EDWARD OWENS



oil spills/response planning shoreline and inland cleanup operations environmental impact assessment project management

EDUCATION

University of South Carolina: Ph.D., Geology, 1975 McMaster University: M.Sc., Physical Geography, 1969 University College of Wales, Aberystwyth: B.Sc. (Honours), Physical Geography, 1967

PROFESSIONAL HISTORY

Owens Coastal Consultants Ltd., President, 1993-1998: 2012 to present. Owens Response Group International, Founder, 2014 to present Polaris Applied Sciences, Inc., Principal, 1998-2012 Woodward-Clyde Consultants, Principal Professional, 1987-1993 Geoscience Services Ltd., Managing Director, 1986-1987 Oceaneering Geoscience, Vice President, General Manager, 1985-1986 Woodward-Clyde Oceaneering, Europe/Africa Manager, 1983-1985 Woodward-Clyde Consultants, Vice President, Manager Canadian Operations, 1979-1983 Coastal Studies Institute, Louisiana State University, Assistant Professor, 1975-1979 Geological Survey of Canada, Bedford Institute of Oceanography, Research Scientist, 1971-1975

Canadian Hydrographic Service, Research Officer, 1969-1971

REPRESENTATIVE EXPERIENCE

Dr. Ed Owens is an internationally recognized expert on oil spill cleanup and shoreline assessment technique process. He has conducted missions as a United Nations Expert Consultant for the International Maritime Organization (IMO) and the UN Environmental Program (UNEP) and was a technical consultant for the UN Claims Commission (UNCC) on the 1991 Gulf War claims. He has acted as a consultant for the Arctic Council (EPPR), the World Bank (IMF) and the European Bank of Reconstruction and Development (EBRD), and was a member of the U.S. National Academy of Science Oil Spill R&D Committee. He has developed audit and review procedures to evaluate best practices for oil spill response capability and response readiness that have been applied to facility and pipeline operations.

Dr. Owens has been involved in studies related to the environmental impact of oil spills and in marine, facility and pipeline oil spill cleanup and countermeasure operations since 1970 when he was seconded to the Canadian Federal Government Task Force "Operation Oil" to advise on shoreline cleanup following the ARROW oil spill in Nova

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Scotia. In 1982 he participated in the United Arab Emirates Oil Spill Task Force following the HASBAH 6 blowout in the Arabian Gulf and in 1991, during the Irag invasion of Kuwait and the resulting Gulf War, he conducted shoreline surveys of Qatar and Bahrain. Dr. Owens provided technical support to Environment Canada following the spill from the barge NESTUCCA in 1989 and was the Technical Advisor to Exxon's SCAT (Shoreline Cleanup Advisory Team) from 1989 to 1993 following the EXXON VALDEZ spill. He was involved with the response to the Greenhill blowout (Timbalier Bay, Louisiana: 1992), the NOSAC FOREST spill in Tacoma (Washington: 1993), the Tampa Bay barge accident (Florida: 1993), the MORRIS J. BERMAN spill in Puerto Rico (1994), the EASTERN LION spill in Port Valdez (Alaska: 1994), the Komi Republic (Russia) pipeline spills (1995), the IRON BARON (1995) spill in Australia, the KURE spill in northern California (1997), the ESTRELLA PAMPENA spill in the River Plate (Argentina: 1999), the NEW CARISSA spill in Oregon (1999), the Olympic pipeline Whatcom Creek spill in Bellingham (Washington: 1999), the Bolivian Altiplano Río Desaguadero pipeline spill (2000), the PEPCO facility spill into the Patuxent River (Maryland: 2000), the PRINCE WILLIAM SOUND spill in Port Angeles (Washington: 2001), an oil/chemical spill from an industrial facility in Portland (Oregon: 2004), the SELENDANG AYU oil spill (Unalaska Island, Alaska: 2004/5/6), the Wabamun Lake train derailment spill (Alberta, Canada; 2005/6/7), the ENL pipeline spill (Sakhalin Island, Russia, 2006), the COSCO BUSAN spill (California, 2007/8), the Deepwater Horizon response in the Gulf of Mexico (2010/2012), the Cheecham pipeline spill (Alberta, Canada 2013/14), and the Whiting refinery spill into Lake Michigan (Illinois, USA, 2014).

Dr. Owens designed and conducted the shoreline treatment and cleanup experiments for the Baffin Island Oil Spill (BIOS) project and in Svalbard (northern Norway) and has undertaken field studies on the long-term impact and persistence of stranded oil including post-spill surveys of the BIOS, METULA, and AMOCO CADIZ sites. He pioneered the use of rapid assessment techniques and of aerial videotape surveys for shore-zone mapping, coastal inventories, and oil spill countermeasures planning, beginning in British Columbia in 1979. To date, he has videotaped over 50,000 km of coast for shoreline mapping, and for oil spill countermeasure strategy planning and cleanup operations.

Dr. Owens has been closely involved with coastal sediments, geomorphology and nearshore oceanography research for over 40 years. He has designed and supervised many coastal, marine, river, and multi-disciplinary research projects that include spatial and temporal variations in beach form and processes; the effects of sediment removal on beach stability; coastal reconnaissance-inventory studies; contaminant transport analysis; and environmental impact assessments. Other major studies have included the effects and impact of jetties and dredging on sediment transport systems, and dune

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management and restoration. Dr. Owens's academic research and field experience has focused on sediments and on geologic processes in the coastal zone and in riverine environments. Many of these projects have been multi-disciplinary (geology, oceanography, and biology).

Dr. Owens has published more than 300 scientific papers and reports. He was an invited contributor to "The Encyclopedia of Beaches and Coastal Environments" and to "The World's Coastline", and was on the Advisory Editorial Board of the journal "Spill Science and Technology Bulletin". He has conducted field studies in a wide range of environments, including, the Caribbean Windward Islands (Barbados, St. Croix, Trinidad), eastern Nicaragua, throughout South America (Argentina, Bolivia, Brazil, Chile, French Guyana, Guyana, Peru, Suriname, Uruguay), throughout North America (New England, Atlantic Canada, British Columbia, California, the Gulf of Mexico, the Great Lakes, the Canadian Arctic Archipelago, the Canadian Beaufort Sea, the Alaskan North Slope, the Gulf of Alaska), Spitsbergen, the Caspian Sea (Azerbaijan), Georgia, Turkey, Russia (the Komi Republic, Sakhalin Island-Sea of Okhotsk), Australia, Brunei, Mauritius, Kenya, Cameroon, Chad, and the Arabian Gulf (Iran, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE-Abu Dhabi).

CERTIFICATIONS

American Institute of Professional Geologists (# 25360) Professional Geologist - Florida (#0000814) Certified Environmental Professional (#02619) NAUI Certified Scuba Diver (#344739)

AWARDS

Woodward-Clyde Consultants, Innovative Practice Award, 1980. Woodward-Clyde Consultants, Project Management Award, 1990.

PROFESSIONAL ACTIVITIES

Spill Science and Technology Bulletin; (Elsevier refereed journal) Editorial Board (2000-2004)

National Association of Environmental Professionals; elected to Board of Directors (1988); Certification Review Board (1989-1993).

Washington Environmental Industry Association, Board Member: Marine Representative (1990-1993); Education Committee (1991-1993).

National Academy of Sciences: National Research Council, Marine Board Oil Spill R&D Review Committee (1991-1994).

www.owenscoastal.com www.owensresponse.com www.shorelinescat.com