Section 2

Description of Organization, Management and Team Members

Proven Team with a History of Successfully Working Together

Successfully navigating the process of site remediation requires a creative team experienced in cleanup projects with a record of gaining critical stakeholder cooperation. CDM understands the importance of assigning the right individuals with the expertise and commitment to successfully complete this very important project. The members of CDM's project team were specifically chosen for their success in working together on many California hazardous remediation projects.

THE CITY OF BENICIA CALIFORNIA

Servando Molina
Principal-in-Charge

Pawan Sharma
Project Manager

Yash Nyznyk
Randy Smith
Roger Olsen
Technical Advisor

Technical Support Services

Vibav Mankad
Project Engineer

Peggy Bloisa
Project Hydrogeologist

Carolyn Moore
Community Relations

Kassandra Tzou
Risk Assessment

Project Manager/Day-to-Day Contact

At CDM, we understand the importance of having a quick and reliable point of contact. Pawan Sharma, proposed Project Manager, is located in our Walnut Creek office, just a 20 minute drive from the City.

- Pawan Sharma
- (925) 933-2900
- sharmapk@cdm.com

Team Member Qualifications

The following descriptions highlight the qualifications of the key project team members, focusing on regulatory agency coordination and completion of remediation projects from initial investigation through closure. Our local office team members have strong relationships with the regulatory agency responsible for overseeing the remediation activities at the site and are familiar with the process of working with multiple parties to reach a decision on how best to move forward. For a more in-depth discussion of each team members' qualifications, please see the resumes in Appendix B.

Pawan Sharma, P.E.

Project Manager

Mr. Sharma's 12 years of experience have focused on soil and groundwater remediation investigation and design, as well as environmental assessments. With experience in every phase of remediation projects, Mr. Sharma is well versed of the phases and associated demands and has cultivated an ability to navigate the process with fluid efficiency to achieve a successful conclusion. In each of these experiences, Mr. Sharma has worked collaboratively with the client, property owners, community members, and regulatory agencies driving the project toward completion. Many of the agencies he has experience negotiating agreements with include DTSC, US EPA, Water Board, among others, giving him insight into the procedures and preferences of the various agencies. Mr. Sharma's specific project experience includes:

- **Project Manager, Bioremediation, Superfund Site, Bay Area, California** - Mr. Sharma successfully negotiated with US EPA and Water Board to phase the shutdown of the existing pump and treatment system and field test in situ bioremediation in the source area. The field test paid for itself within a year from lowered site operating costs and successfully bioremediated source area contaminants to below cleanup levels. Based on this success, Mr. Sharma prepared a revised proposed plan for US EPA approval and evaluated alternative cleanup goals under a Record of Decision amendment changing the remedy from groundwater extraction and treatment to in situ bioremediation. The effective cleanup of the source area allowed the property owner to redevelop the property and expand the office building onto areas around the source area. On behalf of the property owner, who was not the client / responsible party, in order to secure redevelopment approval, Mr. Sharma met with the City redevelopment agency and presented at a City council meeting regarding the effectiveness of the cleanup and land use controls being implemented, assure them that long-term protection of future building occupants was critical concern of the client.
- **Project Manager, Arsenic Remediation, Bay Area, California** – For an industrial complex, Mr. Sharma is preparing the feasibility study and remedial action plan for the remediation of an arsenic and volatile organic compound (VOC) impacted site. He has conducted evaluations of remedial technologies and land use controls in order to provide a solution that minimizes both cost of cleanup and exposure to post-cleanup residual arsenic. He has managed laboratory, bench, and pilot treatability studies focusing on ex situ stabilization of arsenic in excavated soil, in situ adsorption/ precipitation of arsenic in the aquifer system, in place permeability reduction of saturated soil through soil mixing and grout injection, and thermal desorption of organics from soils. As part of this study, Mr. Sharma has conducted additional investigations to fill data-gaps within the remedial investigation. He enlisted a team of leading academia and industry experts on arsenic to develop the conceptual site model for the arsenic plume. This process helped identify the source materials needing treatment in order to support a long-term monitored natural attenuation solution. Mr. Sharma has been praised by DTSC and local community advisory group for his presentation skills in keeping the surrounding residential community educated on the progress of this complex project. Currently, Mr. Sharma is managing the remedial design of the action, including development of a community safety and communication plan, excavation and off-site disposal of over 100,000 tons of soil, installation of a shoring system to protect adjacent street, homes, and underground utilities, installation of vertical membrane barrier and slurry wall extension to control groundwater flow, breaching of existing slurry wall to restore groundwater flow through the site.
- **Project Manager, Soil Removal Action, City of West Covina** – Mr. Sharma managed this fast-track soil removal action under the oversight of US EPA and DTSC. The project involved reviewing existing site characterization data, delineating extent of impacted soils, preparing a removal action workplan and specifications, procuring a remediation contractor, managing the removal and offsite disposal or reuse of over 25,000 tons of soil and 30,000 gallons of groundwater, and providing a summary report. The work was completed within three months of notice to proceed in order to meet the City's need to receive closure before a prospective purchase agreement with a private entity expired.

- **Project Manager, Soil Excavation and Ex Situ Treatment for Lead and Organics, Former Shooting Range Facility, Menlo Park, California** – For this voluntary cleanup action, Mr. Sharma prepared the Phase 1 remedial action plan and the construction/remediation plans and specifications for excavation and treatment of soils impacted with lead shot, clay pigeon debris, lead, and polynuclear aromatic hydrocarbons (PAHs). Mr. Sharma negotiated final approval of the plan with Water Board and DTSC. He worked closely with the public participation consultant to educate and involve the local community on the remedial process. He also managed the preparation of an engineer's cost estimate for the remediation and review of contractor submittals. The site encompasses approximately 21 acres of low-lying land and jurisdictional wetlands owned by the San Francisco Public Utilities Commission (SFPUC) and approximately 29 acres of a salt evaporation pond and levee owned and operated by Cargill Salt.

Yash Nyznyk, P.E., BCEE, LEED AP

Technical Advisor

Mr. Nyznyk has over 24 years of experience negotiating with regulatory agencies in enforcement matters related to hazardous waste site remediation including the DTSC, RWQCB, California Integrated Water Management Board (CIWMB), and USEPA. His project work encompasses a broad range of planning, permitting, and design associated with remediation systems, as well as hazardous waste site assessments, facility audits, and environmental management program compliance.

Since joining CDM in 1992, he has led several large environmental investigation and remediation projects, with experience at several Superfund sites and an explosives testing facility. Mr. Nyznyk's specific project experience includes:

- **Project Manager, OEA Aerospace, Inc., Potrero Hills Facility, Fairfield, California** – Mr. Nyznyk directed a range of environmental management services, including characterization and evaluation of soil and groundwater to assess impacts from explosives testing activities performed on-site. To address contamination resulting from explosives testing activities at the former Nike missile battery adjacent to Travis Air Force Base, Mr. Nyznyk managed the design and implementation of an extensive soil excavation and on-site treatment program. Current activities at the site include investigation and evaluation of groundwater contaminated with chlorinated volatile organic compounds (at one location) and perchlorate (at another site location).
- **Project Manager, Fresno Sanitary Landfill Superfund Site, Fresno, California** – Mr. Nyznyk serves as the CDM Project Manager for the project. CDM has worked for the City of Fresno (City) for over 20 years in the investigation, remedial action evaluation, remedial design and remedial action at the Fresno Sanitary Landfill Superfund Site. A critical element of our work on this project has been working collaboratively among the City and the regulatory agencies (USEPA, RWQCB, and DTSC) to navigate through the sometimes circuitous Superfund process. Ultimately, the City has achieved closure of the landfill itself (landfill final cover, landfill gas control, and surface water management systems) and is currently working to refine a multi-phase groundwater remediation program. Negotiations with the regulatory agencies are ongoing.
- **Project Manager, AMCO Chemical Superfund Site, Oakland, California** – Mr. Nyznyk serves as the CDM Project Manager for this Superfund chemical processing facility. Chemical impacts at the Site include non-aqueous phase liquids, VOCs, petroleum hydrocarbons, pesticides , metals, and PCBs. Current activities include preparation of a Focused Feasibility Study addressing the interim remedial action – dual phase extraction within the source area followed by excavation of the primary source area. Data from supplemental investigation activities at the Site following the interim remedial action will be used to design and implement the final remedy at the Site. Community relations activities (Community Open House, Community Advisory Board meetings, etc.) are considered a critical element in keeping the community informed as the project cleanup progresses.

Randy Smith, P.E.

Technical Advisor

In his 30-year career, Mr. Smith has helped numerous clients navigate negotiations with environmental regulators, property purchasers and lenders in various site remediation projects. His extensive experience working with various regulatory agencies including the DTSC and RWQCB has led to the cultivation of direct knowledge of the negotiating and collaborative processes that have resulted in successful partnerships among all stakeholders. Moreover, this, in combination with Mr. Smith's experience in regulatory permitting, facility site planning, commercial and property transactions, and environmental site investigations and remediation has led to the successful closure of several sites in the United States.

Within CDM, Mr. Smith is responsible for coordinating staff across the U.S. in support of an active portfolio of site investigation and remediation projects in the U.S. West. He is active in implementing client-led programs targeting

permitting efficiency, field activity and reporting standardization, and long-range "life of project" planning. Mr. Smith's specific project experience includes:

- **Project Manager, Industrial Property Transfers, San Francisco Bay Area** – Mr. Smith initiated and maintained close communication with Bay Area regulatory agencies on several environmental projects. For an inactive industrial site in Milpitas, he negotiated a remedial approach with the RWQCB that eliminated the need for post-cleanup groundwater monitoring, thereby satisfying property purchaser conditions and enabling the property sale to proceed with no Seller post-sale obligations
- **Project Manager, Closure of U.S. Coast Guard Aids to Navigation Sites, Santa Barbara Channel Islands** – Mr. Smith developed and managed nine remote sites involving sensitive habitat, endangered species, and close coordination with the DTSC, Coast Guard, and National Park personnel
- **Project Director, Industrial Site Feasibility Study/Remedial Action Plan, Emeryville** – Mr. Smith directed the decommissioning, demolition, remedial Feasibility Study, Remedial Action Plan, and environmental impact evaluation for cleanup of one of the last remaining industrial legacy properties. The site is in a former industrial area now gentrified with live-work lofts, high-tech laboratory, and retail centers on all sides.
- **Program Manager, As-Needed Services, San Francisco** - Mr. Smith supported the successful property transfer negotiation between BART and Southern Pacific Railroad for much of the SFO Extension project alignment and was instrumental in the development of the Soil Management Plan covering excavation and reuse of various categories of soil during construction, a plan approved by the RWQCB as submitted.

Roger Olsen, Ph.D.

Technical Advisor

With more than 30 years of experience in the conduct, planning, and management of comprehensive sampling programs, Mr. Olsen has conducted evaluations on over 100 sites contaminated with metals, 50 mining/milling sites, 80 chlorinated solvent sites, 30 RCRA sites and remedial investigation/ feasibility studies at more than 150 Comprehensive Environmental Response, Compensation, and Liability Act sites. Dr. Olsen is a recognized expert in the area of planning, negotiating, and implementing innovative investigations and remediation approaches. Some of these projects have included:

- **Gilbert-Mosley site in Kansas**, hydraulic containment and alternative concentration levels for groundwater cleanup were accepted by regulatory agencies (Kansas Department of Health and the Environment and approved by USEPA). A weight of evidence approach was used including risk assessment, modeling, practical experience of achieving MCLs on other sites, etc. This resulted in a 40 percent reduction of the amount of groundwater requiring remediation and an estimated cost savings of $8 million
- **Leadville Superfund site**, onsite XRF analyses were performed for metal contaminated soil. The rapid turnaround results were analyzed geostatistically to determine accuracy of extent of contamination and location of samples. The overall program was reduced from 2 years to 6 months and costs were reduced 50 percent
- **Quicksilver site in northern California**, bioavailability and electron microprobe studies were performed. As a result, the cleanup standard for mercury in soils was raised by a factor of 12, substantially reducing cleanup volumes and costs. The higher cleanup standards were accepted by the regulatory agencies.
- Evaluation of metal contamination in soils and stream sediments using electron microprobe indicated the sources of metals were not the result of our client's activities
- Pilot-scale testing and full-scale implementation of a passive biological treatment system on an acid mine drainage site resulted in considerable cost savings over conventional active treatment methods (pH adjustment/ precipitation)

Mr. Olsen is a recognized expert in strategic planning, and serves on a variety of committees and projects in this capacity. Some of these include:

- **National Research Council's Committee on Innovation in and Commercialization of Ground Water Remediation** – Dr. Olsen is currently completing this 3-year appointment. He was subchairman of the section on testing and methodology for innovative systems
- **Presumptive Remedy for Metals in Soils** – Dr. Olsen was selected by EPA to review and write sections of the new Presumptive Remedy for Metals in Soils. The draft of this guidance is under review
- **Protocol for Implementing Intrinsic Remediation** – Dr. Olsen was one of three experts selected by EPA to review the draft document: "Technical Protocol for Implementing Intrinsic Remediation with Long-Term Monitoring for Natural Attenuation of Fuel Contamination Dissolved in Ground Water" issued by the Air Force

The following table demonstrates the qualifications of the CDM Team's Technical Support Service team members.

Supporting Technical Resources

Team Member Qualifications	
Team Member/Role	**Qualifications**
Vibhav Mankad, P.E. *Project Engineer*	With over eight years of experience in soil and groundwater remediation, Mr. Mankad has worked extensively, coordinating between the client and regulatory agencies such as DTSC, US EPA, California Regional Water Quality Control Board, and several others. He has been involved with numerous site remediation projects, beginning his participation at the initial investigation through design and closure. Mr. Mankad's specific project experience includes: ▪ **Project Manager, Various Railroad Sites in California** - Managing site investigation, remediation, risk assessment, and vapor intrusion studies at several Railroad sites in California. ▪ **Project Engineer/Task Manager, Superfund Site, Oakland, CA** – Conducting a feasibility Study in collaboration with the US EPA for a multi-contaminant Superfund site in Oakland, California. ▪ **Project Manager, Dry Cleaner Site in San Mateo, CA** – remedial investigation, vapor intrusion risk evaluation, and operation of soil vapor extraction system.
Peggy Bloisa, R.G. *Project Hydrogeologist*	Ms. Bloisa's 20 years of experience includes soil sampling, groundwater monitoring, preparing field sampling plans, PCB removal, habitat mapping and analysis, field work coordination, site assessment and investigation, and aquifer and slug tests. She has worked extensively with government agencies and has served as task manager for hydrogeologic investigations at over 10 sites, including several for the U.S. Army Reserve, the U.S. Coast Guard, the U.S. Navy, and the U.S. Department of the Interior – Bureau of Reclamation. Ms. Bloisa's specific project experience includes: ▪ **Project Geologist, Groundwater Monitoring at Union Pacific Railroad Company's (UP) Roseville Yard** – Led the quarterly groundwater monitoring performed in compliance with the California Regional Water Quality Control Board's Central Valley Region Monitoring and Reporting Program order. ▪ **Project Manager, U.S. Army Reserve 63D Regional Readiness Command, Remedial Investigation/Feasibility Study at Former Vehicle Wash Rack and Oil Water Separator, IR Site 1, Heroic War Dead U.S. Army Reserve Center** – Managed Remedial Investigation/Feasibility Study at IR Site 1, as well as installation of six groundwater monitoring wells and routine monitoring during three quarterly sampling rounds to evaluate contaminant trends and natural attenuation in the groundwater with regulatory oversight from the DTSC and the RWQCB.
Kassandra Tzou, P.E. *Risk Assessment*	Ms. Tzou has over 18 years of experience in environmental engineering and hazardous waste remediation services. Ms. Tzou has conducted numerous human health risk assessments and risk-based analyses for industrial and governmental clients to determine the risk of onsite and offsite receptors to onsite contaminants. Clients include Anadite, Santee Dairy, General Motors, Playa Vista, BKK Landfill, U.S. Coast Guard, Ryder Trucks, Union Pacific Railroad, Los Angeles Department of Water and Power, and Autoliv. Ms. Tzou's specific project experience includes: ▪ **Risk Assessment Specialist, Risk Assessment Support, Santa Susana Field Laboratory (SSFL) Site** – Provided risk assessment support in the preparation of a data gaps analysis to determine the health risks of this site on which several nuclear reactors and associated fuel facilities and laboratories operated from the 1950s until the late 1980s. ▪ **Senior Technical Staff, Risk Analysis, Fresno Sanitary Landfill** - Conducted an analysis of risk and a supplemental risk assessment to address risks for people using properties adjacent to the landfill for a regional sports complex including softball fields, soccer fields, picnic areas, and park lake .
Carolyn Moore *Community Relations*	For the past three years, Ms. Moore has been working on remediation sites with regulatory oversight from US EPA, RWQCB, DTSC, and local county and water districts. She has recently focused her time and expertise helping clients with community relation efforts, organizing and facilitating monthly meetings for members from federal and state regulatory agencies, federal departments, technical stakeholders, and other community members. Ms. Moore's specific project experience includes: ▪ **Staff Engineer, Mare Island Naval Shipyard (MINSY) Restoration Advisory Board (RAB), and Other Community Relations Support, U.S. Navy Base Realignment and Closure** – In direct coordination with Navy representatives, organizes and facilitates monthly meetings for members from federal and state regulatory agencies, U.S. Navy, and other stakeholders; prepares agendas, publishing notices and mailers, mails documents, and coordinates with local newspapers to place notices for the monthly RAB meetings and other significant public events ▪ **Staff Engineer, West Oakland AMCO Chemical Superfund Site under the EPA RAC 9 Contract** – Organizes and facilitates monthly meetings for members from EPA, USACE, community members and invested community welfare groups. Prepares mailers and visual displays to communicate technical concepts to community members and interested parties. Arranges logistical requirements for meetings such as meeting space, public notices, and interpreters. Takes meeting minutes and arranges for editing and distribution.

Work Plan Staff Assignments

Tasks	Personnel Assigned
Task 1: Kick-off Meeting	Project Director - Yash Nyznyk
	Sr. Engineer/Project Manager - Pawan Sharma
	Engineer - Vibhav Mankad
	Sr. Geologist - Peggy Bloisa
Task 2: Background Information	Project Director - Yash Nyznyk, Roger Olsen
	Sr. Engineer/Project Manager - Pawan Sharma
	Engineer - Vibhav Mankad
	Sr. Geologist - Peggy Bloisa
	Geologist - Sean Coan, Ahnna Westrich
Task 3: Data Gaps Report and Recommendations for Supplemental Investigation	Project Director - Yash Nyznyk, Roger Olsen
	Sr. Engineer/Project Manager - Pawan Sharma
	Engineer - Vibhav Mankad, Kassandra Tzou
	Sr. Geologist - Peggy Bloisa
	Geologist - Sean Coan, Ahnna Westrich
Task 4: Negotiate with Army	Project Director - Yash Nyznyk, Randy Smith
	Sr. Engineer/Project Manager - Pawan Sharma
	Sr. Geologist - Peggy Bloisa
Task 5: Project Management	Project Director - Yash Nyznyk, Randy Smith
	Sr. Engineer/Project Manager - Pawan Sharma
	Geologist - Sean Coan, Ahnna Westrich