Qualification Summary

- More than 30 years of academic and consulting experience worldwide in the environmental field conducting research on coastal processes, pollution, remediation, oceanography, coastal zone management, sustainability and related fields
- International environmental business development expertise for international development banks, national governments, multi-national companies, local governments and companies
- Extensive work with the United Nations and International Development Banks in project development and execution regarding transboundary environmental issues such as biodiversity, international waters, sustainability, and climate change
- Specializes in collection, analysis/interpretation, and integration of field data into project design. This includes the design of field studies/programs at sea, on land, and in the air
- Founded Aubrey Consulting, Inc. (ACI) in 1986, acquired WHISL in 1994, purchased an environmental lab in 1997, and incorporated Woods Hole Group (WHG) in 1996. Opened Middle East offices in 2004. Has been actively consulting for government and private clients since this time, focusing on innovative, scientifically- defensible solutions to international environmental problems, with sensitivity to economic and environmental concerns
- Project and legal/policy development for Middle East governments in the environmental field, including in areas of flash flooding, environmental health impact assessment, and other areas
- Strong written and verbal communication skills. Excels in presenting complex information and concepts to non-technical audiences.
- Excellent project management skills, including those with multi-discipline investigators

DAVID G. AUBREY, Ph.D.

Chairman and Chief Executive Officer Woods Hole Group

General Manager Woods Hole Group Middle East (Bahrain, Saudi Arabia and UAE offices)

Professional Affiliations

American Geophysical Union
Oceanography Society
Phi Beta Kappa
American Association for the Advancement of Science

Fields of Expertise

International environmental projects, including business development, sustainability, science, engineering, policy, regulations, and management. Developing national and international environmental programme focused on water bodies, river basins, or other transboundary features. Assisting countries to develop and implement environmental policy, legal, regulatory, and integrated management regimes. Environmental Impact Analysis and Health Impact Analysis, Audits, sustainability analysis, and other pertinent environmental methods.

Higher Education

Ph.D.	Oceanography-Scripps Institute of Oceanography, University of California at San Diego (1978)
B.S.	Civil Engineering-University of S. California (1973)
B.S.	Geological Sciences-University of S. California (1973)

Employment History

2004-Present	Woods Hole Group Middle East LLC
1986-Present	Woods Hole Group, Inc.
1978-2000	Woods Hole Oceanographic Institution
1987	University of Virginia (Visiting Professor)
1983	Massachusetts Institute of Technology (Consultant, Department of Ocean Engineering)
1973-1978	Scripps Institution of Oceanography (Research Assistant)

Key Projects

Remediation and Restoration Project remediation design for the Kingdom of Saudi Arabia - Consultant
Served as Project Manager for design of remediation for coastal and terrestrial environments under the Presidency of Meteorology and Environment in the Kingdom of Saudi Arabia, as part of a $1.1 billion remediation and restoration program under the auspices of the United Nations Compensation Commission.

Environmental and Health Impact Assessment (EHIA) - Consultant
For the Kingdom of Bahrain's Directorate of the General Commission for the Protection of Marine Resources, Environment and Wildlife, developed guidelines, regulations, and case studies to implement the modern approach of Environmental and Health Impact Assessment in the Kingdom. Performed training for both Commission staff and private sector environment companies in implementation of the EHIA.

Environmental Monitoring for Royal Commission at Yanbu - Consultant
Oversaw the contract for a five-year monitoring program for the Royal Commission at Yanbu's Environmental Control Department, including air quality monitoring and modeling, groundwater studies, marine studies, and other aspects of environmental control.

GEF Project on the Yellow Sea Large Marine Ecosystem, United Nations Development Programme (UNDP) - Consultant
Served as Chief International Expert for the development of a GEF Transboundary Diagnostic Analysis / Strategic Action Plan for the countries of China, Democratic People's Republic of Korea, and Republic of Korea. Extensive travel throughout the region meeting with ministerial and government representatives.

GEF Project the Caspian Environmental Program, United Nations Development Programme (UNDP) - Consultant
Served as Chief International Expert for the development of a GEF Transboundary Diagnostic Analysis / Strategic Action Plan for the Caspian Sea, including the governments of Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan. Also served as Interim Chief Technical Advisor for the first part of the project. Extensive travel throughout the region meeting with ministerial and government representatives.

GEF Project on the Western Indian Ocean, United Nations Environment Programme (UNEP) - Consultant
Developed a Transboundary Diagnostic Analysis and Strategic Action Programme for the Western Indian Ocean, including the countries of Somalia, Tanzania, Kenya, Mozambique, Mauritius, Comoros, Seychelles, and Madagascar. Assisted in developing specific intervention plans for halting land-based sources of pollution and mitigating the effects of pollution through a multi-year program. Presented the program to the GEF Council and developed the Project Document for the contaminant-focused marine environmental program after funding was granted.

Key Projects (continued)

GEF Project on the Volta River, United Nations Environment Programme (UNEP) - Consultant
Completed the Transboundary Diagnostic Analysis and Strategic Action Plan for the Volta River. Worked with national leaders and experts in the region to draft a multi-year program to halt sources and mitigate the effects of pollution in the Volta River Basin. Presented the technical documents and mitigation plans to and achieved consensus from government representatives of Ghana, Benin, Togo, Cote d'Ivoire, Burkina Faso, and Mali.

GEF Project on the Gulf of Honduras, Inter-American Development Bank (IADB) - Maritime Pollution Expert
Prepared Transboundary Diagnostic Analysis and developed a multi-year program to protect the Gulf of Honduras from maritime and land-based activities. Traveled extensively through the region and met with representatives of Honduras, Guatemala, and Belize to seek input from and achieve consensus on the Gulf's most pressing environmental problems and the activities necessary to mitigate them.

GEF Project on the Guinea Current Large Marine Ecosystem, United Nations Industrial Development Organization (UNIDO) - Consultant
Worked extensively with representatives of the 16 West African countries bordering the Guinea Current to complete the Transboundary Diagnostic Analysis and Strategic Action Plan for the Guinea Current Large Marine Ecosystem. Assisted in developing a multi-year environmental programme to address the region's critical marine and coastal environmental problems.

Assessment of Remediation Technologies for Cleanup of Oiled Shorelines, Tide Flats, and Salt Marshes Within the Kingdom of Saudi Arabia, Environmental Consulting Bureau of the Kingdom of Saudi Arabia - Program Manager
Lead assessment of the environmental damage to beaches, tide flats and marshes from the oil spill caused by the 1991 Gulf War. This included a laboratory assessment of aerobic and anaerobic oil remediation methodologies, germination and survivability tests of native marsh species in contaminated soils, a field scale demonstration of marsh restoration, a field scale demonstration of oil remediation techniques, and the completion of an Environmental Impact Assessment. This resulted in the development of a full-scale remediation strategy for the effected critical coastal ecosystems.

Assessment of Damage to the Terrestrial Environment in the Kingdom of Saudi Arabia from the 1991 Gulf War, Environmental Consulting Bureau of the Kingdom of Saudi Arabia - Program Manager
Conducted assessment of environmental damage caused by military activity and soot deposition from the 1991 Gulf War to the terrestrial environment of the Eastern Province Region of the Kingdom of Saudi Arabia. Assessed the physico-chemical and biological damage to the land resources in the area and their environmental and socio-economic impacts. The assessment included a time series analysis of Remote Sensing Data, field verification of Remote Sensing Data, laboratory quantification of soil and ground water contamination and soil studies, and an assessment of the vegetation damage and the status of re-vegetation to natural habitat.

Key Projects (continued)

Assessment of Damage to the Nearshore Marine Environment from the 1991 Gulf War in the Kingdom of Saudi Arabia, Environmental Consulting Bureau - Program Manager
Conducted assessment of the marine ecological risks posed by the oil spilled during the 1991 Gulf War. Evaluated the risks of remediation alternatives relative to status quo (natural attenuation) through conducting environmental impact analyses. Quantified sediment toxicity and benthic community structure and developed a risk framework and rules for risk ranking. The resultant assessment provided the KSA with the information to prioritize areas for remediation and to assist the KSA in their decision-making processes for managing risks associated with these environmental damages.

ADMA OPCO Marine Environmental Baseline Study Offshore Oil/Gas Operations, Abu Dhabi, United Arab Emirates, Baker Environmental - Project Manager
Performed marine environmental baseline assessment in the oilfields located offshore of Abu Dhabi. Determined the impacts of discharges from the oil/gas operational facilities on the pelagic and benthic habitats. Designed a sampling and analytical program to quantify pollutant loading to the coastal environment at both oilfields ADMA-OPCO operates and at the Das Island refinery. Conducted sediment, seawater and benthic sampling, and used diving to create underwater videos.

Beach Nourishment Design and Monitoring for the Southern Shore of Cape Cod, Cape Cod, MA, Great Island, Long Beach, and Dead Neck Homeowners Associations - Consultant
Performed shoreline change studies to evaluate rate of erosion and sediment loss for three different sites. Designed and participated in collection of high-resolution bathymetry, vibra cores, beach profiles, and sediment grain size data at each site. Developed and implemented beach nourishment plans for each site. Performed on-site topographic and bathymetric surveying before and after nourishment projects.

Numerical Model Analysis of Wave Climatology and Storm Surge for Seawall Design, Deer Island, MA, Massachusetts Water Resources Authority via Metcalf and Eddy, Inc. - Consultant
Conducted numerical and physical model analyses of wave climatology, storm water levels, and wave run-up so that an effective and cost efficient shore protection plan could be developed for the island. Results from model runs were used to predict nearshore wave heights and water levels for 5-, 10-, 25-, 50-, and 100-year storm events and to optimize seawall design specifications. Two-dimensional physical modeling of the seawall design was performed using a test facility to evaluate the proposed structural design.

Bathymetry, Geophysical Survey, and Wave Refraction Analysis for Sand Borrow Site Analysis, Siasconset, MA, Town of Nantucket - Oceanographer/Project Manager
Completed a reconnaissance survey and analysis of two offshore sand borrow sites for a proposed beach nourishment project. Collected regional bathymetry, coring, beach sediment sampling, side-scan sonar, sub-bottom profiling, and magnetometer surveys. Modeled the wave climatology using collected data. Used model results to calculate sediment transport potentials and gradients in sediment transport in an effort to determine the dredging from the proposed borrow sites.

Key Projects (continued)

Sub-bottom Investigations and Detrital Flux Analysis at the Salem and Hope Creek Nuclear Power Plant, Hancock's Bridge, NJ, Public Service Electric and Gas Company - Consultant

Designed a phased field data collection program to evaluate potential causes of detrital loading at the Salem and Hope Creek Nuclear Power Plant, after detrital loading had forced the operating plant to shut down. Collected bathymetric data, conducted a sub-bottom survey, and monitored physical conditions: temperature, conductivity and current profile at the power plant. Conducted additional surveys to the north and south of the power plant to identify potential sources of the detritus.

Thermal Discharge Analysis, Newark, NJ, Public Service Electric and Gas -Consultant

Lead facilitator of a vast multi-disciplinary team conducting a 316(a) federal water quality standards regulatory analysis. Performed numerical modeling, data analysis, and technical writing to support a comprehensive hydrothermal and biothermal assessment of a cooling water discharge system in an Estuary. Completed extensive and innovative scope of work of unprecedented scientific and engineering defensibility within required fast-track schedule. Excellent communication with team members and the client was essential for the successful completion of this project.

Field Data Collection and Numerical Modeling of Circulation Patterns in the Delaware Estuary, Salem, MA, Public Service Electric and Gas - Consultant

Completed a large-scale data collection and numerical modeling study of the Delaware Estuary. The data collection program consisted of wave, tide, current, bathymetry, salinity, temperature, and meteorological measurements. Some data were reported real-time via a cable link to the shoreline. The vast data set was consolidated and used to calibrate a three-dimensional numerical circulation model of the Estuary-wide processes. Particular emphasis was placed on characterizing circulation patterns in the vicinity of a cooling water intake and discharge system to identify processes contributing to the accumulation of detritus in the intake basin. Recommendations were provided to improve the system to prevent detritus accumulation, which would result in safer and more cost-effective operations.

Historical Investigation of Industrialization and Sediment Contamination, Newark, NJ, Public Service Electric and Gas - Consultant

Conducted in-depth historical investigation of the impact of industrialization on an ecosystem, including identification of the number and types of industries and characteristics of waste streams. Correlated the industrial development history with the historical record of contamination evident in laboratory analysis of sediment cores. Developed relational database and GIS to query and visualize vast data sets.

Publications and Presentations

Refereed Journals	58 Publications
Books	14 Publications
In-Books	23 Publications
Technical Publications	63 Publications

Publications and Presentations (continued)

Abstracts and Poster Sessions/Conferences	83 Publications
Book Reviews	5 Publications
Periodicals	6 Publications