



On March 4, 2011, the eighth conference in the "Toward a Sustainable 21st Century" series will be held at the Arnold and Mabel Beckman Center of the National Academies of Sciences and Engineering. The series itself is an initiative of a foundation of global reach and a research university to do together more than they can do separately on significant unsolved problems impacting society. This eighth conference in the series is on the topic of "Enhancing the Future of the California Coast" with a Case Study of the Orange County Coast. The program will focus on different perspectives on preserving the rich California marine environment, including an understanding of the underlying science behind conservation initiatives, approaches to laws aimed at protecting and enhancing the environment, and policy interventions that have been attempted in the past and should be considered in the future.

9:00-9:05 a.m.

**WELCOME**

**Chancellor Michael V. Drake**  
*University of California, Irvine*

9:05 a.m.-9:50 a.m.

**Protecting and Recovering the Mosaic of California's Marine Ecosystems: A Win-Win Approach for Conservation and Jobs**

**Elliott Norse**

*President, Marine Conservation Biology Institute*

Dr. Elliott Norse has worked at the conservation science-policy interface for his entire career. After earning his B.S. in Biology from Brooklyn College, he studied the ecology of blue crabs in the Caribbean for his Ph.D. at University of Southern California and his Postdoctoral Fellowship at University of Iowa. Starting in 1978, he worked at the US Environmental Protection Agency, President's Council on Environmental Quality (where he defined biological diversity as conservation's overarching goal), Ecological Society of America, Wilderness Society, and Ocean Conservancy before founding MCBI in 1996. Dr. Norse's 140+ publications include 4 books: *Conserving Biological Diversity in Our National Forests* (1986), *Ancient Forests of the Pacific Northwest* (1990), *Global Marine Biological Diversity: A Strategy for Building Conservation into Decision Making* (1993) and *Marine Conservation Biology: The Science of Maintaining the Sea's Biodiversity* (2005). He is a Pew Fellow in Marine Conservation and Adjunct Professor of Marine Conservation Science and Policy at Duke University Marine Laboratory. He has served as President of the Society for Conservation Biology's Marine Section, received the Nancy Foster Award for Habitat Conservation from the National Marine Fisheries Service, and was named a Distinguished Alumnus by Brooklyn College in 2008.

10:00 a.m.- 10:45 a.m.      **The Legal Terrain of Coastal Protection**

**Michael Robinson-Dorn – Moderator**

School of Law, University of California, Irvine

**Richard Hildreth**

*Bernard B. Kliks Professor*

*Director, Ocean and Coastal Law Center, University of Oregon, Eugene*

Professor Hildreth is the author of three casebooks and many other publications on ocean and coastal law. He has consulted frequently with federal and state coastal management agencies in the U.S. and Australia and with Pacific Island governments on environmental legal matters. Hildreth served as the University of Queensland Law Faculty's 50th Anniversary Visiting Fellow. He has served on the National Research Council's Nonnative Oysters and Coastal Ocean Committees, the Pacific Northwest Regional Marine Research Board, and the editorial advisory boards of the journals *Coastal Management* and *Ocean Development and International Law*. Hildreth practiced business law with Steinhart & Falconer in San Francisco before teaching law. The University of Oregon's Ocean and Coastal Law Center is an institute dedicated to research and education in the law and regulations that concern and affect the uses of the oceans, its resources, and the coastal zone. Located in the university's William W. Knight Law Center, the Center combines the efforts of law faculty specialists and advanced law students to research and analyze current ocean and coastal law topics and to publish the results of this research in books and law journals and on the Center's web site. This work is greatly facilitated by the Center's specialized, professionally managed library collection, housed in the John E. Jaqua Law Library.

10:45 a.m. – 11:00 a.m.      **Coffee Break**

11:00 a.m. – 11:45 a.m.      **Policy Terrain For Ocean and Coastal Protection**

**Brian Baird**

*Assistant Secretary*

*Ocean and Coastal Policy, Natural Resources Agency*

*State of California*

Brian E. Baird is the Assistant Secretary for Ocean and Coastal Policy with the California Natural Resources Agency. He currently serves as the Director of the California Ocean Resources Management Program under Governor Edmund G. Brown Jr., and has served in this role under Governors Schwarzenegger, Davis and Wilson. He was the chief writer of Governor Wilson's statewide strategy for protecting and managing the State's ocean resources titled, *California's Ocean Resources: An Agenda for the Future* (Ocean Agenda) and was the chief writer of Governor Schwarzenegger's 2004 strategy titled, *Protecting Our Ocean – California's Strategy for Action* (Ocean Action Plan). Assistant Secretary Baird has been appointed to numerous state and national commissions, panels, and committees regarding ocean and coastal management. He currently represents the Governor as California's representative on the Coastal States Organization, the West Coast Governors' Agreement on Ocean Health and on the Pacific Coast Collaborative. He has received several state and national awards including the designation as an NOAA National Environmental Hero, Outstanding Alumni for Environmental Studies at UC Santa Barbara, and recipient of NOAA's first Susan Snow-Cotter Award for Excellence in Ocean and Coastal Management.

11:45 a.m.-12:00 p.m.      **Questions for Brian Baird and Richard Hildreth**

12:00 p.m.-1:00 p.m.

**Lunch**

1:00 p.m.-2:45 p.m. **Future Visions Of Law, Governance, and Science for the California Coast**

**David L. Feldman - Moderator**

*Chair of the Department of Planning, Policy and Design, University of California, Irvine, and Professor of Political Science*

**Margaret Caldwell**

*Director, Environmental and Natural Resources*

*Law & Policy Program*

*Executive Director, Center for Ocean Solutions, Woods Institute for the Environment, Stanford University Law School*

Meg Caldwell has worked as an attorney, professor, and board member in the field of environmental law. Her scholarship has focused on the environmental effects of local land use decisions, the use of science in environmental and marine resource policy development and implementation, and developing private and public incentives for natural resource conservation. In addition to her role as lecturer in law, Caldwell directs the Environmental and Natural Resources Law and Policy Program at the law school. Caldwell also has an appointment with the Woods Institute for the Environment where she serves as executive director of the Center for Ocean Solutions. The center is a collaboration between Stanford, the Monterey Bay Aquarium, and the Monterey Bay Aquarium Research Institute whose core mission is to increase the impact of the natural, physical and social sciences on ocean policy. She was selected as the chair of the California Coastal Commission and served on that body for nearly three years. While chair of the Commission, Caldwell also served on the board of the California Coastal Conservancy. She was appointed by the State Secretary of Resources to the California Marine Life Protection Act Blue Ribbon Task Force for the central and north central coasts and is currently serving on the Third Phase Blue Ribbon Task Force for the south coast. Before joining the Stanford Law School faculty in 1994, Caldwell was an instructor at San Jose State University and the University of California, Davis; counsel for MicroCLEAN, Inc.; a member of the City of Saratoga Planning Commission; and an associate in the environmental law group of McCutchen, Doyle, Brown & Enersen.

**Deborah Ann Sivas**

*Luke W. Cole Professor of Environmental Law*

*Director, Environmental Law Clinic, Stanford University Law School*

Deborah A. Sivas is director of the Environmental Law Clinic at Stanford University in which students provide legal counsel to dozens of national, regional, and grassroots nonprofit organizations on a variety of environmental issues. Professor Sivas's litigation successes include challenging the Bush administration's gas mileage standards for SUVs and light trucks and holding the U.S. Environmental Protection Agency accountable for regulating the discharge of invasive species in ship ballast water. Her current research is focused on the interaction of law and science in the arena of climate change and coastal/marine policy and the ability of the public to hold policymakers accountable. She is a frequent speaker on these topics. Prior to assuming the clinic directorship in 1997, Professor Sivas was a partner at Gunther, Sivas & Walthall, an attorney with Earthjustice (formerly Sierra Club Legal Defense Fund), an associate in the environmental practice group at Heller Ehrman, and a law clerk to Judge Judith N. Keep of the U.S. District Court for the Southern District of California. She currently serves as chair for the board of directors for the Turtle Island Restoration Network. In recognition of her work on behalf of the environment, *California Lawyer* magazine named Professor Sivas one of its 2008 Attorneys of the Year.

**Gail Osherenko**

*Project Scientist and Lecturer, Marine Science Institute  
Bren School of Environmental Science and Management  
University of California, Santa Barbara*

Gail Osherenko is Project Scientist in law and policy at the Marine Science Institute of the University of California, Santa Barbara. She teaches courses in coastal and ocean law and policy in the Bren School of Environmental Science and Management. Her research focuses on property rights and sea tenure, the role of marine spatial planning and ocean zoning, and the effectiveness of the California coastal management regime. She was a principal investigator in the National Center for Ecological Analysis and Synthesis (NCEAS) working group on "Ocean Ecosystem-Based Management: the role of zoning." After receiving her Juris Doctor from UC Davis in 1975, she helped draft California's Coastal Act and create the Santa Monica Mountains National Recreation Area as legislative assistant in the office of Representative Anthony Beilenson. She served as an appellate attorney in the Department of Justice in the late 1980s before moving to Vermont. She taught at Dartmouth College, and served as a member of the Vermont Water Resources Board. A long-time Arctic specialist, her publications include three co-authored books: The Age of the Arctic (1989), Polar Politics (1993), and Siberian Survival: The Nenets and Their Story (1999). Her recent research for UCSB's Marine Science Institute has focused on evaluating the effectiveness of the California coastal zone management program and on marine spatial planning and place-based management of oceans.

2:45 p.m. – 3:00 p.m.

**Coffee Break**

3:00p.m. - 5:00 p.m.

**Citizen Empowerment of Sustainability for the Orange County Coast:  
Lessons Learned for Challenges Ahead**

**Joseph F.C. DiMento -Moderator**

*School of Law and Planning, Policy, and Design; University of California, Irvine*

**Sunny Jiang**

Dr. Jiang's research group focuses on microbial water quality, microbial ecology and environmental impact to human health. She is applying molecular biotechnology tools for assessment and detection of microbial pathogens in the aquatic environment. Professor Jiang holds joint appointments with the Department of Ecology and Evolutionary Biology and Environmental Toxicology program in School of Medicine. She is also a member of Center for Virus Research. Professor Jiang and a team of graduate students charted incidents of poor water quality at Southern California beaches over a 10-year period and the number of ocean-related illnesses reported at the Surfrider Foundation website during the same timeframe. The two were overlapped, their peaks and valleys matched up perfectly. "The correlation was more than 96 percent," says Jiang, Professor of Civil & Environmental Engineering. "It's another indication that water quality definitely affects human health." For those who play in the ocean off California's coast, pollution has proved to be a major bummer. High concentrations of disease-carrying bacteria have led to beach closures, sickened marine mammals and birds, and caused a host of illnesses in humans: respiratory illness, rash or gastroenteritis, an unpleasant bout of vomiting and diarrhea usually associated with drinking contaminated water in Third World countries.

**Michael Mantell**

Michael Mantell founded the Resources Law Group to help design and administer initiatives for philanthropic foundations and individuals, landowners, and government agencies that result in significant conservation achievements. Since the late 1990s, he has designed and participated in programs and projects that achieved extensive conservation outcomes for land, water, and ocean

resources and broadened the leadership and constituency for natural resources protection. Previously, as Undersecretary for Resources for the State of California, he oversaw the \$2.8 billion Resources Agency. Prior to that, he was General Counsel for the World Wildlife Fund and a Deputy City Attorney in Los Angeles. Mr. Mantell helped lead the 2010 campaign that prevented a rollback of California's landmark climate change legislation. In the past decade, he has chaired two campaigns resulting in voters approving \$7 billion of investments in water, land, and ocean conservation. Mr. Mantell is author and co-author of several books and articles, the recipient of several national conservation awards, and serves on the Board of Directors of the Monterey Bay Aquarium and on the Governing Council of The Wilderness Society.

### **Garry Brown**

Garry Brown is president and chief executive officer of Orange County Coastkeeper, a non-profit organization he founded in 1999 to protect and preserve local marine habitats and watersheds. Through Orange County Coastkeeper, Garry has helped to establish new wetland areas and to protect others which were being threatened by pollution or development. He has negotiated solutions to runoff and pollution issues that have threatened both watershed and ocean. He is a relentless advocate for cooperative solutions, but will litigate when boardroom discussions fail to bring results which will provide for long term sustainability. Under Garry's leadership, Orange County Coastkeeper has become steward of fresh- and saltwater ecosystems through education, advocacy, restoration, research and enforcement. In 2001 he founded the Orange County League of Conservation Voters. In 2006, he published the first issue of "Coastkeeper Magazine". These experiences brought him an extensive and pragmatic understanding of both state and local government and the politics that drive them. Garry comes from a long background building public-private partnerships. After earning a B.A. in Government from the University of Redlands, he served for five years as an assistant city manager, ten years as an advocate and executive director for trade associations in the real estate and building industries, and twice as president of a chamber of commerce. A native of Orange County, Garry is committed to building Coastkeeper into a proactive, results-driven organization that uses coalition building and partnerships to find effective solutions to the environmental problems that impact both communities and watersheds. Key projects that further this mission are Coastkeeper Gardens, located at Santiago Community College; and SmartScape, a model program for creating sustainable landscapes. Currently, Garry serves on numerous Boards of Director and governmental advisory committees, including the National Waterkeeper Alliance, The Green Institute for Village Empowerment, and the National Water Research Institute's Advisory Panel for the Ground Water Replenishment System.

### **Paul Horgan**

Paul Horgan is a past President of the Bolsa Chica Land Trust and has served as its legal counsel for fourteen years. A graduate of UCLA and Loyola Law School, Mr. Horgan has practiced law in southern California in both state and federal courts for more than thirty years. One of his most significant accomplishments occurred in 1996 when, as co-counsel for the Trust, he filed a lawsuit against the California Coastal Commission concerning a proposed housing development on and around the Bolsa Chica wetlands. The resulting decision, today known as the "Bolsa Chica decision," established a statewide precedent (under Public Resources Code Section 30233) that specifically bars housing construction on wetlands. The case also established the importance of protecting ESHAs (Environmentally Sensitive Habitat Areas).

### **Chad Nelsen**

Chad Nelsen is the Environmental Director at the Surfrider Foundation where he has worked since 1998. Prior to joining Surfrider, Chad was a NOAA Coastal Zone Management Fellow working with Oregon's state coastal zone management program. He is an alumni of Brown University and Duke University's Nicholas School of the Environment and is currently pursuing his Doctorate at UCLA in the Environmental Science and Engineering program.

### **Harry Helling**

Harry Helling, a longtime leader Dana Point's Ocean Institute, is Chief Executive Officer of the Crystal Cove Alliance, a nonprofit partner of Crystal at the Cove State Park. In that role he has primary responsibility for the park's preservation, restoration and education efforts. The most easily recognizable work of the Crystal Cove Alliance is their leadership in the restoration of 29 of Crystal Cove's historic cottages. Crystal Cove began as a campground and a South Seas set for silent films. It evolved into a semi-permanent settlement of mismatched shacks and cottages on land of The Irvine Company. The beach was sold to the state of California in 1979. The last residents moved out in 2001. The Alliance to Rescue Crystal Cove helped defeat state plans to turn the beach over to private developers intent on building a high-end resort. The Alliance to Rescue Crystal Cove evolved into the Crystal Cove Alliance. Harry also served as the chair of the Orange County Marine Protected Area Council, and will be discussing how that collaborative effort made public policy more effective.

### **Invited Commentary:**

#### **Charles Lester**

Charles Lester is the Senior Deputy Director for the California Coastal Commission, with responsibilities that include oversight of the North Central and Central Coast Districts, and the Statewide Planning Unit of the Commission. Charles received his Bachelor's degree from Columbia College in New York City, with a degree in Geochemistry. He attended the University of California at Berkeley, receiving a J.D. from Boalt Hall School of Law in 1989, and a Ph.D. in Jurisprudence and Social Policy in 1992. His doctoral dissertation explored public lands governance through a study of the federal Outer Continental Shelf oil drilling program in the Alaskan, Pacific, Atlantic, and Gulf of Mexico regions. Charles joined the Coastal Commission staff in Santa Cruz in 1997 and has been part of the senior management team since 2002. Before coming to the Coastal Commission, Charles was a professor of environmental policy and law at the University of Colorado at Boulder from 1993-1997. His areas of expertise were environmental policy, law and politics; governance and public law; coastal zone management; and environmental sustainability.

### **Observations from the Audience**

5:00 p.m.-5:45p.m.

**Reception in the Beckman Center Atrium**

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***Snowmelt and Glacier Melt – October 21, 2011  
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**Past Symposiums:**  
Cities and Global Climate Change  
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