAL FIRE), Pismo Beach, California.**

Lead author of a CWPP on behalf of the City of Pismo Beach Fire Department. The project involved conducting wildfire behavior modelling to identify assets at risk. Biophysical and sociopolitical mitigation measures were recommended to reduce risks to communities and other assets.

**Avila Beach CWPP, City of Pismo Beach Fire Department (CAL FIRE), Pismo Beach, California.** Co-author of a CWPP on behalf of the City of Pismo Beach Fire Department. Emphasized identifying ways to improve emergency evacuations from the Avila Beach area.

**Project Manager, San Luis Obispo County Fire Safe Council, San Luis Obispo, California.** Collaborated directly with community members and fire agencies to identify assets at risk from wildfire and priority mitigation practices to improve wildfire resilience in San Luis Obispo County.

**Greenhouse Gas Emissions Analyst, CAL FIRE, San Luis Obispo, California.** Quantified how state-sponsored fuels reduction projects impact greenhouse gas emissions and carbon sequestration utilizing tools such as Forest Vegetation Simulator (FVS), FlamMap, and IFTDSS.



### *Education*

*California Polytechnic State University San Luis Obispo MS, Environmental Sciences and Management, 2022*

*California Polytechnic State University San Luis Obispo BS, Environmental Management and Protection, 2022*

### *Professional Affiliations*

*Association of Environmental Professionals (AEP)*

*Society of American Foresters (SAF)*

# Jane Gray

## ENVIRONMENTAL SPECIALIST, PROJECT MANAGER

Jane Gray is an environmental specialist and project manager with 26 years' project management experience. Ms. Gray has more than a decade of environmental planning experience, specializing in water planning, agricultural resource and policy planning, policy analysis, land use planning, and project development and entitlement services as well as grant writing and administration. She has worked as a project manager, analyst, and environmental planner for various nongovernmental and public agencies responsible for projects varying from small-scale development and infrastructure planning in developing economies to private residential and commercial development.

## Project Experience

**Public Outreach, Planning and Development Department, Santa Barbara County, California.** To complete an update to the Uniform Rules for Agricultural Preserves countywide, public meetings and workshops were begun with local agricultural organizations and advisory committees, the Cattlemen, and a broad group of growers, shippers, greenhouse operators, landowners, nongovernmental organizations, and others. These were designed to create a more rational and flexible program that provided for more supportive language, flexibility, and a greater variety of allowed uses countywide. Was involved in the stakeholder and public outreach portion in addition to the actual generation of policy and environmental documents associated with the program.

**Groundwater Sustainability Agency Engagement and Facilitation Services, Montecito Water District, Montecito Groundwater Basins, California.** Provided engagement and facilitation services for the formation of a Groundwater Sustainability Agency that was originally prioritized very low priority when the GSA formation commenced. Held public and stakeholder workshops, sent out informational emails and attended Montecito Water District (MWD) Board meetings and other community organization's meetings to provide information and updates on SGMA and the GSA formation process in the local basin. The MWD was recently re-prioritized by DWR as a medium priority basin, which occurred at the close of the GSA formation process.

**Santa Barbara Countywide Integrated Regional Water Management (IRWM) Program, Santa Barbara County Water Agency (SBCWA), California.** Since 2007, has been part of the overall management of the IRWM Program as an extension of County Staff. Currently, leading the IRWM Plan 2018 Update and conducting communication, education and outreach to the DAC/SDAC/URC and Economically Disadvantaged Area communities as well as the stakeholders and public. The position entails overall program management as well as assistance and coordination of the 27 agencies and non-profits involved in regional benefit projects for competitive grant applications and the over 150 stakeholders. Regularly communicates with Department of Water Resources (DWR) staff and coordinates and manages the public stakeholder process and all public outreach efforts associated with the IRWM Program, including inter and intraregional discussions, coordination and planning. Prepares reports, presents to numerous community organizations, commissions, committees, boards



### Education

Universität Dortmund,  
Germany  
MS, Regional Planning  
and Management, 2001  
State University of New  
York, Buffalo  
BS, Social Work, 1995

### Professional Affiliations

Central Coast Regional  
Water Quality Control  
Board, Vice Chair,  
Gubernatorial Appointee  
Santa Barbara County  
Agricultural Advisory  
Committee, 2nd District  
Supervisorial Appointee

and councils on the IRWM, leads and participates in Regional Water Management Group meetings and assists in providing for the contours and direction for the IRWM program in the IRWM region. Part of a team that generated a Regional Acceptance Process application required for competition in the multiple rounds of funding associated with Proposition 84 and Proposition 1E under IRWM provisions. Participated in the generation of the Prop 84 Planning Grant Application submitted to DWR on September 28, 2010 and on the Prop 84 Implementation Application submitted to DWR on January 7, 2011. The Implementation Grant Application was prepared on behalf of Santa Barbara County and six other jurisdictions/districts. The Santa Barbara region was successful in receiving its full grant requests for both Round 1 Planning and Implementation Grant awards as well as the most recent Drought Grant.

**On-Call Grant Services, Water and Wastewater Divisions of Public Works, City of Santa Barbara, California.**

Assessed priority projects for the city and their alignment with relevant state and federal grant programs. Served as liaison for various funding organizations and entities and the city for successful project presentation. Prepared grant applications for the city's Water and Wastewater Divisions, advocated on behalf of the projects, and carried them through to funding realization.

**Santa Barbara Countywide IRWM Proposition 50, Santa Barbara County Water Agency, Santa Barbara, California.**

Provided project management assistance as extension of staff for the County Water Agency in administration of grant funds received under Proposition 50. In addition to reviewing and coordinating the data gathering and reporting requirements associated with the 14 projects under the IRWM, her role has expanded to liaising with State Water Resources Control Board (SWRCB) on a variety of contentious issues related to select projects. Provided key and effective support to the project proponents, County and State to facilitate solutions and ease strained relations.

**Public Outreach, Planning and Development Department, Santa Barbara County, California.** In conjunction with the rezoning of agricultural land from an antiquated ordinance, was involved in a countywide public outreach effort that included meetings and workshops designed to educate the public about changes, elicit comments and suggestions from affected landowners, and work with a dedicated group of stakeholders to craft sensible and required language for ordinance changes. Wrote the associated environmental document and assisted in drafting policy language.

**Carpinteria Stormwater Management Plan (SWMP), City of Carpinteria, California.** Responsible for project management and preparation of the City of Carpinteria's SWMP, as well as leadership and implementation of the city's first-year permit requirements under the National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer Systems General permit. The city's final SWMP was approved by the Central Coast Regional Water Quality Control Board (RWQCB) in November 2009. This effort included revising the existing SWMP document, forging productive relationships with interested stakeholder groups, building consensus, and spearheading public education and outreach, and public participation campaigns and programs, as well as working with neighboring jurisdictions on collaborative management of pollutants of concern. Spearheaded implementation of the public education and outreach component and played a key role in developing the watershed awareness curriculum that is implemented in the Carpinteria Unified School District's afterschool program for at-risk elementary school students.

**On-Call Grant Services, City/County Area Governments of San Mateo County, California.** Contracted with C/CAG to write grant funding applications for various jurisdictions under C/CAG.

**On-Call Grant Services, Joshua Basin Water District, Joshua Tree, California.** Prepared a successful Prop 84, Section 75025 Grant in amount of \$3 million. The project is now beginning the construction phase.

# Kirsten Zecher

## SENIOR GIS ANALYST

Kirsten Zecher is a senior geographic information system (GIS) analyst with 31 years' experience working in the geospatial field, specializing in the management of GIS projects requiring complex spatial analysis and cartographic excellence. Kirsten has had significant experience as the lead GIS analyst for the preparation of hundreds of environmental planning documents, involving data inventory, design, analysis, modeling, mapping, and impact reporting for multilayered, large-scale projects. Kirsten has supported numerous biological resources reports, wetlands permitting and jurisdictional delineation reports, solar and wind farm implementation, and community wildfire protection plans throughout California. Kirsten has specific expertise in presenting complicated data with clarity and visual appeal.

## Project Experience

**Community Wildfire Protection Plan, City of Santa Barbara Fire Department, California.** Provided lead GIS oversight, coordination, analysis, and figure creation for the City of Santa Barbara's Community Wildfire Protection Program. Provided consistent, model-based analysis along with high-end cartographically seasoned visuals to convey results and strategies for effective wildland fire management.

**Bacara Resort and Spa Completion Phase, City of Goleta, California.** Responsible for GIS tasks, including data intake, data preparation, GPS data conversion, field map preparation, special-status species research, vegetation/trails digitization, wetland digitization, data QA/QC, and final report products.

**Community Plan Documents, County of Santa Barbara Planning and Development Department, Various Cities, California.** Provided long-range planners and decision makers with scenario alternatives, including hundreds of maps, figures, diagrams, analysis, and data for large, multiyear community plan projects for the County of Santa Barbara Planning and Development Department. Performed GIS analysis, including creating, integrating, and modeling large data sets. Data sets included land use, zoning, biology, topology, geology, circulation, vegetation, adopted overlays, existing conditions, and other constraints data. Spatial analysis tools integrating digital elevation models and contour data were used to produce slope, aspect, and hill shade data for use in visual, vegetation, and site selection analysis.

**2030 County Projection Reports, County of Santa Barbara, California.** Served as lead GIS analyst to assist the County of Santa Barbara with future projection reports on housing and open space. Advanced geoprocessing GIS tools were used to perform complex overlay analysis of census data with land use and constraint data, employing model builder, metadata, concrete methodology, and documentation to produce clear results and powerful visuals.



### *Education*

*University of California, Santa Barbara  
BA, Geography (GIS, Remote Sensing, and Cartography emphasis), 1989*

### *Certifications*

*Certified GIS Professional, Permit No. 00041197  
FEMA Integrated Computer Solutions-100, Introduction to the Incident Command System*

### *Professional Affiliations*

*Association of American Geographers  
Urban and Regional Information Systems Association, Southern California Chapter*

**Interstate 5 North Coast Corridor Transportation and Resource Enhancement Program and Highway Public Works Plan, California Department of Transportation and San Diego Association of Governments, San Diego County, California.** Multijurisdictional, large-scale project covering 50 miles of road, rail, bike, and pedestrian improvements in northern San Diego County. Responsibilities as lead GIS analyst included data intake, data conversion, data preparation, data transfer, GIS analysis, and report visuals to manage, distribute, and present voluminous data with clarity. The visuals created for this effort were showcased at numerous planning and GIS conferences for their functionality and visual interest.

**Carpinteria Rincon Trail, California Department of Transportation, City of Carpinteria, County of Santa Barbara, California.** Multijurisdictional project that included planning a missing segment of multi-use trail through a biologically sensitive area. Provided clear maps and visuals for public use to convey challenges and project solutions clearly.

**Malibu Parks Local Coastal Program Amendment/Public Works Plan, Mountains Recreation and Conservation Authority, Ventura County, California.** Responsible for oversight and coordination of project GIS tasks, including data intake, data preparation, GPS data conversion, field map preparation, sensitive species research, vegetation/trails digitization, wetland digitization, cultural data, land use data, fire hazard data, data QA/QC, development of desktop viewer, cartography, and final report products. This plan proposed more than 50 miles of new trail development in connection with the existing network.

**University of California, Santa Barbara, Long Range Development Plan/Open Space Management Plan, California.** Responsible for working with the University of California planners and restoration specialists to create understandable and engaging maps of the existing resources and future plans for campus open space.

**Sweetwater Reservoir Storage and Habitat Management Project, Sweetwater Authority, San Diego County, California.** Responsible for data transfer, data intake, data preparation, GPS data conversion, field map preparation, sensitive species research, and data QA/QC. Also responsible for creating a risk assessment model for least Bell's vireo (*Vireo bellii pusillus*) related to various inundation levels of the reservoir. Incorporated topography collected from project-delivered Light Detection and Ranging task, processed documentation, developed desktop application viewer, and prepared the risk assessment map and final report products.

**Cañada Gobernadora Multipurpose Basin Project, Santa Margarita Water District, Orange County, California.** Responsible for multiple GIS tasks, including data intake, data preparation, GPS data conversion, field map preparation, special-status species research, vegetation digitization, natural community conservation plan/habitat reserve data, wildlife corridors and linkages data, data QA/QC, and final report products. Surveys supported include least Bell's vireo, willow flycatcher (*Empidonax traillii*), vegetation, and wetlands.

# Raoul Rañoa

## VISUAL/TECHNICAL STORYTELLING PRACTICE LEAD

Raoul Rañoa is the lead of Dudek's Visual Storytelling practice. His 24-year career includes roles at the Los Angeles Times and JPL/NASA where he honed his expertise in breaking down complex data and processes into visual stories suitable for both expert and general audiences. Mr. Rañoa has prepared print, online, and animated visuals covering every facet of the environmental consulting industry, including Urban Forestry Management programs, large-scale construction projects, unmanned aerial survey missions, sea-level-rise, hydrological processes, and green technology. He is knowledgeable in print and Web graphics production, including prepress, vector, and 3-D illustration; GIS; social media; video; and motion graphics. He also has management and university-level teaching experience, as well as experience in technical editing, writing, reporting, and cartography. Additionally, Mr. Rañoa's work is nationally recognized, having been featured in the Best American Infographics book series 2 years in a row.



### *Education*

*California Polytechnic State University, Pomona  
BA, Communications  
(Journalism Focus)*

## Project Experience

**Downey Urban Forest Master Plan, City of Downey, Department of Public Works, California.** Responsible for data maps, 3D diagrams, and public outreach visuals outlining Cal Enviro Scores, the impact of invasive species, and the impact of climate change.

**San Jose Urban Forest Master Plan, City of San Jose, California.** Responsible for data maps, 3D diagrams, and public outreach visuals outlining Cal Enviro Scores and the impact of invasive species /climate change.

**San Bernardino Regional Priority Plan, Inland Empire Resources Conservation District, California.** Responsible for overseeing the creation, design, and formatting of ESRI Storymap, spotlighting the purpose and context of the San Bernardino Regional Priority Plan. The web app includes infographics and multi-layered interactive/static maps showing area projects, fire data, CalEnviro data, critical habitats, and other datasets related to open space preservation, wildland rehabilitation, and public outreach.

**Rialto Climate Adaption, City of Rialto, California.** Responsible for data maps and 3D infographics illustrating extreme heat, flood and auto access maps, and Urban Heat Island Effect.

**San Diego State University Mission Valley Campus Master Plan/Design Guidelines, San Diego State University, San Diego, California.** As lead graphic designer, responsible for Environmental Impact Report and Design Guidelines infographics covering all aspects of the project, including utilities, hydrology, emergency response, and Master Plan issues.

**Native Peoples Trade and Historic Hangar Interpretive Display, Port of Portland, Oregon.** As lead graphic designer, responsible for research/design of multiple panels incorporating Native American and aviation history. Display to be featured within the Portland International Airport.

**Fanita Rancho Interpretive Signs, HomeFed Corporation, Santee, California.** As lead artist, responsible for designing and illustrating interpretive signs explaining the incorporation of native plants into the project area. Signs included 3D diagrams, illustrations, and maps.

**The Shire, John Leon Center for Architecture and Landscape/Cultural Landscape Report, University of Oregon, Colombia River Gorge, California.** As lead artist, responsible for data maps outlining all facets of the property, including historical structures, landscape features, trails, existing conditions, and views and vistas.

**Ojai Groundwater Sustainability Plan, Ojai Basin Groundwater Management Agency, Ojai, California.** As lead graphic designer, responsible for translating hydrological data into 3D visuals outlining groundwater and surface conditions.

**San Pasqual Valley Resource Management Plan, City of San Diego/San Diego, California.** As lead artist, responsible for creating visuals outlining best management practices for multiple land uses, the hydrological processes occurring within the Hodges Reservoir Watershed and Hodges Reservoir, and the topographical makeup of the San Pasqual Groundwater Basin.

**Long Beach C-17 Master Plan, City of Long Beach, California.** Responsible for data maps, 3D infographics, design, and layout of Specific Plan.

**Tijuana River Estuary Tidal Restoration Program, State of California Department of Parks and Recreation–Southern Service Center, California.** As lead graphic designer, responsible for infographics that outline project phases step-by-step.

**Environmental On-Call Regional Transportation Infrastructure Sea-Level Rise Assessment and Adaption Guidelines, San Diego Association of Governments, San Diego County, California.** Responsible for data maps and 3D infographics illustrating the impacts of sea-level rise on local communities.

**City of San Diego Annual Housing Report** Responsible for GIS mapping, data visualization, and design of Housing Report displaying city of San Diego housing statistics.

**American Planning Association Tour Storymap.** Responsible for development of interactive web map using ESRI/ GIS tools to display tour stops in San Diego

**SCAG Residential Toolkit** Responsible for creating data visualization/Storymap graphics comparing different typologies for Southern California counties

**Princess Street Coastal Access** Responsible for using USGS data to create data visualization showing impacts of sea-level rise, projected cliff retreat, and tsunami hazards on a residential neighborhood in La Jolla. Visualized three storm scenarios and worked with USGS staff to verify the accuracy of data visualization.



# Christopher Starbird

## GIS ANALYST

Christopher Starbird is a geographic information systems (GIS) analyst with 17 years' experience in environmental projects for municipal, regional, and federal public agencies and non-profit organizations. Mr. Starbird uses the latest in mapping software from the Environmental Systems Research Institute (ESRI). His skills include database design, spatial analyses, three-dimensional (3D) modeling with shade and shadow analysis, glint and glare analysis, interactive web development and design, web-based mapping, and high-quality cartographic design. Mr. Starbird has completed course work in the areas of computer programming, GIS, cartography, and field techniques in geographic research, web-based interactive map presentation, and digital graphics design.



### *Education*

*University of California,  
Santa Barbara  
BA, Geography*

## Project Experience

### **City of Santa Barbara Community Wildfire Protection Plan, Community**

**Outreach Website, City of Santa Barbara, California.** Worked closely with Dudek's graphic design and visual communications team and City of Santa Barbara staff to create an engaging web presence for the City of Santa Barbara's Community Wildfire Protection Plan (CWPP). Designed to get the word out about the CWPP planning process, as well as provide access to maps and graphics illustrating the issues at hand, the website serves as an example of outreach in the modern age. In addition to developing and launching the initial website, serves as the site administrator, performing updates and posts to keep the community informed. Because the website was hosted and maintained on City of Santa Barbara-operated infrastructure, Mr. Starbird had to coordinate with City of Santa Barbara IT staff to develop and deploy the web resource (<https://cwpp.santabarbaraca.gov/>).

### **Olympic Well Field Restoration and Arcadia Water Treatment Plant Expansion IS/MND and National Environmental Policy Act Compliance, Santa Monica, California.**

Currently serving as GIS analyst for a water infrastructure improvements project that would enhance sustainability of the City of Santa Monica's water supply through developing alternative water supplies and expanding local groundwater supplies to eliminate reliance on purchase of imported water. When completed, the project would provide up to 4,400 acre-feet per year of drinking water due to production efficiency enhancements and treatment facility expansions at the Arcadia Water Treatment Plant, the restoration of the Olympic Well Field to full capacity through new production and injection groundwater well development, and a new pipeline connection between the two facilities. An advanced water treatment facility would be constructed to treat contaminated groundwater extracted from the Olympic Well Field via an innovative reverse osmosis process. The project is within the jurisdiction of the City of Los Angeles and the City of Santa Monica. Also assisting with the National Environmental Policy Act documentation to satisfy State Revolving Fund and Water Infrastructure Finance and Innovation Act applications.

**Beverly Hills Creative Office Project Environmental Impact Report, City of Beverly Hills, California.** Serving as lead GIS analyst in the preparation of the project's Environmental Impact Report (EIR) aesthetics assessment for the development of up to 11 new office buildings on a vacant, linear site in the City of Beverly Hills. The proposed four- to five-story office buildings would be designed in a range of architectural styles. Buildings at each end of the site would

have traditional facades with columns and cornices, and buildings toward the center of the site would have more modern architectural treatments, such as glass screen walls and steel frames. Key issues include obstruction of views to the iconic City Hall tower and compatibility of bulk and scale with the surrounding development.

**Pacific Coast Commons Specific Plan EIR, El Segundo, California.** Serving as lead GIS analyst for preparation of an EIR for the Specific Plan. The project would involve redevelopment of the existing surface parking lots of the Fairfield Inn & Suites and Aloft Hotel properties, as well as the commercial properties, through the adoption of a Specific Plan that allows for the development of 263 new housing units and 11,252 square feet of commercial/retail uses on approximately 6.33 acres of land located in the City of El Segundo adjacent to Pacific Coast Highway. The Pacific Coast Commons-South portion proposes a six-story residential building with commercial/retail on the ground floor and an eight-level parking garage. The Pacific Coast Commons-Fairfield Parking portion of the project proposes a four-story parking garage with commercial/retail on the ground floor. The Pacific Coast Commons-North portion proposes a six-story residential building with commercial on the ground floor that faces Pacific Coast Highway, a six-story parking garage in the central portion of property, a new fire/access road, and apartment/townhome units. The project requires a General Plan amendment, zone change, site plan review, vesting tentative tract map, and a development agreement.

**Buena Vista Project EIR, Los Angeles, California.** Serving as lead GIS analyst for the EIR for a 2- to 26-story mixed-use project on an 8-acre parcel, which includes residential and commercial uses consisting of approximately 1,079,073 square feet of residential floor area (920 dwelling units); 15,000 square feet of neighborhood-serving retail uses; 23,800 square feet of indoor and outdoor restaurant; and 116,263 square feet of outdoor public trellis/balcony space. The project site is located in the Central City North Community Plan Area near the Metro Gold Line and the Los Angeles State Historic Park. The transit-priority project is proximate to a network of regional transportation facilities, including the Chinatown Metro Station. The site is located in a Methane Zone and contains remnants of previous land uses, including former oil wells and a gas station. Additionally, the site is within the boundaries of the Historic Cultural Monument No. 82, River Station Area/Southern Pacific Railroad. The project requires a General Plan amendment, zone change, site plan review, height district change, zoning administrator adjustment to reduce setback, tentative tract map, and development agreement.

**Clara Oaks Specific Plan Project EIR, Claremont, California.** Serving as lead GIS Analyst for the EIR for the development of 40 semi-custom home residences within an undeveloped portion of the City of Claremont's hillside area and adjacent to the Webb Schools and Claremont Hillside Wilderness Park. A county-designated Significant Ecological Area is adjacent to the project site, which is also bisected by a flood control easement. The project includes parking for access to a new trail system within the portion of the site to remain open space. The project requires new utility infrastructure, off-site improvements to Webb Canyon Road, and wet/dry utility connections. The project requires a General Plan amendment, zone change, and tentative tract map.

**Centennial Specific Plan EIR and Biological Resources Technical Report GIS Services, Los Angeles County.** While at another firm, served as the primary GIS specialist for the Centennial Specific Plan and Phase One Implementation Project, which involved the development of approximately 12,000 acres with approximately 23,000 residential units and up to 14 million square feet of mixed urban service and employment-generating uses in addition to a variety of commercial, industrial, natural open space, and recreational land uses. Performed GIS analysis and produced exhibits for the Program EIR and supporting Biological Technical Report. Developed and consolidated GIS, AutoCAD, and other data from numerous public and private agencies for use in analysis and cartographic products.

# Matthew Palavido

## GEOSPATIAL APPLICATION DEVELOPER

Matthew Palavido is a geospatial application developer with 25 years' experience. He is knowledgeable about geographic information systems (GIS), GIS needs assessments, spatial analysis, GPS, cartography, databases, geography, environmental awareness, sustainability, spatial databases, asset management, and web mapping. Mr. Palavido is proficient at several programming languages, including Python, JavaScript, and Arcade. He also has experience using the following software: VertiGIS Workflow Studio, ArcGIS Pro, ArcGIS Online, ArcGIS Enterprise, Field Maps for ArcGIS, Survey123, PowerBI, and Power Automate.

## Project Experience

**California High-Speed Rail, Various Locations, California.** The project included statewide environmental surveys and compliance efforts in relation to the development of a high-speed rail. Mr. Palavido provided application development, field data collection support, and general GIS support.

**Reservoir Hydrography Reporting Tool, City of San Diego Public Utilities Department, California.** The City of San Diego Public Utilities Department is streamlining the process to track water as it moves throughout the entire reservoir system. Mr. Palavido is responsible for application development, GIS support, and providing recommendations on platforms based on best practices.

**San Bernardino County Regional Conservation Investment Strategy, California.** Mr. Palavido provided GIS application development services for the project. San Bernardino County Regional Conservation Investment Strategy is a voluntary, nonregulatory framework for conservation and mitigation actions in western San Bernardino County. In an effort to streamline mitigation decisions and generate the best conservation outcomes, the San Bernardino County Regional Conservation Investment Strategy was developed to provide a regional, science-based conservation guidebook for use by public agencies, the development community, environmental groups, other interested entities, and the public when planning and carrying out conservation and mitigation.

**TerraCount Assessment for San Diego County, San Diego Association of Governments, California.** Mr. Palavido provided GIS support for the San Diego Association of Governments's carbon storage and sequestration assessment for San Diego County using the California Department of Conservation's TerraCount tool. Was also responsible for database administration and analytical support. The analysis will estimate the carbon inventory for the natural and working lands of San Diego County to estimate the current carbon storage and forecasted trends to 2050 and report the effects of management activities and co-benefits in the region.

**As-Needed GIS Services, Ramona Water District, California.** Mr. Palavido is currently serving as GIS application developer, working with the Ramona Water District to provide a variety of GIS services. Work has involved the maintenance and tuning of spatial databases hosted on Dudek's infrastructure and the creation and maintenance of web-based tools to support the district's daily workflows.



### *Education*

*University of North Carolina  
at Wilmington  
BS, Geography, 1999*

*Pennsylvania State  
University  
Post Baccalaureate  
Certificate, GIS*

### *Certifications*

*IT Service Management,  
PeopleCert,  
No. GR750479163MP*

**Climate Adaptation Plan, City of Rialto, California.** Mr. Palavido provided GIS web application development support for the project.

## Relevant Previous Experience

**Business Application Manager, Coachella Valley Water District, California.** Mr. Palavido managed a team of developers and GIS professionals. Part of a cross-departmental team responsible for the development of the District's 5-year operational strategic plan. Responsible for determining budget requirements for the Business Applications Division. Responsible for integrating enterprise GIS applications with other District enterprise systems, including SCADA, Superior, IBM FileNet, and iSeries. Acted as technical advisor to District departments regarding contracts, software, and hardware procurement.

**GIS Manager, Coachella Valley Water District, California.** Mr. Palavido managed a team of GIS professionals. Developed a 5-year, districtwide GIS strategic plan. Part of a cross-departmental team responsible for the development of the District's 5-year operational strategic plan. Responsible for determining budget requirements for GIS and CAD divisions. Created and tested web-mapping applications using ArcGIS Server and Geocortex. Responsible for integrating enterprise GIS applications with other District enterprise systems, including SCADA, Sungard, and IBM FileNet. Acted as technical advisor to District departments regarding contracts, software, and hardware procurement. Responsible for the management of large-scale, spatially enabled SQL Server databases and their performance optimization through ArcGIS Server tuning.

**Senior GIS Specialist, AECOM, California.** Mr. Palavido created GIS tools to evaluate the sustainability of land use plans using VB.Net and ArcObjects. Automated and streamlined workflows using a model builder. Created custom applications and user interfaces for internal and external clients. Created and managed external-facing ArcGIS Server applications. Managed GIS needs assessments for external clients. Implemented a task management and tracking system for the GIS group.

**GIS Manager, County of Manatee, Florida.** Mr. Palavido managed a GIS team consisting of 10 employees. Responsible for planning and implementing the County's enterprise GIS. Tested and deployed GIS applications for various County departments. Acted as technical advisor to County departments regarding contracts, software, and hardware procurement. Responsible for determining budget requirements for the GIS section. Responsible for coordinating outreach efforts to other County departments and the public. Coordinated countywide GIS training. Responsible for the development of a disaster response plan for the GIS section.

**Director of GIS Services, Cardno ENTRIX.** Mr. Palavido managed GIS teams across a multi-office, multistate environment. Responsible for planning and implementing the company's enterprise GIS. Tested and deployed GIS applications for various company departments and external clients. Acted as technical advisor to other departments and external clients regarding contracts, software, and hardware procurement. Responsible for determining budget requirements for the GIS department. Created standards and procedures, as well as documentation in the form of metadata, for clients and in-house users to maintain, access, and use to assess the validity of enterprise-wide GIS data. Coordinated and oversaw the management of large-scale, spatially enabled SQL Server and Oracle databases and their performance optimization through ArcSDE tuning. Implemented scalable and maintainable GIS solutions for both private- and public-sector clients. Installed and configured various GIS applications, including ArcGIS Server and University of Minnesota MapServer, for internal and external clients.

**GIS Analyst, Florida Fish and Wildlife Conservation Commission.** Mr. Palavido produced high-quality cartographic products intended for public outreach. Developed GIS-based CD-ROM applications for various federal, state, and local agencies. Performed cartographic and analytical support for the agency's submissions to scientific journals.



## Chelsea Richer, AICP

### Senior Associate

#### EDUCATION

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Master of Urban & Regional Planning  
University of California, Los Angeles, 2014

Bachelor of Arts, Environmental Studies and  
Public Policy, University of Chicago, 2008

#### REGISTRATIONS

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American Institute of Certified Planners  
(027878)

#### AFFILIATIONS

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California Planning Foundation Board  
Member  
APA Los Angeles Section Member

#### PRESENTATIONS

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- Understanding How Women Travel – Rail~volution, Vancouver, BC (2019)
- Vision Zero Deep Dive: Taking Meaningful Action on Vision Zero – APA National Conference, NYC (2017)
- County-wide Strategic First/Last Mile Planning and Implementation in Los Angeles – APTA Annual Meeting, Los Angeles (2016)

#### EXPERTISE

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- Climate Change & Transportation Resiliency
- Evacuation Studies
- Transit Access & First/Last Mile Planning
- Long-range Transportation Planning
- Bicycle and Pedestrian Planning
- Multimodal Corridor Planning
- Transportation Demand Management

#### ABOUT

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Chelsea has over 10 years of experience in transportation planning, focusing on first/last mile planning, multi-modal safety, climate change, and transportation demand management (TDM). Chelsea leads Fehr & Peers' companywide discipline group on Climate Change & Resilience. With experience working in diverse communities in Los Angeles, Chelsea excels on projects that center transportation equity, data analysis, project evaluation, and community engagement as the tools to inform better decision-making and better outcomes. Her technical practice areas are underpinned by strong communication skills, attention to detail, and experience managing complex planning projects with interdisciplinary teams.

#### PROJECT EXPERIENCE

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##### **Montecito Evacuation Study (Montecito, CA)**

Fehr & Peers is supporting the Montecito Fire Department in understanding more about evacuation patterns and outcomes related to wildfire risk. Using a subarea extraction from the Santa Barbara County Association of Governments' (SBCAG) Travel Demand Model, Fehr & Peers is deploying our tool, EVAC+, to run dynamic traffic scenarios in response to input parameters that reflect conditions that MFD is interested in testing. EVAC+ produces a variety of metrics related to evacuation outcomes, such as average evacuation times for an area, location of bottlenecks on the network, and number of evacuating vehicles for an area. Following the analysis, our team will develop recommendations to manage the congestion, improve communication with residents, and strategically allocate staff resources during an evacuation. Chelsea is the project manager for this study.

##### **Calabasas Safety Element Update (Calabasas, CA)**

Fehr & Peers is conducting emergency evacuation analysis in support of the City of Calabasas Safety Element Update. In response to 2019 legislation (AB 747), Safety Element updates must include capacity evaluation for evacuation routes in high-risk areas. The analysis includes working with City staff to develop emergency evacuation scenarios, analyzing traffic operations under each scenario to identify congestion hot spots and bottlenecks on the City's evacuation routes, and developing recommendations to improve traffic flows during each evacuation scenario. In addition to coordinating with City staff, Fehr & Peers is coordinating with the LA County Fire Department, Sheriff Department, and Office of Emergency Management. Chelsea is a technical advisor to this study.

### **Beverly Hills Evacuation Study (Beverly Hills, CA)**

Fehr & Peers is supporting the Beverly Hills Planning Department in understanding more about evacuation patterns and outcomes related to wildfire risk. Using a subarea extraction from the City of Los Angeles Travel Demand Model, Fehr & Peers is deploying our tool, EVAC+, to run dynamic traffic scenarios in response to input parameters that reflect conditions Beverly Hills Planning, first responder, and Emergency Management staff are interested in testing. Following the analysis, our team will develop recommendations to manage the congestion, improve communication with residents, and strategically allocate staff resources during an evacuation. Chelsea is the project manager for this study.

### **OCTA Rail Defense Against Climate Change (Orange County, CA)**

As part of a team evaluating climate risks for a key rail corridor in Orange County, Fehr & Peers conducted an assessment of station area amenities and first/last mile facilities to understand the risks and opportunities posed by climate change – in particular high heat exposure – at 12 stations. This assessment includes consideration of the existing station amenities and first/last mile facilities, physical conditions, projected climate risks, and ridership characteristics to understand the full set of risks and outcomes that could arise as a result of climate change. This assessment resulted in an initial prioritization to focus attention on near-term investment needs and long-term investment needs to implement adaptation strategies. Following this assessment, Fehr & Peers developed implementation recommendations and cost estimates to help guide future investments and upgrades to infrastructure that would increase resilience of the rail system, increase the adaptive capacity of the surrounding communities, and reduce hazards related to climate change. Chelsea was the project manager for this study.

### **Oxnard Sustainable Transportation Plan (Oxnard, CA)**

Fehr & Peers is leading a team to develop Oxnard's Sustainable Transportation Plan (STP), which pairs prior multi-modal transportation planning efforts with extensive community engagement to form an implementation plan towards a sustainable mobility future for people who live, work, and visit Oxnard. The Plan will identify barriers and opportunities for implementing complete streets, first/last mile, and safe routes to school projects throughout the city, with an emphasis on major transit hubs and high demand areas. Development of the STP includes engagement with various City departments and surrounding jurisdictions through an Inter-Agency Charette and the broader community through focus groups, an advisory committee, public workshops, and demonstration projects. The project will identify priority locations and corridors and develop conceptual designs, funding sources, and a prioritized project list. Chelsea is the project manager for this Plan.

### **Oxnard Climate Action Plan (Oxnard, CA)**

Fehr & Peers is supporting the team developing the City of Oxnard's Climate Action Plan by establishing a baseline VMT inventory and future VMT forecasts based on a variety of future scenarios that include investment in transportation assets such as vehicle electrification infrastructure, implementation of TDM strategies, and reorientation of housing development patterns to support more efficient land use that would require shorter and fewer vehicle trips. In addition to greenhouse gas reduction efforts related to transportation, the final Climate Action Plan will also include a matrix of climate adaptation strategies across all sectors. Fehr & Peers is supporting the development of transportation- and mobility-related adaptation strategies that will build climate resilience and continue to provide comfortable access to transportation options in the long-term time frame. Chelsea is the project manager of this effort.

### **Advisory Services for the Transportation Electrification Partnership (Los Angeles, CA)**

As part of an advisory services team, Fehr & Peers provided technical expertise and policy analysis support for the Los Angeles Cleantech Incubator's Transportation Electrification Partnership (TEP). Building on the Zero Emissions Roadmap, LACI sought advisory services to help the TEP prioritize and develop implementation pathways for the strategies and targets each member agency had committed to. Fehr & Peers led the development of a policy analysis matrix for three focus areas: light-duty vehicles and EV charging, modeshift to active transportation and transit, and goods movement and freight. In addition, Fehr & Peers facilitated TEP meetings focused on the policy pathways to implementation and developed recommendations for viable approaches to acceleration of electrification in the context of the existing policy and planning landscape. Chelsea managed this effort for Fehr & Peers.

### **Transportation Technology Strategy Implementation (Los Angeles, CA)**

After adopting the transportation technology strategy *Urban Mobility in a Digital Age*, LADOT sought a consultant team to lead the implementation of the first set of early-action tasks identified in the plan. Fehr & Peers led an interdisciplinary team of planners, designers and data scientists to execute foundational components of the plan, including a first-of-its-kind data inventory, a six-module ArcGIS Online training for LADOT staff, and an evaluation framework to center user experience and customer service as the key outcomes for all services and activities within the Department's control. We also developed tools to assess the potential of new partnerships and new types of programs to ensure continuity of decision-making across diverse initiatives, and to position LADOT to realize the maximum benefits from these initiatives. The Department continues to use these strategic framing tools as they implement the next set of tasks within the technology plan. Chelsea managed this project.



## Sarah Brandenburg, PE

### Principal-in-Charge

#### EDUCATION

Bachelor of Science, Civil and Environmental Engineering, Cal Poly San Luis Obispo

#### REGISTRATIONS

Licensed Traffic Engineer, State of California (#2213)

#### PRESENTATIONS

Measuring the Miles: CEQA Changes with SB 743 in Los Angeles, CA, Association of Environmental Planners, 2017

#### EXPERTISE

- Land Use and Transportation
- CEQA Updates under SB 743
- Transportation Infrastructure & Corridor Studies
- Travel Demand Forecasting & Traffic Operations
- University Planning
- Long Range Planning

#### ABOUT

Sarah Brandenburg has over 20 years of experience with Fehr & Peers and is a licensed Traffic Engineer. Sarah served as the Operations Manager of the Los Angeles office for seven years, and is currently the Regional Principal-in-Charge of Southern California. Sarah has managed a variety of complex studies, such as emergency evacuation studies, transportation impact studies, EIR transportation sections, transportation planning studies, and corridor studies focused on roadway operations, transit and active transportation. Sarah has worked on multiple studies requiring VMT analysis in adherence with new CEQA guidelines. Other key projects include the City of Los Angeles Mobility Plan 2035 EIR, Beverly Hills On-Call Transportation Services, Westside Mobility Plan, Marina del Rey Mobility Plan, and Hollywood Community Plan Update. Sarah's ability to work closely with clients, complete a high-quality technical analysis, and clearly communicate study findings have been and will continue to be critical to project success.

#### PROJECT EXPERIENCE

##### **Montecito Evacuation Study (Montecito, CA)**

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In addition to coordinating with City staff, Fehr & Peers is coordinating with the LA County Fire Department, Sheriff Department, and Office of Emergency Management.

### **County of Santa Barbara Active Transportation Plan (County of Santa Barbara, CA)**

Fehr & Peers is leading the development of the County of Santa Barbara ATP. The plan focuses on the diverse unincorporated areas of the County including coastal ranches and suburbs, rural agricultural land, and the primary residential and commercial neighborhood serving students and faculty of UCSB. The outreach process includes virtual and in-person workshop and targeted outreach using a roving interactive art installation, with materials and facilitation in English, Spanish and Mixteco (indigenous language spoken in southern Mexico). The primary outcome of the ATP is to deliver concept plans and cost estimates for a series of complete streets projects that include a combination of ADA, bicycle, pedestrian and school area safety elements.

### **SB 743 Implementation Services (County of Santa Barbara, CA)**

Fehr & Peers is assisting the County of Santa Barbara with SB 743 Implementation and updates to their CEQA thresholds for transportation projects. We have worked with an advisory committee to provide knowledge and insight that will allow the County to be well prepared for a transition to Vehicle Miles Traveled (VMT) as its primary transportation impact metric for CEQA analysis, marrying the State's objectives to encourage transportation-efficient development with the County's own goals and objectives. Data from the regional SBCAG model has been used to help the County observe VMT trends and develop a VMT baseline. Mitigation strategies have been reviewed to determine applicability to the context of the unincorporated areas of the County. The implementation approach will allow the County to meet the State's July 1, 2020 adoption deadline. After establishing a methodology to estimate project VMT, Fehr & Peers will help to update the County's traffic study guidelines to ensure that traffic operations analyses are still considered in the project review process. Sarah is the Project Manager and the Principal-in-Charge.

### **South Coast 101 HOV Construction Planning**

As part of a project team, Fehr & Peers provided transportation planning services for a variety of studies along the Highway 101 corridor at the request of SBCAG and Caltrans District 5. These studies included the following: 101 HOV Lane TravelCast Construction Planning; Cabrillo Boulevard Corridor Operations Analysis; Temporary Closure of Cabrillo and Los Patos Off-Ramps during 101 HOV Construction; and ICU Analysis for Garden Street & Yanonali Street. Fehr & Peers has an on-call contract with SBCAG to assist with on-going studies for the US 101 corridor.

### **UC Santa Barbara Long Range Development Plan**

Fehr & Peers prepared the transportation and circulation section for the UCSB LRDP EIR. Traffic impacts of the proposed campus growth were analyzed on-campus and throughout the City of Goleta and adjacent area of Santa Barbara County. A key component of the study was developing campus trip generation rates and analyzing the benefit of providing more housing close to campus for students, faculty, and staff. On-campus parking, bicycle, pedestrian, and transit facilities were also evaluated with respect to existing conditions and future needs. Sarah was the Project Manager.

### **UC Santa Barbara Ocean Road Housing Project and Bicycle Planning**

Fehr & Peers prepared the transportation and circulation section for an EIR of the Ocean Road development on the campus of the University of California, Santa Barbara. The project included development of over 500 residential units, two parking structures, Traffic impacts of the proposed campus growth were analyzed on campus and throughout the City of Goleta and adjacent area of Santa Barbara County. A key component of the study was developing campus trip generation rates and analyzing the benefit of providing more housing close to campus for students, faculty, and staff. On-campus parking, bicycle, pedestrian, and transit facilities were also evaluated with respect to existing conditions and future needs.

### **UC Santa Barbara San Joaquin Housing EIR**

Fehr & Peers is prepared a traffic study for the environmental document for the expansion of the proposed San Joaquin Housing Project at the UCSB campus. The project increased the number of beds at the proposed San Joaquin Housing project from the original expansion that was developed in UCSB Long Range Development Plan. Fehr & Peers was on the project team that was responsible for the creation of the LRDP. Sarah was the Principal-in-Charge and the Project Manager.

### **Beverly Hills Evacuation Study (Beverly Hills, CA)**

Fehr & Peers is supporting the Beverly Hills Planning Department in understanding more about evacuation patterns and outcomes related to wildfire risk. Using a subarea extraction from the City of Los Angeles Travel Demand Model, Fehr & Peers is deploying our tool, EVAC+, to run dynamic traffic scenarios in response to input parameters that reflect conditions Beverly Hills Planning, first responder, and Emergency Management staff are interested in testing. Following the analysis, our team will develop recommendations to manage the congestion, improve communication with residents, and strategically allocate staff resources during an evacuation.



# DUDEK

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**DUDEK.COM**



# Appendix 1



County of Santa Barbara  
 Community Wildfire Protection Plan & Transportation Study for the  
 Santa Barbara Foothill Communities  
 DUDEK FEE ESTIMATE 6/1/2023

| Dudek Labor Hours and Rates |   |                      |                    |                   |                    |                                 |                      |                      |                          |                   | Fehr & Peers Labor Hours and Rates |                               |                       |                                  |                    |                     | TOTAL DUDEK HOURS | DUDEK LABOR COSTS  | OTHER DIRECT COSTS     | TOTAL FEE          |                     |
|-----------------------------|---|----------------------|--------------------|-------------------|--------------------|---------------------------------|----------------------|----------------------|--------------------------|-------------------|------------------------------------|-------------------------------|-----------------------|----------------------------------|--------------------|---------------------|-------------------|--------------------|------------------------|--------------------|---------------------|
| Project Team Role:          | Specialist II                           | Senior Specialist IV | Specialist III     | Analyst III       | Analyst III        | Project Director/ Environmental | Creative Services IV | GIS Analyst IV       | Application Developer II | GIS Analyst IV    | Fehr & Peers Principal             | Fehr & Peers Senior Associate | Senior Engineer I     | Project Engineer I/ Technician I | GIS Analyst IV     | Project Coordinator |                   |                    |                        |                    |                     |
| Team Member:                | Dana Link-Herrera                       | Scott Eckardt        | Noah Stamm         | Matthew Crockett  | Alison Sells       | Jane Gray                       | Raoul Ranoa          | Christopher Starbird | Matthew Palavido         | Kirsten Zecher    | Principal in Charge                | Sr. Associate                 | Sr. Planner/ Engineer | Project Planner/ Engineer        | Graphics/GIS       | Project Coordinator |                   |                    |                        |                    |                     |
| Billable Rate:              | \$155.00                                | \$235.00             | \$165.00           | \$115.00          | \$115.00           | \$265.00                        | \$165.00             | \$165.00             | \$195.00                 | \$165.00          | \$315.00                           | \$255.00                      | \$185.00              | \$155.00                         | \$160.00           | \$150.00            |                   |                    |                        |                    |                     |
| <b>Task 1</b>               | <b>Review Existing Information</b>      |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
| 1.1                         | Kickoff Meeting                         | 4                    | 4                  |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     | 8                 | \$1,560.00         | \$37.50                | \$1,597.50         |                     |
| 1.2                         | Review Existing Information             | 4                    | 2                  |                   | 20                 | 8                               |                      |                      |                          | 12                | 2                                  | 6                             |                       | 24                               |                    | 5                   | 83                | \$12,920.00        |                        | \$12,920.00        |                     |
|                             | <b>Subtotal Task 1</b>                  | <b>8</b>             | <b>6</b>           |                   | <b>20</b>          | <b>8</b>                        |                      |                      |                          | <b>12</b>         | <b>2</b>                           | <b>6</b>                      |                       | <b>24</b>                        |                    | <b>5</b>            | <b>91</b>         | <b>\$14,480.00</b> | <b>\$37.50</b>         | <b>\$14,517.50</b> |                     |
| <b>Task 2</b>               | <b>Conduct Hazard and Risk Analysis</b> |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
| 2.1                         | Field Assessment                        | 20                   | 20                 |                   | 20                 |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     | 60                | \$10,100.00        | \$1,087.50             | \$11,187.50        |                     |
| 2.2                         | Hazard Modeling                         |                      | 16                 | 8                 | 44                 |                                 |                      |                      |                          | 4                 |                                    |                               |                       |                                  |                    |                     | 72                | \$10,800.00        |                        | \$10,800.00        |                     |
| 2.3                         | Risk Modeling                           |                      | 16                 |                   | 44                 |                                 |                      |                      |                          | 4                 |                                    |                               |                       |                                  |                    |                     | 64                | \$9,480.00         |                        | \$9,480.00         |                     |
|                             | <b>Subtotal Task 2</b>                  | <b>20</b>            | <b>52</b>          | <b>8</b>          | <b>108</b>         |                                 |                      |                      |                          | <b>8</b>          |                                    |                               |                       |                                  |                    |                     | <b>196</b>        | <b>\$30,380.00</b> | <b>\$1,087.50</b>      | <b>\$31,467.50</b> |                     |
| <b>Task 3</b>               | <b>Conduct Community Outreach</b>       |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
| 3.1                         | Development Team Establishment and      | 40                   | 8                  |                   | 40                 | 40                              |                      |                      |                          |                   | 4                                  |                               |                       |                                  |                    |                     | 132               | \$18,540.00        |                        | \$18,540.00        |                     |
| 3.2                         | Community Workshops                     | 32                   |                    |                   | 32                 | 64                              | 8                    |                      |                          |                   | 8                                  | 22                            | 10                    |                                  |                    | 7                   | 183               | \$29,150.00        | \$2,102.50             | \$31,252.50        |                     |
| 3.3                         | Public Survey                           | 4                    | 2                  |                   |                    | 12                              | 2                    |                      |                          |                   |                                    |                               |                       |                                  |                    |                     | 22                | \$3,330.00         |                        | \$3,330.00         |                     |
| 3.4                         | Project Story Map Website               | 8                    | 2                  |                   | 16                 | 4                               |                      | 32                   | 32                       | 10                | 4                                  |                               |                       |                                  |                    |                     | 108               | \$17,180.00        |                        | \$17,180.00        |                     |
| 3.5                         | Supporting Materials                    | 4                    |                    |                   |                    | 10                              |                      | 20                   |                          |                   |                                    |                               |                       |                                  |                    |                     | 34                | \$5,070.00         |                        | \$5,070.00         |                     |
|                             | <b>Subtotal Task 3</b>                  | <b>88</b>            | <b>12</b>          |                   | <b>88</b>          | <b>130</b>                      | <b>10</b>            | <b>52</b>            | <b>34</b>                | <b>10</b>         | <b>4</b>                           | <b>22</b>                     | <b>10</b>             |                                  |                    | <b>7</b>            | <b>479</b>        | <b>\$73,270.00</b> | <b>\$2,102.50</b>      | <b>\$75,372.50</b> |                     |
| <b>Task 4</b>               | <b>Mapping</b>                          |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
|                             |   | 2                    | 2                  |                   | 24                 |                                 |                      |                      |                          | 12                |                                    |                               |                       |                                  |                    |                     | 40                | \$5,520.00         |                        | \$5,520.00         |                     |
| <b>Task 5</b>               | <b>Prepare the CWPP</b>                 |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
| 5.1                         | Draft CWPP                              | 40                   | 20                 | 6                 | 80                 | 20                              |                      | 20                   |                          | 4                 |                                    |                               |                       |                                  |                    |                     | 190               | \$27,350.00        |                        | \$27,350.00        |                     |
| 5.2                         | Final CWPP                              | 30                   | 8                  | 4                 | 40                 | 10                              |                      | 10                   |                          | 2                 |                                    |                               |                       |                                  |                    |                     | 104               | \$14,920.00        |                        | \$14,920.00        |                     |
|                             | <b>Subtotal Task 5</b>                  | <b>70</b>            | <b>28</b>          | <b>10</b>         | <b>120</b>         | <b>30</b>                       |                      | <b>30</b>            |                          | <b>6</b>          |                                    |                               |                       |                                  |                    |                     | <b>294</b>        | <b>\$42,270.00</b> |                        | <b>\$42,270.00</b> |                     |
| <b>Task 6</b>               | <b>Transportation Study</b>             |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
|                             |   | 30                   |                    |                   |                    |                                 |                      |                      |                          |                   | 14                                 | 36                            | 48                    | 54                               | 46                 | 25                  | 223               | \$41,950.00        | \$2,100.00             | \$44,050.00        |                     |
| <b>Task 7</b>               | <b>Project Management</b>               |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    |                        |                    |                     |
|                             |   | 30                   |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     | 30                | \$4,650.00         | \$37.50                | \$4,687.50         |                     |
|                             | <b>Total Hours</b>                      | <b>218</b>           | <b>100</b>         | <b>18</b>         | <b>360</b>         | <b>168</b>                      | <b>10</b>            | <b>82</b>            | <b>34</b>                | <b>10</b>         | <b>42</b>                          | <b>28</b>                     | <b>64</b>             | <b>58</b>                        | <b>78</b>          | <b>46</b>           | <b>37</b>         | <b>1353</b>        |                        |                    |                     |
|                             | <b>Total</b>                            | <b>\$33,790.00</b>   | <b>\$23,500.00</b> | <b>\$2,970.00</b> | <b>\$41,400.00</b> | <b>\$19,320.00</b>              | <b>\$2,650.00</b>    | <b>\$13,530.00</b>   | <b>\$5,610.00</b>        | <b>\$1,950.00</b> | <b>\$6,930.00</b>                  | <b>\$8,820.00</b>             | <b>\$16,320.00</b>    | <b>\$10,730.00</b>               | <b>\$12,090.00</b> | <b>\$7,360.00</b>   | <b>\$5,550.00</b> |                    | <b>\$212,520.00</b>    | <b>\$5,365.00</b>  | <b>\$217,885.00</b> |
|                             | <i>Percent of Hours (Base)</i>          | <i>16%</i>           | <i>7%</i>          | <i>1%</i>         | <i>27%</i>         | <i>12%</i>                      | <i>1%</i>            | <i>6%</i>            | <i>3%</i>                | <i>1%</i>         | <i>3%</i>                          | <i>2%</i>                     | <i>5%</i>             | <i>4%</i>                        | <i>6%</i>          | <i>3%</i>           | <i>3%</i>         |                    |                        |                    |                     |
|                             |   |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    | Contingency Percent    | 10%                |                     |
|                             |   |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    | Contingency Total      | \$21,788.50        |                     |
|                             |   |                      |                    |                   |                    |                                 |                      |                      |                          |                   |                                    |                               |                       |                                  |                    |                     |                   |                    | Total with Contingency | \$239,673.50       |                     |