

Appendix A

HISTORY ORGANIZATION AND STAFF

The Coastal Water Research Project was founded in 1969, when five local government agencies (Ventura County, the Cities of San Diego and Los Angeles, and the County Sanitation Districts of Los Angeles and Orange Counties) entered into a joint powers agreement to sponsor environmental studies. Their intention was to develop regional scientific information on the coastal waters extending from Point Conception to the Mexican border. To keep the Project free of partisan pressures, its control was delegated to a commission of local civic leaders and elected officials, who would reflect the public concern for environmental quality. The financial support from the local government agencies has been supplemented in the last few years by a series of grants from the National Science Foundation, the National Atmospheric and Oceanic Administration, the University of California, the State Water Resources Control Board, and others.

The Project's 20 scientists are organized into three divisions--biology, chemistry, and engineering, as shown on the organization chart (Figure 1). The staff receives over-all guidance from a consulting board of eminent scientists from five major universities. The members of the research team are identified in the following paragraphs and in Figure 2. Our scientific and technical associates are listed in Figure 3.

WILLARD BASCOM, Project Director

Mr. Bascom has been involved in oceanographic work since 1945. The early part of his career was spent with the University of California, both at Berkeley and at Scripps Institution of Oceanography, researching waves and beaches; he later directed the Mohole Project for the National Academy of Sciences. In recent years, he has organized and led many ocean science and engineering projects around the world. Mr. Bascom is author of many books and papers about the ocean, a member of the Ocean Science Board of the National

Academy of Science, and an adjunct professor at the Scripps Institution of Oceanography.

ALAN J. MEARNS, Fisheries Biologist

Dr. Mearns is head of the Project's biology division. He is an expert on biological oceanography and the effects of pollution on fish and invertebrates. Dr. Mearns received his Ph.D. degree in fisheries from the University of Washington in 1971. He has conducted detailed studies in the Arctic Ocean and Bristol Bay (Alaska), Puget Sound, and southern California. He is an officer of the American Institute of Fisheries Research Biologists and a member of the Southern California Academy of Sciences.

DAVID R. YOUNG, Chemical Oceanographer

Dr. Young is head of the chemistry department and an expert on trace metals and toxic organic materials in marine life. He received his bachelors degree in physics from Pomona

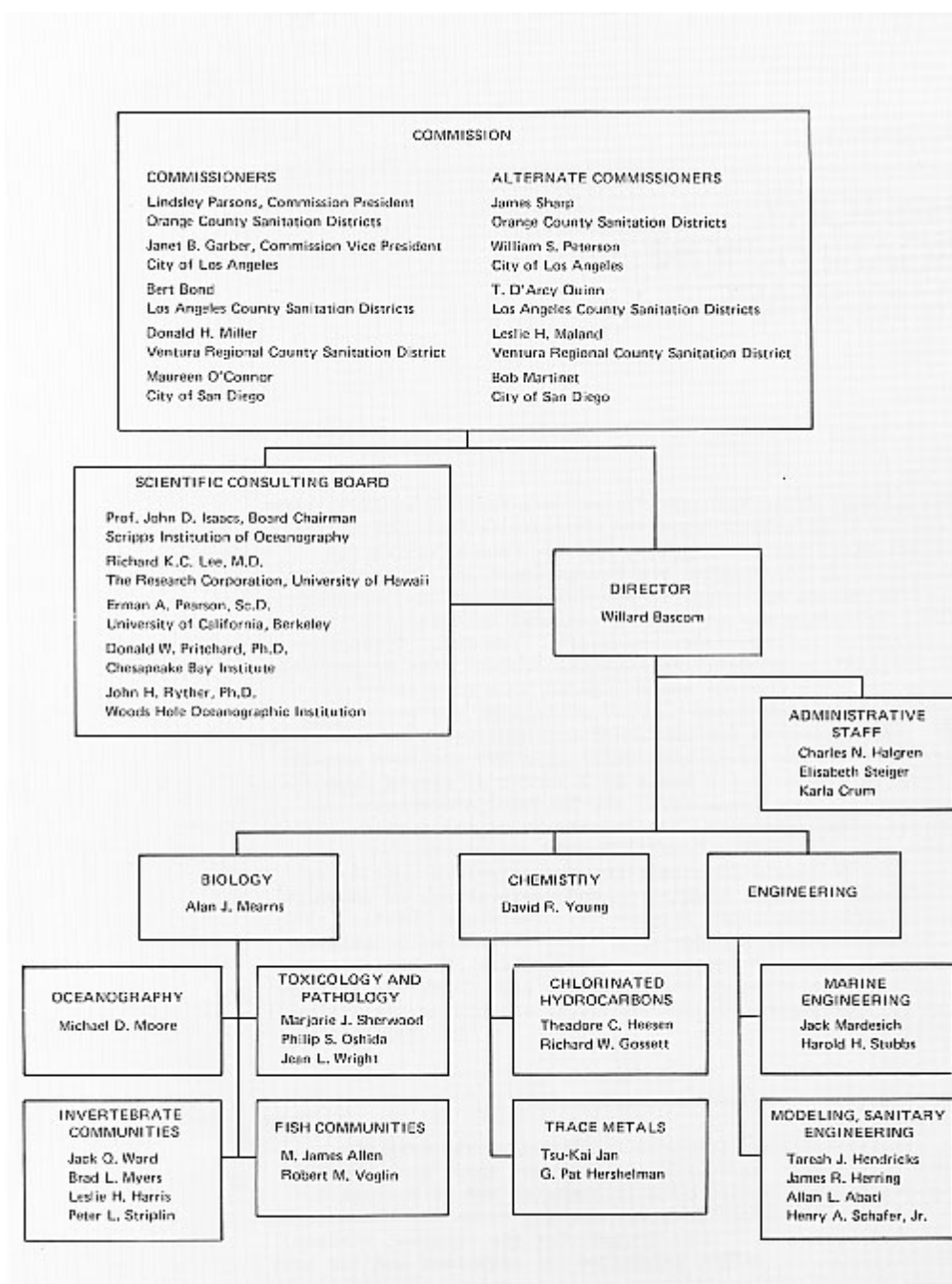


Figure 1. Coastal Water Research Project organization.

ALLAN L. ABATI, Marine Physiologist
B.S., California State University, Long Beach, 1967
M.A., California State University, Long Beach, 1969
Ph.D., Rutgers University, 1976

M. JAMES ALLEN, Fish Community Ecologist
B.A., University of California, Santa Barbara, 1967
M.A., University of California, Los Angeles, 1970

PAUL J. CALLINAN,* Particle Analyst

KARLA CRUM, Executive Secretary

CYNTHIA A. DAVIS,* Laboratory Assistant, Biology
B.A., California State University, Long Beach, 1977

RICHARD W. GOSSETT, Laboratory Technician, Chemistry
B.A., California State University, Long Beach, 1977

CHARLES N. HALGREN, Administrative Officer
B.A., California State University, Long Beach, 1970

LESLIE H. HARRIS, Research Technician, Biology

THEODORE C. HEESEN, Organic Chemist
B.S., California State University, San Diego, 1969
M.S., California State University, San Diego, 1971

JAMES R. HERRING, Geochemist
B.S., University of California, Los Angeles, 1968
Ph.D., University of California, San Diego, 1977

G. PATRICK HERSHELMAN, Research Technician, Chemistry
B.S., Loyola Marymount College, 1974

LANCE T. HORITA,* Laboratory Assistant, Biology

TSU-KAI JAN, Metals Chemist
B.S., Chiba National University, 1967
M.S., Chiba National University, 1969
M.S., University of Southern California, 1972

THOMAS R. McDONNELL,* Laboratory Assistant, Biology
B.S., Loyola Marymount College, 1977

MICHAEL D. MOORE, Biological Oceanographer
B.S., California State University, Long Beach, 1973

BRAD L. MYERS, Research Technician, Biology
B.A., Augustana College, Rock Island, Illinois, 1971

DONALD S. MUSSELWHITE,* Laboratory Assistant, Biology
B.A., University of California, Santa Barbara, 1977

DAVID N. NISHINA,* Laboratory Assistant, Biology
B.A., University of California, Los Angeles, 1978

PHILIP S. OSHIDA, Marine Biologist, Bioassay and Toxicity
B.A., University of California, Berkeley, 1972
M.S., California State University, Long Beach, 1974

PAUL D. PICARD,* Particle Analyst

HENRY A. SCHAFER, Jr., Marine Biologist
B.A., California State University, Dominguez Hills, 1974

MARJORIE J. SHERWOOD, Fish Disease Biologist
B.A., University of California, Los Angeles, 1966
M.A., University of California, Los Angeles, 1968

MICHAEL SONODA, Jr.,* Laboratory Assistant, Biology

ELISABETH STEIGER, Administrative Assistant

PETER L. STRIPLIN, Research Technician, Biology
B.S., University of California, Santa Barbara, 1977

HAROLD H. STUBBS, Coordinator of Marine Operations
Master Diver, U.S. Navy

DAVID TSUKADA,* Laboratory Assistant, Biology
B.S., California State University, Long Beach, 1975

ROBERT M. VOGLIN, Research Technician, Biology

JACK O. WORD, Invertebrate Taxonomist
B.S., California State University, Long Beach, 1969
M.A., California State University, Long Beach, 1974

JEAN L. WRIGHT, Laboratory Technician, Biology

*Part time.

Figure 2. Coastal Water Research Project staff.

GEORGE V. ALEXANDER
 University of California, Los Angeles
 Emission Spectroscopy
 CHAIG BARILOTTI, Ph.D.
 Scripps Aquarium
 Toxicity Studies
 BRUCE W. BELMAN, Ph.D.
 Consulting Biologist
 Deepwater Survey
 DONALD F. BOESCH, Ph.D.
 Virginia Institute of Marine Sciences
 Numerical Classification Techniques
 DONALD B. CADEN
 Marine Biological Consultants, Inc.
 Invertebrate Taxonomy
 JEROEN J.M. deGOEIJ, Ph.D.
 Interuniversity Reactor Institute, Delft, Netherlands
 Nuclear Chemistry
 GERALD N. ESRA
 Los Angeles City Zoological Gardens
 Deaths of Zoo Birds
 BOB EVANS
 La Mer Bleu Productions, Santa Barbara
 Underwater Photography
 C. AUSTIN FARLEY, Ph.D.
 National Marine Fisheries Service, Oxford, Maryland
 Histopathology
 KRISTEN L. GARD
 Los Angeles County Sanitation Districts, Whittier
 Chlorinated Hydrocarbons in Fishes
 STEVEN R. GOLDBERG, Ph.D.
 Whittier College
 Fish Reproduction
 RICHARD W. GRIGG, Ph.D.
 University of Hawaii
 Benthic Survey, Palos Verdes Shelf
 Prof. VINCENT P. GUINN
 University of California, Irvine
 Neutron Activation Analysis
 JOHN C. HARSHBARGER, Ph.D.
 Smithsonian Institution
 Pathology
 MICHAEL H. HORN, Ph.D.
 California State University, Fullerton
 Fisheries Research
 EDWIN B. HOWARD
 University of Southern California
 Deaths of Zoo Birds
 ROY HOUSTON, Ph.D.
 Loyola Marymount College
 Reproduction in Shellfish
 IAN KAPLAN, Ph.D.
 EMIL KALIL
 University of California, Los Angeles
 Marine Geochemistry
 JUHEE KIM, Ph.D.
 California State University, Long Beach
 Bacteria and Viruses
 IKUO KIMURA, Ph.D.
 Aichi Cancer Center Research Institute, Nagoya, Japan
 Fish Diseases
 DEIRDRE J. McDERMOTT-EHRLICH
 Lockheed Center for Marine Research, Carlsbad, California
 Trace Contaminant Studies
 JAMES MORGAN, Ph.D.
 California Institute of Technology
 Aqueous Chemistry
 ROBERT A. MURCHELAND, Ph.D.
 National Marine Fisheries Service, Oxford, Maryland
 Pathology
 JUDD C. NEVENZEL, Ph.D.
 Scripps Institution of Oceanography
 Lipid and Fatty Acid Analysis
 KENNETH V. PIERCE
 BRUCE MCCAIN
 National Marine Fisheries Service, Seattle
 Histopathology
 DONALD J. REISH, Ph.D.
 California State University, Long Beach
 Toxicity Studies
 ROBERT A. RISEBROUGH, Ph.D.
 BROCK de LAPPE
 Bodega Bay Institute of Pollution Ecology
 Chlorinated Hydrocarbon Analysis
 MICHAEL H. SCHONZEIT
 Scripps Institution of Oceanography
 Current Meter Studies
 FRANK C. SHATZLEIN, Ph.D.
 California State University, Long Beach
 Invertebrate Physiologist
 JACK SIADK
 Sampling at Sea
 ROBIN A. SIMPSON
 Editing and Publications Production
 ROBERT W. SMITH, Ph.D.
 Cluster Analysis
 PAUL E. SMOKLER
 University of California, Los Angeles
 Chlorinated Hydrocarbons in Fishes
 JOHNS, STEPHENS, Ph.D.
 Van Tunj Consortium, Occidental College
 Marine Ecology
 HANS F. STICH, Ph.D.
 University of British Columbia, Vancouver
 Fish Diseases
 RICHARD C. SWARTZ, Ph.D.
 Environmental Protection Agency, Newport, Oregon
 Marine Ecology
 ROBERT E. SWEENEY, Ph.D.
 University of California, Los Angeles
 Marine Geochemistry
 EDWARD TARVYD
 Santa Monica College
 Sampling at Sea
 PAUL TAYLOR, Ph.D.
 California Analytical Laboratories, Inc.
 Chlorobenzene Analysis
 JAMES WILLIS
 Netmaker, Morro Bay
 Net Design and Fabrication
 KENNETH C. WILSON
 California Department of Fish and Game
 Kelp Studies

Figure 3. Scientific and technical associates.

ARTHROPODS

Bruce Benedict, Marine Biological Consultants, Inc.
Ann Martin, Orange County Sanitation Districts
Brad Myers, Coastal Water Research Project
Jack O. Word, Coastal Water Research Project

ECHINODERMS

Leslie H. Harris, Coastal Water Research Project
Jack O. Word, Coastal Water Research Project

MOLLUSCS

Don Cadlen, Marine Biological Consultants, Inc.
Phil Chang, Hyperion Treatment Plant
Ron Cressey, Hyperion Treatment Plant
Peter Striplin, Coastal Water Research Project
Jack O. Word, Coastal Water Research Project

OPHIUROIDS

Jack O. Word, Coastal Water Research Project

POLYCHAETES

Monica Farris-Cooper, Orange County Sanitation Districts
April Phelps Ford, Los Angeles County Sanitation Districts

Tom Gurlinger, Marine Biological Consultants, Inc.
Susan Hamilton, Point Loma Treatment Plant
Leslie H. Harris, Coastal Water Research Project
Michael Martin, Hyperion Treatment Plant
Dave Montagne, Los Angeles County Sanitation Districts

Tom Parker, Los Angeles County Sanitation Districts

John Shisko, Hyperion Treatment Plant
Jan Stull, Los Angeles County Sanitation Districts

Jack O. Word, Coastal Water Research Project

MISCELLANEOUS

John Cooper, Moss Landing Marine Laboratories
F.G. Hochberg, Jr., Santa Barbara Museum of Natural History
John Ljubanekov, Allen Hancock Foundation
Brad Myers, Coastal Water Research Project
Leslie H. Harris, Coastal Water Research Project
Jack O. Word, Coastal Water Research Project

Figure 4. Individuals responsible for identification of Infaunal Index organisms.