Impacts on Shipping and Commercial, Tribal, and Recreational Fisheries from Development of Renewable Energy on the West Coast

Committee

Michele K. Conrad

Co-Chair

Michele K. Conrad is the principal consultant and strategist for Oceanbeat Consulting. Conrad has over 25 years of experience working with west coast tribes, commercial and recreational fishers, conservation organizations, and interested members of the public to manage sustainable fisheries, protect ocean resources, and evaluate and develop policies and management procedures. Previously, she represented the State of Washington as the primary designee on the Pacific Fishery Management Council (PFMC) for 15 years while she worked for the Washington Department of Fish and Wildlife as the Intergovernmental Ocean Policy Manager and Regional Director for the Coastal Region. During her career she managed Pacific halibut, whiting, groundfish, Dungeness crab, albacore tuna, and sardine fisheries. Currently she co-chairs the PFMC's Ecosystem Advisory Subpanel, serves on the Washington Coastal Marine Advisory Council, and participates in the Pacific Halibut and Sablefish Management Strategy Evaluation processes. Conrad received a B.S. in environmental science from The Evergreen State College.

Conrad has provided consulting services for Ocean Conservancy on fisheries management policies and practices since 2021. In February 2023 Ocean Conservancy made a public statement regarding offshore wind development.

R. Keith Michel

Co-Chair

R. Keith Michel is former President of Webb Institute and former President and Board Chairman of Herbert Engineering Corp. In his forty years employed as a naval architect, he has worked on the design and construction oversight of containerships, bulk carriers, tankers, and liquified natural gas carriers. His work includes developing methodologies for assessing oil spills from tankers and advising the International Maritime Organization and U.S. Coast Guard on these issues. He was lead engineer on marine risk assessments related to shipping on the west coast of the United States and Canada. He was awarded the Society of Naval Architecture (SNAME) David Taylor Medal for contributions to the field of naval architecture, is a SNAME fellow, a member of the National Academy of Engineering, and was elected President Emeritus of Webb Institute. Michel received a B.S. in naval architecture and marine engineering from Webb Institute of Naval Architecture. He previously served as chair of the Transportation Research Board's Marine Board from 2002-2004 and chaired National Academies committees on Offshore Windfarm Worker Safety and Risk of Vessel Accidents and Spills in the Aleutian Islands.

David B. Anning

Member

Dave Anning is a Senior Consulting Economist with Integral Consulting Inc. He has over 15 years of experience in consulting, academia, government research support, and as a board member of a coastal non-government organization. Anning's expertise includes the management of coastal and marine environments, ranging from work with Tribal governments and the fishing sector to renewable energy developers and regulators. His work addresses topics such as climate vulnerability and adaptation, coastal resilience, offshore wind and marine renewable energy, natural resource damage assessment, and environmental and social impact assessment. His project experience includes assisting with marine spatial planning for wave and tidal energy in California, and estimation of the economic benefits of navigational dredging projects on boating, scuba diving, whale watching, commercial fishing, and recreational angling in Australia. Anning received a B.S. degree from the University of Queensland with majors in marine biology and anatomy, a Graduate Diploma of economics from the University of New England, a M.E.M in environmental tourism from the University of Queensland, and a Ph.D. in geography from the University of New South Wales.

Anning is currently providing pro bono technical advisory services for Monterey Bay Fisheries Trusts on a vulnerability assessment of key fish species. He has provided consulting services to Wave Swell Energy LLC.

Diana Bob

Member

Diana Bob is an attorney with Native Law PLLC in Bellingham, Washington and is an enrolled member of the Lummi Nation. Bob's legal practice is focused on generally applicable environmental laws, Federal Indian law, cultural resources laws, Indian water rights, treaty reserved rights, and real property matters. Prior to establishing Native Law PLLC, she was an attorney with Tribal governments, a private law firm, and Washington's civil legal aid firm. Bob currently serves as an appointee on the Washington State Attorney General's Truth and Reconciliation Tribal Advisory Committee. In addition, she has held several leadership positions for the Washington State Bar Association's Indian Law Section and is a frequent CLE presenter on Indian and Environmental law topics. Bob received a B.A. from Pitzer College and a J.D. from Lewis & Clark Law School with a certificate in environmental law. Bob was employed by Canopy Offshore Wind LLC in 2024 to provide limited legal services regarding Federal Indian Law. She is an enrolled member of the Lummi Nation, a signatory of the 1855 Treaty of Point Elliot that includes a reserved right to fish in usual and accustomed places.

David M. Checkley

Member

David Checkley is Emeritus Professor of Oceanography at the University of California, San Diego, Scripps Institution of Oceanography. His expertise is in biological and fisheries oceanography, including zooplankton and small pelagic fish, the effects of climate thereon, and the development of oceanographic instrumentation. Previously, he directed the Cooperative Institute for Marine Ecosystems and Climate and the California Cooperative Oceanic Fisheries Investigations, co-Chaired the international Small Pelagic Fish and Climate Change program, and was Editor-in-Chief of Fisheries Oceanography. Checkley's career has included work for the Department for Agriculture and Fisheries for Scotland and for the University of Alaska, University of Texas, North Carolina State University, and the University of California, San Diego, Scripps Institution of Oceanography. He received B.S. degrees in oceanography and zoology from the University of Washington and a Ph.D. in oceanography from the University of California, San Diego, Scripps Institution of Oceanography.

Michael T. Conroy

Member

Mike Conroy is a Principal of West Coast Fisheries Consultants, a small boutique company working with commercial and recreational fisheries along the west coast of the United States, where his primary focus is on legal aspects of fisheries management and policy. His expertise is in legislative and regulatory processes relating to fisheries management on both the federal level and in various states. Throughout his career he has worked to ensure commercial and recreational fisheries concerns and future shifts in fish stocks are considered in decision making processes and has explored ways fisheries and offshore renewable energy can co-exist. Prior roles include west coast director for the Responsible Offshore Development Alliance (RODA), commercial passenger carrying vessel operator in southern California, and operator of commercial fishing vessels that targeted several state and federally managed species. He is Co-chair of the Pacific Fishery Management Council's Marine Planning Committee, and Vice Chair of the Council's Highly Migratory Species Advisory Subpanel. He also serves on the California Offshore Wind Energy Fisheries Working Group. Conroy received a B.B.A. from the University of San Diego and a J.D. and M.B.A from Santa Clara University.

Conroy serves as a consultant to the American Albacore Fishing Association on fisheries management and marketing related issues. He was employed by Responsible Offshore Development alliance from 2022-2023, which has made public comments about offshore wind development. He serves in an uncompensated position on the California Offshore Wind Energy Fisheries Working Group.

Jeremy M. Firestone

Member

Jeremy Firestone is a Professor at the University of Delaware (UD) in the School of Marine Science and Policy. His research focuses on understanding public attitudes toward, and human behavior regarding, renewable energy technology, particularly offshore wind power, using survey research and semi-structured interviews. Other research foci include Indigenous rights, marine spatial planning, and ocean and coastal law and governance. Firestone was a co-founder and previously served as Director of UD's interdisciplinary Center for Research in Wind. Prior to his doctoral studies, he was an Assistant Regional Counsel for the U.S. Environmental Protection Agency and an Assistant Attorney General for the State of Michigan. Firestone serves on the Mid-Atlantic Fishery Management Council's Ecosystem and Ocean Advisory Panel. He received a B.S in cellular and molecular biology, a J.D. from the University of Michigan, and a Ph.D. in public policy analysis from the University of North Carolina. Firestone is a member of the National Academies Committee on Offshore Science and Assessment.

Firestone served in an uncompensated position as the Director of First State Marine Wind, LLC (FSMW), a jointly owned company between a privately held, 100% UD owned company (Blue Hen Wind, Inc.), and Siemens Gamesa Renewable Energy until 2022. FSMW's sole asset is a 2MW onshore wind turbine adjacent to UD's coastal campus which is used for research and supplies energy to the campus and the Lewes, DE community. He has also made numerous public statements regarding offshore wind development.

Stephen H. Joner

Member

Steve Joner is a professional consultant for the Makah Tribe's Fisheries Management program. He has been with the Makah Tribe's Fisheries Management program for more than forty years in positions including Biologist, Fisheries Director, and Chief Biologist. His work with the Tribe has included developing and managing the Makah hatchery program for chinook, coho, and sockeye salmon, managing the Makah salmon troll and gillnet fisheries, and developing and managing the Makah groundfish and halibut fisheries, including the Pacific hake (whiting) fishery. Joner represents the Tribe's interests at the state, regional, and international levels, currently serving as a U.S. commissioner on the United States - Canada Pacific Hake Joint Management Committee and is active in the Pacific Fishery Management Council, serving on the Marine Planning Committee and on the Groundfish Advisory Panel. He represents the Tribe on the Olympic National Marine Sanctuary Intergovernmental Policy Council. He previously served on the federal Marine Fish Advisory Committee. Following six years of military service, Joner received a B.S. in fisheries science from the University of Washington. Joner is a member of the National Academies of Sciences, Engineering, and Medicine's Committee on Offshore Wind Energy and Fisheries.

Joner is employed by the Makah Indian Tribe who have made statements about offshore wind energy development.

Rebecca L. Lewison

Member

Rebecca Lewison is an applied conservation ecologist and professor at San Diego State University and is the co-director of the Institute of Ecological Monitoring and Management. Her research is aimed at improving and expanding the science of conservation in the context of climate resilience: presenting new paradigms for ocean and land use management, oceanscape and landscape connectivity, and developing new applications for in situ biological data, remotely sensed data, and climate models. In marine systems, this research has led national efforts in support of dynamic ocean management, strengthening integrative and application-ready approaches to oceanscape analyses. Lewison’s recent research activities highlight her commitment to science innovation through both interdisciplinary and transdisciplinary approaches. Lewison received a B.S. from Vassar College and a Ph.D. in ecology from the University of California, Davis.

Lewison co-authored the article “Integrating Oceans into Climate Policy: Any Green New Deal Needs a Splash of Blue” in Conservation Letters in 2020 that discussed how oceans fit into climate policy that discusses marine renewable energy.

Brian K. Penoyer

Member

Brian Penoyer is a senior associate (non-resident) at the Center for Strategic and International Studies. Previously he served in the U.S. Coast Guard (USCG) and retired as a Rear Admiral. While in the USCG he served as the Director of the Coast Guard Talent Management Transformation, Assistant Commandant for Human Resources, the Commander of the Eleventh Coast Guard District responsible for operations along the Pacific rim of North America, Commander of the Coast Guard Force Readiness Command, and the Commander of the Fourteenth Coast Guard District responsible for operations in the Central Pacific. Penoyer is a commercial vessel inspector, investigating officer, and experienced maritime incident responder who has served and responded to a variety of incidents including Deepwater Horizon, Hurricane Katrina, and Hurricane Sandy. His research interests include digital and talent management transformation, climate change and security, and emerging threats to global maritime governance and security. He is a life member of the U.S. Naval Institute and has been appointed to the Advisory Board for the University of Chicago Harris School of Public Policy Cyber Policy Initiative. Penoyer received a B.A. in political science, physics, and mathematics from the University of Chicago, an M.P.P in environmental policy from the University of Maryland, and an M.A. in national security and strategic studies from the Naval War College.

Tracy Phillips

Member

Tracy Phillips served for 25 years in the U.S. Coast Guard and retired as a Captain as the Chief of the Prevention Division of the Coast Guard’s Eighth District. Her previous roles included Chief of the Tank Vessel & Offshore Division for the Coast Guard’s Marine Safety Center in Washington, DC, Chief of the Inspection Division for Sector San Francisco, and Prevention Department Head for Sector New Orleans. Phillips is a current member of the Society of Naval Architects and Marine Engineers and has chaired a formal Coast Guard investigation regarding the capsizing of a liftboat. Her work has included managing commercial vessel inspections and investigations, issuing maritime policy and guidance, executing key decisions to control vessel navigation and to open/close traffic on the Mississippi River. Philips’ first Coast Guard assignment was on a buoy tender based in San Francisco, where she navigated the ship up and down the west coast of the United States. She received a B.S. in marine and environmental science from the U.S. Coast Guard Academy, and an M.S. in mechanical engineering, and MEng in concurrent marine design from the University of Michigan. Phillips served as a member of the National Academies Committee on Improving the Efficiency and Effectiveness of the Coast Guard Certificate of Compliance Examination Program for Liquefied Gas Carriers.

Robert Sheppard

Member

Robert Sheppard is a Senior Consultant with Spire Engineering Services LLC. He has over 30 years of experience in structural engineering with a focus on assessment and repair of offshore structures and structural integrity management. His experience covers both fixed and floating offshore systems and includes inspection activities, repairs and modifications, and operations. Sheppard has been actively involved in the development of offshore standards including integrity management recommended practices for the American Petroleum Institute and the International Organization for Standardization (API RP 2SIM and RP 2FSIM, ISO 19901-9), and the American Clean Power offshore wind recommended practices for fixed and floating installations (OCRP-1 and OCRP-2). He has worked on projects for the Minerals Management Service (now the Bureau of Safety and Environmental Enforcement), addressing hurricane impacts and offshore wind inspection guidelines. Sheppard is a registered civil engineer in California and Texas. He received a B.S. in civil engineering from Rice University and an M.S. in structural engineering from the University of California, Berkeley. Sheppard previously served as a member of the National Academies committees on Offshore Windfarm Worker Safety, Offshore Wind Energy Turbine Structural and Operating Safety, and Review and Update of BSEE Offshore Oil and Gas Operations Inspection Program.

Annette von Jouanne

Member

Annette von Jouanne is an Energy Systems professor in the Department of Electrical & Computer Engineering at Baylor University and the Director and Founder of the Baylor Energy & Renewable Systems Laboratory. Von Jouanne’s research specializes in power electronics and power systems, renewables with a focus on wave energy, advanced inverters using wide bandgap SiC and GaN systems, electric motor-drive systems including application issues, electric and hybrid vehicles and sustainable transportation systems. Previously von Jouanne was a professor in the School of Electrical Engineering and Computer Science at Oregon State University where she initiated the Wave Energy Program and helped develop the Northwest National Marine Renewable Energy Center. She is a registered professional engineer. Von Jouanne received a B.S. in electrical engineering and M.S. in electrical engineering/power systems from Southern Illinois University and a Ph.D. in electrical engineering/power electronics from Texas A&M University in 1995.

Caroline Bell

Staff Officer

Mark Hutchins

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