General Services Administration

Federal Supply Service

Authorized Federal Supply Schedule Price List

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order is available through **GSA** *Advantage*!™, a menu-driven database system. The INTERNET address for **GSA** *Advantage*!™ is: http://www.GSAAdvantage.gov.

Multiple Award Schedule (MAS)

Federal Supply Group: Professional Services

Contract Number: 47QRAA21D00AJ

For more information on ordering from Federal Supply Schedules go to the GSA Schedules page at GSA.gov

Contract Period: **September 29, 2026 through September 28, 2031**

Contractor: Environmental Science Associates ("ESA")
550 Kearny Street, Ste. 800
San Francisco, CA 94108-2512

Business Size: **Small Business**

Telephone: (415) 896-5900

FAX Number: (415) 896-0332

Website: www.esassoc.com

E-mail: efischer@esassoc.com

Contract Administration: Erich L. Fischer

Customer Information:

1a. Table of Awarded Special Item Number(s) with appropriate cross-reference to item descriptions and awarded price(s):

SIN	RECOVERY	SIN DESCRIPTION
541620	541620RC	Environmental Consulting Services (pg. 8)
562910REM	562910REMRC	Environmental Remediation Services (pg. 10)
541370GIS	541370GISRC	Geographic Information Systems (GIS) Services (pg. 12)
541330ENG	541330ENGRC	Engineering Services (pg. 13)
54151S	54151SRC	Information Technology Professional Services (pg. 15)
OLM	OLMRC	Order Level Materials

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 the geographic location of the customer, should show the range of the lowest price, and cite the areas to which the prices apply. See Final Pricing table below.

1c. If the Contractor is proposing hourly rates a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate "Not applicable" for this item. See Labor Category Descriptions below.

2. Maximum Order:

SIN	Maximum Order
541620	$1,000,000
562910REM	$1,000,000
541370GIS	$1,000,000
541330ENG	$1,000,000
54151S	$500,000
OLM	$250,000

3. Minimum Order: $100.00

4. Geographic Coverage (delivery Area): Domestic Only

5. Point(s) of production (city, county, and state or foreign country): Same as company address

6. Discount from list prices or statement of net price: Government Net Prices (discounts already deducted)

7. Quantity discounts: 1.0% off for each task order or Blanket Purchase Agreement (BPA) with an awarded value that meets or exceeds $500,000.00. If a task order or BPA with the original award value of $499,999.00 or below has increased to meet or exceed $500,000.00 because of a modification awarded by the customer agency, then 1.0% off is applied to follow-on invoices for the respective task order or BPA.

8. Prompt payment terms: Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions. Net 30 days.

9. Foreign items (list items by country of origin): N/A

10a. Time of Delivery (Contractor insert number of days): Specified on the Task Order

10b. Expedited Delivery. The Contractor will insert the sentence "Items available for expedited delivery are noted in this price list." under this heading. The Contractor may use a symbol of its choosing to highlight items in its price list that have expedited delivery: Contact Contractor

10c. Overnight and 2-day delivery. The Contractor will indicate whether overnight and 2-day delivery are available. Also, the Contractor will indicate that the schedule customer may contact the Contractor for rates for overnight and 2-day delivery: Contact Contractor

10d. Urgent Requirements. The Contractor will note in its price list the "Urgent Requirements" clause of its contract and advise agencies that they can also contact the Contractor's representative to effect a faster delivery: Contact Contractor

11. F.O.B Points(s): Destination

12a. Ordering Address(es): Same as Contractor

12b. 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.

13. Payment address(es): Same as company address

14. Warranty provision.: Contractor's Standard Commercial Warranty Terms & Conditions

15. Export Packing Charges (if applicable): N/A

16. Terms and conditions of rental, maintenance, and repair (if applicable): N/A

17. Terms and conditions of installation (if applicable): N/A

18a. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices (if applicable): N/A

18b. Terms and conditions for any other services (if applicable): N/A

19. List of service and distribution points (if applicable): N/A

20. List of participating dealers (if applicable): N/A

21. Preventive maintenance (if applicable): N/A

22a. Special attributes such as environmental attributes (e.g., recycled content, energy efficiency, and/or reduced pollutants). N/A

22b. 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. contactor's website or other location.) The EIT standards can be found at: www.Section508.gov/. N/A

23. Unique Entity Identifier (UEI) Number: 077381697

24. Notification regarding registration in System for Award Management (SAM) database: Contractor Registered and Active in SAM.

Final Pricing (2026–2030)

The rates shown below include the Industrial Funding Fee (IFF) of 0.75%.

Labor Category	GSA Rate Year 6	GSA Rate Year 7	GSA Rate Year 8	GSA Rate Year 9	GSA Rate Year 10
Senior Director LIII	$304.61	$313.75	$323.16	$332.86	$342.84
Senior Director LII	$272.43	$280.60	$289.02	$297.69	$306.62
Director LIII	$260.84	$268.66	$276.72	$285.02	$293.57
Director LII	$220.26	$226.87	$233.68	$240.69	$247.91
Director LI	$214.47	$220.90	$227.53	$234.35	$241.38
Managing Associate LIII	$185.48	$191.05	$196.78	$202.68	$208.76
Managing Associate LII	$173.89	$179.11	$184.48	$190.02	$195.72
Managing Associate LI	$162.30	$167.17	$172.18	$177.35	$182.67
Senior Associate LIII	$157.66	$162.39	$167.26	$172.28	$177.45
Senior Associate LII	$144.91	$149.26	$153.73	$158.35	$163.10
Senior Associate LI	$133.32	$137.32	$141.44	$145.68	$150.05
Associate LIII	$127.52	$131.35	$135.29	$139.34	$143.53
Associate LII	$115.93	$119.41	$122.99	$126.68	$130.48
Associate LI	$98.54	$101.49	$104.54	$107.68	$110.91
Project Technician LIII	$139.11	$143.29	$147.58	$152.01	$156.57
Project Technician LII**	$115.93	$119.41	$122.99	$126.68	$130.48
Project Technician LI**	$92.74	$95.52	$98.39	$101.34	$104.38
***Service Contract Labor Standards (SCLS) Applicable - see SCLS Matrix below*					

Service Contract Labor Standards/Service Contract Act (SCLS/SCA) Matrix

SCLS Matrix		
SCLS Eligible Contract Labor Category	**SCLS Equivalent Code-Title**	**WD Number**
Project Technician LII	30090 — Environmental Technician	15-5637
Project Technician LI	01111 — General Clerk I	15-5637

The Service Contract Labor Standards, formerly the Service Contract Act (SCA), apply to this contract and it includes SCLS applicable labor categories. Labor categories and fixed price services marked with a (**) in this pricelist are based on the U.S. Department of Labor Wage Determination Number(s) identified in the SCLS/SCA matrix. The prices awarded are in line with the geographic scope of the contract (i.e., nationwide).

Labor Category Descriptions

Labor Category	Education, Experience, and Description
Senior Director LIII	Leads the firm in providing effective and responsive client services by implementing the firm's vision, setting its direction, communicating its direction both internally and externally, allocating its resources, acquiring new business, and ensuring its profitability. Corporate officer appointed by the Board of Directors. **Minimum education and experience:** Bachelors and 15+ years of experience in business, environmental and/or engineering field; Masters and 12+ years of experience in environmental and/or engineering field; or Ph.D. and 10+ years of experience
Senior Director LII	Accountable for all work performed within strategic business area or operating unit. Responsible for acquiring new business, project delivery; responsive client service; acquisition and retention of qualified staff, and quality assurance. Participate in development of Company Strategic Plan. Develop and implement annual Company Business Plan. Corporate officer appointed by the Board of Directors. **Minimum education and experience:** Bachelors and 12+ years of experience in business, environmental and/or engineering field; Masters and 10+ years of experience in environmental and/or engineering field; or Ph.D. and 8+ years of experience.
Senior Director LI	Accountable for all work performed within a strategic business area or operating unit. Serve as a technical specialist in the application of advanced concepts, principles and methods in a technical discipline or area of specialty. Responsible for cultivating responsive client service; acquisition and retention of qualified staff and quality assurance for specific technical disciplines encompassed by business area. Develop and implement annual Business Plan. Represent the firm and interact with clients, agency officials and contractors. **Minimum education and experience:** Bachelors and 10+ years of experience in business, environmental and/or engineering field; Masters and 8+ years of relevant experience; or Ph.D. and 6+ years of experience.
Director LIII	Firmwide strategic management responsibility for all work performed in all or specific firm wide practice area. Responsible for strategic business development for key high level clients; involved in mergers and acquisitions to further develop new and emerging business sectors throughout the firm. Responsible for developing operating budgets consistent with overall Company Business Plan. Ensure that all operating units under direction achieve firm wide performance objectives. Represent firm at highest level interacting with key strategic clients, senior agency officials and high-level contractors. Contract acquisition expectations of $2m - $3.5m+. **Minimum education and experience:** Bachelors and 15+ years of experience in environmental and/or engineering field; Masters and 12+ years of relevant experience; Ph.D. and 10+ years of experience.
Director LII	Senior management responsibility for all work performed within a specific regional program or regional practice unit. Responsible for managing responsive senior client services; the acquisition and retention of qualified senior level staff and developing quality assurance criteria for specific technical disciplines encompassed by the regional program or business unit. Supervise senior level key staff in driving unit and company performance. Develop and implement annual regional business unit operating plan consistent with overall Regional Business Plan. Achieve performance objectives established by the Company. Represent the firm on a senior level interacting with key clients, agency officials and contractors. Contract acquisition expectations of $1.5 -

	$2.5m+. **Minimum education and experience:** Bachelors and 12+ years of experience in environmental and/or engineering field; Masters and 10+ years of relevant experience; Ph.D. and 8+ years of experience.
Director LI	Management responsibility for all work performed within a specific program, business area or team. Responsible for responsive client service; the acquisition and retention of qualified staff and quality assurance for specific technical disciplines encompassed by the program, business area or team. Supervise unit staff and/or lead multi-disciplinary teams. Develop and implement annual business unit operating plan consistent with overall Company Business Plan. Achieve performance objectives established by the Company. Represent the firm and interact with clients, agency officials and contractors. Contract acquisition expectations of $1m+. **Minimum education and experience:** Bachelors and 10+ years of experience in environmental and/or engineering field; Masters and 8+ years of relevant experience; Ph.D. and 6+ years of experience.
Managing Associate LIII	Management responsibility of assigned staff and subcontractors for significant or large scope projects, direct budget and accounts receivable responsibility for large size projects with a high level of complexity, oversee major work products and proposals before delivery to clients. Independently apply extensive and diverse knowledge of technical principles and practices. Use advanced techniques, theories and science practices to complete assignments. **Minimum education and experience:** Bachelors and 10+ years of experience in environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 8+ years of experience; or Ph.D. and 6+ years of experience.
Managing Associate LII	Direct management of assigned staff for large scope projects, marketing responsibilities with moderate contract acquisition requirements, direct budget responsibility for large size projects with a high level of complexity, oversee major work products and proposals before delivery to clients. Provide a high level of expertise within specific field(s) and lead technical services personnel; oversee major work products in particular technical specialty. **Minimum education and experience:** Bachelors and 8+ years of experience in environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 4+ years of experience; or Ph.D. and 3+ years of experience.
Managing Associate LI	Provide a high level of expertise within technical field(s); oversee major work product delivery; client service, project quality and profitability; market the company's services and manage complex projects. **Minimum education and experience:** Bachelors and 6+ years of experience in environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 4+ years of experience; or Ph.D. and 3+ years of experience.
Senior Associate LIII	Responsible for managing moderate to large size projects and/or tasks, serve as principal technical lead for medium to high complexity projects, possess technical knowledge in specific fields(s), manage project budgets and schedules, allocate staff and resources to project assignments, ensure quality, work product delivery and client service. **Minimum education and experience:** Bachelors and 6+ years of experience in environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 3+ years of experience; or Ph.D. and 2+ years of experience.
Senior Associate LII	Responsible for managing moderate size projects and/or tasks, possess technical knowledge in specific field and serve as principal technical investigator for medium to high complexity projects, manage project budgets and schedules, allocate staff and resources to project assignments, ensure work product delivery and client service. **Minimum education and experience:** Bachelors and 5+ years of experience in

	environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 2+ years of experience; or Ph.D. and 1+ year of experience.
Senior Associate LI	Responsible for managing small to moderate size projects, possess technical knowledge and serve as principal technical investigator for low to medium complexity projects. Manage budgets and schedules, ensure product quality and client services. Exercise limited judgment on work details and receive senior review on all aspects of work. **Minimum education and experience:** Bachelors and 4+ years of experience in environmental and/or engineering field; Masters and/or registered professional (e.g. P.E., R.G., C.E.G.) and 2+ years of experience; or Ph.D. and 1+ year of experience.
Associate LIII	Provide basic knowledge of standard techniques or concepts in specific technical specialty, criteria and procedures in the support of project/task assignments. Limited project management responsibilities including budget and schedule, analysis of studies, proposal writing, computer modeling, technical support in specific subject area(s). **Minimum education and experience:** Bachelors and 3+ years of experience in related scientific or engineering field; Masters and 1+ year experience; Ph.D and no experience.
Associate LII	Under general direction of project manager, identifies, collects, analyzes and evaluates data, prepares written results for inclusion in project reports. Exercises moderate amount of independent judgment. **Minimum education and experience:** Bachelors degree in pertinent discipline with 2+ years experience; Masters degree in pertinent discipline.
Associate LI	Under close supervision of project manager, identifies, collects, analyzes and evaluates data, prepares written results for inclusion in project reports. Minimum education and experience: Bachelors degree in pertinent discipline and 1 to 2 years of experience.
Project Technician LIII	Provides full range of project administration and publication support. Produces high quality and technically proficient report, proposal, and presentation materials including web pages; ensures that work is completed on schedule and within budget. Manages general office administration: clerical, secretarial, reproduction, building and fleet management, purchasing, and specific project administration requirements. **Minimum education and experience:** Requires Bachelors degree with 5+ years of relevant experience.
Project Technician LII	Under general supervision of project team leaders, researches, identifies, collects, sorts, analyzes and evaluates data; prepares written results for review. **Minimum education and experience:** Bachelors degree in pertinent discipline and working towards a Master's degree in specialized area of discipline and less than 1 year of experience.
Project Technician LI	Under close supervision of project team leaders, researches, identifies, collects, and sort data; prepares draft reports for review. **Minimum education and experience:** College level education with an Associates degree in pertinent discipline and 0 years of experience.

ESA Services

ESA is an environmental consulting and planning firm committed to the principles of sustainability. We bring 50 years of experience in all aspects of project planning, environmental assessment, natural resource management and regulatory compliance. We serve clients ranging from government agencies to nonprofit organizations to private industry. Our staff of scientists, engineers, planners, and other experts foster partnerships with clients to provide enduring solutions that raise industry standards and deliver results. With multiple offices nationwide and an array of technical specialties, ESA is large enough to offer a full range of services but small enough to provide the kind of personal service and attention clients expect. Clients look to ESA as a single source for well-reasoned, timely and effective solutions for their premier project and planning needs.

SIN 541620: Environmental Consulting Services

ESA is a leader in preparing national and state environmental documents, which have become lightning rods for legal challenges to controversial projects. ESA has successfully managed some of the most complex and controversial environmental documents in the nation. By establishing an analytic framework to bracket the issues, it ensures legal adequacy and support for agency decision making. It analyzes both environmental consequences and cumulative project effects.

Under SIN 541620, the firm can provide expertise in the following:

- Archaeological plans, studies, and consultations
- Clean Water Act
- Cultural resource management plans, studies, and consultations
- Data development, collection, interpretation
- Endangered species plans, studies, and consultation
- Environmental assessments
- Environmental economic, technical and risk analyses
- Environmental impact evaluations
- Environmental report and management plan review
- Environmental impact statements (EIS)
- Federal and state office information contacts
- Historical plans, studies and consultations
- National Environmental Policy Act (NEPA) compliance
- Natural resource management plans, studies and consultations
- Public meetings, public hearings and scoping assistance
- Sampling and analysis
- Surveys
- U.S. Fish and Wildlife Service coordination
- Warren-Alquist Act
- Watershed plans, studies, and consultation

Key Project Examples

Merced Wild and Scenic River Comprehensive Management Plan and EIS

ESA worked with the National Park Service (NPS) to prepare a Comprehensive Management Plan and EIS for the Merced Wild and Scenic River in Yosemite National Park in California. The project included the preparation of a draft and final EIS and the accompanying Comprehensive Management Plan. ESA also prepared supporting documents including extensive graphics and maps, a detailed conditions assessment, preparation of several planning workbooks for the public, technical and facilitation assistance with public meetings throughout the project, analysis of public comment at several phases of public input, and preparation of the administrative record.

The NPS initiated the Merced River planning process in 1996, and resumed the process in 1999 when the U.S. District Court determined that the absence of a river management plan hindered NPS's ability to ensure that projects in the river corridor adequately protect the Merced Wild and Scenic River. ESA has worked with NPS throughout its development since 1999. The Draft EIS was released in December 2012, and ESA assisted the NPS in responding to comments and published a Final EIS. The Plan encompasses several thousand acres and considers over 200 distinct planning actions in the study area.

Bureau of Land Management Solar Project Planning and Environmental Support Services

As part of the Administration's efforts to diversify the Nation's energy portfolio, the Bureau of Land Management (BLM) was tasked with managing the development of utility-scale renewable energy projects on public lands. The BLM worked to ensure environmentally responsible development, and in 2011, was given priority status to 18 renewable energy projects representing about 4,279 megawatts (MW).

Working as an extension of BLM staff, ESA provided project facilitation and technical support to assist several BLM Field Offices in the California Desert District with processing applications and preparing EISs for large-scale solar photovoltaic and solar thermal energy (STE) projects. The STE projects required coordination with the California Energy Commission Application for Certification process. ESA developed a joint EIS/EIR document outline to facilitate completion of the NEPA/ CEQA processes under a concurrent schedule. Our team coordinated with regulatory agencies including the California Energy Commission, U.S. Fish and Wildlife Service, and the California Department of Fish and Game on project/cumulative impacts and development of appropriate mitigation strategies. ESA also worked with Southern California Edison and the California Public

Utilities Commission regarding transmission infrastructure upgrades needed to support these proposed generation projects. ESA worked with the BLM to ensure environmentally responsible development of renewable energy projects throughout California. ESA was integral to the approval of more than 1,800 MW of renewable energy development including the Desert Sunlight, Genesis, Palen, and Blythe Solar Projects.

SIN 562910REM: Remediation Services

ESA's environmental hydrology team has performed over a thousand site investigations and restoration design projects for private firms, non-profit organizations, and public agencies throughout the US. Recognized regionally, nationally, and internationally for our pioneering work in restoration and climate change adaption strategies, our restoration expertise extends from initial feasibility through construction observation and post-project monitoring. We have expanded the restoration field in the past four decades by successfully implementing numerous complex, large-scale tidal marsh restorations. This experience allows us to anticipate potential issues, integrate multiple objectives and build support from stakeholders and the scientific community.

Under SIN 562910REM Remediation Services, ESA can provide expertise in the following:

- Analysis of natural aquatic ecosystems
- Restoration planning
- Flood and erosion hazard assessments
- Climate change vulnerability and adaptation study
- Field investigation
- Site characterization
- Feasibility studies
- Conceptual design
- Permitting
- Design plans and specifications
- Site preparation
- Excavation
- Conservation
- Wetland restoration

Key Project Examples

Implementation and Design Support for the Trinity River Restoration Program

The U.S. Bureau of Reclamation (USBR) enlisted ESA under the GSA contract to apply a science-based restoration approach for the design of channel and floodplain habitat elements to benefit salmonid species on the Trinity River. The work includes broader programmatic support for the Trinity River Restoration Plan (TRRP) and design assistance on two large rehabilitation design/implementation projects.

ESA promoted an approach to restoration concepts that: (1) are consistent with the overall vision and goals of the USBR's Record of Decision; (2) include design metrics (with site-appropriate parameters) that correspond to the habitat needs for the life histories of appropriate species, and can be measured in a monitoring program that can support an adaptive approach to all Phase II project designs; (3) are cast in an experimental, hypothesis-driven framework to inform designs at subsequent sites; and (4) are relevant to the ecological context and physical opportunities and constraints of the larger riverscape.

To support achieving these goals, ESA is providing biological, geomorphic, and engineering design guidance at the programmatic level and at the site specific scale. ESA led workshops focusing on setting channel rehabilitation goals and objectives for the Phase II project sites and quantifying juvenile fish habitat production resulting from habitat restoration actions using 2D hydrodynamic modeling and an innovative fish production model developed by the project team. ESA is also working with the California Department of Water Resources (DWR) (one of the TRRP's Program Partner agencies) to support development of restoration concepts for two of the TRRP's restoration sites: Wheel Gulch and Sky Ranch. This support includes providing technical guidance and independent geomorphic, hydraulic, and ecological professional perspectives to support DWR's generation of project plans and specifications.

Hamilton Airfield Wetland Restoration

The California State Coastal Conservancy and U.S. Army Corps of Engineers are restoring Hamilton Army Airfield and adjacent State Lands Commission property to tidal and seasonal wetlands. Under GSA contract, ESA provided the conceptual design and is assisting in the final design preparation and is currently providing ongoing site monitoring for this project.

The tidal wetlands restoration establishes a template to encourage rapid site evolution within site constraints. The template employs a combination of engineering solutions and reliance on natural sedimentation and vegetation colonization to re-establish tidal wetland functions. The deep subsidence – current ground elevations are about six feet below sea level – is addressed in the preferred alternative by using dredged material to raise ground surface elevations and shorten the timeframe for evolution. Other analyses address potential impacts and mitigation for off-site flooding.

SIN 541370GIS: Geographic Information Systems (GIS)

Geographic information system (GIS) provides clients with the tools to effectively inventory, map, analyze, manage, and present information throughout the life of a project or to assist in the decision-making process. Supporting planning, water, and natural-resource-related projects, our GIS team offers workable solutions to complex issues while incorporating state-of-the-art technologies into the design framework. With a proven record for exceeding client expectations, our team provides a variety of tools and products to meet each client's unique project needs and budget.

Staff at ESA are trained and experienced in the use of GIS and GPS tools, including the latest version of ArcView. Their capabilities also include the following:

- Use of ArcGIS, including ArcINFO workstation
- Ability to collect GIS data using GPS technology with ArcPAD
- Advice/support of environmental programs using GIS
- Emergency preparedness planning
- Mapping and cartography
- Migration pattern analysis
- Natural resource planning
- Pollution analysis
- Site selection
- Database design
- Wildlife habitat modeling
- Distance analysis and proximity
- Data conversions

Key Project Example

U.S. Army Corps of Engineers Walla Walla District Disturbance Mapping

ESA's team of GIS professionals supported planning, water, and natural resource-related projects with a full range of GIS services for mapping, modeling, and analysis. We assisted the Walla Walla District in Section 106 of the National Historic Preservation Act compliance through our work on the Disturbance Mapping Project in the Columbia River Basin in eastern Washington. Our team of GIS specialists developed a comprehensive database and GIS mapping system to depict areas of earth disturbance related to dam construction and related facilities, including geo-referencing scanned historical documents and digitizing archaeological resources. The final product was a robust GIS-linked Access database and a companion bound hard copy map atlas. To better facilitate the use of the database, our staff prepared hands-on training to demonstrate applications of the digital data as it relates to current and on-going projects.

SIN 541330ENG: Engineering Services

ESA has more than 30 licensed professional engineers on staff, applying physical laws and principles into the design and approach of a range of projects. In using the physics of nature as a guide, we improve resilience and provide multi-benefit solutions for clients. Whether developing shoreline and coastal plans, sea -level rise adaptation assessments to aquatic habitat assessments along river corridors, or providing engineering services for an urban park design, our expert team of engineers create the right solution.

We provide sound science and engineering, technical guidance and policy recommendations to decision-makers charged with managing, protecting, conserving and restoring coastal resources.

Under SIN 541330ENG Engineering Services, ESA can provide expertise in the following:

- River engineering and management
- Coastal zone engineering and management
- Climate change scenarios
- FEMA compliance
- Hydraulic modeling
- River channel design
- Sediment transport and geomorphology
- Stream maintenance planning
- Coastal levees, dredging, revetments, and beach nourishment
- Restoration and management of river mouths, wetlands, coastal lagoons, and beaches
- Sea-level rise vulnerability and adaptation assessments
- Wave modeling analysis
- Mult-benefit flood risk reduction
- Shoreline and coastal plans

Key Project Examples

Napa County Flood Control & Water Conservation District
ESA has led the engineering design and permitting of river restoration enhancements on the nine-mile Oakville to Oak Knoll Reach of the Napa River. ESA first developed the restoration approach and evaluated feasibility under the Conceptual Design phase, completed in 2010. Since 2012, ESA has developed multi-objective river restoration engineering designs for the nine-mile reach. The project expands the river corridor to enhance fish and wildlife habitat, reduces bank erosion, enhances flood management, reduces Pierce's disease pressure on vineyards and provides ongoing education about the Napa River and its watershed.

The project enhances habitat for endangered Chinook salmon and steelhead trout, using a combination of selective grading to create inset benches, alcoves and secondary channels; instream structures (unanchored large woody debris), berm setbacks and invasive plant removal, new setback levee construction and native species revegetation.

Integrated design elements are intended to restore physical and biologic processes to the Napa River. The floodplain benches and channel realignment, large woody debris structures, biotechnical stabilization, native

revegetation and boulder features will enhance existing hydraulic, geomorphic and depositional processes associated with bar maintenance and development, refugia and establishment of native riparian vegetation. Enhancement of the physical processes throughout the reach will help sustain riffles over time and potentially improve spawning substrate and habitat conditions for multiple life-stages of salmonids.

This project has been recognized with the following engineering design awards:

- 2012 Certificate of Recognition for Innovative Design and Technical Leadership, California State Legislature
- 2016 Riparian Challenge Award, Western Division American Fisheries Society
- 2019 Outstanding Environmental Project of the Year, Friends of the San Francisco Estuary

Dutch Slough Tidal Marsh Wetland Restoration

The Dutch Slough Wetland Restoration project will restore a diversity of wetland, riparian, and grassland habitats to a 1,200-acre site previously used for grazing and dairy operations. ESA has lead the restoration engineering design from concept through final design. The project will restore a mix of habitats primarily through grading the site to tidal wetlands elevations, restoring tidal action to approximately half the site, constructing new flood protection levees and planting as needed to re-establish native vegetation. The project includes the following major components:

- Restoration of approximately 570 acres of tidal marsh habitat, 10 acres of tidal channels, 35 acres of riparian habitat, 107 acres of subtidal open water habitat, and 4 acres of native grassland.
- Enhancement of approximately 108 acres of managed non-tidal marsh and 230 acres of irrigated pasture.
- Construction of new levees along the south project boundary to reduce flood risk to adjacent properties.
- Removal of power lines and irrigation infrastructure and rerouting a sewer force main outside the restored marsh habitat.
- Development of public access infrastructure, including bridges and trails, in coordination with the City of Oakley and the East Bay Regional Park District.

The project is significant in two ways: (1) it is one of the first planned large-scale tidal wetland restoration in the Sacramento-San Joaquin Delta and (2) it is designed within an adaptive management framework to test different restoration approaches. Adaptive management is intended to inform future large-scale restorations, providing the answers needed to meet long-term restoration goals for the Delta.

SIN 54151S: Information Technology Professional Services

The use of technology in our industry—and our world—is changing the way in which we capture data, make decisions, and communicate our findings to stakeholders. In essence, it's changing the way we do business. ESA is at the forefront of this evolutionary shift, helping our clients understand their projects from all-new perspectives.

Our talented team of data analysts, designers, developers, and engineers work closely with project teams to capture and transform highly complex data sets into usable information that enhances and clarifies audience understanding for a variety of project types. Whether developing a custom application to capture field data, designing a website to convey pertinent project findings to the public, or capturing high-quality UAV/drone footage to monitor a project site, we bring the best technological tools forward to help our clients meet their project goals.

Working across disciplines, our team provides a suite of ever-evolving services that support our clients and our staff to deliver the most accurate, comprehensive data for our projects from coast to coast, including the following:

- Custom application development
- Unmanned Aerial Vehicles (UAV)
- Virtual public meetings
- Website development
- Data visualizations
- Graphic design
- Information management
- Real-time environmental monitoring
- Comment management system for stakeholders and public use

Key Project Examples

ESA Comment Tracker
ESA has developed Comment Tracker, a web-based comment management system to collect, track, and manage comments through the review and response process. This system provides cost-effective management and coordination of the review and comment management process during the development of technical documents.

This software application includes a customizable public web form for comment submission that allows users to submit comments and attachments in a variety of formats with key fields that can be tailored to the project needs. The application also includes a secure management portal interface for project team members and clients to collaborate on the response-to-comment process, ensuring consistency and efficiency throughout the process. This flexibility results in a collaborative, accurate, technical review of responses while reducing time-consuming back and forth between project team member. The use of one coordinated platform streamlines and simplifies review, eliminating the need to send large volumes of comments and documents among reviewers.

ESA has employed the Comment Tracker on numerous projects in California, Washington, and Florida demonstrating its effectiveness at managing and facilitating the review of a large volume of comments on complex projects across a range of disciplines. Comment Tracker has now been applied successfully to over a dozen projects to-date that require a response to comment component. This includes a range of environmental documents ranging from Environmental Impact Reports (EIR) and Environmental Impact Statements (EIS) to Environmental Assessments and Part 150 Noise Studies.

Los Angeles World Airports MMRP Data Collection and Reporting System Development

ESA is supporting Los Angeles World Airports' (LAWA) Environmental Programs Group (EPG) effort to streamline environmental management of all Mitigation Measure Reporting Program (MMRP) projects associated with the Los Angeles International and Van Nuys general aviation airports. ESA developed a customized database planning and design software package for an environmental compliance and reporting system that streamlines monitoring and data collection, automates the reporting process, and provides EPG with a compliance tool to integrate and manage existing and future projects. The ESA team developed all of the standardized forms, dashboards, and functions associated with the system. The system automates LAWA's internal document review, approval processes, and inspections using the standardize field forms. The system also includes a fully integrated GIS to allow LAWA to track compliance issues by location. Monitors can access data and field forms on mobile devices, increasing the efficiency of data collection. ESA provided systems analysis, integration and design; programming, conversion and implementation support; along with network services, data/records management, and testing as part of this effort.