



## Consulting Engineers, Inc.

**Schedule Title:** FSC Group 899 – Environmental Services

**Contract Number:** GS-10F-0192P

**Contract Period:** February 12, 2014 - February 11, 2019 (Option 2)

**Contractor's Name:** E2 Consulting Engineers, Inc.  
450 East 17<sup>th</sup> Avenue, Suite 200  
Denver, CO 80203

**Contract Administrator:** Vanessa Vanover  
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**Business Size:** Large



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## Customer Information

1a. Table of Award Special Item Number(s) with appropriate cross-reference to item description s and awarded price(s). **Special Item No. 899-1 – Environmental Consulting Services; Special Item No. 899-7 – Geographic Information Systems (GIS); Special Item No. 899-8 – Remediation and Reclamation Services; Special Item No. 899-1RC; Special Item No. 899-7RC; Special Item No. 899-8RC.**

1b. Identification of the lowest priced model number and lowest unit price for that model for each special item number awarded in the contract. This price is the Government price based on a unit of one, exclusive of any quantity/dollar volume, prompt payment, or any other concession affecting price. Those contracts that have unit prices based on geographic location of the customer should show the range of the lowest price, and site the areas to which the process apply.

1c. If the Contractor is proposing hourly rates, a description of all corresponding commercial job titles, experience, functional responsibility and educational for those types of employees or subcontractors who will perform service shall be provided. If hourly rates are not applicable, indicate “Not applicable” for this item.

2. Maximum order. **\$1,000,000.00**

3. Minimum order. **\$100.00**

4. Geographic coverage (delivery area). **Domestic (USA) only**

5. Point(s) of production (city, county and State or foreign country). **Domestic (USA) only**

6. Discount for list prices or statement if net price. **N/A**

7. Quantity discount. **N/A**

8. Prompt payment terms. **10%-29 days- Net 30 days**

9a. Notification that Government purchase cards are accepted at or below the micro-purchase threshold. **Government purchase cards are accepted at or below the micro-purchase threshold.**

9b. Notification that Government purchase cards are accepted or not accepted above the micro-purchase threshold. **Government purchase cards are not accepted above the micro-purchase threshold.**

10. Foreign items. **N/A**

- 11a. Time of delivery. **To be negotiated on an individual task order basis.**
- 11b. Expedited delivery. **To be negotiated on an individual task order basis.**
- 11c. Overnight and 2-day delivery. **N/A**
- 11d. Urgent requirements. **To be negotiated on an individual task order basis.**
12. F.O.B. point(s). **To be negotiated on an individual task order basis.**
- 13a. Ordering address. **Vanessa Vanover**  
**E2 Consulting Engineers, Inc.**  
**151 Fabian Drive**  
**Aiken, SC 29803**  
**[vanessa.vanover@e2.com](mailto:vanessa.vanover@e2.com)**  
**803-642-5990 phone / 803-642-8550 fax**
- 13b. Ordering procedures: For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA's) are found in Federal Acquisition Regulation (FAR) 8.405-3.
14. Payment address. **E2 Consulting Engineers, Inc.**  
**450 East 17<sup>th</sup> Avenue, Suite 200**  
**Denver, CO 80203**
15. Warranty provision. **N/A**
16. Export packing charges, if applicable. **N/A**
17. Terms and conditions of Government purchase card acceptance (any threshold above the micro-purchase level). **Contact Contractor**
18. Terms and conditions of rental, maintenance, and repairs (if applicable). **To be negotiated on an individual task order basis.**
19. Terms and conditions of installation (if applicable). **To be negotiated on an individual task order basis.**
20. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices (if applicable). **N/A**
- 20a. Terms and conditions for any other services (if applicable). **To be negotiated on an individual task order basis.**
21. List of service and distribution points (if applicable). **N/A**

22. List of participating dealers (if applicable). **N/A**
23. Preventive maintenance (if applicable). **To be negotiated on an individual task order basis.**
- 24a. Special attributes such as environmental attributes (e.g., recycled content, energy efficiency, and/or reduced pollutants). **To be provided as it relates to specific solicitations**
- 24b. If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIT) supplies and services and show where full details can be found (e.g., contractor's website or other location). The EIT standards can be found at [www.Section508.gov/](http://www.Section508.gov/). **N/A**
25. Data Universal Number System (DUNS) number. **18-9373764**
26. Notification regarding registration in Central Contractor Registration (CCR) database. **Contractor is registered in CCR database. (System for Award Management (SAM))**

E2 Consulting Engineers, Inc. (E2) is a Minority-Owned business, qualifying as a Small Disadvantaged Business for environmental remediation activities and other service areas with a 500 employee small business size standard, that has been providing environmental consulting and engineering services to both government and private sector clients since the company began in 1988. E2 has earned a reputation for quality and dependability by providing the highest quality work to our clients to ensure the projects are completed on time and within budget, while communicating openly and honestly with clients, partners, and regulators on complex projects. Our capability for rapid response to client and community needs has led to our base of satisfied clients, who repeatedly request E2's services and personnel.

E2 offers government and private-sector clients a full spectrum of professional / technical services including environmental investigations, environmental engineering, environmental planning and permitting, environmental compliance management, ecological services, risk assessment, system operations and maintenance, project and construction management, and facility operations. We deliver our services with technical innovation, teamwork, rapid response and reliability. We also offer staff augmentation services, providing knowledge and expertise to fill specific client needs.

E2's staff consists of more than ~250 personnel, including engineers of all disciplines, as well as scientists, technical writers, community relations specialists, geographic information system (GIS) specialists, computer aided drafting and design (CADD) professionals, security experts, construction managers, database managers, project administrators, field technicians, chemists, ecologists, qualified storm water developers/practitioners (QSP/QSD), environmental planners, regulatory specialists, and project controls professionals, including planners, estimators, and schedulers.

E2 performs as a prime contractor or a subcontractor on both short- and long-term projects. We also routinely team with large businesses on multi-million dollar procurements and provide them with high quality dependable environmental support services thus helping them meet their small business goals. Some of our repeat large business partners include CH2M Hill, TetraTech, URS, Fluor Corporation, Brown & Caldwell, Parsons, Black & Veatch, Jacobs Engineering Group, Montgomery Watson Harza, and AECOM. E2 has completed projects for numerous Federal clients including the U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), U.S. Army Corps of Engineers (USACE), Air Force Center for Engineering and Environment (AFCEE), Department of the Navy, and U.S. Fish and Wildlife Service.

We dedicate our efforts to meeting customer requirements safely, with high quality, and within budget and schedule constraints. Our clients appreciate our customer focus and value our commitment to exceeding their expectations through:

**Rapid Response** — At E2, we have structured our business approach and resources for flexibility. We can mobilize quickly and cost-effectively to initiate projects. We can respond with agility to changing project or site requirements.

**Partnering** — By creating effective partnerships, clients obtain expected results the first time. Our ability to work and communicate effectively with clients, partners, technical staff, regulators and stakeholders promotes trust and builds teamwork. We believe these elements are fundamental to achieving excellence in engineering.

**Reliability** — We have found that reliability is essential in building successful relationships. By maintaining our commitments and the quality of our work, we have achieved the highest levels of customer satisfaction. For E2, repeat business is our best measure of success.

**Technical Innovation** — The art of solving complex problems often lies in the creative use of technology. In project after project, we have employed innovative solutions that provide practical, economical ways to meet their needs and generate new opportunities.

E2 provides support to the Air Force, Environmental Protection Agency, Department of Navy, and the US Army Corps of Engineers on the following environmental contracts:

- AFCEE WERC09
- EPA Region VI RAC2
- EPA Region VIII RAC2
- EPA Region IX RAC2
- EPA Region IX START
- EPA Region X AES
- Navy CLEAN
- USACE – multiple individual task orders

E2 also provides a wide range of project management support, design, planning and oversight services for engineering, decommissioning, environmental remediation and waste management at DOE/NNSA sites (ORNL, SRS, INL, Hanford, Sandia, West Valley, SPRU, WIPP, LLNL, LANL, Paducah & Portsmouth).

## A Full Spectrum of Environmental Services

- **Environmental Investigation**
  - Soil Borings/Well Installation
  - Preliminary Assessments
  - Record of Decision Support
  - Remedial Investigations
  - Lithological Logging
  - Soil Gas Surveys
  - Ecological Monitoring
  - Hydrogeologic Evaluations
  - Regulatory Compliance and Planning
- **Remedial Engineering**
  - Feasibility Studies
  - Treatability Studies/Pilot Testing
  - Engineering Evaluation/Cost Assessment
  - Remedial System Design
  - Design Plans, Construction Plans
  - Remediation System Construction
  - Operation, Maintenance and Optimization
- **Ecological Services**
  - Ecological Modeling
  - Ecosystem Restoration Planning
  - Population Viability Analysis
  - Ecological Risk Assessment
  - Risk-Based Decision Models
  - Atmospheric & Groundwater Modeling
  - Wetlands/Waters Delineation
  - Habitat Mapping and Assessment
- **Landfill Monitoring**
  - Cap Monitoring and Maintenance
  - Landfill Gas Sampling
  - Landfill Inspections
  - Water Quality Protection Standards
- **Technical Support**
  - Database Management
  - CADD and GIS
  - Decision and Risk Analysis
- **Remedial Technologies**
  - Groundwater Pump and Treat
  - Soil Vapor Extraction
  - Air Sparging
  - Bioventing
  - Bioremediation
  - Lead Recovery
  - Chemical Oxidation
  - Soil Excavation and Treatment
  - Natural Attenuation
  - Steam Treatment
- **Groundwater Monitoring Programs**
  - Field Sampling
  - Groundwater Elevation Surveys
  - Laboratory Coordination
  - Data Validation
  - Well Video Logging
  - Reporting
- **Regulatory Compliance**
  - RCRA, CERCLA, TSCA, CWA,
  - NPDES Permitting
  - 5-Year Reviews
- **Planning and Permitting**
  - NEPA, CEQA, and other state environmental reviews
  - Regulatory Consultation/Coordination
  - Public Involvement
  - Federal and State Regulatory Compliance (RWQCB, USACE, USFWS, CDFW)
- **Program Management**
  - Scheduling/Cost Estimation/Budgeting
  - Quality Management Planning
  - Safety Management Programs
  - Negotiation and Litigation Support

## E2 Project Experience

### **E2's Past Performance for the USACE (1994 - Present)**

E2's history of providing support to USACE on environmental projects dates back to 1994. We have supported numerous USACE districts including: Portland, Rock Island, Sacramento, St. Paul, St. Louis, New Orleans, Tulsa, Los Angeles, and Huntington (WV). E2 also provides technical services to the USACE Engineering Research and Development Center (ERDC, Vicksburg, MS).

#### Portland District

E2 drafted an environmental adaptive management (AM) plan for the USACE Columbia River Channel Improvement Project in 2003. Since that time, E2 has helped the USACE implement the AM plan. E2 analyzes monitoring data, facilitates quarterly AM meetings that involve the USACE, NMFS, FWS, and the states of Washington and Oregon. The Columbia River AM program is the first and only USACE currently operating adaptive management plan.

#### Rock Island District

E2 developed, applied, and evaluated all of the ecological models used to assess the effects of commercial navigation on 30 species of fish, several submerged aquatic plants, and unionid mussels as part of the Upper Mississippi River System (UMRS) Navigation Feasibility Study (1994-2004). The models addressed potential impacts for more than 1,100 river miles on the Upper Mississippi and Illinois Rivers. E2 also participated in the production of the USACE programmatic EIS, pursuant to NEPA, for the Feasibility Study. The Feasibility Study was managed by the Rock Island District, however, St. Paul, St. Louis, New Orleans, and ERDC, Vicksburg were continuously involved during this 10-year project and E2 staff worked in support of all of these USACE organizations during the study.

E2 personnel currently serve as the only independent contractor on the USACE Science Panel for the USACE Navigation and Ecosystem Sustainability Program (NESP). The NESP is the follow-on project to the Feasibility Study. The NESP is authorized to spend \$1.5 billion in ecosystem restoration activities on the Upper Miss and Illinois Rivers. E2 continues to provide ecological modeling support in the design and evaluation of various environmental restoration actions.

E2 personnel also currently serve as the only independent contractor on a USACE-wide project tasked with the development of a standardized approach to adaptive management in support of USACE management and restoration activities, both environmental and engineering. E2 is assisting the USACE with the development of a technical guide for adaptive management that will apply throughout the USACE.

E2 developed a spatially explicit fish population model to help the USACE forecast the likely success of several fish passage structures planned for the Upper Mississippi River. The USACE uses this modeling tool to help select from various proposed fish passage projects.

## Sacramento District

E2 supported the USACE Sacramento District on the Hurricane Katrina Emergency Response Action and the follow on Katrina Debris Cleanup Mission, under subcontract to ECC by quickly mobilizing Safety & Health, Field Operations Management, Quality Control, Environmental, Regulatory Support, Waste Management, and Engineering support personnel. Our personnel mobilized within 48 hour of initial notification, and were on the ground supporting the cleanup operations for 2 years. Our personnel worked closely with the USACE, the EPA and the Louisiana Department of Environmental Quality (LDEQ) to define and implement waste segregation requirements for household hazardous waste, medical waste, electronic waste, asbestos, municipal waste, vegetative waste and construction & demolition (C&D) debris. E2's engineers also prepared the Deactivation and Decommissioning (D&D) Plans for homes destroyed by the hurricanes in Plaquemines and Orleans Parishes. These plans incorporated the requirements from the USACE's Safety and Health Requirements Manual (EM 385-1-1), the LDEQ and EPA waste segregation requirements, and contingencies for identification and protection of historic properties and artifacts.

### Problems Encountered and Resolutions

**Problem:** When the levees broke and flooded the Lower Ninth Ward in New Orleans, LA, thousands of cubic yards of sediment remained when the waters receded. Initially, there was a biological health concern associated with the sediment, but as the sun dried out the sediment, test results showed no residual health hazard from biological constituents. However, there was still a concern about contamination from fuel (BTEX) and other household hazardous waste. The initial approach developed by LDEQ was to excavate all the sediment, stockpile it in a new location, and sample each 100 yd<sup>3</sup> prior to disposal.

**Resolution:** E2's Environmental and Engineering Manager worked with the USACE and LDEQ to redefine the characterization process for sediments washed into neighborhoods as the result of levee breaks. E2 used field sampling data to validate the homogeneity of the material. After sharing this data with the LDEQ and USACE, the final approach for sampling and removal of the sediment was to perform insitu sampling at a rate of one sample per 1000 yd<sup>3</sup> to confirm homogeneity of sediment. This improved productivity, reduced the safety risks associated with double handling, and saved over \$1.3 million.

## St. Paul District

E2 developed a risk assessment framework and model to assist the USACE in forecasting the spread and establishment of invasive zebra and quagga mussels throughout the St. Croix River Basin. The USACE is using the E2 framework to guide the collection of data aimed at reducing uncertainties in forecasting the spread and establishment of invasive mussels.

E2 also developed a risk-based decision support model to assist the USACE in selecting among various engineering projects designed to improve navigation safety and maintain ecological integrity of sensitive wetlands at Lock and Dam 3, near Red Wing, MN. The model addresses engineering, economic, and environmental aspects relevant to selecting among the proposed project alternatives.

E2 assisted the USACE in evaluating the regulation of water flows and elevations in 43 river segments and impoundments that define the headwaters of the Mississippi River. E2 developed a set of ecological models that assessed the effects of manipulations of flows and elevations on shorebirds, riparian mammals, waterfowl, submerged vegetation, aquatic invertebrates, and several species of fish.

E2 also assisted the USACE in assessing the effects of recreational boating on fish, submerged aquatic vegetation, and freshwater mussels throughout the Upper Mississippi and Illinois Rivers as a companion to the Navigation Feasibility Study. E2 adapted its ecological models developed to assess commercial navigation impacts to provide recreational boating modeling and assessment services to the St. Paul District.

#### St. Louis District

E2 constructed a stochastic demographic population model to estimate the likelihood of local extinction of pallid sturgeon in the Middle Mississippi River. The endangered pallid sturgeon is mistakenly (or knowingly) identified as shovelnose sturgeon, which are commercially fished in the Middle Mississippi River. The USACE used the E2 model to evaluate the effectiveness of proposed habitat improvement for pallid sturgeon given the high pallid mortalities resulting from the continuing commercial fishery for shovelnose sturgeon.

#### New Orleans District

E2 constructed an aquatic ecosystem model to help the USACE forecast the outcomes of freshwater diversions from the Mississippi River across coastal Louisiana wetlands and the coastal ocean to the edge of the Gulf shelf. The model simulates the effects of changes in salinity and other water quality parameters on the production of oysters, shrimp, crab, and a diverse assemblage of ecologically and commercially important fish species. The model also simulates the effects of diversions on submerged and emergent wetland plants. This recently developed model (Feb-May 2010) could be used to assess ecological risks and time to recovery for modeled populations in relation to exposure to Gulf crude oil and dispersants.

#### ERDC, Vicksburg

E2 is collaborating with ERDC modelers in the integration of an aquatic ecosystem model with one of the USACE physical models of water flow. Applications of this state-of-the-science model integration are being used to simulate the effects of river drawdown on ecological production in Navigation Pool 5 on the Upper Miss River and the effects of the Caernarvon freshwater diversion in the restoration of coastal Louisiana ecosystems.

#### Tulsa District

E2 developed an aquatic ecosystem model to help the USACE understand the potential impacts of USACE chloride reduction on the ecological production of striped bass in Lake Texoma. The striped bass represent a \$25 million/year recreational fishery for Oklahoma and Texas. The E2 model included a complex food web representative of Lake Texoma. The USACE is using the model to examine the food web implications of chloride management activities underway in Lake Texoma.

## Los Angeles District

For the Sulphur Bank Mercury Mine (SBMM) Superfund Site, E2's Field Team Leader was responsible for a storm water sampling project. The project involved sampling storm water from six tributaries to the Oaks Arm of Clear Lake on a continuous basis for 72-hours. Water samples were collected for low-level mercury and methyl mercury analysis, as well as total dissolved / suspended solids. The team also determined stream flow and rainfall rates during the event. The goal of the project was to be able to predict sediment and mercury loading rates to that part of Clear Lake based on observed rainfall totals.

As part of the storm water sampling project, E2 conducted wet and dry weather inspections, collected storm water samples and made recommendations for replacing or improving storm water best management practices control features. E2's Field Engineer oversaw the importation of clean fill, grading and hydroseeding of the face of the waste rock dam and selected slopes near Sulphur Bank Mine Road. As part of the effort, portions of Sulphur Bank Road were regraded, resurfaced, and sealed with a soil tackifier. The subcontractor also removed trees and repaired portions of the security fence around the mine that were damaged during the Elem Colony Restoration work.

One of E2's engineers also led a project to install and maintain a weather station at the SBMM that allowed for the automated collection of weather data. After installation and calibration, E2 prepared a standard operating procedure (SOP) for other storm water group members that defined how to operate the station and download the weather data.

E2 personnel were also responsible for the sampling of the proposed dredge material in the Keys Area of the SBMM. Sediment samples were collected at 12 locations and water quality and sediment field parameters were measured at 11 locations in the sampling area. Water depth, water quality measurements, and sediment samples were collected from a patio-type boat manned by two field personnel and a boat operator. All proposed sampling location information was stored on a hand-held global positioning system (GPS) instrument with differential correction and a horizontal accuracy of 3 feet or better. The GPS instrument was used to navigate to the proposed sampling location specified in the Keys Area Field Sampling Plan. A Petite PONAR<sup>®</sup> Sampler was used to collect the surface sediment samples. The depth of the water was determined by using a weighted lead line marked in 1-inch increments. The Horiba U-22 water quality meter was deployed over the stern of the boat, positioned approximately 6 inches above the lake bottom, and allowed to equilibrate. The parameters measured included pH, conductivity, turbidity, dissolved oxygen, temperature, and oxidation-reduction potential.

## USACE Los Angeles District / USEPA Region IX, Sulphur Bank Mercury Mine, Clear Lake, California

Supporting the Superfund project described above, E2 scientists conducted an ecological assessment for the former Sulphur Bank Mercury Mine in Clear Lake, California. The assessment area encompassed 567-acres including the 150-acre former mine site and 417 acres of surrounding lands that were used for waste rock disposal or that might be impacted by the proposed remedial actions. The assessment included habitat characterization and mapping as well as an evaluation of biological resources associated with the former mine and surrounding

areas in response to the EPA's Remedial Investigation/Feasibility Study. The study will also be used to support the Ecological Risk Assessment, Proposed Plan and Record of Decision. The ecological assessment included:

- A description of the ecological setting including information on the terrestrial and wetland habitats in the survey area;
- A list of wildlife and plant species observed during site reconnaissance surveys;
- An assessment of the potential for special-status species to occur in the survey area.

E2's Environmental Services and Engineering team is completing the CERCLA remedy design and selection, environmental review, remedial action implementation, and environmental monitoring.

#### Huntington District

E2 has developed a user-friendly interface for one of the USACE principal navigation assessment models (NAVPAT) used in project planning on the Ohio River. E2 has also provided automated post-processing software to analyze, illustrate, and report NAVPAT results. The software was developed as a Windows application for PCs using Microsoft Visual Studio.

#### **EPA Region IX RAC & RAC II (Team Sub to CH2M Hill, 1998 - Present)**

Since 1998, E2 has provided environmental investigation and engineering support, as well as technical and project management services to CH2M Hill for numerous EPA work assignments (WAs) including: RI/FS project management and field support at the San Fernando Valley Superfund Site and the AMCO Chemical Superfund Site; sampling support for the Montrose, Alhambra, Omega Chemical, Lava Cap Mine and Sulphur Bank Mercury Mine RI/FS WAs; data management and field support for the United Heckathorn and North Hollywood FS WAs; data evaluation and technical assistance for the Whitteir Narrows, Newmark Muscovy Plume, Lava Cap Mine and Tucson International Airport RA WAs; and, Non-Time Critical Removal support at Sulphur Bank Mercury Mine (ELEM tribal colony) and Frontier Fertilizer WAs; and 5-year Review support for the Ordot Landfill Superfund Site and the 3<sup>rd</sup> 5-year Review for the North Hollywood OU just to name a few. Brief summaries of some of these example projects are included below:

#### San Fernando Valley Superfund Site

The San Fernando Valley (SFV) Superfund Site, which includes 5 Operable Units (OUs), is currently being managed by EPA as one large Superfund Site. For the SFV site, E2's Senior Hydrogeologist is responsible for project management, subcontract administration, client coordination, cost estimates, and oversight of quarterly SFV field activities, including all subcontractors and field personnel. He assists with the development and provides Sr. Technical review of required planning documents for CERCLA WAs, including Sampling and Analysis Plans (SAPs), Quality Assurance Project Plans (QAPPs), Waste Management Plans and Data Management Plans. He provides Sr. Technical Review for design reports, OU technical memoranda and five-year review support assisting EPA with four separate OU-specific RODs and Settlement Agreements within the SFV Superfund Site, including North Hollywood OU, Burbank OU and the Glendale North and South RA OUs. He worked closely with the EPA

WAM and EPA's Community Involvement specialists for preparation of Proposed Plan/ROD for de-listing a former National Priorities List (NPL) Site within the SFV Superfund Site.

E2 coordinated with CH2M Hill's RAC Program Management team for Work Plan development, cost estimates and negotiations with EPA. E2 also communicates and coordinates with RAC Team Sr. Chemist and EPA Quality Assurance Office (QAO) ensuring environmental sample collection and laboratory analyses are performed according to proper protocol and meet the DQOs and needs of the project. E2 is also responsible for the EPA's SFV GIS database through coordination/collection/integration of all available water quality data from numerous sources within the SFV Basin.

#### United Heckathorn Superfund Site

For United Heckathorn Superfund Site Feasibility Study, E2's environmental staff provides management and technical support through review of post-remediation historical data; coordination of database and GIS staff with development of a comprehensive Site database; developing and implementing a data gaps study to support a re-evaluation of the site risk assessments; and conducting pilot studies to investigate the use of emerging technologies as a means to evaluate remedial effectiveness in anticipation of moving forward with the preparation of the Focused Feasibility Study.

#### AMCO Chemical Superfund Site

For the AMCO Chemical Superfund Site remedial investigation / feasibility study (RI/FS), E2 professional staff provides field support, site operations and maintenance, engineering and hydrology support, community relations, analytical support, and data validation services to EPA for WA activities addressing groundwater and subsurface contamination of VOCs. E2 staff provides analytical and data validation support through preparation of Data Quality Usability Assessment, review of data validations and analytical reports, and database management.

#### Klau Buena Vista Mercury Mine Superfund Site

For the Klau Buena Vista Mercury Mine Superfund Site, E2 professional staff provided task management and field support for the ongoing RI. E2 personnel implemented the sampling plans for collection of soil, sediment, biota, groundwater, surface water, and storm water samples. This included implementing an XRF survey of surface soil at the mine, which included over 450 XRF points across 317 acres and collecting confirmation samples at each location, approximately half of which were submitted for laboratory analysis. E2 utilized the FORMS II Lite software for data management of the samples submitted to CLP laboratories and conducted quality control (QC) reviews of the field data collection efforts. E2 also directed database development, including a review of historical analytical and operational data for the two abandoned adjacent mercury mines. These tasks also involve coordination with GIS staff for development of figures to assist with spatial and temporal evaluations of historical environmental sampling data.

#### Other Environmental Support Activities

E2 also conducts sampling support for field activities at numerous other NPL sites. This support includes well installation oversight, groundwater monitoring, sediment, soil, and tissue sample collection, split-sample collection and oversight of potentially responsible party (PRP) sampling

collection. E2 ensures that all environmental samples collected in support of EPA WAs meet EPA Quality Assurance Office criteria through conducting field audits, observing specified QA/QC protocols, and when necessary, conducting laboratory audits and evaluations of laboratory analytical performance. Our field staff are proficient at constructing and maintaining field databases that ensure samples are properly collected, stored, shipped and the resulting data is archived and is readily retrievable.

E2 also provides the EPA with community relations support through community interviews of public concerns; revisions to the Community Relations Plan to reflect any changes in proposed community relations; assisting with preparation and revisions to EPA fact sheets; and technical and logistical support for public meetings. E2 maintains information repositories on activities related to the site-specific remedial investigation/ feasibility study activities in the San Fernando Valley Superfund Site. E2 assisted EPA with updating the web pages for the Superfund site, and with upgrading EPA's site-related mailing lists.

#### **EPA Region IX START Contract (Team Sub to Ecology & Environment, Inc., 2008 - Present)**

In 2008, E2 began providing engineering support, technical and project management services for Ecology and Environment, Inc. (E&E) on the EPA Region IX START contract. Some sample projects are summarized below:

##### Navajo Radioactive Structure Assessment (McKinley County, NM; Apache County, AZ; San Juan County, UT)

E2 provided a 2-3 person team to perform periodic sampling including surface soil scanning, air sampling and monitoring, construction material scanning, dose rate calculations, GPS data, site documentation, and data management. Over the course of the Five-Year Plan, EPA will focus on the problems posed by abandoned uranium mines, completing a tiered assessment of over 500 structures and several mines and taking actions to address the highest priority home sites and mines. As sites that pose risks are discovered, EPA may use Superfund authorities, including the National Priorities List, enforcement against responsible parties, or emergency response to require cleanup.

##### Skyline Abandoned Uranium Mine (San Juan County, UT)

Since 2008, E2 personnel have acted as the START project manager for the removal assessment portion of the project. Duties include planning assessment activities, defining impacted areas, coordinating with Navajo Nation EPA and Abandoned Mines Land (AML) personnel, participating in public meetings, and preparing technical reports. E2 personnel prepared a site specific Health & Safety Plan and Quality Assurance Sampling Plan and then conducted radioactive structures assessments, gamma radiation scans, and surface soil sampling for this project. The results of this field work were documented in the final assessment report by E2.

E2 personnel will also act as the lead engineer on the remedial design of the repository and the removal effort, which is estimated to be a \$4M project. Duties will include preparing design drawings and specifications, overseeing repository construction activities, supervising air and soil monitoring and sampling activities, and project documentation.

### AMCO Vapor Intrusion Monitoring System Installation Oversight (Oakland, CA)

The AMCO Chemical Superfund Site is located in a residential neighborhood in Oakland, CA. The site is bordered by residences, industrial property, and land that may be redeveloped for mixed residential and commercial use. Beginning in the 1960s and continuing for nearly 29 years, the AMCO Chemical Company off-loaded chemicals from a rail spur on site, stored them in drums and storage tanks and then transferred them to smaller containers for resale. Chemicals handled at the former facility are those found in diesel fuel and dry cleaning, and industrial cleaning / degreasing agents. All containers were removed and AMCO ended its operation in 1989.

In 2009 and 2010, E2 personnel worked on the design for and conducted visual inspections of residential vapor intrusion systems installed during the AMCO Vapor Intrusion Response and documented the final installation designs and system specifications in a cross-section format for the EPA. Since the systems were installed, EPA has not seen acute levels of contamination inside the homes that are immediately dangerous to health.

### EPA Region VI RAC2 (Team Sub to CH2M Hill, 2009 - Present)

E2 recently began providing engineering support, technical and project management services for CH2M Hill on the EPA Region VI RAC II contract. Some sample projects are summarized below:

#### Tar Creek Superfund Site

The Tar Creek Superfund Site is a former lead and zinc mining area comprised of approximately 40 square miles and located in EPA Region VI in Ottawa County, Oklahoma near the Oklahoma-Kansas state line. In 2009, E2 was responsible for programming and installing pressure transducers in the monitoring wells, downloading data and re-programming pressure transducers for future data collection, and collecting groundwater quality parameters and groundwater samples for laboratory analysis.

#### Grants Chlorinated Solvents Plume Site

The Grants Chlorinated Solvents Plume Site is located within the city limits of Grants, Cibola County, New Mexico. The source of contamination is releases from the former dry cleaning operations. The primary contaminant of concern is tetrachloroethylene (PCE). The contamination is believed to be present in a shallow aquifer underlying residential and commercial facilities within the city of Grants. The selected remedy includes mitigation for vapor intrusion in buildings above the defined plume and thermal and chemical dechlorination technologies to address shallow and deep groundwater contamination. In 2009, E2 provided oversight of the hollow stem auger drilling for installation of injection wells, logging of soil cores, and well development activities. E2 was also responsible for collection of groundwater quality parameters during the first sampling effort.

### North Cavalcade Street Superfund Site

The North Cavalcade Street Superfund Site in Houston, TX is approximately 21 acres, of which approximately 9 acres were used for former wood treatment operations. The primary contaminant of concern is carcinogenic PAHs. As part of the remedy, contaminated soils were capped with a temporary containment cell constructed of HDPE liner. E2 engineers were responsible for the preparation of an Operation and Maintenance (O&M) Manual identifying O&M activities associated with the inspection of the containment cell and frequency of groundwater monitoring.

### **EPA Region VIII RAC2 (Team Sub to PWT, 2007 - Present)**

E2 recently began providing engineering support, technical and project management services for Pacific Western Technologies, Ltd. (PWT) on the EPA Region VIII Small Business RAC II contract. Some sample project are summarize below:

### California Gulch Operable Unit 11

The California Gulch Operable Unit 11 Remedial Action Project in Leadville, CO involved the remediation of ~150 acres of mine waste contaminated soils, reconstruction/restoration of over 3500 linear feet of river banks, and production of over 53,000 tons of borrow material for the construction and maintenance of over 6.5 miles of haul roads.

In 2008 & 2009, E2's Project Manager led the team through the process of Work Plan / Cost Estimate development, soil amendment material (compost/lime) source section, preparation of engineering bid specifications, subcontractor RFP preparation, subcontractor selection, construction oversight, quality control testing, and GIS data management. Project oversight included quality control reviews of all surveying, conformance to remedial design specifications, conducting independent verification sampling (over 1200 samples) in accordance with the SAP/QAPP requirements, and preparation of post-remedial action as-built drawings.

Subcontractor performance was closely monitored throughout the 2-year project to ensure the Remedial Action Objectives were achieved as the project progressed and all contractual terms were met. While some changed conditions increased project costs, more cost saving measures were identified such that the project was completed for 85% of the baseline cost estimate.

### Purity Oil Sales Superfund Site

The Purity Oil Sales Superfund Site in Fresno, CA is a 7-acre former recycling facility, where used oil and by-products from the refining process were collected and stored in sumps and storage tanks and disposed of on-site in about seven large waste pits and has been a National Priorities List site since 1982. In 2007, EPA Region IX transferred responsibility for this project to EPA Region VIII to maintain consistency in operational oversight. E2 provided remedial action oversight of activities as described in the Remedial Action Work Plan for Soils Operable Unit 2. This included oversight of: excavation of contaminated material on and off site; full scale neutralization process; pH testing, placement and compaction of treated material; and confirmation sampling.

## **Additional federal, state and private client environmental projects (2012 - Present)**

### Pacific Gas and Electric, Topock Compressor Station, San Bernardino, California

Since 2012, under the CH2M HILL prime contract, E2 has provided various ecological services in support of remedial activities at the Topock Compressor Station in Eastern San Bernardino County. Multiple ecological surveys and documents have been completed as required by the Final Environmental Impact Report prepared by the California Department of Toxic Substances Control (DTSC). These ecological services include:

- Rare and culturally significant plant surveys
- Habitat characterization and mapping
- Wetlands delineation
- Characterization and mapping of riparian habitat
- Vegetation transplantation and salvage plans
- Evaluation of potential ecological impacts associated with remedial design plans

Throughout the project, E2 has worked closely with PG&E biologists, on site personnel, the remedial action design team and the ethnobotanist from the Hualapai Tribe.

### Kingdom of Saudi Arabia Gulf War Terrestrial Remediation Project, Al Khobar, Saudi Arabia

From September 2009 through April 2013 E2 provided ecological and botanical support services to the Program Management Support Consulting team as part of ecological restoration and remediation activities in the Eastern Province of Saudi Arabia. E2 was a subcontractor to CH2M HILL. This program is funded through the United Nations Compensation Commission. Activities included multiple field surveys ranging from two to six weeks as well as technical and research support activities.

Specific activities included:

- The assessment of existing conditions within the over 7,000 acre project area
- Data collection from reference locations
- Development of ecological state and transition models
- Design and data collection from experimental test plots
- Preparation of various technical documents including ecological assessment documents and habitat and experimental monitoring and management plans

Throughout the project, E2 as part of the program management team worked with local and regional scientists from the Saudi Ministry of Agriculture and from the Kuwait Institute for Scientific Research, as well as members of the United Nations independent scientific review team.

### State Route 79, Riverside County Transportation Commission, California

E2 is providing wetland permitting support services included but not limited to the following:

- Preparation of U.S. Army Corps of Engineers (USACE) Section 404 Individual Permit Application
- Section 404(b)(1) Alternatives Analysis
- Section 401 Water Quality Certification through the State Water Quality Control Board (SWQCB)
- Completion of desk-top wetland functional assessment (CRAM) as requested by the U.S. Army Corps of Engineers.
- Development of a conceptual wetland mitigation plan including preliminary mitigation ratios
- Coordination with USACE and SWQCB

E2 is providing as needed assistance to CH2M HILL under its prime contract with wetlands permitting under sections 401 and 404 of the federal Clean Water Act. Required permits include a USACE individual permit as well as water quality certification from the SWQCB. Using existing information from the Wetland Delineation Report, Environmental Impact Report/Environmental Impact Statement (CEQA/NEPA) and current project designs, E2 Consulting Engineers will provide assistance with the preparation of wetland permits. This scope of work includes preparation of permit applications, an alternatives analysis of the least environmentally damaging practicable alternative as required under section 404(b)(1) of the federal Clean Water Act, and an application for water quality certification under Section 401 of the Clean Water Act. Also included is any necessary coordination with agency staff to facilitate the permitting process.

### Union Pacific Railroad, Keene Water Replacement Project, Kern County, California

E2 provided wetlands monitoring for the Union Pacific Railroad (UPRR) Keene Water Supply Project in Kern County, California. E2 monitored the construction and mitigation sites including stream crossing locations and the riparian mitigation site and prepared a technical memorandum describing the results of the monitoring for submittal to the California Department of Fish and Wildlife (CDFW).

### US Air Force Base Installations (Various in California)

E2 has provided wetlands, vernal pool, branchiopod, and botanical services to three Air Force Bases (AFBs) in California. These include Beale AFB, Travis AFB, and Castle AFB. At Beale AFB, E2 surveyed 15 remediation sites and documented the type and location of wetlands and rare plants in and around the areas where remedial activities will occur. This scope also included habitat evaluation and one opportunistic survey for federally listed threatened and endangered vernal pool crustaceans that may occur in the remedial action areas. The information provided from these ecological studies are intended to be used to inform early design decisions for remedial action activities as well as facilitate consultation and permitting for the remedial actions. Work was completed under a CH2M HILL prime contract in 2012 and 2013.

At Travis AFB, E2 is surveying six different sites to identify sensitive rare plants, wetlands, and vernal pool resources. We documented the results of the surveys, potential biological constraints, and recommendations during the planning and design associated with new development on the installation. Work is ongoing under a CH2M HILL prime contract, starting in January 2013 and continuing in through 2014.

And at Castle AFB, E2 is surveying 15 separate sites for freshwater invertebrates, specifically special-status vernal pool branchiopods, and plant diversity and abundance around these sites. Results are being compiled into a monitoring report for the installation to facilitate coordination and consultation with regulatory agencies. Work is ongoing under a CH2M HILL prime contract, starting in 2013 through 2015

#### National Science Foundation, Daniel K. Inouye Solar Telescope (DKIST), Haleakala, Maui, Hawaii

E2 is providing post-NEPA environmental compliance management to the National Science Foundation (NSF) under the prime contract of KC Environmental for the Daniel K. Inouye Solar Telescope (DKIST), previously known as the Advanced Technology Solar Telescope Project. Services range from day-to-day compliance reporting, coordination with monitoring teams, confirmation that NEPA mitigation commitments are met, adaptive management decisions and related coordination, and coordination with the DKIST Project team, the National Science Foundation, the National Solar Observatory, the University of Hawaii Institute for Astronomy, stakeholders and coordinating agencies including but not limited to the National Park Service and Federal Aviation Administration. This project is ongoing starting in 2014 and is intended to continue through 2019, which is the prescribed monitoring period noted in the NEPA environmental review and associated permits.

#### **Department of Energy (various contracts)**

##### Oak Ridge National Laboratory (ORNL) RI/FS Project.

Bechtel National Inc. conducted the remedial investigation and feasibility study (RI/FS) at the ORNL where disposal, leaks, and releases of radioactive substances had occurred since 1944. E2 personnel assessed releases and transport pathways, conducted database management, performed fate and transport analyses, prepared several sections of the RI/FS reports that provided the rationale and defined sampling activities, defined nature and extent of contamination, and documented results of remedial investigations.

For the multimedia fate and transport modeling support to the project, E2 personnel developed a calibration-based integrated ground and surface water contaminant fate and transport model for the vadose zone that predicted contaminant leach rates to the water table and emission rates to the atmosphere, and implemented an uncertainty analysis algorithm to propagate uncertainties through the model. Additionally, our personnel provided support at various phases of RI/FS (e.g., work plan development, nature and extent assessment, and alternatives assessment) and conducted database coordination for the project.

##### Oak Ridge Dose Reconstruction Project - Atmospheric Releases of <sup>131</sup>I

This project involved the assessment of radiological doses and excess lifetime cancer risk to the thyroid of individuals exposed to <sup>131</sup>I that was released into the atmosphere from radioactive lanthanum production activities in support of the Manhattan Project at the ORNL between 1944 and 1956.

Our personnel developed a Gaussian plume model to assess transport and speciation chemistry of <sup>131</sup>I released to the atmosphere from ORNL between 1944 and 1956. The model handled both

routine and accidental releases and incorporated uncertainty propagation, wet and dry deposition, and plume depletion algorithms and also implemented Monte Carlo, joint probability distributions, and Markov Chain based methods for developing correlated parameter distributions and propagating uncertainties.

#### Oak Ridge Dose Reconstruction Project - Clinch River Releases

E2 personnel supervised and coordinated the technical work activities associated with the contaminant and sediment transport modeling to quantify the excess cancer risks to various organs of the body for members of public exposed to radionuclides released into the Clinch River from research activities at the ORNL since 1944. This was the first health assessment conducted in the United States that successfully disclosed the uncertainties associated with the predicted risk to a potentially critical member of the community. Contaminant and sediment transport assessments were conducted with HEC-6R model and using simple dilution approaches.

#### Columbus Closure Project, Columbus, OH

E2 partnered with another small business to form ECC & E2 Closure Services, LLC for a prime contract to complete the decontamination & demolition and site remediation at the Columbus Closure Project (CCP). During contract transition, E2's Engineering and Environmental (E&E) Manager evaluated the Environmental Monitoring Plan to ensure it reflected the new mission. This review resulted in several significant changes which included 1) decreasing the number of environmental thermoluminescent dosimeters from 17 to 11, 2) compositing daily samples to make monthly composites for sampling, saving > 100 analyses per year, and 3) eliminating sampling of one unnecessary groundwater well. These changes decreased the volume of water samples by 25%, which resulted in a reduction in the on-site radioanalytical laboratory radiological waste volume.

The E&E Manager's staff performed the required environmental surveillance activities including sampling and analyzing various media on and off the CCP property. The media sampled included air, surface water, groundwater, grass, fish, food crops, sediment, and soil, which were periodically collected and analyzed for radionuclides and chemicals of concern. The results of the monitoring and the surveillance activities were documented and reported to the public in the annual Site Environmental Monitoring Report.

During the baseline preparation process at the CCP, E2's Waste Manager quickly realized that the government estimates for waste volumes to be generated during building D&D were low by a factor of at least two. Also, the characterization data for subsurface contamination had many data gaps and could lead to growth of the soil volumes as well. E2's Waste Manager took immediate action to identify alternate waste transportation and disposal options. The best option identified for alternate waste disposal was to implement a practice commonly used by commercial nuclear plants referred to as "conditional release." The E2 Waste Manager presented this information to the DOE along with a cost savings analysis and worked tirelessly for 10 months with the DOE Ohio Field Office and Headquarters personnel to gain approval for the conditional release process. This option met with resistance because of DOE's "no rad added" policy, but since the radiological material was managed under an NRC license, this disposition path was eventually accepted by the DOE. This reduced transportation costs by half, shipping container turnaround times by 75%, and waste disposal costs by 20-50% (depending on

waste matrix). The cumulative cost savings from this alternative disposition process was nearly \$6MM.

#### Rocky Flats Environmental Technology Site (RFETS), Golden, CO

At the RFETS, the E2/Envirocon Team was contracted to Kaiser-Hill to provide facility and environmental remediation; waste management; and project support. Contaminates of concern include radionuclides, heavy metals, polychlorinated biphenyls, pesticides, organic compounds, and chlorinated solvents. Forty-seven (47) environmental project sites and three D&D facilities were remediated by the Team under this contract. These remediation projects included the removal of structures, asphalt pavement, concrete slabs and foundations, process waste lines, sanitary and storm sewers, drains, fencing, underground utilities, buried debris, underground vaults, tanks (underground and above ground), sumps, sediment, sludge and soil from contaminated sites and isolated hot spots.

E2 created a Waste Management Team that efficiently generated, packaged, treated, managed, and shipped waste in accordance with Federal and State laws and regulations, RFETS and treatment/disposal facility's procedures and requirements. To meet or exceed schedule and budget expectations while maintaining compliance with regulatory and Site requirements, E2's Waste Management Team optimized the process for remediation waste management by:

- ✓ Conducting waste package optimization by performing in-situ characterization of waste material prior to starting each remediation task;
- ✓ Streamlining paperwork review processes from the point of generation through off-site shipping.
- ✓ Developed new waste packaging procedures for packaging bulk remediation waste materials in Lift Liners and intermodal shipping containers;

The E2 team also improved waste generation and shipping processes to the point where the new rates exceeded Kaiser-Hill's expectations. The team also streamlined processes to increase shipping rates from 5 intermodals within 5 days of waste generation to 30 intermodals within 2 days of waste generation, while meeting all RFETS policies and procedures.

## E2 OFFICE LOCATIONS

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## E2 Labor Category Qualifications

### Executive Manager

**Qualifications:** 15+ years' technical/project management experience. B.S. in engineering/technical discipline. **Functional Responsibilities:** Acts as overall manager and administrator for the effort. Serves as the primary interface and point-of-contact with Government program authorities and representatives on technical and program/project issues. Supervises program/project operations by developing engineering and management procedures, planning and directing project execution and monitoring and reporting progress. Manages acquisition and employment of program/project resources. Manages and controls financial and administrative aspects of the program/project with respect to task requirements.

### Program/Project Management

**Qualifications:** 10-15 years technical/project management experience. B.S. in engineering/scientific discipline. **Functional Responsibilities:** Provides technical oversight, coordination, and supervision of assigned projects. Tracks and controls scope of work, resource utilization, schedules, and work accomplishments. Initiates corrective actions as required. Serves as the project's on-site technical expert. Analyzes contractual commitments, customer specifications, design changes, and other data to plan and develop logistic program activities from conceptual stage through life-cycle of product. Develops and implements program activities, coordinates efforts of subcontractors, production departments, and field service personnel, and resolves problems in area of logistics to ensure meeting of contractual commitments.

### Professional 8

**Qualifications:** 15+ years experience. B.S. in engineering/scientific or related discipline. **Functional Responsibilities:** Applies knowledge of technical, engineering, scientific, and environmental functions, processes, and technologies to analyze, generate, and review environmental program activities. Identifies and develops approaches and prepares plans to remedy contamination problems using various techniques. Analyzes and interprets data, prepares sections of site assessment reports, and may perform hydrological site characterizations, supervise hydraulic tests, etc.

### Professional 7

**Qualifications:** 10-15 years experience. B.S. in engineering/scientific or related discipline. **Functional Responsibilities:** Applies knowledge of technical, engineering, scientific, and environmental functions, processes, and technologies to analyze, generate, and review environmental program activities. Provides expert advice and assistance on regulatory and scientific program areas. May perform routine field tasks related to the projects, e.g. installing monitor wells, aiding in geological mapping, writing field notes, and basic geological analysis.

### Professional 6:

**Qualifications:** 6-10 years relevant experience. B.S. in engineering/scientific or related discipline. EIT or equivalent. **Functional Responsibilities:** Applies knowledge of technical, engineering, scientific, and environmental functions, processes, and technologies to analyze, generate, and review environmental program activities. Provides cultural, biological, ecological, waste management review and assessment support.

### Professional 5:

**Qualifications:** 0-5 years of relevant experience. B.S. in engineering/scientific or related discipline. **Functional Responsibilities:** Applies knowledge of technical, engineering, and management functions, processes, and analytical methods or techniques to gather, analyze, and evaluate environmental documentation required by program or project. May perform work plan preparation, site assessments, measurement studies, technical effectiveness reviews, or cost studies.

### Technician 4

**Qualifications:** 5+ years experience in technical field. Certificate from a technical training institute required. **Functional Responsibilities:** Applies knowledge of technical and engineering functions, processes, and analytical methods or techniques to gather, analyze, and evaluate information required by a program or project. May perform reviews and analyses of environmental rules and regulations and government policies and procedures.

### Technician 3

**Qualifications:** 0-5 years experience in technical field (CAD, drafting, tech writing, etc.). Certificate from a technical training institution required. **Functional Responsibilities:** Produces, edits, modifies, or combines engineering and technical drawings and illustrations of equipment or systems. Uses rough outlines and resource materials, and interprets information obtained through research or provided by technical specialists. Organizes, analyzes, and prepares reports or presentations of technical data and information.

### Administrative 2

**Qualifications:** 5+ years of experience. Has performed as Administrative Assistant, or has experience in budget control, project controls, planning or scheduling. **Functional Responsibilities:** Provides administrative and recordkeeping for engineering or technical projects/programs. Works in regard to matters such as project/program progress and status documentation, budget, finance, property, accounting, or personnel management.

### Administrative 1

**Qualifications:** 0-5 years experience. General secretarial experience, engineering records experience including records management. HS/AA Education. **Functional Responsibilities:** Provides administrative and record keeping for engineering or technical projects/programs. Applies knowledge of office management, methods, and procedures to produce and maintain documentation, correspondence, records, or directives. Activities may include typing, word processing, data entry, graphics preparation, filing, and reproduction of technical reports, correspondence, or other program/project documentation.

***For purposes of Personnel Qualifications, the following equivalencies may be used:***

**B.S. degree 1 year of education = 1.5 years of relevant experience**

*EIT = a certification through any other Engineering or Scientific Association*

*M.S. degree = 2 years relevant experience*

*PhD degree = 3 years relevant experience*

The labor categories that fall under the requirements of the Service Contract Act (SCA) (i.e., non-exempt labor categories) are identified in the matrix below. All prices for these labor categories meet or exceed the requirements in the SCA Wage Determinations identified below. The matrix and narrative are incorporated into this contract and must also be included in the Contractor's electronic price list on GSA Advantage.

<b>SCA Matrix</b>		
<b>SCA Eligible Contract Labor Category</b>	<b>SCA Equivalent Code - Title</b>	<b>WD Number</b>
Administrative 1	01313-Secretary III	05-2051
Administrative 2	01020-Administrative Assistant	05-2051
Technician 3	30083-Engineering Tech III	05-2051
Technician 4	30085-Engineering Tech V	05-2051
Professional 5	30086-Engineering Tech VI	05-2051
Professional 6	14103-Computer Systems Analyst III	05-2051

The Service Contract Act (SCA) is applicable to this contract and it includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the matrix. The prices offered are based on the preponderance of where work is performed and should the contractor perform in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.

**E2 Consulting Engineers, Inc. is an Equal Opportunity Employer**

## E2 Current Catalog Pricing

E2 Consulting Engineers, Inc.										
SINs 899-1, 899-1RC, 899-7, 899-7RC, 899-8 and 899-8RC										
	Year 11		Year 12		Year 13		Year 14		Year 15	
Labor Categories	2/12/14 - 2/11/15		2/12/15 - 2/11/16		2/12/16 - 2/11/17		2/12/17 - 2/11/18		2/12/18 - 2/11/19	
	Hourly	Daily								
Executive Manager	\$158.81	\$1,270.49	\$161.83	\$1,294.63	\$164.90	\$1,319.23	\$168.04	\$1,344.29	\$171.23	\$1,369.83
Program/Project Manager	\$166.57	\$1,332.56	\$169.73	\$1,357.88	\$172.96	\$1,383.68	\$176.25	\$1,409.97	\$179.59	\$1,436.76
Professional 8	\$125.71	\$1,005.70	\$128.10	\$1,024.81	\$130.54	\$1,044.28	\$133.02	\$1,064.12	\$135.54	\$1,084.34
Professional 7	\$105.00	\$839.98	\$106.99	\$855.94	\$109.03	\$872.20	\$111.10	\$888.77	\$113.21	\$905.66
Professional 6	\$96.28	\$770.26	\$98.11	\$784.89	\$99.98	\$799.80	\$101.88	\$815.00	\$103.81	\$830.49
Professional 5	\$78.78	\$630.25	\$80.28	\$642.22	\$81.80	\$654.42	\$83.36	\$666.86	\$84.94	\$679.53
Technician 4	\$74.20	\$593.57	\$75.61	\$604.85	\$77.04	\$616.34	\$78.51	\$628.05	\$80.00	\$639.99
Technician 3	\$62.79	\$502.33	\$63.98	\$511.87	\$65.20	\$521.60	\$66.44	\$531.51	\$67.70	\$541.61
Administrative 2	\$57.07	\$456.54	\$58.15	\$465.22	\$59.26	\$474.06	\$60.38	\$483.06	\$61.53	\$492.24
Administrative 1	\$44.51	\$356.11	\$45.36	\$362.88	\$46.22	\$369.77	\$47.10	\$376.80	\$47.99	\$383.96
Note: An escalation rate of 1.9% was used for Option year pricing based on the Bureau of Labor Statistics' Escalation Cost Index's.										
Note: All rates include .75% GSA Industrial Funding Fee.										