



PROPOSAL

# ENVIRONMENTAL IMPACT REPORT MILL POND REMEDIATION PROJECT

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**CITY OF FORT BRAGG**

DECEMBER 16, 2022

725 Front Street, Suite 400 / Santa Cruz, CA 95060 / 831.600.1400

**DUDEK**



# Cover Letter

December 16, 2022

City of Fort Bragg  
 Attention: June Lemos, CMC, City Clerk  
 416 North Franklin Street  
 Fort Bragg, California 95437

**Subject: Environmental Impact Report, Mill Pond Remediation Project**

Dear Ms. Lemos:


We are pleased to submit this proposal to the City of Fort Bragg to prepare an environmental impact report for the Mill Pond Remediation Project. This effort requires professionals who bring a mix of local understanding and innovative approaches to projects in coastal areas that involve remediation and improvements to dams and require related agency and stakeholder coordination. Our team is an excellent choice to partner with the City of Fort Bragg on this project, as evidenced by the following:

#### **Proven Project History in Coastal, Remediation, and Dam Projects.**

The environmental compliance and permitting process for construction work in and along California coastal areas is complex, involving unique technical analyses under the California Environmental Quality Act as well as a great number of complex regulatory permits and associated agency coordination. Dudek has extensive experience working on environmental review and permitting projects in and along California's coastal areas. As detailed in our proposal, we have performed such work for various municipalities, water districts, ports and port districts, and harbor districts in California. Dudek also has extensive experience working on projects involving remediation and dams and regularly coordinates with the Department of Toxic Substances Control and the Division of Safety of Dams on such projects. Finally, we have strong local experience in Northern California. Our team has been specifically tailored to provide expertise in coastal, remediation, and dam projects and in projects involving wetland mitigation.

We appreciate the opportunity to submit this proposal and look forward to working with you on this important project. If you have any questions or require any additional information, please feel free to contact me at 831.226.9373 or [asansevero@dudek.com](mailto:asansevero@dudek.com).

Sincerely,



**Ann Sansevero, AICP**  
 Principal/Senior Project Manager

#### **DUDEK AT A GLANCE**

- *Multidisciplinary environmental and engineering services*
- *Founded in 1980*
- *17 offices*
- *700+ employees*
- *100% employee-owned*
- *Silver medal in sustainability achievement (EcoVadis, 2021)*
- *Top 120 U.S. Environmental Firms (Engineering News-Record, 2021)*

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# A. Firm Description

Founded in 1980, Dudek is a California-based environmental and engineering consulting firm with offices nationwide that are staffed by more than 700 planners, scientists, engineers, contractors, and technical experts. We help our clients address challenges related to infrastructure, planning, and the environment to drive project progress and create lasting results.

With analyses based in science and ethics, Dudek offers solutions that encompass the project life cycle and anticipate future needs. Our professionals find practical, cost-effective approaches to help clients achieve their project-specific and overall goals. We work to build client trust, which allows us to offer constructive and durable project solutions.

## CLIENT VALUE PHILOSOPHY

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

- 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 our clients' stakeholder needs;
- Focusing on innovation to make smarter progress;
- Being easy to work with because we are structured to support clients; and
- Understanding the stakes and the price of delays or failure.

## CEQA/NEPA

Dudek has one of California's largest, most experienced teams for California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) document preparation. Our environmental planners have prepared and processed more than 3,300 CEQA/NEPA documents for a variety of large and small remediation, dam, infrastructure, development, wetland restoration and mitigation, and conservation projects throughout the United States. Combining comprehensive analysis and research-based findings, we provide legally defensible documents that are supported by substantial evidence, none of which have ever been successfully overturned in court. We conduct technically sound assessments and manage environmental review processes in a streamlined, compliant, and straightforward manner.

### DUDEK EXPERTISE

*Our depth and breadth of experience means we can quickly assemble and mobilize the appropriate level of service to match your project needs and budget. Our 700+ person in-house team includes:*

- AICP-certified environmental planners
- CDFW- and USFWS-permitted biologists
- Coastal and regulatory specialists
- Registered professional archaeologists
- Certified arborists and foresters
- Noise and air quality specialists
- Accredited LEED professionals
- Certified GIS professionals
- Licensed professional engineers
- Licensed professional geologists
- Certified hydrogeologists
- Certified engineering geologists
- OSHA 40-hour HAZWOPER certified staff
- RCRA Hazardous Waste Management certified staff
- DOT Hazardous Material Handler certified staff

Dudek's environmental experts work collaboratively with clients; local, regional, state, and federal agencies; and the public to clearly define project objectives, address concerns, and outline appropriate processes. We apply practical CEQA/NEPA knowledge to comply with current laws, regulations, and case law. Our planners help clients creatively solve regulatory challenges within financial and scheduling constraints.

We produce complete CEQA/NEPA documents done right the first time. Our environmental planners work with our in-house technical editors and graphic designers to prepare high-quality documents that are clearly organized and easily interpreted by the public, agencies, and decision makers.

We efficiently coordinate and prepare technical reports by using our in-house technical experts or conduct peer reviews of applicant's studies to confirm they are appropriate for inclusion in CEQA documents. Our team expedites complex project processing by designing and maintaining realistic document schedules, adhering to consistent communication protocols, leveraging our long-standing agency relationships, and anticipating potential issues as soon as possible. Additionally, our planners expertly serve as independent, neutral staff and can manage or assist with the management of the environmental review process for CEQA lead agencies.

We have expertise in the following project types relevant to the proposed Mill Pond Remediation Project:

- Remediation projects involving coordination with the Department of Toxic Substances Control (DTSC), development of remediation action plans, and evaluation of such plans under CEQA
- High-profile development in California's Coastal Zone, involving coordination with California Coastal Commission (CCC) staff and/or local agency staff issuing coastal development permits (CDPs) under Local Coastal Programs (LCPs)
- Public infrastructure projects involving dams and other types of public infrastructure involving resource constraints and regulatory permitting
- Projects involving early coordination with CEQA Responsible Agencies to provide CEQA documents that support subsequent approvals by such agencies

## Site Assessment and Remediation

Successful reuse/redevelopment/containment of contaminated property requires a team of engineering, geology, chemistry, and toxicology professionals who understand local, state, and federal regulations and are skilled in navigating the nuances of regulatory agencies. Our experts evaluate and manage all aspects of environmental due diligence, cost-benefit analysis, data collection, risk assessment, remediation, and environmental program management. We evaluate and implement remedial alternatives that are cost-effective, time-sensitive, and consider all aspects of risk. We have successfully performed investigation and remediation, and obtained regulatory closure, on commercial and industrial properties, including manufacturing facilities, dry cleaners, automotive shops, oil fields, schools, universities, agricultural sites, hotels, casinos, renewable energy facilities, and residential project sites. At the core of our successful operations is our ability to establish and maintain effective lines of communication with the regulatory agencies, such as the DTSC and the Regional Water Quality Control Boards (RWQCBs), when coordinating project monitoring, permitting, and reporting requirements.

Our professionals have conducted hundreds of Phase I environmental site assessments (ESAs), in accordance with the applicable ASTM International standards as well as lender- and client-specific requirements. We also prepare hazards and hazardous materials analyses for CEQA documents as well as separate hazards technical reports and hazardous materials assessments in support of CEQA documents. We are thorough in our research to determine recognized environmental conditions (RECs) and environmental concerns that can impact the cost,



risk, and schedule of a project. Dudek scientists and engineers expertly design and implement Phase II ESAs to optimize data collection for use in planning, site development, and remediation, as well as to satisfy regulatory requirements. We understand that most projects are subject to schedule and budgetary constraints, and we take those into consideration when specifying data objectives.

We prepare remedial investigation/feasibility studies, sampling and analysis work plans, site health and safety plans, hazardous materials contingency plans, and hazardous waste facility permits. Our team conducts subsurface investigations using geophysical methods, soil gas surveys, and various soil and groundwater sampling techniques. We have also conducted indoor air sampling. We have expertise in groundwater modeling and have designed remedial wellfields and installed groundwater wells. We are well versed in remediation technologies. Each site has unique hydrogeological and chemical challenges, which demand a specialized solution. We consider immediate and long-term impacts when determining suitable technologies. Dudek has designed, permitted, and implemented remedial actions ranging from simple dig-and-haul and vapor extraction to complex groundwater pump and treat systems, in-situ chemical oxidation, and multiphase extraction systems. With our hands-on approach, we maintain the treatment technology and continually evaluate its effectiveness.

Dudek’s scientists prepare site-specific risk assessments to evaluate potential risks for current and future land use. These studies may be used to obtain risk-based closure for contaminated sites or to support change-of-use applications, such as from industrial to commercial or residential. For more complex health risk assessments (HRAs), we work with trusted toxicologist partners, who conduct in-depth exposure assessments, including the evaluation of receptors, contaminant migration pathways, exposure routes, discussion of strengths and weaknesses of the assessment, assumptions and limitations, and the scientific rationale for all calculations.

Given this experience, Dudek is well suited to prepare the environmental impact report (EIR) for the Mill Pond Remediation Project and can readily coordinate seamlessly with the applicant’s team and DTSC.

## Coastal Development Permitting Expertise

California’s coast is a complex resource managed by the CCC and by local municipalities under CCC-certified LCPs. For more than 15 years, our specialized coastal practice has integrated our deep knowledge of California coastal laws, regulations, procedures, and policy interpretation with sound science and engineering, as well as a clear understanding of community values and concerns, to find solutions for both public and private sector clients throughout the state.

As former CCC staff, Dudek’s coastal planners have extensive experience reviewing CEQA/NEPA documents for their consistency with the California Coastal Act (CCA) and certified LCPs and using this analysis as the basis for processing CDPs and LCP amendments. We understand that early and ongoing coordination with CCC staff during preparation of the CEQA document sets the stage for a successful CDP process. We identify CCA/LCP compliance issues that could be fatal flaws for a project and determine specific technical studies or other documents needed to process a permit. We draw on our positive, long-term working relationships with CCC staff to address these policy issues, which can include the following:

- Coastal hazards and sea level rise
- Public access and recreation
- Wetlands and environmentally sensitive habitat areas
- Water quality
- Coastal-dependent development, including aquaculture
- Visitor-serving uses
- Visual quality

Successful collaboration with CCC staff during preparation of the CEQA document results in a CDP application that is comprehensive, inclusive of the specific—but often nuanced—requirements of the CCC, and approved without unexpected delays and unanticipated conditions. Finally, through our work updating LCPs to address sea level rise, our team actively monitors changes in the CCC’s evolving regional and statewide coastal policy interpretation/implementation practices to provide the most current recommendations and guidance to our clients.

## DSOD Project Experience

Dudek understands that the Division of Safety of Dams (DSOD) has determined that the Mill Pond dam would be structurally unsound in a maximum credible earthquake (magnitude 8.0). The intention of the proposed dam improvement project is twofold: 1) structurally stabilize the dam; and 2) create a smaller area contained by the dam in order to remove the dam from DSOD jurisdiction. Dudek has a team of experts in flood control services, including compliance with DSOD requirements for reservoir dams. Our team has extensive experience in earth basins, earthen dams, dam inundation studies, and dam inspections. In addition to our design experience, Dudek has completed several Dam Failure Inundation Maps and Emergency Action Plans (EAP) to comply with State of California Department of Water Resources (DWR) regulations. Once the EAP has been approved by the California Office of Emergency Services, if conditions at and downstream of the site do not change, an update to the inundation map and EAP will be required within 10 years. If there are changes at the site and the reservoir is still characterized as a “dam” (i.e., a retrofit), then an EAP update will be required upon construction of the changes.

Given this experience, Dudek is well suited to prepare the EIR for the Mill Pond Remediation Project and can readily coordinate, as appropriate, with the applicant’s team and DSOD.

### DUDEK EXPERIENCE

- *Santa Maria Dam, Ramona Municipal Water District, Ramona, California*
- *Mt. Woodson Dam Inundation Study, Ramona Municipal Water District, Ramona, California*
- *Dam Inspection Report, San Vicente Reservoir, Ramona Water District, Ramona, California*
- *Blossom Valley Reservoir Dam Failure Inundation Study and EAP, Padre Dam Municipal Water District, Santee, California*
- *Riviera EAP Services, City of Santa Monica, California*
- *Trabuco Dam and Dove Canyon Dam Inundation Study, Trabuco Canyon Water District, Rancho Santa Margarita, California*

## Other Regulatory Agency Experience

Our knowledge of the applicable regulations, combined with our specific experience with the standards and processes of each particular agency and its staff, enable us to prepare comprehensive and easily accessible permitting submittals that result in efficient and effective permitting processes. While the applicant’s team is leading the permitting for the Mill Pond Remediation Project, our expertise in permitting will support EIR preparation and the use of the EIR for subsequent permitting and CEQA Responsible Agency approvals.

Dudek project managers have worked extensively with federal and state resource agencies, including the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS), RWQCBs, DTSC, and California Department of Fish and Wildlife (CDFW).

Our team has particular expertise with the various state and federal laws and regulations governing natural resources throughout California, including both state and federal Endangered Species Acts (ESAs), the California Native Plant Act, the Migratory Bird Treaty Act, the Bald Eagle and Golden Eagle Protection Act, the California Fish and Game Code, the Clean Water Act (CWA), the Porter-Cologne Act, and the Resource Conservation and Recovery Act (RCRA).

Dudek consistently secures development permits, agreements, and approvals from state, federal, regional, and local agencies and other relevant agencies, groups, and entities that have jurisdiction in a project region. Our success stems directly from the relationships and reputation we have fostered with these agencies. Dudek provides reliable, scientifically based information tailored to address the specific requirements and standards of the relevant agency for permit application packages.

### PERMIT ATTAINMENT OVERVIEW

- *Federal Clean Water Act Section 404 and 401 permits*
- *Construction Activity Stormwater Permits (National Pollutant Discharge Elimination System)*
- *State Section 1602 Streambed Alteration Agreements*
- *Federal Endangered Species Act Section 7 consultations for Biological Opinions*
- *Federal Endangered Species Act Section 10a(1)B ITPs*
- *State Endangered Species Act Section 2081 ITPs*
- *State Section 2080.1 Consistency Determinations*
- *RCRA Hazardous Waste Facility Post-Closure Permits, DTSC*
- *Monitoring and Reporting Program orders, RWQCBs*
- *Waste Discharge Requirements orders, RWQCBs*

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## B. Relevant Experience

### SANTA CRUZ WATER RIGHTS PROJECT EIR

**Client:** City of Santa Cruz

**Key Team Members:** Ann Sansevero; Catherine Wade; Daniel Hoffman; Matthew Ricketts; Stephanie Strelow; Matthew Morales; Michael Carr; Mladen Popovic; Ryan Brady; Kathryn Haley; Glenna McMahon; Audrey Herschberger; Perry Russell; Michael Williams; Steve Taffolla; Tyler Friesen; and Raoul Rañoa

**Period of Performance:** 2019–2021

Dudek completed the Santa Cruz Water Rights Project EIR, which was certified in December of 2021. The components of the project included modifications to existing water rights and related actions required to implement the proposed modifications. The underlying purpose of the project was to improve City of Santa Cruz water system flexibility while enhancing stream flows for local anadromous fisheries. To account for further constraints on the City of Santa Cruz’s limited surface water supply from implementation of bypass flows for Central California Coast coho salmon (a federally listed endangered species) and the Central California Coastal steelhead (a federally listed threatened species), the City of Santa Cruz needed to improve water system flexibility within existing allocations to allow better integration and use of this limited resource. Specifically, the EIR evaluated water rights modifications; expanded places of use; diversion methods and points of diversion that involved the Tait Street Diversion Dam and the Felton Diversion Dam; extension of time to put water to full beneficial use; physical infrastructure improvements associated with the water rights modifications, including aquifer storage and recovery facilities; Tait Street Diversion Dam/Coast Pump Station improvements; Felton Diversion Dam improvements; and interties and water transfers with neighboring agencies. The project description and much of the analysis was based on complex hydrological, water supply, and fisheries habitat modeling of the City of Santa Cruz’s surface water sources, including the San Lorenzo River, Newell Creek, and the North Coast streams. Agency coordination conducted during the EIR preparation included the NMFS and CDFW, all of the other water agencies in Santa Cruz County (Soquel Creek Water District, San Lorenzo Valley Water District, Scotts Valley Water District, and Central Water District) and Santa Cruz County related to the project and subsequent CDP.



**SANTA CRUZ ANADROMOUS SALMONID HABITAT CONSERVATION PLAN CEQA AND NEPA**

**Client:** City of Santa Cruz

**Key Team Members:** Ann Sansevero; Catherine Wade; Matt Ricketts; Ryan Brady; Kathryn Haley

**Period of Performance:** 2022–Present

Dudek is preparing the CEQA document and NEPA document to support the approval of the City of Santa Cruz Anadromous Salmonid Habitat Conservation Plan (ASHCP) and associated federal incidental take authorization from the NMFS under FESA, as well as support the take permit authorization from CDFW under CESA. The ASHCP would commit the City of Santa Cruz to maintaining minimum bypass flows for anadromous fisheries at all City of Santa Cruz diversions. The conservation strategies of the ASHCP are designed to avoid, minimize, and fully mitigate the effects of the City of Santa Cruz’s activities covered by the ASHCP



on species and their habitat in support of the long-term viability of these populations within streams and habitats affected by the activities. The activities covered by the ASHCP include water diversion and operation, rehabilitation, replacement, repair, and maintenance of conveyance facilities and other existing infrastructure. Activities also include municipal facility operations and maintenance (including flood control channel operation and maintenance), land management, monitoring, and habitat restoration. The biological goals and objectives of the ASHCP include: (1) minimum bypass flows; (2) creating, restoring, or enhancing aquatic habitat, including removal of passage obstacles, placement of large wood structures, riparian conservation easements, spawning gravel augmentation, riparian restoration, and sediment control projects; and 3) avoiding, minimizing, and fully mitigating effects from City of Santa Cruz operations and maintenance activities by implementing ramping rates during flow changes at diversions to limit flow reductions, reducing the introduction of sediment, upgrading diversion facilities on Laguna, Reggiardo, and Majors Creeks to provide sediment transport during high flows, and enhancing fish passage through the Felton and Tait Diversions Dams. Dudek is working with the City of Santa Cruz on preparing the CEQA document, and with NMFS on the NEPA document, to support the approvals for the ASHCP and incidental take permit (ITP).

**NEWELL CREEK DAM INLET/OUTLET REPLACEMENT PROJECT EIR AND PERMITTING**

**Client:** City of Santa Cruz

**Key Team Members:** Ann Sansevero; Stephanie Strelow; Catherine Wade; Laurie Monarres; Mladen Popovic; Audrey Herschberger; Ryan Brady; Matthew Morales; Perry Russell; Michael Williams; and Tyler Friesen

**Period of Performance:** 2018–2020

Dudek prepared the EIR and assisted with the permitting for this project, which is under construction. The project entails replacing the existing aging dam inlet/outlet works in a new location at Loch Lomond Reservoir with associated improvements to protect the City of Santa Cruz’s ability to deliver drinking water to its customers, improve system performance, maintain long-term reliable storage for the City of Santa Cruz’s drinking water supply, and comply with DSOD requirements. An approximate 2,000-linear-foot segment of the Newell Creek Pipeline will be replaced as part of the project. Dudek oversaw the preparation of three technical memos, seven technical biological and cultural resource studies, and the project EIR, which was certified in May 2019. Dudek permitting specialists oversaw the preparation of permit applications to the USACE, CDFW, and RWQCB as well as the preparation of compensatory mitigation plans.



**LAGUNA CREEK DIVERSION DAM RETROFIT PROJECT EIR AND PERMITTING**

**Client:** City of Santa Cruz

**Key Team Members:** Ann Sansevero; Catherine Wade; Laurie Monarres; Glenna McMahon; Audrey Herschberger; Kathryn Haley; Michael Carr; Perry Russell; Michael Williams; Mladen Popovic; Matthew Morales; Tyler Friesen; and Raoul Rañoa

**Period of Performance:** 2019–2021

This coastal project entailed preparation of an EIR and permitting for the retrofit an existing intake facility at a historic diversion dam on Laguna Creek, which provides an important source of high-quality water in the City of Santa Cruz’s North Coast System. Installation of a new intake screen technology and related improvements to the facility would provide for natural sediment transport past the diversion and protect fish species and habitat. An EIR and permits were prepared, including a CWA Section 404 permit, ESA Section 7 consultation, National Historic Preservation Act Section 106 consultation, CWA 401 Water Quality Certification Permit, Section 1602 Lake or Streambed Alteration Agreement, and a Santa Cruz County CDP. The Dudek team for this project coordinated agency consultations and facilitated receipt of these permits in time for summer 2021 construction. The project retrofits are now complete.



**B.F. SISK DAM SAFETY OF DAMS MODIFICATION**

**Client:** California Department of Water Resources

**Key Team Members:** Matt Ricketts; Tyler Friesen; Adam Giacinto; Perry Russell; Matt Morales; Mladen Popovic; Laura Burriss; Michael Carr; Josh Saunders; Steve Taffolla; Nicole Rieger; Raoul Rañoa; Mike Henry; Brian Grattidge; Audrey Herschberger; Jonathan Martin

**Period of Performance:** 2020–Present

Dudek has been tasked with the preparation and negotiation of all resource agency permits for the B.F. Sisk Dam Renovation Project and the preparation of a Subsequent EIR in conjunction with the permitting for this important dam infrastructure improvement investment. This \$1.1 billion dam safety modification in Los Banos, California, is jointly being planned for and constructed by the U.S. Bureau of Reclamation and California DWR. This dam expansion is the U.S. Bureau of Reclamation’s largest project under the 1978 Safety of Dams Act, raising the dam crest by 12 feet to provide seismic stability. Dudek conducted a comprehensive habitat assessment and supplemental biological and cultural resource surveys to support fast-track, state-level environmental permitting efforts. The objective of these efforts was to prepare application packages and support issuance of a Section 2081 ITP and Section 1602 Lake and Streambed Alteration (LSA) Agreement from the CDFW and to facilitate preparation of a Supplemental EIR to address changes in the project that have occurred since the 2019 EIR/Environmental Impact Statement for the project was completed. The Supplemental EIR addressed changes to the overall project footprint that have added additional disturbance areas and project activities that were not evaluated by the 2019 EIR. Technical studies included air quality, greenhouse gas (GHG) emissions, and energy analyses; photo simulations for visual impact analyses; noise and vibration studies; biological and cultural resources surveys; and traffic analyses.



Beginning in the summer of 2022, Dudek has worked collaboratively with the U.S. Bureau of Reclamation, the U.S. Bureau of Reclamation’s construction contractor, and California DWR to verify environmental compliance oversight for the early phases of project construction. Dudek’s compliance management team is responsible for all mitigation measure implementation, clearance surveys, daily construction monitoring and reporting, workers environmental awareness training, and construction issue resolution and reporting to both agencies and state and federal resource agency regulators to verify that the design-build construction team can complete the multiphase/multi-year project in a compliant manner.



**DELTA DAMS RODENT BURROW REMEDIATION PROJECT, SAFETY OF DAMS ENVIRONMENTAL PERMITTING AND CEQA**

**Client:** California Department of Water Resources

**Key Team Members:** Laurie Monarres; Matthew Ricketts; Adam Giacinto; Kathryn Haley; Andrew Hatch; Steve Taffolla; Laura Burris; Eric Schniewind; and Raoul Rañoa

**Period of Performance:** 2020–Present

Dudek is leading the environmental effort to complete CEQA documentation and obtain all environmental approvals and permits for the Delta Dams Project, which will arrest on-going deterioration of dam embankments at three DWR facilities: Clifton Court Forebay, Dyer Reservoir, and Patterson Reservoir. The work is needed in order to comply with DSOD requirements for backfill of rodent burrows as soon as possible to prevent dam failure. Dudek is responsible for conducting biological and cultural resource surveys to support CEQA and permitting. Required permits include Section 404 permits from USACE, Section 401 Water Quality Certification and/or Waste Discharge Requirements from the RWQCBs, Biological Opinions (USFWS and NMFS), and Section 2081 ITPs and Section 1602 LSA Agreements (CDFW). Coordination is required among multiple USACE districts, multiple RWQCB regions, and multiple areas within CDFW Region 3. Early project successes include successful negotiation of Section 7 scope of analysis, regulatory agency agreement on conceptual mitigation ratios, and agency consensus on completing permitting within a compressed schedule. This has been accomplished via regular, ongoing engagement with regulatory agencies and by leveraging our existing relationships with the regulators. Authorizations issued to date include a Biological Opinion and Letter of Concurrence from USFWS, LSA Agreements from CDFW, a 401 Water Quality Certification from the RWQCB, and a USACE No Permit Required Letter and Nationwide Permit verification with the other permits pending. Dudek completed the Final Initial Study(IS)/Mitigated Negative Declaration(MND) in July 2022 to comply with CEQA requirements.

**CAPITOLA BEACH FLUME AND JETTY REHABILITATION PROJECT**

**Client:** City of Capitola

**Key Team Members:** Stephanie Strelow; Mike Henry; Laurie Monarres

**Period of Performance:** 2018–2020

Dudek conducted technical biological resources and cultural resources studies for a City of Capitola project to restore the Soquel Creek flume and jetty to their original, permitted configurations by repairing/replacing the elements that have deteriorated after decades of harsh marine exposure. The project was also intended to increase the resiliency of these facilities so as to not require maintenance for the next 20 years. The project included conducting marine surveys, preparing technical reports, preparing a Notice of Exemption pursuant to CEQA, and assisting with obtaining permits from federal and state regulatory agencies. Subsequent work included completing technical biological studies for the replacement of pilings at the Capitola Wharf, located immediately east of the flume.



**UNIVERSITY OF CALIFORNIA, SANTA CRUZ, COASTAL SCIENCE CAMPUS OCEAN INTAKE REPAIR**

**Client:** University of California, Santa Cruz

**Key Team Members:** Ann Sansevero; Stephanie Strelow; Laurie Monarres; Sarah Brewer; Ryan Brady

**Period of Performance:** 2019–2020

Dudek provided strategic advice and input to University of California, Santa Cruz, related to regulatory permitting required to conduct needed repairs to the ocean intake at the University’s Coastal Science Campus located in the intertidal and subtidal zones below the Coastal Science Campus. Dudek reviewed project plans, various biological resource reports, and permit applications for the project. Dudek prepared a supplemental report to support the Section 7 and Essential Fish Habitat consultation and made recommendations for revisions to the permit applications and support documents and how to navigate the permitting process through the USACE and related consultations with the USFWS and NMFS, CCC, CSLC, CDFW, RWQCB, and the Monterey Bay National Marine Sanctuary.



**SAN DIEGO UNIFIED PORT DISTRICT AS-NEEDED CURRENT PLANNING ENVIRONMENTAL REVIEW SERVICES**

**Client:** Port of San Diego

**Key Team Members:** Laurie Monarres; Raoul Rañoa

**Period of Performance:** 2017 –Present

The San Diego Unified Port District is currently contracted with Dudek to provide as-needed professional planning/environmental review services, including daily assignments and short- and long-term projects. Projects have been located on Port-owned tidelands, submerged lands, and uplands in and around San Diego Bay. Dudek has prepared complex CEQA documents including EIRs, MNDs, Addendums, and Categorical Exemptions for a variety of Port projects, including wharf and pier developments; recreational, commercial recreation, and industrial facilities; marine terminal improvements; marina improvements; hazardous materials cleanup; natural resources enhancements; infrastructure improvements; land acquisition; public recreational or park developments; designation of vessel navigation corridors; and other developments. Dudek also prepared complex CCC-required documents for the Port, including Port Master Plan Amendments, CDPs, and Public Access Plans. Dudek has adhered to the schedule and budget for each task under this contract.

**SAN FRANCISCO BAY COORDINATED PERMITTING PROCESS**

**Client:** Resources Legacy Fund

**Key Team Members:** Laurie Monarres; Raoul Rañoa

**Period of Performance:** 2017 –Present

Dudek is working with Resources Legacy Fund and the San Francisco Bay Restoration Authority to develop and implement the Bay Restoration Regulatory Integration Team (BRRIT), a coordinated permitting process for multi-benefit wetland restoration projects. The purpose of BRRIT is to improve permitting timelines and predictability for multi-benefit projects and associated flood management and public access infrastructure along the bay shoreline of the nine Bay Area counties in San Francisco Bay.

To accomplish these goals, Dudek developed a coordinated pre-application process and facilitated the development of an interagency team consisting of USACE, NMFS (National Oceanic and Atmospheric Administration Fisheries), USFWS, Bay Conservation and Development Commission, San Francisco RWQCB, CDFW, and the U.S. Environmental Protection Agency. Dudek also assists the executive managers of each of the regulatory agencies by facilitating the monthly BRRIT Policy and Management Committee coordination meetings. We are facilitating compliance with the following: CWA §404, CWA §401 Water Quality Certification, McAtteer-Petris Act, Endangered Species Act and Essential Fish Habitat, California Endangered Species Act, California Water Code, CDFW 1600, San Francisco Bay Basin Plan, Suisun Marsh Preservation Act, Rivers and Harbors Act, Coastal Zone Management Act, and California fully protected species.



**CITY OF OCEANSIDE PIER BRIDGE REPLACEMENT**

**Client:** City of Oceanside

**Key Team Members:** Josh Saunders; Perry Russell; Glenna McMahan

**Period of Performance:** 2021–Present

Dudek is assisting the City of Oceanside in replacing the historic Oceanside pier bridge. Dudek is working closely with project engineers and architects to determine feasible project alternatives, preserve public recreational and safety uses, and plan for future sea level rise and coastal hazards. Dudek has assisted the City of Oceanside in coordinating with CCC throughout the design process in order to proactively incorporate CCC feedback and streamline the eventual permitting process. Development of the project is ongoing, and a CDP application will be assembled and submitted to CCC in 2023.

**SAN SIMEON COMMUNITY SERVICES DISTRICT COASTAL HAZARDS RESPONSE PLAN**

**Client:** San Simeon Community Services District

**Key Team Members:** Jane Gray

**Period of Performance:** 2021–Present

Dudek is developing a Coastal Hazards Response Plan (CHRP) for the San Simeon Community Services District in fulfillment of a CCC-issued CDP condition that requires relocation of an existing wastewater treatment plant. Working collaboratively with public stakeholders and San Simeon Community Services District leaders, Dudek is determining project location and technology alternatives, conducting regulatory and funding analyses for potential project sites, and ensuring compliance with approved CDP special conditions. Dudek is also working closely with agencies, including CCC, RWQCB, CDFW, California State Parks, and County of San Luis Obispo, to develop a comprehensive and robust CHRP. Work on the CHRP is ongoing, and it will be submitted to CCC for final approval in 2023.

**EUREKA TO MANCHESTER LONG-HAUL FIBER OPTIC ENVIRONMENTAL SERVICES**

**Client:** EGA Networks

**Key Team Members:** Matthew Ricketts; Andrew Hatch; Laurie Monarres; Elizabeth Meisman; Daniel Hoffman; Kathryn Haley; Ryan Brady; Sarah Brewer; Laura Burris; and Tyler Friesen

**Period of Performance:** 2021–Present

Dudek is preparing CEQA and NEPA documentation for a proposed project to construct and operate an underground fiber optic cable line between Eureka, California, and Manchester, California. The proposed alignment spans approximately 210 miles, traveling primarily along U.S. Highway 101 between Eureka and Garberville, along Alderpoint Road and Bell Springs Road between Garberville and Cummings, continuing on Highway 101 between Cummings and Ukiah, heading west along State Route 253 to the Pacific Coast, and finally following State Route 1 north to Manchester. The project will include fiber optics infrastructure and associated facilities (such as conduits, handholes, and access pits) in connection with the transport and transmission of communications. Conduit to house the new fiber optic cable would be buried using a combination of boring, trenching, and plowing construction techniques.

Dudek is responsible for participating in project development team meetings with California Department of Transportation (Caltrans) and collaborating with the project engineers to refine the proposed alignment to minimize effects to environmentally sensitive areas. Dudek is also preparing biological and cultural resource inventories and impact analyses, analysis of potential construction noise and air quality effects, a Proponent’s Environmental Analysis to be submitted to the California Public Utilities Commission, and technical memoranda to be submitted to Caltrans in support of its preparation of a NEPA compliance document. Additionally, Dudek is leading the environmental permitting effort to obtain a Section 404 permit from USACE, Section 401 Water Quality Certification and/or Waste Discharge Requirements from the RWQCB, Biological Opinions (USFWS and NMFS), and Section 2081 ITP and Section 1602 LSA Agreement (CDFW).

**CITY YARDS MASTER PLAN PHASE I AND PHASE II ESA AND EIR**

**Client:** City of Santa Monica

**Key Team Members:** Glenna McMahon; Perry Russell; Joshua Saunders; Audrey Herschberger; and Steve Taffolla

**Period of Performance:** 2017 –2019

Dudek prepared a Phase I ESA for the 15.5-acre Santa Monica City Yards property as part of the due diligence process for the EIR that Dudek CEQA professionals were preparing for the project. The project involved proposed reconstruction of the Santa Monica City Yards, as detailed in the Master Plan. The reconstruction of the Santa Monica City Yards included demolition of existing buildings, excavation activities, and construction of new buildings. The Phase I ESA identified RECs associated with groundwater impacts from an adjacent gas station and potential presence of tetrachloroethylene in deep groundwater from a regional plume. The Phase I ESA also identified a controlled REC (i.e., the presence of a former landfill on the subject property) and a historical REC (i.e., former underground storage tank releases). The report was prepared in accordance with ASTM Standard and the All Appropriate Inquiries Rule. Dudek conducted a Phase II ESA for the project to evaluate the RECs identified in a Phase I ESA. The Phase II ESA investigation was focused on the former aircraft/missile manufacturing and leaking underground storage tank areas; additional sample points were advanced near the perimeter of the property to evaluate potential impacts from the regional groundwater plume. The Phase II ESA investigation consisted of a geophysical survey, and soil and soil vapor sample collection and analysis. Soil samples were analyzed for metals and soil vapor samples were analyzed for gasoline range organics and volatile organic compounds (VOCs). Based on the sampling results, no additional investigation was recommended related to the RECs. Finally, Dudek hazardous materials specialists prepared the Hazards and Hazardous Materials chapter of the EIR document, which was prepared by the Dudek CEQA group.



Dudek prepared an EIR for the City of Santa Monica to evaluate the reconfiguration of the City Yards with new buildings and streetscape and enhanced sustainability features. The same buildings constructed in the 1940s housed the City’s maintenance operations, resulting in inefficient use of space and on-site circulation as more City operations functions were added over the years. The Master Plan seeks to reconstruct the City Yards with new buildings in a new configuration to meet the needs of the City of Santa Monica, optimize on- and off-site access through an improved streetscape, and enhance environmental sustainability. One of the challenges of the Master Plan was how to phase the project to keep operations of the City Yards ongoing during construction over a 10-year period. While the City of Santa Monica initially only sought approval for Package A, which included the first three phases of construction, the comprehensive EIR assessed all 10 phases of construction. Impacts were assessed at a project level to minimize the need to do multiple CEQA documents for subsequent phases and for defensibility of the analyses overall so that cumulative impacts were properly accounted for. The project was approved and the EIR for the proposed project was certified by the City of Santa Monica’s Planning Commission in January 2019.

**SAN DIEGO STATE UNIVERSITY/QUALCOMM STADIUM EIR**

**Client:** San Diego State University

**Key Team Members:** Glenna McMahon; Audrey Herschberger; Raoul Rañoa; Joshua Saunders; Perry Russell; Michael Williams; and Tyler Friesen

**Period of Performance:** 2018–2020

The project entails the redevelopment of the 68,000-seat SDCCU Stadium (former home of the San Diego Chargers and San Diego State University Aztec football teams) and surrounding parking lot on approximately 166 acres, adjacent to sensitive biological habitat in the San Diego River and Murphy Canyon Creek. Specifically, the project proposed to develop a new San Diego State University campus in Mission Valley with 1.6 million square feet of campus, composed of 15 buildings; a new 35,000-seat stadium; up to 4,600 dwelling units; up to 400 hotel rooms; 95,000 square feet of neighborhood-serving commercial/retail uses; and more than 80 acres of park, recreation, and open space.



Dudek provided environmental consulting services, including the preparation of several technical studies (biology, cultural resources, historic resources, paleontological resources, population/housing, and noise) as well as the EIR. The EIR was completed in January 2020 and certified in 12 months to meet San Diego State University’s schedule for beginning construction on the new stadium. As the most high-profile development project in San Diego County, Dudek worked with a multidisciplinary team of internal team members and outside consultants to analyze the project’s potential impacts on the environment, develop mitigation measures to reduce those impacts, and refine the site plan to otherwise avoid or minimize potential impacts. The hazards and hazardous materials impact analysis was unique and multifaceted and included the following:

- Evaluation of regulatory records for on-site and surrounding hazardous material releases
- Review of the use of explosives for demolition of the existing stadium
- Review and analysis of a release and cleanup action occurring on the project site due to the adjoining Kinder Morgan Mission Valley Terminal
- Analysis of potential impacts associated with Mission Valley Terminal petroleum pipelines transecting the project site. Mitigation required safety measures and cooperation with Kinder Morgan
- Review and analysis of the active Cleanup and Abatement Order issued to Mission Valley Terminal, which required monitoring wells to remain on the project site in active working order. Mitigation required a well decommissioning/protection plan.
- Analysis of potential vapor intrusion due to on-site contamination and mitigation for future residential site use.
- Coordination and management of a hazardous building materials survey, which was conducted by Dudek’s subcontractor, Aurora

The survey was conducted based on Dudek’s findings in the EIR and recommended mitigation. Dudek served as project manager and provided a direct line of communication between Aurora and San Diego State University and its contractor, reviewed the hazardous material surveys and work products, coordinated on-site activities, and verified that the work completed would meet the requirements set forth in the EIR mitigation. Aurora also prepared specifications for abatement of the hazardous materials.

Dudek continues to support San Diego State University with various elements of construction compliance management.

**FORMER KEARNEY-KPF FACILITY MONITORING AND REMEDIATION**

**Client:** Kearney National, Inc.

**Key Team Members:** Glenna McMahon; Nicole Peacock; Audrey Herschberger; and Raoul Rañoa

**Period of Performance:** 1992–Present

The former Kearney-KPF Facility in Stockton manufactured high-voltage switching devices for utility companies. Two manufacturing processes, silver plating and galvanizing, resulted in generation of hazardous wastes, which impacted soil and groundwater at the site. Dudek has directed the subsurface investigation since 1992, which was early in the site assessment and remediation efforts. Work efforts have included the evaluation of various remedial options through groundwater modeling techniques, installation of more than 50 monitoring wells, establishment of a remedial well field and treatment system, sampling of groundwater monitoring wells and extraction wells, preparation of sampling/monitoring reports, annual preparation of a 30-year cost estimate for reserves, and preparation of the RCRA Hazardous Waste Facility Post Closure Permit application every 10 years. The groundwater monitoring is being conducted in accordance with a Water Quality Sampling and Analysis Plan prepared by Dudek and approved by the DTSC and RWQCB. The Water Quality Sampling and Analysis Plan includes a field sampling plan and a quality assurance project plan.



Dudek was responsible for the preparation, design, and implementation of a RAP for the collection of VOC-contaminated groundwater, its treatment via ultraviolet light and oxidation and air-stripping, and its injection back into the aquifer for beneficial reuse. The project also included the closure of two surface impoundments and a dry well, which was negotiated with DTSC, acting under RCRA, and RWQCB, acting under the Toxic Pit Cleanup Act.

Following submittal of a remedial alternatives work plan, DTSC requested additional investigation of VOCs in the groundwater, soil, and soil vapor in the shallow zone at the site. The investigation, done in 2013, consisted of installation and monitoring of new groundwater monitoring wells and collection of more than 100 soil vapor samples and more than 60 soil samples. The completion report, detailing the results of the investigation, included a human HRA.

Dudek has prepared the RCRA Hazardous Waste Facility Post Closure Permit applications for the site when they are due for renewal every 10 years. During the most recent renewal process, we advocated for a reduced groundwater monitoring schedule based on the low levels of contaminants remaining at the site; eliminating air stripping from the treatment train, as years of data have shown it to be redundant; and reducing operation time (i.e., pulsing) of the groundwater treatment system. These reductions were approved in the new permit, which was issued in 2017. In addition, DTSC insisted that implementation of a soil gas monitoring program was required. We argued that the data did not indicate that this was warranted, and suggested that additional steps should be taken to determine if a soil gas monitoring program was necessary. Thus, as part of the permit, DTSC is requiring further investigation and evaluation of soil vapor and indoor air at the site. This work is in progress.

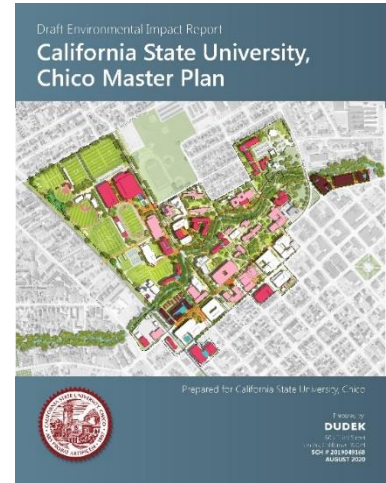
**CALIFORNIA STATE UNIVERSITY CHICO MASTER PLAN EIR AND PHASE I/II ESA**

**Client:** California State University (CSU), Chico

**Key Team Members:** Ann Sansevero; Brian Grattidge; Kathryn Haley; Michael Carr; Perry Russell; Audrey Herschberger; Tyler Friesen; Mike Henry; Glenna McMahon; Catherine Wade; Adam Giacinto; Raoul Rañoa; Matthew Morales; Michael Williams; and William Burns

**Period of Performance:** 2018–2021

The CSU Chico Master Plan update provides the planning framework for the next 10 years of development at the 132-acre main campus, university farm, and off-site housing. The plan aims to accommodate more first-year students on campus by adding 1,500 additional beds, improving academic space per student, improving facilities, and enhancing pedestrian and bicycle circulation. Dudek prepared the EIR for the update, which considered student and faculty growth, facilities needs, and campus sustainability goals. The EIR considered all environmental issues, including visual change, air quality, biological resources, cultural resources, GHG emissions, hydrology, noise, transportation, and public services and utilities. The CSU Board of Trustees approved the Master Plan and certified the EIR in the fall of 2020.



Dudek prepared a Phase I ESA in December 2016 for CSU Chico’s Facilities Management and Services yard (site) as part of environmental due diligence for the demolition of the administration building and the construction of a new building to be used for administration, shipping, and warehousing. Dudek found that there were RECs at the site, including a 12,000-gallon crude oil tank and supply line associated with fruit canning operations between approximately 1902 and 1915; a former 90-foot-tall aboveground gas storage tank associated with Pacific Gas & Electric’s use of the site from 1941 to 1952 (in connection with a nearby manufactured gas plant); and three release cases, which involved impacts of fuel to the subsurface. We recommended a subsurface investigation to evaluate soil vapor, soil, and groundwater sampling for VOCs, petroleum hydrocarbons, metals, methane and polycyclic aromatic hydrocarbons. In addition, we noted that building materials may contain lead or asbestos and recommended that testing be conducted.

Dudek conducted the subsurface investigation, which included preparation of a work plan detailing the sampling methods and procedures, preparation of a site-specific health and safety plan, obtaining appropriate permits for the work, oversight of a subsurface utility survey, collection of samples, coordination of disposal of investigation-derived waste, and evaluation of the data. Dudek prepared a final report discussing the sampling methods and procedures and other field activities and evaluating the results of the sampling. Dudek conducted a screening level risk assessment, which determined that most contaminants of concern were below regulatory thresholds. Arsenic was detected in shallow soil above the regulatory threshold and the DTSC-accepted background concentration. Dudek made recommendations regarding management of the limited area of arsenic-impacted soil.



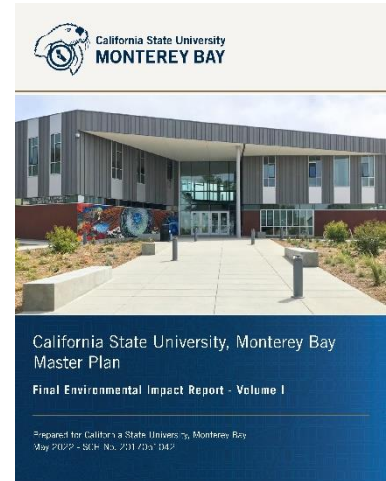
**CSU MONTEREY BAY MASTER PLAN EIR**

**Client:** CSU Monterey Bay

**Key Team Members:** Ann Sansevero; Catherine Wade; Ryan Brady; Perry Russell; Glenna McMahon; Audrey Herschberger; Michael Williams; Eric Schniedwind; Stephanie Strelow; and Tyler Friesen

**Period of Performance:** 2018–2022

Dudek prepared the CSU Monterey Bay Master Plan EIR under the CSU Master Enabling Agreement for CEQA services across the CSU system. The CSU Monterey Bay Master Plan provides for the space and facility needs for the university’s academic, student life, administration, residential, athletics, recreation, and support functions through 2035. It also includes the projects identified in the university’s Five-Year Capital Improvement Program 2016/2017–2020/2021, plus the additional space and facility needs to support planned growth to 12,700 full-time equivalent students, with housing for 60% of students (a total of 7,620 beds) and 65% of faculty and staff (a total of 970 units). Dudek prepared the EIR, participated in CEQA public meetings, and assisted the campus in coordination with local agencies and Caltrans and in Assembly Bill 52 consultation with a local Native American tribe. Dudek led the internal review and finalization of both the Draft EIR and Final EIR with campus staff, CSU Chancellor’s Office, CSU Office of General Counsel, and outside counsel. Key issues included GHG emissions, hazardous conditions on the campus due to prior Fort Ord military operations, public services, transportation, and utilities. While substantive comments were received on the Draft EIR from local municipalities, the local water district, and local advocacy groups, the Final EIR was prepared on schedule and was certified by the CSU Board of Trustees in May 2022 without subsequent legal challenge.



**CAROL KIMMELMAN ATHLETIC AND ACADEMIC CAMPUS EIR**

**Client:** County of Los Angeles Department of Public Works

**Key Team Members:** Perry Russell; Jonathan Leech; Glenna McMahon; Audrey Herschberger; Mladen Popovic; Steve Taffolla; and Raoul Rañoa

**Period of Performance:** 2018–2019

Dudek prepared an EIR for the Carol Kimmelman Athletic and Academic Campus Project, located on County of Los Angeles land within the city limits of the City of Carson. The Carol Kimmelman Foundation, in partnership with several other nonprofit and business entities, is developing the Carol Kimmelman Athletic and Academic Campus project in the City of Carson. The project site is owned by the County of Los Angeles and was a former landfill prior to being repurposed as a golf course. The project includes 62 tennis courts, 10 soccer and multi-use fields, and a new learning and academic support center run by the Tiger Woods Foundation.



Key issues with this project included the dynamics between the City of Carson and County of Los Angeles on the role of the lead agency; the extent of contamination on the site given the former landfill that occupied the site, cumulative impacts associated with a neighboring development project; lighting impacts from field lighting; and noise, air quality, and traffic impacts during operations. Despite the complexities, the Dudek team completed the EIR against an aggressive deadline to prevent the expiration of an Exclusive Negotiating Agreement on July 31, 2019, between the Carol Kimmelman Foundation and the County of Los Angeles.

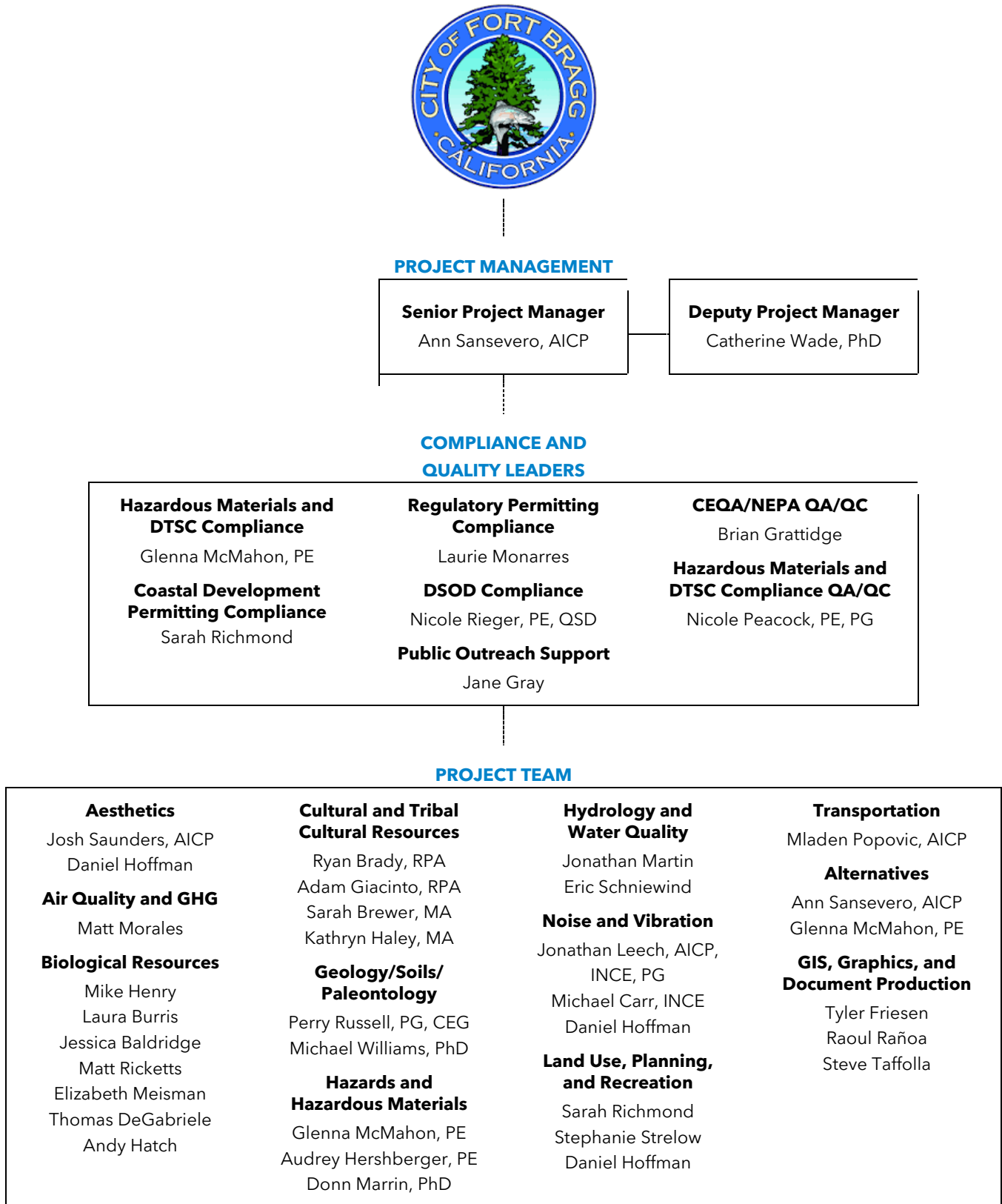
Dudek conducted the public scoping meeting, conducted biological surveys at the site, and prepared the Cultural Resources Technical Reports, noise and vibration analyses, air quality/GHG/energy analyses; and hazards and hydrologic engineering support. Dudek also oversaw the preparation of a detailed light and glare analysis and a comprehensive quantitative traffic analysis pursuant to County of Los Angeles and Caltrans standards.

## C. Key Personnel Qualifications

The Dudek team for this project was specifically identified to provide expertise in CEQA, remediation and DTSC coordination, LCPs and coastal development permitting, regulatory permitting, and DSOD requirements. Additionally, our dedicated team brings expertise in wetland impact assessment and mitigation, biological resources assessment in coastal areas, cultural resources assessments and tribal consultation, climate change impacts (e.g., sea level rise and tsunami hazard issues), as well as CEQA public outreach. We regularly work on complex projects involving multiple local, state, and federal permits and approvals. Additionally, due to Dudek's structure, our staff works together across the state and therefore brings an experienced and cohesive team that will be valued added for the City of Fort Bragg.

**Figure 1** outlines our proposed team organization and lines of communication for this contract, followed by brief biographies for key personnel. Focused resumes are provided in **Appendix A**.

Figure 1. Dudek Team Organization



**SENIOR PROJECT MANAGER**

**Ann Sansevero, AICP**

Ann Sansevero has 35 years’ experience in the field of environmental review and permitting for a wide range of projects with a focus on infrastructure projects. Ms. Sansevero has substantial experience working on infrastructure projects in coastal streams and marine areas, including dam and diversion improvement projects, water rights projects, and desalination projects. She has substantial experience overseeing projects involving coastal biological resources, cultural resources, wetland mitigation, and coastal and regulatory permitting. She regularly works on complex projects involving substantive interagency coordination and robust public outreach efforts. Her relevant project experience includes the following:

- City of Santa Cruz On-Call Environmental Services for Water Department Capital Investment Program, including:
  - Santa Cruz Water Rights Project EIR
  - Laguna Creek Diversion Retrofit Project EIR and regulatory permitting
  - Anadromous Salmonid Habitat Conservation Plan CEQA and NEPA Services
  - Graham Hill Water Treatment Plant EIR
- University of California, Santa Cruz, Coastal Science Campus Ocean Intake Repair, Santa Cruz, California
- Santa Cruz Regional Desalination Project EIR and Desalination Feasibility Update Review, Santa Cruz, California
- Monterey Bay Regional Water Project EIR/Environmental Impact Statement, California State Lands Commission and Monterey Bay National Marine Sanctuary, Monterey and Santa Cruz Counties, California
- CSU Master Enabling Agreement for CEQA Services, including overseeing CEQA services at San Francisco State University, CSU East Bay, CSU Maritime Academy, CSU Monterey Bay, and CSU Fresno

**Education**

*University of California, Santa Cruz  
BA, Biological Sciences and Environmental Studies*

**Certifications**

*American Institute of Certified Planners (AICP)*

**Professional Affiliations**

*American Planning Association (APA) and Association of Environmental Professionals (AEP)*

**DEPUTY PROJECT MANAGER**

**Catherine Wade, PhD**

Catherine Wade is a project manager with 11 years’ experience in environmental planning, CEQA/NEPA compliance, and environmental impact analyses. Dr. Wade has supported CEQA/NEPA documentation for transportation, development, municipal, education, water/wastewater, energy, and military projects. Her experience includes the preparation of a variety of environmental documents, including EIRs/statements, initial studies, environmental assessments, addenda, and categorical and statutory exemptions.

Her relevant project experience includes the following:

- Laguna Creek Diversion Retrofit Project EIR, Santa Cruz, California
- Santa Cruz Anadromous Salmonid Habitat Conservation Plan CEQA and NEPA Services, Santa Cruz, California

**Education**

*University of California, Santa Cruz  
PhD, Environmental Studies, 2015  
MA, Environmental Studies, 2012*

*University of Maryland, College Park  
BS, Environmental Science and Policy– Biodiversity and Conservation Biology, 2006*

- Newell Creek Dam Inlet/Outlet Replacement Project EIR, Santa Cruz County, California
- Sustainability Policy and Regulatory Update of the County of Santa Cruz General Plan/LCP and Santa Cruz County Code, Santa Cruz, California
- Santa Cruz Water Rights Project EIR, Santa Cruz, California
- Master Plan Update EIR, CSU Monterey Bay, Monterey County, California
- Monterey Bay Regional Water Project EIR/Environmental Impact Statement, California State Lands Commission and Monterey Bay National Marine Sanctuary, Monterey and Santa Cruz Counties, California

**HAZARDOUS MATERIALS AND DTSC COMPLIANCE LEAD**

**Glenna McMahon, PE, CEM**

Glenna McMahon has 22 years’ environmental consulting and project management experience. Ms. McMahon focuses on environmental engineering and hydrogeology, specifically hazardous waste investigation, monitoring and remediation, and litigation support. Her project experience includes ESAs, soil, soil vapor and groundwater sampling and data evaluation, HRAs, evaluation, design and implementation of remedial alternatives, environmental compliance, and third-party evaluation of remediation expenditures. Ms. McMahon manages several projects that involve state or local regulatory oversight and assists clients with negotiations and compliance with regulatory requirements. She strives for a collaborative approach with regulators while advocating for practicable solutions for the project.

Her relevant project experience includes the following:

- Santa Cruz Water Rights Project EIR, Santa Cruz, California
- Laguna Creek Diversion Retrofit Project EIR, Santa Cruz, California
- City Yards Master Plan Phase I and Phase II ESA and EIR, Santa Monica, California
- San Diego State University/Qualcomm Stadium EIR, San Diego, California
- Former Kearney-KPF Facility Monitoring and Remediation, Stockton, California
- CSU Chico Master Plan EIR and Phase I/II ESA, Chico, California
- Ocean Meadows Redevelopment Project, Site Assessment, Investigation and Remediation, Goleta, California
- Green Heron Spring Redevelopment Project, Site Assessment, Investigation, and Remediation, Carpinteria, California

**Education**

*University of Vermont  
BS, Civil and Environmental  
Engineering*

**Certifications**

*Professional Engineer  
(PE), CA No. 79742*

*Certified Environmental  
Manager (CEM), NV  
No. 1974*

*OSHA 40-Hour  
HAZWOPER*

*OSHA Site Supervisor  
RCRA and DOT Hazardous  
Waste Manager  
Certification*

**COASTAL DEVELOPMENT PERMITTING COMPLIANCE LEAD**

**Sarah Richmond, PG**

Sarah Richmond is a coastal planner with 15 years’ experience in environmental science, planning, and regulation, with particular expertise in coastal permitting and policy. With 2 years’ experience at the San Diego District of the CCC and 3 years’ experience at the San Francisco Bay Conservation and Development Commission as part of the nationally recognized Adapting to Rising Tides Program, Ms. Richmond has an in-depth understanding of the sea level rise adaptation planning process and leverages her technical background to interpret vulnerability assessments and develop multidisciplinary solutions to build resilience. Ms. Richmond is also highly knowledgeable in the application of the CCA and LCP policies to an array of coastal development and land use planning projects and integrates resilience into all her permit and planning efforts. She has extensive experience preparing CDP applications, LCP submittals, and CCA/LCP consistency analysis for CEQA documents.

**Education**

*University of California, Berkeley  
MS, Energy and Resources, 2009*

*University of California, Santa Barbara  
BS, Geology, 2004*

**Certifications**

*Professional Geologist (PG), CA No. 9138*

Her relevant project experience includes the following:

- Regional Transportation Infrastructure Sea Level Rise Assessment and Adaptation Guidance, San Diego Association of Governments, San Diego County, California
- Park Drive Slope and Drainage Improvements CDP, City of Carlsbad, California
- Venice Sea Level Rise Vulnerability Assessment and LCP Amendment, City of Los Angeles, California
- South Orange County Wastewater Authority Sewer Force Main and Park Improvements CDP, Orange County, California
- Cardiff State Beach Living Shoreline Project CDP, City of Encinitas, California  
San Elijo Lagoon Inlet Dredging Program CDP Amendment, City of Encinitas, California

**REGULATORY PERMITTING COMPLIANCE LEAD**

**Laurie Monarres**

Laurie Monarres has 18 years’ professional experience as a regulatory specialist throughout California. As the USACE’s Regulatory North Branch Chief of the San Francisco District, Ms. Monarres supervised a team of project managers and oversaw the review and evaluation of complex and controversial permit applications under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act within the north coastal region of California. Prior to that, she was a Senior Regulatory Project Manager with the USACE Los Angeles District. In addition to her CWA expertise, she regularly applies knowledge of related laws, such as the Endangered Species Act, NEPA, the Coastal Zone Management Act, and the National Historic Preservation Act when permitting her projects. Ms. Monarres has permitted a wide variety of projects, including water infrastructure, creek and wetland restoration projects, aquaculture, energy and utility lines, creek stabilizations, emergency repair projects, mining, development

**Education**

*University of California, Los Angeles  
MS, Environmental Health Sciences*

*University of California, Berkeley  
BA, Integrative Biology*

**Certifications**

*California Rapid Assessment Method Practitioner for Riverine and Depressional Modules*

projects, and major coastal restorations. She specializes in developing programmatic permitting approaches, including regional general permits, letters of permission, and streamlined permitting associated with HCPs.

Her relevant project experience includes the following:

- Delta Dams Burrow Remediation Project, California DWR, Alameda and Contra Costa Counties, California
- Laguna Creek Diversion Retrofit Project, City of Santa Cruz Water Department, Santa Cruz, California
- Newell Creek Dam Inlet/Outlet Replacement Project, City of Santa Cruz Water District, Santa Cruz County, California
- Capitola Beach Flume and Jetty Rehabilitation Project, Capitola Beach, California
- University of California, Santa Cruz, Coastal Science Campus Ocean Intake Repair, Santa Cruz, California
- San Francisco Bay Coordinated Permitting Process, Resources Legacy Fund, San Francisco Bay, California
- San Diego Unified Port District As-Needed Current Planning Environmental Review Services, California

**DSOD COMPLIANCE LEAD**

**Nicole Rieger, PE, QSD**

Nicole Rieger is a project manager with 17 years’ experience in civil engineering, specializing in floodplain, drainage, and stormwater quality design and analysis. Ms. Rieger has extensive experience working with clients as a drainage and stormwater design lead on municipal, roadway, and private development projects and is well versed in stormwater quality requirements. She has engineered and managed projects through all phases, from preliminary and final design through construction. She has expertise in assessing compliance with DSOD requirements.

Her relevant project experience includes the following:

- B.F. Sisk Dam, Safety of Dams Modification Project, California DWR, Merced County, California
- Preliminary Assessment for Erosion Control/Drainage Improvements, Padre Dam Municipal Water District, Santee, California
- Lower Mission Creek Floodplain Management Services, City of Santa Barbara, California
- Foss Lake Preserve Wetlands Restoration Project, County of San Diego Department of Environmental Health, Oceanside, California

**Education**

*California Polytechnic State University, San Luis Obispo  
BS, Civil Engineering, 2002*

**Certifications**

*Professional Civil Engineer (PE), CA  
No. 70782*

*Qualified SWPPP Developer, No. 24471*

**Professional Affiliations**

*American Public Works Association*

*American Society of Civil Engineers*

*CASQA*

*Floodplain Managers Association*



**PUBLIC OUTREACH SUPPORT LEAD**

**Jane Gray**

Jane Gray is a regional planner, environmental specialist, and project manager with 26 years’ project management and environmental planning experience, specializing in water/wastewater planning and permitting, agricultural resource and policy planning, policy analysis, land use planning, project development and entitlement services, and grant writing and management. Ms. Gray has a diverse and nuanced planning background, having worked as a project manager, analyst, and environmental planner for non-governmental entities, public agencies, and private firms and corporations. She has been responsible for projects varying from small-scale development and infrastructure planning in developing economies to private residential and commercial developments throughout California.

She is currently providing program management for and leading the development and implementation of the Prop 68 Technical Assistance with the California DWR for Tribal Governments, Tribal Communities, and Underrepresented Communities. She is spearheading communication and engagement; workshop coordination and facilitation; stakeholder engagement and community dialogue; needs, risks, and vulnerabilities assessments; surveys; heat mapping; and community prioritization and evaluation. The project entails extensive data collection, management and curation; extensive community surveying; and provision of technical assistance, report writing, and outcome analysis.

**Education**

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

**Professional Affiliations**

*2nd District Appointee to the County Agricultural Advisory Committee  
Vice Chair, Central Coast RWQCB*

Additional project experience includes the following:

- Public and Stakeholder Engagement and Facilitation for the Formation of a Groundwater Sustainability Agency (GSA) in the Cuyama Valley, Santa Barbara County Water Agency, California
- Management, Facilitation, Outreach, and Engagement for the Santa Barbara County Integrated Regional Water Management Program, California
- Public and Stakeholder Engagement and Facilitation for the Formation of a GSA in the San Antonio Creek Valley, Santa Barbara County Water Agency, California
- Public and Stakeholder Engagement Manager for the Creek and Watershed Management Plan, City of Goleta, California
- Project Manager and CEQA Lead for the Preparation of a Mitigated Native Declaration for the San Miguel Community Services District, San Luis Obispo County, California
- CEQA Lead and CEQA Document Preparation for the City of Santa Barbara Desalination Platform Hardening Project, Santa Barbara, California
- Project Manager and CEQA Lead for a CEQA Addendum for the Montecito Water District’s Water Service Agreement with City of Santa Barbara, Montecito, California

**CEQA/NEPA QA/QC**

**Brian Grattidge**

Brian Grattidge is an environmental land use planner with 23 years’ experience. Mr. Grattidge has worked extensively in the areas of CEQA and NEPA compliance as a senior project manager. His project experience includes a wide range of residential, commercial, industrial, mining, and infrastructure projects. Mr. Grattidge has assisted clients with airport compatibility planning, development review, environmental permitting, specialized planning studies, and project management.

Prior to his consulting work, Mr. Grattidge was a member of the Governor’s Office of Planning and Research, where he prepared the 2003 update of the General Plan Guidelines, assisted with the 2003 CEQA Guideline Amendments, and contributed to the 2003 Draft Environmental Goals and Policy Report.

His project work includes the following:

- CSU Chico Master Plan EIR, Chico, California
- Nevada Irrigation District Bear River Sediment Removal Project EIR, Placer and Nevada Counties, California
- Sacramento Area Flood Control Agency Mayhew Levee Replacement Project EIR/EIS Peer Review, Sacramento Area Flood Control Agency/USACE, Sacramento County, California
- Arboretum EIS/EIR, USACE/City of Rancho Cordova, California
- Walmart Expansion EIR, City of Ukiah, California

**Education**

*University of California, Davis  
MA, Political Science, 1992  
BA, International Relations, 1989*

**Professional Affiliations**

*American Planning Association, Legislative Liaison for Sacramento Valley Chapter*

**HAZARDOUS MATERIALS AND DTSC COMPLIANCE QA/QC**

**Nicole Peacock, PE, PG**

Nicole Peacock is an environmental engineer and geologist with 22 years’ experience. Ms. Peacock performs numerous tasks dealing with hazardous waste investigation and remediation projects, including soil, soil vapor, and groundwater investigation, as well as remediation and litigation support and cost allocation among potentially responsible parties for hazardous waste sites. She also provides Phase I and II ESAs, school site assessments, landfill monitoring, and environmental compliance. She has managed monitoring and reporting in coordination with DTSC and RWQCB on numerous projects, including the following:

- Palm Springs Landfill Remediation Oversight Project, City of Palm Springs, California
- Groundwater Monitoring and Reporting, Battery Recycling Facility, Los Angeles County, California
- NAS North Island Solid Waste Management Unit 87 Site Investigation, San Diego, California
- NAS North Island Solid Waste Management Unit 132 Site Investigation, San Diego, California
- Soil Sampling and Ecological Risk Assessment for Wetlands Mitigation Site Planning Project, San Diego County Water Authority, California

**Education**

*University of California, Los Angeles  
BS, Civil and Environmental Engineering/Geology*

**Certifications**

*Professional Civil Engineer (PE), CA No. 68775*

*Professional Geologist (PG), CA No. 8553*

*Certified Hydrogeologist, CA No. 940*

Table 1 includes a list of key personnel, their skills, and their experience.

**Table 1. Personnel Skills and Experience of Key Staff**

Staff Member	EIRs	DTSC	Wetlands	Biological Surveys	Cultural Resources	Climate Change
Ann Sansevero, AICP	✓	✓	✓	✓	✓	✓
Catherine Wade, PhD	✓		✓	✓	✓	
Glenna McMahon, PE, CEM	✓	✓				
Sarah Richmond, PG	✓		✓	✓		✓
Laurie Monarres	✓		✓	✓		✓
Nicole Rieger, PE, QSD	✓		✓			✓
Jane Gray	✓		✓	✓	✓	✓
Brian Grattidge	✓	✓	✓	✓	✓	✓
Nicole Peacock, PE, PG	✓	✓	✓			
Josh Saunders, AICP	✓					
Matthew Morales	✓					✓
Mike Henry, PhD	✓		✓	✓		
Laura Burris	✓		✓	✓		
Jessica Baldrige	✓		✓	✓		
Matt Ricketts	✓		✓	✓		
Elizabeth Meisman				✓		
Thomas DeGabriele	✓		✓	✓		
Andy Hatch	✓		✓	✓		
Adam Giacinto, RPA	✓				✓	
Ryan Brady, RPA	✓				✓	
Sarah Brewer, MA	✓				✓	
Kathryn Haley, MA	✓				✓	
Perry Russell, PG, CEG	✓					✓
Michael Williams, PhD	✓				✓	
Audrey Herschberger, PE	✓	✓				
Donn Marrin, PhD		✓				
Jonathan Martin	✓	✓	✓			✓
Eric Schniewind	✓	✓				✓
Jonathan Leech, AICP, INCE, PG	✓					
Michael Carr	✓					

**Table 1. Personnel Skills and Experience of Key Staff**

Staff Member	EIRs	DTSC	Wetlands	Biological Surveys	Cultural Resources	Climate Change
Stephanie Strelow	✓	✓	✓	✓	✓	✓
Daniel Hoffman	✓					
Mladen Popovic, AICP	✓					
Tyler Friesen						
Raoul Rañoa						
Steve Taffolla						

## D. References



### MULTIPLE PROJECTS UNDER ON-CALL SERVICES FOR CITY OF SANTA CRUZ WATER DEPARTMENT CAPITAL INVESTMENT PROGRAM

**Dates:** March 2019–Present

**Key Dudek Staff:** Ann Sansevero, Senior Project Manager

(Note: Ms. Sansevero has managed most of the key team members proposed for the Mill Pond Remediation Project)

**City Lead:** Sarah Easley Perez, Principal Planner, City of Santa Cruz Water Department; seasleyperez@cityofsantacruz.com; 831.420.5214

**Tasks:**

- On-Call Services for Water Department Capital Investment Program
- Santa Cruz Water Rights Project EIR
- Laguna Creek Diversion Dam Retrofit Project EIR and Permitting
- Anadromous Salmonid HCP CEQA and NEPA Services
- Graham Hill Water Treatment Plant EIR



### FORMER KEARNEY-KPF FACILITY, KEARNEY NATIONAL INC.

**Dates:** 1992–Present

**Key Dudek Staff:** Glenna McMahon, Project Manager

**Site Contact:** Ronald Burt, PhD, PG; raburt\_pps@yahoo.com; 615.828.6126

**Tasks:**

- Monitoring and Remediation Program Management
- Regulatory and Permit Compliance
- Operation and Maintenance of Wellfield and Remediation System



### CSU MONTEREY BAY MASTER PLAN EIR

**Dates:** 2018–2022

**Key Dudek Staff:** Ann Sansevero, Senior Project Manager

**CSU Monterey Bay Lead:** Anya Speer, LEED AP, Director of Strategic Initiatives; aspear@csumb.edu; 831.582.3530

**Tasks:**

- CSU Monterey Bay Master Plan EIR preparation, including required technical studies
- Oversight of agency and tribal consultations



**DWR DELTA DAMS RODENT BURROW REMEDIATION PROJECT**

**Dates:** November 2020–Present

**Key Dudek Staff:** Laurie Monarres, Project Manager

**Project Contact:** Sara Paiva-Lowry, Environmental Program Manager; sara.paiva-lowry@water.ca.gov; 916.820.7821

**Tasks:**

- Comprehensive Biological Resource Surveys and Reports
- Cultural Resource Surveys and Reports
- Aquatic Resources Permitting: USACE Section 404, RWQCB Section 401, and CDFW 1600 LSA Agreement authorizations
- Federal and State ESA Permitting: ESA Section 7 consultations with USFWS and NMFS, CESA ITP from CDFW
- CEQA Compliance: IS/MND

# E. Project Understanding, Approach, and Scope of Work

## Project Understanding and Approach

The City of Fort Bragg (City) has received an application from Mendocino Railway (applicant) for a Coastal Development Permit (CDP) to allow for remediation on part of the former 415-acre Georgia-Pacific Mill Site (Mill Site). Sawmill operations began at the site in 1885. Georgia-Pacific acquired the site in 1973, but ceased operations and closed the site in 2002. Sawmill operations at the site included lumber production and power generation by burning residual bark and wood. The Mill Site occupies approximately one-third of the land in the City and is located entirely along the west side of California Highway 1 within the City. Issuance of a CDP is required for a portion of the proposed remediation work to comply with the City's Local Coastal Program (LCP) requirements. According to the Request for Proposal (RFP), remediation work would also necessitate the following regulatory requirements:

- Consideration of a Remedial Action Plan (RAP) by the California Department of Toxic Substance Control (DTSC) for remediation of the entire Operable Unit (OU) E;
- Consideration of a Pond 8 Dam Structural Stabilization by the Division of Safety of Dams (DSOD); and
- Consideration of an Environmental Impact Report (EIR) by the City for the CDP project components pursuant to CEQA.

The overall project objectives stated in the RFP include the need to demonstrate consistency with regulatory requirements; protect human and ecological health; and result in effective flood control and water quality benefits. It is expected that as part of the EIR preparation process, project objectives would be further refined and expanded to support the evaluation of the proposed project and alternatives.

With the City invoking the Polanco Redevelopment Act, DTSC has divided the Mill Site into five geographic OU areas. Currently, most of the 415-acre Mill Site has met DTSC cleanup goals, with most of the areas still needing remedial action within OU-E, which is located in the central portion of the Mill Site on a coastal terrace. OU-E consists of approximately 12 acres of man-made ponds and seasonal wetland areas and 45 terrestrial acres divided into 13 areas of interest. DTSC has determined through investigation and remediation that soil in portions of OU-E require no further action because the soil meets unrestricted cleanup goals. However, Ponds 1–4 (the Southern Ponds), Pond 6 and the North Pond, Pond 7, Pond 8, and a groundwater area of concern are evaluated in the applicant-submitted OU-E Draft RAP and do require some form of remedial action. The RAP identifies the preferred remediation of leaving sediment contaminants in place, land use controls, and implementing Pond 8 dam stabilization improvements (referred to as the Institutional Control/Contaminant Alternative) that apply to the previously identified areas evaluated in the RAP. This alternative was determined to provide adequate control of potential exposure pathways for future receptors. This alternative also provides land use controls, which limit land use and controls activities in areas where the risk from one or more exposure pathways is deemed unacceptable. The land use controls will also provide design criteria for development within identified restricted areas. A soil management plan will be developed to provide detailed procedures for sediment-disturbing activities and required sampling and criteria for reuse of disturbed sediment. The alternative also includes regular inspection and maintenance appropriate for each area. It is understood that DTSC will initiate its formal public review of the Draft RAP concurrently with the public review period of the project-level Draft EIR.

The proposed project area that is the subject of the CDP application and pending EIR focuses on Pond 8 (Mill Pond) and the adjacent earthen dam that runs along the north side of this pond, according to the RFP, the 60% design package, and information provided at the pre-proposal meeting. This is the only component of the OU-E Draft RAP that requires physical improvements to stabilize the existing dam; the RAP does not identify any physical improvements in the other areas of concern. The current primary use of Pond 8 is to provide stormwater management for the City prior to discharge to the ocean, which will continue with the proposed project. Project components include those listed below, based on the RFP, 60% design package, and pre-proposal meeting. While the elements of the proposed project will be confirmed during project initiation to verify that the EIR considers the whole of the action under CEQA Guidelines Section 15003(h), our proposal assumes that the project includes the following components:

1. **North Dam Improvement Area.** The project includes strengthening a segment of the north dam that has soft soils and has deteriorated and thinned over time. Earthen ground construction techniques using cement deep soil mixing along with a rock fill buttress are being proposed to address this deterioration and improve the seismic stability to comply with DSOD requirements. There are several small CCC and USACE jurisdictional wetlands that have been delineated within this repair area, including a drainage catchment.
2. **South Dam Improvement Area.** The project includes reinforcement of the crib wall near the spillway due to lack of information about how the wall was constructed and therefore lack of information about its stability. A rock slope protection buttress would be installed in front of the existing crib wall and would be located between two adjacent rock formations on either side of the crib wall and down onto the beach, with a portion of the improvements below mean high tide. The boulder sizing will be designed to address sea level rise and tsunami run-up.
3. **Gravity Wall Area.** The project includes hydraulically dividing Pond 8 into two smaller ponds to address DSOD requirements to meet the criteria for non-jurisdictional dams. This would be accomplished through the installation of a gravity wall using precast concrete block and structural concrete infill. A temporary cofferdam would need to be installed during construction to dewater the construction site for the gravity wall. The gravity wall would be installed within Pond 8, which is a CCC and USACE jurisdictional wetland.
4. **Other Potential Project Elements.** The project may include the removal of some legacy concrete and unused piping on the project site to improve site safety for potential future site access. The project may also include the construction of temporary beach access improvements to allow for the delivery of construction equipment down onto the beach for the crib wall portion of the project at the South Dam Improvement Area. Such access could be provided from the Noyo Headlands Trail to the north of the site and could be located on the north end of the beach berm. Finally, it appears that wetland mitigation may be included as a component of the proposed project. These elements of the project have not yet been confirmed or defined.

Dudek has developed our scope of work to achieve the EIR objectives identified in the RFP, including analyzing the project and alternatives related to key regulatory requirements, providing for seamless coordination with DTSC in conjunction with the applicant's remediation specialists, providing for an appropriate public involvement process, and completing the environmental review effort within the context of the City's LCP requirements. A robust alternatives analysis is also provided for in our scope. As indicated in Section C, the Dudek team for this project was specifically identified to provide expertise in CEQA environmental review, remediation and DTSC coordination, LCPs and coastal development permitting, regulatory permitting, and DSOD requirements to provide for an EIR that sets the framework and supports the subsequent project approvals and permitting. Additionally, the Dudek team provides expertise in all technical aspects and public outreach for the pending Mill Pond Remediation Project EIR. All services proposed in the following sections would be implemented by our experienced in-house project team.



Dudek proposes the following tasks to complete an EIR for the proposed project and to set up the applicant and City for a successful permitting process in a base scope of work that complies with the RFP. Optional tasks are also identified for the City’s consideration and will be reviewed with the City during the project kickoff process (Task 1), if not before.

Dudek will coordinate with the City at the outset of our work effort to review the CDP application, remediation plans, and background technical studies to determine what additional information and studies are necessary to support the EIR (Tasks 4 and 5). If the City desires, the identified Dudek team for the Mill Pond Remediation Project can prepare all additional studies determined to be warranted.

## Scope of Work

### Task 1: Project Kickoff

Immediately following authorization to proceed on the project, Dudek will arrange for and facilitate a virtual project kickoff meeting with the City to review the EIR preparation process, scope of work, optional tasks, data needs, schedule, and ongoing coordination needs. The agency coordination and CEQA public outreach process included in the tasks below will also be reviewed and early planning launched. We understand that a complete set of all technical information will be provided to Dudek by the City at this meeting, including the CDP application, remediation plans, and background technical studies. Following the virtual kickoff meeting, Dudek will provide a meeting summary focused on action items and a revised schedule. Specifically, the preliminary schedule submitted with this proposal will be revised following the kickoff meeting, as necessary, to reflect our growing understanding of the project and timing implications associated with the CDP application and other factors.

**Deliverables:**

- Meeting agenda
- Meeting summary of action items
- Revised schedule

**Assumptions:**

- A complete set of all technical information will be provided to Dudek by the City at this meeting.

### Task 2: Coordination and Project Management

This task includes regular coordination with City staff to identify key upcoming issues, progress on project milestones, comments on interim deliverables, coordination for CEQA public meetings, and coordination for meetings with Responsible Agencies and other involved local, state, and federal agencies. This task includes regular 1-hour status calls between the Dudek project manager and deputy project manager and the City staff over the course of the 18-month project schedule (a total of 36 calls/virtual meetings are included). These are likely to be scheduled on a biweekly basis to drive project progress and proactive resolution of issues. Some of these calls may also include the applicant team, upon invitation by the City. This scope includes an allowance for attendance by Dudek technical staff at up to eight calls of the total calls to review key technical issues with the City. Documentation for these meetings is anticipated to include brief call agendas and the tracking of action items from the calls.

Dudek will undertake a variety of general project management tasks throughout the EIR preparation period, including internal coordination with our technical specialists to ensure timely and accurate document preparation, monthly status reporting, monthly invoicing, and schedule updates. Project Manager Ann Sansevero will provide input on scope, budget, contract negotiation and management, project scheduling, and quality assurance for all

work conducted. Ms. Sansevero will lead day-to-day activities associated with the project, which will include regular contact with City staff with assistance from Deputy Project Manager Catherine Wade. Ms. Sansevero and Ms. Wade will also provide direction to all team members to ensure an internally consistent, coherent document and will review all submittals.

**Deliverables:**

- Meeting agendas
- Action item summaries
- Schedule updates
- Monthly project status reports and invoices

**Assumptions:**

- Assumes a total of 36 calls and project management activities over a 18-month schedule.

### Task 3: Project Description and Notice of Preparation/Initial Study

#### Task 3A: CEQA Project Description

Dudek will review the full project description provided by the City—in conjunction with Mendocino Railway, DTSC, and DSOD—and identify any additional data or information needs. For example, given the importance of the alternatives analysis for this project, the CEQA project objectives, for which the project alternatives will be compared, will need to be provided and included in the project description. Additionally, a project site boundary map depicting the worst-case area of disturbance boundary will be critical for assessing environmental impacts. Once the additional data needs are provided, Dudek will review, refine, and complete the CEQA Project Description, which will support the Notice of Preparation (NOP) and the EIR. If not all information for the Project Description is available during project initiation, a preliminary, more abbreviated Project Description will be prepared for use in the NOP. A revised and more elaborated Project Description for the EIR will be completed once all required information is available. However, for the purposes of the proposal and cost estimate, it is assumed that an adequate Project Description can be completed during this task to support both the NOP and EIR and that two different versions of the Project Description are not required.

Once the CEQA Project Description has been reviewed and approved by the City, preparation of the NOP and EIR environmental analysis can be launched. Our scope assumes that the Project Description does not change substantially after approval. This task also allows for preparation and review of EIR section templates so that all document formatting is established in advance of drafting the EIR. If desired, a Dudek SharePoint project portal will also be established as an optional task to allow for efficient, timely, and collaborative review of project deliverables (see Task 19A).

#### Task 3B: NOP/Initial Study

Dudek will prepare the NOP and attached initial study (IS) to initiate the environmental review process and to solicit comments on the scope and content of the EIR from agencies, organizations, and interested individuals. Once Task 3A is completed, Dudek will prepare an Administrative Draft NOP for internal review by the City. The RFP also calls for an environmental scoping study that describes the topics to be analyzed in the EIR. Such a study will be provided in the form of a CEQA IS Checklist attached to the NOP, based on the environmental checklist in Appendix G of the CEQA Guidelines. While an IS is not a required component of an NOP, it can be used to support the description of topics to be analyzed in the EIR. Once comments are received on the Administrative Draft NOP/IS, Dudek will prepare a Screencheck Draft NOP/IS based on a consolidated set of comments from the City. The Screencheck Draft NOP/IS will be reviewed by the City prior to finalizing the documents.

Dudek will prepare digital and hard copies, if requested, of the NOP/IS and distribute the document for public review and comment for a 30-day period. The Notice of Completion and NOP will be prepared for submittal to the State Clearinghouse, and the NOP will also be provided to the Mendocino County Clerk. Our cost estimate for this task assumes that Dudek will be responsible for submittal of the NOP to the State Clearinghouse, Mendocino County Clerk, local agencies, and interested members of the public, based on an approved distribution list developed in collaboration with the City. We will provide a draft notice for posting in a newspaper and provide electronic versions for posting to the City’s website.

**Deliverables:**

- Data and information needs list focused on the project description
- EIR section templates
- Administrative Draft and Final CEQA Project Description
- Administrative Draft, Screencheck Draft, and Final NOP/IS
- Limited hard copies (five copies or fewer), if requested, of Final NOP/IS only
- Draft and final distribution list

**Assumptions:**

- Full project description is provided by City, including graphics, and is appropriate for inclusion in a CEQA document.
- Review of various iterations of the applicant’s project description, design plans, Draft RAP, or other similar documents is not required.
- Existing CEQA distribution list(s) to be provided by City to support development of distribution list.
- Final NOP/IS needs to be adequate for web posting on a state agency website (Section 508-compliant for accessibility), given involvement of DTSC and DSOD.

**Tasks 4 and 5: Evaluate Existing Technical Studies, Identify Additional Technical Information Needed, and Incorporate Into the Environmental Review<sup>1</sup>**

Under these tasks, Dudek will review all pertinent documents and existing studies provided by the City during Task 1 in order to analyze potential project impacts and to identify any additional technical studies needed. Based on an evaluation of the existing technical documents, the complete project description (see Task 3A) and Dudek’s recommendations, the City and/or Georgia-Pacific will contract with appropriate experts to complete additional technical studies. The identified Dudek team for this project could also efficiently and effectively complete the needed studies with our in-house team and would be able to seamlessly incorporate such studies into the EIR. This approach would also eliminate the need for Dudek to subsequently review any additional studies for adequacy and completeness and provide for other efficiencies related to agency consultations. Based on the initial review and age of the studies presented in the RFP, it is likely that updated biological resources report(s) and a new cultural resources report will be needed to support the EIR and subsequent permitting (see Tasks 8A-3 and 8A-4 for details). Additionally, after review of the pending CDP application, other studies or analyses may also be recommended. An optional task is also provided to review any updated or new studies prepared by the applicant’s team or other consultants for adequacy and completeness (see Task 19B).

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<sup>1</sup> RFP Tasks 4 and 5 are combined here for ease of reference.

Once all studies are completed, Dudek will incorporate key information from the studies into the EIR and reference detailed information in the studies in EIR appendices as appropriate. The budget for the inclusion of studies in the EIR analyses is included in Task 8, which addresses our approach and scope for the technical evaluation in the EIR.

**Deliverables:**

- Memorandum addressing review of all prior studies and providing recommendations on additional studies needed to support the EIR.

**Assumptions:**

- The memorandum will not be revised.
- The cost for new or updated studies is not included in our cost estimate, per direction in the RFP.
- Reviews of updated or new studies prepared by other consultants are included as an optional task.

## **Task 6: Consultation With Trusted and Responsible Agencies in Coordination With the City**

During the project initiation phase, Dudek will coordinate with the City to determine the nature, extent, and timing of consultation with involved agencies to obtain early input on the CEQA process and address initial agency concerns. The RFP indicates that the agencies may include the CCC, DTSC, Sherwood Valley Band of Pomo Indian Tribal Council (see Task 8A-4 for Assembly Bill [AB] 52 consultation scope of work), State Historic Preservation Office (SHPO), DSOD, North Coast RWQCB, State Water Resources Control Board, CDFW, USFWS, USACE, and Caltrans.

Dudek will work with the City to determine which of these agencies needs to be consulted with during EIR preparation and the nature and timing of such consultations. Some consultations may need to be conducted early on to support the development of a stable EIR project description and reasonable range of alternatives. To support this type of early consultation, an interagency workshop with the key regulators, may be a useful approach to confirm the elements of the proposed project and to review the feasibility of other alternatives considered.

Other consultations may occur in advance of or as follow-ups to written scoping comments or Draft EIR comments received from involved agencies. We understand that the City has already conducted some consultations with several of these agencies and that additional consultations will build on those communications. The intent of these consultations is to develop an EIR that will support subsequent approvals and permits and the use of the EIR by CEQA Responsible Agencies. It is our understanding, however, that the intent is not to conduct pre-permitting application meetings with relevant agencies.

Section F, page 13, of the RFP acknowledges that the scope of work for consultations with agencies is difficult to define at this stage. Therefore, our proposal budget does not include a budget for this task, but rather a per-hour cost for agency consultation meetings.

**Deliverables:**

- To be determined, but could include call agendas and meeting summaries

**Assumptions:**

- Consultations do not include participation in consultations that would be conducted by the USACE as part of the CWA 404 permit with USFWS, NMFS, and the State Historic Preservation Act.

## Task 7: Public Information and Scoping Sessions

Dudek understands the importance of public participation for the proposed project due to the amount of time and resources the City and its residents have invested in the Mill Site cleanup and reuse process. Therefore, Dudek would coordinate closely with the City so that public participation efforts are carefully planned and executed.

Dudek will work with City staff to organize and participate in an informal information session and up to two scoping meetings to solicit public input on the scope of the EIR during the NOP scoping period. The timing for the informal information session will be determined with the City during Task 1. It is likely that this session will be used, in part, to review the feasibility of alternatives considered for Mill Pond, if the City has not already held such a session.

We will work with staff to determine the most appropriate format for the informal information session and scoping meetings and prepare all materials necessary for the meetings (e.g., a PowerPoint presentation, comment cards, and an electronic sign-in sheet). The presentation will be reviewed with the City and refined if needed. It is anticipated that the City, as CEQA lead agency, will participate in the presentation and scoping session. It is assumed that these meetings will be held in person, but could be held virtually to improve accessibility to as many participants as possible.

### Deliverables:

- PowerPoint presentation
- Electronic comment cards and sign-in sheets

### Assumptions:

- The transcription of verbal comments is not required, as only written comments will be accepted.
- No poster boards depicting project graphics are required.
- The translation of meeting materials or the presentation will not be required. Such services can be provided with a scope and budget augmentation.
- Public participation efforts will be coordinated with the City’s CDP process as well as with DTSC’s OU-E RAP process.
- All three meetings will be attended in person by two Dudek staff. Both scoping sessions are assumed to be on one day.

## Task 8: Administrative Draft EIR

Dudek will prepare an Administrative Draft EIR based on CEQA Guidelines Sections 15122–15131. The EIR will include a discussion of the existing physical and regulatory setting and impact analysis, including methodology and thresholds; feasible mitigation measures; and residual impacts, if any, following the implementation of feasible mitigation measures. As described, the impact analysis will focus on the environmental issues that may result in potentially significant impacts due to the proposed project, based on the outcome of the NOP/IS and scoping process. The EIR and associated impact analysis will be based on CEQA Guidelines Appendix G and relevant thresholds available in local and regional plans (e.g., City noise ordinance and air district thresholds). The impact analysis will be based on both quantitative and qualitative analysis, as appropriate and as specified in the scope, and may require the preparation of additional technical studies or the synthesis of existing available studies to support the analysis, as described in Tasks 4 and 5. Tasks 4 and 5 provide an initial assessment of the potential additional technical studies that may be required to support the EIR. Additional information about the technical analysis and alternatives analysis is provided in Tasks 8A and 8B. We will submit an electronic version of the Administrative Draft EIR in Microsoft Word, plus two hard copies to the City for review.

## 8A: Technical Analysis

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Dudek anticipates that numerous environmental topics may be scoped out of the EIR through the NOP/IS and scoping process. For the purposes of this proposal, it is assumed that the following topics can be scoped out of the EIR and will not require detailed evaluation: Agriculture and Forestry Resources, Energy, Mineral Resources, Population and Housing, Public Services, Utilities and Service Systems, and Wildfire. Therefore, we anticipate that the EIR will address the following topics in detail: Aesthetics; Air Quality; Biological Resources; Cultural and Tribal Cultural Resources; Geology and Soils; GHG Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use, Planning, and Recreation; Noise; and Transportation. Technical studies prepared under Tasks 4 and 5 and additional modeling and analyses will be used to develop and support the EIR analysis. Additional research and evaluation will be conducted, as appropriate, to address all aspects of the required analysis of both project and cumulative impacts of the proposed project. The cumulative analyses will address the contribution of the proposed project to cumulative impacts. Our scope assumes that the City maintains a list of cumulative projects that will be provided to Dudek and that we will work with the City to update the list of cumulative projects for the analysis. Appropriate figures will be developed, where needed, to support the analysis.

### 8A-1: Aesthetics

The project site is situated on a coastal terrace in the central portion of the Mill Site. The Pacific Ocean is immediately to the west, and the Noyo Headlands Park trail is to the north, south, and east. Dudek will describe the existing visual characteristics of the project site informed by terrain, vegetation, and development, using existing available information, site photographs, and other relevant data, based on the characterization of the site and vicinity as “non-urbanized.”<sup>2</sup> Site visibility from designated scenic vistas and highways and other key publicly accessible locations will also be described. The project site is visually screened from Highway 1 (an eligible state scenic highway) by intervening terrain and by development in the City. The project site is, however, visible from the adjacent trail and beach, and future visual change with the proposed project would be apparent from these locations. Photographs from representative publicly accessible locations will be included to graphically aid the description of the visual character of the project site, surrounding areas, and the quality of existing views toward the project site. Visual simulations of the project are being prepared by the applicant’s team to illustrate the anticipated visual change. Dudek will review such simulations and provide input on the appropriateness of the vantage points used in the simulations and potentially other input for the applicant to use in refining the simulations. Upon refinement and finalization and with the City’s approval, Dudek will include the visual simulations in the EIR to support the aesthetic analysis. Our scope assumes that Dudek will not prepare additional visual simulations.

Project effects to existing views from scenic vistas will be evaluated through the concepts of view blockage and interruption. Specifically, the potential for project components to block the view fully or partially from a scenic vista will be assessed, as will the potential for project components to create noticeable contrast that might detract from or substantially interrupt the existing available view. Impacts to existing visual character will be informed by the anticipated severity of visual contrasts between the current and future aesthetic environment, as supported by site photographs and visual simulations. If potentially significant aesthetics effects to existing views or visual character are identified, feasible mitigation measures will be included in the EIR, if available.

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<sup>2</sup> Pursuant to Public Resources Code Section 21071, “urbanized area” means (among several definitions) an incorporated city with at least 100,000 persons. Given that the population of the City does not reach this population level, the site is presumed to be “non-urbanized,” as specified in Appendix G of the CEQA Guidelines IS Checklist, Section I, Aesthetics (question c), and will be evaluated accordingly.

See the land use, planning, and recreation section (Task 8A-9) for the scope of work for the evaluation of potential conflicts with relevant CCA and City LCP policies, including those related to visual resources.

### 8A-2: Air Quality

Dudek will prepare an assessment of the potential air quality impacts of the proposed project utilizing the significance thresholds in Appendix G of the CEQA Guidelines and the Mendocino County Air Quality Management District (MCAQMD) emissions-based thresholds as the basis. Local and regional climate, meteorology, and topography (as they affect the accumulation or dispersal of air pollutants) will be presented in the air quality assessment. Current air quality conditions and recent trends in the North Coast Air Basin, where the project is located, will be described, based on California Air Resources Board and U.S. Environmental Protection Agency annual air quality monitoring data summaries. Federal, state, and local regulatory agencies responsible for air quality management will be identified. Applicable federal, state, and local air quality policies, regulations, and standards will be summarized.

Dudek will review all available project information and will prepare a comprehensive data needs list to share with the applicant. If precise information on a particular factor is not available from the City or the applicant (or its representatives), Dudek will make every effort to quantify these items using the best available information for comparable data sources. In all cases, Dudek will consult first with the City and the applicant regarding the information needed.

Dudek will estimate emissions associated with the construction of the project using the California Emissions Estimation Model. The analysis of short-term construction emissions will be based on scheduling information (e.g., overall construction duration, phasing, and phase timing) and probable construction activities (e.g., construction equipment type and quantity, workers, and haul trucks) developed by the applicant or standardized approaches. Dudek will then evaluate the significance of the construction emissions based on the MCAQMD significance criteria. According to preliminary project details, once construction is complete, operation would not exceed current activity at the site. Given that there would be no operational changes at the project site, Dudek assumes that no quantitative air quality analysis of operational impacts is required.

The project construction may result in toxic air contaminant emissions, namely diesel particulate matter (DPM), from off-road construction equipment and heavy-duty trucks during construction. As existing sensitive receptors (residences) are located within 1,500 feet of the project site and approximately 650 feet from the proposed truck access points, an HRA may be warranted. Dudek has included a construction HRA as an optional task (see Task 19C).

All Appendix G thresholds will be evaluated, including the potential for the project to result in other emissions (such as odors) or to impede attainment of the current MCAQMD air quality management plans. If potentially significant impacts are identified, feasible mitigation measures will be identified. Details of the analysis (e.g., emission calculations) will be included in a technical appendix to the EIR.

### 8A-3: Biological Resources

The project is located within an area of extensive wetlands regulated by the USACE (waters of the United States), the City of Fort Bragg, and the CCC with appeal jurisdiction (coastal zone wetlands). Based on the wetland delineation included in the RAP (Figure 2-3), Pond 8 is a delineated wetland (WRA 2009). There are two small wetlands in the North Dam Improvement Area: a wetland seep and the drainage catchment basin that is described as an industrial pond (Arcadis 2010 and 2011). Additionally, there are numerous wetland and bedrock

groundwater seeps in the South Dam Improvement Area (Arcadis 2010 and 2011). North of the project site is Pond 6, Pond 7, the North Pond, and numerous other wetlands, some of which consist of an established wetland mitigation area. All of these wetlands are also identified as potential environmentally sensitive habitat areas (ESHAs) in RAP (Figure 2-3). The project site includes three sensitive plant communities associated with these areas: freshwater seeps, riparian wetland, and a seasonal wetland ditch.

According to the RFP, special-status bird species observed on or adjacent to the Mill Site include California brown pelican, white-tailed kite, northern harrier, American peregrine falcon, black oystercatcher, and Bryant’s savannah sparrow. Special-status mammal species with a high potential to occur on the Mill Site include Pacific harbor seal, long-eared myotis (a type of bat), fringed myotis, and long-legged myotis. Past botanical studies conducted within Mill Pond area identified the special status plant Vancouver rye strand; however, the larger Mill Site is habitat for five identified special-status plant species.

While comprehensive biological resources surveys and analyses appear to have been performed at the project site, the studies are dated, with biological resources analyses conducted by WRA in 2005 and 2007 and wetlands and ESHA delineations conducted by WRA in 2009 and by Arcadis in 2010 and 2011. It is anticipated that updated biological resources report(s) will need to be prepared for the proposed project to support the EIR analysis, as indicated under Tasks 4 and 5. The applicant’s team or Dudek could prepare the biological resources report(s); however, given RFP Tasks 4 and 5, the cost for preparing such reports is not included in this proposal. Such reports should update or confirm existing conditions information to include (1) updated special-status species data base searches; (2) intensive field surveys of the project site to identify plant communities and special-status species, including a botanical survey for special-status plants; (3) wetland and ESHA delineations; and (4) technical report(s) that document the results of the background research, field surveys, and delineations and provide appropriate mapping of identified resources. Upon completion of Tasks 4 and 5, the previously mentioned requirements for the study will be refined.

Given that the RFP indicates that the Consultant would be involved with consultations with appropriate agencies in identifying and addressing impacts to wetlands and wetland species, our scope assumes that the updated biological resources existing conditions report(s) would not include project impacts and mitigation measures. Rather, our scope assumes that Dudek would develop the project impacts and mitigation measures portion of the Biological Resources section of the EIR based on the updated biological resources existing conditions report(s). The biological resources report(s) will support the analysis presented in the EIR and be provided as an appendix to the EIR.

If the applicant’s updated biological resources report(s) will not be available for inclusion in the Draft EIR, Dudek has included an optional task to conduct a 1-day survey to verify that conditions have not substantially changed since the prior surveys were conducted (see Task 19D).

**8A-4: Cultural and Tribal Cultural Resources**

**Cultural Resources Report**

The RFP indicates that a project-specific cultural resources analysis has not yet been prepared for the project site. However, the Mill Site itself is known to contain cultural resources that have been identified as significant in previous studies. Dudek assumes that the City will provide access to prior site records as part of the project kickoff process (Task 1).



It is anticipated that a cultural resources report will be prepared for the proposed project to support the EIR analysis, as indicated under Tasks 4 and 5. The applicant’s team or Dudek could prepare the cultural resources report; however, given RFP Tasks 4 and 5, the cost for preparing such a report is not included in this proposal. Such a report should include (1) a California Historical Resources Information System (CHRIS) records search; (2) a Sacred Lands File search with the Native American Heritage Commission (NAHC), and a list of Native American representatives who may have information about cultural and tribal cultural resources on the project site and in the vicinity; (3) results of any AB 52 consultation processes conducted for the project; (4) results of an intensive surface survey of the ground on the project site; (5) an evaluation of any potential archaeological, tribal cultural resources, or built environment resources; (6) and a technical report that documents the results of the background and field research, evaluations, and feasible recommendations, as appropriate, for the project. The cultural resources report will also need to be compliant with Section 106 of the National Historic Preservation Act to support the USACE’s subsequent consultation with SHPO during wetland permitting. The cultural resources report will also support the analysis presented in the EIR. A version of the cultural resources report redacted of confidential information will be provided as an appendix to the EIR by the author of the report. At the completion of Tasks 4 and 5, the previously mentioned requirements for the study will be refined.

**Consultations**

The City is requesting the selected Consultant conduct the AB 52 and SHPO consultations for the project. It is typical, for efficient and effective consultations, for the entity that is preparing the cultural resources report to also support the needed consultations. However, based on the RFP, the applicant’s team may prepare any needed studies, including a potential new cultural resources report. To provide for efficient and effective consultations, Dudek can prepare the cultural resources report and support the needed consultations, if requested by the City. The Dudek scope of work includes up-front consultation with the City during Task 1 to determine Dudek’s role in report preparation and requested consultations. For the purposes of this proposal, the following is assumed:

**AB 52 Consultation.** The project is subject to compliance with AB 52, which requires lead agencies to provide tribes (that have requested notification) with early notification of the project and, if requested, consultation to inform the CEQA process with respect to tribal cultural resources. While AB 52 is a government-to-government process between the CEQA lead agency and applicable California Native American Tribes, Dudek will assist the City with the notification process and, as requested, that consultation process. To date, we understand that the City has received at least one letter requesting consultation under AB 52 from Sherwood Band of Pomo Indians. Dudek will assist the City by drafting a letter offering AB 52 consultation to this tribe. Dudek will also draft follow-up letters or emails with consulting tribal members requesting input. In Dudek’s experience, one round of follow-up letters would be sufficient. If an in-person meeting is requested by the consulting parties, Dudek will attend one meeting with the City to facilitate the consultation process. This scope of work assumes that Dudek will provide assistance with one consultation letter, one follow-up correspondence letter, and one virtual meeting. Dudek will investigate up to two potential resources, if identified by the Sherwood Band of Pomo Indians. If Dudek does not prepare the cultural resources report, Dudek will provide a brief technical memorandum summarizing the results of the AB 52 consultation process for inclusion in the cultural resources report prepared by the applicant’s team.

**SHPO Consultation.** The RFP indicates that a Public Resources Code Section 5024 consultation with SHPO is required for the project and that the Consultant would be responsible for SHPO consultation.<sup>3</sup> Additionally, given the federal USACE wetland permitting for the proposed project, there is a likelihood for Section 106 of the National Historic Preservation Act recordation of cultural resources and SHPO consultation; such consultation would be conducted by the federal agency. Given the potential for SHPO consultation, under this task Dudek cultural resources staff will assist the City in the consultation with SHPO, if such a consultation is led by the City. Senior-level Dudek archaeology and architectural historian staff who are experienced in SHPO consultation can attend up to two, 1-hour virtual meetings with City staff to advise on the SHPO consultation process. Under this task, Dudek can also prepare up to two SHPO consultation letters for the City. Dudek must receive copies of the cultural resources technical report prepared for the project, if not prepared by Dudek, to draft and prepare the SHPO submittal letters. It is also assumed that if SHPO has comments on the cultural resources technical report prepared by the applicant’s team, their team will respond to such comments.

**8A-5: Geology and Soils**

The Mill Site is located in one of California’s most geologically complex and seismically active areas, in proximity to the Mendocino Triple Junction, a three-way tectonic plate boundary where the Gorda, Pacific, and North American plates converge. As an example of the seismicity in the region, a moment magnitude 7.2 earthquake occurred in April 1992 at Cape Mendocino. The earthquake caused permanent ground movement up to 16 inches horizontally and 6 inches vertically. Based on 2021 mapping by the California Geological Survey, a portion of Pond 8 is located within a tsunami run-up zone. The San Andreas Fault is located approximately 9 miles to the west, but the project site is not within an Alquist-Priolo fault zone.

The EIR Geology and Soils section will be prepared using existing geologic, geotechnical, and other studies available for the site and area, including the City-provided 2004 BACE geotechnical report; the 2020 Draft RAP – OU-E by Kennedy Jenks; and the 2008 City LCP, Coastal General Plan Safety Element. The analysis approach for the Geology and Soils section of the EIR will be to develop sufficient information to characterize the location and extent of potential geologic hazards in the vicinity of the site. Dudek will address geologic and soils issues as specified in the latest version of Appendix G of the CEQA Guidelines—including faulting, potential seismic-induced ground failure, slope stability, expansive soils, subsidence, and erosion—with respect to implementation of the proposed project. Erosion-related impacts would include short-term impacts related to construction and long-term erosion due to sea level rise. Long-term erosion due to sea level rise and storm surge would be evaluated qualitatively in this section and evaluated in more detail in the Hydrology and Water Quality section.

Based on the 2018 revised CEQA Guidelines, geologic and soils impacts would only be considered significant in the event that project implementation would create or exacerbate existing geologic hazards or soil erosion. Impacts of geologic hazards on the project would be addressed but would not be considered significant unless project components or alternatives would create situations in which geologic impacts would increase over existing conditions. In addition, it is anticipated that proposed Mill Pond dam stabilization measures (i.e., a rock slope protection buttress, earthen ground construction, and a crib wall), in compliance with DSOD requirements, would result in beneficial impacts with respect to seismicity, slope stability, and long-term erosion.

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<sup>3</sup> It should be noted that Public Resources Code Section 5024 applies to “state-owned historical resources under its jurisdiction listed in or potentially eligible for inclusion in the National Register of Historic Places or registered or eligible for registration as a state historical landmark.” It does not appear that the project site contains such state-owned resources, and, therefore, this code section may not apply.

Pursuant to CEQA requirements and the Society of Vertebrate Paleontology guidelines, Dudek will complete a paleontological resources desktop review and inventory. To start, Dudek’s qualified paleontologists will request a paleontological records search from the University of California Museum of Paleontology or the Natural History Museum of Los Angeles County to determine the location of any previously recorded fossil discoveries within or nearby the project site. The records search, along with a review of geological mapping and geological and paleontological literature, will provide information necessary to develop paleontological sensitivity determinations for the project site. The direct costs for the records search are not anticipated to exceed \$500. Dudek will prepare a paleontological resources section within the EIR that will include all necessary information, including records search results and initial paleontological sensitivity determinations, to provide recommendations for future management considerations or treatment. It is assumed that any existing paleontological resource reports will be provided to Dudek, such as the 2009 Paleontological Resources Assessment Report for the North Fort Bragg Coastal Restoration and Trail Project, prepared by SWCA. However, there do not appear to be any site-specific paleontological resources reports.

**8A-6: GHG Emissions**

The GHG emissions assessment will include a description of global climate change and a summary of key, applicable regulatory measures. Dudek will estimate the GHG emissions associated with the construction of the project using CalEEMod based on the same construction scenario used in the air quality analysis. When project details are not available, CalEEMod default values will be used to calculate direct and indirect source GHG emissions. Consistent with the air quality analysis and given that no operational changes are anticipated at the site with project implementation, Dudek assumes that no quantitative GHG emissions analysis of operational impacts is required. Details of the analysis (e.g., annual GHG emission calculations) will be included in an appendix to the EIR.

The impact analysis will reflect Appendix G of the CEQA Guidelines; specifically, it will reflect whether a project would (1) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and (2) conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The City has not yet adopted a GHG reduction plan or Climate Action Plan that is qualified under CEQA from which the project can tier. Dudek will work with the City to identify the appropriate GHG approach for evaluating the project’s GHG emissions under CEQA. If a quantitative analysis is applied, our budget assumes that a simple emission-based threshold can be used.

Dudek will also qualitatively evaluate the project’s potential to conflict with other applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions, such as state regulations (2030 and 2045 reduction goals identified in Senate Bill 32 and AB 1279), California Air Resources Board Scoping Plans, and the Mendocino Council of Government’s 2022 Regional Transportation Plan. Given that there do not appear to be operational changes with the proposed project, such conflicts are not expected.

**8A-7: Hazards and Hazardous Materials**

The DTSC is the lead agency overseeing cleanup activities for the Mill Site. Monitoring and remediation activities have been under the direction of DTSC since 2006. The North Coast RWQCB also provides regulatory oversight related to mitigation monitoring for the restoration of impacted waters and riparian habitat disturbed by remediation activities at OU-E. A feasibility study prepared in 2019 evaluated remedial alternatives for OU-E. The recommended alternative is the Institutional Control/Contaminant Alternative that includes institutional controls and monitored natural attenuation. Institutional controls include restrictions on land uses and the preparation of a soil management plan. Monitored natural attenuation includes long-term monitoring of groundwater and a

restriction on the use of groundwater. Following DTSC’s approval of the feasibility study, a RAP was prepared. The Draft RAP prepared in 2020 outlines implementation of the institutional controls and monitored natural attenuation for OU-E, as described in the Project Understanding and Approach section.

Dudek hazardous materials specialists will evaluate historical impacts due to hazardous substances and potential impacts on sensitive receptors and public safety plans in accordance with CEQA. Potential environmental concerns will be identified, and mitigation will be recommended as necessary. To provide a comprehensive review in accordance with CEQA, the hazards and hazardous materials assessment for the EIR will include the review of federal, state, and local regulatory agency records per Government Code Section 65962.5 for sites within and adjacent to the project site; the review of project site documents maintained by the North Coast RWQCB’s GeoTracker website, DTSC’s EnviroStor website, and California Environmental Protection Agency’s Regulated Site Portal; the incorporation of findings of technical review of remediation and hazards studies identified in the RFP (including the 2019 feasibility study and 2020 Draft RAP); the review of the National Pipeline Mapping System for hazardous material pipelines; the review of California Geologic Energy Management Division for oil and gas wells; the evaluation of local safety plans, emergency response plans, and wildland fire zones; the evaluation of potential impacts to nearby airports; and the evaluation of potential impacts to nearby school sites.

Impacts will be evaluated regarding construction and operation of the proposed project and cumulative impacts, including the proposed remedial actions described in the Draft RAP. While it is anticipated that the remedial actions identified in the Draft RAP would provide appropriate mitigation, Dudek will evaluate measures that may provide additional protections. This work will be overseen by an Environmental Professional, as defined in Section 312.10 of 40 Code of Federal Regulations 312; licensed Professional Engineers; and licensed Professional Geologists.

**8A-8: Hydrology and Water Quality**

The Mill Site is located in the Pudding Creek watershed that runs north of the project site, where it enters the Pacific Ocean. The former sawmill operations at the site ceased in 2002, and most of the improvements were removed. The site has undergone various remediation activities to remove legacy contaminants from historical mill operations; however, previous investigations have identified contaminants of concern that remain on site, including arsenic and dioxins from Pond 6, the North Pond, and Pond 8. Recent investigations—as described in the Final Feasibility Study, OU-E (Feasibility Study; Kennedy Jenks 2019a), submitted to DTSC—have evaluated the risk of release of contaminated sediments from these ponds to off-site resources, including Soldier’s Bay and the Pacific Ocean. Pond 8 is currently used as a stormwater detention basin where approximately 50–60% of the stormwater runoff entering the pond comes from the City. The April 8, 2020, Kennedy Jenks report (Pond 6, the North Pond, and Pond 8 Sediment Sampling Report) documenting sediment sampling and review of risk analysis for Pond 6, the North Pond, and Pond 8 determined that any potential release of these legacy contaminants does not present a high risk of adverse effects to the receiving system and that institutional controls (land use controls, containment, and long-term maintenance) would be effective in minimizing overall risk to human health and the environment, as described under Task 8A-7.

The EIR hydrology and water quality analysis will include the evaluation of potential impacts related to any changes to drainage patterns at the site from proposed improvements, including the installation of the gravity wall to split Pond 8 into two ponds and how those changes might affect stormwater flows currently entering and flowing through Pond 8. In addition, for the Draft EIR, Dudek will review the general hydrologic and hydrogeologic conditions of the project area, including existing water quality impairments and drainage conditions as well as the potential for inundation from tsunami hazards. The April 1992 moment magnitude 7.2 earthquake at Cape Mendocino resulted in tsunami wave heights measuring up to 1.6 feet. Data sources for the hydrology and water quality analysis will include DTSC EnviroStor records and other records reviewed as part of the Hazards and

Hazardous Materials section as well as published maps and reports by the California DWR and U.S. Geological Survey. Resources for tsunami and sea-level rise hazards will include the City-provided 2010 tsunami study by Pacific Watershed Associates and the National Oceanic and Atmospheric Administration web tool that can show potential inundation effects associated with future sea-level rise scenarios. We also understand from the pre-proposal meeting that an updated wave run-up/storm surge study is being prepared by the applicant’s team and will also be used in the analysis.

Based on the hydrologic setting and current conditions of the project site, Dudek will evaluate any short-term construction impacts and long-term operational impacts with respect to Appendix G of the CEQA Guidelines. Short-term impacts would be related to potential erosion of exposed sediments and resultant siltation and potential incidental spills of minor amounts of petroleum products, drilling fluids, and hazardous substances leaking from construction equipment and vehicles. It will be assumed that construction activities would occur in accordance with a State Water Resources Control Board Construction General Permit and an associated construction-related stormwater pollution prevention plan that would include best management practices to minimize water quality impacts.

Long-term impact analysis will focus on changes to drainage patterns that may be associated with the improvements (i.e., gravity wall) and their potential effect on stormwater management and water quality of the receiving water. Local stormwater regulations (e.g., Mendocino County’s Municipal Separate Storm Sewer System permit and total maximum daily loads managed by the North Coast RWQCB) and analyses from the applicant’s team regarding the stormwater function of Pond 8 with the new gravity wall will serve as the primary resources for determining potential long-term impacts to hydrology and water quality. In addition, the analysis will consider coastal hazards, such as coastal erosion, tsunami wave inundation, and sea level rise.

### 8A-9: Land Use, Planning, and Recreation

Dudek will prepare the Land Use, Planning, and Recreation section of the EIR, describing the existing land uses in the project vicinity and the project’s consistency with applicable land use plans, policies, and regulations, as determined by the project’s location with respect to jurisdictional boundaries. The project is located within both the CCC’s retained CDP jurisdiction (because the following list of improvements means high tide in the South Dam Improvement Area) and the City’s CDP jurisdiction (because the City has a certified LCP). Therefore, this section of the EIR will evaluate the project’s consistency with CCA Chapter 3 policies and the City’s LCP, which consists of the Coastal General Plan (Land Use Plan) and the Coastal Land Use and Development Code (Implementation Plan), also known as Title 17 of the Fort Bragg Municipal Code. Furthermore, because the project is between the sea and the first public road paralleling the sea or 300 feet from the inland extent of any beach or the mean high-tide line), any locally approved project will be appealable to the CCC.

Given the characteristics of the project, it is expected that the focus of this analysis will consider the following policy topics:

**Coastal hazards, including sea level rise and shoreline protection.** The South Dam Improvement Area includes reinforcement of the crib wall and construction of a rock slope protection buttress in front of the existing wall on the beach. The CCA and LCP require new development to be structurally stable, risks from flooding and other hazards to be minimized, and coastal resources to be protected, including by limiting the use of shoreline protection devices to certain circumstances (e.g., CCA Sections 30253 and 30235 and LCP Policies SF-1.1 and 1.10). The crib wall likely constitutes an “existing structure” constructed prior to the effective date of the CCA, whereby armoring may lawfully be allowed, and the boulder sizing will be designed to address sea level rise and tsunami run-up. Still, the CCC’s recently adopted *Critical Infrastructure at Risk: Sea Level Rise Planning Guidance for California’s Coastal Zone* (2021) that addresses water infrastructure, including stormwater assets, supports phased adaptation approaches so that critical infrastructure is protected while long-term adaptation plans are

developed and implemented. To facilitate the subsequent CDP process, the EIR will consider a range of coastal hazard scenarios based on the applicant’s design and supporting studies. Additionally, the project and its armoring at the South Dam Improvement Area needs to be the least environmentally damaging feasible alternative within the context of phased adaptation responses (i.e., realignment, replacement, or relocation (Commission 2021) to be consistent with the CCA/LCP). To the extent that CCA/LCP policies allow for shoreline armoring, the project must mitigate for all impacts to coastal resources affected by armoring.

**Public access and recreation.** Much of the Mill Site, including the project site, remains inaccessible to the public, other than the recently established Noyo Headlands Park and its associated trail that runs to the north, south, and east of the project site. The proposed armoring in the South Dam Improvement Area (described in the previous paragraph) would continue to impede public access to this area of the coastline. The analysis will also address how the project maintains the existing public access and also provides new opportunities during short-term construction and in the long term, once it is completed (e.g., CCA Section 30210 and LCP Policy OS-16.2). For example, the analysis will consider whether proposed project construction and access for equipment could interfere with the use of the Noyo Headland Park trail. Additionally, if the proposed project includes future public access on the site, such access will also be reviewed for consistency with the CCA and LCP.

**Biological resources.** The project is located within an area with extensive wetlands and an ESHA. CCA and LCP policies detail required protections and allowable uses affecting these biological resources (e.g., CCA Sections 30233 and 30240 and LCP Policies OS-1.3 and 1.6). To verify CCA/LCP consistency, the project studies from the applicant will need to include information about feasible alternatives to diking, dredging, and filling wetlands. Additionally, these studies will need to address how the project was sited and designed to prevent impacts that would significantly degrade an ESHA. In this regard, the CCC has typically defined temporary and permanent impacts in ways that differ from other agencies, with resultant changes to expected mitigation ratios (e.g., a 1:1 ratio for temporary impacts, a 4:1 ratio for permanent impacts to wetlands, and a 3:1 ratio for permanent impacts to an ESHA), and has most frequently approved mitigation projects that are in-kind and on site or near on site.

**Visual resources.** The aesthetics analysis included in the EIR (see Task 8A-1) should suffice for the visual analysis required under LCP Policy CD-1.3 and support other LCP visual resource policy consistency analyses that will be provided in the Land Use, Planning, and Recreation section.

Dudek coastal planners will review project information, including any available correspondence between the CCC and the City, and other relevant documents provided by the City, such as past permits. Dudek coastal planners will then evaluate the project’s consistency with applicable CCA and LCP policies to identify potential issues, including those described previously. As appropriate and based on CCC feedback, Dudek coastal planners will assist the City and applicant’s team to make project modifications, if possible and feasible, to demonstrate the project’s consistency with coastal resource protection policies, thereby streamlining the CDP application review process.

### 8A-10: Noise

Dudek will conduct an environmental noise and vibration assessment for the project. The analysis will identify and discuss applicable noise exposure standards at the local (City Code), state, and federal levels. Potential noise impacts associated with the proposed project at nearby sensitive receptors will be predicted and evaluated against the applicable thresholds.

Dudek will develop and execute a noise-level monitoring program to quantify the existing ambient acoustical conditions in the project vicinity. The existing ambient noise measures will include noise-level measurements at up to three locations, incorporating short-term (i.e., 10–15 minutes) measurements. At Dudek’s discretion, a long-term (i.e., 24-hour) measurement may be performed at one location.

Potential construction noise (temporary noise) at nearby noise-sensitive land uses will be evaluated using construction noise-level prediction methodologies developed by the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and empirical reference noise level data. Construction-related personnel trips and haul truck trips will be predicted using the Federal Highway Administration’s traffic noise prediction algorithms, which will rely on existing traffic data and other input parameters developed for the preparation of the Transportation section of the EIR. Construction-related vibration will be discussed based on appropriate guidance by the U.S. Department of Transportation, FTA and Caltrans. Long-term transportation noise and operational (e.g., stationary) noise associated with the project will be discussed qualitatively, if such operational noise will change with the project (which is not expected), based on the current definition of the proposed project.

The significance of noise and vibration impacts will be assessed based on the relevant City, state, and federal criteria and guidelines. The regulatory background, existing noise environment, study methodology, and impact findings will be incorporated into the Noise section of the EIR.

### 8A-11: Transportation

Dudek will assess the potential transportation impacts of the proposed project based on the transportation significance thresholds in Appendix G of the CEQA Guidelines. Based on our understanding of the proposed project’s potential permanent operations, which would be primarily related to the maintenance of the project’s components (Mill Pond and earthen dam structures), it is anticipated that there would be a nominal amount of vehicle trips generated by the proposed project. However, during the construction and remediation phases of the project, there may be higher volumes of (temporary) construction traffic generated by the project. Therefore, an assessment of the potential traffic impacts created by construction activities related to the proposed project would be evaluated, including activities that may be related to additional traffic generated by construction traffic (i.e., workers, materials delivery trucks, haul trucks, etc.) and road and lane closures needed. All of these activities would be temporary, and normal traffic operations are expected upon the completion of construction activities. The qualitative traffic assessment will be prepared consistent with the requirements of the City, Mendocino County, and Caltrans. Level of service analyses will not be performed, given that such analyses are no longer required by CEQA.

For the assessment of construction impacts, Dudek will request information for the construction activities/phases of the project and determine the (temporary) daily, AM and PM peak-hour trip-generation estimates, and any proposed roadway or lane closures needed for construction activities. Dudek will also evaluate potential impacts to nonmotorized trails (for pedestrians and bicyclists) due to temporary closures during construction and permanent changes to the trail network as a result of the project (if any). Based on that information, Dudek will conduct a qualitative assessment of the project’s temporary construction activities on the existing street network. A vehicle miles travelled (VMT) screening analysis will be conducted for the proposed project. Per the Governor’s Office of Planning and Research (OPR), the proposed project may be screened out of further VMT analysis and presumed to have a less-than-significant impact if it would generate less than 110 permanent daily vehicle trips (of passenger cars or light-duty trucks). For purposes of this scope, it is assumed that the proposed project would generate less than 110 daily trips (of passenger cars or light-duty trucks) during the permanent operations phase and would not require a detailed VMT analysis.

If any significant transportation impacts are found, the implementation of a Construction Traffic Management Plan (which may include traffic control plans, detour plans, recommended work shift times, truck time-of-day restrictions, etc.) may be required as a mitigation measure. The methodologies, results, and findings of the transportation assessment will be provided in the EIR.

## 8B: Alternatives

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As part of the project description and in order to effectively define alternatives, Dudek will work with the City and the applicant's team to refine the project objectives, initially presented by the City and applicant (Task 3A). The EIR can then most effectively assess a range of reasonable alternatives to the project, in light of CEQA's mandate to avoid or substantially lessen any of the significant project impacts, while meeting most of the basic objectives of the project (CEQA Guidelines Section 15126.6[a]).

The process and sources used to identify alternatives will be described in the EIR, including the 2019 feasibility study, the 2020 Draft RAP, the CDP application, and other information presented by the City or the applicant. The section will describe a range of alternatives initially considered, including their ability to meet project objectives and reduce impacts. Alternatives not carried forward for detailed analysis will be identified, and the reason for the rejection of these alternatives will be specified. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (1) failure to meet most of the basic project objectives, (2) infeasibility, or (3) inability to avoid significant environmental impacts (CEQA Guidelines 15126.6[c]). It is assumed that information about the feasibility or potential feasibility of one or more of the alternatives will be provided by the City or the applicant. It is also assumed that no more than four alternatives would be identified as rejected from further analyses. A complex, multichapter alternatives analysis is not anticipated or covered in this proposal.

Dudek will work closely with the City and the applicant, as appropriate, to identify and evaluate a maximum of four potentially feasible alternatives to the project, inclusive of the No Project Alternative required by CEQA. Input from the DTSC, the CCC, and others is also expected during the agency consultations (Task 6). Additional alternatives can be evaluated in detail with a scope and budget augmentation. It is assumed that adequate sources of information are available from the applicant or the City to allow for the characterization and mapping, as appropriate, of the alternatives to be evaluated in detail. To date, the following alternatives have been identified for Pond 8: full restoration project alternative (RFP), partial restoration alternative #1 (RFP), partial restoration alternative #2 (RFP), in-situ soil mixing of sediment (RAP), vegetated sediment cover (RAP), and excavation and disposal of sediment (RAP). These, and potentially other alternatives, will need to be reviewed to determine if they should be evaluated in detail in the EIR based on the previous criteria presented.

The alternatives will be described in a sufficient level of detail to support a comparison of potential impacts for each alternative with those of the project. The EIR will qualitatively address the anticipated environmental impacts with respect to key impact categories. If the City requests that a quantitative analysis of each alternative be provided, an optional task is provided in Task 19E to provide for such an analysis. The ability of each alternative to meet project objectives will be described, and the CEQA environmentally superior alternative will be identified, among the alternatives evaluated in detail. The EIR will provide a matrix summarizing the comparative merits of each alternative, as recommended by CEQA Guidelines Section 15126.6(d), which can also be included in the Executive Summary, as indicated in the RFP. During the environmental analysis, minor variations to the project that could have the effect of reducing or eliminating environmental impacts may become apparent. These variations will be recommended to the City, where available and feasible.

It is presumed that the applicant's team will be developing the supporting documentation to demonstrate that the proposed project is the least environmentally damaging feasible alternative, which is required for the evaluation of the project's consistency with the LCP and the CCA and as part of the CDP application. It is acknowledged, however, that the EIR alternatives analysis may provide some of the supporting evidence for that documentation. If desired by the City, Dudek could prepare a separate technical memorandum to support the determination of the least environmentally damaging feasible alternative under a scope and budget augmentation.



**Deliverables:**

- Administrative Draft EIR (electronic version and two hard copies)

**Assumptions:**

- See scope assumptions noted in Tasks 8A and 8B.

## **Task 9: Respond to Review of Administrative Draft EIR / Prepare Screencheck Draft EIR**

City staff will consolidate the comments from City staff and prepare one set of comments for incorporation into the Screencheck Draft EIR. Dudek will meet with City staff to discuss key comments requiring clarification or potentially requiring modification of our scope and schedule. The Screencheck Draft EIR will be prepared to allow City staff to review the Draft EIR prior to publication. A clean version and a tracked-changes version of the Screencheck Draft EIR will be provided to allow City staff to clearly and readily see how all comments were addressed. It is recommended that the Screencheck Draft EIR be provided as a comprehensive document to provide for an efficient document preparation and review process for both Dudek and the City.

**Deliverables:**

- Screencheck Draft EIR (electronic version)

**Assumptions:**

- Comments on the Administrative Draft EIR are assumed not to result in the need for project description changes and new or substantially revised technical analyses.

## **Task 10: Draft EIR, Notice of Completion, and Notice of Availability**

Upon receipt of consolidated comments on the Screencheck Draft EIR, Dudek will prepare the Public Draft EIR for web posting based on direction from the City. Dudek will provide the EIR via secured, shared electronic access. Similar to the NOP, limited hard copies (five copies or fewer) are anticipated to be required for distribution to the Fort Bragg Public Library and City Hall; based on our experience, trustee and Responsible Agencies prefer accessing the documents electronically. Additionally, the State Clearinghouse only accepts electronic documents. The Draft EIR will be made accessible, as is required under AB 434, for state agencies posting documents on their websites.

Dudek will work with the City to update the distribution list used during scoping and will prepare the Notice of Completion and Summary Form for State Clearinghouse submission and the Notice of Availability for general distribution. Dudek will electronically distribute the documents to the approved mailing list, as directed by City staff. Document distribution will use certified mail, regular mail, and FedEx or another form of distribution that can provide tracking records. We will also provide a draft newspaper ad for review by the City and then Dudek will post in a newspaper and provide electronic versions suitable for posting to the City’s website. Dudek will also provide the Administrative Record for the City at the release of the Draft EIR.

**Deliverables:**

- Updated distribution list
- Draft EIR suitable for web posting with limited hard copies (five copies or fewer)
- Administrative Record

**Assumptions:**

- Comments on the Screencheck Draft EIR are assumed to be minor in nature, requiring limited effort of response.

## Task 11: Public Hearings on Draft EIR

In accordance with Fort Bragg Municipal Code Section 17.72.100E, the City Council is required to hold a public hearing on the Draft EIR during the public review period. The RFP indicates that two public meetings on the Draft EIR should be held. Dudek will work with the City to organize and participate in the Draft EIR public hearings/meetings to solicit comments on the contents of the Draft EIR during the 45-day public review period (the RFP notes that the public review period could be up to 60 days). We will work with City staff to determine the most appropriate format for the public hearings and prepare all materials necessary for the meeting (e.g., a PowerPoint presentation, electronic and hard copy comment cards, and sign-in sheets). Given that these are hearings, it is assumed that they will be held in person and via video conference, similar to City Council meetings, and that City Council staff will be responsible for transcribing any verbal comments presented during the hearings.

### **Deliverables:**

- PowerPoint presentation
- Comment cards and sign-in sheets

### **Assumptions:**

- No poster boards depicting project graphics are required.
- The translation of meeting materials or the presentation will not be required. Such services can be provided with a scope and budget augmentation.
- Public participation efforts will be coordinated with the City’s CDP process and with DTSC’s OU-E RAP process.
- The two meetings will be attended in person by two Dudek staff. Both meetings are assumed to be on one day.

## Tasks 12–14: Prepare Final EIR<sup>4</sup>

Dudek will compile all comments received on the Draft EIR and evaluate comments regarding their relevance in addressing project impacts pursuant to applicable CEQA requirements. We will collaborate with the City on appropriate strategies to address the comments received. Dudek staff will assign comments pertaining to the Project Description or other project-related comments to appropriate members of the applicant’s team for initial drafting of responses. Dudek staff will draft responses to other comments. It is assumed that up to 20 public comment letters of limited scope (e.g., fewer than 10 individually bracketed comments each) are received requiring no more than 60 hours of staff time to respond to and that such letters do not require:

- Changes to the Project Description that require revisions to the environmental analysis or substantial documentation for why such revisions are not required,
- New or substantially revised technical analyses, or
- New modeling.

It is also assumed that such letters do not otherwise raise complex issues requiring substantial research, agency coordination, or additional technical analysis. If additional, complex (such as those involving technical peer reviews), or lengthy public comment letters beyond what is currently contemplated are received, such letters can be responded to with a scope augmentation.

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<sup>4</sup> RFP Tasks 12–14 are combined here for ease of reference.

Based on the public comments on the Draft EIR, Dudek will prepare an Administrative Final EIR. The Administrative Final EIR will include a list of all persons, organizations, and public agencies commenting on the Draft EIR; copies of all written comments; responses to comments (including, as appropriate, Master Responses); and underlined/strikeout text to highlight revisions in the Draft EIR document. The Administrative Final EIR will also include the originally produced Draft EIR document.

Following the review of the Administrative Final EIR by the City,<sup>5</sup> Dudek will incorporate any revisions and address comments as requested by the City and prepare a Screencheck Final EIR. Once minor comments on the Screencheck Final EIR have been received, Dudek will prepare the Final EIR suitable for web posting and will provide the Final EIR via secured, shared electronic access. The City will post the Final EIR on the City’s website, and Dudek will distribute a Notice of Availability to the distribution list at least 10 days prior to the certification of the Final EIR to meet CEQA requirements for providing public agencies responses to the comments they raised within that time frame.

CEQA Guidelines Section 15088.5 states that all or a portion of a Draft EIR be recirculated for public review if “significant new information” is added to the EIR after public notice is given of the availability of the Draft EIR for public review. Significant new information requiring recirculation includes (1) a new significant impact not already disclosed in the Draft EIR; (2) a substantial increase in the severity of an impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; (3) a feasible project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the project, but the project’s proponents decline to adopt it; or (4) a Draft EIR that was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. The need for recirculation does occur at times and may also be pursued out of an abundance of caution, especially for controversial and highly scrutinized projects. While the RFP includes a task for recirculating the Draft EIR, if required, there is currently no basis for scoping out such an effort, as a recirculated Draft EIR could involve minimal to substantial effort depending on the issues raised and the nature of the recirculated Draft EIR needed. Therefore, such a recirculated Draft EIR is not currently included in our proposal but could be scoped out in the future if such a document is warranted.

**Deliverables:**

- Administrative Final EIR (electronic version and up to two hard copies)
- Screencheck Final EIR (electronic version)
- Final EIR appropriate for web posting

**Assumptions:**

- See previous tasks for assumptions.

**Tasks 16 and 17: EIR Certification and Project Approval Documents<sup>6</sup>**

Dudek will prepare relevant portions of the City’s resolution related to EIR certification. Dudek will also prepare all of the documents for consideration of the subsequent project approval of the CDP, including the Mitigation Monitoring and Reporting Program (MMRP), the Findings of Fact, and the Statement of Overriding Considerations (if necessary). We will submit draft and final versions of these documents.

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<sup>5</sup> Review of the Administrative Final EIR by Responsible and Trustee Agencies, as requested in the RFP, will be reviewed with the City during Task 1. If such a review is requested, a scope and budget augmentation may be required to coordinate the larger interagency review effort.

<sup>6</sup> RFP Tasks 16 and 17 are combined here for ease of reference.

Assuming that the City Council certifies the EIR and subsequently approves the project, Dudek will also draft the Notice of Determination (NOD) for City review and will submit it to the State Clearinghouse after the EIR is certified and the project is approved. Dudek will update the Administrative Record for the City as the project progresses so that we can make files available, as necessary, during and after the EIR process.

**Deliverables:**

- Draft version of City EIR certification resolution, MMRP, Findings of Fact, Statement of Overriding Considerations, and NOD
- Final version of City EIR certification resolution, MMRP, Findings of Fact, Statement of Overriding Considerations, and NOD
- Updated Administrative Record

**Assumptions:**

- See previous tasks for assumptions.

**Tasks 15 and 18: EIR Certification and Project Approval Hearings<sup>7</sup>**

The City Council is required to hold a public hearing on the certification of the Final EIR. However, the City Planning Commission is the decision-making body on the CDP. Therefore, an additional public hearing before the Planning Commission for consideration of the CDP will then be held after the EIR certification hearing. City staff believes it is likely that if the CDP is approved by the Planning Commission, it will be appealed to the City Council. The CDP may also be appealed to the CCC.

Section 3, page 6, of the RFP indicates that a total of six public meetings should be provided for, including a public hearing on the Final EIR. Section F, page 13, of the RFP indicates that a per-hour cost for meeting attendance beyond the identified six meetings should be provided for. Therefore, Dudek will work with the City to organize and participate in the Final EIR public hearing and will attend other hearings based on the per-hour meeting cost. We will work with City staff to determine the most appropriate format for the public hearing and prepare all materials necessary for the meeting other than the staff report (e.g., a PowerPoint presentation and sign-in sheets). Given that these are hearings, it is assumed that they will be held in person and via video conference, similar to City Council meetings, and that City Council or Planning Commission staff will be responsible for transcribing any verbal comments presented during the hearings.

**Deliverables:**

- PowerPoint presentation
- Comment cards and sign-in sheets

**Assumptions:**

- No poster boards depicting project graphics are required.
- The translation of meeting materials or the presentation will not be required. Such services can be provided with a scope and budget augmentation.
- Public participation efforts will be coordinated with the City’s CDP process and with DTSC’s OU-E RAP process.
- One hearing will be attended in person by one Dudek staff.

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<sup>7</sup> RFP Tasks 15 and 18 are combined here for ease of reference.

## Task 19: Optional Tasks

The following optional tasks are provided for the City’s consideration. Scopes of work needed for technical studies identified after review of all available information, as a result of Tasks 4 and 5, are not provided. Such scopes of work will be provided by Dudek, if requested by the City. Additionally, other services could also be provided by Dudek, if desired by the City, such as assisting the City in reviewing the CDP application to determine completeness or in preparing a technical memorandum to support the determination of the least environmentally damaging feasible alternative.

### Task 19A: Dudek SharePoint Project Portal

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If desired, a Dudek SharePoint project portal will also be established for the project to allow for efficient, timely, and collaborative review of all project deliverables. Dudek regularly works with our clients using this tool, which allows for real-time collaboration and resolution of issues raised during administrative reviews of documents. It also simplifies the City’s task of consolidating comments of all reviewers because all reviewers are accessing and reviewing a single version of each deliverable.

**Deliverables:**

- Dudek SharePoint project portal

### Task 19B: Review of Subsequent Studies or Analyses Prepared by Others

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This optional task provides for subsequent review by Dudek of any new reports or studies provided by the applicant’s team or other consultants, as a result of Tasks 4 and 5. A brief technical memorandum will be prepared, if warranted, to summarize any deficiencies in the new studies. Alternatively, Dudek can simply comment on the studies within the body of each document.

**Deliverables:**

- Memorandum addressing the review of new studies and providing recommendations regarding any deficiencies.

**Assumptions:**

- The memorandum will not be revised.
- No more than five new or updated studies would be reviewed under this task.
- The review of multiple iterations of each study is not included.

### Task 19C: Construction HRA

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During construction, the primary toxic air contaminant of concern would be DPM from heavy-duty trucks and on-site off-road equipment. To evaluate the potential for project construction to expose nearby sensitive receptors to toxic air contaminants that would result in a health risk impact, Dudek will use AERMOD and California Air Resources Board’s HARP2 to calculate the health impacts. The dispersion of DPM and associated health risk impacts on sensitive receptors will be determined using AERMOD, HARP2, local meteorological data obtained from the MCAQMD, and the estimated annual average DPM emissions from construction. The maximum cancer risks at the appropriate receptors (e.g., proximate residential receptors) will be tabulated. The assessment will also include the estimated chronic (long-term) hazard indices due to noncancer health effects associated with DPM. If the health impacts exceed the thresholds of significance, Dudek will suggest appropriate mitigation measures to reduce the health impacts. A summary of the methodology and results will be provided in the Air Quality section of the EIR, and supporting technical information will be provided in an appendix.

**Deliverables:**

- Draft and final construction HRA appendix

**Assumptions:**

- Project applicant will provide necessary construction information to support the HRA.

**Task 19D: Biological Resources Reconnaissance Survey**

Updated biological resources studies are recommended, as indicated in Task 8A-3. However, it is understood that the applicant may desire to delay preparation of such studies to provide them in a timely manner to support the subsequent permitting process. Therefore, the applicant’s updated biological resources report(s) may not be available for inclusion in the Draft EIR. If that is the case, Dudek has included this optional task to conduct a 1-day survey to verify that project site conditions have not substantially changed since the prior surveys were conducted. This approach, if pursued, may require Dudek to make more conservative findings in terms of potential for occurrence of special-status species, for example, but it is a viable approach.

**Deliverables:**

- Draft and final survey technical memorandum

**Assumptions:**

- The survey would be conducted over 1 day and would not include focused surveys of any kind.

**Task 19E: Quantitative Alternatives Analysis**

The alternatives analysis scope of work presented in Task 8B assumes that the EIR will qualitatively address the anticipated environmental impacts of each alternative with respect to key impact categories. This level of analysis is typically sufficient for assessing the comparative merits of the proposed project and alternatives, as required by CEQA. If the City requests that a quantitative analysis of each alternative be provided, this optional task will provide for such an analysis for up to three alternatives, excluding the No Project Alternative. Specifically, criteria air pollutant, GHG emissions, and construction noise will be estimated using the same modeling and methodologies presented in Task 8A. Additionally, to support these analyses and the transportation analyses, the (temporary) daily AM and PM peak-hour trip-generation estimates for construction will also be developed for three alternatives. Such quantification will allow for more precision in the impact analysis for each alternative and in the comparison of the alternatives. To support these analyses, Dudek will request information from the applicant for the construction activities, equipment, and phases for each alternative.

**Deliverables:**

- Technical results to be included in EIR appendices

**Assumptions:**

- Information will be provided from the project applicant regarding the construction activities, equipment, and phases for each alternative.

## F. Budget and Schedule of Charges

A summary cost estimate for the above scope of work is presented in **Table 2**. A time-and-materials not to exceed cost estimate for the above scope of work is presented in **Table 3**. The estimate is based on our attached 2023 rate schedule attached to this proposal (see Appendix B). The cost estimate reflects our understanding of the project scope and the environmental issues known at this time, and it is based on the proposed schedule and scope assumptions presented throughout the proposal. The cost estimate is good for 90 days from submittal of this proposal.

Our proposal includes six in-person public meetings, as specified in the RFP, including an informational session, two scoping meetings, two Draft EIR public hearings, and one Final EIR public hearing (see Tasks 7, 11, and 15 and 18). Section F on page 13 of the RFP indicates that a per-hour cost for meeting attendance beyond the identified six meetings should be provided for. Additionally, this same section acknowledges that the scope of work for consultations with agencies is difficult to define at this stage and that a per-hour cost for agency consultation meetings should also be provided for. Therefore, our budget includes a per-hour labor cost for meeting attendance. The total cost for each additional meeting beyond the six will depend on whether the meeting is in-person or virtual and whether such meetings are technical in nature, requiring attendance by both Dudek's project manager and one or more technical team members.

**Table 2. Cost Summary**

<b>Task</b>	<b>Total Dudek Hours</b>	<b>Dudek Labor Costs</b>	<b>Other Direct Costs</b>	<b>Total Fee</b>
Task 1. Project Kick-Off	37	\$7,330	—	\$7,330
Task 2. Coordination & Project Management	110	\$25,850	—	\$25,850
Task 3. Project Description and NOP/IS	200	\$35,820	—	\$35,820
3.A. Project Description	76	\$15,060	—	\$15,060
3.B. NOP/IS	124	\$20,760	—	\$20,760
Task 4/5. Evaluate Existing Technical Studies	84	\$16,370	—	\$16,370
Task 6. Consultation with Agencies	—	—	—	—
Task 7. Public Information and Scoping Session	78	\$18,910	\$1,433	\$20,343
8A. Administrative Draft EIR - Technical Analyses	758	\$138,090	\$1,265	\$139,355
8B. Administrative Draft EIR - Alternatives	107	\$22,660	—	\$22,660
8C. Preparation/Review of Admin Draft EIR	160	\$34,320	—	\$34,320
Task 9. Prepare Screencheck Draft EIR	108	\$21,950	—	\$21,950
Task 10. Draft EIR, NOC, NOA	66	\$11,290	—	\$11,290
Task 11. Public Hearings on Draft EIR	42	\$9,910	\$751	\$10,661
Task 12-14. Prepare Final EIR	82	\$15,930	—	\$15,930
Task 16-17. EIR Certification and Project Approval Documents	56	\$11,000	—	\$11,000
Task 15 and 18. EIR Certification and Project Approval Hearings	24	\$6,420	\$354	\$6,774
<b>Total</b>	<b>1912</b>	<b>\$375,850</b>	<b>\$3,803</b>	<b>\$379,653</b>
<b>Optional Services</b>				
Task 19. Optional Tasks				
19.A. Dudek SharePoint Project Portal	20	\$3,300	—	\$3,300
19.B. Review of Subsequent Studies or Analyses	42	\$8,480	—	\$8,480
19.C. Construction HRA	28	\$5,600	—	\$5,600
19.D. Biological Resources Recon, Survey	56	\$10,140	—	\$10,140
19.E. Quantitative Alternatives Analysis	129	\$23,135	—	\$23,135
<b>Total Optional + Base Hours and Fee</b>	<b>2187</b>	<b>\$426,505</b>	<b>\$3,803</b>	<b>\$430,308</b>

\*Per hour meeting charge not including expenses:  
 \$265 for one person \$530 for two people



Table 3. Dudek Labor Hours and Rates

	Project Director/ Environmental Ann Sansevero	Specialist IV Catherine Wade	Senior Specialist IV Jane Gray	Specialist V Sarah Richmond	Specialist I Daniel Hoffman	Principal Hydrogeologist/ Engineer II	Sr. Hydrogeologist V/ Engineer V Nicole Peacock	Project Hydrogeologist V/Engineer V Audrey Herschberger	Senior Specialist I Joshua Saunders	Senior Specialist I Matthew Morales	Senior Specialist I Laura Burris	Project Director/ Environmental Laurie Monarres	Specialist IV Jessica Baldrige	Senior Specialist I Ryan Brady	Analyst IV Sarah Brewer	Senior Specialist I Katie Haley	Specialist V Perry Russell	Specialist II Michael Williams	Sr. Hydrogeologist III/ Engineer III Jonathan Martin	Specialist IV Eric Schnewind	Specialist IV Michael Carr	Specialist I Mladen Popovic	GIS Analyst IV Tyler Friesen	Technical Editor IV Technical Editor IV	Total Dudek Hours	Dudek Labor Costs	Other Direct Costs	Total Fee
Billable Rate:	\$265	\$175	\$235	\$185	\$145	\$295	\$260	\$205	\$200	\$200	\$200	\$265	\$175	\$200	\$125	\$200	\$185	\$155	\$240	\$175	\$175	\$145	\$165	\$165				
Task 1. Project Kick-Off	4	12	2	2	2	2		1	1	1	1	1	1	1	1	1	1	-	-	1	1	1	-	-	37	\$7,330	-	\$7,330
Task 2. Coordination & Project Mgmt.	60	40	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	\$25,850	-	\$25,850
Task 3. Project Description and NOP/IS																												
3.A. Project Description	16	40	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16		76	\$15,060	-	\$15,060
3.B. NOP/IS	12	30	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	16	124	\$20,760	-	\$20,760
Subtotal Task 3	28	70	-	-	60	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	16	200	\$35,820	-	\$35,820
Task 4/5. Evaluate Existing Technical Studies	4	12	-	6	-	4	-	-	-	-	12	8	8	6	12	8	-	-	-	4	-	-	-	-	84	\$16,370	-	\$16,370
Task 6. Consultation with Agencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Task 7. Public Information and Scoping Session	36	-	36	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	78	\$18,910	\$1,433	\$20,343
Task 8A. Administrative Draft EIR - Technical Analyses																												
8A.1. Aesthetics	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	\$6,400	-	\$6,400
8A.2. Air Quality	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	\$9,000	-	\$9,000
8A.3. Biological Resources	-	-	-	-	-	-	-	-	-	-	28	24	40	-	-	-	-	-	-	-	-	-	-	-	92	\$18,960	-	\$18,960
8A.4. Cultural & Tribal Cultural Resources	-	-	-	-	32	-	-	-	-	-	-	-	-	10	28	20	-	-	-	-	-	-	-	-	90	\$14,140	-	\$14,140
8A.5. Geology and Soils	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	16	-	-	-	-	-	-	-	56	\$9,880	\$575	\$10,455
8A.6. Greenhouse Gas Emissions	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	\$7,000	-	\$7,000
8A.7. Hazards and Hazardous Materials	-	-	-	-	-	12	8	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	\$18,740	-	\$18,740
8A.8. Hydrology and Water Quality	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	56	-	-	-	-	62	\$11,240	-	\$11,240
8A.9. Land Use, Planning, and Recreation	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	\$14,800	-	\$14,800
8A.10. Noise	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	84	\$13,720	\$690	\$14,410
8A.11. Transportation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	-	-	98	\$14,210	-	\$14,210	
Subtotal Task 8A	-	-	-	80	64	12	8	64	32	80	28	24	40	10	28	20	40	16	6	56	50	98	2	-	758	\$138,090	\$1,265	\$139,355
Task 8B. Administrative Draft EIR - Alternatives	24	36	-	4	-	6	-	-	3	4	8	8	-	-	-	2	-	-	4	2	2	4	-	-	107	\$22,660	-	\$22,660

Table 3. Dudek Labor Hours and Rates

	Project Director/ Environmental Ann Sansevero	Specialist IV Catherine Wade	Senior Specialist IV Jane Gray	Specialist V Sarah Richmond	Specialist I Daniel Hoffman	Principal Hydrogeologist/ Engineer II	Sr. Hydrogeologist V/ Engineer V Nicole Peacock	Project Hydrogeologist V/Engineer V Audrey Herschberger	Senior Specialist I Joshua Saunders	Senior Specialist I Matthew Morales	Senior Specialist I Laura Burris	Project Director/ Environmental Laurie Monarres	Specialist IV Jessica Baldrige	Senior Specialist I Ryan Brady	Analyst IV Sarah Brewer	Senior Specialist I Katie Haley	Specialist V Perry Russell	Specialist II Michael Williams	Sr. Hydrogeologist III/ Engineer III Jonathan Martin	Specialist IV Eric Schnewind	Specialist IV Michael Carr	Specialist I Mladen Popovic	GIS Analyst IV Tyler Friesen	Technical Editor IV Technical Editor IV	Total Dudek Hours	Dudek Labor Costs	Other Direct Costs	Total Fee	
Billable Rate:	\$265	\$175	\$235	\$185	\$145	\$295	\$260	\$205	\$200	\$200	\$200	\$265	\$175	\$200	\$125	\$200	\$185	\$155	\$240	\$175	\$175	\$145	\$165	\$165					
Task 8C. Preparation/ Review of Admin Draft EIR	80	40	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	160	\$34,320	-	\$34,320	
Task 9. Prepare Screencheck Draft EIR	20	20	-	-	-	4	2	8	4	4	4	-	8	4	-	4	6	2	-	6	4	4	4	-	108	\$21,950	-	\$21,950	
Task 10. Draft EIR, NOC, NOA	4	16	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	36	66	\$11,290	-	\$11,290	
Task 11. Public Hearings on Draft EIR	18	-	18	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	42	\$9,910	\$751	\$10,661	
Task 12-14. Prepare Final EIR	20	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	20	82	\$15,930	-	\$15,930	
Task 16-17. EIR Certification and Project Approval Documents	8	24	-	-	16	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	\$11,000	-	\$11,000	
Task 15 and 18. EIR Certification and Project Approval Hearings	18	-	2	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	\$6,420	\$354	\$6,774	
<b>Total Hours</b>	<b>324</b>	<b>310</b>	<b>58</b>	<b>92</b>	<b>182</b>	<b>54</b>	<b>10</b>	<b>73</b>	<b>40</b>	<b>89</b>	<b>53</b>	<b>41</b>	<b>57</b>	<b>21</b>	<b>41</b>	<b>33</b>	<b>49</b>	<b>18</b>	<b>6</b>	<b>71</b>	<b>57</b>	<b>105</b>	<b>56</b>	<b>72</b>	<b>1912</b>	-	-	-	
<b>Total</b>	<b>\$85,860</b>	<b>\$54,250</b>	<b>\$13,630</b>	<b>\$17,020</b>	<b>\$26,390</b>	<b>\$15,930</b>	<b>\$2,600</b>	<b>\$14,965</b>	<b>\$8,000</b>	<b>\$17,800</b>	<b>\$10,600</b>	<b>\$10,865</b>	<b>\$9,975</b>	<b>\$4,200</b>	<b>\$5,125</b>	<b>\$6,600</b>	<b>\$9,065</b>	<b>\$2,790</b>	<b>\$1,440</b>	<b>\$12,425</b>	<b>\$9,975</b>	<b>\$15,225</b>	<b>\$9,240</b>	<b>\$11,880</b>		<b>\$375,850</b>	<b>\$3,803</b>	<b>\$379,653</b>	
<b>Optional Services</b>																													
Task 19. Optional Tasks																													
19.A. Dudek SharePoint Project Portal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	\$3,300	-	\$3,300	
19.B. Review of Subsequent Studies or Analyses	4	4	-	-	-	-	-	-	-	-	8	8	-	4	8	6	-	-	-	-	-	-	-	-	-	42	\$8,480	-	\$8,480
19.C. Construction HRA	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	\$5,600	-	\$5,600	
19.D. Biological Resources Recon, Survey	4	-	-	-	-	-	-	-	-	-	4	-	36	-	-	-	-	-	-	-	-	-	6	6	56	\$10,140	-	\$10,140	
19.E. Quantitative Alternatives Analysis	4	16	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	24	35	-	-	129	\$23,135	-	\$23,135	
<i>Subtotal Task 19</i>	<i>12</i>	<i>20</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>78</i>	<i>12</i>	<i>8</i>	<i>36</i>	<i>4</i>	<i>8</i>	<i>6</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>24</i>	<i>35</i>	<i>6</i>	<i>26</i>	<i>275</i>	<i>\$50,655</i>	<i>-</i>	<i>\$50,655</i>	
<b>Total Optional + Base Hours &amp; Fee</b>	<b>336</b>	<b>330</b>	<b>58</b>	<b>92</b>	<b>182</b>	<b>54</b>	<b>10</b>	<b>73</b>	<b>40</b>	<b>167</b>	<b>65</b>	<b>49</b>	<b>93</b>	<b>25</b>	<b>49</b>	<b>39</b>	<b>49</b>	<b>18</b>	<b>6</b>	<b>71</b>	<b>81</b>	<b>140</b>	<b>62</b>	<b>98</b>	<b>2187</b>	<b>\$426,505</b>	<b>\$3,803</b>	<b>\$430,308</b>	

## G. Work Schedule

Dudek’s estimated schedule showing the expected sequence of tasks and deliverables for completion of the EIR is provided. As shown, we expect to complete the EIR in approximately 18 months, with an anticipated start date of **January 2023**, and publication of the Final EIR by **June 2024**. This schedule will allow for the City Council to consider the EIR for certification in **July 2024** and the Planning Commission to consider the CDP application for approval in **August 2024**. Subsequent appeals to the City Council or CCC have not been factored into the schedule, as this stage. The schedule is based on the scope of work presented herein and receipt of all data needs, as indicated in the schedule. It is also based on the assumption that work on the Administrative Draft EIR can be launched after the early public information session and does not need to wait until the completion of the formal EIR public scoping process. The schedule will need to be reviewed in detail with the City and refined, as necessary, during the kickoff meeting, as part of Task 1.

Task Name	Start	Finish
Notice to Proceed	Tue 1/24/23	Tue 1/24/23
<b>Task 1: Project Kick-Off</b>	<b>Tue 1/24/23</b>	<b>Mon 1/30/23</b>
<b>Task 2: Coordination and Project Management</b>	<b>Tue 1/31/23</b>	<b>Tue 8/13/24</b>
<b>Task 3: Project Description and NOP/IS</b>	<b>Tue 1/31/23</b>	<b>Fri 8/11/23</b>
3A: Project Description	Tue 1/31/23	Mon 4/10/23
Receipt of All Data Needs	Tue 1/31/23	Mon 2/13/23
Draft Project Description	Tue 2/14/23	Mon 3/13/23
City Review of Draft Project Description	Tue 3/14/23	Mon 3/27/23
Final Project Description	Tue 3/28/23	Mon 4/10/23
3B: Notice of Preparation/Initial Study	Tue 4/11/23	Wed 7/12/23
Prepare Administrative Draft NOP/IS	Tue 4/11/23	Mon 5/8/23
City Review of Administrative Draft NOP/IS	Tue 5/9/23	Tue 5/30/23
Prepare Screencheck NOP/IS	Wed 5/31/23	Tue 6/13/23
City Review of Screencheck NOP/IS	Wed 6/14/23	Tue 6/27/23
Finalize/Release NOP /IS	Wed 6/28/23	Wed 7/12/23
30-Day Public Scoping Period	Wed 7/12/23	Fri 8/11/23
<b>Tasks 4/5: Review of Existing Technical Studies</b>	<b>Tue 2/14/23</b>	<b>Mon 3/13/23</b>
<b>Task 6: Consultation with Agencies</b>	<b>Tue 4/11/23</b>	<b>Tue 8/13/24</b>
<b>Task 7: Public Information and Scoping Sessions</b>	<b>Tue 4/11/23</b>	<b>Thu 7/27/23</b>
Public Information Session	Tue 4/11/23	Mon 5/8/23
Scoping Meetings (2)	Thu 7/27/23	Thu 7/27/23

<b>Task Name</b>	<b>Start</b>	<b>Finish</b>
<b>Task 8: Administrative Draft EIR</b>	<b>Tue 5/9/23</b>	<b>Thu 9/28/23</b>
Prepare Administrative Draft EIR	Tue 5/9/23	Wed 8/30/23
City Review of Administrative Draft EIR	Thu 8/31/23	Thu 9/28/23
<b>Task 9: Prepare Screencheck Draft EIR</b>	<b>Fri 9/29/23</b>	<b>Thu 11/16/23</b>
Prepare Screencheck Draft EIR	Fri 9/29/23	Thu 10/26/23
City Review of Screencheck Draft EIR	Fri 10/27/23	Thu 11/16/23
<b>Task 10: Release Draft EIR/NOC/NOA</b>	<b>Fri 11/17/23</b>	<b>Thu 1/25/24</b>
Prepare Public Draft EIR	Fri 11/17/23	Mon 12/11/23
45-Day Public Review	Mon 12/11/23	Thu 1/25/24
<b>Task 11: Public Hearings on Draft EIR (2)</b>	<b>Tue 1/2/24</b>	<b>Tue 1/2/24</b>
<b>Tasks 12-14: Prepare Final EIR</b>	<b>Fri 1/26/24</b>	<b>Thu 6/20/24</b>
Prepare Administrative Final EIR	Fri 1/26/24	Thu 3/21/24
City Review of Administrative Final EIR	Fri 3/22/24	Thu 4/18/24
Prepare Screencheck Final EIR	Fri 4/19/24	Thu 5/9/24
City Review of Screencheck Final EIR	Fri 5/10/24	Thu 5/30/24
Finalize/Release Final EIR	Fri 5/31/24	Thu 6/20/24
<b>Tasks 16-17: EIR Certification and Project Approval Documents</b>	<b>Fri 1/26/24</b>	<b>Thu 3/21/24</b>
<b>Tasks 15 and 18: EIR Certification and Project Approval Hearings</b>	<b>Mon 7/22/24</b>	<b>Wed 10/2/24</b>
City Council Certification of EIR (2nd and 4th Mondays of the month)	Mon 7/22/24	Mon 7/22/24
Planning Commission Approval of CDP (2nd and 4th Wednesdays of the month)	Wed 8/14/24	Wed 8/14/24
Submit Notice of Determination to State Clearinghouse (within 5 days of project approval)	Thu 8/15/24	Wed 8/21/24
Statute of Limitations	Thu 8/22/24	Wed 10/2/24

## H. Sample Work Product

The Final EIR and associated appendices for the Santa Cruz Water Rights Project are provided electronically on a thumb drive as requested. These documents are also available on the City of Santa Cruz website:

[www.cityofsantacruz.com/Home/Components/BusinessDirectory/BusinessDirectory/126/2089](http://www.cityofsantacruz.com/Home/Components/BusinessDirectory/BusinessDirectory/126/2089).

**Client:** City of Santa Cruz

**Key Team Members:** Ann Sansevero; Catherine Wade; Daniel Hoffman; Matthew Ricketts; Stephanie Strelow; Matthew Morales; Michael Carr; Mladen Popovic; Ryan Brady; Kathryn Haley; Glenna McMahon; Audrey Herschberger; Perry Russell; Michael Williams; Steve Taffolla; Tyler Friesen; and Raoul Rañoa

**Period of Performance:** 2019–2021

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# I. Insurance

Dudek shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Consultant, his agents, representatives, employees or subcontracts as set forth in Section 11 of Attachment 5.

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## J. Consultant Agreement

Dudek requests the following modification to the consultant services agreement:

6.8. Indemnification and Hold Harmless.

If Consultant is not a design professional performing “design professional” services under this Agreement, as that term is defined in Civil Code Section 2782.8, Consultant agrees to defend, indemnify, hold free and harmless the City, its elected and appointed officials, officers, agents and employees, at Consultant’s sole expense, from and against any and all claims, demands, actions, suits or other legal proceedings brought against the City, its elected and appointed officials, officers, agents and employees arising out of the performance of the Consultant, its employees, and/or authorized subcontractors, of the work undertaken pursuant to this Agreement. The defense obligation provided for hereunder shall apply whenever any claim, action, complaint or suit asserts liability against the City, its elected and appointed officials, officers, agents and employees based upon the work performed by the Consultant, its employees, and/or authorized subcontractors under this Agreement, whether or not the Consultant, its employees, and/or authorized subcontractors are specifically named or otherwise asserted to be liable. Notwithstanding the foregoing, the Consultant shall not be liable for the defense or indemnification of the City for claims, actions, complaints or suits arising out of the sole active negligence or willful misconduct of the City. This provision shall supersede and replace all other indemnity provisions contained either in the City’s specifications or Consultant’s Proposal, which shall be of no force and effect. **Notwithstanding the foregoing, with respect to any professional liability claim or lawsuit, this indemnity does not include providing the primary defense of City, provided, however, Consultant shall be responsible for City’s defense costs to the extent such costs are incurred as a result of Consultant’s negligence, recklessness or willful misconduct.**

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# Appendix A

Resumes



# Ann Sansevero, AICP

## SENIOR PROJECT MANAGER

Ann Sansevero is a certified project manager and a certified planner through the American Institute of Certified Planners (AICP). Ms. Sansevero has 32 years' experience in the field of environmental assessment and land use planning with a broad range of experience in the management and preparation of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents, other types of planning and environmental studies, and regulatory and land use permitting applications for public projects. Her areas of expertise include environmental planning, project management, CEQA/NEPA compliance, regulatory and coastal permitting, land use planning and design, sustainability, differential site assessments, mitigation monitoring and reporting, and construction and permitting compliance.

Ms. Sansevero has been conducting environmental review and permitting for CSU and UC plans and projects for over 30 years. Additionally, she has substantial experience conducting environmental review and permitting for large infrastructure projects, including those in waterways and marine areas. Recent relevant project experience is described below.



### Education

University of California,  
Santa Cruz  
BA, Biological Sciences  
and Environmental  
Studies, 1987

### Certifications

American Institute of  
Certified Planners (AICP)

## Relevant Previous Experience

**Santa Cruz Water Rights Project EIR.** Served as project manager for the Santa Cruz Water Rights Project EIR. The components of the project include modifications to existing water rights and related actions required to implement the proposed modifications. The underlying purpose of the project is to improve City water system flexibility while enhancing stream flows for local anadromous fisheries. To account for further constraints on the City's limited surface water supply from implementation of bypass flows for Central California Coast coho salmon, a federally listed endangered species, and the Central California Coastal steelhead, a federally listed threatened species, the City needs to improve water system flexibility within existing allocations to allow better integration and use of this limited resource. Specifically, the EIR evaluated water rights modifications, expanded places of use, diversion methods and points that involve the Tait Street Diversion and the Felton Diversion, extension of time to put water to full beneficial use, and physical infrastructure improvements associated with the water rights modifications including aquifer storage and recovery (ASR) facilities, Tait Street Diversion/Coast Pump Station improvements, Felton Diversion improvements, and interties and water transfers with neighboring agencies. Ms. Sansevero worked effectively as part of a large project team that included City staff, water supply and habitat modeling consultants, water rights experts, and legal counsels. Primary responsibilities included providing project description support, managing all aspects of EIR preparation, contract management, and CEQA public meeting support. The EIR was certified in December 2021.

**scwd<sup>2</sup> Regional Seawater Desalination Project EIR and Up-Front Project Planning Support Services, Santa Cruz, California.** Served as project manager for the scwd<sup>2</sup> Regional Seawater Desalination Project EIR and related services conducted for the City of Santa Cruz (City) and the Soquel Creek Water District (District). These agencies were pursuing a joint desalination facility project to address water supply shortages during drought and concerns

about groundwater over-pumping and seawater intrusion. Primary responsibilities included providing upfront planning and project development support; managing the EIR and Seawater Intake Conceptual Design Report preparation process, in-house staff, and all aspects of contract management, scope definition, document content, administrative reviews, and team coordination; interfacing with the City, District, and consultant team involved with the proposed project; and playing the lead role in all CEQA-related public meetings. The draft EIR was issued in May 2013, but the project was put on hold in 2013 while the City's Water Supply Advisory Committee (WASC) completed a water supply planning process. Desalination was identified as a backup source of water supply in the final WASC report that was recently completed. Ms. Sansevero also oversaw an updated 2018 review of the feasibility, cost, timeliness, and approach for pursuing a seawater desalination facility for use by the City of Santa Cruz, in collaboration with Kennedy/Jenks Consultants. This review is supporting the City's selection of a supplemental or replacement water supply.

**Laguna Diversion Retrofit Project EIR and Regulatory Permitting.** Served as principal-in-charge for the EIR and permitting for the retrofit of an existing intake facility at a historic diversion dam on Laguna Creek, which provides an important source of high-quality water in the City of Santa Cruz's North Coast System. Installation of a new intake screen technology and related improvements to the facility were proposed to provide for natural sediment transport past the diversion and to protect fish species and habitat. An EIR and permits were prepared, including a CWA Section 404 permit, ESA Section 7 consultation, National Historic Preservation Act Section 106 consultation, CWA 401 Water Quality Certification Permit, Section 1602 Lake or Streambed Alteration Agreement, and a Coastal Development Permit. The Dudek team for this project coordinated agency consultations and facilitated receipt of these permit in time for summer 2021 construction. The project retrofits are now complete.

**City of Santa Cruz On-Call Environmental Services for Water Department Capital Investment Program.** Serving as program manager on a 5-year master services agreement with the City of Santa Cruz to provide environmental, permitting, and technical services for the Santa Cruz Water Department's Capital Investment Program (2020–2024). Projects completed include Laguna Creek Dam Retrofit Project Environmental Impact Report (EIR) and permitting (see above). Projects underway include the Newell Creek Pipeline Replacement Project EIR and the Graham Hill Water Treatment Plant Facility Improvement Project EIR. Under prior on-call agreements, oversaw environmental review and permitting projects related to the North Coast Pipeline System, the U5 tank, the Tait Well System, the Graham Hill Water Treatment Plant, and a Water Transfer Pilot Project with Soquel Creek Water District. Additionally, prior to her tenure with Dude, Ms. Sansevero served as extension of staff to Santa Cruz Water Department (SCWD), and oversaw the environmental consultant preparing the CEQA document, technical studies, and regulatory permitting for the North Coast Pipeline Rehabilitation Phase 3 Project adjacent to Highway 1 in Northern Santa Cruz County. Project analyses addressed effects on steelhead, coho salmon, tidewater goby, California red-legged frog, western pond turtle, Ohlone tiger beetle, burrowing owl and other nesting birds, wetlands and other waters, riparian habitat and other sensitive habitats. Guided the work, reviewed all deliverables, oversaw contracts, and interfaced with various regulatory agency staff during permitting. Obtained the Coastal Development Permit for the project from Santa Cruz County.

**CSU Chancellor's Office Master Enabling Agreement for Systemwide CEQA Services.** Ms. Sansevero is the Northern California lead for Dudek under the Master Enabling Agreement (MEA) with the CSU Chancellor's Office. Dudek is one of only seven firms selected to perform CEQA services system wide. Under this contract, Ms. Sansevero is overseeing CEQA processes at San Francisco State University, CSU Monterey Bay, CSU Maritime Academy, CSU Chico, CSU Fresno, and Cal Poly Pomona. Ms. Sansevero participated in planning and presenting the 2012, 2017 and 2019 CSU System-wide CEQA Workshop sponsored by the CSU Chancellor's Office and she regularly provides CEQA advice to the Chancellor's Office and to individual campuses. Representative campus project experience under the MEA is provided below.

**San Francisco State University (SF State) Campus Master Plan EIR and Tiered CEQA Documents.** Served as project manager for the SF State Master Plan EIR, certified in November 2007. Her primary responsibilities included managing the EIR preparation process, in-house staff, and all aspects of contract management; scope definition; document content; administrative reviews; and team coordination. She was also responsible for interfacing with campus and consulting architects and engineers related to project design and definition. This became a very controversial planning effort due to concerns raised by the surrounding community and the City and County of San Francisco. The Master Plan was modified in response to public comments received. The Final EIR therefore evaluated the refined project, as well as responded to the comments raised. Was involved in the negotiation with the City and County of San Francisco to develop a Memorandum of Understanding (MOU) covering off-campus impacts and mitigation measures. The MOU, developed in light of City of Marina v. Board of Trustees of the California State University requirements, was successfully negotiated, which prevented a potential lawsuit. Further, since the certification of the EIR in November 2007, she has been assisting campus planners with establishing an appropriate approach for monitoring the implementation of both EIR mitigation measures and elements of the MOU signed with the local agency; and developing appropriate CEQA and permitting strategies for project-specific development projects being implemented under the master plan. Tiered CEQA documents have been prepared for the Creative Arts Center Project, the Recreation Wellness Center Project, and the West Campus Green Project. A tiered, focused EIR was also prepared for the Creative Arts and Holloway Mixed-Use Project, which was certified in 2016.

**CSU Monterey Bay Master Plan EIR.** Serving as project manager for the CSU Monterey Bay Master Plan EIR, which is underway and the Draft EIR is schedule for release in January 2022. The project would provide a blueprint for land uses and building and facility space requirements to support a campus enrollment of 12,700 full-time-equivalent (FTE) students and 1,776 FTE faculty and staff by the year 2035. Achieving this growth would result in an increase of approximately 6,066 FTE students and 752 FTE faculty/staff over existing levels. She is managing all aspects of the EIR preparation process, including the major transportation impact assessment and local agency outreach program. The EIR provides program-level review of proposed Master Plan buildout, along with project-level review for a suite of near-term projects. Key issues include greenhouse gas emissions, population and housing, transportation, public services, and utilities and service systems. Preparation of the EIR involves the Dudek technical team, campus staff and administration, CSU Chancellor's Office staff and outside counsel.

**CSU Fresno State On-call Environmental Services.** Serving as project manager for CEQA services for campus projects. Ms. Sansevero oversaw the preparation of an IS/MND for the proposed New Student Union Project at Fresno State, which would involve the construction of a new Student Union building. The project also included demolition of the existing Keats building, as well as the amphitheater and stage on the project site. The MND was adopted by the CSU Board of Trustees in 2019. Ms. Sansevero also oversaw the preparation of an IS/MND for the Bulldog Stadium Modernization Project and Notices of Exemptions for a project at the Central Utility Plant and for a new groundwater well. A Notice of Exemption is now underway for an Affordable Housing Project.

**University of California, Santa Cruz (UC Santa Cruz) On-call Environmental Services.** Serving as project manager for a range of environmental services for campus projects. Projects the Old Kiln Slide Sewer Slop Stabilization Project cultural resources assessment, Emergency Response Center Bioswale/Bioretenion Project construction monitoring, Great Meadow Bike Path Preservation and Safety Improvement Project IS/MND and construction monitoring, and Coastal Science Campus Ocean Intake Repair Project permitting support. Regarding the ocean intake project, Ms. Sansevero provided strategic advice and input to UC Santa Cruz related to regulatory permitting required to conduct needed repairs to the ocean intake at the UC Santa Cruz Coastal Science Campus located in the intertidal and subtidal zones below the Coastal Science Campus. The Dudek team reviewed project plans, various biological resource reports, and permit applications for the project. A supplemental report to support the Section 7 and Essential Fish Habitat consultation was and the Dudek team made recommendations

for revisions to the permit applications and support documents and well as for how to navigate the permitting process through the USACE and related consultations with the USFWS and NMFS, CCC, CSLC, CDFW, RWQCB, and the Monterey Bay National Marine Sanctuary.

**UC Santa Cruz Marine Science Campus Long Range Development Plan EIR.** Served as the university project manager for the UCSC Marine Science Campus Coastal Long Range Development Plan (CLRDP) EIR. The Marine Science campus is now referred to as the Coastal Science Campus. Ms. Sansevero was responsible for managing the EIR consultant and all aspects of contract management, scope definition, technical content, administrative reviews, and coordination with consultant, UC staff, and master planning team. Ms. Sansevero was also a key member of the University planning team that developed the CLRDP. This project involved a multi-year process that included the California Coastal Commission and other state and local agencies. Ms. Sansevero had primary responsibility for providing University comments on multiple internal drafts of the CLRDP; providing guidance to University planning, drainage, and resource management consultants preparing the CLRDP; providing primary coordination between plan development and EIR preparation; preparing Coastal Act consistency analysis; and participating in on-going planning team and Coastal Commission staff meetings. Ms. Sansevero also prepared and EIR Addendum for expansion of the Coastal Science Campus ocean intake/outfall system.

**University of California, Berkeley (UC Berkeley) Women's Beach Volleyball Courts Project EIR.** Serving as project manager for the Women's Beach Volleyball Courts Project EIR. UC Berkeley proposes the conversion of an existing recreational softball field to recreational and Intercollegiate Athletic (IA) beach volleyball courts to improve the training and competition facilities provided to female student athletes, support ongoing gender equity, and comply with Title IX. The proposed project would include four beach volleyball courts and a support building with team rooms, locker rooms, restrooms, and coaches' offices and storage. Improvements to the site would include new lighting, a scoreboard, a public address system, and a refurbished lawn area for spectators to watch matches. In addition, the project would demolish a portion of Building 21, the former Wilkinson Lodge, which is a contributor to the National Register of Historic Places (NRHP) District No. 82000962 State Asylum for the Deaf, Dumb, and Blind (also known as the California Schools for the Deaf and Blind Historic District). The partial demolition of Building 21 addresses the seismic safety risk posed by the building in order to comply with the University of California Seismic Safety Policy. The Draft EIR was released for public review in January 2022.

**University of California, Davis (UC Davis) On-Call Environmental Services Contract.** Served as project manager for an on-call environmental services contract for UC Davis. Ms. Sansevero oversaw the preparation of tiered IS/NDs for various campus projects, including the Webster Hall Replacement Project, the Tercero Dining Commons 2 Project, the Orchard Park Demolition Project, the CORE 2 Greenhouse Expansion Project and the Emerson Hall Replacement Project, which are complete and adopted. Ms. Sansevero also oversaw the preparation of a Natural Environmental Study for the La Rue Bridge Replacement Project and several projects at the UC Davis Arboretum involving CEQA compliance, regulatory permitting, and construction monitoring.

**University of California, Agriculture and Natural Resources (UC ANR), Elkus Ranch Master Plan Environmental Services.** Served as project manager for the Elkus Ranch Master Plan environmental services contract. UC ANR is pursuing improvements to the educational and conference facilities at the existing Ranch south of Half Moon Bay to allow the Ranch to better serve current and future Ranch programs and users, helping it to become more self-supporting and fulfill its mission. The proposed plan includes improvements to existing structures and roadways, installation of new classroom and bunk buildings, installation of better access roads, parking lots, and turnarounds, and upgrades to current water and other utilities to the facilities. Ms. Sansevero oversaw Phase I of the work, which included preparation of comprehensive biological, archeological, and built environment studies and constraints analyses; and development of CEQA and regulatory and coastal permitting strategy. Phase II will begin in 2022 and will include the preparation of an EIR and assistance with regulatory permitting.



# Catherine Wade, PhD

## PROJECT MANAGER

Catherine Wade is a project manager with 10 years' experience in environmental planning, California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) compliance, and environmental impact analyses. Dr. Wade has supported CEQA/NEPA documentation for transportation, development, municipal, education, water/wastewater, energy, and military projects. Her experience includes the preparation of a variety of environmental documents, including environmental impact reports (EIRs)/statements, initial studies, environmental assessments, addenda, and categorical and statutory exemptions. Evident in her careful attention to detail, Dr. Wade is passionate about working with clients to deliver quality work products, and she is committed to producing legally defensible CEQA/NEPA documents that are easy to understand and that identify and mitigate environmental concerns.

In addition, Dr. Wade has extensive environmental research experience focused on plant ecology and fuels management. Her doctoral dissertation focused on the ecological impacts of climate change on native and invasive plant species and wildfire risk management in the eastern Sierra Nevadas. Dr. Wade's scientific background complements her consulting work with leadership, organizational, technical writing, analytical, and communication skills.

## Project Experience

### **Riverfront Project Environmental Impact Report, City of Santa Cruz, California.**

Assisted with environmental review of a proposed mixed-use project that encompassed five parcels in downtown Santa Cruz adjacent to the San Lorenzo River levee. The project applicant proposed to combine the five parcels; demolish the existing commercial buildings on site, including two historic buildings; and construct a seven-story mixed-use building with 175 residential condominium units and ground floor and levee-front commercial space. The project qualified for a density bonus pursuant to state and local law because 11% of the residential units would be for very-low-income households. Tasks included preparing the environmental checklist.

**Great Meadow Bike Path Preservation and Safety Improvement Project Phase 2 IS/MND, University of California, Santa Cruz, California.** Prepared an IS/MND for a project that consists of reconstructing and widening the existing Great Meadow Bike Path on the University of California Santa Cruz campus to meet current California Department of Transportation standards to the extent feasible within the current alignment. This included reconstruction of and repaving the path, widening and paving the shoulders, correcting existing drainage issues adjacent to the path, and designating specific portions of the path for shared pedestrian and bicycle use. Detailed analysis was undertaken, and mitigation measures were developed to avoid vibration-related impacts to a historic structure adjacent to the bike path. Tasks included managing the preparation of the IS/MND and supporting technical studies, reviewing and writing sections of the IS/MND, and regularly coordinating with the client.



### **Education**

*University of California,  
Santa Cruz  
PhD, Environmental  
Studies, 2015  
MA, Environmental  
Studies, 2012*

*University of Maryland,  
College Park  
BS, Environmental  
Science and Policy-  
Biodiversity and  
Conservation Biology,  
2006*

### **Professional Affiliations**

*AEP, Monterey Bay-  
Silicon Valley Chapter*

**Sustainability Policy and Regulatory Update of the County of Santa Cruz General Plan/Local Coastal Program and Santa Cruz County Code, California.** Served as deputy project manager for the preparation of an EIR for an update of the County of Santa Cruz General Plan/Local Coastal Program and Santa Cruz County Code. The proposed project includes unincorporated lands within the County of Santa Cruz and would define a more sustainable growth pattern for the future and implement the Sustainable Santa Cruz County Plan, which was adopted in 2014. The Santa Cruz County Code would also be updated to implement the General Plan/Local Coastal Program amendments, including sustainable and compact urban design principles in the Sustainable Santa Cruz County Plan, as well as to modernize development code requirements and procedures. Tasks included preparing EIR sections, managing the preparation and compilation of the EIR, and regularly coordinating with the client.

**Santa Cruz Water Rights Project EIR, City of Santa Cruz Water Department, California.** Served as deputy project manager for the preparation of a project- and program-level EIR for a project that includes proposed modifications to the City of Santa Cruz's existing water rights to improve flexibility in operation of the City's water system to better use limited water resources, while enhancing stream flows for local anadromous fisheries. The proposed project also includes water supply augmentation components, such as aquifer storage and recovery, water transfers and exchanges, and intertie improvements; and surface water diversion and fish passage improvements that could result after the water rights modifications are approved. Tasks include preparing and reviewing EIR sections, managing the preparation and compilation of the EIR and administrative record, and regularly coordinating with the client.

**Laguna Creek Diversion Retrofit Project EIR, City of Santa Cruz Water Department, California.** Served as deputy project manager for the EIR and permitting for a project that entails the retrofit an existing intake facility at a historic diversion dam on Laguna Creek, which provides an important source of high-quality water in the City's North Coast System. Installation of a new intake screen technology and related improvements to the facility would provide for natural sediment transport past the diversion and protect fish species and habitat. An EIR and permits are under preparation, including a Clean Water Act Section 404 permit, Endangered Species Act Section 7 consultation, National Historic Preservation Act Section 106 consultation, Clean Water Act Section 401 Water Quality Certification Permit, Section 1602 Lake or Streambed Alteration Agreement, and a Coastal Development Permit. Tasks include preparing and reviewing EIR sections, managing the preparation and compilation of the EIR and administrative record, developing responses to comments on the Draft EIR, and regularly coordinating with the client.

**Newell Creek Dam Inlet/Outlet Replacement Project EIR, City of Santa Cruz Water Department, Santa Cruz County, California.** Assisted with preparation of the Draft EIR for a project that would involve improvements to the Newell Creek Dam, located in unincorporated Santa Cruz County approximately 10 miles north of the City of Santa Cruz. The existing earthfill dam was completed in 1961 and impounds the Loch Lomond Reservoir, which is the primary surface water storage facility for the City's water supply system. The project would consist of replacement of the existing aging inlet/outlet works as well as other associated improvements. Tasks included authoring sections of the Draft EIR and completion of a "CEQA+" checklist for a financial assistance application for the Clean/Drinking Water State Revolving Fund to the State Water Resources Control Board.

**Animal Shelter Project Addendum, San Mateo County, California.** Prepared an addendum to an MND for an animal shelter facility in San Mateo County. The County of San Mateo proposed to demolish the existing animal shelter facility and construct a new facility in a different location on the project site. The project site is located adjacent to the San Francisco Bay and Bay Trail and several physical constraints are located on and near the site, including potential jurisdictional wetlands and aquatic habitat, flood zones, and areas within the San Francisco Bay Conservation and Development Commission's (BCDC's) 100-foot shoreline band jurisdiction. A constraints analysis was prepared to identify sensitive resources on the site and to assist the design team with the placement of the new building. The County Board of Supervisors adopted the MND in 2015. Tasks included preparing an addendum to the MND to document subsequent changes to the project design.

# Glenna McMahon, PE, CEM

## PRINCIPAL ENVIRONMENTAL ENGINEER

Glenna McMahon has 22 years' environmental consulting and project management experience. Ms. McMahon focuses on environmental engineering and hydrogeology, specifically hazardous waste investigation, monitoring and remediation, as well as litigation support. Her project experience includes environmental site assessments; soil, soil vapor and groundwater sampling and data evaluation; health risk assessments; evaluation, design and implementation of remedial alternatives; environmental compliance; and third-party evaluation of remediation expenditures. Ms. McMahon manages several cleanup projects that involve state or local regulatory oversight and assists clients with negotiations and compliance with regulatory requirements. She strives for a collaborative approach with regulators while advocating for practicable solutions for the project.

## Project Experience

**Former Kearney-KPF Facility, Stockton, California.** Managing ongoing groundwater monitoring program, groundwater remediation, and monthly and semi-annual reporting for chlorinated solvent- and 1,4-dioxane-impacted site. Prepared cost estimates, work plans, sampling and analysis plans, health risk assessments, health and safety plans, remedial action plans, conceptual site model, and post closure plans. Coordination with responsible party, current owner and numerous tenants, Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB) and San Joaquin County Environmental Health Department. Prepared renewals of RCRA Hazardous Waste Facility Post-Closure Permit, including negotiating terms of the permit with DTSC. Managed soil and soil vapor site-wide sampling, and subsequent soil vapor extraction pilot test. Managed installation, start-up, 24-hour operation and regulatory compliance for ultraviolet/oxidation groundwater treatment system.

**Hazards and Hazardous Materials Evaluations for CEQA/NEPA, Permitting and Compliance.** Prepared hazards and hazardous materials chapters for CEQA documents, as well as separate technical reports (e.g. Phase I ESA, Phase I ISA, Phase II ESA, Hazardous Materials Technical Report) when required/requested. Chapter preparation included review and evaluation of regulatory records and historical reports, review and evaluation of existing ESAs prepared by others, interviews with facilities personnel and site visits to evaluate existing conditions. Types of projects include commercial and residential development, municipal facilities redevelopment, former landfill, military sites undergoing remediation, renewable energy facilities, battery storage facilities, water and wastewater infrastructure, transportation, and educational facilities improvements/development.

**Site Assessment, Investigation, Hazards and Hazardous Materials for EIR, Santa Monica City Yard, Santa Monica, California.** Conducted Phase I ESA as part of due diligence for CEQA. Conducted Phase II ESA to evaluate potential impacts from former manufacturing, former leaking underground fuel tanks, former landfill, and an adjacent



### Education

*University of Vermont  
BS, Civil and  
Environmental  
Engineering*

### Licenses/Certifications

*Professional Engineer  
(PE), CA No. 79742*

*Certified Environmental  
Manager (CEM), NV  
No. 1974*

*OSHA 40-Hour  
HAZWOPER*

*OSHA Site Supervisor*

*RCRA Hazardous Waste  
Management*

*DOT Hazardous Material  
Handler*

wellfield impacted by volatile organic compounds. Prepared work plan, obtained permits, performed utility clearance, collected soil and soil vapor samples, managed investigation-derived waste, and prepared final sampling report. Prepared Hazards and Hazardous Materials chapter for EIR.

**Phase I ESA, Phase II ESA, California State University, Chico, California.** Conducted Phase I ESA for the Facilities Management and Services Yard. Identified recognized environmental conditions, including a former crude oil tank and supply line, a former aboveground gas storage tank associated with a nearby manufactured gas plant, and three release cases. Conducted a Phase II ESA to evaluate soil vapor, soil, and groundwater for volatile organic compounds, petroleum hydrocarbons, metals, methane and polycyclic aromatic hydrocarbons, including preparation of a work plan; preparation of a site-specific health and safety plan; obtaining appropriate permits for the work; overseeing a subsurface utility survey; collection of samples; coordination of disposal of investigation-derived waste; and evaluation of the data. Prepared a final report summarizing the work, findings and recommendations for management of impacted soil during construction.

**Site Assessment, Investigation, and Hazardous Materials Contingency Plan, Public Works Project, City of Chula Vista, California.** Evaluated Public Works project for Conditional Exemption for CEQA process. Conducted environmental site assessment and groundwater and soil investigation to determine extent of impacts to project area from adjacent contaminated sites. Prepared a Hazardous Materials Contingency Plan detailing known impacts and plans for management of contaminated materials during construction process. Assisted City with determining process for obtaining dewatering permit. Recently updated studies and documents to include the second phase of the project. Scheduled to conduct monitoring for the City during the construction process.

**Site Assessment and Investigation, Former Shooting Range, Highland, California.** Prepared Phase I ESA for San Bernardino County Flood Control project site. Prepared Phase II Sampling and Analysis Work Plan to conduct soil sampling to assess the extent of metals- and PAH-impacted soil, with considerations for biological constraints. Coordinated with multiple parties, including site owner (Bureau of Land Management), client (Department of Public Works), and regulatory agencies (DTSC and County Fire Department).

**Site Assessment and Investigation, Former Shooting Range, Northern California.** Evaluated extent of metals, petroleum hydrocarbons and polycyclic aromatic hydrocarbon impacts to soil at existing, long-time shooting range. Prepared sampling and analysis work plan; oversaw initial sampling work and additional sampling efforts; evaluated contaminant pathways; prepared report of findings and made recommendations for additional investigation, best management practices for continued use of the site as a shooting range, and appropriate health and safety measures for site users and guests; and worked with client on insurance claim.

**Site Assessment, Remediation and Closure of former Agriculture Site, Carpinteria, California.** Oversaw site assessment and remediation activities for redevelopment project. Facilitated Remedial Action Agreement with the site owner and Santa Barbara County Environmental Health Services (EHS) and oversaw due diligence work for CEQA purposes. Oversaw preparation of a soil sampling work plan, soil sampling, remedial action work plan, and removal of lead- and pesticide-impacted soil, including confirmation sampling. This work included coordination with the project owner, landowner, EHS and the Air Pollution Control District, as well as coordination of public noticing of the remediation. Obtained closure for the site in 18 months.

**Environmental Compliance and Monitoring, San Diego Association of Governments, San Diego County, California.** Provided oversight, consultation, monitoring and sampling for construction redevelopment projects in San Diego County. Directed and oversaw emergency response efforts to assess and sample contamination discovered during construction, recommend interim best management practices in compliance with San Diego County guidance, coordinated disposal of hazardous and non-hazardous wastes. Reviewed and provided feedback on asbestos management plans and impacted soil reports prepared by others. Oversaw compliance with management plans, field inspections, monitoring, and sampling.

# Sarah Richmond, PG

## SENIOR COASTAL PLANNER

Sarah Richmond is a coastal planner with 15 years' experience in environmental science, planning, and regulation with particular expertise in coastal policy and permitting. With 2 years' experience at the San Diego District of the California Coastal Commission (CCC) and 3 years' experience at the San Francisco Bay Conservation and Development Commission (BCDC) as part of the nationally recognized Adapting to Rising Tides (ART) Program, Ms. Richmond is highly knowledgeable in the application of the California Coastal Act (CCA) and Local Coastal Program (LCP) policies to an array of coastal development and land use planning projects and integrates resilience into all her planning and permit efforts. She has extensive experience preparing consistency analysis for California Environmental Quality Act (CEQA) documents as well as Coastal Development Permit (CDP) applications and LCP submittals. She leverages her technical background to effectively communicate with diverse stakeholders and develop multidisciplinary solutions.



### Education

*University of California (UC), Berkeley  
MS, Energy and Resources, 2009*

*UC Santa Barbara  
BS, Geology, 2004*

### Certifications

*Professional Geologist (PG),  
CA No. 9138*

## Selected Project Experience

**Regional Transportation Infrastructure Sea Level Rise Assessment and Adaptation Guidance, SANDAG, San Diego County, California.** Served as project manager responsible for the development and adoption of a guidance document and management of a team of coastal engineers to analyze sea level rise impacts to the region's transportation system, including roadways, bikeways and trails, and transit routes; pilot a risk-assessment tool, VAST, created by the Federal Highway Administration to understand priorities; document sea level rise best planning practices for the San Diego region based on interviews with project managers from local jurisdictions; and present local and regional policies, funding mechanisms, and potential adaptation projects that may be considered to enhance the short- and long-term resilience of the regional transportation system. Dudek organized and facilitated three public workshops to obtain feedback on the guidance document. This input was incorporated into the visually appealing, easy-to-navigate guidance document and contributed to an overarching goal to begin a regional dialogue on coastal transportation planning and sea level rise adaptation. SANDAG Board of Directors accepted the California Department of Transportation (Caltrans) grant-funded guidance intended to inform San Diego Forward: The 2021 Regional Plan.

**Venice Sea Level Rise Vulnerability Assessment and LCP Amendment, City of Los Angeles, California.** Serving as coastal planner responsible for coordinating with the City of Los Angeles to develop a new policies and implementation measures for the uncertified community of Venice that address sea level rise, coastal hazards and shoreline development in accordance with recent CCC policy guidance and based on findings from the Venice Sea Level Rise Vulnerability Assessment. Dudek policies address potential impacts to critical infrastructure (tide gates, pump stations, outfalls, sewer, and power) and create land use development standards to build resilience. In addition, Dudek provided key support with the development of three City-led public workshops and incorporated community feedback into the policy development process. Ultimately, Dudek will assist City staff at local and CCC hearings as well as in preparation of the LCP Amendment submittal for CCC review and certification.

**Park Drive Slope and Drainage Improvements, City of Carlsbad, California.** Serving as coastal planner responsible for coordinating with Dudek engineers, City staff, and CCC staff to refine design to address retaining wall degradation, slope failures, and drainage issues along Park Drive, which provides critical public access to Agua Hedionda Lagoon. Discussed potential CCA policy issues such as ESHA in alternatives analysis memo. CCC review and approval of the CDP is pending.

**South Orange County Wastewater Authority (SOCWA) Sewer Force Main and Park Improvements, Orange County, California.** Served as project manager responsible for securing CDP to rehabilitate San Juan Creek Ocean Outfall Junction Structure. Coordinated with SOCWA, State Parks, and CCC staff to develop policy solutions to address CCA issues related to coastal hazards, public access, and biological resources. CDP approved by the CCC in August 2020.

**North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program, San Diego County, California.** Served as coastal planner to assist Caltrans District 11 in implementing the approved Public Works Plan for rail, highway, transit, bicycle, pedestrian, and coastal resource improvements throughout northern San Diego County. Coordinated closely with Caltrans, SANDAG, and CCC to conduct consistency analyses for individual projects and prepare and submit Notices of Impending Development and CDP Amendments for CCC review and approval.

**Cardiff State Beach Living Shoreline Project, City of Encinitas, California.** Served as CCC planner responsible for processing a CDP to create a 'living shoreline' dune system to provide protection for Coast Highway 101 that has historically been damaged and flooded. Rather than add additional rock or build a seawall, this is one of the first projects to apply a soft solution and intends to serve as a pilot project to better understand the engineering and effectiveness of more natural shoreline protection. Project also includes construction of a public footpath adjacent to Coast Highway 101 and six lateral access points extending from the footpath across the dunes to the beach, where no pedestrian access currently exists. Participated in collaborative stakeholder process with City staff, California Department of Parks and Recreation, San Elijo Lagoon Conservancy, and Coastal Conservancy to design dune system to balance need for flood protection, as well as creation of dune habitat and preservation of coastal views. Conducted site visits; developed permit conditions for adaptive management and monitoring, maintenance requirements, operation staging, sensitive species monitoring and water quality best management practices during construction, and public access requirements; and prepared staff report and recommendation. CDP approved by the CCC in November 2017.

**San Elijo Lagoon Inlet Dredging Program and Amendment, City of Encinitas, California.** Served as CCC planner responsible for processing a CDP for removal of sand and cobbles from the San Elijo Lagoon inlet as necessary over a period of five years to maintain tidal flow and placement of excavated material on adjacent Cardiff State Beach and two dune habitat enhancement sites. Developed permit conditions for project timing to avoid adverse impacts on sensitive species and public access during high-use times of the year, and for annual monitoring reports to document the impact of inlet maintenance operations on the lagoon and the success of dune habitat enhancement activities. Prepared staff report and recommendation. CDP approved by the CCC in February 2018.

## Relevant Previous Experience

**Geomorphologist/Hydrologist, Balance Hydrologics, Berkeley, California.** Served as project manager responsible for wetland/stream restoration and watershed management projects. Prepared scopes, budgets, and schedules, supervised teams, and performed stream and sediment transport gaging, surface/groundwater interaction investigations, geomorphic mapping, historical data interpretation, and report writing.

# Laurie Monarres

## REGULATORY SPECIALIST

Laurie Monarres (*LOR-ee mun-AR-ess; she/her*) has 18 years' professional experience (including 7 at Dudek) as a regulatory specialist throughout California. As the U.S. Army Corps of Engineers' (USACE) Regulatory North Branch Chief of the San Francisco District, Ms. Monarres supervised a team of project managers, and oversaw the review and evaluation of complex and controversial permit applications under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act within the north coastal region of California. Prior to that, she was a Senior Regulatory Project Manager with the USACE Los Angeles District. Ms. Monarres has permitted a wide variety of projects including water infrastructure, creek and wetland restoration projects, aquaculture, energy and utility lines, creek stabilizations, emergency repair projects, mining, development projects, and major coastal restorations. She specializes in developing programmatic permitting approaches including regional general permits (RGPs), letters of permission, and streamlined permitting associated with habitat conservation plans (HCPs).

Ms. Monarres was a key member of the USACE South Pacific Division's project team responsible for developing standard operating procedures for compensatory mitigation decisions, including the updated Mitigation and Monitoring Guidelines, the Mitigation Ratios Checklist, Uniform Performance Standards, and Mitigation Site Selection using a watershed approach.



### Education

*University of California (UC), Los Angeles  
MS, Environmental Health Sciences*

*UC Berkeley  
BA, Integrative Biology*

### Certifications

*California Rapid Assessment Method Practitioner for Riverine and Depressional Modules*

## Project Experience

### **San Francisco Bay Coordinated Permitting Process, Resources Legacy Fund, San Francisco Bay, California.**

Established the Bay Restoration Regulatory Integration Team (BRRIT), a coordinated permitting process for multi-benefit wetland restoration projects. Dudek meets with the executive managers of each of the regulatory agencies monthly by facilitating the BRRIT Policy and Management Committee coordination meetings. We are facilitating compliance with the following: CWA §404, CWA §401, McAtter-Petris Act, ESA & Essential Fish Habitat, CESA, CDFW 1600, Rivers and Harbors Act, Coastal Zone Management Act, and California fully protected species.

### **Programmatic Permitting Assistance, Santa Clara Valley Habitat Agency, Santa Clara County, California.**

Project Manager for Santa Clara Valley Habitat Agency Implementation Services, including aquatic resources permitting. Ms. Monarres provides permitting strategy, meeting support, and regulatory application support to the Santa Clara Valley Habitat Agency. Ms. Monarres assisted the Habitat Agency to successfully establish RGP 18 with the USACE. Additionally, she is assisting the Habitat Agency with developing and gaining approval for an in-lieu fee program to complement the established RGP.

**Southern Sacramento HCP and ARP, County of Sacramento, California.** Finalized the Aquatic Resources Program (ARP) in conjunction with the completion of the HCP. The ARP allowed issuance of programmatic permits from the Corps, EPA, Water Board, and CDFW to streamline permitting of HCP covered activities.

**San Felipe Creek Restoration Project, Santa Clara Valley Habitat Agency, Santa Clara County, California.**

Regulatory permitting lead for the San Felipe Creek Restoration Project, which is being implemented as part of the fulfillment of the Santa Clara Valley Habitat Plan's conservation strategy. Ms. Monarres successfully obtained all permits and compensatory mitigation credits for the project, including from the Corps, RWQCB, USFWS, and CDFW. The obtained compensatory mitigation credits will be used to offset other Habitat Plan project impacts.

**Saugstad Urban Rivers Grant Bank Stabilization Project, City of Roseville, Placer County, California.** Permitting lead for the project. Ms. Monarres successfully obtained all required authorizations including a Section 404 permit and associated Section 7 and 106 consultations, a Section 401 water quality certification and a 1600 Streambed Alteration Agreement. Ms. Monarres negotiated with the regulatory agencies to convey the importance of the project and demonstrate that the project design is the preferable alternative.

**Delta Dams Burrow Remediation Project, California Department of Water Resources (DWR), Alameda and Contra Costa Counties, California.** Dudek project manager and permitting lead to assist DWR with obtaining environmental approvals and permits for the Delta Dams project to arrest on-going deterioration of dam embankments at three DWR facilities. Early project successes include successful negotiation of Section 7 scope of analysis, regulatory agency agreement on conceptual mitigation ratios, and agency consensus on completing permitting within a compressed schedule. This has been accomplished via regular ongoing engagement with regulatory agencies and by leveraging our existing relationships with the regulators.

**As-Needed Environmental Services, San Jose Water Company, Santa Clara County, California.** Project manager and permitting lead for as-needed environmental permitting and compliance services for San Jose Water. Dudek assists San Jose Water with management, permitting, implementation, and compliance monitoring of multiple projects associated with the Los Gatos Creek Watershed Maintenance Program, including the Lake Kittredge Mitigation Project. Dudek has successfully obtained annual regulatory agency authorizations each year since managing the program.

**Jewel Lake Long-Term Maintenance Study, East Bay Regional Park District, Alameda County, California.** Dudek project manager and permitting lead for environmental consulting services to assist East Bay Regional Park District with assessing permitting and biological resource constraints and costs of various alternative designs to manage Jewel Lake within Tilden Regional Park. Our evaluation will weigh the potential benefits and tradeoffs for aquatic resources and vegetation communities as well as focal species identified for the project: California red-legged frog, western pond turtle, and rainbow trout, which have different and sometimes conflicting habitat requirements.

**Laguna Creek Diversion Retrofit Project, City of Santa Cruz Water Department, Santa Cruz, California.** Permitting lead for the Laguna Creek Diversion Retrofit Project, which is retrofitting an existing intake facility at a historic diversion dam on Laguna Creek, which provides an important source of high-quality water to the City of Santa Cruz. Ms. Monarres assisted the City of Santa Cruz to successfully obtain all permits, including a Section 404 permit and associated Section 7 and 106 consultations, Section 401 water quality certification, and 1600 Streambed Alteration Agreement.

**Newell Creek Dam Inlet Outlet Replacement Project, City of Santa Cruz Water District, Santa Cruz County, California.** Permitting lead for the Project. Dudek is providing consulting services for CEQA compliance and environmental permitting for the Project, which involves replacing the existing aging inlet/outlet works in a new location at Loch Lomond Reservoir. Ms. Monarres successfully obtained Corps, RWQCB, and CDFW permits by developing thorough permit applications and compensatory mitigation plans, including creek and riparian restoration projects.



# Nicole Rieger, PE, QSD

## PROJECT MANAGER

Nicole Rieger (*nih-COHL REE-gur; she/her*) is a senior engineer with 19 years' experience in civil engineering, specializing in floodplain, drainage, and stormwater quality design and analysis. Ms. Rieger has extensive experience working with clients as a drainage and stormwater design lead on municipal, roadway, and private development projects and is well versed in stormwater quality requirements. She has engineered and managed projects through all phases, from preliminary and final design through construction.

## Project Experience

**B.F. Sisk Dam, Safety of Dams Modification Project, Department of Water Resources, Merced County, California.** Assisted in the determination of the jurisdiction delineation of waters of the state for borrow areas as part of the dam modification project. Due to the flat terrain and lack of riparian habitat, the team was tasked to prepare a hydrology and hydraulics analysis based on Merced County methodology to assist in the determination of the width of jurisdictional areas within several material borrow locations. The results of the analysis were then reviewed in the field to make a final determination.

**Preliminary Assessment for Erosion Control/Drainage Improvements, Padre Dam Municipal Water District, Santee, California.** Provided preliminary recommendation to remedy erosion issues impacting District facilities at four locations. Included site visits to each location with District staff and providing scoping information. Analysis included reviewing conditions for the Blossom Valley Reservoir which included improvements to the dam for DSOD compliance.

**Lakes at Rockport Ranch, Lennar Homes, Menifee, California.** Serving as the project manager for the lake design of two recreational lakes for a new housing development planned in Menifee, California. Design consists of lake liner design, lake edge design, and water quality measures in the form of mechanical and biological treatments. Water quality design components include intake bay/skimmer system, water jets through the lake edge, up-flow biofiltration units, aeration system, pump vault/station design, and water feature design. After design, a lake maintenance manual is created for the future homeowner's association, who will have to maintain and operation the lakes.

**Centennial Lake Renovation, City of Santa Ana, California.** Served as project manager for lake rehabilitation plans. Design consists of lake edge improvements, new fountain jet, circulating stream water feature, and water quality improvements such as proposed aquatic vegetation, horizontal mixing via new skimmer boxes and recirculation piping, vertical mixing via aeration tubing, denitification using biofiltering system, and educational signage regarding waterfowl feeding practices.



### Education

California Polytechnic  
State University, San Luis  
Obispo  
BS, Civil Engineering,  
2002

### Licenses and Certifications

Professional Civil  
Engineer (PE),  
CA No. 70782

Qualified SWPPP  
Developer,  
No. 24471

### Professional Affiliations

American Public Works  
Association

American Society of Civil  
Engineers

CASQA

Floodplain Managers  
Association

**Cottonwood Creek and La Costa Basins Routine Maintenance Project, City of Encinitas, California.** Served as the engineering lead in the preparation of maintenance plans and request for bid documents for the maintenance of two existing basins. Included coordination with permitting on maintenance impacts and detailed drawings for the La Costa Basin previously built as an emergency project.

**Municipal Waterway Maintenance Plan Engineering Support, City of San Diego, California.** Prepared construction level plans for the maintenance for multiple channels in compliance with the City's Municipal Waterway Maintenance Program. Project work included preparation of signed maintenance plans and water pollution control plans as well as performing and documenting post-maintenance erosion control measure analyses where applicable. Additional work under the task order included review of hydrology and hydraulic HEC-RAS modeling and reporting for new channels, analysis of hydraulic impacts of minor maintenance in channels, engineering field support during maintenance activities, and collaborating with the channel maintenance prioritization process.

**Lower Mission Creek Floodplain Management Services, City of Santa Barbara, California.** Served as project manager for a multi-phase floodplain assessment and LOMR for new bridge structures to the Mission Creek system. Analysis included 1-D hydraulic analysis and 2-D hydraulic analysis using FLO-2D and processing the LOMR application through FEMA. The first phase LOMR was approved by FEMA and the second phase is ongoing.

**Robinson Mine Condition Use Permit Modification, Robinson Sand and Gravel, Inc. Placer County, California.** Served as the drainage lead to prepare a preliminary drainage study assessing the drainage conditions for a proposed expansion of the operations. Task also included an onsite stormwater retention capacity analysis and recommendations to prevent storm water discharges.

**Little Metcalf Meadow Restoration Project, Inland Empire Resources Conservation District, Big Bear, California.** Served as the engineering lead for the re-grading of portion of the Little Metcalf Meadow to mimic predevelopment conditions. The analysis included conducting a hydrology analysis and a 2-D HEC-RAS hydraulic model to assess how flows traversed the meadow. The project included adding a small berm to protect private property to maximize the restoration of the meadow.

**Nelson Sloan Reclamation Project, California State Parks, San Diego, California.** Served as engineering lead on the preparation of 65% plan for the reclamation project for a 146-acre abandoned sand and gravel quarry. The project includes 6 phases where materials from neighboring channel and basin maintenance project will be processed and placed to return/restore the site to a natural or environmentally useable state. Once completed, the area will be restored back to a natural condition and may be included in the local county trail system. Erosion and environmental concerns were reviewed and the project was designed to minimize the impact of the construction on the habitat surrounding the project and the Tijuana River Valley.

**Foss Lake Preserve Wetlands Restoration Project, County of San Diego Department of Environmental Health, Oceanside, California.** Served as the lead engineer for the drainage and stormwater reports to support the remediation design of Foss Lake. The proposed project restores native wetland vegetation communities and enhances wetland habitat function while concurrently reducing or eliminating the current vector problem. The project includes upsizing the existing culvert under Douglas Drive. The analysis consisted of floodplain modeling of the project area and a portion of the FEMA mapped Pilgrim Creek at the downstream end of the project site to verify the project did not have a significant impact on the floodplain elevation. A SWQMP and SWPPP were also prepared for the project.

# Jane Gray

**ENVIRONMENTAL SPECIALIST, PROJECT MANAGER**

Jane Gray is an environmental specialist and project manager with 25 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

**Groundwater Sustainability Agency Engagement and Facilitation Services, Cuyama and San Antonio Groundwater Basins, California.** Provided engagement and facilitation services for the formation of Groundwater Sustainability Agencies (mandated under the 2014 Sustainable Groundwater Management Act) in the Cuyama and San Antonio Groundwater Basins. The project was an 18-month process working with all eligible local agencies, agricultural interests, and the public to form new governmental agencies for the judicious apportioning of groundwater in a collaborative and sustainable manner.

**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.

**San Luis Obispo Countywide IRWM Program, San Luis Obispo County Department of Public Works, California.** Led the public and stakeholder Outreach, communication, education and engagement process, writing the Communications Plans, Stakeholder Outreach Plan for inclusion in the IRWM and drafted other sections of the overall IRWM Plan for conformance with current DWR standards. Spearheaded the agricultural outreach, rural outreach and DAC outreach in the IRWM Region. Also assisted the SLO Region on the 2014 Drought Grant project solicitation and application.

**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



**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*

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 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.

**Public and Stakeholder Outreach, Planning and Land Use Department, Fresno County, California.** Led a regional outreach effort to farmers, ranchers, agriculturalists, conservation districts, tourist operators, and the public to facilitate development and implementation of an agricultural tourism ordinance. The outreach included a sustained effort of meetings, workshops, and charrettes to elicit input and craft a responsive, flexible, and industry- and public-supported ordinance for the county. Successfully developed relationships, fostered understanding of the process, and was able to build consensus within the community. Also wrote the agricultural tourism ordinance adopted by the county.

**Public and Stakeholder 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.

**Public and Stakeholder 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.

**Santa Barbara Countywide IRWM Plan Update, SBCWA, Santa Barbara County, California.** Part of the consultant team preparing the Update to the 2007 Santa Barbara IRWM Plan. Specifically, led the Public and Stakeholder Outreach process, writing the Stakeholder Outreach Plan for inclusion in the IRWM and drafting other sections of the overall IRWM Plan for conformance with current DWR standards. Spearheaded the agricultural outreach, tribal outreach and serves as the liaison to the land use entities in the IRWM region. In addition, has been a Region representative on the Water Bond Coalition and has worked with local and statewide elected officials on the measure. Presented at the 68th Annual CARCD Meeting on the IRWM process and the nexus between IRWM, Rural and Agricultural Land and Water Uses and the role of RCD's in bridging some of the gaps and has been involved in other public presentations on the linkage between water use and land use in jurisdictional planning.

# Nicole Peacock, PE, PG

## ENVIRONMENTAL ENGINEER, GEOLOGIST

Nicole Peacock is an environmental engineer and geologist with 23 years' experience. Ms. Peacock performs numerous tasks dealing with hazardous waste investigation and remediation projects, including soil, soil vapor, and groundwater investigation, as well as remediation and litigation support and cost allocation among potentially responsible parties (PRPs) for hazardous waste sites. She also provides Phase I and II Environmental Site Assessments (ESAs), school site assessments, landfill monitoring, and environmental compliance.

## Project Experience

**Hazards Assessment and Environmental Services for Vallejo Marine Terminal Project, City of Vallejo, California.** Performed a hazards assessment as part of a California Environmental Quality Act (CEQA) project for a former industrial site in Vallejo. The assessment included evaluation of site contamination due to former chemical use and storage. Dudek also evaluated impacts from the proposed project, such as those associated with the dredging of potentially contaminated sediment and the excavation of potentially impacted soils.

**McKinley Village Environmental Impact Report Hazards Assessment, Thomas Law Group, Sacramento, California.** Performed a hazards assessment for a CEQA project for an undeveloped site in Sacramento. Evaluated the impacts of the adjacent municipal landfill on the proposed development at the site.

**Hazards Assessment for City of Santa Cruz, Santa Cruz, California.** Performed a hazards assessment for a CEQA project for a former manufactured gas plant site in Santa Cruz. The project site was undergoing remediation under Department of Toxic Substances Control (DTSC) oversight. Evaluated the impacts of the proposed project on the on-going remediation at the site.

**Trenching Oversight, Los Angeles, California.** Conducted third-party monitoring of trenching activities at an oil and gas field. Evaluated excavated soils to identify potential contaminated materials requiring segregation. Characterized the segregated material for proper disposal. Prepared a memorandum documenting the monitoring activities and characterization.

**Construction Oversight and Soil and Groundwater Management Plan, City of Monterey, California.** Prepared a Soil and Groundwater Management Plan and implemented the plan through construction oversight and waste management for the City of Monterey. Completed waste profiles for landfill disposal of soils and coordinated the groundwater results with the local sewer district for sewer discharge of dewatered groundwater. Prepared a Health and Safety Plan and evaluated health and safety during field work. Oversaw construction oversight, including monitoring air for volatiles and dust and screening soils and groundwater in the field for proper off-site disposal.



### Education

*University of California,  
Los Angeles  
BS, Civil and  
Environmental  
Engineering/Geology*

### Certifications

*Professional Civil  
Engineer (PE),  
CA No. 68775*

*Professional Geologist (PG),  
CA No. 8553*

*Certified Hydrogeologist,  
CA No. 940*

**Plating Shop Removal Action and Litigation Support, Fullerton, California.** Removed plating shop waste liquids and solids under Environmental Protection Agency (EPA) oversight. Conducted soil and concrete sampling following the waste removal. Prepared a Waste Removal Completion Report for submittal to EPA and local agencies. Participated in a settlement mediation among PRPs for volatile organic compound-contaminated groundwater remediation costs.

**Groundwater Monitoring and Reporting, Battery Recycling Facility, Los Angeles County, California.** Performed quarterly groundwater monitoring and reporting under DTSC oversight at a former battery recycling facility. Additional tasks included oversight of well redevelopment and evaluation of pressure transducer data and groundwater elevation trends.

**Newport Beach Aerospace Facility Studies, Raytheon Systems Co., Newport Beach, California.** Performed two pilot studies at a Newport Beach facility contaminated with chlorinated solvents. Implemented in situ chemical oxidation using potassium permanganate, and enhanced in situ bioremediation by injecting ethanol as an electron donor for existing bacteria.

**Underground Storage Tank (UST) Remediation, Pomona, California.** Conducted remediation of the former UST area of the city yard using soil vapor extraction. Soil vapor extraction was conducted to reduce concentrations of gasoline-related contaminants in the subsurface at the site associated with a former gasoline UST at the site. Confirmation soil sampling was conducted.

**Pump and Treat Facility, Kearney – KPF, Stockton, California.** Performed quarterly groundwater monitoring at a chlorinated solvent and 1,4-dioxane-contaminated site in Stockton. Installed groundwater monitoring wells. Prepared groundwater monitoring reports and a Feasibility Study for site remediation.

**Former Petroleum Refinery Environmental Consulting, Confidential Client, Ventura County, California.** Managed waste removal during petroleum refinery decommissioning under EPA oversight. Conducted soil sampling and removal of petroleum hydrocarbon-impacted soil and polychlorinated biphenyl-impacted soil. Removed a former oil UST under County of Ventura oversight.

**Marley Monitoring Reports, SPX Cooling Technologies, Stockton, California.** Prepared a groundwater monitoring report and a Five Year Review for a metals-impacted site in Stockton.

**Naval Air Station (NAS) North Island Solid Waste Management Units 87 and 132 Site Investigation (SI), San Diego, California.** Served as project manager for the environmental investigation of a suspected former wash area believed to be contaminated with pesticides and a metals contaminated site at NAS North Island. Coordinated the site investigations, including historical research and soil and groundwater sampling; coordinated and prepared the analytical data set for risk assessment; reviewed the risk assessment results and the comparison of data to water quality objectives with DTSC, Regional Water Quality Control Board, and the client; and completed the SI report. Helped plan an interim remedial action for the metals-impacted site involving removing a layer of metals debris and soil. Coordinated meetings with DTSC and the RWQCB and received regulatory concurrence with no further action following the interim remedial action.

**Groundwater Contamination Litigation Support, Torrance, California.** Prepared a declaration regarding trichloroethylene (TCE) contaminated groundwater originating from an adjacent site in Torrance, California. Evaluated groundwater flow directions, concentration trends, and historical uses at the site and the adjacent former industrial site. Conducted third-party evaluation of the adequacy of the investigation and remediation.

# Josh Saunders, AICP

**VISUAL RESOURCE SPECIALIST**

Josh Saunders (*JOSH SAHN-ders; he/him*) is a visual resource specialist with 16 years' experience in the research, coordination, and preparation of environmental documents subject to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Mr. Saunders provides analytical, technical, and project management support on a variety of projects and environmental topics, including land use and recreation resource analyses. Since joining Dudek, Mr. Saunders has specialized in the preparation of aesthetic and visual resource analyses.

Mr. Saunders's capabilities include field investigations and existing setting documentation; sensitive receptor and key observation point/key view identification; preparation of focused aesthetic memoranda; preparation of detailed analyses and technical reports in accordance with CEQA Appendix G thresholds and/or established regional or local guidelines; regulatory setting research; characterization of impacts and visual effects in a succinct, understandable style; and development of appropriate and successful mitigation measures. Mr. Saunders also works collaboratively with Dudek's design professionals to prepare photo-realistic visual simulations.

## Project Experience

**Nelson Sloan Quarry Restoration and Beneficial Reuse of Sediment EIR, California Department of Parks and Recreation, California.** Served as project manager for the EIR, technical reports, and grading and revegetation plans that examine the beneficial reuse of excess managed sediment from Tijuana River Valley sources towards the reclamation of the old Nelson Sloan Quarry and creation of new terrain and habitat. The multiphase project would occur over a maximum 15-year time frame and would include the construction of broad landforms that would be vegetated with coastal sage scrub. The project also includes an operations and management plan to oversee project operations (including sediment processing and participatory agencies) and support for a multijurisdictional agreement. Mr. Saunders coordinated with multiple subconsultants to prepare necessary technical investigations and reports, including a construction noise analysis, Phase I environmental site assessment, mineral resources land valuation report, and desktop geotechnical investigation. Also led the April 2019 Notice of Preparation public meeting and managed the preparation of two contract augment amendments to address unforeseen quino checkerspot butterfly protocol surveys and reporting needs and California Department of Parks and Recreation-requested 85% grading and revegetation plans.

**Sand Mining Project Visual Resources Report, Confidential Client, San Diego County, California.** Serving as lead visual specialist in the preparation of the visual resources report for this sand mining project. The project proponent is proposing to extract and process approximately 4.8 million cubic yards (CY) (7.05 million tons) of material, with approximately 3.8 million CY (5.7 million tons) of marketable aggregate produced for sale over a



**Education**

*New School of Architecture + Design  
MS, Architecture  
(Landscape Architecture concentration)*

*University of California, San Diego  
BA, Urban Studies and Planning*

**Certifications**

*American Institute of Certified Planners (AICP)*

**Professional Affiliations**

*American Planning Association*

*Association of Environmental Professionals*

10-year period. Extraction operations would be limited to a maximum production of 380,000 CY (570,000 tons) of construction grade aggregate per calendar year. Sand mining activities would be conducted in three phases over a period of 10 years. As proposed, aggregate mined on site would be sorted and processed at a centrally located processing plant. Following the County of San Diego's detailed template for visual resource reports for privately initiated projects, the visual resources report includes a descriptive assessment of the existing visual environment and viewer response to changes in the setting. Identified candidate key viewpoints from which to assess project visual change and effects to views and coordinated the selection of supplemental key views with the County of San Diego. Also coordinated with the project landscape architect to ensure that vegetative growth was accurately depicted for plantings in post-reclamation areas. Key issues included contrasts with existing visual character during site preparation, active sand mining, and vegetative maturity; impacts to scenic vistas due to vegetation removal and sand mining activities; and conflicts with visual protection policies in the local community plan.

**San Jacinto Wildlife Area Land Management Plan EIR, California Department of Fish and Wildlife, California.** Prepared the recreation, traffic and circulation, and utilities and service systems section of the EIR. The project contemplates and evaluates land use and management changes to the 19,000-acre San Jacinto Wildlife Area, which supports a diverse array of biological resources, including habitats associated with the San Jacinto River floodplain and the San Jacinto foothill region. In addition to conservation, the San Jacinto Wildlife Area provides active and passive recreational resources, including waterfowl and upland game hunting, bird watching, hiking, hunting dog training, horseback riding, nature study, photography, and mountain biking. Coordinated closely with Wildlife Area staff and California Department of Fish and Wildlife staff to ensure resources were adequately evaluated.

**University of California (UC) Berkeley Softball Field EIR, Berkeley, California.** Served as lead visual resource specialist for the intercollegiate athletic softball field project that includes the renovation of a softball field, fan concourse, team facilities, lighting, and scoreboard. Primary tasks involved evaluation of visual change and light trespass off the project site and into the nearby residential community.

**UC Berkeley Clark Kerr Campus Beach Volleyball EIR, Berkeley, California.** Served as lead visual resource specialist for the intercollegiate athletic beach volleyball facility project involving the construction of new beach volleyball courts, lighting, scoreboard, spectator area, and supporting team and locker rooms. Primary tasks involved evaluation of visual change (including the removal of existing mature trees) and light trespass off the project site and into the nearby residential community.

**Belden Barns Farmstead and Winery EIR, Sonoma County, California.** Served as lead visual resource specialist for the construction and operation of the project, which includes development of a winemaking, hospitality, and farmstead food production facility.

**Municipal Waterways Maintenance Program, City of San Diego Public Utilities Department, California.** Provided technical support and served as technical lead for the program EIR visual effects and neighborhood character analysis for the Municipal Waterways Maintenance Program. To maintain the system's effectiveness, the Municipal Waterways Maintenance Program identifies specific activities, methods, and procedures that will guide ongoing maintenance and repair of more than 100 specific facilities, including natural waterways, channels, drainage structures, and basins located throughout the City of San Diego. The Municipal Waterways Maintenance Program provides a comprehensive approach to identify and regulate maintenance and repair activities within open stormwater facilities while streamlining the permitting process. Mr. Saunders worked collaboratively with City of San Diego staff to develop an appropriate programmatic approach for the analysis, which focused on those facilities most likely to result in adverse visual effects based on proximity to sensitive receptors, available scenic resources, conflicts with General Plan and community plan goals and policies, and severity of visual change.



# Matthew Morales

**AIR QUALITY SPECIALIST**

Matthew Morales is an air quality specialist with 18 years’ experience preparing technical analyses for numerous planning and environmental projects related to development, natural resource management, and facility expansion. Mr. Morales is trained in air quality, including toxic air contaminants (TACs) and greenhouse gas (GHG), and he is adept at applying air quality models, such as the California Emissions Estimator Model, Caline4, AERSCREEN, AERMOD, and HARP 2, to perform quantitative analyses for National Environmental Policy Act and California Environmental Quality Act (CEQA) environmental documents, such as environmental impact reports (EIRs), initial studies (ISs), and mitigated negative declarations (MNDs).



**Education**

*University of California, Davis  
BS, Environmental Toxicology*

**Professional Affiliations**

*Association of Environmental Professionals  
Air and Waste Management Association*

## Project Experience

**Station Avenue Project – Central Rohnert Park Priority Development Area Plan EIR Consistency Review, City of Rohnert Park, California.** The Station Avenue Project is within the Central Rohnert Park Priority Development Area Plan area. This analysis was prepared to evaluate the consistency of the project with the Priority Development Area EIR. The project would remove the two existing buildings (former State Farm Insurance building and City’s Corporation Yard), surface parking lots, trees, and grass areas and would result in the construction of a central business district, urban neighborhood, and new downtown area for the city. As part of the consistency review, an HRA was performed that assessed potential cancer and chronic health risk at existing residences proximate to the site, as well as operational health risk for the new residents associated with exposure to TACs from major roadways and the adjacent Sonoma-Marin Area Rail Transit operations.

**Belden Barns Farmstead and Winery EIR, Sonoma County, California.** As the air quality analyst, assessed the criteria air pollutant and GHG emissions associated with construction and operation of the project, which includes development of a winemaking, hospitality, and farmstead food production facility.

**Roberts’ Ranch Specific Plan EIR, City of Vacaville, California.** As the air quality analyst, assessed the criteria air pollutant emissions associated with construction and operation of the Roberts’ Ranch Specific Plan land uses in the City of Vacaville.

**Grapevine Project Air Quality and GHG Technical Report, Tejon Ranch Corporation, Kern County, California.** Prepared the air quality and GHG emissions technical report for the project. The Grapevine Specific Plan project, which is located in the west-central portion of 270,000-acre Tejon Ranch, would be developed as a residential community and employment center within 4,780 acres of the 8,010-acre property. The project, which includes up to 12,000 residential units and 5.1 million square feet of commercial and light industrial land uses (including a community college and medical campus), is designed as a series of conveniently located village centers, each composed of a mix of housing, neighborhood-serving retail and office uses, schools, parks, and community services. Specific tasks include construction and operational criteria air pollutant and GHG emissions estimates, industrial source emissions calculations, odor assessment, Valley Fever assessment, and other air quality topics.

**Avram Apartments Air Quality and GHG Technical Memorandum, City of Rohnert Park, California.** Served as air quality analyst. Assessed the criteria air pollutant, GHG, and TAC emissions associated with the construction and operation of the Avram Apartments project. A construction health risk assessment was prepared to estimate potential risk of proximate sensitive receptors from exposure to diesel exhaust from construction equipment and trucks. An operational health risk assessment was also prepared to estimate potential risk of on-site residents to diesel particulate matter from truck traffic on Highway 101.

**Oakmont Senior Assisted Living Facility IS/MND, City of Novato, California.** As the air quality analyst, assessed the criteria air pollutant and GHG emissions associated with construction and operation of the proposed assisted living community within the City of Novato.

**Clearwater at Sonoma Hills Assisted Living and Memory Care Facility IS/MND, City of Rohnert Park, California.** As the air quality analyst, assessed the criteria air pollutant and GHG emissions associated with construction and operation of the project, which includes development of an assisted living and memory care facility within the City of Rohnert Park.

**Residences at Five Creek Project IS/MND, City of Rohnert Park, California.** As the air quality analyst, assessed the criteria air pollutant, GHG, and TAC emissions associated with the construction and operation of the Residences at Five Creek mixed-use and City public safety and public works facility. A construction health risk assessment was prepared to estimate potential risk of proximate sensitive receptors from exposure to project-related diesel exhaust from construction equipment and trucks. A cumulative operational health risk assessment was also prepared to estimate potential risk of on-site residents to TACs from permitted stationary sources within 1,000 feet of the project site.

**Bellevue Ranch 7 Project IS/MND, City of Santa Rosa, California.** As the air quality analyst, assessed the criteria air pollutant and GHG emissions associated with construction and operation of the project, which includes development of 30 single-family homes within the City of Santa Rosa.

**Creative Arts and Holloway Mixed-Use Project EIR, San Francisco State University, San Francisco, California.** The proposed project includes construction of new housing, neighborhood-serving retail, and student support services on the south side of Holloway Avenue, and construction of the Creative Arts replacement building and concert hall on the north side of the Holloway Avenue/Font Boulevard intersection. The project would also include preparation and implementation of design guidelines, transportation and parking improvements, utility connections, storm drainage improvements, landscaping, and lighting. Prepared the air quality and GHG chapters of the EIR for the project.

**Performing Arts and Culinary Services Facility Project IS/MND, Woodland Community College, Woodland, California.** The proposed project includes construction of a new 29,118-square-foot Performing Arts and Culinary Services Facility, which will provide for a new facility to consolidate and expand space for the Woodland Community College's Performing, Fine Arts and Speech programs while creating space for a new Culinary Arts program. Prepared the air quality and GHG analyses for the project.

**San Pablo Municipal Broadband Project IS/MND, San Pablo, California.** The proposed San Pablo Municipal Broadband Project includes the installation of a fiber-optic ring, spur lines (or running lines), and aggregators that connect to the fiber-optic ring infrastructure. From these aggregators (either in prefabricated fiber huts or existing equipment rooms in existing commercial buildings), the fiber-optic cables would travel along existing streets (below ground) into vaults or utility cabinets and to and from the handholes/cabinets directly to customers. Prepared the IS/MND sections to address air quality and GHG emissions impacts of the project.

# Mike Henry, PhD

## SENIOR ECOLOGIST

Mike Henry is a senior ecologist with 23 years' experience involving management and analysis for a variety of biological research projects, including large-scale habitat conservation planning under Section 10 of the federal Endangered Species Act (FESA), watershed analysis, and a range of project- and program-level documents in compliance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). Dr. Henry has served as a project manager of biological resource investigations and environmental documents for a wide range of federal and municipal projects, including a several utility-scale solar photovoltaic (PV) developments, a massive land acquisition and airspace establishment for a Marine Corps base in the Mojave Desert, beach restoration and managed retreat projects in the City of Malibu and Santa Barbara County, and an oil and gas development project in Santa Barbara County. He has published his biological research in international peer-reviewed journals and presented findings at international conferences.

## Project Experience

### **South Sacramento Habitat Conservation Plan (HCP) and Environmental Impact Study/Environmental Impact Report (EIS/EIR), County of Sacramento, California.**

Served as senior ecologist and project manager to prepare an HCP covering 325,000 acres south and east of the City of Sacramento. The HCP will permit incidental take of federally and state-listed species from covered activities. Assisted in overall document management and quality control, prepared technical analyses of effects of covered activities and benefits of HCP conservation to covered species, and developed a framework for a comprehensive monitoring and management plan to track HCP implementation and species outcomes. Also served as project manager for preparation of the EIS/EIR analyzing the HCP. Coordinated regularly with the County of Sacramento; responsible agencies, including the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and U.S. Army Corps of Engineers (ACOE); and stakeholder groups, such as local land trusts and environmental organizations.

### **Feather River Regional Permitting Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS), Department of Water Resources, California.**

Serving as the deputy project manager for the EIR/EIS analyzing the California Department of Water Resources integrated species and aquatic resource permitting effort for the Feather River region. This includes analysis of operations and maintenance activities as well as major improvement projects in the floodplain. Covered species include anadromous fishes under the jurisdiction of the National Marine Fisheries Service (NMFS), as well as aquatic and terrestrial species under the jurisdiction of the USFWS and CDFW. This project involves close coordination with multiple federal, state and local agencies and authorities to ensure the EIR/EIS analysis meets the regulatory compliance needs of all responsible and trustee agencies.



#### **Education**

*University of California, Santa Barbara  
PhD, Ecology, Evolution, and Marine Biology, 2008  
BS, Aquatic Biology, 2001*

#### **Certifications**

*Graduate Program in Management Practice, 2007*

#### **Professional Affiliations**

*National Habitat Planning Coalition*

*Superior California Chapter of the Association of Environmental Professionals (AEP)*

*The Wildlife Society*

**Capitola Beach Flume and Jetty Repairs Biological Evaluations and Surveys, City of Capitola, California.** Biological resource lead in support of repairs to the existing flume and jetty than help in management of a brackish lagoon. Services include preparation of a Biological Technical Report analyzing effects on special-status fish species such as tidewater goby, presence absence surveys for black abalone, and general permitting support.

**Climate Action Plan, City of Santa Barbara, California.** Served as project manager assisting the City of Santa Barbara in development of their first Climate Action Plan. Activities included preparing a comprehensive inventory of the community's greenhouse gas (GHG) emissions for 3 different baseline years, including emissions associated with the City's airport and substantial commuter traffic. Other activities included projections of emissions for 2020, 2030, and 2050 based on the City of Santa Barbara's recently adopted General Plan, quantifying the potential mitigating effects of adopted City policies, developing a program for periodic updates of the Climate Action Plan, and participating in the City Council hearing for the Plan. The Climate Action Plan was approved in October 2012.

**General Plan Update EIR, City of Santa Barbara, California.** Served as primary analyst to the General Plan update process, including a review and update of City of Santa Barbara's policies that address transportation, housing, sustainable development, environmental protection, and community character and design. The Program EIR for this update assessed the impacts of different growth scenarios and alternative policy options for comparative environmental effects throughout the City of Santa Barbara. Was lead analyst for the EIR's GHG and climate change analysis, which was the first General Plan EIR GHG analysis to not receive requests for revisions from the California Attorney General's office. This analysis included characterization of 2 baseline years, backcasting of emissions to 1990, and quantification of 2030 emissions for five alternative development scenarios. Emissions from the municipal airport, solid waste disposal, water and wastewater pumping, and typical sources, such as cars and electricity generation were included. In concert with the quantitative GHG analysis, prepared an overview of climate change-related impacts to the City of Santa Barbara over the General Plan timeline, including issues of public concern, such as sea-cliff retreat and changes in water availability. The Program EIR was developed in close cooperation with City of Santa Barbara staff in an iterative process concurrent with the development of the Plan and was certified by the Santa Barbara City Council.

**Climate Action Plan, DPW, County of San Diego, San Diego, California.** Served as lead analyst. Assisted the DPW in their contribution to the County of San Diego's Climate Action Plan, identifying the DPW activities that generate GHGs as well as the DPW programs and projects that would assist the County in reducing GHG emissions and meeting regulatory and community goals.

**Broad Beach Restoration Project Analysis of Impacts to Public Trust Resources and Values, California State Lands Commission, City of Malibu, California.** Served as deputy project manager for the environmental document that evaluated the potential environmental impacts of installing emergency rock revetment and dredging and importing 600,000 cubic yards of sand to re-establish a wide sandy beach backed by a dune system along Broad Beach in the City of Malibu. Led the analysis of key issues, including marine and terrestrial biological resources and water quality, with a particular focus on impacts to these resources from marine vessel and truck traffic.

**Goleta Beach County Park Managed Retreat Project 2.0 EIR, County of Santa Barbara, Goleta, California.** Served as deputy project manager of EIR that analyzed the effects of removing 1,200 feet of unpermitted revetment, demolition of parking lots, and relocation of essential utilities and a bike path landward of the potential coastal process zone. This managed retreat option attempted to maintain the Goleta Beach County Park while allowing for fluctuations in beach width related to sand supply and oceanographic cycles, such as the Pacific Decadal Oscillation and El Niño Southern Oscillation. Resource areas requiring special attention included recreation, coastal processes, utilities, and public facilities. This EIR was certified in 2014.

# Laura Burris

## SENIOR BIOLOGIST, BOTANIST

Laura Burris is a biologist with more than 15 years of experience in terrestrial biology. Ms. Burris specializes in botanical surveys and the ecological study of vegetation communities for application in habitat restoration, mitigation, and conservation. She is knowledgeable about the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) and their processes, and is skilled in managing and drafting environmental documents such as biological resource assessments, wetland delineation reports, arborist reports, habitat restoration plans, technical sections of environmental impact reports (EIRs) and environmental impact statements (EISs), and regulatory permit applications.

In addition to botanical expertise, Ms. Burris has extensive training and experience in reconnaissance and protocol level surveys and construction monitoring for sensitive wildlife species, including Swainson's hawk (*Buteo swainsonii*), burrowing owl (*Athene cunicularia*), sensitive bat species, sensitive butterfly species, California tiger salamander (*Ambystoma californiense*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylei*), western pond turtle (*Actinemys marmorata*), and California vernal pool branchiopods. She has conducted focused surveys for butterfly larval host plants for Mission blue butterfly (*Icaricia icarioides missionensis*), Callippe silverspot (*Speyeria callippe callippe*), and Bay checkerspot butterfly (*Euphydryas editha bayensis*).

## Project Experience

**Habitat Mitigation and Monitoring Plan, Brooktrails Community Services District, Mendocino County, California.** Served as primary botanist and permitting specialist. In compliance with the 5-year monitoring plan for tree and wetland mitigation, conducted surveys to assess the progress of mitigation plantings in the community. Compiled and analyzed data to produce annual reports in compliance with the CWA Section 404 permit and Section 1600 Streambed Alteration Agreement (SAA). Consulted with local stakeholders, the Community Services District, CDFW, and ACOE to ensure all success criteria would be met within the specified time frame.

**Fee-to-Trust Project-Biological Assessment and Environmental Assessment, Coyote Valley Band of Pomo Indians, Mendocino County, California.** Served as project biologist. Conducted preliminary research and general biological resources surveys for the U.S. Bureau of Indian Affairs to support an application from the Coyote Valley Band of Pomo Indians for 6 acres of land to be placed into Federal trust. Drafted the biological evaluation with recommendations for avoidance and minimization measures for sensitive species and waters of the United States (U.S.) in the vicinity of the project site. Also provided technical assistance to the Bureau of Indian Affairs throughout the Federal ESA Section 7 consultation process with USFWS.



### Education

Humboldt State University  
BS, Biology, 2007

### Certifications

CDFW, Voucher Plant  
Collector Permit 2081(a)-  
20-010-V

CRAM Practitioner,  
Riverine and Depressional  
Modules

40-Hour Wetland  
Delineation Training,  
Wetlands Training  
Institute 2014

Federal Recovery Permit  
for California Red-Legged  
Frog, California Tiger  
Salamander, and Listed  
Large Branchiopods –  
Pending

### Professional Affiliations

California Native Plant  
Society

The Wildlife Society

Northern California  
Botanists

**Denniston/San Vicente Creeks Water EIR, Coastside County Water District, California.** Served as deputy project manager and project biologist. Prepared and performed senior review of multiple sections of the project's CEQA document, biological survey reports, and supporting technical documents. Assisted the project manager in preparing the EIR for improvements to existing stream diversions to enable the Coastside County Water District to use current water rights on the San Vicente and Denniston Creek. Assisted in identifying biological constraints in the project vicinity and in formulating alternatives to the project. Responsible for managing the EIR team, including in-house specialists and subconsultants; managing the project budget; assessing biological resources for the CEQA evaluation; and ensuring that the CEQA evaluation was progressing on time and on budget.

**Huichica Hills Ranch Off-Stream Storage Pond Conversion and Stream Restoration, Vino Farms, Sonoma County, California.** Served as deputy project manager and project biologist. Managed all regulatory permitting and regulatory agency consultations. Conducted general biological surveys, assisted in the delineation of waters of the U.S., and drafted a biological technical memorandum in support of a categorical exemption and permit applications. Also drafted habitat mitigation and monitoring plan for restoration and subsequent monitoring of wetlands impacted as a result of the project.

**Pipeline Pathways, Pacific Gas & Electric Company (PG&E), Greater San Francisco Bay Area, California.** Served as primary botanist and conducted focused botanical surveys and butterfly larval host plant mapping for Mission blue butterfly, Callippe silverspot, and Bay checkerspot butterfly along gas pipelines where vegetation management was scheduled. Documented occurrences of rare plant species and larval host plants, drafted technical memoranda, and provided technical guidance for avoidance and minimization of potential impacts to rare species as a result of vegetation management.

**Lytton Residential Development Technical Biological Studies, Sonoma County, California.** Assisted with protocol-level surveys for the Sonoma population of California tiger salamander and California red-legged frog in compliance with a biological opinion issued by the U.S. Fish and Wildlife Service (USFWS) for land proposed to be placed into federal trust for the Lytton Rancheria of California. In addition, for several consecutive years, conducted focused rare plant surveys on the property in accordance with the Santa Rosa Plain Conservation Strategy.

**Potrero Hills Landfill Management and Monitoring Plan Implementation, Solano County, California.** Served as project biologist and botanist. Conducted qualitative and quantitative wetland plant establishment monitoring and special-status plant species monitoring for federally listed Contra Costa goldfields (*Lasthenia conjugens*). Performed egg, larval, and adult surveys for California tiger salamander. Conducted drift net and pit-fall trap monitoring for California Tiger Salamander exclusion area. Performed general wildlife surveys, including for tricolored blackbird (*Agelaius tricolor*). Conducted wet-season surveys for listed large branchiopods including conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), and tadpole shrimp (*Lepidurus packardii*).

**Placer County Government Center Master Plan EIR, Placer County, California.** Served as botanist and wetland delineator. Performed wetland delineation and drafted technical wetland delineation reports. Provided technical expertise on botanical resources, vegetation communities, and permitting. Assisted with drafting the EIR for the Master Plan.

**California Red-legged Frog Pre-construction Surveys and Construction Monitoring at Portola Redwoods State Park, La Honda, California.** As biologist, Ms. Burris coordinated and conducted pre-construction surveys for California red-legged frog in Portola State Park in support of an infrastructure improvement project. She conducted protocol-level surveys, drafted technical reports, created worker environmental awareness training materials, presented a training to construction crews, and coordinated daily biological monitors to ensure no effects to protected species.

# Jessica Baldrige

## BIOLOGIST / ENVIRONMENTAL PLANNER

Jessica Baldrige has experience conducting and managing a variety of surveys for commercial, utility, and federal projects including botanical surveys, wildlife surveys, special-status species habitat assessments, vegetation mapping, biological monitoring, remote camera surveys, rare plant surveys (primarily in the Mojave Desert), re-vegetation monitoring, protocol surveys for special-status species, wetland/jurisdictional delineations, vegetation and stream monitoring, and habitat restoration. She is a strong botanist and has experience surveying for a wide range of wildlife species. Ms. Baldrige also has experience providing environmental assessment of planning projects, drafting the necessary biological resource reports and permitting documents.

## Project Relevant Experience

**Motherlode Force Main Replacement Phase 3A - Jurisdictional Determination, El Dorado Irrigation District, El Dorado Hills, California.** Drafted Aquatic Resource Delineation Report. This analysis includes portions of Segment Phase 1, 2, and 3A of El Dorado Irrigation District's Motherlode Force Main Project involves replacing portions of existing pipeline along Pleasant Valley Road and Buckeye Road in the communities of Shingle Springs and El Dorado, California. The project will include trenching primarily within the existing road prism, with jack and bore under existing stream crossings and a small segment of overland trenching (November–December 2022)

**Riparian Area Restoration, Union Pacific Railroad Company North Dunsmuir Rail Yard site, Dunsmuir, California.** Consulted on the revegetation approach, determined what plant species to incorporate into revegetation plan, how to harvest plants for installation, and planting plan. Project conducting Response Action streambank stabilization and riparian planting and maintenance following previously completed tasks by others, including sediment removal and installation of a stabilized rock toe and installation of reinforced erosion control matting. The Surficial Riverbank Area is a riparian area vegetated with native and invasive species. The riverbank surface contains areas of exposed sediments, cobbles and boulders, and known locations of exposed dried and weathered Bunker C oil material (August–October 2021)

**Environmental Impact Report (EIR) / Environmental Assessment (EA), State Route 1 Gleason Beach Roadway Realignment Project, Caltrans District 04; Sonoma County, California.** The California Department of Transportation (Caltrans) proposes realignment of State Route (SR) 1 at Gleason Beach in Sonoma County to restore the highway and supporting side slope damaged by storms in 1996 and later years. Wrote sections of EIR/EA analyzing impacts associated with the proposed construction of Project. (2015)



### Education

*Humboldt State University  
MS, Natural Resource  
Planning, 2007*

*Trinity College  
BS, Biology, 2002*

### Certifications

*Certified Ecological  
Restoration Practitioner  
(2020)*

*Scientific Collecting  
Permit, CDFG SC-10628*

*Occupational Safety and  
Health Administration  
(OSHA) 30-hour  
Construction Safety and  
Health certified*

*OSHA 10-hour  
Construction Safety and  
Health certified*

### Professional Affiliations

*Society for Ecological  
Restoration*

**Vegetation Restoration Monitoring, Santa Barbara Airport Wetland Restoration Project, City of Santa Barbara; Santa Barbara, California.** Assisted in restoration for 65 acres of wetland, coastal sage scrub, and riparian habitats. Monitoring program consisting of point-intercept transect data collection and maintenance monitoring. Supported the production of annual reports detailing restoration success. (June 2008–June 2010)

**Nesting Bird Surveys, SON 101 Airport Boulevard/Fulton Road Interchange Project, Caltrans; Windsor, California.** Conducted nesting bird surveys prior to vegetation removal to ensure that no active nests were impacted by the project. Provided WEATs (worker environmental awareness training). (February–May 2013)

**Biological Monitoring, Fort Ross Slide Repair Project, Caltrans, Sonoma County, California.** *Environmental Compliance Authorized Biologist* – Provided clearance surveys for the threatened California red-legged frog and monitored when construction work was conducted within potential habitat. Provided WEATs. (August–September 2013)

**Rare Plant Survey, Gleason Beach Roadway Realignment Project, California Department of Transportation (Caltrans); Sonoma County, California.** Performed rare plant surveys within and surrounding proposed project roadway alignment near Bodega Bay, CA. (March–May 2012)

**Biological Assessment, Gleason Beach Roadway Realignment Project, California Department of Transportation; Sonoma County, California.** Drafted Biological Assessment Report for a proposed roadway realignment near Bodega Bay, California. Project could directly affect California red-legged frog and Myrtle's silverspot butterfly. (December 2011–January 2012)

**Environmental Impact Report (EIR), Marine Life Protection Act (MLPA) South Coast Study Region (SCSR), California Department of Fish and Game; Point Conception to Mexico Border, California.** Wrote sections of EIR analyzing impacts of the Fish and Game Commission's Marine Protection Areas (MPAs) located in 2,351 square miles of coastal waters and includes waters and seafloor from the shoreline (mean high tide) to three miles offshore. The project included analysis of the following effected issues areas; air quality, consumptive uses (commercial and recreational fisheries), cultural resources, ecosystems, habitats and species of concern, population and housing, public services and utilities, recreation and research, vessel traffic, and water quality. (August 2010)

**Project Description and Restoration Plan, Western Goleta Slough Wetland Restoration Project, The Land Trust for Santa Barbara County; Santa Barbara County, California.** Supported preparation of environmental documents, including the Project Description and Restoration Plan. Assisted in obtaining environmental permits, including Streambed Alteration Agreement (SAA) with CCC, USACE Section 404 Permit, and Santa Barbara County Coastal Development Permit. (November 2008–November 2010)

**Wetland Delineation and Jurisdictional Determination Report for PCB Remediation – Seacliff Area, Former Hercules Gas Plant, Shell Exploration and Production Company. Gaviota, California.** Managed and performed a wetland delineation for a 0.19-acre site along Cañada de La Heurta. Lead author for wetland delineation report. (June 2010)



# Matt Ricketts

## SENIOR BIOLOGIST

Matt Ricketts (*MAT RICK-ets; he/him*) is a senior biologist with 21 years' experience as a wildlife biologist and conservation planner specializing in biological resource inventories and documentation, special-status species surveys, federal Endangered Species Act (ESA)/California ESA compliance, and environmental impact analysis under the California Environmental Quality Act (CEQA). He is also a skilled field biologist with extensive experience in the San Francisco Bay Area and Sacramento–San Joaquin Delta conducting biological resource site assessments, special-status wildlife surveys (e.g., burrowing owl [*Athene cunicularia*] and Swainson's hawk [*Buteo swainsoni*]), and preconstruction nesting bird surveys.

Mr. Ricketts enjoys the challenge of synthesizing complex scientific and regulatory information into reader-friendly documents and communicating this information to clients, regulatory agencies, and project stakeholders. He has worked on a wide range of project types and sizes under many roles, from construction monitor to meeting facilitator. He therefore understands the importance of balancing technical rigor with practical feasibility in environmental documents and strives to bring this balance to every project he works on.

## Project Experience

**Sustainability Policy and Regulatory Update of the County of Santa Cruz General Plan/Local Coastal Program and Santa Cruz County Code, County of Santa Cruz, California.** Serving as senior biologist. The proposed project is an update to the County's General Plan/Local Coastal Program and associated revisions to the Santa Cruz County Code to implement policies from the Sustainable Santa Cruz County Plan that was accepted by the Board of Supervisors in October 2014. Prepared the biological resources chapter of the draft Environmental Impact Report (EIR) that required synthesis of previous County-level policy EIRs. Analyzed potential impacts of over 30 policy updates on biological resources at a program level. The Administrative Draft EIR is currently under County review. (2021–Ongoing).

**Newell Creek Pipeline Improvement Project, City of Santa Cruz, California.** Serving as senior biologist. The project is being proposed to address structural deficiencies in and improve maintenance access to the existing 9.25-mile Newell Creek Pipeline between Loch Lomond Reservoir and the Graham Hill Water Treatment Plant. Co-authored the biological resource assessment report and biological resources section of the draft EIR (released for public review in November 2021). Upcoming work includes assisting the City with the federal ESA permitting strategy, including determining if the project qualifies for coverage under the City's Operations and Maintenance Habitat Conservation Plan (HCP) (2021–Ongoing).

**County of Santa Clara Solar Panel Installation Project, County of Santa Clara, San Jose to Morgan Hill, California.** Serving as lead biologist. The project consists of the installation of photovoltaic solar panels at 14 County-owned sites between the Cities of San Jose and Morgan Hill to further expand on the County of Santa Clara's renewable



### Education

Eastern Kentucky University  
MS, Biology/Applied Ecology, 1999

University of Illinois at Urbana-Champaign  
BS, Natural Resources and Environmental Sciences, 1997

### Certifications

U.S. Fish and Wildlife Service, ESA Section 10(a)(1)(A) Recovery Permit No. TE-61177B-0

### Professional Affiliations

The Wildlife Society

energy portfolio and reduce County emissions from operations. Prepared the biological resource assessment to support CEQA documentation. Currently assisting with the preparation of the Santa Clara Valley Habitat Plan Reporting Form for Public Projects on behalf of the County. (2021–Ongoing)

**Jewel Lake Long-term Maintenance Study, Balance Hydrologics Inc./East Bay Regional Park District, Berkeley, California.** Serving as senior biologist. The project is a preliminary design and feasibility study for the long-term maintenance of Jewel Lake as an open-water body while improving sediment movement and fish passage through the associated reach of Wildcat Creek. Coordinated field mapping of potential jurisdictional aquatic resources, vegetation communities, and wildlife habitat assessments. Co-wrote the biological resources assessment report. Current tasks include evaluating biological resource tradeoffs for the four design concepts currently under consideration and preparing associated documentation (i.e., decision matrices and technical memorandums). (2020–Ongoing)

**Delta Field Division HCP, California Department of Water Resources, Sacramento-San Joaquin Delta, California.** Serving as senior wildlife biologist. The project involves preparing an HCP pursuant to Section 10 of the federal ESA and associated California ESA permitting pursuant to the California Fish and Game Code for operations and maintenance of the State Water Project within the Delta Field Division. Current tasks include coordinating field surveys for western pond turtle (*Actinemys marmorata*), writing or peer-reviewing HCP species profiles, and providing as-needed technical assistance on survey methodology. (2021–Ongoing)

**Delta Dams Rodent Burrow Remediation Project, California Department of Water Resources, Eastern Alameda and Contra Costa Counties, California.** Serving as senior wildlife biologist. The project is proposed to address dam stability and safety concerns at Clifton Court Forebay in eastern Contra Costa County and Dyer and Patterson Reservoirs in eastern Alameda County. Proposed activities would occur within approximately 117 acres that supports many sensitive resources, including habitat for California red-legged frog, California tiger salamander (*Ambystoma californiense*), burrowing owl, and western pond turtle. Tasks included preparation and coordination of Biological Assessments (BAs), Biological Resources Existing Conditions Report, and an Initial Study section. Coordinating focused surveys for burrowing owls and Swainson's hawks. (2021–Ongoing)

**Santa Cruz Water Rights Project, City of Santa Cruz, California.** Served as biologist. The proposed project would modify water rights to expand authorized place of use, improve existing diversions, extend the City's time to put water to full beneficial use, and provide for underground storage to expand the City's water supply. Conducted field reconnaissance of project-level impact sites and co-authored the biological resources chapter of the EIR. Compiled and synthesized a large amount of available information on Santa Cruz County biological resources and analyzed potential impacts at both project and program levels for a complex project with many components. (2020–2021)

**B.F. Sisk Safety of Dams Modification Project, California Department of Water Resources, Western Merced County, California.** Served as senior wildlife biologist. The project is being proposed in partnership with the Bureau of Reclamation to address dam stability and safety concerns at B.F. Sisk Dam in western Merced County. Proposed activities would occur within an approximately 1,800-acre footprint that supports many sensitive biological resources, including habitat for California tiger salamander and California red-legged frog. From May to December 2020, led preparation of the Biological Resources Existing Conditions Report, California ESA Section 2081 Incidental Take Permit application to the California Department of Fish and Wildlife (CDFW), and Supplemental EIR biological resources chapter. All documentation required collaboration and coordination among multiple biologists and were delivered on schedule and within budget. (2020)

# Elizabeth Meisman

## BIOLOGIST

Elizabeth Meisman (*ih-liz-uh-buhth meis-man; she/her*) is a Biologist with 6 years as an environmental consultant specializing in endangered species consultation, impact analysis, environmental compliance, and special status species surveys. She prepares biological constraints assessments, baseline biological studies, biological assessments for Section 7 Endangered Species Act (ESA) consultation, and other technical documents used in the California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) process. She has extensive training and experience in habitat assessments, protocol surveys, and monitoring for a wide range of special-status species, such as foothill yellow-legged frog (*Rana boylei*), Swainson’s hawk (*Buteo swainsonii*), and northern spotted owl (*Strix occidentalis caurina*).

## Dudek Project Experience

**Delta Field Division Habitat Conservation Plan, California Department of Water Resources.** Served as biologist, assisting in the preparation of the baseline biology report. Also assisted in preparation of memo on Orestimba Creek water rights.

**San Joaquin Field Division Habitat Conservation Plan, California Department of Water Resources.** Coordinated and conducted field work for rare plant surveys.

## Relevant Previous Experience

**Mattole Road PM 5.25 Storm Damage Repair Project, Humboldt County Department of Public Works, Humboldt County, California.** The Humboldt County Department of Public Works proposed to repair the landslide along Mattole Road at Post Mile (PM) 5.25 in a remote region of Humboldt County. Without the proposed repairs, there was substantial safety risk to vehicular traffic and sedimentation into the adjacent Mattole River resulting from the deteriorated road and failing slope. Road repairs involved the installation of rock slope protection on 350 feet of riverbank. Served as lead author of the project’s Natural Environment Study (Caltrans) and ESA Section 7 Biological Assessment. Provided assessments regarding the effects of the project within the Mattole River to federally listed salmonid species including coho salmon (*Oncorhynchus kisutch*), chinook salmon (*Oncorhynchus tshawytscha*), and steelhead (*Oncorhynchus mykiss*). Coordinated frequently with the project manager, client, Caltrans, and federal agencies to avoid impacts to protected species. (2021–2022).

**Kenmar Road and Highway 101 Interchange Project, Humboldt County Department of Public Works, Fortuna, California.** The Humboldt County Department of Public Works proposed to improve traffic operation and safety at a key highway interchange in Fortuna, California. Highway 101 serves as the primary regional roadway in Humboldt County and is critically important to the residents and economy of Fortuna. The existing intersection controls, roadway geometry, and the high volumes of local and regional traffic on Kenmar Road result in poor traffic



### Education

Cal Poly Humboldt  
B.S., Wildlife Conservation  
Biology & Applied  
Vertebrate Ecology, 2016

### Certifications

Associate Wildlife  
Biologist  
Certified Offshore  
Protected Species  
Observer

### Professional Affiliations

The Wildlife Society  
(International, Western  
Section, California North  
Coast Chapter)  
Raptor Research  
Foundation  
Redwood Region  
Audubon Society

operation at and near the interchange. The Project would result in temporary and permanent impacts to delineated one- and three-parameter wetlands. Lead author of the project's Natural Environment Study (Caltrans). Provided assessments regarding the project's likelihood to impact a variety of sensitive and listed wildlife species including coho salmon, chinook salmon, and steelhead. (2021–2022).

**Mattole Road PM 16.15 Storm Damage Permanent Roadway Restoration Project, Humboldt County Department of Public Works, Humboldt County, California.** The Humboldt County Department of Public Works proposed to repair the landslide along Mattole Road at Post Mile (PM) 16.15 in a remote region of Humboldt County. Without the proposed repairs, there was substantial safety risk to vehicular traffic and sedimentation into the adjacent Mattole River resulting from the deteriorated road and failing slope. Road repairs involved the replacement of a culvert. Lead author of the project's Natural Environment Study (Caltrans) and ESA Section 7 Biological Assessment. Provided assessments regarding the effects of the project within the Mattole River to federally listed salmonid species including coho salmon, chinook salmon, and steelhead. Coordinated frequently with the project manager, client, Caltrans, and federal agencies to avoid impacts to protected species. (2020).

**Crow Canyon Road Repair Project at Mile Markers 6.00-6.25, Alameda County Public Works Agency, Alameda County, California.** The Alameda County Public Works Agency proposed to repair the storm-damaged northerly shoulder of Crow Canyon Road between Mile Markers (MM) 6.00 and 6.25 in unincorporated Alameda County. Without the proposed repairs, the road would deteriorate and eventually would become a safety risk to vehicular traffic (and potentially cause sediment to enter the adjacent Crow Creek). Road repairs involved the installation of steel piles and concrete retaining walls. Co-author of the project's Natural Environment Study (Caltrans) and ESA Section 7 Biological Assessment. Provided assessments regarding the project's likelihood to impact a variety of sensitive and listed wildlife species including California red-legged frogs and steelhead. (2020).

## Specialized Training

- Bat Capture Workshop, California North Coast Chapter of The Wildlife Society, 2022.
- California Rare Bumble Bees Workshop, Western Section of The Wildlife Society (2, both virtual and in the field), 2021 and 2022.
- Major Environmental Regulations Workshop, Western Section of The Wildlife Society, 2022.
- Construction Awareness Training for Wildlife Biologists (WILD C.A.T.), Western Section of The Wildlife Society, 2020.
- Intro to Desert Tortoise and Field Techniques Workshops (2, both virtual and in the field), Desert Tortoise Council, 2021 and 2022.
- Endangered Species Act of 1973 Workshop, The Wildlife Society, 2019.
- California Environmental Quality Act 101 for Biologists Workshop, The Wildlife Society, 2019.
- Intro to the California Environmental Quality Act for Wildlife Biologists, California North Coast Chapter of The Wildlife Society, 2019.
- Certified Off-shore Protected Species Observer, PSO eTraining, 2020.
- West Coast Sea Turtle Workshop from the Western Section of The Wildlife Society, 2021.
- Foothill Yellow-legged Frog Ecology and Management Workshop, Western Section of The Wildlife Society, 2018.

# Thomas DeGabriele

## SENIOR AQUATIC ECOLOGIST (FISHERIES LEAD)

Thomas DeGabriele is an aquatic ecologist and fisheries lead with 15 years' experience working on natural resource studies and environmental compliance projects in California, Washington, Oregon, Nevada, and the Carolinas. Most of his work has been in support of hydro-electric relicensing and license compliance projects and in-water heavy civil and restoration construction projects. He has also supported aquatic and terrestrial environmental compliance on multiple large natural gas line projects, floodplain protection improvement projects, and other long linear projects. His expertise includes aquatic and terrestrial special-status species, fish and amphibian population and habitat assessments, topographic and bathymetric survey, hydrology, hydraulic modeling, and water quality.

Thomas is a seasoned project manager and technical study lead, as well as field implementation lead on more challenging fisheries and aquatic resources projects. He has worked on a variety of project types and sizes through his tenure, and in capacities ranging from construction compliance monitoring to agency engagement and workshop facilitator. He has a passion for developing balanced solutions to address project challenges and designing new approaches to answer complex resource management questions.



### Education

Sonoma State University  
BS Ecology, 2006

### Professional Affiliations

American Fisheries  
Society

## Relevant Previous Experience

**Forecast Informed Reservoir Operations (FIRO) Work Plan Viability Assessment, Yuba Feather FIRO, Yuba Water Agency and California Department of Water Resources, Yuba, Butte, Plumas, and Sierra Counties, California.** As project background developer, rapidly compiled project background information for the FIRO assessment of Oroville Dam, including drainage area and topology, land use, climatology, facilities and special features, environmental assets, governing documents, and environmental goals. This rapid effort involved the review and summary components from all Federal Energy Regulatory Commission (FERC) license applications for hydropower projects in the Feather River watershed, basin plans, flood protection plans, and county and forest service planning documents, as well as other data and information sources. (2020)

**Carmel River Reroute Dam Removal, Construction Mitigation and Compliance, Granite Construction Company, San Clemente Reservoir, Carmel River, Carmel Valley, California.** As project deputy, field compliance manager, and National Marine Fisheries Service (NMFS) approved fisheries biologist and water quality lead, managed the continuous day to day operations of a team of up to 10 fisheries biologists rescuing and relocating South-Central California Coast (SCCC) steelhead (*Oncorhynchus mykiss*) from the entire project footprint. Monitored reservoir water quality for the duration of rescue operations each year. Coordinated daily with client and agency personnel. Provided field crew training and safety oversight as needed. Managed all biological and physical data and provided daily summary reports. (2013–2015)

**Reservoir Drawdown Biological Opinion Compliance for the San Clemente Dam Seismic Safety Project, California American Water, Carmel River, Carmel Valley, California.** As deputy project manager, annual report author, and National Marine Fisheries Service (NMFS) approved fisheries biologist and water quality lead, developed annual cost estimates and budgets, permit authorizations, and staff scheduling for continuous field efforts ranging from 2 to 4 months annually. Managed field staff during all South-Central California Coast (SCCC) steelhead (*Oncorhynchus mykiss*) rescue and relocation and water quality monitoring efforts. Assisted a parallel compliance team with California red-legged frog (*Rana draytonii*) rescue and relocation. Managed all logistics and developed annual reports each year. (2009–2013)

**Camp Far West Hydroelectric Relicensing and Instream Flow Study, South Sutter Water District, Lower Bear River, Sutter, Yuba, and Placer Counties, California.** As deputy study lead and survey and modeling lead, led study site selection of two field sites, proposed final 0.75- and 0.9-mile-long 2D instream flow sites for agency approval, developed survey plan for RTK and robotic total station and bathymetric survey methods, managed the field survey effort, and managed and post processed all topographic job files and hydrology data. Developed site surfaces, calibrated models and model simulations, and determined habitat suitability for California Central Valley (CCV) steelhead (*Oncorhynchus mykiss*), fall-run Chinook salmon (*Oncorhynchus tshawytscha*), green and white sturgeon (*Acipenser medirostris* and *A. transmontanus*), and hardhead (*Mylopharadon conocephalus*) at both modeling sites. (2017–2018)

**Tidal and Geomorphic Monitoring for the Hamilton Wetland Restoration Project, U.S. Army Corps of Engineers, Hamilton Wetlands, Marin County, California.** As deputy project manager and geomorphic survey lead, led the topographic and bathymetric survey and tidal influence timing investigation for the project restoration monitoring plan at the 648-acre tidal marsh restoration project. Worked with the previous monitoring firm, retained as a sub-consultant, to facilitate the smooth transition between monitoring efforts. Worked with a licensed coastal engineer to fortify the survey protocol, conduct the sampling, and quality control (QC) the survey data with assistance from a licensed land surveyor. Implemented the use of project specific light detection and ranging (LiDAR) data to supplement and validate Real Time Kinematic (RTK) virtual reference station (VRS) survey data. Assisted the project manager with client progress reports, internal independent quality control (QC) review, and coordination with sub consultants and other project related resource studies. (2016–2017)

**Reservoir Drawdown Biological Assessment for the San Clemente Dam Seismic Safety Project, California American Water, Carmel River, Carmel Valley, California.** As the primary author, drafted the 2012 biological assessment for South-Central California Coast (SCCC) steelhead (*Oncorhynchus mykiss*) for the continuation of reservoir drawdown operations.

**Water Quality and Environmental Compliance for Folsom Dam Auxiliary Spillway Construction, Kiewit Corporation, Folsom Lake, Placer, Elderado, and Sacramento Counties, California.** Served as equipment specialist, water quality specialist and fisheries lead. Scope of responsibility included staff upheaval and transition assurance, long-term water quality monitoring, maintenance of telemetry equipment, and fish salvage associated with shoreline blasting operations. (2013)

**Pre-Relicensing Support for the Kaweah Hydroelectric Project, Southern California Edison, North Fork, Middle Fork, and East Fork Kaweah River, Three Rivers, California.** Served as task manager and data manager. Scope of responsibility included water temperature monitoring, study site establishment, equipment procurement and installation, staff training, maintenance, data assimilation, and reporting. (2013–2014)

# Andy Hatch

## FISH AND WILDLIFE BIOLOGIST

Andy Hatch is a fish and wildlife biologist with 20 years' experience including designing and conducting surveys and developing management and permitting strategies for rare and endangered wildlife and sensitive habitats. Mr. Hatch is also experienced in conducting U.S. Fish and Wildlife (USFWS) consultations and USFWS and California Department of Fish and Wildlife (CDFW) protocol-level surveys for California red-legged frog, California tiger salamander, Foothill yellow-legged frog, burrowing owls, Myotis bats, and other listed species. He holds USFWS 10(a) permits for California red-legged frog, yosemite toad, sierra nevada yellow legged frog, mountain yellow legged frog, and California tiger salamander, and a CDFW Scientific Collecting Permit and Memorandum of Understanding for California tiger salamander and longfin smelt. In addition, Mr. Hatch is well versed in preparing California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) documentation and permitting documents, including biological assessments, lake and streambed alteration agreements, and 404 and 401 permits.

## Relevant Project Experience

**Municipal and Industrial Water Shortage Policy Environmental Impact Statement (EIS) for the Bureau of Reclamation, California.** Led the preparation of the fisheries and wildlife sections of the EIS including detailed analysis of hydrologic and fish habitat data as a subconsultant to CDM Smith. In addition, Provided technical support services for the effects analysis, preferred alternative, support for the biological assessment, and Draft EIS aspects of the project.

**California Department of Water Resources (DWR), Delta Aquatic and Hydrodynamic Technical Support, Delta Counties, California.** Served as a fisheries biologist to support DWR in the implementation of the National Marine Fisheries Service and USFWS Biological and Conference Opinion for the Long-Term Operations of the Central Valley Project and State Water Project for Chinook salmon, steelhead, green sturgeon, and delta smelt. Completed projects include the Georgiana Slough Non-physical Barrier (2011, 2012), current projects include the Clifton Court Forebay Predatory Fish Studies. Provided field support and has prepared permitting documents.

**California High-Speed Rail Merced to Fresno Construction Package 1, Fresno and Madera Counties, California.** Served as an agency approved Project Biologist for the project and produced numerous management plans, conducted preconstruction biological surveys, and led compliance tracking and reporting for the Merced to Fresno Construction Package 1 (CP1) segment of the California High-Speed Rail Project. Approximately 29 miles in length, CP1 includes both biological and cultural resources such as the historic Chinatown in downtown Fresno, vernal pool and seasonal wetland habitat and crossings of the San Joaquin and Fresno Rivers.



### Education

Stanford University  
MS, Biological Sciences, 2000  
BS, Earth Systems, 2000

### Certifications

USFWS Recovery Permit,  
No. TE200340-0

- California red-legged frog
- Yosemite toad
- Sierra Nevada yellow-legged frog
- Mountain yellow-legged frog
- California tiger salamander

CDFW Scientific Collecting  
Permit 007525

CDFW MOU for California  
Tiger Salamander,  
Longfin Smelt

**San Francisco Oakland Bay Bridge East Span Foundation Removal Project, San Francisco and Alameda Counties, California.** Assisted in the preparation and implementation of a caged fish study plan as part of the overall compliance and permitting support services provided as a subconsultant to Kiewit. The caged fish study results will be used to help determine demolition methods and Endangered Species Act (ESA) compliance for removal of the remaining East Span Bay Bridge piers and other Northern California Caltrans projects.

**California Tahoe Conservancy, Blackwood Creek Restoration, Placer County, California.** In addition to helping prepare an IS/MND for the restoration project, led the relocation of fish from an approximate 3,000-linear-foot area of Blackwood Creek. All native fish species were captured using electrofishing equipment and were relocated to other reaches of the creek. During relocation efforts a comprehensive biological and water quality monitoring protocol was implemented to minimize stress on the captured fish. Hundreds of native fish were relocated during this effort including speckled dace, Lahontan redband, Tahoe sucker, and piute sculpin.

**SFPUC, Calaveras Dam Replacement Project EIR and ESA Permitting Assistance, Alameda County, California.** Conducted fieldwork and prepared a habitat assessment for two federally listed species, California red-legged frog and California tiger salamander. All aquatic habitats within the project area and within a 2-kilometer (1.25-mile) buffer surrounding the reservoir were evaluated for potential breeding habitat and recommendations were provided to USFWS.

**Bay Delta Conservation Plan EIR/EIS, Northern and Central California.** Conducted and helped lead giant garter snake, bat, and California red-legged frog surveys throughout the Delta to support the preparation of the EIR/EIS addressing the implementation of the Bay Delta Conservation Plan (BDCP). The BDCP was prepared to satisfy the requirements of the Federal ESA Section 10 Habitat Conservation Plan and enable continued delivery of water through the federal Central Valley Project and California State Water Project.

**Tahoe Vista Partners LLC's Affordable Housing and Interval Ownership Development EA/EIR, Placer County, California.** Assisted with the preparation of an EA/EIR for Tahoe Vista Partners LLC's, proposed development of a roughly 6.2-acre property located in Tahoe Vista, California, into a combination resort and affordable-housing community. Conducted a reconnaissance-level survey of the project site for wildlife habitat and presence of special-status wildlife. Impacts on both common and special-status wildlife species were evaluated and mitigation measures were incorporated into the EA/EIR.

**Upper Truckee River Restoration and Golf Course Relocation Project EIR/EIS/EIS, South Lake Tahoe, California.** Assisted in the preparation of a Joint EIR (CEQA)/EIS (NEPA)/EIS (Tahoe Regional Planning Agency) for a proposed restoration project along the reach of the Upper Truckee River in Washoe Meadows State Park and Lake Valley State Recreation Area. The purpose is to restore natural planform, profile, and geomorphic processes and to reduce the river's suspended sediment discharge to Lake Tahoe. Performed an aquatic habitat evaluation for the project including habitat mapping and evaluation, and fish population documentation through snorkel surveys.

**El Dorado Irrigation District, California Red-Legged Frog Site Assessment for the Main Ditch Project, Blakeley Dam Conduit Remediation Project, and Forebay Dam Modification Project, El Dorado County, California.** Performed a variety of tasks for EID including preparation of a California red-legged frog site assessment for the Main Ditch Project, a California red-legged frog site assessment for the Blakeley Dam Conduit Remediation Project, and produced an updated and revised Biological Assessment for the Forebay Dam Modification Project. Field surveys, literature review, coordination with EID staff, and final documents were completed on time and on budget for each project.



# Adam Giacinto, RPA

## ARCHAEOLOGIST

Adam Giacinto is an archaeologist and ethnographer based out of Sonoma County with 17 years' experience preparing cultural resource reports, site records, and managing archaeological survey, evaluation, and data recovery-level investigations. His research interests include prehistoric hunter-gatherer cultures and contemporary conceptions of heritage. His current research focuses on the social, historical, archaeological, and political mechanisms surrounding heritage values. He has gained practical experience in archaeological and ethnographic field methods while conducting research in the Southwest, Mexico, and Eastern Europe.

## Selected Project Experience

**EIR Update for California Marine Life Protection Act Initiative North Central Coast Marine Protected Areas Project.** As Principal archaeological investigator, Mr. Giacinto prepared updated Tribal Cultural Resources and Cultural resources Section. Subject to review by CDFW, CA State Lands Commission, and Coastal Commission. Project updated areas for Chumash Tribes located in Santa Barbara County and the Keshia Pomo Tribe, located in Sonoma and Mendocino County.

**Estero Trail Project, Bodega, Sonoma County, California.** As Principal archaeological investigator, Mr. Giacinto coordinated NWIC, NAHC, and Native American correspondence, archaeological survey, and preparation of a technical report.

**Copeland Creek Trail, Tank 8/9, and Detention Basin Project, City of Rohnert Park, Sonoma County, California.** Dudek has completed more than a dozen archaeological projects as part of their onOcall with the City. As Principal archaeological investigator, Mr. Giacinto coordinated a Northwest Information Center (NWIC) records search, Native American Heritage Commission (NAHC) and Native American correspondence, archaeological survey, and preparation of a technical report. Project involved archaeological and Native American monitoring, exploratory scraping, and preparation for a monitoring plan meeting both CEQA considerations and Section 106.

**City of Saint Helena On-Call, Napa County, California.** On contract to provide cultural support. One project of note, the Hunter Subdivision, included Dudek records search, pedestrian survey, extended Phase I testing, ground penetrating radar, and prepared cultural resources report for residential subdivision project proposed within NRHP eligible archaeological district.

**Wildlife Services Program EIR-EIS, CDFG/USDA.** Dudek has developed template letters and contacted all 216 NAHC-listed contacts in the state of California. Responses received are tracked, reviewed with the agency, and responded to. In addition, outreach letters prepared by the USDA were reviewed and modified for the purposes of Section 106 consultation. Work for a joint EIR/EIS is underway.



### Education

San Diego State University  
MA, Anthropology, 2011  
Santa Rosa Junior College  
AA, Anthropology, 2004  
Sonoma State University  
BA, Anthropology/  
Linguistics, 2006

### Professional Affiliations

Register of Professional Archaeologists  
Society for California Archaeology  
American Anthropological Association  
Institute of Archaeomythology  
American Anthropological Association

**Cloverdale Unified School District On-Call Projects, Sonoma County, California.** As Principal archaeological investigator, Mr. Giacinto coordinated NWIC, NAHC, and Native American correspondence, archaeological survey, and preparation of a technical report for 5 Cloverdale unified school district projects. Projects involved CEQA considerations and Section 106 compliance for USACE review.

**Operations and Maintenance On-Call, Department of Water Resources.** As primary Dudek archaeological and tribal resources consultant, Mr Giacinto manages cultural resources projects for DWR. These include the more than 20 projects, including cultural resources inventory and monitoring for the B.F. Sisk Dam Safety of Dams Modification Project and preparation of a Programmatic Agreement for Cultural resources for DWR.

**Roblar Quarry Project, Private Owner, Sonoma County, California.** As Principal archaeological investigator, Mr. Giacinto coordinated NWIC, NAHC, and Native American correspondence, archaeological survey, archaeological site excavation, archaeological and tribal monitoring, and preparation of a technical report. Project involved CEQA considerations and Section 106 compliance for USACE review.

**Martis Creek Restoration Project, Truckee River Watershed Council, Truckee, California.** As ethnographic researcher and principal archaeological investigator, managed archaeological monitoring and investigations at Martis Type Site CA-PLA-5, conducted verbal, semi-structured interviews with four elders from the Washoe Tribe of California and Nevada, synthesized transcriptions of themes expressed concerning tribal histories and values within larger investigation.

**Pacific Gas & Electric Vegetation Management, Central Valley and Western Central Sierras, California.** As Co-Principal archaeological investigator, Mr. Giacinto collaboratively coordinates a team in completing survey, monitoring , cultural reviews, tribal coordination, and other related documentation required for PG&E vegetation management projects throughout the Central Valley, western Sierra Nevada's, as well as Marin and Humboldt Counties. To date, 350 task orders for individual projects have been completed.

**Glenn County Boat Ramps Project, California.** As principal archaeological investigator coordinated records searches, tribal coordination, APE map preparation, fieldwork, resource review, report preparation. Work was performed to meet USACE review for Section 106 compliance.

**Caltrain Electrification Project, Cities of San Francisco, San Mateo, Palo Alto and San Jose, California.** As Co-Principal Investigator, worked with Dudek team to supervise, implement, and report upon cultural inventory and compliance efforts under Section 106 of the NHPA, Joint Power Board, Project MOA, CEQA, and local Guidelines for the San Francisco to San Jose section.

**Heritage Implementation Plan, Modoc National Forest, California.** As principal cultural investigator, supporting USFS in preparing a HIP for fuel management-related work for tree plantation areas throughout 40,000 acre study area. Work is ongoing, but will include review of heritage resource information, preparation/integration of sensitivity studies, Class III survey, consultation support and integration of CRSOs, and preparation of programmatic strategies for guiding program implementation.

**Wildlife Services Program EIR-EIS, CDFG/USDA.** Dudek has developed template letters to be used for tribal notification, follow up, and consultation for this project. Dudek drafted, and mailed letters on behalf of CDFG, letters to all 216 NAHC-listed contacts in the state of California. Responses received are tracked, reviewed with the agency, and responded to. In addition, outreach letters prepared by the USDA were reviewed and modified for the purposes of Section 106 consultation. EIR/EIS sections are in preparation.

# Sarah Brewer

## ARCHAEOLOGIST

Sarah Brewer (*SAR-ah BREW-ur; she/her*) is a California archaeologist with 23 years of professional experience in cultural resource management. Intrigued by broad-scale cultural patterns, her recent Master of Arts degree at Cal Poly Humboldt focused on using geospatial analysis for predictive modeling of prehistoric and historic sites in California.

With over 100 archaeological assessments under her belt, Sarah has guided a diverse range of projects through successful compliance of federal and state cultural resource regulations. In the field, Sarah has led survey crews through mountains and deserts alike for projects relating to alternative energy, infrastructure, fire prevention, and more. She has taken a leading role in excavation and monitoring projects and has worked closely with tribal representatives, especially in the sensitive extraction of ancestral remains. She has managed post-excavation laboratory processing and has conducted analyses on a wide range of prehistoric and historic artifacts. Sarah is a proficient researcher and received extensive archival training through a 180-hour internship at the Northwest Information Center. She has authored dozens of technical reports in conjunction with the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA/Section 106).

## Dudek Project Experience

**Archaeological Survey, Eureka-Manchester Fiber Optic, Humboldt and Mendocino Counties, California.** Led an archaeological survey along 200 miles of state highways and county roads for a fiber optic project. Included: records search, recordation and/or updates to 30 sites, consultation with 16 tribes, reporting. (2021–present)

**Archaeological Services, Pit 3, 4, and 5 Hydroelectric Project (FERC No. 233), Shasta County, California.** Conducted a range of tasks relating to archaeological sites within Pacific Gas and Electric’s (PG&E) Pit 3, 4, and 5 Hydroelectric Project around Lake Britton and along the Pit River. The Project works closely with three bands of the Pit River Tribe to manage over 90 archaeological sites spanning over 50 miles in length. Included: site visitation, impact assessment, and reporting for over 90 archaeological sites in three tribal territories; led a 770-acre archaeological survey for PG&E’s Federal Energy Regulatory Commission (FERC) property expansion which revisited 59 previously recorded sites, updated 18 site records, and recorded 9 new resources; cultural reviews, monitoring, and reporting for hazard tree removal; reporting for lakeshore stabilization projects.(2016–present)



### Education

*Cal Poly Humboldt  
MA, Applied Anthropology,  
2022*

*Sonoma State University  
BA, Cultural Anthropology,  
1999*

*Cabrillo College  
AA, Liberal Studies, 1997*

### Professional Affiliations

*Professional Advisor  
Santa Cruz Archaeological  
Society, 2022*

*Society for California  
Archaeology, 2018–present*

### Additional Training

*Internship, Northwest  
Information Center  
2018–2021*

*Field School, Moche Origins  
Huanchaco, Peru, University  
of North Carolina, Chapel Hill,  
1999*

**Archaeological Services, Pit 1 Hydroelectric Project (FERC No. 2687), Shasta County, California.** Conducted a range of tasks relating to archaeological sites within PG&E's Pit 1 Hydroelectric Project. The Project works closely with two bands of the Pit River Tribe to manage over 60 archaeological sites. Included site visitation, impact assessment, and reporting. (2016–present)

**Archaeological Services, Hat Creek Hydroelectric Project (FERC No. 2661), Shasta County, California.** Conducted a range of tasks relating to archaeological sites within PG&E's Hat Creek Hydroelectric Project. The Project works closely with the Pit River Tribe to manage 16 archaeological sites. Included site visitation, impact assessment, and reporting. (2016–present)

**Various Small Development Projects, Butte, Contra Costa, Glenn, Marin, Monterey, Sacramento, Santa Clara, Santa Cruz, San Benito, San Francisco, and San Mateo Counties, California.** Completed numerous archaeological assessments for small CEQA and Section 106 compliance projects. Included: records searches, archaeological surveys, tribal correspondence, built-environment reviews, and reporting. (2017–present)

**Lower Mill Creek Dam Removal, Santa Cruz County, California.** Conducted a records search, survey and recorded the built environment resource prior to the dam's removal for a project encouraging salmon spawning in Laguna and Mill Creeks by the Resource Conservation District. (2021)

**Archaeological Monitoring, Sewer Main Replacement, University of California Santa Cruz (UCSC), Santa Cruz County, California.** Led the monitoring effort and recorded a historic refuse deposit within the National Register of Historic Places (NRHP)-eligible Cowell Lime Works Historic District for a sewer main project on the university campus. Included Worker Environmental Awareness Program (WEAP) training, site recording and updates, and reporting. (2020)

**San Felipe Creek Restoration Project, Santa Clara County, California.** Conducted archaeological survey, site recording, monitoring, and reporting of historic ranching features and prehistoric isolates for a wetland restoration project. (2017–2020)

**Monitoring for the UCSC Bioswale Project, UCSC, Santa Cruz County, California.** Led the monitoring effort for a bioswale installation on a non-contributing portion of the NRHP-eligible Cowell Lime Works Historic District. Monitors also identified and recorded a prehistoric resource within the project area. Included: WEAP training, monitoring, site recording, and reporting. (2019)

**Newell Creek Dam Inlet/Outlet Replacement Project, Santa Cruz County, California.** Conducted a records search review, engaged in tribal consultation, performed an archaeological survey, and prepared a CEQA/Section 106 report for the proposed modification of a reservoir dam. (2018–2019)

**Interlake Tunnel and Spillway Modification, Horizon Water and Environment LLC, Monterey and San Luis Obispo Counties, California.** Led an archaeological survey to identify and record cultural resources around the Lake San Antonio shoreline. This project joins Lake Nacimiento with Lake San Antonio by tunnel so the lake levels can be controlled and managed. (2016–2018)

**Woodland Recycled Water Pipeline Project, Yolo County, California.** Conducted a records search review, engaged in tribal consulting, and prepared the reporting for the proposed installation of a water pipeline. (2018)

# Ryan Brady, RPA

## ARCHAEOLOGIST

Ryan Brady (*RI-an BRAY-dee; he/him*) is an archaeologist with 21 years' cultural resources management experience throughout California and Nevada. Mr. Brady acts as principal investigator, field director, and project manager, and meets the Secretary of the Interior's Standards for prehistoric archaeology. He assesses archaeological finds in the context of clients' legal responsibilities under local, state (California Environmental Quality Act [CEQA]), or federal (Section 106) regulations. Extensive work experience includes Phase I surveys, Phase II evaluations, and Phase III data recovery of archaeological properties across California.

Mr. Brady implements and manages a variety of cultural resource projects. Since 2009, he has been the project manager for cultural resource site monitoring programs in Shasta County, which involves over 140 prehistoric and historic archaeological sites. He has completed Section 106 consultation for projects associated with the monitoring programs. He works closely with members of the Pit River Tribe and implement an annual Tribal Monitor Training Program to involve members of the Pit River Tribe with cultural resource preservation.

Mr. Brady has extensive experience along California's coast and in Northern California, with his earliest experience in archaeology and working with tribes at Bodega Bay. Brady currently serves as project manager and principal investigator for a 200-mile fiber optic line in Humboldt and Mendocino Counties. Coordinating tribal consultation with over 20 Native American groups, Dudek has engaged with the Sherwood Band of Pomo Indians on the project

## Project Experience

**Confidential Fiber Optic Project, Confidential Client, Humboldt, and Mendocino Counties.** As principal investigator and cultural resources project manager, Brady is supervising planning and implementation of cultural resources compliance for a 200-mile-long fiber optic project in Humboldt and Mendocino Counties. The project is subject to compliance with CEQA and Section 106 of the NHPA. To date, Dudek has implemented the inventory survey, initiated tribal consultation, and begun planning for extended phase 1 investigations at several locations along the project alignment.

**UC Elkus Ranch Master Plan EIR, University of California, San Mateo County, California.** Dudek completed a California Historical Resources Information System (CHRIS) records search, a Sacred Lands File (SLF) search with Native American Heritage Commission (NAHC), and an intensive survey of 141 acres on the UC Elkus Ranch Property. One previously recorded site was relocated and inspected. Two new prehistoric sites were identified on the survey. Dudek completed extended Phase I assessments of the new resources and a site record update for previously recorded resource.



### Education

California State University,  
Sacramento  
MA, Anthropology  
Universitat Autònoma  
de Barcelona  
Visiting Researcher  
University of California,  
Davis  
BA, Anthropology,  
Spanish minor

### Certifications

Register of Professional  
Archaeologists, No.16181

### Professional Affiliations

Society for American  
Archaeology  
Society for California  
Archaeology

**California State University Monterey Bay Master Plan EIR, California State University Monterey Bay, California.** Addressed the cultural resources component of the EIR for an updated Master Plan. The work involves a records search, reconnaissance survey, Native American consultation, and preparation of the cultural resource section for the EIR.

**San Francisco State University Master Plan EIR, San Francisco State University, California.** Addressed the cultural resources component of the EIR for an updated Master Plan. The work involved a records search, reconnaissance survey, Native American consultation, and preparation of the cultural resource section for the EIR. One new site was recorded at the campus.

**San Felipe Restoration Project, Santa Clara Valley Habitat Agency, Santa Clara County, California.** As project archaeologist/principal investigator, managed cultural resource investigations, Native American consultation, and archaeological and Native American monitoring of construction. Pre-construction cultural resource discoveries were documented and assessed for California Register of Historical Resources eligibility. State Historic Preservation Officer reviewed and concurred with findings. Additional unanticipated discoveries were made during project implementation and construction monitoring. Dudek documented and addressed the additional finds.

**Confidential Wind Energy Project, Confidential Client, Santa Barbara County, California.** As co-principal investigator, managed and supervised cultural resource compliance for a nearly 6,000-acre wind farm. Tasks included supplemental Phase I survey of approximately 300 acres, Phase 2 evaluations at 16 prehistoric sites, mitigation plan preparation, and implementation that included data recovery at 8 sites. Dudek designed and implemented a geographic information system (GIS) based cultural resources sensitivity model to guide the monitoring program through project construction to completion.

**Federal Energy Regulatory Commission (FERC) Compliance Monitoring, Resource Management, and Site Protection, Confidential Client, Shasta County, California.** Since 2009, served as project manager for the cultural resource management for three hydroelectric projects. The work involves regular monitoring at 143 archaeological sites, providing management recommendations and assisting with implementing site protection efforts, supporting FERC correspondence, creating and leading a Tribal Monitor Training Program, and completing a cultural resource inventory for a proposed area of potential effect (APE) expansion. Additional tasks include surveys, impact assessments, and reporting. The work is integrated with a multidisciplinary team of land planners, biologists, engineers, and consultants.

**On Call Environmental Services, City of Monterey, California.** As project archaeologist, Mr. Brady has assisted the City of Monterey with various infrastructure projects that involved drainage repairs and upgrades to the city's sanitary sewer system. One task order involved land at the Presidio of Monterey, where Dudek identified and evaluated a previously undiscovered cultural resource. The State Historic Preservation Officer concurred with Dudek's findings and recommendations.

**Newell Creek Dam Inlet/Outlet Replacement Project, City of Santa Cruz, Santa Cruz County, California.** As project manager, supervised Section 106 compliance for a cultural resource assessment related to the inlet/outlet infrastructure improvement for the Newell Creek Dam. Work involved a CHRIS records search, Native American coordination, a 60-acre field survey, and reporting. No cultural resources were identified.

**Phase II Evaluation and Phase III Data Recovery for the Duhig Road Improvement Project, Caltrans, Napa County, California.** As a field archaeologist, completed hand excavation and wet screening for evaluation and data recovery phases for an extensive occupation site in Napa County.

# Kathryn Haley, MA

## HISTORIC BUILT ENVIRONMENT LEAD

Kathryn Haley (*KATH-rin HAY-lee; she/her*) is a historic built environment resource specialist/architectural historian with 18 years' professional experience in historic/cultural resource management. Ms. Haley has worked on a wide variety of projects involving historic research, field inventory, and site assessment conducted for compliance with Section 106 of the National Historic Preservation Act (NHPA), National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA). Ms. Haley specializes in the California Register of Historical Resources (CRHR); the National Register of Historic Places (NRHP); and evaluations of built environment resources, including water management structures (levees, canals, dams, and ditches), buildings (residential, industrial, and commercial), and linear resources (railroad alignments, roads, and bridges). She specializes in managing large-scale surveys of built environment resources, including historic district evaluations. She has prepared numerous Historic Resources Evaluation Reports (HRERs) and Historic Property Survey Reports (HPSRs) for the California Department of Transportation (Caltrans). Ms. Haley also worked on the San Jose to Merced section and Central Valley Wye section of the California High-Speed Rail Project, where she led the built environment survey, conducted property-specific research, prepared the Draft Historic Architectural Survey Report (HASR) and co-authored the environmental section for cultural resources.

She meets the Secretary of the Interior's Professional Qualification Standards for historian and architectural historian. Ms. Haley has also assisted in preparation of Historic Properties Inspection Reports (condition assessments) under the direction of the Naval Facilities Engineering Command (NAVFAC) in accordance with Section 106 and Section 110 of the NHPA. Moreover, Ms. Haley has served as project manager, coordinator, historian, and researcher for a wide variety of projects. She is also experienced in the preparation of Historic American Building Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscape Survey (HALS) documents, as well as the preparation for National Register nominations.

## Dudek Project Experience

**On-Call Services for Department of Water Resources, Operations and Maintenance Division, State of California.** Dudek was retained by the State of California's Department of Water Resources (DWR), Operations and Maintenance Division (O&M), to assist in a wide range of on-going environmental compliance efforts. Under this on-call contract, serves as project manager for a task order focused on assisting DWR in efforts to streamline cultural resources environmental documentation for O&M projects. Dudek is also preparing built environment technical reports for several projects under this contract. Led the creation of a standardized historic context statement for State Water Project (SWP), as well as Historical Resources Technical Reports for various SWP maintenance projects. Technical reports have been prepared for O&M projects at the following sites: Dyer Dam and Reservoir, Patterson Dam and Reservoir, Clifton Court Forebay, California Aqueduct Milepost 230. (2020–Ongoing)



### *Education*

*California State University, Sacramento MA, Public History, 2004*

*California State University, Sacramento BA, History, 2001*

### *Professional Affiliations*

*California Council for the Promotion of History (former Treasurer)*

*California Preservation Foundation*

**Laguna Creek Diversion Retrofit Project, CEQA Compliance and U.S. Army Corps of Engineers permitting, City of Santa Cruz, Bonny Doon, California.** As lead architectural historian, co-authored the Cultural Resources Inventory, Evaluation and Finding of Effect Report for the Laguna Creek Diversion Retrofit Project. The purpose of the project is to retrofit the existing 1890 Laguna Creek Diversion Facility in Bonny Doon, California with a new intake and sediment control system. Co-authored the historical significance evaluation of the Laguna Creek Diversion Facility and its associated components. The significance evaluation determined that the Laguna Creek Dam appears individually eligible as a historic resource/property under NRHP/CRHR Criterion A/1, and Santa Cruz County Criterion 2 as a well-preserved masonry water management structure dating to 1890. It is a physical example of pioneering water management infrastructure in California and is significant for its association with early advances in water management in California, specifically through creation of the City of Santa Cruz's first municipal water distribution system. All other associated facility buildings and structures were found not eligible under all NRHP, CRHR, and local designation criteria, and the project effects assessment recommends that the project would have a less than significant impact on historical resources (CEQA)/no adverse effect on historic properties. (June 2020–Ongoing)

**Santa Cruz Water Rights Project CEQA Compliance, City of Santa Cruz, Santa Cruz County, California.** As lead architectural historian, co-authored the Cultural Resources Inventory and Evaluation Report for the Santa Cruz Water Rights Project. The proposed project included 11 proposed undertakings related to water rights and infrastructure improvements for five water districts in 11 non-contiguous locations in Santa Cruz County, California. As the project includes both project-level and programmatic-level components, the City requested the document comply with Section 106 of the NHPA and CEQA as federal permits may be needed and/or federal funding may be used for some of the undertakings in the future. Provided QA/QC on the historical significance evaluations of the two historic-era properties (over 45 years of age) identified within the area of potential effect (APE). Both properties were found not eligible for designation under NRHP, CRHR, and local designation criteria. Wrote the project- and program-level impact analysis in the CEQA EIR cultural resources section for built environment resources. (July 2020–Ongoing)

**Santa Cruz Wharf Maintenance Project CEQA Compliance and U.S. Army Corps of Engineers permitting, City of Santa Cruz, California.** The purpose of this project is to replace and/or repair storm-damaged piles supporting the Santa Cruz Municipal Wharf in Santa Cruz, California. The Dudek built environment team conducted fieldwork and co-authored the Evaluation and Finding of Effect Report for the Santa Cruz Wharf Maintenance Project. The report was prepared in compliance with Section 106 and in support of the permitting process with the U.S. Army Corps of Engineers (ACOE). Although the Wharf was previously evaluated under CRHR and local criteria by another historian in recent years, no NRHP criteria evaluation existed. Co-authored all documentation related to the Wharf, including the significance evaluation that recommended the Wharf as eligible under NRHP Criterion A for its continued associations with the industrial development, transportation, commerce, and recreation development of Santa Cruz and under Criterion C as a distinctive engineering structure known to be the longest wooden pier structure located along the United States west coast. Additionally, a detailed effects assessment determined that the proposed Wharf Maintenance project would have a less than significant impact on historical resources (CEQA)/no adverse effect on historic properties (Section 106). No mitigation or management recommendations were necessary to support the no adverse effect finding. Provided senior-level guidance throughout the project and QA/QC on the technical report. (January 2020)

**Historic Initiative Inventory and Conservation, Port of Los Angeles, California.** Prior to joining Dudek, assisted the Port of Los Angeles with establishing an archival repository to house historic documents by advising the Port on all aspects of the proposed archival facility. As project manager and lead archivist, conducted a records inventory, facilitated immediate preservation and conservation of historic materials, and helped establish policy and procedures for the archives. (2006–2007)



# Perry Russell, PG, CEG

## GEOLOGIST

Perry Russell (*PAIR-ee RUSS-ell; he/him*) is a geologist with 36 years' experience, including more than two decades specializing in completing geology/soils, hydrology/water quality, hazards/hazardous materials, and utilities sections for California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents. Mr. Russell has also completed erosion control studies, geologic hazards surveys, Phase I/II environmental site assessments, and remediation projects.

Mr. Russell has completed CEQA sections for a wide range of projects located throughout California, including college campus master plans, commercial developments, large-scale residential developments, water supply projects, on- and off-shore telecommunication cable projects, wind farm projects, oil field development projects, a nuclear power plant project, and large-scale port redevelopment projects (including joint CEQA/NEPA projects). His NEPA experience has included projects for the U.S. Navy, U.S. Marines Corps, U.S. Air Force, U.S. Army, U.S. Department of Energy, U.S. Bureau of Reclamation, and Bureau of Indian Affairs, on sites located throughout the western United States. These projects included water supply, construction, land withdrawal, and landfill projects, as well as a large-scale nuclear waste treatment project.

Mr. Russell began his career as an engineering geologist, working for several years completing geologic/seismic reports, landslide investigations, fault studies, and geologic monitoring at large grading/ construction sites. His experience also includes 6 years working on projects involving soil and groundwater contamination.

## Project Experience

**B.F. Sisk Dam Safety of Dams Modification Project Supplemental EIR, California Department of Water Resources, Merced County, California.** Evaluated geology/soils, hydrology/water quality, hazards/hazardous materials, and mineral resources impacts associated with dam seismic upgrades, construction of a new campground, and upgrades to an existing day use area.

**Laguna Creek Diversion Retrofit EIR, City of Santa Cruz, California.** Evaluated potential geology/soils impacts associated with the alteration of an existing dam, an intake structure, a diversion flume, a transmission pipeline, a control building, access roads, and a downstream plunge pool.

**Newell Creek Dam Inlet/Outlet Replacement Project EIR, City of Santa Cruz, California.** Evaluated potential impacts associated with the replacement of the existing aging inlet/outlet works at the Newell Creek Dam, which impounds Loch Lomond Reservoir. Evaluated geology/soils, hydrology/water quality, and hazardous materials sections of the EIR.



### Education

California State University,  
Northridge  
MS, Geological Sciences,  
1988

University of California,  
Santa Barbara  
BA, Geological Sciences,  
1984

### Certifications

Professional Geologist  
(PG), CA No. 5777

Certified Engineering  
Geologist (CEG),  
CA No. 1837

**Groundwater Recharge Basins EIR, City of Palmdale, California.** Evaluated potential seismic stability of proposed dams and downstream flooding associated with potential failure of those dams.

**Lopez Dam Seismic Retrofit EIR, County of San Luis Obispo, California.** Evaluated impacts associated with changes in topography and water quality impacts due to construction-induced erosion.

**Diablo Canyon Independent Spent Fuel Storage EIR, County of San Luis Obispo, California.** Evaluated potential impacts associated with the presence of a major active fault located within 4 miles of the facility, stability of a proposed large cut-slope, and landslide encroachment along the sea cliff.

**Draft Shoreline Management Plan, City of Pacific Grove, California.** Prepared a geologic and hydrologic conditions report to support a coastal erosion and bluff recession analysis along the shoreline of Pacific Grove.

**Plains All American Pipeline, L.P. Pier 400, Berth 408 EIR, Port of Los Angeles, California.** Evaluated impacts associated with potential tsunamis, potential pipeline rupture along the active Palos Verdes Fault, liquefaction, and subsurface contamination along the pipeline route.

**TraPac Berths 136–147 Container Terminal EIR, Port of Los Angeles, California.** For this large-scale Port of Los Angeles redevelopment project, evaluated impacts associated with the presence of the active Palos Verdes Fault across the project site, potential construction-related erosion and sedimentation of harbor waters, and potential unknown subsurface contamination.

**Master Plan EIR, Port of Los Angeles, California.** Evaluated programmatic impacts with respect to the on-site active Palos Verdes Fault, liquefaction potential, tsunami run-up, and subsurface contamination.

**Administration Building EIR, Port of Long Beach, California.** Evaluated potential impacts associated with worker safety during demolition activities, seismic stability of proposed structures, surface water quality during construction, tsunami run-up, and hazardous materials use during operations.

**Offshore Fiber Optic Cable EIR, Monterey Bay, California.** Evaluated impacts associated with active faults that traverse the cable corridor, offshore slope instability, tidally induced erosive scour, frac-outs of drilling muds, and cable burial assessment.

**Global Photon Fiber Optic Cable EIR, California Public Utilities Commission, San Francisco to San Diego, California.** Evaluated impacts associated with seismic hazards, offshore rocky substrate areas where cable burial would be precluded, offshore submarine sediment flows through submarine canyons, onshore construction-induced erosion and sedimentation of drainages, and spillage of hazardous materials during construction.

**Tranquillon Ridge Oil and Gas Development EIR, County of Santa Barbara, California.** Evaluated erosional/water quality impacts associated with future repair of a potentially ruptured oil and gas pipeline due to continued offshore production.

**Phase I and II Site Assessments/Remediation Projects, Various Clients, Various Locations, California.** Served as project manager for Phase I/Phase II/remediation projects in Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties. Duties included proposal preparation, client interaction, fieldwork scheduling and completion, report preparation, budgetary analyses, and concurrent marketing for additional work.

# Michael Williams, PhD

## SENIOR PALEONTOLOGIST

Michael Williams is a paleontologist and crossed-trained archaeological field technician with 20 years' experience with fieldwork, fossil vertebrate specimen processing, and writing of reports for the U.S. Army Corps of Engineers (ACOE) and private and public entities. Dr. Williams has project experience in all aspects of paleontological mitigation, including Phase I preconstruction surveys and report preparation and writing paleontological mitigation plans, initial studies (ISs)/mitigated negative declarations, and environmental impact reports (EIRs). He also has experience attending pre-grade meetings; preparing and presenting on-site Worker Environmental Awareness Programs (WEAPs); monitoring for paleontological resources and supervising paleontological monitoring; coordinating spot checks and monitoring with construction superintendents and foremen; collecting and processing sediments for vertebrate microfossils, writing final monitoring reports; and accessioning fossils to the Natural History Museum of Los Angeles County, San Bernardino County Museum and the Cooper Center in Orange County. Dr. Williams has California Department of Transportation (Caltrans), Bureau of Land Management (BLM) and private company paleontological mitigation experience in San Diego, Imperial, Orange, Los Angeles, Riverside, San Bernardino, Ventura, Kern, Inyo, Fresno, San Francisco, and Alameda counties. In addition, he has worked as a cross-trained archaeological surveyor and monitor on several field projects.



### *Education*

*Louisiana State University  
PhD, Geology and  
Geophysics, 2009  
BS, Zoology, 2002*

### *Certifications*

*Qualified Paleontologist;  
Orange, Riverside, and  
San Diego Counties  
BLM California  
Paleontological Resource  
Use Permit*

### *Professional Affiliations*

*Society of Vertebrate  
Paleontology*

## Project Experience

**Mariner's Cove Redevelopment Project, Aimco, San Diego, California.** As senior paleontologist, reviewed geological mapping and the geotechnical report and provided a geological write-up for the constraints analysis.

**Pacific Palisades Village 1 CAH Acquisitions Co. LLC, Los Angeles, California.** As senior paleontologist, presented the paleontological Workers Environmental Awareness Program, provided senior paleontological support of paleontological monitors, and assisted in writing the final monitoring report.

**Newell Creek Dam Inlet/Outlet Pipeline Project, City of Santa Cruz, Santa Cruz, California.** As senior paleontologist, researched project geology and provided paleontological monitoring recommendations.

**Van Norman Complex Routine Ops & Maintenance Project, Los Angeles Department of Water and Power (LADWP), Los Angeles, California.** As senior paleontologist and archaeologist, requested the Natural History Museum of Los Angeles County paleontological records search, coordinated and conducted the archaeological and paleontological survey, and wrote combined archaeological and paleontological survey report.

**Trampas Dam And Reservoir Archaeo And Paleo Services, Santa Margarita Water District, San Juan Capistrano, California.** As archaeological and paleontological project manager and senior paleontologist, prepared and administered the Workers Environmental Awareness Training for paleontology and archaeology and coordinated and conducted archaeological and paleontological resources monitoring.

**TAF #3: Paleontological and Biological Monitoring for the Stormwater Collection System Project, Sanitation Districts of Los Angeles County, Puente Hills, California.** As senior paleontologist, prepared and administered the Workers Environmental Awareness Training for paleontology, drafted the Paleontological Resources Impact Mitigation Plan, coordinated and conducted paleontological monitoring, and wrote the final paleontological monitoring report.

**River Supply Conduit Unit 7 Archaeo Monitoring Support Project.** Served as senior paleontologist. Attended the preconstruction meeting and presented the Workers Environmental Awareness Training to the construction crew, field trained an archaeological/paleontological monitors, coordinated monitoring, and analyzed, prepared, and curated fossils collected during monitoring,

**Reservoir 10 & 6 Water Line Project, City of San Clemente, California.** Served as senior paleontologist/archaeologist and project manager. Attended the preconstruction meeting and presented the Workers Environmental Awareness Training to the construction crew, managed archaeological and paleontological monitors, and provided paleontological monitoring spot-checks. Wrote and submitted the final monitoring report to the City of San Clemente.

**MWD Upper Newport Backbay Project, Metropolitan Water District of Southern California, Newport Beach, California.** As senior paleontologist, reviewed the archaeological and paleontological treatment plan.

**Mockingbird Canyon Wash Restoration Project, Riverside County Flood Control & Water Conservation District, Woodcrest, California.** As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County, coordinated the paleontological survey, and drafted the paleontological technical report.

**Monterey Bay Regional Water Project EIR/EIS, California State Lands Commission, Monterey County, California.** As senior paleontologist, provide QA/QC for the paleontological resources section of the Environmental Impact Report.

**Las Flores Enhanced Water Reliability Project, Santa Margarita Water District, Las Flores, California.** As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Environmental Impact Report. As archaeologist, conducted the archaeological survey and Native American correspondence and drafted the Section 106 archaeological resources survey report.

**Chatsworth Reservoir Mitigation Feasibility Study, Los Angeles Department of Water and Power, Chatsworth, California.** Requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the feasibility study.

# Audrey Herschberger, PE

## ENVIRONMENTAL ENGINEER

Audrey Herschberger is a professional environmental engineer with 11 years' experience in environmental consulting, specializing in due diligence and assessment of hazards and hazardous materials for property acquisition and development. Ms. Herschberger's experience includes Phase I and Phase II Environmental Site Assessments (ESAs) under ASTM E1527-13, ASTM E1527-21, ASTM 2247-16, and ASTM E1903-19; hazards and hazardous material analysis under CEQA; management of small to mid-size environmental sampling, stormwater treatment, and permit compliance projects; and hazardous material management and abatement projects. She also has experience with regulatory compliance and permitting in Oregon, Washington, and California.



## Dudek Project Experience

### CEQA Hazards and Hazardous Materials Assessments

**Commercial Hangar Development Project, March Air Reserve Base, Riverside County, California.** Served as Project Engineer. Completed hazards and hazardous materials analysis for CEQA EIR for development of a privately owned commercial hangar on March Air Reserve Base. Project included evaluation of project's compatibility with active land use covenants and remediation actions in the project area with DTSC oversight.

**Dominguez Creek EIR, Plentitude Holdings, LLC, Carson, California.** Served as Project Engineer. Completed hazards and hazardous materials analysis for CEQA EIR for development of recreational site on closed landfill. Project challenges includes development on a closed landfill and adjacent to a blimp port.

**Mission Valley Campus Master Plan EIR, San Diego State University (SDSU), San Diego, California.** Served as Project Engineer. Completed hazards and hazardous materials analysis for CEQA EIR for demolition of SDSU Stadium and redevelopment of land for expanded campus and housing. Project required hazards analysis for adjacent petroleum terminal, including a transecting petroleum pipeline, demolition using explosives, and mitigation for onsite treatment and monitoring system for petroleum release from adjacent terminal.

**Facilities Master Plan EIR, Orange County Sanitation District (OCSD), Orange County, California.** Served as Project Engineer. Completed hazards and hazardous materials analysis for CEQA EIR for county-wide facilities improvement project. Project required individual evaluations on three separate components (2 treatment plants, and county-wide proposed facility upgrades). Project included mitigation for methane risks and potential environmental contamination from previous industrial activities.

### *Education*

*Oregon State University  
BS, Chemical Engineering,  
2008*

### *Certifications*

*Professional  
Environmental Engineer,  
OR No. 80505PE*

*40-Hour HAZWOPER  
Certification*

*8-Hour HAZWOPER  
Refresher*

*10-Hour OSHA  
Construction Standards*

*First Aid/CPR Certification*

*Hazardous Waste Basics,  
Managing Common  
Wastes Oregon  
Department of  
Environmental Quality*

### *Professional Affiliations*

*AWMA Pacific Northwest  
International Section*

## Peer Review

**Phase I and Phase II ESA Peer Review, City of Oxnard, California.** Served as Project Engineer and Environmental Professional. Completed peer review of a Phase I and Phase II ESA for a Caltrans-owned access road on behalf of the City of Oxnard. The Phase I and II were completed by a private developer, and the City was to purchase the road for future occupant access.

**Multiple Hazardous Material Removal Document Review, Private Developer, Jamestown, California.** Served as Project Engineer and Environmental Professional. Completed peer review of multiple investigation and remediation documents on a former lumber mill and processing plant prior to acquisition of the property. Review was focused on potential hazards associated with acquisition and the CEQA process.

## Soil and Groundwater Management Plans

**Hazardous Material Contingency Plan, City of Chula Vista, California.** Served as Project Engineer. Prepared contingency plan for construction within an area of contaminated groundwater and soil vapor. Construction would include installation of utility lines for the City. Plan included management of contaminated media, air quality screening in breathing zones, and health and safety of onsite workers and surrounding community. Project required coordination with City and owners, operators, and environmental technicians for nearby remediation and construction projects.

**Hazardous Materials Contingency Plan, Olympic Well Field, Santa Monica, California.** Served as Project Engineer. Prepared a contingency plan for construction of improvements to water supply wells for the City of Santa Monica. Construction was to occur in an area of regional groundwater contamination, potentially impacting soil, soil vapor, and groundwater in the area of construction. The contingency plan included health and safety measures, air monitoring, and proper handling and disposal techniques for contaminated soil and groundwater.

## Relevant Previous Experience

**Project Environmental Engineer, Golder Associates Inc., Portland, Oregon.** Served as environmental consultant for large, multinational, employee-owned corporation. Managed multiple small to mid-size environmental engineering and compliance projects. Completed and managed over 30 Phase I and Phase II Environmental Site Assessments. Specialized in Oregon and Washington stormwater permitting and compliance. Assisted with and managed stormwater treatment design projects to meet requirements of the Oregon Industrial Stormwater General Permit (1200-Z Permit). Provided field engineering oversight on remediation system construction, environmental drilling, and stormwater treatment system installation. Remediation projects include installation of a soil-vapor extraction system for perchloroethylene (TCE) contamination and dig & haul of petroleum contaminated soils. Managed hazardous material and hazardous waste handling projects, including hazardous waste removal, disposal, and full documentation for submittal to the overseeing regulatory agency. (2012–2015)

**Environmental Engineer, Shaw Environmental Inc. Portland, Oregon.** Served as entry-level engineer; advancing to mid-level engineer in four years. Completed large portfolios of Phase I Environmental Site Assessments, at least 50 Phase I ESAs completed in all. Performed stormwater sampling and compliance under the Oregon and Washington industrial general permits and construction permits. Field and reporting engineer completed SPCC Plans under the Code of Federal Regulations 40 CFR 112. Environmental sampling on a wide variety of contaminated sites, including asbestos, polychlorinated biphenyls, petroleum, volatile organic compounds, polynuclear aromatic hydrocarbons, and heavy metals. (2008–2012)

# Donn Marrin, PhD

## SENIOR SCIENTIST

Donn Marrin has more than 30 years' experience in biogeochemistry; hydrochemistry; the transport, partitioning, and degradation of organic and inorganic pollutants; as well as marine and freshwater ecology. Mr. Marrin developed sampling and analytical techniques for assessing the biodegradation behavior of organic contaminants in aquifers, soils, sediments, and surface waters. His recent work has focused on global water quality issues, water footprints, and the water-energy-food nexus. Mr. Marrin's projects have been conducted for state and federal regulatory agencies, major corporations, and a wide variety of non-profit organizations.

## Project Experience

- Projected the atmospheric loading of greenhouse gases from the aerobic/anaerobic biodegradation of organic wastes in landfills, soils and aquifers.
- Evaluated the adsorption, complexation, and redox chemistry of metals (e.g., Cr, Pb, As, Se) to predict their solubility, partitioning and toxicity
- Designated field and laboratory tests for demonstrating the migration of pollutants between groundwater aquifers and various surface waters (e.g., lakes, rivers, coastal marine water).
- Critiqued the performance, conceptual design, and long-term monitoring of sediment and groundwater remediation (e.g., soil vapor extraction, bioventing, and enhanced biodegradation).
- Utilized natural and anthropogenic tracers to evaluate submarine groundwater discharge from coastal aquifers, as well as the intrusion of seawater into coastal aquifers.
- Designed a laboratory report format that permits users to interpret chemical data (e.g., redox and microbiological indicators) in terms of biodegradation and natural attenuation pathways.
- Provided litigation support to California legal firms on diverse environmental cases.
- Evaluated changes in the water quality, limnology, and surface or groundwater hydrology associated with the impoundment of rivers in the Sierra Nevada Mountains.
- Co-chaired a California Department of Health Services committee that formulated general guidelines for modeling the environmental fate and transport of water pollutants.
- Chaired a San Diego Unified Port District committee that recommended and critiqued pollution prevention measures implemented for industries located adjacent to bays and estuaries.
- Assisted the International Water Resources Association to formulate industry-specific requirements for influent water quality as demanded by different uses within those industries.
- Assessed the long-term environmental effects of oil exploration and production on intertidal and shallow subtidal marine ecosystems within the Channel Islands.

### Education

*University of Arizona  
PhD, Water Resources,  
1984*

*University of California,  
Berkeley  
MS, Environmental  
Science, 1980*

*University of California,  
Irvine  
BS, Biological Sciences,  
1977*

### Certifications

*Operation of Wastewater  
Treatment Facilities*

### Professional Affiliations

*American Chemical  
Society*

*American Geophysical  
Union*

*Surfrider Foundation*

- Compared the available options for disposing and/or reusing treated wastewater effluent in wetland, arid, and coastal environments.
- Recommended key analyses and marker compounds for assessing the possible introduction of raw sewage into rivers and shallow coastal waters.
- Explored options for reducing pollutant loads in urban runoff by emulating the flow dynamics and adsorption characteristics of natural drainages and soils.
- Used personal and regional water footprints to identify the most effective alternatives for conserving local water resources in California.
- Estimated the demands of alternative energy sources (e.g., solar, biofuels) on water quality.
- Evaluated the chemical variability, microbiology and likely origin of mountain spring waters.

## Project Reports

- Hydrochemical characteristics and the distribution and transformation of chlorinated solvents in a river-aquifer system (Dow Chemical)
- Microbiological and chemical indicators for demonstrating the impact of septic systems on seawater quality in Hawaii (Hanalei Watershed Hui)
- The use of multi-phase analyses to estimate subsurface redox conditions and biodegradation pathways for fuel hydrocarbons (Unocal Corporation)
- Field techniques for investigating the impact of pesticide application on water and sediments of the Hanalei River (County of Kaua'i)
- Potential sources of methane gas in soils and groundwater underlying a residential development (Geocon)
- Assessment of the downward migration of gasoline constituents through soils of differing composition and saturation (ARCO)
- Kinetics and metabolic pathways of bioremediation in diesel-contaminated groundwater assessed via in-situ respirometry tests and laboratory microcosm studies (Bank of America)
- The use of in-situ respirometry for monitoring the biogenic gas production and kinetics of hydrocarbon degradation in the capillary fringe of an aquifer (Ogden Environmental & Energy)
- Correlations between halogenated pesticide concentrations and changing redox conditions in groundwater (Applied Geosciences)
- A simplified technique for estimating the small-scale air permeability of soils prior to soil vapor extraction remediation (Computer Sciences)
- The potential for landfill gas migration to impact groundwater quality underlying an operating solid waste facility (Waste Management)
- The use of inorganic groundwater tracers to locate permeable fractures that supply water to mountain springs (Palomar Artesian Spring Water)
- Investigation of volatile contaminants in the unsaturated zone above Trichloroethylene (TCE)-polluted groundwater (with G.M. Thompson) (U.S. Environmental Protection Agency)



# Jonathan Martin

## WATERSHED HYDROLOGIST

Jonathan Martin is a hydrologist and water quality specialist with 15 years' experience researching hydrological, ecological and meteorological dynamics from reach to watershed scale. His strengths are surface and shallow-subsurface hydrology and water quality, development and implementation of long-term monitoring programs, and coordinating/conducting comprehensive field monitoring/sampling programs (including Phase 1 and 2 Environmental Site Assessments).

## Project Experience

**Groundwater Remediation Programs in Stockton, California: former Marley Cooling Tower Company and Kearney-KPF Facility.** Serve as Dudek's primary Northern California point-of-contact for coordinating site visits (data collection, facilities maintenance) related to the groundwater monitoring and remediation programs targeting chromium (Marley) and chlorinated solvent- and 1,4-dioxane contaminated groundwater (Kearney). Tasks include treatment system operation and maintenance (Kearney) and development of maps characterizing extent of groundwater contamination (Marley).

**Contaminated Groundwater Monitoring (LUST), Las Vegas, Nevada.** Conduct monthly/quarterly sampling events for 12 monitoring wells around a former Leaking Underground Storage Tank (2010-2012). This included monitoring groundwater quality parameters and sampling using three-volume purging and micro-purging techniques, as well as analyzing data in conjunction with a pilot study where an Oxygen Releasing Compound (ORC) was placed around the well with the highest contamination levels.

**Contaminated Soil Assessment and Management Plan, San Diego, California.** Develop emergency program for identifying impacted soils in a channel maintenance project for the City of San Diego. This effort included development of a stockpile management program (including coordination with suitable disposal facilities), as well as provision of additional health and safety protocol for working around potentially impacted media.

**Phase 1 and 2 Environmental Site Assessments.** Provide local expertise/support for Dudek's Northern California Phase 1 and 2 ESAs. Projects include:

- Phase 1 for the North 16th Street Streetscape Project in Sacramento (Caltrans)
- Phase 1 of existing/historical/proposed school locations (Auburn, Citrus Heights, Pleasanton)
- Phase 1 for numerous energy projects throughout Central Valley
- Phase 2 soil sampling in Auburn and Napa



### Education

*University of Arizona,  
Tucson*

*MS, Watershed  
Management and  
Ecohydrology*

*Northern Arizona  
University*

*BS, Geography (Geology  
minor)*

### Certifications

*OSHA 40-Hour  
HAZWOPER*

*SWAMP Certified*

**California High Speed Rail - Stormwater Pollution Prevention Plan (SWPPP).** Develop initial SWPPP for the High Speed Rail Construction Package 2-3. Provide general SWPPP BMP Design Sheets for typical sections of the HSR including river crossings.

**Rainbow Creek Nutrient TMDL Implementation Monitoring.** Conduct wet-weather monitoring for Caltrans to demonstrate compliance toward achieving Waste Load Allocations identified in the Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus in the Rainbow Creek Watershed.

**State Route 4 Wagon Trail Realignment Project – Restoration Hydrology Study.** Develop hydrology model to assess feasibility of proposed restoration habitat required for the State Route 4 Realignment Project.

**Solar Installation in Washoe County, Nevada – Stormwater Quality Management Plan.** Develop a stormwater management program in accordance with Washoe County and Pyramid Lake Paiute Tribe Water Quality Control Plan.

**Water Quality Monitoring Program Willow Lake – Sycuan Reservation, California.** Develop and implement water quality monitoring program for characterizing lake turbidity, suspended sediment concentrations, and fecal coliform counts at fixed sampling stations and varying depths.

**City of San Diego's Pure Water Project EIR.** Provide technical support to City staff in identifying potential water quality shifts in Miramar Reservoir and associated impacts to aquatic ecosystem, including an in-depth analysis identifying external nutrient sources to the reservoir (e.g., runoff, avian feces, recreation).

**Preliminary Natural Treatment Wetland Assessment and Design for Hodges Reservoir Nutrient Reduction Program – San Diego, California.** Conduct large-scale watershed modeling effort and hydrology study to identify drainages contributing greatest phosphorus loads to the reservoir. Develop cost-benefit analysis of multiple natural treatment wetland designs/locations for removal of nutrients from reservoir and urban discharge to the reservoir. Assess Preliminary Designs of Natural Treatment Wetland under varying loading rates and with different vegetation management programs to identify most suitable design parameters for removing nutrients.

**Gypsum Quarry Reclamation Plan EIS, Borrego Desert, California – Hydrology Study & Alternatives Analysis.** Coordinate development of an updated Drainage Study assessing impacts of proposed quarry expansion on hydrologic resources and develop four alternative storm water conveyance berms across a 5-mile reach to better mimic natural topography and reduce potential for catastrophic failures. Produce a supplemental Hydrology Technical Study including assessment of impacts to water quality, groundwater, and on-site erosion/off-site deposition.

**Baseline Habitat Characterization for Rare Aquatic Snail Species – Santa Clarita, California.** Design/implement methods for monitoring baseline biotic and hydrologic conditions in a spring with a rare endemic snail. Develop a Habitat Management Program with monitoring frequency, objectives, and thresholds for triggering adaptive management.

**Aquatic Bioassessment – Truckee, California.** Conduct aquatic bioassessment along an ephemeral stream to characterize pre-project conditions along a small intermittent stream.

# Eric Schniewind

## GEOLOGIST, HYDROLOGIST, HAZARDOUS MATERIALS SPECIALIST

Eric Schniewind (*AIR-ik SHNEE-wind, he/him*) has 27 years' experience as a geologist, hydrogeologist, hydrologist, and hazardous materials specialist in environmental consulting, with the last 18 plus years focusing on California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) environmental review. His technical background includes geotechnical engineering, soil and groundwater contamination investigations, environmental remediation planning and implementation, and Phase I environmental site assessments. In addition, Eric has been involved in fault trace identification and landslide hazard studies. His general responsibilities have included providing geological, geotechnical, hydrogeological, and hazardous materials technical support for CEQA/NEPA documents such as Environmental Impact Reports (EIRs), Environmental Impact Statements (EISs), and Environmental Assessments (EAs).



### Education

University of California,  
Santa Barbara  
BA, Geological Sciences

Mr. Schniewind has contributed CEQA analysis for a wide range of projects located throughout California, including water infrastructure, wastewater treatment plants, groundwater water supply programs, commercial developments, large-scale residential developments, shoreline projects involving sea-level rise issues, solar and wind energy developments, petroleum refineries, electric grid transmission projects, sports and entertainment arenas, General Plan updates, high-rise developments, military base redevelopments, port redevelopments, transportation improvements, hospital expansions and redevelopments, airports, rocket engine testing, research and development facilities involving radioactive materials, large scale hazardous materials remediation projects, and landfill expansions and redevelopments (also including joint CEQA/NEPA projects). His NEPA experience has included projects for or including the California Coastal Commission, U.S. Navy, U.S. Department of Energy, U.S. Bureau of Reclamation, U.S. Department of Housing and Urban Development, and U.S. Veterans Affairs throughout the western United States.

## Previous Project Experience

### Development

**Santa Susana Field Laboratory Soil and Groundwater Program EIR, California Department of Toxic Substances Control, Ventura County, California.** As hydrologist and geologist, completed the technical analysis of the hydrology section of the EIR for the implementation of the cleanup documents, as well as support for the geology and hazardous materials sections. The Santa Susana Field Laboratory is a former rocket engine test, nuclear and liquid metals research facility located on a 2,849-acre portion of the Simi Hills in Simi Valley, California. The use of hazardous substances at the field laboratories such as trichloroethylene and other solvents, heavy metals, and radioactive material has resulted in soil and/or groundwater contamination. The field laboratory is currently the focus of a comprehensive environmental investigation and cleanup program conducted by Boeing, the U.S. Department of Energy, and the National Aeronautics and Space Administration and overseen by the Department of Toxic Substances Control.

**Snoqualmie Mill Planned Commercial/Industrial Plan EIS, City of Snoqualmie, Washington.** The former mill site is being considered for redevelopment and has been divided into three distinct areas for a phased approach to construction. Peer reviewed the earth and environmental health sections of the EIS related to the legacy infrastructure from prior mill operations at the site.

**Eureka General Plan EIR, City of Eureka, California.** Drafted the geology, hydrology, and hazardous materials sections of this General Plan EIR for the City of Eureka. Issues included coastal hazards including tsunamis and sea level rise, legacy contaminants from former industrial land uses, stormwater runoff, hazardous building materials emissions from demolition activities, development on soft deposits, and seismic hazards.

**Eureka Pier Hotel, Eureka, California.** Conducted geology, hydrology, and hazardous materials analysis of potential impacts related to construction of a new hotel adjacent to the Arcata Bay. Issues included seismic hazards, subsidence, tsunami, and sea level rise.

**Fountain Wind Project EIR, ConnectGen, Shasta County, California.** Provided senior review and response to comments on controversial wind turbine project that would construct up to 72 wind turbines and associated transformers together with associated infrastructure and ancillary facilities that would have a maximum total generating capacity of up to 216 megawatts.

**Candlestick Point Addendum 6 EIR, City of San Francisco, California.** Provided the analysis of the proposed changes associated with an addendum to the 2010 Project EIR for the Candlestick Point-Hunters Point Shipyard Phase II development plan for these two formerly developed areas. Issues included existing soils that are incapable of supporting proposed improvements, the potential for encountering legacy contaminants, and sea level rise.

**Treasure Island Naval Base and Yerba Buena Island Redevelopment Plan EIR, City of San Francisco, California.** Hazardous materials specialist and geologist for the EIR on the redevelopment of the former naval base that had a long history of hazardous materials use. The base was divided into separate areas determined by historical releases of a wide range of contaminants. The proposed project included development of wetland for treatment of stormwater runoff. Geotechnical hazards at the Treasure Island site include the placement of un-engineered fills that are comprised primarily of dredged sediment, the presence of soft Bay Mud deposits, a perimeter berm that is founded on hydraulically placed dredged sediments, liquefaction, settlement, and lateral spreading.

**Oak to Ninth Avenue Waterfront Development EIR, City of Oakland, California.** Analyzed the various geotechnical challenges associated with shoreline development on Bay Mud, soil and groundwater quality issues, shoreline erosion potential, effects of dredged sediments for use as fill, and the presence of contaminated subsurface materials and their potential impacts to the public. The project would redevelop an underutilized maritime industrial area along the Estuary and the Embarcadero into a revitalized area. As part of a Port of Oakland endeavor, this project would also include a new wetland at the mouth of Clinton Basin.

**Ballona Wetlands Restoration EIR/EIS, California Coastal Conservancy/California Department of Fish and Wildlife/U.S. Army Corps of Engineers, Los Angeles, California.** Analyzed the potential impacts associated with the removal of the concrete-lined creek channel for the purposes of ecosystem restoration, flood and stormwater management, public access improvements, infrastructure and utility modifications, a full-scale implementation and construction program, a state-of-the-art monitoring and adaptive management program, and ongoing operations and maintenance activities. Project team included the California Coastal Conservancy, the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, the Annenberg Foundation, the Santa Monica Bay Conservancy, the Southern California Gas Company, the Los Angeles County Flood Control District, and a wide range of consulting team members.

# Jonathan Leech, AICP, INCE, PG

## SENIOR PROJECT MANAGER, ENVIRONMENTAL SPECIALIST

Jonathan Leech is a senior project manager and environmental specialist with 35 years' environmental planning experience, including environmental research, hazardous materials and environmental impact assessment, condition compliance and mitigation monitoring, and land use analysis. Mr. Leech has contributed to more than 200 CEQA and NEPA environmental documents including: environmental assessments (EAs); environmental impact reports (EIRs); mitigated negative declarations (MNDs); specific plans; and policy documents for numerous local agencies within the State of California. He has also authored mitigation monitoring and reporting plans (MMRPs) and environmental quality assurance plans (EQAPs) to ensure adherence to required conditions during project implementation, and has served as project manager and/or on-site environmental coordinator for the implementation of such plans.

Mr. Leech also has more than a decade of focused experience in noise assessments, including exterior and interior noise exposure studies for single-family homes, as well as large-scale evaluations of proposed subdivisions and specific plan projects, for inclusion in environmental impact reports (EIRs) or negative declarations (NDs). He has performed noise evaluation of commercial and industrial sources, as well as provided noise monitoring during construction for compliance with project conditions and noise ordinance restrictions.

## Selected Project Experience

**City of Rohnert Park On-Call Acoustic Services, Sonoma County, California.** As a senior acoustician, Mr. Leech has prepared noise and vibration assessments or provided acoustic consultation on behalf of the City for more than a half-dozen projects throughout the City of Rohnert Park.

**Belden Barns Farmstead and Winery EIR, Sonoma County, California.** As the noise specialist, assessed noise levels at nearby residences associated with construction and operation of the project, which includes development of a winemaking, hospitality, and farmstead food production facility. Noise sources assessed included additional traffic from the new operations, stationary equipment for the new uses, outdoor crowd activities and amplified sound, as well as construction equipment and activities.

**Yosemite Avenue-Gardner Avenue to Hatch Road Annexation, City of Merced, California.** Performed noise and vibration assessment of this mixed-use development proposal and prepared the noise and vibration section of the EIR for the project. The approximately 70-acre annexation site was proposed to be developed with 20 multi-family structures containing a total of 540 units, a 13,700 square foot clubhouse, and a mixed use building with 66,000 square feet of ground floor retail and 30 residential units on the second floor.



### Education

*University of California,  
Santa Barbara  
BA, Environmental  
Studies/  
Geology, 1984  
Pennsylvania State  
University  
Coursework in Graduate  
Acoustics  
Program, 2012*

### Certifications

*American Institute of  
Certified Planners (AICP)  
Professional Geologist  
(PG), CA*

### Professional Affiliations

*American Planning  
Association  
Association of  
Environmental  
Professionals  
Institute of Noise Control  
Engineers (INCE)*

**California Boulevard Round-About, City of Napa, California.** Prepared the noise assessment for the reconfiguration of California Boulevard at 1st Street to include a round-about (traffic circle). Analysis included traffic noise utilizing the FHWA TNM 2.5 traffic noise prediction model, and construction noise assessment utilizing the FHWA RCNM construction noise model.

**Byron Airport Development Program, County of Contra Costa, California.** Prepared the noise and vibration assessment for the proposed development of light industrial, warehousing and logistics, commercial, and low-intensity office uses on the airport property. Noise sources included new stationary equipment at the airport property for the expanded land uses, and traffic noise from the Existing and Future Year (2040) conditions.

**County of Lassen Noise Element Update, Lassen County, California.** Served as the senior technical lead in the preparation of the Noise Element Update, providing feedback to the urban planning team for formulation of updated goals and policies to include in the element. Also managed or performed comprehensive community noise surveys and modeling of transportation noise sources for existing and Year 2040 build-out conditions. Principal author of the background technical report and proposed Noise Ordinance. Managed the preparation of the Mitigated Negative Declaration addressing the Noise Element Update and Noise Ordinance.

**Truckee High School Track and Field Improvements Project, Focused Environmental Noise Assessment, Truckee, California.** The project included replacement of an existing track with all-weather surface, renovation of the related facilities for “field” competitions, a new restroom structure, replacement grandstand, and new public address system. A focused noise assessment was prepared for the Tahoe-Truckee Unified School District which addressed noise levels from construction activity and use of the proposed new public address system at vicinity residences.

**West Lake Tahoe Regional Water Treatment Plant, Focused Environmental Noise Assessment, Tahoma Village (Lake Tahoe), Placer County, California.** The proposed project included upgrading of a water intake facility at the Lake Tahoe shoreline, water pipeline, and development of a new water treatment facility in the unincorporated Tahoma community of Placer County. Dudek prepared the noise assessment for Tahoe City Public Utility District. The noise study evaluated environmental noise effects from construction and operation of the treatment plant upon existing adjacent residential uses.

**Solano Community College District, Vacaville Center Biotechnology and Science Building, Mitigated Negative Declaration/Initial Study (MND/IS).** Dudek prepared an Initial Study and Mitigated Negative Declaration for the proposed Biotechnology and Science Building to be located on the Vacaville Campus of Solano County Community College District. Improvements included the structure, extension of utility systems, and new parking area. Issues included visual and aesthetics, transportation and circulation, air quality, noise, public services, and surface hydrology. Dudek administered the noticing, document circulation, hearing process, and response to comments for the project environmental review process in compliance with CEQA. Mr. Leech managed the acoustic assessment and preparation of the noise section of the MND for the project.

**Santa Barbara Community Wildfire Protection Plan PEIR, City of Santa Barbara, California.** Prepared the noise and vibration section of the EIR for the comprehensive fire management program for the City of Santa Barbara, known as a Community Wildfire Protection Plan (CWPP). The purpose of the project is to update the City’s 2004 Wildland Fire Plan to account for changes in the City’s fire environment and work completed under the 2004 Plan with a comprehensive, coordinated plan to mitigate the impact of wildland fire to the City. The noise and vibration section evaluated changes in noise exposure for noise-sensitive uses (i.e., residences) from alterations in the proposed fuel management program, potential impacts, and mitigation measures related to implementation of the proposed CWPP.

# Michael Carr, INCE

## SENIOR ACOUSTICIAN

Michael Carr is an acoustician with more than 20 years' experience in acoustics and related industries, with an emphasis on environmental acoustics, noise and vibration. Mr. Carr is a member of the Institute of Noise Control Engineering (INCE) and an expert in acoustics, noise and vibration control, sound insulation and electro-acoustics. His broad range of experience and technical depth encompass a number of markets including structural and building acoustics, residential, commercial, recreational, transportation, environmental noise and vibration control. In the area of construction/rehabilitation noise and vibration, Mr. Carr has expertise in measurement, prediction and assessment of noise and vibration associated with traditional and state-of-the-art construction equipment and techniques, including the potential effects on fish, marine mammals, and terrestrial animals.

Mr. Carr has managed, supervised and performed acoustic, noise and vibration analyses for both private and public sectors including federal, state, regional and local agencies, preparing technical studies, environmental assessments, and documentation in support of CEQA and NEPA. He has authored, and become expertly skilled with proprietary modeling programs, SoundPLAN, Cadna|A, Insul, and the Environmental Noise Model; along with many agency developed noise models such as the Federal Aviation Administration's Integrated Noise Model (INM), Federal Highway Administration based software such as Sound 32, the Roadway Construction Noise Model (RCNM), and the Traffic Noise Model (TNM), along with many others.

## Relevant Previous Experience

**Well 66, 65, 209 Drilling and Construction Monitoring. Moreno Valley, California.** The project developed new ground water wells, accessing aquifer storage and recovery sites and groundwater basin in the area. Designed and executed automated construction noise monitoring sites near the well sites to provide near real-time notification of noise or vibration level exceedances and catalog data for inclusion in bi-weekly monitoring reports.

**Laguna Creek Dam Coanda Screen Retrofit. Santa Cruz, California.** Develop and implement a sound level monitoring program to characterize existing noise sources associated with project operations and quantify the existing noise environment. Perform and analysis of construction and operational noise levels. The dam was also of historical significance which required substantial research and evaluation of the potential for construction operations to jeopardize the historical significance of the structure.

**Southport Levee Improvement Program, West Sacramento, California.** Develop and implement a construction vibration-monitoring program for the levee improvement project. Conduct pre- and post-construction structural inspections at more than 50 structures in close proximity to vibration generating construction activities. Install, monitor and maintain 24-hour remote vibration monitoring stations throughout the project area.



### Education

Sierra College  
AS, Electronic Technology,  
2006  
AS, Computer Technology,  
2006  
Certificate in Mechatronic  
Systems, 2005

### Certifications

AVIXA Certified  
Technology Specialist  
(CTS)

### Professional Affiliations

Acoustical Society of  
America  
Association of  
Environmental  
Professionals  
AVIXA  
INCE

**Avon Response Team – Waste Management Unit Closure and Remediation, Martinez, California.** Analyzed the potential effect of proposed large-scale construction operations on nearby sensitive habitat, which had the capability to support endangered species. Deployed noise monitoring and reporting equipment to aid in limiting project noise levels to below existing ambient noise levels and protect the potential habitat areas.

**Folsom Dam Auxiliary Spillway – Phase II through IV, Folsom, California.** Developed and implemented an Acoustic Monitoring Plan, perform compliance noise monitoring, process and maintain automated remote noise monitoring equipment, conduct supplemental monitoring and develop necessary mitigation measures as needed.

**Amorco Marine Terminal MOTEMS Seismic Upgrade, Martinez, California.** Developed and implemented a Hydroacoustic Monitoring plan for MOTEMS upgrade and pile-driving activities at the Amorco Marine Terminal. Worked with the project biologist in preparation of the Biological Assessment and assisted with biological monitoring.

**CDCR Infill Facility EIR, State-wide, California.** Evaluation of proposed infill facilities at five locations throughout the state; including R.J. Donovan, CSP Solano, CSP Sacramento, Mule Creek State Prison and California Institute for Men, Chino. Transportation and stationary source noise modeling, future noise-source impact assessment and report authoring.

**Clapper Rail Habitat – Construction Effect Analysis, Martinez, California.** Preparation of a noise and vibration monitoring protocol and methodology statement, implementation of the monitoring program, evaluation of existing and future noise and vibration levels and their impact on Clapper Rail nesting habitat.

**South San Joaquin Delta Temporary Barrier Project, San Joaquin County, California.** Development and implementation of a noise monitoring plan to assess construction, installation and removal of temporary barriers within the delta.

**Doughty Cut Flow Monitoring Pile Installation – Hydroacoustic Monitoring, San Joaquin Delta, California.** Performed hydroacoustic monitoring for the installation of Acoustic Doppler Current Profilers in the San Joaquin – Stockton Delta.

**American River Salmonid Spawning Gravel Augmentation EA and Technical Noise Study, Sacramento County, California.** Noise measurement program, modeling of existing and future haul routes and deposition sites, mitigation analysis and report authoring.

**Brockway Erosion Control Project IEC, Placer County, California.** Conducted noise level monitoring, quantified, and propagated construction noise levels to adjacent land uses, evaluated traffic noise levels resulting from the project along State Route 28 and provided mitigation measures where necessary.

**Natomas Levee Improvement Program EIR, Sacramento County, California.** Analyzed construction noise impacts for the environmental compliance effort in support of the SAFCA's program of flood control improvements.

**Alviso Slough Restoration Project, Santa Clara County, California.** Analyzed noise impacts along haul truck routes, pile-driving and those generated by heavy-equipment used for the restoration.

**Bidwell-Sacramento River State Park Habitat Restoration and Outdoor Recreation Facilities Development EIR, Butte County, California.** Noise impact analysis and report authorship for the riparian habitat restoration, water quality improvement and recreational facility development along the Sacramento River.



# Stephanie Strelow

## PRINCIPAL ENVIRONMENTAL PLANNER

Stephanie Strelow (*STEF-uh-nee STREE-lo; she/her*) has 40 years' experience as an environmental and land use planner, specializing in California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents. Ms. Strelow has served the Monterey Bay and Central Coast regions, providing clients with environmental analysis, resource management, and land use planning services. She has prepared more than 400 environmental, planning, and resource management studies and reports, and has managed multidisciplinary teams for major regional projects.

Ms. Strelow has worked on a diverse range of private and public projects of various sizes and complexity, including highly controversial projects. She has successfully completed legally defensible environmental documents within specified budgets and schedules. She is thoroughly knowledgeable regarding CEQA/NEPA, state planning law and practices, coastal regulations, principles of resource management, and engineering design concepts.



### Education

University of California  
Santa Cruz  
BA with Honors,  
Environmental Planning

### Professional Affiliations

Association of  
Environmental  
Professionals

## Project Experience

### **Newell Creek Dam Inlet/Outlet Replacement Project EIR, City of Santa Cruz,**

**California.** Project manager for an EIR on a major capital improvement project to replace an existing dam inlet/outlet works for the City of Santa Cruz Water Department. The primary project components include a new intake within Loch Lomond Reservoir, new outlet features, and replacement of a segment of the North Creek Pipeline that conveys water to the reservoir from an intake on San Lorenzo River and conveys stored water to the City of Santa Cruz's Graham Hill Water Treatment Plant. The scope included preparation of technical biological and cultural resources studies, the EIR, and an Environmental Package (CEQA Plus) document for the State Water Resources Control Board. Ms. Strelow also oversaw preparation of regulatory permit applications to state and federal agencies, including development of compensatory mitigation plans with close coordination with City of Santa Cruz staff.

**San Lorenzo River Lagoon Culvert, City of Santa Cruz, California.** Project manager for CEQA and permitting services for the installation of a culvert water-level control structure in the San Lorenzo River Lagoon developed as a result of the City of Santa Cruz's Interim Management Plan process. The project would provide a stabilized water elevation to lessen localized flooding while protecting special-status fish habitat. The culvert system would consist of an approximately 750-foot-long pipe installed on the lower face of the San Lorenzo point headland, with infiltration galleries and a junction box at the north end connected to a duck-bill outlet at the ocean end. The system would rely on passive removal of water from the lagoon through the culvert via overflow of surface waters through an adjustable weir and infiltration intake box. Tasks included preparation of an addendum to an adopted Mitigated Negative Declaration (MND) for the 2015 conceptual project and preparation of permit applications to the U.S. Army Corps of Engineers (USACE) and California Department Fish and Wildlife (CDFW), including preparation of a cultural resources investigation and close coordination with the City of Santa Cruz's biologists.

**Iris Canyon Creek Sediment Removal Project, Monterey County, California.** Project manager for CEQA and permitting for project that involved removal of accumulated sediment from a highly impacted drainage (Iris Canyon Creek) and restoration of the creek channel to re-establish the historical alignment and biological functions of the creek. The work effort included preparation of biological and cultural resources studies and revegetation/restoration plans. Ms. Strelow oversaw the permitting efforts in which permits from the USACE, CDFW and Regional Water Quality Control Board (RWQCB).

**Santa Cruz Resource Recovery Facility IS, City of Santa Cruz, California.** Prepared an Initial Study (IS)/MND on sediment removal and slope/drainage inlet protection measures to protect water quality into creeks and drainages at the City of Santa Cruz Dimeo Lane Landfill. Primary issues included potential impacts to special-status species and habitat in the coastal zone.

**San Lorenzo River Lagoon Interim Management Plan, City of Santa Cruz, California.** Prepared an IS/MND on city-proposed management strategies to maintain water levels in the San Lorenzo River Lagoon to protect fish and habitat resources while minimizing flooding of adjacent properties. The San Lorenzo River Lagoon Interim Management Plan focused on preventing unauthorized river lagoon breaching and controlling water elevation at a specified level to prevent localized flooding to public and private properties and infrastructure, and to protect special-status aquatic fish species. The Interim Management Plan was designed as an adaptive management program for addressing activities related to fisheries habitat, flooding, and public access and safety where the river mouth empties at Santa Cruz Main Beach. Ms. Strelow worked closely with City of Santa Cruz staff and consultants to ensure that the CEQA document met other responsible agency requirements.

**Murray Street Bridge Seismic Retrofit Project.** Prepared CEQA documents for the retrofit of the bridge over the Santa Cruz Small Craft Harbor and coordinated with the California Department of Transportation in completing required NEPA biological studies, including preparation of an Incidental Harassment Authorization Application.

**City-Wide Creeks and Wetlands Management Plan, City of Santa Cruz, California.** Assisted the City of Santa Cruz with revising and editing the draft Wetlands Management Plan and with preparing revisions to the zoning ordinance. Also prepared the IS/Negative Declaration.

**Harbor Dredge Management Plan, Santa Cruz Port District, Santa Cruz, California.** Prepared Harbor Dredge Management Plan for the Santa Cruz Port District, identifying harbor dredging and disposal history and permitting over the past 30 years. Outlined future dredge disposal management goals in consultation with Port District staff, and identified associated impacts for federal and state regulatory agencies.

**Nearby Lagoon Management Plan, City of Santa Cruz, California.** Prepared an IS on a series of lagoon management actions, including removal of sediment and invasive species and public access improvements for a resource area managed by the City of Santa Cruz.

**Lower San Lorenzo River Bank Protection and Restoration Project, City of Santa Cruz, California.** Prepared an IS/MND for construction of a bank stabilization wall and restoration of wildlife habitat along an actively eroding portion of the San Lorenzo River.

**Annual Stream Maintenance Program, Santa Clara Valley Water District, San Jose, California.** Prepared Initial Study/Mitigated Negative Declaration (IS/MND) on proposed sediment removal and bank stabilization projects proposed as part of an annual maintenance program for flood management facilities for the years 2000 and 2001. Prepared documents and permit applications to the U.S. Army Corps of Engineers (ACOE) and Regional Water Quality Control Board (RWQCB).

# Daniel Hoffman

**CEQA/NEPA PLANNER**

Daniel Hoffman is a California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) planner with 5 years' professional experience specializing in CEQA/NEPA compliance, planning and permitting, and construction management.

Mr. Hoffman has worked as an environmental planner and contract city planner for several municipalities throughout Northern California such as the Cities of Martinez, San Pablo, Vallejo, and Watsonville and Counties of Santa Clara and Sonoma. Mr. Hoffman has produced defensible CEQA documents, implemented and navigated regulatory permitting processes, and prepared and presented staff reports in public hearings.



**Education**

*Whitman College  
BA, Environmental  
Studies/Economics*

**Professional Affiliations**

*Association of  
Environmental  
Professionals*

## Project Experience

**University of California (UC) Berkeley Softball Field EIR, Berkeley, California.**

Served as deputy project manager and environmental planner for an intercollegiate athletic softball field project that includes the renovation of a softball field, fan concourse, team facilities, lighting, and scoreboard. Primary tasks involved project management and environmental analysis.

**UC Berkeley Clark Kerr Campus Beach Volleyball EIR, Berkeley, California.** Served as environmental planner for an Intercollegiate Athletic beach volleyball facility project involving the construction of new beach volleyball courts, lighting, scoreboard, spectator area, and supporting team and locker rooms. Primary task involved drafting multiple sections of the project CEQA EIR.

**Santa Clara County Rural Zoning Ordinance Amendments EIR, Santa Clara County, California.** Served as environmental planner for zoning ordinance amendments project intended to simplify and streamline permit processes, preserve rural areas, and further the County's General Plan goals for continued agricultural viability. Primary task involved drafting multiple sections of the project CEQA EIR.

**Santa Cruz Water Rights Project EIR, City of Santa Cruz, California.** Served as environmental planner for a water rights modification project that would modify water rights to expand authorized place of uses, better utilize existing diversions, and extend the City's timeline to put water to full beneficial use and provide for underground storage to address further constraints on the City's limited surface water supply caused by instream flow requirements. Primary task involved the preparation and maintenance of the project's administrative record.

**123 Independence Drive EIR, City of Menlo Park, California.** Served as environmental planner for a residential development project that involved construction of 116 for-sale townhomes and 316 rental apartments, along with associated parking and landscaping, on an 8.15-acre parcel. Primary tasks involved environmental analysis by drafting multiple sections of the CEQA EIR and performing on-site ambient noise measurements.

**San Francisco Fell Street DMV Field Office Initial Study, San Francisco, California.** Served as project manager and environmental planner for the California Department of General Services (DGS) DMV field office reconstruction project that involves the replacement of a current San Francisco DMV field office with a larger building. Primary tasks involved project management and environmental analysis.

**City of Concord Housing Element Update, Concord, California.** Served as lead environmental planner for the City of Concord's General Plan housing element update project that is intended to address the comprehensive housing needs of the city. Primary tasks included environmental analysis by drafting multiple sections for the project CEQA Initial Study and mapping research to conduct the project's required Affirmatively Furthering Fair Housing analysis.

**Environmental Review for City of Santa Cruz, Santa Cruz, California.** Served as environmental planner for various development projects within the City of Santa Cruz. Primary task involved environmental analysis by drafting project-level review checklists for compliance with the city's General Plan EIR. Projects included residential, commercial, and assisted living facility uses.

## Relevant Previous Experience

**Santa Clara Valley Medical Center Behavioral Health Services Center Initial Study/Mitigated Negative Declaration (IS/MND), MIG Inc., Santa Clara, California.** Served as environmental planner for a medical facility project consisting of a three-story Behavioral Health Services Center building and associated four-story parking structure. The project was to replace, consolidate, and expand existing mental health services on the medical campus. Tasks included environmental analysis through the preparation of a project CEQA IS/MND and preparation of public noticing documents.

**Tru Hilton Hotel IS/MND and Conditional Use Permitting (CUP), MIG Inc., Santa Rosa, California.** Served as environmental planner and contract project planner for a hospitality project consisting of a four-story hotel. Tasks included environmental analysis through the preparation of a project CEQA IS/MND, planning review and staff report for the CUP and Design Review, preparation of public noticing documents, and correspondence with interested public.

**Carlton Senior Living Facility IS/MND and CUP, MIG Inc., Vallejo, California.** Served as environmental planner and contract project planner for a senior living facility project involving the construction and operation of a 156-unit senior living facility. Tasks included environmental analysis through the preparation of a CEQA IS/MND, correspondence with interested public, and staff report presentation to City's Planning Commission.

**Sonoma County Cannabis Program CEQA Analysis and Local Permitting, MIG Inc., Sonoma County, California.** Served as environmental planner and contract county planner for Permit Sonoma. The program was established in 2015 to locally permit cannabis cultivation, manufacturing, and dispensing operations throughout Sonoma County. Tasks included generating a template IS/MND for the client's internal use as well as working with applicants and operators to zoning compliance and Use Permit issuance.

**City of San Pablo Contract Planning, MIG Inc., San Pablo, California.** Served as contract planner for the City of San Pablo's Planning Department. Provided staff support to the City of San Pablo by providing project management, staff report preparation, general plan and zoning analysis, and customer service. Presented staff reports to City's Planning Commission and helped author the City's revised Accessory Dwelling Unit ordinance.

**City of Martinez Contract Planning, MIG Inc., Martinez, California.** Served as contract planner for the City of Martinez' Planning Department. Provided staff support to the City of Martinez by providing project management, staff report preparation, general plan and zoning analysis, and customer service.

# Mladen Popovic, AICP

## TRANSPORTATION PLANNER

Mladen Popovic (*MLAH-den PAH-puh-vitch; he/him*) is a transportation planner with 7 years' experience focusing on transportation impacts for a wide variety of projects. Mr. Popovic has an educational background in planning and experience working within traffic impact analysis procedures, including vehicle miles traveled analysis, data collection, cumulative project development, trip generation calculations, level of service (LOS) analysis for intersections and roadway segments, signal warrant analysis, construction traffic, internal circulation and access evaluation, and vehicle turning analysis. He has utilized various types of transportation and design software including Synchro, Traffix, AutoTurn, as well as other technical programs, such as ArcGIS and AutoCAD.

## Project Experience

**Santa Cruz Water Rights Project EIR, City of Santa Cruz, California.** Worked as part of the transportation team on the Santa Cruz Water Rights Project EIR. Components of the project include modifications to existing water rights and related actions required to implement the proposed modifications, including expansion of place of use, clarifications on method and points of diversion and redirection, adding an underground storage supplement, extension of time to put water to full beneficial use, and incorporation of bypass requirements for each water right. The underlying purpose of the project is to improve City of Santa Cruz water system flexibility while enhancing stream flows for local anadromous fisheries. The proposed project also includes water supply augmentation components and surface water diversion improvements that could result after the water rights modifications are approved. Physical infrastructure improvements include aquifer storage and recovery facilities in the Beltz system and potentially elsewhere, intertie facilities to allow for water transfers with neighboring agencies, and improvements to the Tait Diversion/Coast Pump Station and the Felton Diversion.

**Hunter Subdivision Project EIR, City of St. Helena, California.** Lead the Traffic Impact Analysis and Transportation Section for the Environmental Impact Report (EIR) for a proposed residential project on an approximately 17-acre parcel located near downtown St. Helena. The project includes 51 single-family homes, 25-multi-family units, and up to 25 accessory dwelling units. The analysis included a detailed weekday, Saturday intersection LOS analysis, vehicle miles traveled analysis, and horizon year analysis. The project is very controversial and the City of St. Helena anticipates a legal challenge to the EIR. It is anticipated the EIR will be released for public review in 2021.

**Focused Traffic Analysis for the Bellevue Ranch 7 Project, City of Santa Rosa, California.** Worked as part of a team to analyze the impacts associated with 30 single-family homes and up to 7 accessory dwelling units in the City of Santa Rosa. Specialized analyses included sight distance analysis, pedestrian, bicycle, and transit accessibility, site circulation, and emergency vehicle analysis. American Association of State Highway and Transportation Officials guidelines were utilized to create AutoTurn turning analysis for the maneuverability of emergency vehicles on site, as well as the stopping distance for the site that fronts a rural two-lane roadway.



### Education

University of California,  
Santa Barbara  
BA (with Honors),  
Geographic Information  
Systems  
BA (with Honors),  
Environmental Studies  
University of California,  
Irvine  
Masters, Urban and  
Regional Planning

### Certifications

AICP No. 31419

### Professional Affiliations

American Planning  
Association

**Orange County Sanitation District Facilities Master Plan EIR, Orange County, California.** Worked as part of a team on the transportation analysis and reporting for the project's Program EIR for the Sanitation District's 2017 Facilities Master Plan. The analysis covers projects included in a 20-year Capital Improvement Program to ensure that the Orange County Sanitation District could sustain its infrastructure, meet future regulatory requirements, and continue to provide reliable service to the public. The project included facilities at Reclamation Plant No. 1 in Fountain Valley, Treatment Plant No. 2 in Huntington Beach, the sewer collection system, and improvements at various pump stations. All 75 project- and program-level projects were evaluated quantitatively at either a project-level or representative project approach.

**Huntington Park General Plan Update, City of Huntington Park, California.** Contributed on the traffic impact analysis for this project that served to analyze the proposed update to the City of Huntington Park's General Plan. The project involved re-analyzing existing conditions and utilizing model data from the Southern California Association of Governments travel demand model for buildout year conditions for seven planning areas that comprised 12 critical intersections. Once model results were post-processed and refined, intersections and roadway segments were distributed accordingly based upon the changes of density of uses proposed within the General Plan Update. Since the City of Huntington Park lies directly adjacent to the City of Los Angeles, regional transit and pedestrian circulation was also analyzed.

**Los Angeles Department of Water and Power Projects, Los Angeles, California.** Worked as a part of a team multiple Los Angeles Department of Water and Power projects that analyzed various construction impacts associated with trunk line, pipeline, and facility construction. The analyses focused on the temporary construction impacts upon both residential and urban corridors, impacts to pedestrian and multi-modal accessibility, and LOS. As part of the Los Angeles Department of Transportation guidelines, critical movement analysis was performed for a wide range of regions across Los Angeles.

**De Anza Revitalization Plan – Existing Mobility Conditions, City of San Diego, California.** Worked as a part of a team on the existing mobility conditions of the traffic report for restoring the De Anza Cove area located within the Mission Bay area of the City of San Diego. Produced several figures utilizing Illustrator and ArcGIS to show multimodal connections with the proposed project, including bicycle infrastructure, pedestrian routes, and significant roadways. Maps were displayed and utilized for public information sessions, scoping, and review periods.

**Baker Street Neighborhood Plan, University of California – Irvine Master's Capstone, City of Costa Mesa, California.** As part of Mr. Popovic's Master's capstone project within University of California, Irvine, worked on a yearlong report to craft a detailed neighborhood plan for the Baker Street neighborhood in the City of Costa Mesa. Lead citizen outreach efforts, data collection for crime analysis, and transportation analysis that recommended pedestrian, bicycle, and roadway improvements geared towards safety and reducing health inequalities within Baker Street as compared to nearby affluent neighborhoods. Firsthand data collection, citizen interaction, and traffic measurements were all collected to substantiate the recommended improvements and validate claims presented to the University of California, Irvine community as well as local stakeholders that attended the final presentation.

**Little McGonigle Ranch Road, City of San Diego, California.** Assisted on the traffic study for this project, which proposed extending Little McGonigle Ranch Road southward towards Carmel Mountain Road within the Del Mar Mesa community of San Diego. The proposed project notably was analyzed to ensure that emergency providers would not incur additional strain with this added community and roadway. Thus, travel times for ambulances and fire departments in the area were heavily scrutinized.

# Tyler Friesen

## GIS ANALYST

Tyler Friesen is a geographic information system (GIS) analyst with 12 years' experience in geospatial technologies in both the private and public sectors. Mr. Friesen has been responsible for spatial modeling/analysis, data development, and map production, and has experience in database development and management, asset management, LIDAR analysis, spatial analysis, spatial model building, network analysis, raster analysis and online Web applications. He has assisted in the preparation of habitat conservation plans (HCPs), biological resources technical reports, and environmental impact reports (EIRs).

Mr. Friesen has also provided GIS support for numerous biological resources reports, wetlands permitting and jurisdictional delineation reports, fire protection plans, and focused species surveys throughout California. He is trained in a wide range of industry-standard applications, including ArcGIS Suite, Trimble Pathfinder and TerraSync, ArcPad, and Microsoft Office Suite, as well as such hardware as Trimble GeoXH and Trimble Juno ST.

## Project Experience

**Yokohl Ranch Development Project, The Yokohl Ranch Company LLC, Tulare County, California.** Served as principal GIS analyst for 36,000-acre project. Provided GIS support in preparation of biological resources technical reports, cultural resource reports, management plans, wetland delineations, focused surveys, and EIRs. Responsible for all aspects of data collection and management, as well as display of over one hundred GIS layers. Modeled Golden Eagle nest viewsheds and over forty special-status species suitable habitats in ArcSDE 10.1. Developed a GPS data dictionary and ArcSDE database to support the survey, excavation, and evaluation of approximately 200 archaeological sites. Coordinated data distribution and collection between client and consultant team. Incorporated numerous data layers from different sources and formats for use on project. Project is in progress.

**Old Mission Dam Biological Technical Report, City of San Diego, California.** Provided GIS support including database management, analysis, and creation of report graphics and figures in support of the biological technical report and joint permit application.

**Master Plan EIR, California State University, Monterey Bay.** Served as the principal GIS specialist overseeing the project GIS team responsible for production of EIR graphics and analysis in support of the EIR. Provided quality assurance/quality control of all graphics production, database creation and management, as well as interfacing with multiple disciplines and outside consultants.

**As-Needed Environmental Services, City of Rohnert Park, California.** Served as principal GIS specialist responsible for overseeing the project GIS team supporting multiple environmental documents. Managed multiple project databases including the incorporation of computer-aided drafting and design (CADD) data and KMZ files



### Education

San Diego State University  
BA, Geography,  
(Environment and Society minor), 2011

### Certifications

GPS for GIS  
LIDAR in ArcGIS 10.1

### Professional Affiliations

URISA International  
URISA, Northern California Chapter

into the project GIS databases. Oversaw the creation figures for a wide range of environmental documents, survey reports, and resource inventories. Provided quality assurance/quality control of all graphics production, database creation and management, as well as interfacing with multiple disciplines and outside consultants.

**Alexander Crossings Apartments EIR, City of Napa, California.** Served as the primary GIS analyst responsible map production and impacts analysis in support of the EIR. In charge of managing all GIS-related data in project database and responsible for keeping GIS data current. Project is complete.

**McKinley Villages EIR, Thomas Law Group, Sacramento, California.** Served as the principal GIS analyst responsible for all aspects of data collection and management. Technical studies included Biological Technical Report and Swainson's hawk (*Buteo swainsoni*) survey report.

**Alpine Sierra EIR, Placer County Planning Department, California.** Provided GIS support in preparation for the EIR, including database management and raster analysis. Responsible for all aspects of data collection and management, as well as display of GIS data. Assisted with the preparation of multiple environmental documents including Biological Resource Assessments, Jurisdictional Delineation, Visual Impact Report and Cultural Resource Reports.

**Animal Shelter Initial Study, Placer County Department of Facility Services, Auburn, California.** Served as primary GIS analyst responsible for database management including the incorporation of computer-aided drafting and design (CADD) data into the GIS database and map production.

**Rocketship Tamien Public Elementary Charter School and Joint-Use Facilities, Launchpad Development Company, San Jose, California.** Served as Principal GIS analyst for multiple school development sites throughout the City of San Jose. Responsibilities include database creation and management, the incorporation of numerous data layers from different sources including CADD data, analysis and figure creation.

**University Village Fire Protection Plans (FPP), SSBT LCRE V LLC c/o JPB Development, LLC, San Diego, California.** Provided GIS support during the preparation of the FPP by modeling fire station response times in network analyst. Responsible for the creation of project database, the incorporation of numerous data layers from different sources including CADD data to create multiple road networks, and FPP maps. Project is in progress.

**South Sacramento HCP EIR, County of Sacramento, California.** Served as Principal GIS analyst in support of the 374,000-acre conservation plan. Tasks have included data management, analysis/modeling, LIDAR analysis and map production. Responsible for creating species models run in an ArcSDE 10.1 environment. Additional supporting studies include an Aquatic Resource Plan and Watershed Management Plan. Project flow has been dynamic, requiring map production supporting day-to-day client interaction and timely decision making. Project is in progress.

**Middle Martis Creek and Elizabethtown Wetland Delineation, Auerbach Engineering Corporation, Placer County, California.** Served as principal GIS analyst tasked with the creation of project databases including habitat mapping and modeling, data acquisition, coordinating data distribution and collection between consultant teams, analysis, and map production in support of the wetland delineation.

**Lake Mathews Multiple Species Reserve HCP/Natural Community Conservation Plan, Metropolitan Water District of Southern California (MWDSC), Riverside County, California.** Served as primary GIS analyst for 8,800 acre Resource Management Plan (RMP) and Habitat Management Plan (HMP) around Lake Mathews, operated by MWDSC. Responsibilities included modeling suitable habitats, analysis, database creation and management, and figure creation.



# Raoul Rañoa

## VISUAL/TECHNICAL STORYTELLING PRACTICE LEAD

Raoul Rañoa (*ra-OOL ra-NO-a; he/him*) 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 is experienced in projects involving agriculture and tribal relations and has prepared print, online, and animated visuals covering every facet of the environmental consulting industry, including 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 graphic designs are nationally recognized, having been featured in the Best American Infographics book series two years in a row.



### Education

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

## Relevant Project Experience

**DWR Technical Assistance Program, Department of Water Resources, State of California:** Mr. Rañoa is coordinating, creating, and executing visuals illustrating DWR's efforts to support Tribal and other underrepresented communities. Visuals to be used for a K-12 lesson plan, public outreach, and social media campaigns. He is also leading the development of visuals illustrating Native American Tribal Water Stories and history within California. (Present)

**Environmental On-Call Regional Transportation Infrastructure Sea-Level Rise Assessment and Adaption Guidelines, San Diego Association of Governments, San Diego County, California.** Mr. Rañoa was responsible for creating data maps and 3D infographics illustrating the impacts of sea-level rise on local communities. (2019)

**San Diego Canyonlands Carbon Storage and Sequestration Study, County of San Diego.** Mr. Rañoa crafted data visualizations outlining carbon storage, land cover, and sequestration data for multiple watersheds. (2022)

**IRWD Aerial Analysis for San Joaquin Marsh.** Mr. Rañoa crafted data visualizations outlining changes in the vegetation index and land cover from 2006 to 2020. (2022)

**San Pasqual Valley Resource Management Plan, City of San Diego/San Diego, California.** Mr. Rañoa was the lead artist responsible for creating visuals outlining best management practices for multiple agricultural land uses, the hydrological processes occurring within the Hodges Reservoir Watershed and Hodges Reservoir, and the topographical makeup of the San Pasqual Groundwater Basin. (2021)

**Native Peoples Trade and Historic Hangar Interpretive Display, Port of Portland, Oregon.** Mr. Rañoa was the lead designer in the research and design of multiple panels incorporating Native American and aviation history. (2022)

**CDFA State Wildlife Services, State of California.** Mr. Rañoa is the lead artist in creating visuals outlining all aspects of the project, including workflows between CDFA, USDA, and CACASA, public outreach efforts, website design, and public outreach. (Present)

**Downey Urban Forest Master Plan, City of Downey, Department of Public Works, California.** Mr. Rañoa was responsible for creating data maps, 3D diagrams, and public outreach visuals outlining Cal Enviro Scores and the impact of invasive species and climate change. (2019)

**Fanita Rancho Interpretive Signs, HomeFed Corporation, Santee, California.** Mr. Rañoa was responsible for designing and illustrating interpretive signs explaining the incorporation of native plants into the project area. Designs include 3D diagrams, illustrations, and maps. (2022)

**San Diego State University Mission Valley Campus Master Plan/Design Guidelines, San Diego State University, San Diego, California.** Mr. Rañoa was responsible for creating Environmental Impact Report and Design Guidelines infographics covering all aspects of the project. (2019)

**Ojai Groundwater Sustainability Plan, Ojai Basin Groundwater Management Agency, Ojai, California.** Mr. Rañoa was responsible for translating hydrological data into 3D visuals. (2021)

**Long Beach C-17 Master Plan, City of Long Beach, California.** Mr. Rañoa was responsible for creating data maps, infographics, and the design of Specific Plan. (2019)

**Tijuana River Estuary Tidal Restoration Program, State of California Department of Parks and Recreation – Southern Service Center, California.** As lead graphic designer, Mr. Rañoa was responsible for creating infographics outlining project phases step-by-step. (2019)

## Relevant Previous Experience

**California Institute of Technology.** Responsible for infographics and data visualization for Mars missions. (2020)

**Jet Propulsion Laboratory, Pasadena, California.** Created space and environmental visuals. Interviewed staff scientists and researchers. (2018–Present)

**Los Angeles Times, California.** Served as senior artist for data visualization. Researched, wrote, and illustrated infographics, animations, and charts. Managed projects and staff. (1997–2018)

**University of California, Los Angeles.** Taught courses covering interactive media. (2007–2011)

## Conference Presentations

- Guest lecturer at Loyola Marymount University: Data Visualization Techniques and Theory
- Speaker/Presenter at Western Groundwater Congress 2021: Rocket Science Visuals – Conveying Technical Information to Decision Makers and the Public
- Speaker at Santa Ana College: Principles of 3D Visualization

## Awards

- 2003 Pulitzer Prize for the Widow Maker Investigative Series, reported at the Los Angeles Times
- 2012 Bingham Prize for Investigative Journalism, reported at the Los Angeles Times
- Society of News Design Best Portfolio/Judge for International Design Competition

# Steve Taffolla

## PUBLICATIONS SERVICES DIRECTOR

Steve Taffolla (*STEEV tuh-FOY-uh; he/him*) is a technical editor and Dudek's Publications group director with 14 years' professional editorial experience, specializing in the preparation of complex, multidisciplinary environmental documents. Mr. Taffolla has been the principal technical editor for numerous California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents, technical reports, and habitat conservation plans.

Mr. Taffolla is also a leader in the field of document accessibility, ensuring that Dudek's work products comply with the Rehabilitation Act of 1973 and California Assembly Bill 434. He understands the requirements of the Web Content Accessibility Guidelines and helps clients meet these standards in their documents.

## Project Experience

**Master Plan EIR, California State University (CSU) Monterey Bay, Marina, California.** Provided document accessibility support in compliance with Assembly Bill 434. Processed the draft and final EIR, including technical appendices. Dudek prepared the Master Plan EIR under the CSU Master Enabling Agreement and provided all technical analyses, CEQA notices and public meetings, local agency and California Department of Transportation engagement, and coordination with the campus and the CSU Chancellor's Office.

**San Diego State University Mission Valley Campus Master Plan, San Diego State University (SDSU), San Diego, California.** Provided document accessibility support for the SDSU Mission Valley Implementation Plan. The project entails redevelopment of the 68,000-seat stadium and surrounding parking lot on approximately 166 acres, adjacent to sensitive biological habitat in the San Diego River and Murphy Canyon Creek. Specifically, the project proposed to develop a new SDSU campus in Mission Valley with 1.6 million square feet of campus uses in 15 buildings; a new 35,000-seat stadium; up to 4,600 dwelling units; up to 400 hotel rooms; 95,000 square feet of neighborhood-serving commercial/retail uses; and more than 80 acres of park, recreation, and open space.

**Desert Renewable Energy Conservation Plan (DRECP), California Energy Commission and Bureau of Land Management (BLM), Southern California.** Served as the principal technical editor and project coordinator for the DRECP EIR/Environmental Impact Statement (EIS), Land Use Plan Amendment, and Record of Decision. Managed a team of technical editors for the massive documentation effort, helped respond to public comments, participated in public outreach efforts, and provided document accessibility support. Dudek applied its extensive experience in both conservation planning and the energy sector by assisting and supporting the Renewable Energy Action Team agencies (the California Energy Commission, BLM, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife) in developing the DRECP. The DRECP is a major component of California's renewable energy planning efforts that helps provide effective, coherent protection and conservation of desert ecosystems while allowing for appropriate development of renewable energy projects across 22.5 million acres in seven counties of the California



### Education

University of California,  
Berkeley  
BA, English

### Professional Affiliations

International Association  
of Accessibility  
Professionals  
Phi Beta Kappa

desert region. Dudek prepared each of the three components of the public draft DRECP that were designed to streamline renewable energy development and associated transmission while providing for conservation of critical desert ecosystems, as follows:

- A Natural Community Conservation Plan under the California Natural Community Conservation Planning Act and California Endangered Species Act
- A General Conservation Plan under the federal Endangered Species Act
- A BLM Land Use Plan Amendment under the Federal Land Policy and Management Act

Following release of the public draft DRECP, Dudek prepared the DRECP Proposed Land Use Plan Amendment and Final EIS that specifically addressed the 10 million acres of BLM-administered lands in the DRECP area.

**Pacific Ocean Aquafarms EIS and Permitting, Pacific Ocean AquaFarms, San Diego, California.** Provided document accessibility support in compliance with Section 508 of the Rehabilitation Act of 1973. Processed the scoping report and ancillary documents in support of the project. Dudek is contracted with the National Oceanic and Atmospheric Administration to prepare an EIS pursuant to NEPA for a fin-fish aquaculture project in federal waters off the coast of California. The project would see the farming of up to 5,000 metric tons of fish a year from a facility occupying approximately 480 acres of ocean at depths of 200–300 feet in federal waters approximately 4 miles off the coast of Southern California. Onshore support services and nursey facilities would be housed within either the Ports of Los Angeles/Long Beach or the Port of San Diego. The project is the first of its kind to be led by National Oceanic and Atmospheric Administration and includes multiple federal permits and environmental processing. Given the pioneering nature of the project, it requires innovative processing and rigorous public engagement. Active participants include commercial fishing groups, environmentalists, and multiple agencies. The project will refine the planning, siting, and permitting process that similar projects may follow. Dudek also supports processing of multiple federal and state permitting requirements for the project.

**Proposition 68 Technical Assistance Program, DWR, California (Statewide).** Provided document accessibility support in compliance with Assembly Bill 434. Work products included informational flyers, posters, maps, PowerPoint presentations, and other outreach materials. The Technical Assistance Program will identify communities throughout California with water supply problems such as dry groundwater wells, water shortages, or poor water quality. Through the project, Dudek is working with DWR on various mapping and outreach efforts aimed at assisting tribal governments and disadvantaged and underserved communities with their water needs.

**State Water Project Operations and Maintenance As-Needed Contract, DWR, California (Statewide).** Provided document accessibility support in compliance with Assembly Bill 434. Under the as-needed contract, processed multiple CEQA documents and technical appendices, ensuring the documents met DWR's high standards for accessibility. Also served as interim lead technical editor, working directly with DWR staff on various documentation projects. Dudek is currently supporting the State Water Project Operations and Maintenance Environmental Compliance team with as-needed environmental planning support throughout the state. DWR is in the process of undertaking major investments in the state's water storage and delivery infrastructure in the wake of aging infrastructure, the Oroville Dam challenges of 2017, and other programmatic needs that will ensure that the state's water infrastructure continues to store and deliver water to more than 20 million customers in a safe, efficient, and environmentally sustainable manner.

# Appendix B

Schedule of Charges



## DUDEK 2023 Standard Schedule of Charges

### Engineering Services

Project Director.....	\$325.00/hr
Principal Engineer III.....	\$290.00/hr
Principal Engineer II.....	\$280.00/hr
Principal Engineer I.....	\$270.00/hr
Program Manager.....	\$260.00/hr
Senior Project Manager.....	\$260.00/hr
Project Manager.....	\$250.00/hr
Senior Engineer III.....	\$245.00/hr
Senior Engineer II.....	\$235.00/hr
Senior Engineer I.....	\$225.00/hr
Project Engineer IV/Technician IV.....	\$215.00/hr
Project Engineer III/Technician III.....	\$205.00/hr
Project Engineer II/Technician II.....	\$195.00/hr
Project Engineer I/Technician I.....	\$175.00/hr
Senior Designer II.....	\$195.00/hr
Senior Designer I.....	\$190.00/hr
Designer.....	\$180.00/hr
Assistant Designer.....	\$175.00/hr
CADD Operator III.....	\$170.00/hr
CADD Operator II.....	\$160.00/hr
CADD Operator I.....	\$145.00/hr
CADD Drafter.....	\$130.00/hr
CADD Technician.....	\$120.00/hr
Project Coordinator.....	\$150.00/hr
Engineering Assistant.....	\$125.00/hr

### Environmental Services

Senior Project Director.....	\$300.00/hr
Project Director.....	\$265.00/hr
Senior Specialist V.....	\$250.00/hr
Senior Specialist IV.....	\$235.00/hr
Senior Specialist III.....	\$225.00/hr
Senior Specialist II.....	\$210.00/hr
Senior Specialist I.....	\$200.00/hr
Specialist V.....	\$185.00/hr
Specialist IV.....	\$175.00/hr
Specialist III.....	\$165.00/hr
Specialist II.....	\$155.00/hr
Specialist I.....	\$145.00/hr
Analyst V.....	\$135.00/hr
Analyst IV.....	\$125.00/hr
Analyst III.....	\$115.00/hr
Analyst II.....	\$105.00/hr
Analyst I.....	\$95.00/hr
Technician III.....	\$85.00/hr
Technician II.....	\$75.00/hr
Technician I.....	\$65.00/hr

### Mapping and Surveying Services

Application Developer II.....	\$195.00/hr
Application Developer I.....	\$155.00/hr
GIS Analyst V.....	\$205.00/hr
GIS Analyst IV.....	\$165.00/hr
GIS Analyst III.....	\$145.00/hr
GIS Analyst II.....	\$130.00/hr
GIS Analyst I.....	\$115.00/hr
UAS Pilot.....	\$115.00/hr
Survey Lead.....	\$185.00/hr
Survey Manager.....	\$145.00/hr
Survey Crew Chief.....	\$120.00/hr
Survey Rod Person.....	\$95.00/hr
Survey Mapping Technician.....	\$95.00/hr

### Construction Management Services

Principal/Manager.....	\$195.00/hr
Senior Construction Manager.....	\$185.00/hr
Senior Project Manager.....	\$175.00/hr
Construction Manager.....	\$170.00/hr
Project Manager.....	\$165.00/hr
Resident Engineer.....	\$160.00/hr
Construction Engineer.....	\$155.00/hr
On-site Owner's Representative.....	\$145.00/hr
Prevailing Wage Inspector.....	\$145.00/hr
Construction Inspector.....	\$140.00/hr
Administrator/Labor Compliance.....	\$100.00/hr

### Hydrogeology/HazWaste Services

Project Director.....	\$325.00/hr
Principal Hydrogeologist/Engineer II.....	\$295.00/hr
Principal Hydrogeologist/Engineer I.....	\$275.00/hr
Senior Hydrogeologist V/Engineer V.....	\$260.00/hr
Senior Hydrogeologist IV/Engineer IV.....	\$250.00/hr
Senior Hydrogeologist III/Engineer III.....	\$240.00/hr
Senior Hydrogeologist II/Engineer II.....	\$230.00/hr
Senior Hydrogeologist I/Engineer I.....	\$220.00/hr
Project Hydrogeologist V/Engineer V.....	\$205.00/hr
Project Hydrogeologist IV/Engineer IV.....	\$195.00/hr
Project Hydrogeologist III/Engineer III.....	\$185.00/hr
Project Hydrogeologist II/Engineer II.....	\$175.00/hr
Project Hydrogeologist I/Engineer I.....	\$165.00/hr
Hydrogeologist/Engineering Assistant.....	\$130.00/hr

### District Management & Operations

District General Manager.....	\$225.00/hr
District Engineer.....	\$215.00/hr
Operations Manager.....	\$165.00/hr
District Secretary/Accountant.....	\$140.00/hr
Collections System Manager.....	\$140.00/hr
Grade V Operator.....	\$130.00/hr
Grade IV Operator.....	\$115.00/hr
Grade III Operator.....	\$105.00/hr
Grade II Operator.....	\$85.00/hr
Grade I Operator.....	\$80.00/hr
Operator in Training.....	\$75.00/hr
Collection Maintenance Worker.....	\$75.00/hr

### Creative Services

Creative Services IV.....	\$165.00/hr
Creative Services III.....	\$150.00/hr
Creative Services II.....	\$135.00/hr
Creative Services I.....	\$120.00/hr

### Publications Services

Technical Editor IV.....	\$165.00/hr
Technical Editor III.....	\$150.00/hr
Technical Editor II.....	\$135.00/hr
Technical Editor I.....	\$120.00/hr
Publications Specialist IV.....	\$125.00/hr
Publications Specialist III.....	\$115.00/hr
Publications Specialist II.....	\$105.00/hr
Publications Specialist I.....	\$95.00/hr
Clerical Administration.....	\$90.00/hr

**Expert Witness** – Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates.

**Emergency and Holidays** – Minimum charge of two hours will be billed at 1.75 times the normal rate.

**Material and Outside Services** – Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost.

**Travel Expenses** – Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost.

**Invoices, Late Charges** – All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within 30 days from the date of the invoice. Client agrees to pay a monthly late charge equal to 1% per month of the outstanding balance until paid in full.

**Annual Increases** – Unless identified otherwise, these standard rates will increase in line with the CPI-U for the nearest urban area per the Department of Labor Statistics to where the work is being completed) or by 3% annually, whichever is higher.

The rates listed above assume prevailing wage rates does not apply. If this assumption is incorrect Dudek reserves the right to adjust its rates accordingly.









# DUDEK

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