Speaker Biographies
HSRP Virtual Public Meeting, September 1-2, 2021

Table of Contents (Updated Aug 16, 2021) PAGE

Elizabeth Dewing Andrews, Ph.D.

Lead Geophysicist, Ørsted Offshore North America

A graduate of Brown University and University of Southampton, UK, Dr. Betsy Andrews has a broad background in marine science with a doctorate in maritime archaeology. Wrapping up her academic study, Betsy spent 5 years working offshore as a geophysical survey contractor and, later, as Head of Geosciences, CAD and GIS for EGSi, UK. In 2015, she joined Ørsted to work on the Hornsea Offshore Wind Projects in the North Sea and has taken a primary role in forming Ørsted's technical specifications and methodological approaches for geophysical survey. She's been involved in the Site Investigations for Ørsted's first US projects since their start in 2016. Following a move to the US at the start of 2020, Betsy took on the role of Lead Geophysicist for Ørsted's US region. She's passionate about the wind farm industry and her team's guiding aim to maximize value from well-tailored, high quality Site Investigation data.

Captain (NOAA, ret.) Andrew A. Armstrong III

Co-Director, NOAA-University of New Hampshire Joint Hydrographic Center

Captain (NOAA, ret.) Andrew Armstrong is Co-Director of the NOAA/University of New Hampshire Joint Hydrographic Center where he leads NOAA's role in the research, mapping and educational programs of the Center. He is the Bathymetric Data Acquisition team leader for the U.S. Interagency Extended Continental Shelf Task Project where he has been responsible for mapping nearly 875,000 square nautical miles of the seafloor in the Arctic Ocean, the U.S. Pacific Islands, and along the U.S. Atlantic and Pacific margins. Andy joined the NOAA Commissioned Officer Corps in 1974, following 4 years of commissioned service in the U.S. Navy. He retired from the NOAA Corps in 2001, continuing with NOAA as Co-Director of the Joint Hydrographic Center in a civil service capacity. Throughout his NOAA career, he has specialized in hydrographic surveying and seafloor mapping. He has served on several NOAA hydrographic ships and field parties, conducting hydrographic and bathymetric surveys in Alaska and Hawaii, along the Pacific, Atlantic, Gulf of Mexico coasts, and in the Great Lakes. He served as commanding officer of *NOAA Ship Peirce* and *NOAA Ship Whiting*, and as chief of NOAA's Hydrographic Surveys Division. He has a B.S. in geology from Tulane University and an M.S. in technical management from The Johns Hopkins University.

Ms. Juliana P. Blackwell

Director, National Geodetic Survey, NOS, NOAA

Ms. Juliana P. Blackwell is the Director of NOAA's National Geodetic Survey (NGS). As Director, she is responsible for the financial, administrative and programmatic performance of NGS, the lead federal agency for positioning activities in the Nation. She oversees the management and delivery of the National Spatial Reference System (NSRS), the nation's consistent coordinate system for latitude, longitude, height, shoreline, gravity measurements and shoreline information throughout the United States. NSRS supports a wide range of important activities including mapping and charting, navigation, flood risk determination, transportation, land use and ecosystem management. Ms. Blackwell serves as Chair of the Federal Geodetic Control Subcommittee of the Federal Geographic Data Committee, exercising government-wide leadership in the development and improvement of geodetic surveying specifications, methods, instrumentation, and data transfers. She represents NOAA on the interagency Alaska Mapping Executive Committee and the 3D Elevation Program Executive Forum. A graduate of Tufts University, Ms. Blackwell earned a B.S. in mathematics. She received a MBA from the University of Maryland's Robert H. Smith School of Business.

Mary Boatman, Ph.D.

Science Coordinator, Office of Renewable Energy Programs, Bureau of Ocean Energy Management

Dr. Mary C. Boatman serves as the Environmental Studies Chief for the Office of Renewable Energy Programs within the Bureau of Ocean Energy Management (BOEM). She coordinates the scientific studies funded by BOEM in support of renewable energy along the Atlantic. She participated in regional ocean planning and support for sharing scientific information in regional data portals. Her area of expertise is Chemical Oceanography, but she has worked in a multi-disciplinary capacity at BOEM for over two decades.

Capt. (US Navy, Ret.) Brian Connon

Vice President for Ocean Mapping, Saildrone LLC

Captain Brian Connon, US Navy (Ret) became Vice President, Ocean Mapping at Saildrone, Inc. in December 2020 after serving as Director of the University of Southern Mississippi's Hydrographic Science Research Center since 2018. A 28 year veteran of the US Navy, he directed the National Geospatial-Intelligence Agency's Maritime Safety Office, served as Superintendent of the US Naval Observatory, Deputy Oceanographer/Navigator of the Navy, Deputy Hydrographer of the Navy, and Commanding Officer of the Navy's Fleet Survey Team. A certified hydrographer, he holds a BS in Geography from the University of South Carolina, an MS in Oceanography and Meteorology from the Naval Postgraduate School in Monterey, CA, and an MS in Hydrography from the University of Southern Mississippi. He is a Chartered Marine Scientist (Hydrography) and Fellow of the Institute for Marine Engineering, Science and Technology. He also serves as Editor for the International Hydrographic Review and is a Trustee of The Hydrographic Society of America.

Mr. Sean M. Duffy, Sr.

Executive Director, Big River Coalition

Mr. Duffy directs the Big River Coalition which is committed to protecting maritime commerce across the Mississippi River and Tributaries (MRT). He leads the Coalition which focuses on maximizing transportation efficiencies on the deep-draft ship channel from Baton Rouge to the Gulf of Mexico with a dedicated focus on channel maintenance. The Big River Coalition is at the forefront of efforts to deepen the Mississippi River Ship Channel to 50 feet. He spearheads the visions of the future of the MRT to ensure that systematic approaches protect maritime trade by maintaining fully authorized channel dimensions while also updating and maintaining navigation infrastructure, specifically the locks and dams along the MRT. The Big River Coalition missions are focused on securing increased funding from the Harbor Maintenance Tax and the Inland Users Fuel Tax, efforts to deepen the Lower Mississippi River to 50 feet and to increase the beneficial use of dredge material or "sediment recycling." Mr. Duffy serves as an Executive Vice President / Maritime Advocate for the parent company the New Orleans Steamship Association dSouth A.b.a. Louisiana Maritime Association. Mr. Duffy is a proponent for local industry specializing in advocating on Capitol Hill to secure supplemental funds for maintenance dredging and waterway maintenance. Previous employment experiences include various management positions, Boarding Agent, Deckhand, Stevedore General Superintendent and Marine Surveyor. Mr.

Duffy is familiar with obstacles faced by the maritime industry, both nationally and those specific to Louisiana, and has been recognized for his efforts on coastal restoration through maintenance dredging. He became the HSRP co-chair in March 2021.

Mr. Richard Edwing

Director, Center for Operational Oceanographic Products and Services, NOS, NOAA

Richard Edwing is the director of **NOAA's Center for Operational Oceanographic Products and Services** (CO-OPS), the nation's authoritative source for accurate, reliable and timely water-level and current measurements. In his role, he oversees and continues to improve this 24-hour a day operation to provide mariners, coastal managers, and many other users with real-time data on ocean conditions along America's 95,000-mile coastline. His career with NOAA spans three decades with much of that time spent advancing NOAA's navigation services mission to provide the nation with up-to-date ocean, weather, mapping and positioning data and tools for safe transits to and from U.S. ports. He started in 1976 in the Marine Boundary Program, a partnership between NOAA and coastal states to establish tidal data such as base elevations in sensitive wetland areas vulnerable to urban growth. He was the division chief of NOS's policy, planning and analysis division, where he shaped NOAA's priorities for ocean issues, as well as identified budget needs to advance and modernize ocean science. He graduated from George Washington University (1976) with a B.S. in oceanography, and completed graduate level work in civil engineering at the University of Maryland. For two hundred years, CO-OPS and its predecessor agencies have provided the critical oceanographic data needed to protect life, property, and the marine environment. The Center manages NOAA's Physical Oceanographic Real-Time System, the National Water Level Program, and National Current Observation Program - major national systems critical to keeping America's oceans, coasts, and Great Lakes safe, healthy and productive.

Ms. Deane Hargrave

Geoscience Manager, Atlantic Shores Offshore Wind LLC

Ms. Hargrave is planning, executing and delivering technically complex and logistically challenging offshore geophysical projects for Atlantic Shores Offshore Wind LLC and recently worked for Shell for six years. Over the past 20 years, she has conducted numerous shallow hazard surveys, geotechnical investigations, seep surveys, and navigational positioning projects at worldwide locations. Deanne strives to anticipate industry technical requirements, interpret regulatory trends, and adopt innovative technologies. She began her career in 1998 as a geotechnical engineer conducting onshore investigations with GeoEngineers. Beginning in 2004, she was project manager and party chief for offshore geophysical and geotechnical investigations throughout Alaska and was instrumental in creating Geo LLC, a company specializing in shallow hazard surveys for the oil and gas industry. In 2011, after acquisition of Geo LLC by Fugro, she was promoted to Operations

Manager for Fugro Geo Services - Alaska, supervising technical personnel, implementing quality, health, safety and environmental management systems, and managing operations/logistics for large offshore projects in Alaska, Caribbean, Brazil, and New Zealand. In 2014, she joined Shell in Alaska to deliver seabed clearance/ geotechnical investigations and environmental baseline surveys. Deanne was responsible for implementing Shell's multi-year Marine Mammal Monitoring and Mitigation Program, including an industry-leading underwater sound source verification program, and improved logistics and operational efficiency by managing project risks and collaborating with stakeholders. She successfully identified two innovative methods for completing subsea construction activities necessary in Arctic waters. She completed a B.S. in Civil Engineering at Gonzaga University, continuing education in Arctic Engineering and Project Management at the University of Alaska Anchorage, and is a Professional Engineer licensed in Alaska and Texas.

CDR Briana Welton Hillstrom

Chief, Hydrographic Services Division, OCS, NOS, NOAA

CDR Briana Welton Hillstrom has been a NOAA Commissioned Corps Officer for 17 years, with nearly nine years in sea assignments on all four of NOAA's hydrographic ships – *Rainier, Fairweather, Ferdinand R. Hassler,* and *Thomas Jefferson* – mapping on both coasts of the United States, Gulf of Mexico, Caribbean, and Arctic. CDR Hillstrom is the new Chief, Hydrographic Surveys Division in OCS and served throughout the Office of Coast Survey (OCS), from the mobile units of *Bay Hydrographer* and Navigation Response Team 7; Mid-Atlantic Navigation Manager; and Chief of the Atlantic Hydrographic Branch. She was the former Commanding Officer of NOAA Ship *Thomas Jefferson,* NOAA's 2020 Ship of the Year, homeported in Norfolk, Virginia, where she leads a crew of 36 professional mariners mapping the seafloor for nautical chart update and hurricane response. CDR Hillstrom has a bachelor's degree in mathematics from Smith College in Northampton, Massachusetts, and a Master's of Science in Ocean Engineering Ocean Mapping from the University of New Hampshire. Her received a Commerce Gold Medal for her work in taking a new Navigation Response Team to Vieques Island, Puerto Rico, to survey unexploded ordinance for the U.S. Navy; a NOAA Corps Commendation Medal for leading *Fairweather* in its most productive field season just after receiving and integrating four brand new survey launches and the ship's first Arctic project in 2010; and the Association of Commissioned Officers Science and Engineering Award for work on in situ field acoustic calibration methods of hydrographic multibeam sonars. CDR Hillstrom is a member of The Hydrographic Society of America (THSOA); and is a CAT A hydrographer.

Ms. Nicole R. LeBoeuf

Assistant Administrator, National Ocean Service, NOAA

Nicole R. LeBoeuf is the Assistant Administrator for the National Oceanic and Atmospheric Administration's National Ocean Service, an organization of 1,800 staff in more than 50 locations around the country. Ms. LeBoeuf oversees all strategic and operational aspects of America's premiere coastal and ocean agency, which provides science-based solutions through collaborative partnerships to address evolving economic, environmental, and social pressures on our ocean, coasts, and coastal communities. She worked on a wide range of issues from protected species conservation and oil spill response to international treaty negotiation. Prior to joining NOS, Ms. LeBoeuf served as Acting Deputy Director of the Office of Protected Resources in NOAA Fisheries, where she maintained oversight of a diverse protected species conservation and management portfolio. Before that, she spent four years as the Chief of the Marine Mammal and Sea Turtle Conservation Division in the Office of Protected Resources. Her work included, among numerous duties, application of scientific information to implement the Marine Mammal Protection Act and the Endangered Species Act and is a subject matter expert in the implementation of this legislation. Ms. LeBoeuf served in the NOAA Budget Office as NOAA's finance lead during the Deepwater Horizon oil spill. Her international expertise includes overseeing NOAA's Antarctic Treaty System responsibilities, coordinating protected species bycatch reduction efforts in multiple tuna treaties, and representing NOAA at the U.N. General Assembly regarding the protection of deep sea corals. Ms. LeBoeuf holds a B.S. in Marine Biology from Texas A&M University and a M.S. in Sustainable Development and Conservation Biology from the University of Maryland.

Ms. Carol Lockhart

Vice President and Chief Hydrographer, Woolpert Inc.

Woolpert Vice President and Chief Hydrographer Carol Lockhart is a world-renowned expert in the hydrographic and bathymetric surveying industry. Carol is known for developing process workflows for new technology and adeptly managing large volume datasets. She has been involved with the acquisition and processing of sonar data and coastal topo and bathy lidar data, for over 25 years. She has acquired bathy lidar data worldwide and has been involved with the processing of coastal topo and bathy lidar data from most sensors available on the market. She was a member of the HSRP for 8 years and owned Geomatics Data Solutions, Inc. Lockhart is member of the Hydrographic Society of America (THSOA). She is a recipient of the "Lt. Cmdr. Peter Johnson Best Practices Award" from the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) and the "Sebastian Sizgoric Technical Achievement Award" for her work with multiple bathymetric lidars.

Mr. Duncan Mallace

Chief Strategy Officer, XOCEAN

Duncan is a graduate of the University of Newcastle Upon Tyne with a BSc in Surveying Science.

The 90s were spent offshore using early multibeam sonars and acoustic positioning. This led to him setting up the survey company NetSurvey in 2002 as a specialist high resolution survey company & Fledermaus software reseller, which became part of MMT in 2011. In 2015 he left MMT to join QPS as Head of Business Development. In 2017 he saw that, like early multibeam, autonomous technology was the way ahead and that the technology was useable now, but no-one was actually using it, so he formed 4D Ocean. 4D Ocean needed more capable USVs so he started working with XOCEAN. Due to the rapid expansion of both companies it made sense to combine the design and philosophy of XOCEAN with the hydrographic skills at 4D Ocean. In November 2019 4D Ocean became part of XOCEAN.

Mr. John Nyberg

Deputy Hydrographer, OCS NOS, NOAA and acting Designated Federal Officer

John Nyberg's previous positions at NOAA include chief and deputy chief of the Marine Chart Division between 2010 and 2020 where he helped direct Coast Survey's chart modernization to digital products, changing the operational focus from paper-based chart compilation to electronic navigational charts. Prior to his work in the Marine Chart Division, Nyberg spent 12 years in Coast Survey's Navigation Services Division moving from Coast Pilot cartographer to deputy division chief where he helped manage the procurement of the research vessel Bay Hydrographer II and initiated the modernization of the United States Coast Pilot's production system. Nyberg currently serves as co-chair of the United Nations GGIM Working Group on Marine Geospatial Information, chair of the IHO WEND-WG, and vice-chair of the IHO IRCC. John has a bachelor's degree from the University of Florida, with a major in geography, a master's in international management from the University of Maryland, and is currently working on a PhD in geographic science at George Mason University.

Mr. Mark Osler

Senior Advisor for Coastal inundation and Resilience, NOS, NOAA

Mark Osler is the Senior Advisor for Coastal Inundation and Resilience for the U.S. National Oceanic and Atmospheric Administration (NOAA). His leadership advances coastal inundation science and the ability of decision makers to prepare for and respond to changes affecting the nation's coastlines. He serves as senior advisor to NOAA leadership on defining research, applied science, and policy priorities related to understanding and reducing impacts of coastal risk to the public, our national security, and our nation's economy. Mark's inter-agency leadership includes: U.S. Government representative to the G7's Ocean Risk and Resilience Action Alliance; Co-chair of the Coasts Workgroup within the U.S. Global Change Research Program; NOAA representative within various White House interagency fora including the National Security Council, Office of Science and Technology Policy, and the Council on Environmental Quality. Prior to joining NOAA Mark worked for 17 years in the private sector. He holds a B.S. in civil engineering from Lehigh University and a M.S. in coastal engineering from the University of Delaware's Center for Applied Coastal Research.

Ruth Perry, Ph.D.

Business Environment Advisor, Offshore Wind Americas, Shell Renewables and Energy Solutions

Dr. Perry has worked as a marine scientist and regulatory policy specialist for Shell, centered in Houston Texas. Her work focuses on stakeholder engagement in resource, policy, and environmental issues. Since coming to Shell in 2014 she has been on several projects, including a partnership with the University of Southern Mississippi that used gliders to improve forecasting. The projects are diverse, and also include the use of ROVs and an ocean acidification study. Before her current job at Shell Dr. Perry was a research scientist at the Houston NOAA office working for GCOOS, where her responsibilities included stakeholder and public engagement after the Deepwater Horizon spill.

Mr. Ed Saade

Mr. Edward J. Saade, Group Director Americas, President USA, Fugro Inc.

Edward J. Saade has 40+ years of Hydrographic, Coastal Zone Management, Geospatial Survey and Ocean Engineering experience. Since 2014, Mr. Saade has been serving as Americas Regional Director for the Fugro Marine Division and in June of 2015 was promoted to the President of Fugro (USA) Inc., serving Fugro in both capacities. His responsibilities include the management of the largest of Fugro's Regional Divisions, overseeing a staff of 1200, operating from eleven primary offices located from Alaska and Canada to Brazil, with multiple offices in the USA, Mexico, Colombia and Trinidad and Tobago; operating in virtually every country in the Region. He has overseen the

expansion of Fugro's capabilities to become the world leader in hydrographic LiDAR, multi-beam and backscatter data acquisition and mapping techniques for charting, Coastal Zone and Essential Fish Habitat analysis. These techniques have been directly applied to the offshore oil and gas and construction industries and a wide variety of national hydrographic offices including NOAA, CHS (Canada), GCS (Kingdom of Saudi Arabia, RAN (Australia) and SHOM (France). He has been actively involved in high resolution geophysical survey data acquisition and interpretation programs, both domestically and overseas. He holds a B.S. in geology from the University of California, Santa Barbara, and completed Ph.D. courses and research in marine geophysics at the Hawaii Institute of Geophysics. Mr. Saade is a California Professional Geophysicist, and has authored/coauthored over 70 reports and studies related to seafloor geology and sub-bottom conditions. He served as the HSRP chair for 3 years.

Dr. Richard W. Spinrad

Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

Richard (Rick) W. Spinrad, Ph.D., was sworn in on June 22, 2021 as the 11th NOAA Administrator. He is responsible for the strategic direction and oversight of the agency and its 12,000 employees, including developing NOAA's portfolio of products and services to address the climate crisis, enhancing environmental sustainability, fostering economic development, and creating a more just, equitable, diverse, and inclusive NOAA workforce. At Oregon State University (OSU), he served as a Professor of Oceanography and the Vice President for Research. At NOAA, he served as: NOAA's Chief Scientist under President Barack Obama from 2014-2016; led NOAA's Office of Oceanic and Atmospheric Research and National Ocean Service from 2003-2010; was the U.S. permanent representative to the United Nations' Intergovernmental Oceanographic Commission (2005-2009); and co-led the White House Committee that developed the nation's first set of ocean research priorities and oversaw the revamping of NOAA's research enterprise, including the development of the agency's Scientific Integrity policy. Prior to NOAA, he held leadership positions at the U.S. Office of Naval Research and Oceanographer of the Navy, where he was awarded the Distinguished Civilian Service Award — the highest award from the U.S. Navy to a civilian. He held faculty appointments at the U.S. Naval Academy and George Mason University; served as Executive Director at the Consortium for Oceanographic Research and Education where he developed the National Ocean Sciences Bowl for high school students. He is the recipient of Presidential Rank Awards from presidents George W. Bush and Barack H. Obama. He is the past president of The Oceanography Society and the Marine Technology Society, a Fellow of the American Meteorological Society, and the Institute of Marine Engineering, Science and Technology (IMarEST), and an IMarEST

Chartered Marine Scientist. Dr. Spinrad received his B.A. in Earth and Planetary Sciences from The Johns Hopkins University, and his M.S. and Ph.D. in Oceanography from OSU.

Richard P. Stumpf, Ph.D.

Oceanographer, National Centers for Coastal Ocean Science, NOS, NOAA

Dr. Stumpf has over thirty years of experience in coastal oceanography. He develops methods for the use of satellite data and modeling in support of NOAA's requirements in coastal bathymetry, habitat change, coastal eutrophication, and algal bloom monitoring and forecasting. He received a B.A. degree in the Environmental Sciences from the University of Virginia, and M.S. and Ph.D. degrees in Marine Studies from the University of Delaware.

Ms. Julie Thomas

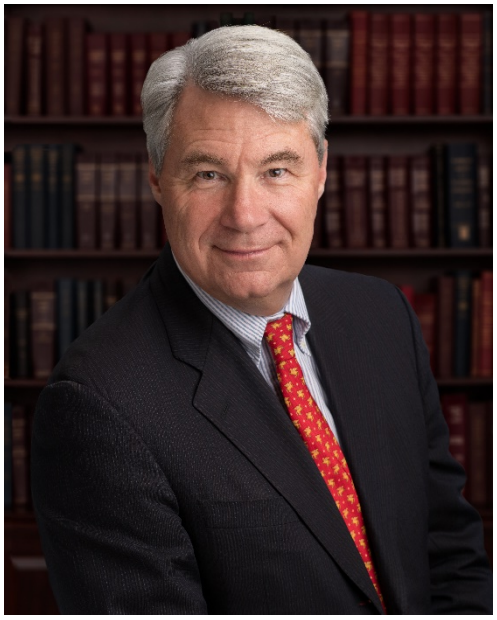
Ms. Julie Thomas, Senior Advisor, Southern California Coastal Observing System (SCCOOS) and Coastal Data Information Program (CDIP), Scripps Institution of Oceanography (retired)

Since 1976, Julie Thomas worked at the Scripps Institution of Oceanography, and during the last several years, served as the Program Manager and Principal Investigator for the Coastal Data Information Program (CDIP). She served as the Executive Director for the Southern California Coastal Ocean Observing System (SCCOOS) from 2009 to 2018. She is now serving in an Advisory capacity for both of the above mentioned programs. She worked with a breadth of projects. She has been an advocate for sustained funding for real-time monitoring and model validation, working closely with many federal agencies, in particular the U.S. Army Corps of Engineers (USACE) and NOAA. She has worked closely with many of the coastal USACE whose projects are dependent upon high quality, long-term wave data, realizing that this long term history is critical in infrastructure design and repair. Through the State of California, she has obtained sustained project funding, working closely with the recreational and commercial maritime community, including the Coast Guard and state Oil Spill Prevention and Response agencies. At the local and regional level, she is engaged with coastal issues, particularly those that are affected by energetic wave action, providing data for infrastructure design, shoreline change and sea level rise. Ms. Thomas has extensive outreach experience. She has focused on listening to comments from the maritime users/operators, spent many hours walking the fishing docks with nautical chart in hand, discussing the best location for a buoy deployment, and attending the maritime industry meetings to help resolve their concerns. Her priority is to maintain standards for collecting and disseminating high quality data, assure the data are curated and archived at the NOAA National Centers for Environmental Information (NCEI), and advocate for the integration and communication of information that helps ensure safety, economic

and environmental resilience, and the sustainable use of coastal oceans. She is the outgoing co-chair of HSRP and will become the chair on March 5, 2021.

Senator Sheldon Whitehouse

Senator for the State of Rhode Island



Sheldon Whitehouse is a lawyer and politician serving as the junior United States Senator from Rhode Island since 2007. A member of the Democratic Party, he served as a United States Attorney from 1993 to 1998 and the 71st Attorney General of Rhode Island from 1999 to 2003. Senator Whitehouse has been at the center of bipartisan efforts to pass laws overhauling federal education policy, rebuilding our nation's infrastructure, reforming the criminal and juvenile justice systems, protecting Americans from toxic chemicals in everyday products, and addressing ocean plastic waste. Representing the Ocean State, Whitehouse plays a key role in crafting policies addressing climate change, environmental protection, and a price on carbon. He passed into law a dedicated fund to support ocean and coastal research and restoration and bipartisan legislation to confront the crisis of marine plastic and other waste polluting our oceans. He worked to enact bipartisan measures to reduce carbon pollution and boost America's clean energy economy. A graduate of Yale University and the University of Virginia School of Law. He serves on the Finance Committee, the Judiciary Committee, the Environment and Public Works Committee, and the Budget Committee.