



**GENERAL SERVICES ADMINISTRATION
FEDERAL SUPPLY SERVICE
AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST**

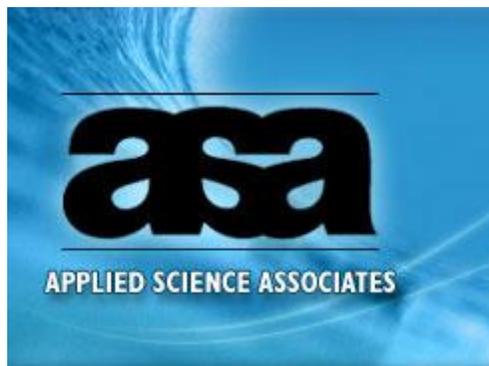
On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!, a menu-driven database system. The INTERNET address for GSA Advantage! is www.gsaadvantage.gov.

FSS SCHEDULE #899 ENVIRONMENTAL ADVISORY SERVICES

Contract Number: GS-10F-0438R
Contract Modification #: PS0002
Modification Effective Date: 08/01/07

For more information on ordering from Federal Supply Schedules, click on the FSS Schedules button at www.fss.gsa.gov

Period Covered by Contract: 8/22/2005 TO 8/22/2010



APPLIED SCIENCE ASSOCIATES, INC.

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Narragansett, RI 02882

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<http://www.appsci.com>

Business Size: Small

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CUSTOMER INFORMATION

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SIN 899-7 GEOGRAPHIC INFORMATION SYSTEMS

LABOR CATEGORY DESCRIPTIONS

CUSTOMER INFORMATION

1a. Awarded Special Item Number(s):

Special Item Number (SIN)	Description
899-1 (899-1RC)	Environmental Planning Services & Documentation
899-2 (899-2RC)	Environmental Compliance Services
899-4 (899-4RC)	Waste Management Services and Software
899-7	Geographic Information Systems (GIS)

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 Below)

1c. Labor Category Descriptions: 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 below)

2. Maximum Order: \$ 5,000,000.00

3. Minimum Order: \$ 100.00

4. Geographic Coverage: Domestic and Overseas

5. Point of Production: Same as company address

6. Discount from List Price: Government net prices (discounts already deducted). See price list.

7. Quantity Discount: None offered

8. Prompt Payment Terms: Net 30 days

9a. Government Purchase Cards are accepted below the micro-purchase threshold: Yes

9b. Government Purchase Cards are accepted above the micro-purchase threshold: will not

10. Foreign Items: None

- 11a. Time of Delivery: Specified on the Task Order
- 11b. Expedited Delivery: Contact Contractor
- 11c. Overnight/2-Day Delivery: Contact Contractor
- 11d. Urgent Requirements: Contact Contractor
- 12. FOB Point: Destination
- 13. Ordering Address: Same as company address

Email: lnolan@appsci.com
- 14. Payment Address: Same as company address

Email: lnolan@appsci.com
- 15. Warranty Provisions: Contractor's standard commercial warranty
- 16. Export Packing charges: N/A
- 17. Terms and conditions of Government Purchase Card Acceptance: Contact Contractor
- 18. Terms and conditions of rental, maintenance, and repair: N/A
- 19. Terms and conditions of installation: N/A
- 20. Terms and conditions of repair parts: N/A
- 21. List of service and distribution points: N/A
- 22. List of participating dealers: N/A
- 23. Preventive maintenance: N/A
- 24. Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants:
N/A

- 24b. 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
25. DUNS Number: 09-5978938
26. Applied Sciences Associates Inc. is registered in the Central Contract Registration (CCR) database.

SIN 899-1, ENVIRONMENTAL PLANNING SERVICES AND DOCUMENTATION

899-1RC Recovery

ASA has provided environmentally related planning services and documentation expertise to our clients that includes the following areas:

- Environmental Impact Statements
- Environmental Assessments
- Preliminary Assessments
- Risk Assessments and Analysis
- Environmental Impact
- Natural Resource Damage Assessments
- Data Management
- Data Validation
- Feasibility Studies
- Expert Testimony

Representative projects showing this experience include:

Natural Resource Damage Assessments and Related Activities for State and Federal Agencies

For DOI and NOAA, ASA developed a set of NRDA procedures to be used in both CERCLA and OPA regulations. For the CERCLA regulations, ASA has developed a Natural Resource Damage Assessment Model for Great Lakes Environments (NRDAM/GLE), and both an initial and revised model for Coastal and Marine Environments (NRDAM/CME). These models are used in simplified (Type A and combined Type A and B) damage assessments for chemical spills under CERCLA, and for injury quantification and restoration planning for oil spills under OPA.

ASA has been contracted since 1991 to NOAA to provide support services in NRDA activities. Tasks under the contract have included training and preparation activities, preparation and review of reports, consulting activities, on-site NRDA activities for particular discharges, injury quantification studies (environmental impact), restoration scaling (feasibility studies), and litigation support (including expert testimony). In addition to running the type A models for small spills, ASA provides site-specific modeling assessments using modifications of the type A models to incorporate site- and event-specific data (data management and data validation). These assessments often involve injury quantification and restoration scaling, without economic valuation, in keeping with the OPA NRDA rule, which emphasizes this approach.

ASA also is contracted with the State of California, Oil Spill Prevention and Response (OSPR), to provide NRDA services. ASA recently completed development of Version 1 of the Natural Resource Damage Assessment Model for California (NRDAM/CAL), an enhancement of the federal model (NRDAM/CME).

Numerous risk assessments and analyses have been performed by ASA for both public and private clients. We evaluated the potential risk of oil and hazardous waste spills on migrating whales, fur seals, sea scallops and cod for the Minerals Management Service and Texaco Canada. ASA evaluated potential spill impacts and damages from oil and chemical spills at various regions around the U.S., including the California and Florida coasts and the Gulf of Mexico for both public and private clients.

Environmental Impact Statements and Environmental Assessments

ASA has performed numerous studies in support of environmental impact statements as well as preliminary and full environmental assessments. These studies have included metal contamination in the Hudson River, sediment contamination in Boston Harbor, PCB contamination in New Bedford Harbor and oil spills in San Francisco Bay. Dredging studies have examined the transport and fate of dredged material (sediment and contaminants) in Boston Harbor, Long Island Sound, New York Harbor, Narragansett Bay and Buzzards Bay. The effects on water quality from port construction and operation has been evaluated as part of a large assessment for a proposed container ship terminal in Narragansett Bay.

SIN 899-2 ENVIRONMENTAL COMPLIANCE SERVICES

899-2RC Recovery

ASA proposes to offer the following services under this SIN

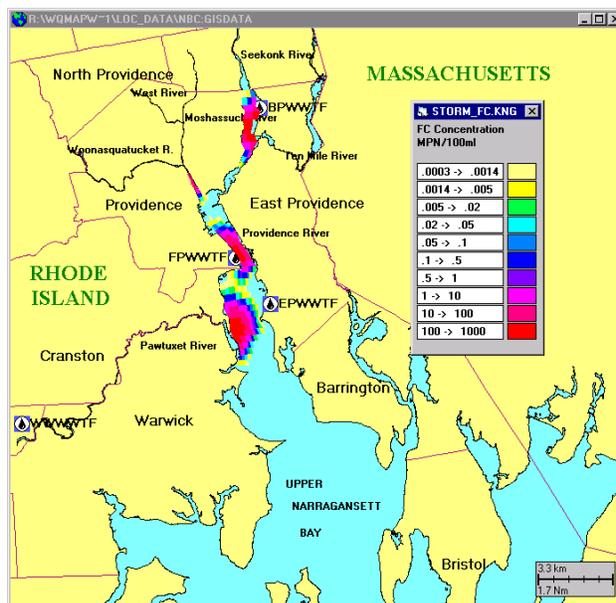
- Storm Water Management Plans
- Pollution Prevention Plans
- Spill Prevention Countermeasures and Control
- Data Base Management
- Geographic Information Systems Support
- Emergency Response Plans
- Preparedness Drill Assistance

Applied Science Associates, Inc. (ASA) has been at the forefront of the definition of how environmental impacts are measured and assessed within the framework of U.S. environmental legislation (OPA 90, CERCLA). ASA's oil and chemical transport, fate and effects software systems (NRDAM CME, GL) were implemented into the U.S. Department of Energy regulatory framework as tools to measure the environmental costs from small spills of oil and chemicals in the marine and coastal environment. ASA's particular expertise is in the numerical modeling of water movement, pollutant transport, and biological impacts. With the software tools implemented for modeling the movement, dispersion, fate, toxicity and impact of pollutants in the marine and estuarine environment, ASA has supported environmental impact assessment (EIA) efforts nationally and internationally for more than twenty years. The integration of our models into a Geographic Information System user interface allows scientists and managers to accurately describe and present quantitative analyses of real and posited pollution. These pollution inputs can be of either an accidental or a chronic nature. ASA supports national and international oil spill companies and government agencies, using our oil spill trajectory and fates model (OILMAP) and our crisis management system (CMSMAP). Following are examples of studies done in-house for storm water management and oil spill impact assessment.

ASA 96-105 Receiving Water Quality Modeling of Combined Sewer Overflows (CSO's)

CLIENT: Narragansett Bay Commission through Louis Berger and Associates.

A receiving water quality modeling analysis addressed the Providence River/Upper Bay in support of the CSO facilities planning effort for the Narragansett Bay Commission. A review of the present levels of pollution in the receiving waters showed that fecal coliform (FC) contamination is the critical pollutant problem in the area, with CSO's comprising most of the load. A boundary-fitted finite difference set of hydrodynamic and water quality models were applied to both dry and wet weather data in the Providence River and upper bay.

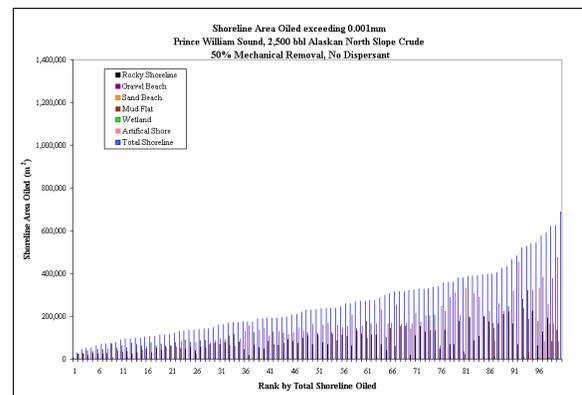
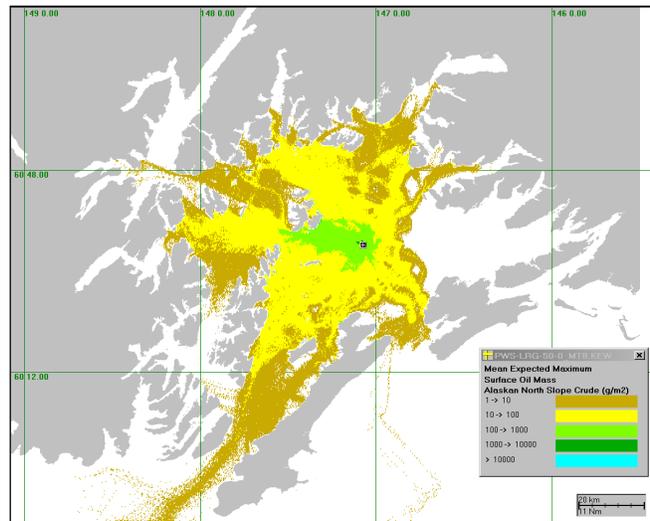


Adjustment of model parameters provided good overall comparison with observations. Pollutant loading was analyzed with respect to five theoretical design storms of 1, 2, 3, 6 and 12 month return frequency. The results of these runs were used to assess potential improvements. Six mitigation alternatives were analyzed for reduction of impacts: near surface storage and treatment, tunnel storage and treatment, and a mixture of both types of storage facilities. To assess the effectiveness of the mitigation alternatives, the impact was estimated in terms of acre-days. This is the length of time an area, such as the shell-fishing conditional closure area, exceeds a given FC concentration level. The alternatives were ranked according to this measure.

ASA 00-246 PEIS for USCG Rulemaking Regarding Vessel and Facility Oil Spill Response Plans.

CLIENT: U. S. Department of Transportation, U. S. Coast Guard

The US Coast Guard (USCG) is preparing a Programmatic Environmental Impact Statement (PEIS) under NEPA regulations for its proposed changes to Vessel and Facility Response Plan oil removal capacity requirements for tank vessels and marine transportation-related facilities. The environmental concerns about the proposed rulemaking focus on the consequences of dispersant use, and to a lesser extent on the use of *in situ* burning. ASA provided oil spill modeling and impact evaluation services to the USCG for this rulemaking. Oil spill modeling was used to evaluate water areas, shoreline lengths, sediment areas, and water volumes impacted above thresholds of concern. ASA also evaluated the potential impacts of spills and alternate response scenarios on air quality, water quality, and fish and other aquatic biota. A stochastic examined the range and frequency of possible environmental conditions input for each spill site, spill volume and response option evaluated. Long term wind and current records were sampled and model runs performed for each of the spill dates-times selected. This provides a statistical description of the environmental fate and impacts resulting if a spill occurred.



Stochastic modeling was performed in five representative locations in the US: (1) offshore of Delaware Bay, (2) offshore of Galveston Bay, (3) offshore of San Francisco Bay, (4) Prince William Sound, and (5) offshore of the Florida Keys. These data were used to evaluate potential impacts of changes in response strategies, i.e., combining use of dispersants and *in situ* burning with traditional mechanical recovery.

COMMERCIAL Price List 2007

	HOURLY RATE	GSA Proposed Rates per hour with IFF
Intern	\$ 42.77	\$ 39.39
Scientist/Engineer Computer Specialist (L1)	\$ 76.38	\$ 61.67
Scientist/Engineer Computer Specialist (L2)	\$ 81.01	\$ 74.60
Scientist/Engineer (L1)	\$ 86.07	\$ 61.67
Scientist/Engineer Biologist (L2)	\$ 91.59	\$ 84.35
Scientist/Engineer Chemical (L1)	\$ 102.79	\$ 82.64
Scientist/Engineer Ocean Engineer (L2)	\$ 110.66	\$ 94.65
Scientist/Engineer Oceanographer (L3)	\$ 126.49	\$ 114.23
Scientist/Engineer Geologist (L3)	\$ 140.49	\$ 126.87
Scientist/Engineer Mechanical Engineer (L3)	\$ 154.18	\$ 139.23
Scientist/Engineer Computer Specialist (L3)	\$ 158.07	\$ 142.74
Scientist/Engineer Ocean Engineer (L3)	\$ 167.86	\$ 145.47
Engineer/Computer Specialist (L3)	\$ 149.26	\$ 134.78
Principal Biologist (L4)	\$ 179.91	\$ 158.69
Principal Engineer (L4)	\$ 219.54	\$ 193.64
Principal Computer Specialist (L4)	\$ 228.31	\$ 201.38
Principal Expert Scientist Engineer (L4)	\$ 229.78	\$ 201.30
Senior Consultant Biologist	\$ 70.00	\$ 64.46
Senior Consultant Oceanographer	\$ 70.00	\$ 64.46

SIN 899-4 WASTE MANAGEMENT SERVICES

899-4RC Recovery

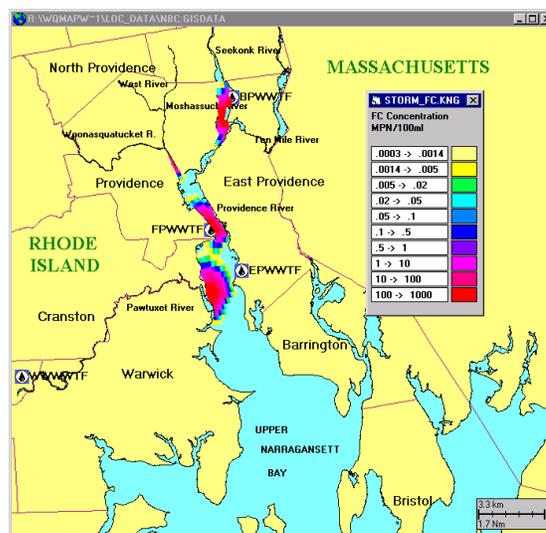
ASA proposes to offer the following services under this SIN

- Exposure Assessments
- Impact Studies
- Modeling
- Risk Assessment/Analyses

Applied Science Associates, Inc. (ASA) is internationally known for development of computer models that evaluate the transport, fate, and biological effects of hazardous materials in marine and fresh water environments. The transport models utilize field-collected current data or output of hydrodynamic models, such as ASA's suite of 2- and 3-dimensional hydrodynamic models. ASA has developed a unique suite of models for impact assessment, ecological risk assessment and research. These models have been applied to short-term or long-term discharges for specific releases or in probabilistic mode to determine risks of exposure and impact. ASA combines these sophisticated tools with comprehensive field programs and data collection to provide site-specific impact and ecological risk assessments. Following are examples of studies done in-house for discharge and waste management assessments.

Combined Sewer Overflows – Narragansett Bay Commission

A receiving water quality modeling analysis was conducted in the Providence River/Upper Bay (PR/UB) in support of the CSO facilities planning effort for the Narragansett Bay Commission. A review of the present levels of pollution in the receiving waters showed that fecal coliform (FC) contamination is the critical pollutant problem in the area, with CSOs comprising most of the load. The computer model system applied to the PR/UB consists of a boundary-fitted finite difference set of hydrodynamic and water quality models. The model results were compared to both dry and wet weather data in the PR/UB. Model parameters were adjusted to provide the best overall comparison with observations.



The pollutant loading was analyzed with respect to five theoretical design storms of 1, 2, 3, 6 and 12 month return frequency. Five theoretical load concentrations, from 10^6 FC/100 mL down to 10^2 FC/100 mL, indicating various treatment levels, were run for each design storm. The results of these runs were used to assess potential improvements in the PR/UB. Six mitigation alternatives were analyzed for reduction of impacts on the PR/UB. These alternatives consisted of near surface storage and treatment, tunnel storage and treatment, and a mixture of both types of storage facilities. Year long simulations were performed for each alternative for typical years 1951 and 1978. Time series of loads from each CSO, facility, and other sources were provided as model input to the PR/UB model.

Fecal Coliform Tracking – National Marine Fisheries Service

Shellfish resources have long been recognized in Outer New Bedford Harbor (Whittaker, 1996). The quahog is the predominant species in the area, estimated at 100 to above 200 bushels/ac in the area along Scotcut Neck. Access to the resource has been restricted by the Massachusetts Division of Marine Fisheries due to elevated fecal coliform (FC) concentrations. Shellfishing in various portions of the outer harbor are conditionally approved, restricted or prohibited. The eastern portion of the harbor is conditionally approved with small areas along shore prohibited.

A field reconnaissance of the study area (western Scotcut Neck and the Outer Harbor) was undertaken to identify existing pathways and sources of fecal coliform bacteria. This task included an in-depth analysis of potential land-based and water-borne sources along the entire western Scotcut Neck and Priests Cove area westward to Fort Phoenix. The goal of the field reconnaissance effort was to quantify all currently known, as well as any additional transport pathways not previously identified, so that the results of the water quality sampling program, modeling effort and the subsequent assessment report are maximized.



ASA applied its WQMAP modeling system to simulate the circulation and fecal coliform fate and transport in New Bedford Harbor. The model grid focused on the eastern portion of the Outer Harbor from Priests Cove to Wilbur Point but will include all of the Inner and Outer Harbor plus a portion of Buzzards Bay to simplify model application, and particularly, boundary condition specification. The model application proceeded in phases. The first phase was to apply a preliminary model application with a relative coarse grid to better understand, from a conceptual viewpoint, how the outer harbor responds hydrodynamically to a variety of environmental forcings (tides, winds and surges).

Simulations were then performed for the first seasonal period systematically varying the bottom friction and horizontal and vertical eddy viscosities and diffusivities. The pollutant transport model was applied to FCs. Source strengths was estimated from the monitoring data. FC decay rate sensitivity will be evaluated by examining its functional relationship to temperature, salinity, sunlight, settling and regrowth.

COMMERCIAL Price List 2007

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SIN 899-7 GEOGRAPHIC INFORMATION SYSTEMS

Jack recommended that we look at a completed overall space prior to a field trip to look at furniture.

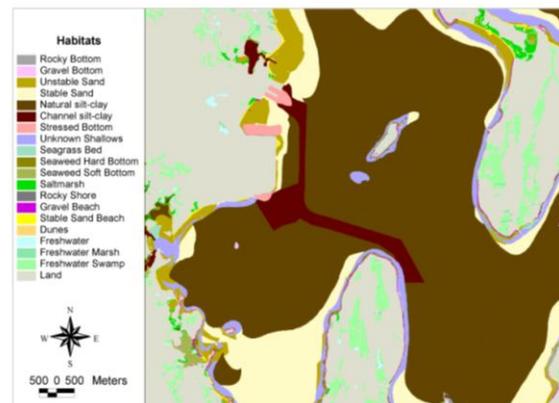
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GIS General Capabilities

ASA has for over 20 years developed and utilized GIS technology to support environmental modeling and assessment work for clients worldwide. ASA utilizes ESRI ArcView, ArcInfo, ArcIMS, Spatial Analyst, 3D Analyst, Tracking Analyst and MapObjects software for its core GIS capabilities. ASA has developed a highly customizable GIS application that provides the framework for a suite of numerical models focused on solving both chronic and acute pollution problems in the environment. ASA scientists and engineers use GIS technology to perform all of its environmental assessment work. ASA uses this technology in the following areas:

Site Maps - ASA uses both its own and commercial GIS applications to create digital site maps in support of environmental assessments, pollution impact studies, emergency preparedness and emergency response.

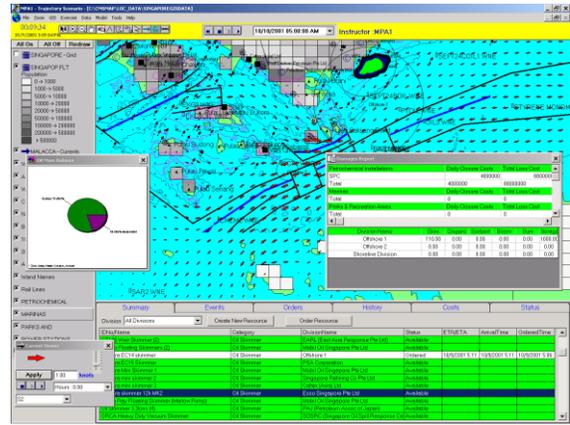
Habitat Identification/Species Tracking - ASA has completed a number of studies characterizing marine and coastal habitats and quantifying species distribution within those habitats. These habitat characterizations include circulation, water quality, sediment quality, erosion and accretion, marine habitats, benthic communities, lobster, macrophytes, finfish, mollusks, marine birds, marine mammals and sea turtles.



Assessment of Contaminants - ASA has applied its expertise in GIS technologies to address contaminant assessment associated with the impacts from dredging and marine construction projects, and from oil and chemical spills.

Pollution Analysis - ASA has conducted numerous studies of existing and predicted pollutants in the environment for commercial and government clients worldwide. Pollution analysis techniques focus on the quantification of the pollutant and its spatial distribution and migration in the environment.

Emergency Preparedness Planning – Through work with the US Coast Guard, ASA has developed a GIS based Crisis Management System that is now used by government agencies to train for and respond to emergencies involving oil and chemical spills, search and rescue operations, marine disasters and atmospheric release of contaminants.



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Labor Category Descriptions

ASA has four professional positions for permanent employees and one for interns (typically part-time and temporary). These include Principal, Senior Scientist (Project Manager) level III, Scientists level II and level I. Typical responsibilities and levels of education and years of experience for each category are provided below:

Principals, Level IV

Responsibilities: Principals are the key players and primary leaders of the firm. They typically have oversight over a substantial number of projects, provide technical expertise and project management guidance to senior scientists, mentor younger professionals in the organization, represent ASA in technical forums, market ASA's capabilities, either generically or in specific market segments, actively participate in strategic planning for the company, and manage large, complex projects.

Qualifications: This individual typically has an MS degree and 15 years of relevant experience or a doctoral degree (Ph D or ScD) and 10 years of experience.

Senior Scientist (Project Manager), Level III

Responsibilities: This person typically serves in the most senior technical position and is normally responsible for the design, implementation, and results of one or more projects. The individual is directly accountable for their work products and has managerial responsibility for directing individual studies/efforts.

Qualifications: This individual will typically possess a Master of Science (MS) Degree in the discipline of interest, plus eight(8) years of relevant experience or a Ph D plus six (6) years of experience.

Scientist, Level II

Responsibilities: This person has primary responsibility for performing work for individual project tasks at the direction of a project manager. This person may also assist a senior scientist with project design, integration, or implementation.

Qualifications: This individual will typically possess a BS and 5 years of relevant experience, an MS and 3 years of relevant experience, or a PhD and 1 years of relevant experience.

Scientist, Level I

Responsibilities: Individuals in this group typically serve as entry-level scientists. They will characteristically support the work of the Scientists (Level II) and Senior Scientists in conducting specific projects. These individuals must have demonstrated technical experience in the areas of interest for the projects being undertaken.

Qualifications: This individual will typically possess a BS degree and one to four years of relevant experience or an MS degree and 0 to 2 years of experience.

Interns

Responsibilities: similar to the responsibilities of Scientist Level I but in a training capacity.

Qualifications: In pursuit of a BS in Engineering, computer science or ocean related studies, having completed at least 2 years of courses.