EXHIBIT 23-B

Proposal

CEQA Compliance for MPWMD 95-10 Project

Monterey Peninsula Water Management District

April 9, 2008

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April 9, 2008

Andy Bell
District Engineer
Monterey Peninsula Water Management District
5 Harris Court, Building G
Monterey, CA 93942-0085

SUBJECT: Monterey Peninsula Water Management District 95-10 Project EIR

Dear Mr. Bell:

Jones & Stokes is pleased to forward the attached modified proposal to prepare a revised Environmental Impact Report (EIR) for the proposed Monterey Peninsula Water Management District (MPWMD) 95-10 Project near Sand City, California. Our proposal contains the information requested in your Request for Proposal dated February 7, 2008. It also reflects modifications to our March 10, 2008 proposal, based on our meeting with MPWMD staff in Monterey on March 31, 2008. It clearly highlights the firm's experience with MPWMD projects, specifically its Water Supply Project; identifies the staff (and their availability) that we will dedicate to this effort; provides individual staff qualifications; identifies our proposed approach and scope of work to achieve CEQA compliance for the project; proposes a schedule; and estimates a cost to complete a revision of the Board Draft EIR we prepared in 2002 – 2004.

We are excited about the opportunity to continue working with MPWMD staff on the water supply issues that have faced the Monterey Peninsula area for many years. We propose to use the same management staff who worked on your water supply issues in the past, so we believe we can provide efficiency in completing this work that otherwise would not be possible. These individuals are familiar with your staff, the major project-related issues, and the various agencies and individuals that are also involved in solving water supply problems in your community.

If you have any questions or concerns about our proposal, please feel free to contact Gregg Roy or me at 916/737-3000. We are willing to consider modifications to the approach, scope, and cost at your request. Thank you again for contacting us.

Sincerely,

Michael D. Rushton
Principal

630 K Street, Suite 400 — Sacramento, CA 95814 — 916.737.3000 — 916.737.3030 fax — icfi.com — jonesandstokes.com

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Introduction

About ICF Jones & Stokes and ICF International

ICF International has joined forces with Jones & Stokes, one of the premier multidisciplinary environmental consulting firms in the western United States. For nearly 40 years, Jones & Stokes has supported a broad mix of federal, state, and local government and private-sector clients on infrastructure improvement projects, restoration and planning projects, and compliance with mandated government programs. ICF Jones & Stokes provides an array of integrated services in environmental planning and natural resource management, especially in the transportation, water, energy, and natural resources sectors. ICF Jones & Stokes' Web site is www.jonesandstokes.com.

ICF International (NASDAQ: ICFI) partners with government and commercial clients to deliver consulting services and technology solutions in the energy, climate change, environment, transportation, social programs, health, defense, and emergency management markets. The firm combines passion for its work with industry expertise and innovative analytics to produce compelling results throughout the entire program life cycle, from analysis and design through implementation and improvement. Since 1969, ICF has been serving government at all levels, major corporations, and multilateral institutions. More than 3,000 employees serve these clients worldwide. ICF's Web site is www.icfi.com.

ICF Jones & Stokes is a multidisciplinary environmental services firm that provides a full range of services related to environmental planning and natural resource management. Jones & Stokes' diverse experience includes work on more than 5,000 environmental and natural resource reports and studies throughout the western United States. Our knowledge of environmental regulations and our professional relationships with regulatory agencies enable us to provide clients with practical, decision-oriented work products based on thorough and scientifically accurate analyses.

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We bring the right combination of expertise and credibility to this project, including unparalleled regulatory and California Environmental Quality Act (CEQA) expertise, knowledge of local resources and issues, and a project management/technical team that has worked closely with Monterey Peninsula Water Management District (MPWMD) on many projects. These projects include the Environmental Impact Report and Environmental Assessment (EIR/EA) on the MPWMD's Aquifer Storage and Recovery Project and the "Board Review Draft" EIR on the Water Supply Project.

1. Staff

We have assembled an exceptional team capable of delivering all of the services critical to completion of the MPWMD 95-10 Project. An introduction to our staff follows below. Resumes are provided in Appendix A.

Mike Rushton, Project Director, serves in a leadership role for ICF Jones & Stokes' northern California region Natural Resources Team. Mike is project director and manager for multidisciplinary natural resources management studies and environmental impact assessments in the western United States. He has extensive experience in CEQA and National Environmental Policy Act (NEPA) compliance, natural resources management planning, and environmental permitting. As a senior member of the firm, he assembles multidisciplinary teams, manages budgets, determines legal and regulatory compliance, performs technical reviews, and maintains client contact and public involvement relationships for a wide range of the company's clients. His experience includes multiple studies of natural resources, water supply, wastewater, solid waste, mineral resources, energy, military, and mixed-use development projects. Mike served as the Project Director for both MPWMD's Aquifer Storage and Recovery EIS/EA and the Water Supply Project EIR. Mike received an M.A. and a B.A. in Geography from the University of California, Davis in 1972 and 1968, respectively.

Gregg Roy, Project Manager, serves as a project director and project manager for large, multidisciplinary CEQA and NEPA environmental assessments for water supply and flood control projects. He has extensive experience evaluating the environmental and social effects of constructing and operating these projects. He also has extensive experience preparing socioeconomic and natural resource economic studies. Gregg is the project director for the joint Environmental Impact Statement (EIS)/EIR and action-specific implementation plan for the South Delta Improvements Program, which included constructing and operating four permanent operable channel gates in the South Delta and increasing diversions to Clifton Court Forebay to a maximum of 8,500 cfs. He is also the project director for the Intertie EIS being conducted by the U.S. Bureau of Reclamation

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(Reclamation) on constructing and operating an intertie between the California Aqueduct and the Delta Mendota Canal and the project director for the Expanded Intertie Project Plan of Study recently completed for Reclamation. Gregg is the project director for the elements of Colorado River Interim Shortage Guidelines EIS being prepared by ICF Jones & Stokes for Reclamation's Lower Colorado River Region. He has also served as project director for the environmental compliance documentation and permitting elements for a series of recent Sacramento Area Flood Control Agency flood control projects on the lower American and Sacramento Rivers. Gregg served as the Project Manager for MPWMD's Water Supply Project EIR. Gregg received a B.S. in Political Economy of Natural Resources from the University of California, Berkeley in 1982.

Jennifer Pierre, Project Coordinator, serves on the water resources team. Her experience includes environmental regulatory compliance relative to NEPA, CEQA, Corps 404 permitting, and the state and federal Endangered Species Acts (ESA). She also has extensive experience related to Delta resources and State Water Project and Central Valley Project operations. Jennifer manages the preparation of EISs and EIRs, and prepares permit applications and supporting reports for agencies such as California Department of Water Resources (DWR), Reclamation, U.S. Army Corps of Engineers (Corps), and California Department of Fish and Game (DFG). She manages large water supply projects such as South Delta Improvement Project and Intertie, flood control projects such as the Bear River Levee Improvements and various Sacramento and American River levee maintenance projects, and comprehensive plans such as the Suisun Management Plan. Her experience also includes working collaboratively with multiple agencies to develop projects and plans that meet various goals. Jennifer also co-teaches an introductory course on NEPA/CEQA compliance for DWR employees, and is knowledgeable about how NEPA and CEQA are integrated. Jennifer received a B.S. in Environmental Biology and Management, with an emphasis on conservation biology, from the University of California, Davis in 2003.

Russ Brown, Ph.D., Hydrologist, manages, designs, and conducts projects requiring delta, reservoir, river, watershed erosion, sediment transport, hydrologic, and pollutant fate modeling. Dr. Brown also

develops simulation models to integrate and interpret hydrologic, water quality, and ecological data for environmental assessments. He is an expert in the areas of delta hydrodynamics, water quality, aquatic habitat and transport evaluations, water resources operations and planning models, reservoir and river temperature and water quality modeling, chemical transport and fate modeling, watershed erosion and sediment transport processes, non-point source pollution controls, water quality sampling designs, water resource problem solving, and effluent discharge and mixing systems. Dr. Brown also performs sensitivity analyses to test model validity and limitations and leads multidisciplinary teams to solve water resource conflicts. Dr. Brown has worked extensively on California water resources projects including Mono Basin & Delta Wetlands water rights EIR/EIS documents for the State Water Resources Control Board (SWRCB), Central Valley Project Improvement Act (CVPIA) hydrology and water quality assessments, CALFED water supply, tidal hydraulics and water quality evaluations, American River and Freeport diversion projects for East bay Municipal Utility District, and the South Delta Improvements Program EIR/EIS water supply, tidal hydraulics, and water quality evaluations for DWR/Reclamation. He developed the daily Delta operations and fish salvage "gaming model" used in the evaluation of the Environmental Water Account that was implemented by CALFED. Russ received his Ph.D. in Civil Engineering and Water Resources and his M.S. in Ocean Engineering from the Massachusetts Institute of Technology in 1978 and 1974, respectively. He received his B.S. in Civil and Environmental Engineering from the University of California, Irvine in 1972.

Anne Huber, Water Resources Specialist, is a water resources modeler and environmental data analyst. Her water resources experience includes development, calibration, validation, and use of models for evaluating water quality, hydrodynamics, and water operations. She has evaluated hydrology and water quality conditions in rivers, reservoirs, and the Sacramento-San Joaquin River Delta. Her work includes assessment of the potential effects associated with wastewater discharges, changes in hydrologic operations, flood control projects, and new or modified structures. Anne also has developed and used population models, which help

her to integrate water resources models with assessment of habitat suitability. She received an M.S. in Ecology from the University of California, Davis in 1990, and a B.S. in Biology from Massachusetts Institute of Technology in 1986.

Rick Oestman, Marine Biologist, has over 22 years of combined fisheries and water quality experience in the western United States. He manages or serves as principal-in-charge of regulatory analyses, endangered species documentation and consultation, aquatic habitat analyses and restoration, and water quality investigations. He has evaluated aquatic discharges from numerous municipal and industrial facilities on the west coast including discharges from desalination facilities, fish and food processing facilities and municipal treatment plants. Rick has experience in evaluation of oceanographic, water quality, sediment and biotic components of the marine environment. He has conducted outfall dispersion modeling using a variety of EPA models and prepared environmental documentation (NEPA, CEQA, and ESA) for projects with marine discharges. He is experienced in dispersion modeling using Environmental Protection Agency (EPA) models such as CORMIX, BCORMIX and PLUMES, as well as evaluating total maximum daily loads (TMDLs). Rick was also the project manager for an EIS for the designation of an open ocean dredged material disposal site near Humboldt Bay for the EPA. Rick received an M.S. in Fisheries from the University of Washington, Seattle, in 1991 and a B.S. in Fisheries from California State University, Humboldt in 1983.

Andy Wones, Aquatic Biologist, is a project manager with more than 15 years of experience. He is responsible for conducting water quality studies, aquatic plant surveys, benthic monitoring studies, biological assessments, writing fisheries and water quality sections of EISs, performing contributing to watershed analyses, and managing aquatic resource projects. Andy has conducted water quality monitoring studies of lakes, streams, and estuaries. Andy conducted a year-long water quality monitoring project of the Snohomish River and City of Marysville wastewater effluent. Andy has conducted water quality studies of lakes and streams in California and Alaska as required for hydroelectric licensing. He has also conducted limnological surveys of lakes in Washington, Oregon, West Virginia, and Antarctica. Andy has conducted aquatic plant

surveys for underwater power cable, boat ramp, and marina projects. He has prepared biological assessments for a variety of projects including intertidal restoration and levee modification in the Snohomish River estuary by the City of Everett, road improvement projects in the City of Lynnwood and the City of Mountlake Terrace, improvements to the Centennial Trail bicycle and equestrian trail in Snohomish County, a submarine power cable replacement project in Skagit and San Juan Counties, and improvements at the Crystal Mountain ski area. He has conducted stream channel stability, water quality, and fish habitat surveys for the Snoqualmie Pass and Crystal Mountain ski areas as part of USDA Forest Service NEPA EISs. Andy has also contributed to water quality regulatory impact assessments for the EPA, Regions 9 and 10. Andy received an M.S. in biological science from Oregon State University, Corvallis, in 1988 and a B.S. in biology from Virginia Polytechnic Institute & State University in 1984.

Robert Preston, PhD, Vegetation and Wetlands Specialist, is an environmental scientist with extensive experience in conducting botanical surveys and wetlands delineations and in providing wetlands permitting assistance. Dr. Preston conducts and supervises field surveys, including botanical inventories, habitat assessments, vegetation mapping, and wetland delineations. In addition to being the lead author of the botanical sections of EIRs, Biological Assessments (BA), Habitat Conservation Plans (HCP), and other environmental documents, he provides technical peer review of environmental documents for both internal and external clients. He received a Ph.D. in Botany from the University of California, Davis in 1990, an M.A. in Botany from California State University, Chico in 1983, and a B.A. in Biological Sciences and Chemistry from California State University, Chico in 1981.

Scott Frazier, CPSS, CPESC, Soil Scientist, specializes in jurisdictional wetlands and riparian habitat delineation and assessment, wetlands and riparian habitat mitigation and restoration planning, soil erosion and sediment control, watershed assessment and management, and regulatory compliance. Scott serves as technical manager or team member on large- and small-scale jurisdictional delineations and habitat assessments; prepares and implements detailed habitat mitigation and monitoring plans, and

erosion and sediment control plans; conducts watershed assessments; and evaluates the effects of land management activities on soil, geologic, and water resources in accordance with CEQA and NEPA guidelines. Scott has outstanding technical skills and has demonstrated his ability to use these skills in resolving complex technical and jurisdictional issues on a variety of projects. Scott's prior experience included evaluating, characterizing, and remediating soil and groundwater contaminated with volatile organic compounds. He also spent six field seasons with the USDA Forest Service, where he classified and mapped soils and forest ecosystems; and developed regional concepts of soil formation and landscape evolution in California, Oregon, and Alaska. Scott received an M.S. in Soil Science from the University of California, Riverside in 1997 and a B.S. in Soil Science from California Polytechnic University, San Luis Obispo in 1994.

Shannon Hatcher, Air Quality/Noise Specialist, is experienced in environmental impact analysis, report preparation, and environmental noise monitoring. He conducts air quality and noise studies for a variety of transportation and other development projects. His responsibilities include field investigations, modeling assessments, and report preparation. Shannon's areas of expertise include point-, area-, and mobile-source air quality impact studies; air quality conformity analyses; air quality dispersion modeling; air quality permitting support; analyses of air quality regulations; and emission inventory development. He also provides impact analysis of noise and vibration from transportation, construction, industrial, and other sources; and field investigations. Shannon received a B.S. in Environmental Science and a B.S. in Environmental Health and Safety from Oregon State University, Corvallis, in 2000.

Stephanie Myers, Wildlife Biologist, performs wildlife surveys, threatened and endangered species surveys throughout California and portions of Nevada and Arizona, wildlife habitat evaluation, data analysis, impact assessment, and mitigation plans. Stephanie has worked with a number of special-status species, including fairy shrimp, valley elderberry longhorn beetle (VELB), Yosemite toad, California tiger salamander, California red-legged frog, arroyo toad, desert tortoise, and San Joaquin kit fox. She serves as lead wildlife biologist on biological resources assessment projects, CEQA and

NEPA documentation, ESA compliance, and construction monitoring projects. Stephanie received an M.S. in Avian Sciences from the University of California, Davis in 1987 and a B.A. in Biology from California State University, Fresno in 1983.

Gabriel Roark, Archaeologist, directs and conducts cultural resource investigations for projects involving CEQA and Section 106 of National Historic Preservation Act (NHPA). With extensive professional experience in prehistoric archaeology, historical archaeology, and regulatory compliance, Gabriel serves as the manager and technical lead on several projects. He provides exceptional design and implementation of archaeological monitoring programs, archaeological surveys and excavations, archival research, and impact analyses. He received a B.A. in Anthropology from California State University, Sacramento in 1999.

Jennifer Stock, LA, Landscape Architect, is experienced in all facets of project coordination for habitat restoration, trail, and park recreation projects, including budget tracking and stakeholder involvement. She prepares visual resources and shade/shadow analyses for ISs, EISs, and EIRs, as well as construction documents using AutoCAD, which include determination of impacts from the proposed projects and mitigation measures to reduce impacts and improve post-project visual aesthetics. Jennifer brings expertise in vernal pool, tidal wetland, riparian corridor, and habitat restoration/mitigation planning and design. Her project experience includes field mapping, digital data input using AutoCAD, and preparation of conceptual plans and preliminary submittals to final mitigation planting construction bid documents for the Upper and Lower Guadalupe River Flood Protection Projects and Guadalupe Creek Restoration Plan, all for Santa Clara Valley Water District (SCVWD). Additionally, she conducted and prepared an inventory of visual resources within and adjacent to the project corridor that could be affected by proposed boring of new tunnels for Caltrans' Caldecott Improvement Project. She received a B.L.A. in Landscape Architecture from Pennsylvania State University at University Park in 1999. She is a licensed Landscape Architect in California, Oregon, Utah, and Washington.

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2. Availability

The availability of ICF Jones & Stokes key staff is listed below.

Key Staff	Availability in %
Mike Rushton, Project Director	20%
Gregg Roy, Project Manager	20%
Jennifer Pierre, Project Coordinator	30%
Russ Brown, PhD	15%
Anne Huber	25%
Rick Oestman	15%
Andy Wones	20%
Robert Preston, PhD	20%
Scott Frazier, CPSS	20%
Shannon Hatcher	20%
Stephanie Myers	20%
Gabriel Roark	20%
Jennifer Stock, LA	25%

3. Relevant Experience

Revised Draft Supplemental EIR—Monterey Peninsula Water Management District

Dates
2002 – 2004
Cost
$1,609,485
Team Members
Michael Rushton
Gregg Roy
Jennifer Pierre
Russ Brown, PhD
Rick Oestman
Andy Wones
Scott Frazier, CPSS
Shannon Hatcher
Stephanie Myers

Jones & Stokes provided MPWMD with CEQA compliance services for its Water Supply Project from 2002 to 2004. This effort included development of a CEQA compliance strategy and water supply planning process, development of a Notice of Preparation, support in the scoping process, alternatives development and evaluation, communication of project progress to MPWMD Board, and support for quarterly public information meetings. The effort resulted in preparation of a Board Review Draft EIR for the project in December of 2003. This document analyzed a variety of water supply technologies, including aquifer storage and recovery, desalination, side stream storage, wastewater reclamation, and stormwater detention. The proposed project was for construction and operation of a desalination plant in the Sand City area of the Monterey Bay. Release of a public draft EIR was delayed by the MPWMD Board in favor of evaluating the potential to participate in a number of regional desalination projects being considered by others in the Moss Landing area.

Client Reference:

Henrietta Stern
Project Manager
Monterey Peninsula Water Management District
831/658-5621
henri@mpwmd.dst.ca.us

Seaside Basin Groundwater Management Ordinances—Monterey Peninsula Water Management District

Dates
2003 – 2004
Cost
$90,405
Team Members
Michael Rushton

MPWMD selected Jones & Stokes to provide an assessment of required environmental review, implementation of the environmental review recommendations, and development of a public education and outreach plan for the adoption of the Seaside Basin groundwater management ordinances. The project area included the ground

water basin that underlies the former Fort Ord Army Base, City of Del Rey Oaks, and the City of Seaside (Seaside Basin).

The Seaside Basin is an important source of water supply for municipal users on the Monterey Peninsula, and it supplies approximately 25 percent of the production for the California-American Water Company (Cal-Am) distribution system. The ordinances are being adopted based on monitoring data that indicated that the Seaside Basin was being overdrafted. The increased pumping was the result of a SWRCB order directing Cal-Am to decrease diversions from the Carmel River, which resulted in increases from the Seaside Basin, and the City of Seaside's upgrades to existing golf courses located on the former Fort Ord.

MPWMD proposed to enact ordinances that will regulate both existing and new pumping that occurs within Seaside Basin. The ordinances were proposed as an interim solution to the problem until such time as a ground water management plan can be developed and adopted. This project was interesting because it involved local regulation of groundwater, which is likely to become more common as the demand for water continues to grow.

Client Reference:

Joe Oliver
Senior Hydrogeologist
Monterey Peninsula Water Management District
831/658-5640
joe@mpwmd.dst.ca.us

Aquifer Storage and Recovery Project EIR—Monterey Peninsula Water Management District

Dates
2004 – 2007
Cost
$142,646
Team Members
Michael Rushton
Gregg Roy
Jennifer Pierre
Rob Preston, PhD
Stephanie Myers

Jones & Stokes prepared the EIR for MPWMD Water Supply Project. The primary objective of the WSP was to meet the requirements of California State Water Resources Control Board Order 95-10. The order required reduction in the annual diversions from the Carmel River by approximately 8,400 acre-feet. The WSP was initially proposed as an aquifer storage and recovery project in which surplus flow would be diverted from the Carmel River, stored in Seaside Groundwater Basin, and pumped from the basin during summer months. The Aquifer Storage and Recovery was eventually screened from detailed evaluation because of water production limitations and cost. The MPWMD then proposed to construct and operate a desalination plant located at Sand City with an annual production capacity of 8,400 acre-feet.

The WSP EIR evaluated the effects of constructing and operating the desalination plant at three potential sites within Sand City. The EIR also considered the effects of two seawater collection options (radial beach wells and directionally drilled wells) and two brine disposal options (existing wastewater treatment plant outfall and directionally drilled brine disposal wells). The effects of constructing and operating feedwater, brine disposal, and treated water pipelines were also evaluated. Major construction-related issues included disrupting traffic and circulation patterns, loss of beach access, and effects on special-status vegetation and wildlife. Major operational related issues included effects on groundwater quality as a result of drawing feedwater from the offshore aquifer, effects on groundwater as a result of disposing brine in the offshore aquifer, and effects on water quality and aquatic species as a result of discharging brine directly to the Pacific Ocean.

In addition to the EIR, Jones & Stokes was responsible for securing permits from local and state agencies to allow MPWMD to proceed with a subsurface hydrologic testing program. The program was designed to determine the feasibility of proposed seawater collection methods. Jones & Stokes staff made numerous presentations that addressed the project at MPWMD's Board of Directors' meetings and workshops.

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Client Reference:

Henrietta Stern
Project Manager
Monterey Peninsula Water Management District
831/658-5621
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Dates
1997 – 2000
Cost
$231,729
Team Members
Michael Rushton

Carmel River Dam and Reservoir Project Supplemental EIR—Monterey Peninsula Water Management District

Jones & Stokes prepared a supplemental EIR to the Monterey Peninsula Water Supply Project EIR. This project encompasses a long history of public participation, planning, and permitting. It is considered one of the most controversial water supply projects in the central coast and the State of California.

Cal-Am is the private water utility that provides water to most of the greater Monterey Peninsula. It has three primary sources—surface water diversions at two dams (San Clemente and Los Padres) on the Carmel River, a series of wells in the Carmel Valley, and wells in the physically distinct Seaside ground water basin. The pumping of the Carmel River system has caused substantial environmental degradation, the community has suffered extended periods of water rationing due to droughts, and the population projections for the peninsula communities indicated that water supply would be inadequate in the future. To meet these demands and help address environmental degradation, MPWMD proposed and obtained federal and state permits for the New Los Padres project, a dam and reservoir project. However, as required by MPWMD's enabling legislation, a vote was held on the financing of the project and the voters within MPWMD rejected the proposal in November 1995. At roughly the same time, SWRCB issued an order stating that Cal-Am's diversions were unlawful and ordered the private utility to find a replacement water source for approximately 10,730 acre-feet/year.

Cal-Am proposed to amend its license from MPWMD to construct the Carmel River Dam and Reservoir project, a project physically identical to the New Los Padres project. The proposed project has the following stated purposes:

- Creating a replacement source of water for the estimated 10,730 acre-feet per year removed by Cal-Am from the Carmel River Basin as required by SWRCB WR 95-10;
- Meeting streamflow requirements necessary to protect public trust resources of the Carmel River, as described in SWRCB Decision 1632; and
- Providing adequate drought protections for the community.

The EIR prepared by Jones & Stokes addressed the court ordered topic of land use issues, as MPWMD EIR was ruled inadequate on this single topic. The EIR also addressed the project changes between the New Los Padres project and Carmel River Dam and Reservoir Project. We provided leadership in resolving technical CEQA issues and evaluating land use, traffic, air quality, noise, visual, fisheries, cultural resources, socioeconomics, and growth-inducing and cumulative impact issues. MPWMD staff led the evaluation of alternatives, water supply, hydrology, and riparian habitat. We provided objective review of MPWMD-prepared sections and assimilated the analyses into a decision-making document.

Client Reference:

Henrietta Stern
Project Manager
Monterey Peninsula Water Management District
831/658-5621
henri@mpwmd.dst.ca.us

California Department of Fish and Game—Coastal Marine Aquaculture PEIR

Dates
2006 – ongoing
Cost
$300,000
Team Members
Michael Rushton
Rick Oestman

DFG will be authorizing finfish aquaculture for the first time in California. As part of this, the legislature has required that DFG prepare an EIR to evaluate the potential impacts of this and other forms of coastal aquaculture in California, in order to identify and implement appropriate environmental protection policies.

Jones & Stokes is preparing the EIR for DFG that programmatically evaluates the current aquaculture regulations, and existing and reasonably foreseeable forms of coastal aquaculture. The EIR makes policy recommendations in the form of mitigation measures.

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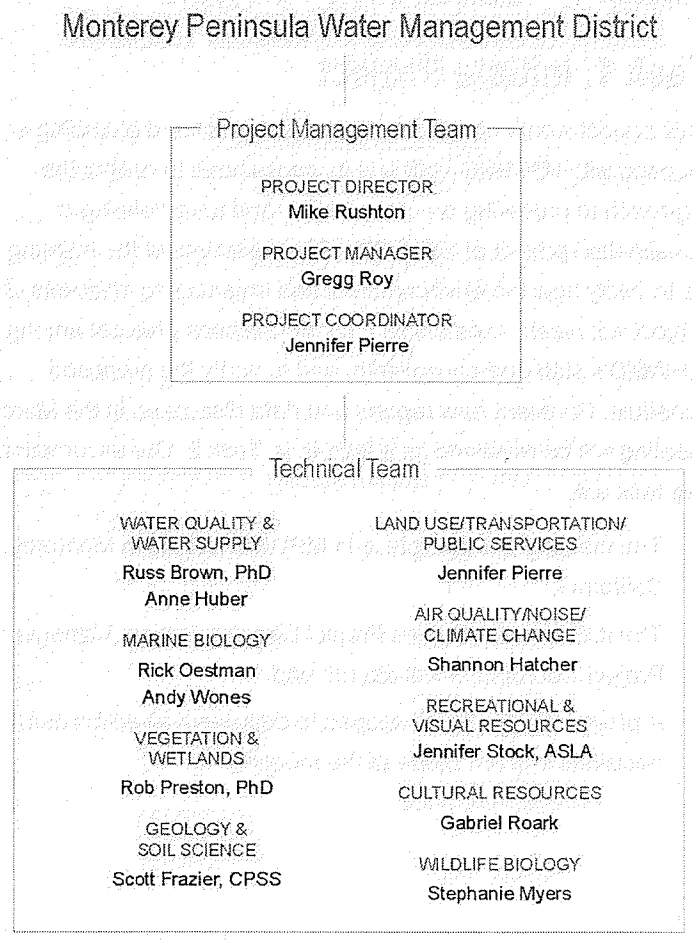
The legally defensible EIR provides the foundation for the development of new regulations for coastal marine aquaculture.

Client Reference:

Christine Blackburn
California Ocean Protection Council
510/286-3709
cblackburn@scc.ca.gov

4. Project Organization

ICF Jones & Stokes' Project Manager, Gregg Roy, would be MPWMD's primary contact for the duration of this project. He would manage the day-to-day project activities, attend client meetings, and provide all necessary progress reporting to MPWMD. Gregg has worked closely with MPWMD staff on previous projects and is familiar with the issues and information surrounding the project. He would receive support with internal team communication and scheduling from our project coordinator. Mike Rushton, Project Director, would follow the project closely to be able to provide MPWMD with direction and quick access to our firm's resources when Gregg was not immediately available. Mike would also attend client meetings when needed to develop CEQA strategy or discuss significant project issues. This management and coordination approach has worked successfully in the past with MPWMD projects.



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5. Scope of Work

Introduction

The scope of work that follows responds to the content and format requested in the MPWMD Request for Proposals and reflects a meeting with MPWMD staff and Camp Dresser & McKee, Inc., (CDM) held in Monterey on March 31, 2008. It briefly describes a two-phase process and a series of tasks that would result in the preparation of an updated EIR for MPWMD's 95-10 Project at Sand City, California. The phases match two of the three-phase effort being proposed by CDM. Each task description is accompanied by a series of assumptions used in developing the costs for the task. Our goal in this effort is to use as much of the material produced for MPWMD in 2003 and 2004 as possible.

Phase 1 – Constraints Analysis

Task 1. Initiate Project

This project would be initiated by preparing for and attending a meeting with MPWMD staff and its consultants to review the approach to preparing an updated EIR and to re-defining a desalination project at Sand City. The objectives of the meeting will be to verify how the environmental and engineering elements of the project will mesh, to establish a communication protocol among MPWMD's staff and consultants, and to verify the proposed schedule. Pertinent new reports and data discussed in the March 31 meeting will be reviewed as a lead-in to Task 2. Our assumptions for this task are:

- The meeting will take place in MPWMD offices in Monterey, California;
- The ICF Jones & Stokes Project Director, Project Manager and Project Coordinator will attend; and
- A project log will be developed to document all action items and decisions that are made at the meeting.

Task 2. Review Information and Conduct a Constraints Analysis

Following the project initiation meeting, ICF Jones & Stokes staff would locate and review documents and data that are pertinent to understanding changes in local and regional environmental conditions in the project area. In addition, recent reports on desalination projects and their environmental effects would be collected and reviewed. We assume that:

- All reports and data associated with the Sand City Desalination Project would be available from MPWMD or the City of Sand City;
- Published and unpublished reports, memos and data sets developed for MPWMD regarding desalination, water supply development or groundwater conditions since 2004 would be available from MPWMD; and
- Groundwater condition information developed in the process of adjudicating the Seaside Groundwater Basin would be available from local sources.

Following the data collection and review effort, ICF Jones & Stokes would participate with CDM in its Phase 1 design charrette evaluation of methods and locations for seawater desalination in the Sand City/Fort Ord area. The product of this effort would be a map and general text description of one or two possible configurations of collection, treatment and disposal facilities in the project area. We assume that a small-capacity project would be included; a project that could likely be developed and analyzed in an EIR without significant additional hydrology and geotechnical work to support project engineering feasibility. The second project would likely include a larger capacity system that could require significant new hydrology and geotechnical engineering evaluation.

Once the potential projects were developed and approved by MPWMD, ICF Jones & Stokes would conduct a series of meetings with key regulatory agencies to determine whether there were insurmountable regulatory/land use conflicts that could make the potential projects infeasible. The potential project layouts and potential environmental issues would be presented to these

regulatory agencies and their reactions would be recorded. We assume that the agencies consulted would include, at a minimum:

- California Department of Parks and Recreation;
- California Coastal Commission;
- NOAA, Monterey Bay National Marine Sanctuary;
- California Department of Fish and Game;
- U.S. Fish and Wildlife Service;
- California Regional Water Quality Control Board;
- Monterey Regional Water Pollution Control Agency;
- City of Seaside;
- City of Sand City; and
- U.S. Army, Fort Ord Community

Following our meetings, ICF Jones & Stokes would prepare a brief report, documenting the results of our constraints analysis. The report would focus on land use issues and regulatory processes that could significantly influence the feasibility of a project in the Sand City/Fort Ord area. Engineering technical issues and constraints that are raised by CDM's work in Phase 1 would be incorporated into the report as a separate section or appendix. The report would also describe any recommended changes to the ICF Jones & Stokes scope and cost of completing the project EIR described in Phase 3 of this scope of work.

Phase 2 – Develop Detailed Facilities Description

Phase 2 will be completed by CDM.

Phase 3 – Prepare EIR

Task 3. Develop Revised Project Description and Alternatives for EIR

ICF Jones & Stokes understands that MPWMD and CDM would be developing new information to consider the feasibility of constructing a local desalination facility in the vicinity of Sand City as part of CDM's Phase 1 and 2 scope of work. At the conclusion of our work

in 2004, it was determined that offshore directional drilling to collect seawater for desalination was infeasible. Other options were recommended for further consideration. Following engineering work that is needed to determine the feasibility of other seawater collection options (CDM Phases 1 and 2), ICF Jones & Stokes would work with MPWMD and CDM staff to develop a revised project description consistent with the needs of an EIR. This description would include the method and location of seawater collection, the location of desalination facilities, the proposed routes of associated pipelines, and the location and method of brine disposal. The range of alternative water supply projects the MPWMD Board wishes to consider would also be developed during this task. A draft of the project description and alternatives would be approved by MPWMD prior to proceeding with subsequent tasks. Our assumptions for this task include:

- The details of the proposed desalination project will be developed and provided by MPWMD or its engineering consultant;
- The proposed project will have a design capacity of up to 8,400 AF per year;
- The proposed project will not include offshore horizontal directional drilling for seawater collection;
- The proposed project will not have an aquifer storage and recovery component;
- Proposed project treatment plant locations and pipeline routes will be similar to those analyzed in the December 2003 Board Review Draft EIR for the MPWMD Water Supply Project;
- Brine disposal will be by injection into the subsurface along the coast or discharge through the Monterey Regional Water Pollution Control Agency regional wastewater outfall;
- The project alternatives will not be considered in a level of detail equal to the proposed project; and
- The range of project alternatives will be similar to those considered in the December 2003 Board Review Draft EIR for the MPWMD Water Supply Project.

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Task 4. Prepare Revised Draft EIR

4.1. Prepare Administrative Draft EIR. Following approval of the project description, ICF Jones & Stokes staff would collect environmental setting information as needed to update the information contained in the 2003 Board Review Draft EIR. The setting information would include only what is needed to understand the potential effects of constructing and operating the proposed desalination project. Significance criteria would be developed for each environmental resource category and the direct, indirect, and cumulative effects of the project would be described. Where needed, mitigation measures would be developed to reduce or eliminate the project's adverse effects. Project alternatives would be analyzed in brief text or table format to allow for an easy comparison of effects as compared to the proposed project. The Administrative Draft EIR would be submitted to MPWMD for review and comment. This task assumes that:

- Environmental effects of the project on Carmel River hydrology, Carmel River fisheries, Carmel River Groundwater Basin capacity and water quality, and Seaside Groundwater Basin capacity and water quality would be analyzed and described in impact sections by MPWMD staff or its consultants;
- The water rights implications of the project would not be analyzed in the EIR;
- 7 paper copies and one electronic copy of the full report would be submitted to MPWMD;
- MPWMD would distribute copies of the Administrative Draft to outside entities as desired;
- Comments on the Administrative Draft EIR would be collected and screened for inconsistencies before forwarding to ICF Jones & Stokes.

4.2. Prepare Public Draft EIR. Following receipt of comments from MPWMD, the Administrative Draft EIR would be revised and developed into a camera-ready version. This camera-ready version would be forwarded to MPWMD for consideration prior to producing the public Draft EIR. Once the camera-ready document was approved, ICF Jones & Stokes would produce the Draft EIR, forward

copies to MPWMD and file a Notice of Completion and 15 CD versions of the report to the State Clearinghouse. This task assumes that:

- 15 CD versions of the Draft EIR along with a Notice of Completion, would be forwarded by ICF Jones & Stokes to the State Clearinghouse;
- 30 paper copies and one electronic version of the Draft EIR would be forwarded to MPWMD for its distribution; and
- Notices of the report's availability would be posted in local newspapers by MPWMD.

4.3. Participate in Public Meetings. ICF Jones & Stokes staff would attend three public meetings to make presentations and record comments from those in attendance. A power point presentation would be developed and used to explain the project elements, the major impact conclusions and the remaining elements of the CEQA process. One of these meetings would be before the MPWMD Board of Directors. Our assumptions for this task include:

- All public hearings will occur in the Monterey Peninsula area;
- The meeting announcements, meeting room arrangements and recording of testimony will be the responsibility of MPWMD staff; and
- ICF Jones & Stokes will send two members of its project management team to each public meeting.

Task 5. Prepare Final EIR

5.1. Develop Response to Comments Document. The first step in developing the Final EIR would be to review all public and agency comments and develop an approach to responses. Similar comments would be grouped and a common approach to responding would be formulated. A table of significant comments or concerns would be developed and the approach to response would be added. This table and accompanying text would be the mechanism for working with MPWMD staff to agree on the appropriate responses to comments. Any additional technical work needed to respond to comments would be identified at this point in the process, and an

approach to completing the work would be formulated. Our efforts on this task assume that:

- MPWMD staff would receive and catalogue all written comments on the Draft EIR, and forward them to ICF Jones & Stokes for review;
- A tape or transcript of oral public comment would be produced by MPWMD staff and forwarded to ICF Jones & Stokes for review; and
- One meeting would occur in Monterey between the ICF Jones & Stokes project manager and MPWMD staff.

5.2. Prepare Administrative Final EIR. Following the agreement on approach to public and agency comments, ICF Jones & Stokes would develop a response to comment document that includes each comment letter, a transcript of the oral public comment, and a response to each individual comment. The responses would become part of larger Administrative Final EIR that would also include an errata section with any changes in the text of the Draft EIR needed to properly respond to comments. ICF Jones & Stokes would also prepare administrative drafts of CEQA findings and a mitigation monitoring and reporting program. These administrative draft documents would be forwarded to MPWMD for review. Our assumptions for this task are:

- The Final EIR would not include the full text of the Draft EIR; this document would be incorporated by reference into the Final EIR; and
- 7 paper copies and one electronic version of the Administrative Final EIR would be produced and forwarded to MPWMD for review.
- MPWMD staff or its consultants would be responsible for preparing responses to comments on the analysis of effects on Carmel River hydrology, fisheries and groundwater basin resources, and Seaside Groundwater Basin hydrology, and making modifications to EIR text if necessary.

5.3. Prepare Public Final EIR. Following receipt of comments from MPWMD, ICF Jones & Stokes would make revisions to the documents and produce a camera-ready Final EIR for MPWMD's

review. Once approved, ICF Jones & Stokes would produce the Public Final EIR, the CEQA findings and the mitigation monitoring and reporting program. We assume that:

- Comments from MPWMD staff and any of its consultants would be combined and any inconsistencies would be worked out before sending them along to ICF Jones & Stokes; and
- 30 paper copies and one electronic copy of each document would be produced and sent along to MPWMD for distribution.

5.4. Participate in EIR Certification Hearing. ICF Jones & Stokes would prepare a power point presentation and attend one EIR certification hearing before the MPWMD Board of Directors. The power point presentation would summarize the major issues raised through review of the public Draft EIR, and would describe the remaining (if any) environmental effects that would result from project construction and operation. Major mitigation requirements would also be described. The ICF Jones & Stokes participants would be prepared to answer questions from the MPWMD Board of Directors. This task assumes that:

- Two members of the ICF Jones & Stokes project management team would attend the certification hearing; and
- The hearing would be held in Monterey.

Task 6. Project Management and Coordination

6.1. Attend Coordination Meetings in Monterey. In addition to the meetings described above for project initiation, public meetings and comment review, ICF Jones & Stokes would prepare for and attend up to five general coordination meetings through the course of the work effort. These meetings would be used to review project progress, discuss technical issues with MPWMD and consultant staff, and meet with other agency staff. These meetings would not be initiated without prior MPWMD approval. This task assumes that:

- All meetings would be in the Monterey Peninsula area;
- Meetings would be attended by up to two ICF Jones & Stokes staff; and

- Meeting notes and action lists would be developed by ICF Jones & Stokes staff.

6.2. Coordinate with and Review Information from Camp Dresser & McKee, Inc. During the course of the project, the ICF Jones & Stokes staff would periodically conduct phone meetings with or transfer information to CDM. This coordination and review activity would allow ICF Jones & Stokes to understand the status of the project details and relay any environmental concerns related to the specific elements of the project. It would also allow the two firms to efficiently collect and share data relevant to the separate engineering and environmental review activities. There are no major assumptions associated with this coordination task.

6.3. Prepare Status Reports for Staff and Public Communication. ICF Jones & Stokes would prepare monthly project status reports for delivery to MPWMD along with billings. The status reports would track the monthly activities and would provide an update on action items. At quarterly intervals, ICF Jones & Stokes would also produce project status reports for distribution to the public and to agencies that are following the progress of the desalination project. These quarterly reports would be submitted to MPWMD for distribution or posting on the MPWMD web site. This task assumes that:

- No more than four quarterly project status reports would be prepared for public distribution; and
- MPWMD would post status reports on its website.

6. Schedule

An important consideration affecting the project schedule is the length of time required to finalize the project description, and in particular the location and description of the seawater collection system. We believe the EIR may be certified 6 to 8 months after enough engineering information has been gathered to adequately describe the location of the seawater collection system, the construction methods required to install the seawater collection system, and how the system will be operated and maintained.

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7. Estimated Cost

Task No. and Description	Estimated Cost
Task 1. Initiate Project	$7,140
Task 2. Review Information and Conduct Constraints Analysis	$43,440
Task 3. Develop Revised Project Description and Alternatives	$6,720
Task 4. Prepare Revised Draft EIR	$72,780
Task 5. Prepare Final EIR	$35,280
Task 6. Project Management and Coordination	$20,990
TOTAL	$186,350

Appendix A. Resumes

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Michael Rushton

Principal and Project Director

Mike Rushton is a principal and project director. He serves in a leadership role for Jones & Stokes' northern California region Natural Resources Team. Mike is project director and manager for multi-disciplinary natural resources management studies and environmental impact assessments in the western United States. He has extensive experience in CEQA/NEPA compliance, natural resources management planning, and environmental permitting. His project role includes assembling multi-disciplinary teams, managing budgets, determining legal and regulatory compliance, performing technical reviews, and maintaining client contact and public involvement relationships for a wide range of the company's clients. His experience includes multiple studies of natural resources, water supply, wastewater, solid waste, mineral resources, energy, military, and mixed-use development projects.

Education

MA, Geography, University of California at Davis, 1972

BA, Geography, University of California at Davis, 1968

Special Training

Hazardous Materials Management Certification (University of California, Davis Extension)

Professional Memberships

Association of Environmental Professionals

Society of American Military Engineers

Awards

Best Planning Document, 2005, Association of Environmental Professionals (California Coastal National Monument RMP and EIS)

Project Experience

Aquifer Storage and Recovery Project—Monterey Peninsula Water Management District, Monterey County, California

Project director for CEQA/NEPA compliance for the District's plan to construct and operate water supply injection and extraction wells on a portion of former Fort Ord, California. The District was seeking a short-term project to improve the fishery habitat in Carmel River by reducing the extraction of water from the lower Carmel River groundwater basin in dry periods and replacing this supply with surface water taken from the river during high flows. This surface water was to be piped to a portion of former Fort Ord within the City of Seaside and injected into the Seaside Groundwater Basin for later extraction and use in the California American Water Company (Cal-Am) domestic water supply system. Document preparation required coordination with Ord Community Army BRAC staff, the US Fish and Wildlife Service, the California Department of Fish and Game, the City of Seaside, FORA and Cal-Am to resolve potential impacts on federally and state protected plant and animal species, on groundwater, and on local infrastructure.

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Monterey Area Water Supply Project—Monterey Peninsula Water Management District, Monterey County, California

Project director for development of water supply alternatives and an EIR in support of an effort to find a new water supply source for the Monterey Peninsula communities along the central California coast. The District was seeking a municipal water source to replace water being pumped from the Carmel River drainage in violation of a California State Water Board order. The District considered aquifer storage and recovery on the former Fort Ord, desalination, wastewater reclamation, side-stream storage, and stormwater detention as alternative sources. The effort included developing a CEQA compliance strategy, identifying and describing feasible alternative water sources, coordinating with the public and government agencies, developing significance thresholds, and peer-reviewing impact evaluations.

North Monterey County Regional Wastewater Facilities Plan EIS/EIR—EPA Region IX and Monterey Peninsula Water Pollution Control Agency, Monterey County, California

Project manager for development of a combined EIR/EIS on a regional wastewater treatment proposal for the northern portion of Monterey County. An initial list of 165 possible alternatives was evaluated from environmental, economic, and engineering perspectives and ultimately was reduced to five. Two public workshops were held to discuss the alternatives of this controversial project and to solicit public input. The principal environmental concerns were application of wastewater to agricultural lands, potential biological and public health impacts of discharge to Monterey Bay and the Salinas River lagoon, biological effects of eliminating wastewater flows in the lower Salinas River, and the potential effects of facilitated population growth on regional air quality and prime agricultural land. Regionalization of treatment and disposal was recommended to eliminate existing discharges to southern Monterey Bay and the lower Salinas River, to encourage large-scale reuse of wastewater, and to improve efficiency of wastewater management in the area.

Reuse Plan EIR— Fort Ord Reuse Authority, Monterey, California

Provided CEQA guidance to EDAW/EMC Planning Group team for preparing Fort Ord reuse plan and EIR for Fort Ord Reuse Authority. Included GIS database information and helped determine degree to which the EIR could tier from the Army's closure and reuse EIS.

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Gregg Roy

Project Manager

Education
BS, Political Economy of Natural Resources, University of California, Berkeley, 1982

Gregg serves as a project director and project manager for large, multidisciplinary NEPA evaluations and CEQA environmental assessments for water resource development and flood control projects. He has extensive experience evaluating the environmental and social effects of constructing and operating these projects. He also has extensive experience preparing socioeconomic and natural resource economic studies and recreation impact assessments.

Project Experience

Water Supply Project EIR—Monterey Peninsula Water Management District, California

Project manager for an EIS/EIR on a water supply project that would allow the California-American Water Supply Company (Cal-Am) to meet the provisions of State Water Board Order 95-10. The order directed the Cal-Am to cease illegal diversions from the Carmel River. The project focused on identifying and evaluating replacement sources of water. These included a desalination plant located at Sand City and aquifer storage and retrieval that would divert surplus water from the Carmel River and store this water in the Seaside Groundwater Basin.

South Delta Improvements Program—DWR and Reclamation, Contra Costa and San Joaquin Counties, California

Project director for the joint EIR/EIS and action-specific implementation plan (ASIP) for the South Delta Improvements Program. The project included constructing and operating four permanent operable channel gates in the South Delta and increasing diversions to Clifton Court Forebay to a maximum of 8,500 cfs. Major issues included hydrology and water supply, tidal hydrodynamics, water quality, fisheries, recreation, and land use. The ASIP was prepared to address ESA issues. The ASIP serves as the biological assessment for compliance with Section 7 of the ESA and as the NCCP for compliance with the California ESA and the California Natural Community Conservation Planning Act. The project includes an extensive agency coordination element through the CEQA/NEPA and ASIP processes.

Napa Salt Marsh Restoration Project—California Coastal Conservancy/ Corps, San Francisco District, Napa, California

Project director for the EIR/EIS on restoring the former Cargill salt evaporation ponds located along the Napa River. The project is a joint venture between the Coastal Conservancy, DFG, and the Corps' San Francisco District. The primary objective was to restore tidal salt and brackish marsh habitat. The EIR/EIS included an evaluation of the short-term, construction-related, and long-term environmental effects. Short-term effects included changes in water quality and aquatic and terrestrial habitat, and loss of cultural resources. The evaluation of long-term effects included estimating the period required until full restoration would occur, the types of habitat that would be created, and the potential for exposure of wildlife to toxic materials.

Downtown Guadalupe River Flood Control Project—Corps, Sacramento District /SCVWD, San Jose, California

Project manager for the General Re-Evaluation Report (GRR) and EIR/EIS on constructing flood control improvements on the Guadalupe River through downtown San Jose. The proposed flood control improvements included a major flood bypass channel, low-flow channel that would allow upstream migration of salmon and steelhead, and recreation improvements. Major issues evaluated in the GRR/EIR/EIS included hydrology, water quality, fisheries, vegetation, wildlife, recreation, land use, noise, air quality, construction and operation effects on anadromous fish, and loss of shaded riverine cover. The project also included an extensive monitoring and adaptive management program.

Hamilton Wetland Restoration Plan, EIS/EIR, and Feasibility Report—Corps and California Coastal Conservancy, Marin County, California

Project manager for the EIS/EIR on the restoration of wetlands on approximately 650 acres of the former Hamilton Army Airfield. The EIS/EIR disclosed the adverse and beneficial effects of restoring wetlands by natural sedimentation or by importing and placing materials from regional dredging projects. Major issues evaluated in the EIS/EIR included water quality, groundwater, vegetation, wildlife, and endangered species. The project also included preparation of a BA that was used to consult with USFWS and NOAA Fisheries in compliance with the ESA.

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Jennifer Pierre

Project Coordinator and Land Use

Jennifer serves as a project coordinator and project manager on the water resources team. Her experience includes environmental regulatory compliance relative to CEQA, NEPA, and the state and federal ESAs. She also has extensive experience related to levee improvements, Delta resources, and SWP and CVP operations. Jennifer prepares permit applications and supporting reports for agencies such as the Corps, DFG, and the California Reclamation Board and manages large water supply projects. Jennifer also co-teaches an introductory course on CEQA/NEPA compliance for DWR employees.

Education
BS, Environmental Biology and Management (emphasis on conservation biology), University of California, Davis, 2003

Project Experience

Lower American River Bank Protection—Sacramento Area Flood Control Agency, Sacramento, California

Project manager for several projects to improve flood control along the American River, including RM 1.8, 10.0, and 10.2. Responsible for preparation of environmental compliance documents and permit applications. These projects generally require quick turnaround due to near-emergency situations and address such issues as recreation, aquatic resources, VELB, multiple construction techniques, and onsite mitigation.

South Delta Improvements Program—DWR and Reclamation, Contra Costa and San Joaquin Counties, California

Project manager for production of an EIS/EIR, managed subconsultants, facilitated inter-agency meetings, managed agency coordination relative to development of the EIS/EIR, prepared permit applications, and coordinated with regulating agencies.

California-Aqueduct - Delta Mendota Canal Intertie—Reclamation

Project manager responsible for writing evaluations and managing production of an EIS, including additional modeling, coordination with Operations Criteria and Plan issues, and permit applications.

Suisun Management Plan—DFG, NMFS, USFWS, DWR, Reclamation, and Suisun Resource Conservation District

Project manager coordinating the development of the programmatic plan and its EIS/EIR, permit approach and applications, and sub-consultants.

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Docks Area Riverfront Promenade Permit Application—City of Sacramento, California

Project manager assisting design team in developing project features related to permits, writing permit applications, assisting with design of potential levee repairs and improvements, and coordinating with regulating agencies.

Pioneer Reservoir Phase I Seepage Berm—City of Sacramento, California

Managed project to construct a seepage berm and associated structures adjacent to the existing Pioneer Reservoir facility, on the east side of the Sacramento River levee in downtown Sacramento. Coordinated and consulted with the City, Corps, and Reclamation Board to ensure the EA/IS would meet the needs of all three agencies.

Bear River and Western Pacific Interceptor Canal Levee Improvements Project—Three Rivers Levee Improvement Authority, Yuba County, California

Project Coordinator for the EIR, including scoping, response to comments, public outreach, and permitting. The EIR was completed in 4 months, allowing Three Rivers Levee Improvement Authority to begin construction right away. Issues addressed include aquatic and terrestrial resources, air quality, transportation, and onsite mitigation by working with DFG to develop habitat.

Yuba River Levee Improvement Project—Three Rivers Levee Improvement Authority, Yuba County, California

Project coordinator for the IS to repair areas along the Yuba River levee near previous levee breach locations. Issues included property constraints, underseepage, fast construction timeframe, temporary recreational closures, and several biological resources.

Prior Experience

California Tahoe Conservancy

Implemented restoration designs throughout Tahoe basin.

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Russell T. Brown, PhD

Water Quality & Water Supply

Russ Brown's areas of expertise include delta hydrodynamics, water quality, aquatic habitat and transport evaluations, water resources operations and planning models, reservoir and river temperature and water quality modeling, chemical transport and fate modeling, watershed erosion and sediment transport processes, nonpoint source pollution controls, water quality sampling designs, water resource problem solving, and effluent discharge and mixing systems. He manages, designs, and conducts projects requiring delta, reservoir, river, watershed erosion, sediment transport, hydrologic, and pollutant fate modeling. Russ also develops simulation models to integrate and interpret hydrologic, water quality, and ecological data for environmental assessments. He uses biological criteria to develop flow, temperature, dissolved oxygen, and nutrient models appropriate for predicting biological impacts under alternative project operations; plans water quality sampling, monitoring, and modeling efforts for projects; and evaluates existing water quality and hydrologic data for relationships useful for predicting project impacts. Russ also performs sensitivity analyses to test model validity and limitations and leads (or participates as a member of) multidisciplinary teams to solve water resource conflicts, developing alternative water management scenarios based on input from various user groups.

Education

PhD, Civil Engineering and Water Resources, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1978

MS, Ocean Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1974

BS, Civil and Environmental Engineering, University of California, Irvine, 1972

Professional Memberships

American Society of Civil Engineers, Water Resources Engineering Division

American Geophysical Union, Hydrology Section

Bay-Delta Modeling Forum

Project Experience

San Joaquin River DO Aeration Facility Project Design and Implementation—CALFED, Port of Stockton, California Bay Delta Authority

Prepared an evaluation of Deep Water Ship Channel (DWSC) aeration alternatives for CALFED, including initial assessment of oxygenation with a U-tube or Speece-Cone. This project included the demonstration of an inverted-U oxygen device in the DSWC, with an efficiency of 20%. Tested the performance of the Port of Stockton aeration facility, determining that an output of about 1,000 lb/day was achieved. Technical advisor for the design of the demonstration U-tube oxygen facility in the DWSC for California Bay Delta Authority (CBDA). Prepared the performance monitoring plan for the

demonstration oxygenation facility for CBDA to determine the response of the DWSC to oxygen additions.

Central Valley Project Improvement Act—Reclamation

Prepared habitat water quality evaluation for Reclamation's Central Valley Project Improvement Act programmatic EIS that linked reservoir and Delta operations and associated temperature and salinity conditions that govern habitat water quality fish responses. Developed life-stage model of Mono Lake alkaline fly population to evaluate the effects of larval substrate and salinity changes from various lake elevations. Developed Delta transport and entrainment model for assessment of plankton and larval fish life-stages resulting from Delta flows and export pumping operations and applied this model to evaluate effects of PG&E's Delta power plant and Delta Wetlands operations. Assisted in the selection of appropriate hydrologic, water quality, and ecological assessment tools for the CALFED Bay-Delta Program programmatic EIS/EIR.

Delta Hydrodynamics and Water Quality— State Water Resources Control Boardand the Corps

Prepared hydrologic, hydrodynamic, and water quality impact assessment of the proposed Sacramento–San Joaquin River Delta (Delta) Wetlands In-Delta Storage Project for the State Water Resources Control Board (SWRCB) and the Corps. Utilized the Resources Management Associates hydrodynamic Delta model to provide detailed summary of Delta flow and salinity conditions. Developed a spreadsheet model (DeltaSOS) to investigate the effects of alternative Delta water quality standards on Delta channel flows and exports with historic or simulated hydrologic conditions. Conducted experiments to determine the contribution of DOC from Delta peat soil and vegetation. Evaluated data from the Department of Water Resources' municipal water quality investigations samples of Delta agricultural drainage and channel water and developed a monthly Delta agricultural drainage water quality model that links the water, salinity, and DOC concentrations.

Anne Huber

Water Quality & Water Supply

Anne Huber specializes in modeling water quality, habitat suitability, water availability, and population dynamics; data retrieval, storage, and analysis; invertebrate surveys; water chemistry analysis; impact assessment; and environmental documentation. She performs data analyses and develops models to evaluate and quantify environmental resources and to improve water and biological resources management. Anne develops, analyzes, and applies models related to water temperature, water flow and storage, water chemistry, and population. She conducts field surveys and performs laboratory analysis of aquatic ecosystems.

Education

MS, Ecology, University of California, Davis, 1990

BS, Biology, Massachusetts Institute of Technology, Cambridge, 1986

Special Training

Introduction to the SAS Software System (University of California at Davis Extension)

DSM2 (Delta Simulation Model 2), (Department of Water Resources)

Fairy shrimp identification (Denton Belk, Ph.D.)

CE-QUAL-W2 (Portland State University)

MIKE 11 (Danish Hydraulic Institute)

Project Experience

South Delta Improvements Program EIR/EIS—Department of Water Resources and Reclamation, Contra Costa and San Joaquin Counties, California

Helped use a daily model of the Delta to assess the effect of increased Delta exports for the SWP on the State's Environmental Water Account. Used the DSM2 model to help assess the effect of increased Delta exports on flow and stage in the Delta.

Downtown Guadalupe River Flood Protection Project (Water Temperature)—U.S. Army Corps of Engineers and Santa Clara Valley Water District, San Jose, California

Worked on development of a one-dimensional hourly water temperature model (JSATEMP) for the Guadalupe River and its tributaries. The model was calibrated with measured water temperatures and used to estimate the water temperature effect of vegetation removal and changes to channel geometry associated with multiple proposed alternative flood protection plans. Helped use model results to evaluate temperature effects on anadromous fish. Added bed-conduction heat transfer term to the model in response to peer review by the Corps' Waterways Experiment Station. Model development and results are reported in a temperature model report, biological data report, EIR/EIS, and HEP report.

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Upper Guadalupe River Flood Protection Project (Water Temperature)—Santa Clara Valley Water District, San Jose, California

Used the JSATEMP hourly water temperature model of the Guadalupe River to estimate changes in water temperature associated with alternative flood control measures proposed. Results were reported in a BA for anadromous fish and in an EIR/EIS.

Folsom Lake and Lower American River (Water Temperature)—East Bay Municipal Utilities District, Sacramento County, California

Helped estimate the effect of proposed East Bay Municipal Utility District diversions on water temperature by analyzing historical patterns of Folsom release temperatures and developing a daily water temperature model for the lower American River. Results were reported in an EIR/EIS.

Truckee River (Water Temperature)—Sierra Pacific Power Company, Nevada County, California

Estimated water temperature effects associated with the proposed reconstruction and use of a small diversion dam near Floriston. Measured hourly water temperatures and used them to calibrate an hourly water temperature model (JSATEMP). Simulated temperatures associated with proposed hydroelectric diversions are reported in the EIR for the project.

Analysis of Historical Flows and Environmental Water Account—CALFED, Central Valley, California

Compiled large database of historical Central Valley flow records to evaluate flow. Helped modify and use daily water operations models of the Sacramento River basin and Sacramento River–San Joaquin River Delta (Delta) for evaluation of an environmental water account for the protection of fish. The daily model combines historical salvage data with historical hydrology and CVP and SWP operations data to provide an integrated assessment tool.

Merced River Water Temperature—California Department of Fish and Game, Mariposa and Merced Counties, California

Helped develop a daily water temperature model for McClure Reservoir and an hourly water temperature model for the Merced River, each to enhance chinook salmon management.

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Richard K. Oestman

Marine Biology

Richard K. Oestman is a marine biologist with more than 22 years of combined fisheries and water quality experience in the western U.S. He manages or serves as principal-in-charge of regulatory analyses, endangered species documentation and consultation, aquatic habitat analyses and restoration, and water quality investigations. Mr. Oestman has evaluated aquatic discharges from numerous municipal and industrial facilities on the west coast including discharges from desalination facilities, fish and food processing facilities and municipal treatment plants. Mr Oestman has experience in evaluation of oceanographic, water quality, sediment and biotic components of the marine environment. He has conducted outfall dispersion modeling using a variety of EPA models and prepared environmental documentation (NEPA, CEQA and ESA) for projects with marine discharges.

Education

MS, Fisheries, University of Washington, 1991

BS, Fisheries, Humboldt State University, 1983

Certifications

Certified SCUBA diver

Project Experience

Cambria Desalination Plant Outfall Design—Cambria Community Services District

Lead water quality specialist assisting the District in the design of an ocean outfall for discharges from a proposed desalination plant. The project included near-field and far-field modeling of the dispersion of the hypersaline effluent using the EPA model B-CORMIX, preparing a sensitivity analysis for several outfall configurations, and providing recommendations of optimum designs to the District. Results of the study were used to evaluate potential impacts of the discharge on sensitive marine resources.

Joint Outfall System 2010 Master Facilities Plan CEQA EIR—County Sanitation Districts of Los Angeles County, California

Contributed to a programmatic EIR on the 2010 Master Facilities Plan for the County Sanitation Districts of Los Angeles County. Identified and evaluated water quality issues, developed existing marine setting section, evaluated existing water quality data, projected pollutant loading to coastal waters, evaluated the effects of future discharges on marine biota, and developed mitigation measures.

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Collection, Treatment, and Disposal Facilities 30-Year Master Plan Programmatic CEQA EIR—County Sanitation Districts of Orange County, California

Identified and evaluated water quality issues for the programmatic EIR. Developed existing conditions section, evaluated existing water quality data, projected pollutant loading to coastal waters, evaluated the potential for metal bioaccumulation in aquatic fauna, determined the effects of increased pollutant loading on infaunal communities, developed mitigation measures, and analyzed other associated data.

Deep Sea Fisheries' Seafood Processing Plant Discharge NEPA EIS—U.S. Environmental Protection Agency, Region 10, Akutan, Alaska

Project manager responsible for preparation of a NEPA EA for an NPDES permit for a proposed shore-based seafood processing facility in Akutan Harbor. Designed and managed field studies of Akutan Harbor including studies of water and sediment quality, intertidal and benthic community structure, circulation and tidal dynamics, and documentation of bottom conditions using side-scan sonar and video cameras mounted on a remotely operated vehicle. Conducted field studies and data analysis, evaluated siting of the facility and associated docks, assisted with development of a hydrodynamic model for the harbor, used the EPA PLUMES and hydrodynamics models to evaluate the proposed and alternative outfall sites, and evaluated cumulative impacts of new and existing shore-based processors and floating processors.

301(h) Monitoring Program for the Charlotte Amalie Airport Lagoon Treatment Plant—U.S. Virgin Islands Department of Public Works, St. Thomas

Deputy project manager responsible for conducting a monitoring program required under a variance from secondary treatment issued under Section 301(h) of the Clean Water Act. The program included quarterly water and sediment quality sampling, quantitative SCUBA surveys of coral reefs and epibenthic aquatic resources, outfall surveys, and preparation of quarterly and annual reports.

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Andrew G. Wones

Marine Biology

Andy Wones is responsible for fisheries and water quality impact assessment, stream habitat surveys, marine nearshore habitat surveys, eelgrass and macroalgae surveys, geoduck clam surveys, water quality monitoring, macroinvertebrate collection and analysis, survey-and-manage amphibian and mollusk surveys, and snorkel surveys for presence and distribution of fish species (including night surveys for bull trout). He has experience managing teams of biologists conducting field studies of fish, water quality, amphibian, invertebrates, and wetlands. Andy prepares biological assessments, documents required for State Environmental Policy Act (SEPA) and NEPA compliance (environmental checklists, EISs, EAs, EIRs, monitoring studies, and other technical reports on aquatic resources. Andy is experienced in preparing environmental permit applications for Joint Aquatic Resource Permits Application (JARPA), Hydraulic Permit Approval (HPA), and National Pollutant Discharge Elimination System (NPDES). He has conducted studies in a variety of aquatic environments in Washington, Oregon, California, Alaska, Virginia, West Virginia, and Antarctica.

Education

MS, General Science (Biological Science), Oregon State University, Corvallis, 1988

BS, Biology, Virginia Polytechnic Institute & State University, Blacksburg, Virginia, 1984

Licenses

Certified SCUBA diver

Certified by Washington Department of Fisheries to conduct geoduck bed surveys, forage fish assessments, and eelgrass surveys

Project Experience: EISs & EAs

Central Valley Project Improvement Act Programmatic EIS—Montgomery Watson, Sacramento, California

Assisted in modeling and analysis of fisheries impacts associated with water use alternatives proposed for the Sacramento and San Joaquin River systems under the Central Valley Project Improvement Act. The analysis took into consideration various life stages of numerous fish species in the Sacramento and San Joaquin drainage basins, including the delta and eastern San Francisco Bay areas.

Grazing Allotment NEPA EA—U.S. Forest Service, Eldorado National Forest, Placerville, California

Collected and reported stream morphology and global positioning system (GPS) data to be used in a NEPA EA of the grazing allotments within the Eldorado National Forest. Used the Rosgen stream classification system to classify streams within grazing allotments, and reported on the sensitivity of riparian areas to grazing impacts.

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California Water Quality RIA—U.S. Environmental Protection Agency, Region 9, San Francisco, California

Contributed to a regulatory impact assessment (RIA) analyzing the environmental and economic impacts of proposed water quality criteria for discharge of toxic substances from California NPDES-permitted facilities. Conducted case studies of compliance of NPDES sewage treatment plants and industrial facilities with the proposed criteria.

Skagit County Drainage Utility Capital Improvements SEPA EIS—Skagit County, Washington

Prepared fisheries and water quality sections of an EIS analyzing the potential impacts of the county's drainage capital improvement program. Analyzed potential impacts of proposed new drainage structures, drainage structure replacement, and drainage-related maintenance activities.

Longacres Office Park Complex SEPA EIS—City of Renton and Boeing Commercial Airplane Group, Washington

Prepared the water quality section of an EIS for the proposed office park. Compiled and analyzed water quality data from a variety of sources.

Snoqualmie Pass Ski Areas Watershed Studies and NEPA EIS—U.S. Forest Service, Washington

Conducted stream channel stability, water quality, and fish habitat surveys for the Alpental and Summit at Snoqualmie ski area, operating in the Mt. Baker–Snoqualmie and Wenatchee–Okanogan National Forests. Collected field data on stream channel stability using the Pfankuch method and the Rosgen stream classification system. Surveyed fish habitat using the Forest Service Level II methods. Designed a water quality monitoring plan, trained ski area employees to collect water quality samples, and analyzed water quality data. Prepared Fisheries sections of the Summit at Snoqualmie Master Development Plan NEPA EIS and a bull trout baseline conditions report for the Upper Yakima watershed.

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Robert Preston, PhD

Vegetation & Wetlands

Robert Preston is an environmental scientist at Jones & Stokes who serves as a project manager and technical lead for the firm's Sacramento Office. He has extensive experience in conducting botanical surveys and wetlands delineations and in providing wetlands permitting assistance. Robert conducts and supervises field surveys, including botanical inventories, habitat assessments, vegetation mapping, and wetland delineations. In addition to being the lead author of the botanical sections of EIRs, BAs, HCPs, and other environmental documents, he provides technical peer review of environmental documents for both internal and external clients.

Education

PhD, Botany, University of California, Davis, 1990

MA, Botany, California State University, Chico, 1983

BA, Biological Sciences and Chemistry, California State University, Chico, 1981

Professional Memberships

Botanical Society of America

California Botanical Society

Southern California Botanists

Project Experience

Skyway Widening from Pentz Road to Southpark Drive EA/EIR—Quincy Engineering, Butte County, California

Technical lead for botanical and wetlands studies in support of state and federal environmental documentation for an approximately 2-mile-long roadway widening and improvement project in northeastern Butte County near the Town of Paradise. Conducted rare plant surveys, a tree census, and a wetland delineation. Analyzed project impacts, including the effect of partially dewatering Magalia Reservoir as part of the seismic retrofit of Magalia Dam.

Company Landfill/Potrero Hills Landfill Combined EIR—Solano Garbage Company, Solano County, California

Wrote biological resources section of EIR for permitting landfill closure and expansion activities on the project site. Analyzed impacts on sensitive plant species and tidal wetlands. The impact analysis was complicated by a wide range of proposed activities and by a broad time frame for project implementation.

Lagoon Valley Specific Plan and EIR Assessment—M. R. Wolfe & Associates, Solano County, California

Project manager and botanist for conducting an independent assessment and peer review of the biological resource issues in the Final EIR and Specific Plan for Lagoon Valley. After reviewing the documents and conducting a site visit, prepared a letter report evaluating the biological value of the property, assessing the completeness of the wetland delineation prepared for the project, and evaluating the analysis of impacts on special-status plants and

proposed mitigation for those impacts. Provided recommendations for project design improvements to further reduce impacts on biological resources.

Alameda Watershed HCP—San Francisco Public Utilities Commission, Alameda and Santa Clara Counties, California

Lead botanist for field surveys of SFPUC lands, in support of preparation of an HCP to address the endangered species permitting needs for SFPUC and to help implement their Watershed Management Plan. Supervised survey teams and coordinated field logistics and survey schedules. Located and mapped populations of special-status plant species. Assisted GIS staff to develop habitat models for predicting the occurrence of special-status species in areas not surveyed.

Upper Northwest Interceptor, Sections 5 & 6—Sacramento Regional County Sanitation District, Sacramento County, California

Project manager and lead biologist for conducting a biological resources survey and wetland delineation of an approximately 5-mile segment of a new sewer alignment in northern Sacramento County. The surveys were performed to support the supplemental EIR and Section 404 permitting for the project.

IS/ND for Raw Water Seismic Improvements Project—CCWD, San Francisco Bay Area, California

Wrote the vegetation and wetlands sections of the environmental setting, impact analysis, and mitigation chapters for the IS/ND for a water pipeline project in the eastern San Francisco Bay Area.

Special-Status Plant Species Surveys and Vegetation Mapping—Lawrence Livermore National Laboratory, San Joaquin County, California

Served as project manager and team leader for botanical surveys of Site 300, the 7,000-acre LLNL experimental testing facility in western San Joaquin County. Surveys were performed to provide LLNL with baseline information for use in siting future projects and in evaluating the impacts of current and future operations. Conducted site-wide surveys for special-status plant species. Mapped common plant communities based on interpreting infrared aerial photographs and field verification; used GPS data recorders to map precisely the locations of sensitive plant communities. Produced a GIS-based vegetation map and accompanying metadata file, including a description of the plant communities present at Site 300.

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C. Scott Frazier, CPSS, CPESC

Geology & Soil Science

Scott Frazier is a certified professional soil scientist and a certified professional in erosion and sediment control who specializes in jurisdictional wetland and riparian habitat delineation and assessment, wetland and riparian habitat mitigation and restoration planning, watershed assessment and management, and regulatory compliance. Scott serves as technical manager and/or team member on large- and small-scale jurisdictional delineations and habitat assessments; prepares and implements detailed habitat mitigation and monitoring plans and erosion and sediment control plans; conducts watershed assessments; and evaluates the effects of land management activities on soil, geologic, and water resources in accordance with CEQA and NEPA guidelines. Scott has outstanding technical skills and has a demonstrated ability to use these skills to resolve complex technical and jurisdictional issues on a variety of projects.

Project Experience

Cosumnes River Watershed Assessment Project—Sloughhouse Resource Conservation District, Sacramento County, California

Used a variety of techniques, including field reconnaissance surveys, satellite and photographic image analysis, sediment yield and transport modeling, and various river and stream channel stability analyses, to evaluate and identify interrelationships between land use, soil erosion, sediment transport, and water quality. Trends and interrelationships revealed were used as indicators of general watershed health and the basis for identifying and prioritizing watershed needs.

Madera Ranch Groundwater Bank EIR—Azurix Madera Corporation, Madera County, California

Evaluated potential agricultural and earth resource-related impacts associated with construction and operation of a private groundwater bank in Madera County. Potential issues of greatest concern included conversion of large areas of prime farmland to nonagricultural uses; cancellation of Williamson Act contracts; loss of unique, nonrenewable soil resources; and salinization of important agricultural soils by shallow groundwater.

Education

MS, Soil Science, University of California, Riverside, 1997

BS, Soil Science, California Polytechnic University, San Luis Obispo, 1994

Special Training

Advanced Hydric Soils, 2005, Sacramento, California

Hydrogeomorphic Classification and Assessment of Wetlands, 2004, Portland, Oregon

General Services Agency Contracts Training, 2002, Sacramento , California

California Basic Wetland Delineation, 2001, Sacramento, California

Erosion Control Workshop for Grape Growers, 2001, Geyserville, California (Sotoyome Resource Conservation District)

Practical Approaches for Erosion and Sediment Control, 2001, Las Vegas, Nevada (International Erosion Control Association)

Habitat Conservation Planning, 2001, Sacramento, California

Restoration Planning, Design, and Implementation, 2001, Sacramento, California

Introduction to the California Environmental Quality Act, 2000, Sacramento, California

Oak Regeneration Field Day, 2000, Browns Valley, California (University of California Integrated Hardwood Range Management Program)

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Special Training (continued)

Construction Documents Workshop, 2000, Sacramento, California

Wetland Functions, Delineation, and Regulation, 2000, Sacramento, California

Simple Tools for NPDES Compliance on Construction Sites, 2000, Sacramento, California

Project Management Training, Sacramento, California, 2000

Cost Estimate Training, 2000, Sacramento, California

Coordinating and Integrating Environmental Permits, 2000, Sacramento, California

Restoring Riparian Habitats: Planning, Designing, Constructing, Maintaining, and Monitoring Riparian Habitat Restoration and Mitigation Projects, 2000, Santa Barbara, California

Professional Memberships

Soil Science Society of America

International Erosion Control Association California Forest Soils Council

California Society for Ecological Restoration

Certifications

Certified Professional Soil Scientist (CPSSc), ARCPACS #30596

Certified Professional in Erosion and Sediment Control (CPESC), International Erosion Control Association; Soil and Water Conservation Society; #3838

Guadalupe Creek Riparian Restoration Project EIR—Santa Clara Valley Water District, California

Evaluated geologic, seismic, and soil-related impacts associated with implementation of a riparian restoration project on a 2-mile reach of Guadalupe Creek in the City of San Jose. Potential issues of greatest concern included construction-related erosion and mobilization of mercury-contaminated sediments.

Wetland Habitat Mitigation Plan, Site 300—Lawrence Livermore Laboratories, Alameda County, California

Managed and performed a variety of tasks associated with preparation of a conceptual habitat mitigation plan for freshwater marsh habitat in the Diablo Mountain Range southeast of the City of Livermore. Conducted extensive field surveys to identify candidate mitigation sites, and conducted detailed soil and geomorphic investigations to assess the suitability of the candidate sites for freshwater marsh creation. Compiled historical climatic data and performed water balance calculations to assist in the design of mitigation wetlands. Prepared a detailed mitigation plan that included prescriptive methods for site preparation, planting, erosion and sediment control, and post-construction monitoring and maintenance.

Bear River Levee and Western Pacific Interceptor Canal Levee Improvement Project—Three Rivers Levee Improvement Authority, Marysville, California

Worked cooperatively with geotechnical engineers to characterize existing geologic conditions and evaluate potential geologic, seismic, and soil-related impacts associated with proposed levee improvements and setbacks. A description of existing conditions and a detailed assessment of potential impacts associated with the proposed improvements and setbacks was incorporated into the project EIR.

Vasco-Laughlin Specific Plan EIR—City of Livermore, Alameda County, California

Evaluated potential geologic hazards and earth resource-related impacts associated with implementation of the Vasco-Laughlin Specific Plan, which provided for expansion of residential development near the City of Livermore. Potential issues of greatest concern included construction-related erosion and the loss of unique, nonrenewable soil resources associated with alkali wetland landscapes in the project area.

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Shannon Hatcher

Air Quality/Noise/Climate Change

Shannon Hatcher is an air quality/noise/climate change specialist with experience in environmental impact analysis, report preparation, and environmental noise monitoring. He assists senior air quality and noise specialists in conducting air quality and noise studies for a variety of transportation and other development projects. Shannon's responsibilities include field investigations, modeling assessments, and report preparation.

Shannon's areas of expertise include point-, area-, and mobile-source air quality impact studies; air quality conformity analyses; air quality dispersion modeling; air quality permitting support; analyses of air quality regulations; and emission inventory development. He also provides impact analysis of noise and vibration from transportation, construction, industrial, and other sources; and field investigations.

Education

BS, Environmental Science and Environmental Health and Safety, Oregon State University, Corvallis, Oregon, 2000

Special Training

Principles of Acoustics and the Measurement of Sound, Bruel & Kjaer

Fundamentals of Highway Traffic Noise Training Module 1, California Department of Transportation

Project Experience

South Delta Improvements Program EIS/EIR Noise Analysis—California Dept of Water Resources, California

Prepared project-level assessment of noise impacts associated with construction of improvements associated with the South Delta Improvement Program. This consisted of discussion of background information on environmental acoustics and summarization of local noise standards; description and summarization of existing noise conditions in the project areas; identification of noise-sensitive land uses within the project area; discussion of significance thresholds for noise based upon local standards; noise modeling of construction-related noise from haul truck activities using the Federal Highway Traffic Noise Prediction Model (FHWA-RD-77-108); evaluation of construction noise based on noise modeling methods recommended by the U.S. Department of Transportation; identification of noise impacts resulting from the proposed project; and identification of mitigation measures to reduce impacts to a less-than-significant level where mitigation is feasible.

American River Watershed, California Long-Term Study: Supplemental Plan Formulation Report/EIS/EIR Air Quality Analysis—U.S. Army Corps of Engineers, California

Prepared project-level assessment of air impacts associated with construction of improvements to the Folsom Dam and associated flood control features along the Lower American River and Yolo and Sacramento Bypasses. This consisted of a discussion of existing air quality condition in the project area based on published monitoring data; discussion of the current status of air quality management planning, including current exceedances of federal and state air quality standards; discussion of the state and federal air regulations; use of the URBEMIS7G model to evaluate air impacts associated with construction and operation of new facilities; identification of air quality impacts resulting from the proposed project; and identification of mitigation measures.

EIR Air Quality Analysis for the Interceptor Master Plan and Lower Northwest Interceptor Project—Sacramento County Regional Sanitation District, California

Prepared project-level assessment of air impacts associated with construction and operation of a new sewer line within the County of Sacramento. This consisted of discussion of existing air quality condition in the project area based on published monitoring data; discussion of existing emission sources in the plan area; discussion of future air quality trends; discussion of the current status of air quality management planning, including current exceedances of federal and state air quality standards; discussion of the state and federal air regulations; use of the URBEMIS7G model to evaluate air impacts associated with construction and operation of new facilities; identification of air quality impacts resulting from the proposed project; and identification of mitigation measures.

Sacramento Sewerage Master Plan Update Supplemental EIR Noise Impact Analysis—County of Sacramento, California

Prepared project-level assessment of noise impacts. This consisted of a discussion of background information on environmental acoustics; identification of existing significant noise sources in the project area; identification of existing noise-sensitive land uses in the project area; description of the existing general plan noise element and applicable noise ordinances; identification of noise impacts expected to occur from construction and operation of the proposed project; and identification of mitigation measures.

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Stephanie Myers

Wildlife Biology

Stephanie Myers is a wildlife biologist who performs wildlife surveys, threatened and endangered species surveys throughout California and portions of Nevada and Arizona, wildlife habitat evaluation, data analysis, impact assessment, and mitigation plans. Stephanie has worked with a number of special-status species, including fairy shrimp, VELB, Yosemite toad, California tiger salamander, California red-legged frog, arroyo toad, desert tortoise, and San Joaquin kit fox. She serves as lead wildlife biologist on biological resources assessment projects, CEQA and NEPA documentation, ESA compliance, and construction monitoring projects.

She possesses a thorough knowledge of state and federal laws and policies pertaining to threatened and endangered species. She has worked successfully with both state and federal regulatory agencies, and has developed strategies to compensate for impacts on threatened and endangered species and streamline the environmental and permitting process.

Education

MS, Avian Sciences, University of California, Davis, 1987

BA, Biology, California State University, Fresno, 1983

Special Training

Identification and Ecology of Sensitive Amphibians and Reptiles of the Central and Southern Sierra Nevada, 2001

Desert Tortoise Council Workshop, 1994

Biology and Management of Sensitive Amphibians of Central and Southern California, 1993 and 1994

Licenses

DFG Scientific Collecting Permit #1947

Project Experience

Mare Island Dredged Materials Disposal Facility Reuse Project—City of Vallejo and Weston Solutions, Inc., Vallejo, California

Provided substantial peer review and rewriting of biological resources sections of an EIR/EIS and BA for the proposed reuse of Mare Island dredged material disposal ponds in the former Mare Island Naval Shipyards. Species of concern included salt marsh harvest mouse, California black rail, California clapper rail, delta smelt, several Chinook runs, and steelhead.

Los Vaqueros Reservoir Project—Contra Costa Water District, Alameda and Contra Costa Counties, California

Conducted wildlife surveys at the 19,000-acre Kellogg Creek watershed in Contra Costa and Alameda Counties for the proposed Los Vaqueros Reservoir Project. Monitored geotechnical exploration activities in the watershed and along proposed road relocation to avoid impacts on special-status wildlife species. Assessed impacts of a proposed quarry site in the project area on Alameda whipsnake. Conducted surveys and prepared reports on impacts of grazing on prey species for San Joaquin kit fox and raptors. Prepared wildlife chapter for the Vasco Road and Utility Relocation EIR, which

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involved substantial coordination with USFWS and DFG. Conducted field surveys for San Joaquin kit fox, golden eagle, prairie falcon, burrowing owl, tricolored blackbird, California tiger salamander, California red-legged frog, western pond turtle, and fairy shrimp—for use in the BA for the Los Vaqueros Project and Stage 2 EIR/EIS.

HCP for Federally Threatened California Red-Legged Frog on the Wilder Sand Quarry Project—Graniterock Company, Santa Cruz, California

Managed a project that involved assessment of impacts on California red-legged frog from sand quarry operations and preparation of a supplemental EIR and HCP that provided measures to minimize and mitigate adverse effects on California red-legged frog. Main issues included minimizing and compensating for habitat loss, controlling predators (bullfrogs and non-native fish species), conducting pre-construction clearance surveys, and implementing a long-term monitoring program to ensure that mitigation measures were successful. The project was successfully permitted through the HCP and Section 10 process.

Downtown and Upper Guadalupe River Flood Control Projects—Santa Clara Valley Water District, Santa Clara County, California

Managed protocol-level surveys for California red-legged frog and assessed habitat suitability for both projects in Santa Clara County. Responsible for coordinating with USFWS and implementing USFWS survey protocol for California red-legged frogs. Biologists conducted surveys on approximately 21 miles of river, creek, and canal habitat and in seven ponds throughout the Guadalupe River watershed. No red-legged frogs were observed, although several survey areas were considered suitable habitat for red-legged frogs.

Mojave Desert Biological Surveys—Southern Nevada Water Authority, Las Vegas, Nevada

Coordinated and conducted biological resources surveys along a proposed 75-mile-long water conveyance pipeline and associated facilities in the Mojave Desert north of Las Vegas. Coordinated a 10-person field crew that implemented BLM protocol-level surveys for presence/absence of federally threatened Mojave Desert tortoise and BLM protocol-level surveys for sensitive plants, cacti, and yucca. Prepared a biological resources report summarizing survey results, including observations of desert tortoises, gila monsters, rare plant populations, and over 150,000 individual cacti and yucca. Work was completed on time and under budget.

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Gabriel Roark

Archaeologist

Gabriel Roark is an archaeologist who directs and conducts cultural resource investigations for projects involving CEQA and Section 106 of NHPA. With extensive professional experience in prehistoric archaeology, historical archaeology, and regulatory compliance, Gabriel serves as the manager and technical lead on several projects. He provides exceptional design and implementation of archaeological monitoring programs, archaeological surveys and excavations, archival research, and impact analyses.

Project Experience

South Delta Improvements Program EIR/EIS—DWR and Reclamation, Contra Costa and San Joaquin Counties, California

Led the cultural resources inventory and evaluation effort conducted in support of Section 106, CEQA, and NEPA compliance. Also the primary author of the cultural resources section for the project EIR/EIS. The technical team recorded and evaluated five historic-period cultural resources.

Freeport Regional Water Project—Freeport Regional Water Authority, Sacramento and San Joaquin Counties, California

Responsible for leading Section 106 and CEQA compliance services for an approximately 30-mile water delivery project. Implemented the project's mitigation and monitoring requirements for cultural resources, which required consultation with Native Americans, conducting archival research, surveying the project area for cultural resources, coordinating with Reclamation, and defining the site boundaries of prehistoric burial and occupation site CA-Sac-44.

Battle Creek Salmon and Steelhead Restoration Project—Reclamation and State Water Board, Shasta and Tehama Counties, California

Prepared a research design and guided archaeological test excavations of five prehistoric archaeological sites in the Cascade Range foothills near Red Bluff. Worked closely with Reclamation archaeologists to devise a suitable research design and a schedule and approach to completing Section 106 consultation under a stringent timeline.

Education

BA, Anthropology, California State University, Sacramento, 1999

Special Training

Cascade Range Archaeological Project, crew chief, 1999 (California State University, Sacramento)

Archaeological Field School, Mammoth Lakes, California, 1999 (California State University, Sacramento, Dr. Mark E. Basgall, Director)

Anthropology 199: Introduction to Analysis of California Gold Rush Chinese Ceramics, Independent Study, 1999 (California State University, Sacramento, Dr. Jerald J. Johnson, Instructor)

Anthropology 195A and 192: Fieldwork and Laboratory Work in Archaeology, Coloma, California, 1997 (California State University, Sacramento, Dr. Jerald J. Johnson and Dr. Tom Strasser, Instructors)

Professional Memberships

Society for Archaeological Sciences

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Yuba-Feather Supplemental Flood Control Project—Yuba County Water Agency, Yuba County, California

Lead archaeologist for a CEQA compliance project, which proposed periodic inundation of large agricultural holdings adjacent to the Feather River. Led a comprehensive archaeological survey and architectural survey of a 1,900-acre project area. One potentially significant archaeological site was identified in the project area. Worked with the agency and project engineers to devise appropriate mitigation for the site.

Madera Water Bank—Azurix Corporation, Madera County, California

Lead investigator for a cultural resources inventory and evaluation for a proposed water bank to comply with NEPA and CEQA. Responsible for designing appropriate research domains as a framework to evaluate the 20 historic resources identified through research and survey, developing a two-prong survey strategy designed to record all historic sites in the project area, providing a representative sample of the 14,000 acres encompassed by the project, conducting site evaluations, and preparing a report.

Archaeological Survey Report—Mendocino Coast Recreation and Park District, Mendocino County, California

Survey crewmember and the chief researcher for an archaeological survey in heavily wooded terrain east of Fort Bragg.

Lower Northwest Interceptor Project—Sacramento Regional County Sanitation District, Sacramento and Yolo Counties, California

Served as lead archaeologist responsible for monitoring construction of a 19-mile sewer line—a 2-year endeavor. Devised an archaeological monitoring program designed to comply with complex federal regulatory requirements, determined whether construction was likely to disturb buried archaeological deposits, trained monitors and construction staff in their roles as resource stewards during construction, and oversaw staff archaeologists' fieldwork and reporting. Monitoring program included excavation of 298 auger tests to determine whether archaeological deposits were present in the project area and monitoring by qualified archaeologists to verify the results of the auger tests.

Jennifer Stock, LA

Recreational & Visual Resources

Jennifer Stock is experienced in all facets of project coordination for habitat restoration, trail, and park recreation projects, including budget tracking and stakeholder involvement. She brings expertise in vernal pool, tidal wetland, riparian corridor, and habitat restoration/mitigation planning and design. Jennifer has prepared visual resources and shade/shadow analyses for ISs, EISs, and EIRs, as well as construction documents using AutoCAD.

Project Experience

River Park General Plan Amendment and Rezoning Project—City of West Sacramento, California

Conducted and prepared an aesthetics analysis of the area that could be affected by the proposed River Park housing development for an administrative draft EIR. The project is located adjacent to the Sacramento River; the area is in agricultural production and is surrounded by residential, recreational, and agricultural land uses. The proposed development would affect adjacent residences and agricultural land uses. Analysis included determination of impacts from the proposed project and mitigation measures to reduce impacts and improve post-project visual aesthetics.

Reuse of the Mare Island Dredged Material Disposal Ponds EIR/EIS—City of Vallejo, California

Conducted and prepared the aesthetics resource analysis of the area that could be affected by the proposed dredge reuse facility, including residential, recreational, open space, industrial, and military land uses. The analysis included determining impacts and designing mitigation measures to reduce impacts and improve post-project visual aesthetics. A nighttime analysis also was prepared to determine the effects of nighttime off-loading operations on Sandy Beach residents, located across Mare Island Strait. Coordinated and worked with Environmental Vision for production of visual simulations and the nighttime analysis. Prepared report graphics, using AutoCAD, for the aesthetics analysis and reports for other resources. Provided additional project coordination help for the project manager and coordinator.

Education

BLA, Landscape Architecture, Pennsylvania State University, University Park, 1999

Professional Memberships

Society for Ecological Restoration

Certifications

CLARB Certified, #5949

Licenses

California Licensed Landscape Architect, #5155

Oregon Licensed Landscape Architect, #608

Utah Licensed Landscape Architect, #6293357-5301

Washington Licensed Landscape Architect, #1030

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DeSilva Gates Quarry Project—San Joaquin County, California
Conducted and prepared an aesthetics analysis of the area that could be affected by the proposed DeSilva Gates Quarry for an administrative draft EIR. Located 10 miles south of Tracy, the area is in orchard production and is surrounded by light residential and orchard and other agricultural land uses. The proposed quarry would affect adjacent land uses by altering the agrarian character and introducing visible elements into the public viewshed. The analysis included determination of impacts from the proposed project and mitigation measures to reduce impacts and improve post-project visual aesthetics.

Yarbrough General Plan Amendment and Rezoning Project—City of West Sacramento, California
Conducted and prepared an aesthetics analysis of the area that could be affected by the proposed Yarbrough housing development for an administrative draft EIR. The area is in agricultural production and is surrounded by residential, recreational, and agricultural land uses. The proposed development would affect adjacent residences and agricultural land uses. The analysis included determination of impacts from the proposed project and mitigation measures to reduce impacts and improve post-project visual aesthetics.

Brookfield-Bertolero Housing Development—City of Dixon, California
Conducted and prepared an aesthetics analysis of the area that could be affected by the proposed housing development for a draft EIR. The proposed development would affect adjacent residences and recreational and agricultural land uses. The analysis included determination of impacts from the proposed project and mitigation measures to reduce impacts and improve post-project visual aesthetics.

Skyway Widening EA/EIR—Butte County Association of Governments, and Caltrans, California
Conducted and prepared a visual resources technical report for the area that could be affected by proposed road widening on a portion of Skyway from Paradise Pines to Paradise. The project area is primarily coniferous forest and ruderal habitat with cut-and-fill slopes. The proposed widening would visually affect these slopes and habitats, in addition to the Magalia Dam and Reservoir. The visual analysis included determination of impacts from the proposed widening and mitigation measures to reduce impacts and improve post-project visual aesthetics.

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