A Message From Clean Ocean Action

Waves of thanks for attending the Debris Free Sea Conference!

For 30 years citizens, the small and the tall in New Jersey have joined the Beach Sweeps each spring and fall. Today we honor all Sweepers, especially the Captains. Together they have dedicated hundreds of thousands of hours collecting debris and given back to the ocean and beaches, which provide such joy and bounty. Recording the data is no small task; it requires careful and detailed numeration for over 100 items. Thanks to this extraordinary dedication, the information offers a legacy of information and a snap-shot of debris from the vantage point of our shorelines, and hints at the staggering problem in the global sea beyond.

Plastics has emerged at the most pervasive and vexing of all marine debris. Emerging science is alarming---micro-plastics contaminate drinking water and are found in fish tissue, the scope and magnitude of plastics is far-reaching and ever-growing, while marine life suffering from ingestion and entanglement is known, the extent of harm to the ecosystem is largely undocumented.

These challenges can be daunting, however, there's a simple truth: we created the problem and we can solve it.

Thousands of people here and around the world are also working hard to clean beaches, reduce sources, and find and implement solutions. In the most densely populated urbanized region in the country, "What can we do to hold back the plastic tide?"

I look forward to working with you toward solutions. Plastic, it just isn't natural.

Ever onward,

Cindy Zipf, Executive Director

Please Save the Date for the 2016 Beach Sweeps!

Saturday, April 30, 2016

Saturday, October 22, 2016

Ocean Advocacy Since 1984

COA Mission Statement:
"Our goal is to improve the degraded water quality of the marine waters off the New Jersey/New York coast."

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Debris Free Sea Conference

Finding solutions through science, policy, and citizen action

In Recognition of 30 Years of Beach Sweeps

Wednesday, November 11th, 8:00 AM—5:00 PM

Brookdale Community College, Lincroft, NJ

Debris Free Sea Conference

8:00 am
Registration & Check-in, Breakfast and Refreshments

9:00 – 9:30 am
Welcoming Remarks (Navesink I & II)

Cindy Zipf, Executive Director, Clean Ocean Action
Catie Tobin, Marine Science Education Coordinator, Clean Ocean Action

9:30 – 9:45am
Introduction & Overview of the Marine Debris Issue (Navesink I & II)

Joan Leary Matthews- *Director of the Clean Water Division, U.S. EPA Region 2*

9:45 – 11:00 am
Plenary #1 – *The State, Sources and Impacts of Marine Debris*

11:00 – 11:15am
Break

11:15 – 12:00pm
Concurrent workshops

12:00 – 12:45pm
Lunch, complimentary (Navesink I & II)

12:45 – 1:45pm
Plenary #2 – *Beach Sweeps – An Analysis of 20+ Years of Citizen Science*

1:45 – 2:00pm
Break

2:00 – 3:00pm
Concurrent Workshops

3:00 – 3:05pm
Break

3:05 – 4:05pm
Plenary #3 – *Why Do People Litter? A Social Science Perspective*

4:00 – 5:00pm
Reception honoring the outstanding Beach Captains and dedicated volunteers
with light refreshments *(*Navesink I & II)

Please visit the vendors and the marine debris art gallery while enjoying networking opportunities.

Special Thanks To

The Marine Debris Mosaic Artists

Danielle Acerra, Tinton Falls, NJ
Manda Gorsegner, Atlantic Highlands, NJ
Alexis Cuozzo Herman, Bradley Beach
Lucy Kalian, Rumson, NJ
Stella Ryan, Rumson, NJ

Biographies

James Rokosny, Chairman, Bridgewater NJ Environmental Commission—Jim has been the Chairman of the Bridgewater NJ Environmental Commission for the past 13 years, and the President of Summit SMT, a sustainability and marketing company. Two years ago he became the Chairman of the Sustainability Task Force as well. He was the architect of what has become the most popular annual event in Bridgewater, and possibly the largest environmental fair event in the state: The Eco-Blast Fair. The event won Honorable Mention in the 2013 ANJEC Environmental Achievement Awards, and in 2015 the commission won an ANJEC Environmental Achievement Award for the Sustainable Bridgewater Birdhouse Project. In 2015 Rokosny launched "Raritan River Week", his project that led him to become a Certified Rutgers Environmental Steward. Rokosny launched the Raritan River Week website to promote organizations and events that are involved in the preservation and maintenance of the Raritan River "From the Headwaters to the Ocean". COA was a partner in the project and the Spring 2015 Beach Sweeps concluded the week. Raritan River Week won the 2015 Public Education Award from the Sustainable Raritan River Collaborative.

Gary Sondermeyer, Vice President of Operations, Bayshore Recycling Corp of Woodbridge Township, NJ— Bayshore is one of NJ's largest recyclers, managing 7 separate, but related recycling operations. Services include: recycling concrete, asphalt, brick, block and glass cullet into aggregate materials; remediation of non-hazardous petroleum contaminated soils; materials recovery of mixed construction and demolition debris into secondary products such as landscaping mulch and bio-fuel; full-service metals recycling; acceptance and processing of dredge material at an existing barge terminal, Class A recycling of curbside commodities and consumer electronics recycling. As VP, Mr. Sondermeyer assists in the management of facility-wide operations and in the full build-out of the Eco-Complex and Energy Campus toward the corporate vision of running 100% green businesses powered 100% by renewable energy. Gary joined Bayshore following retirement after 30 years of service at the New Jersey Department of Environmental Protection. He served as the agency's Chief of Staff for 10 years under 5 different DEP Commissioners and 6 NJ Governors with a staff of 3,500 employees. Prior to this he served as Assistant Commissioner for the Department's core permitting programs for three years and spent 17 years within the Solid Waste and Recycling Program where he also served as Director.

Stephanie Tsang, Director of Strategic Partnerships, TerraCycle—Stephanie joined TerraCycle first as an intern before being hired as an Account Manager, where she maintained a number of TerraCycle's key brand partnerships. More than three years after joining the team, Steph is now the Director of Strategic Partnerships, where she works primarily with local city governments, nonprofit organizations, public institutions, and large venues to set up custom operations for participation in TerraCycle's recycling programs. While at TerraCycle, Steph has developed the very first mailable ash tray with the United States Postal Service to recycle cigarette litter in the US, as well as launched the very first city-wide cigarette recycling program in the US with the city of New Orleans. Steph graduated from Cornell University, where she studied Environmental Psychology and Sustainable Development, with a large focus on how to increase the environmental attitudes and behaviors of individuals.

John Weber, Mid-Atlantic Regional Manager, Surfrider Foundation—John has been working with membership-based, grassroots, non-profits organizations for twenty-three years. He joined the Surfrider Foundation staff in 2005 as the first employee on the East Coast. Now as Mid-Atlantic Regional Manager he assists chapters from New York to Virginia. Being a Surfrider Foundation volunteer in NJ for years made John the perfect candidate for the job. Prior to that John led organizing campaigns for NJ Citizen Action and his humble beginnings were as a door-to-door field canvasser for both NJ Citizen Action and Clean Water Action.

Anahita Williamson, Ph.D., Director, Division of Environmental Science and Assessment, U.S. EPA Region 2—Dr. Williamson has a strong background and extensive experience in the field of environmental engineering, including manufacturing process modification for improved material recovery and reuse, sustainability & green engineering. Prior to joining the EPA, Anahita served as the Director of the NYS Pollution Prevention Institute, where she worked with industries, communities and academia on implementing a variety of projects that focused on reducing environmental & economic footprint. Dr. Williamson also has extensive experience in utilizing life-cycle assessment (LCA) methodology for evaluating the environmental performance of a process/product from cradle-to-grave and has performed multiple LCAs throughout her career. Dr. Williamson is a Lean Six Sigma certified Greenbelt. She understands the importance of applying lean thinking when implementing environmental solutions. Dr. Williamson holds a B.S. in Chemical Engineering and M.S. and Ph.D. in Civil and Environmental engineering, all from Clarkson University.

William York, Communications Director, NJ Alliance for Environmental Education (ANJEE) — Before turning full-time to smallFEAT Education, Will York was Director of Education at the Apeiron Institute for Sustainable Living. In 2009, he founded smallFEAT, following a life-long interest in the natural world and environmental issues. He now works with schools here and abroad to become more sustainable "from infrastructure to instruction." In 2013-14, while a New Jersey Department of Environmental Protection/AmeriCorps Watershed Ambassador for the Wallkill River Watershed (WMA 2) in Sussex County, NJ, he completed over 1,700 hours of service conducting more than 85 presentations, providing environmental education to over 1,400 students and engaging communities in over 1,600 hours of volunteer involvement through stewardship, riparian restoration projects and educational programs. Currently he serves as the Social Media Coordinator for the online radio program, The Green Hour. He is also a Board Director for ANJEE providing expertise in the areas of community outreach and communication. Will is pursuing a graduate certificate in ESL from Rowan University, as he continues to develop programs for Teaching English Language Learners through the Environment (TELL-E). Will is the lead facilitator for GenNXT green news in action and is an Education Ambassador for Clean Ocean Action, presenting workshops related to healthy watersheds and reducing marine debris.

Biographies

Kyle Gronostajski, Executive Director, Alliance for a Living Ocean — Kyle is a native of New Jersey and a graduate of Philadelphia University's Environmental Sustainability program. In 2011, he began his career with the Philadelphia Science Festival and the Franklin Institute in Philadelphia. He has since moved back to his home of Long Beach Island to head ALO for the past 2 years while continuing to surf, fish, and continue his career as a surf photographer. Gronostajski uses his event planning and outreach experience to further the mission of Alliance for a Living Ocean, which is to promote and maintain a clean and healthy coastal environment. He has pursued this mission through projects such as water bottle filling stations, implementing new children and adult friendly outreach programs, and many others, all while maintaining the day-to-day business of ALO. Kyle continues to use his love of the ocean in all his current pursuits.

Zachary Lees, Ocean and Coastal Policy Attorney, Clean Ocean Action — Zachary grew up in the back bays and pinelands of Southern New Jersey. He lived in Vermont for a decade, completing his BFA in Creative Writing, and skiing, climbing, and hiking New England. His passion for environmental conservation led him to Vermont Law School where he completed a JD degree as well as a Masters in Environmental Law and Policy. While at VLS, Zach published an article in the Vermont Journal of Environmental Law on the challenges of properly regulating hydraulic fracturing. After traveling throughout the US and living in Alaska for a time as a law clerk, and then as a sea kayak guide, he now works as the Ocean and Coastal Policy Attorney for COA.

Sherri A. Mason, Ph.D., Professor of Chemistry, SUNY Fredonia — A native of Texas, Dr. Sherri Mason (aka "Sam") earned her bachelor's degree from the University of Texas at Austin. She completed her doctorate in Chemistry at the University of Montana as a NASA Earth System Science scholar. She is currently a Professor in the Department of Chemistry and Biochemistry at the State University of New York at Fredonia. Though her background is in atmospheric chemistry, her research group is now poised at the forefront of research on plastic pollution. As co-PI on the first-ever survey for plastic pollution within the open waters of the (Laurentian) Great Lakes, her research group is among the first to study the prevalence and impact of plastic pollution within freshwater ecosystems and, as such, has been featured within hundreds of mass media articles including the *New York Times*, the *Huffington Post*, and National Public Radio's *All Things Considered*.

Joan Leary Matthews, Director of the Clean Water Division, U.S. EPA Region 2 — Joan leads a team of engineers and scientists to promote and protect water quality in the U.S. EPA Region 2 which serves New Jersey, New York, Puerto Rico and the U.S. Virgin Islands and eight tribal nations. The Clean Water Division covers a wide range of issues – including watershed protection, water infrastructure, permitting, coastal and ocean water protection, surface and groundwater protection. Prior to joining the EPA, Joan served as Associate Commissioner for Hearings and Mediation Services at the New York State Department of Environmental Conservation; a professor at Albany Law School where she taught environmental law and legal writing courses; an attorney in private practice, representing citizen groups in environmental and land use cases; and an Assistant Attorney General in the Environmental Protection Bureau of the New York State Department of Law. Ms. Leary Matthews received a B.A. degree *cum laude* in Government and Politics from the University of Maryland and a J.D. degree from Albany Law School. She is a past Chair of the Environmental Law Section of the New York State Bar Association and President of the Capital District Women's Bar Association.

Samantha A. McGraw, Project Coordinator, Sustainability Institute —Samantha serves as the primary point of contact for New Jersey municipalities participating in the Sustainable Jersey program. She provides program and technical assistance for municipalities and outside organizations about the Sustainable Jersey program and the certification process. Over the last three years Samantha has reviewed many of the education-related action submissions in the program, and was directly involved with the development of the Recycling Education and Enforcement action. Ms. McGraw has a B.S. in Meteorology from Millersville University and an M.A. in Political Science from Colorado State University. She looks forward to sharing Sustainable Jersey's experience about how to best educate the public on sustainability.

Sandra Meola, Communications and Outreach Associate, NY/NJ Baykeeper — Sandra joined the Baykeeper staff in March 2014. Sandra manages Baykeeper's policy, press communications, and social media. Sandra and is currently leading NY/NJ Baykeeper's Plastic Reduction Campaign which involves a three pronged approach of education, policy/advocacy, and research. Sandra has a B.A. in Political Science and History from Monmouth University and is currently working towards a Masters in Public Policy.

Jay Kelly, Ph.D., Assistant Professor of Biology and Environmental Science, Raritan Valley Community College—Dr. Jay F. Kelly teaches a variety of ecology and environmental science courses. His primary areas of interest are conservation biology, coastal ecology and management, plastic ocean pollution, forest ecology and management, and toxins in consumer products. He received a Ph.D. in Ecology and Evolution from Rutgers University in 2006, and a bachelor's degree in Biology from Rutgers in 1998.

Kaitlin Phelps, Project Manager, Action Research—Kaitlin has focused both academically and professionally on how to foster behavior change that protect our communities and our environment. At Action Research, she has worked on a range of environmental topics, including energy, recycling, and composting, and has increased her expertise in Community-Based Social Marketing and implementing effective behavior change programs. Through her graduate work with the Chesapeake Bay Trust on promoting water-conservation related behaviors, Kaitlin gained expertise in managing large scale research projects, conducting needs assessments & program evaluations and applying research to assist program managers in the field. Kaitlin has her M.S. in Behavior, Education, and Communication at the School of Natural Resources and Environment at the University of Michigan.

Plenary Overviews

All plenary sessions will be held in the main room, Navesink I & II.

Plenary #1 – *The State, Sources and Impacts of Marine Debris*

Moderator: Joan Leary Matthews, *U.S. EPA Region 2*.

Speakers: Keith Cialino, *NOAA Marine Debris Program;* Jessica Donohue, *SEA Education Association;* Sherri A. Mason, Ph.D., *SUNY Fredonia.*

Description: The National Oceanic and Atmospheric Administration (NOAA) and the US Coast Guard define marine debris as "any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes." So what is the state of the marine debris problem in our region? This plenary will prompt your questions for the remainder of the day as experts discuss the state, sources and impacts of marine debris.

Plenary #2 – *Beach Sweeps – An Analysis of 20+ Years of Citizen Science*

Speakers: Michael Campellone, *Bloomberg LP*; Victoria Cerullo, *Bloomberg LP*; Nicole Barberis, *Bloomberg LP.*

Description: Every Beach Sweeper becomes a 'citizen scientist' as they record each piece of debris collected on our Beach Sweeps data cards. The data collection turns a one-day event into a legacy of information that can be used to identify sources of pollution and monitor trends. This research helps Clean Ocean Action discover solutions to keep beaches clean and healthy, create federal, state and local programs to reduce litter in the environment, and protect the public and the marine environment. But what does it really say? Has marine debris in New Jersey changed over time? What does it say about us?

This year, Clean Ocean Action partnered with Bloomberg LP to thoroughly analyze the Beach Sweeps' data set. This analysis will be the first of its kind in Beach Sweeps history. The goal is to more accurately monitor trends throughout the years and eventually link those trends with various legislation that has been enacted, as well as consumerism, weather, and industry changes.

Join the data science team from Bloomberg LP as they unveil this extensive evaluation of 20+ years of Beach Sweeps data.

Plenary #3 – *Why Do People Litter? A Social Science Perspective.*

Speakers: Kaitlin Phelps, *Action Research.*

Description: We know that people litter, but have you ever wondered why they litter? This plenary explores some of the social reasons and behaviors of littering, issues with traditional marketing campaigns, and more. Following the speaker, participants will confer at their tables adding insights on why people litter and solutions.

Workshop Overviews

Is biodegradable plastic an oxymoron?
Held in the Navesink I & II Room

Plastics do not biodegrade – that is, they do not breakdown into organic constituents that are then re-absorbed naturally into the environment. Plastics breakdown into ever smaller pieces via photodegradation and mechanical abrasion. As such, once plastic is introduced into the environment, it will persist for hundreds of years.

Industry has coined the phrase 'biodegradable plastic,' but is that possible given the inherent composition of plastic? Join experts in the field as they look at this issue from science and policy perspectives and explore the possibility of 'biodegradable plastic.'

Moderator: Zachary Lees, Esq., *Clean Ocean Action*. **Speakers:** Jessica Donohue, *SEA Education Association*; Sandra Meola, *NY/NJ Baykeeper*; Sherri A. Mason, Ph.D., *SUNY Fredonia.*

Single Use Solutions
Held in the Twin Lights I Room

Since we were children, we have been told to 'Reduce, Reuse, and Recycle.' We have been told that we can accomplish this by reducing our consumption of single-use disposable plastics, such as bags, water bottles, straws and utensils; buying only reusable or recyclable products; and recycling, thus reducing solid wastes and saving resources. But, how do businesses and organizations accomplish this?

Join panelists as they discuss ways within their organizations in which they accomplish this mantra.

Moderator: Kyle Gronostajski, *Alliance for a Living Ocean*. **Speakers:** Gary Sondermyer, *Bayshore Recycling Corp*; Stephanie Tsang, *TerraCycle*; John Weber, *Surfrider Foundation.*

Applying Citizen Science to Help Solve Problems
Held in the Twin Lights I Room

Many studies have pointed to the value of collaborations between researchers and volunteers, often termed "citizen scientists." Citizen science is an especially useful approach for studies requiring the collection of large amounts of data and/or sampling at a wide geographic range of sites, particularly when funding is restricted." Volunteer involvement has proven to yield successful results in marine debris studies around the world, including in the United States, Australia, Japan, and Chile. Join experts in the field as they discuss citizen science projects that are happening locally, nationally and internationally.

Moderator: Liza Baskin, *Marine Academy of Science and Technology (MAST).* **Speakers:** Abby Barrows, *Adventurers and Scientists for Conservation;* Jay Kelly, Ph.D., *Raritan Valley Community College*; Anahita Williamson, Ph.D., *U.S. EPA Region 2.*

Educating to Reduce the Marine Debris Epidemic
Held in the Fort Hancock Room

Education is at the root of solving most problems. As Jacques Cousteau famously said, "People protect what they love." Education helps to inform citizens about the remarkable life in the sea and how it is harmed by marine debris thereby inspiring them to help solve the marine debris problem. But what are some of the most effective ways to educate the public? Join the panelists as they discuss –model education programs that have enhanced their work.

Moderator: James Rokosny, *Bridgewater Environmental Commission*. **Speakers:** Jennifer Coffey, *Association of New Jersey Environmental Commissions (ANJEC);* Samantha McGraw, *Sustainable Jersey;* William York, *Alliance for New Jersey Environmental Education (ANJEE).*

Biographies

Nicole Barberis, Data Scientist, Bloomberg LP — Data Science is a relatively new field that focuses on solving business problems in a practical, agile way using cross disciplinary statistical techniques, computer programming, and visualizations. Machine learning and natural language processing are among the tools used to give Bloomberg clients the extra information they need to make profitable decisions. Nicole has an M.S. in Statistics from the University of Wyoming and 10+ years of industry experience, the last 5 as a Data Scientist. She has worked at IBM, FIAT and Computer Sciences Corporation. It will be a pleasure for her to talk with you today and to answer any questions about the volunteer work Bloomberg did for COA.

Abigail Barrows, Principle Investigator, Adventurers and Scientists for Conservation (ASC) — Abigail serves as PI for ASC's microplastic project. She has been directing microplastic research since 2012 and has initiated the first baseline data map of microplastic pollution distribution in Maine. Abigail pioneered the methods for plastics recovery from coastal water samples and has presented widely on microplastic pollution. Abigail currently manages an independent lab where she processes and analyzes ASC's international water samples, enabling a rare glimpse at the extent of plastic contamination in remote, understudied ocean regions.

Liza Baskin, Oceanography and Research Teacher, Marine Academy of Science and Technology (MAST) — Liza has a BS in Marine Science from Rutgers University. Her graduate work focused on the ecology of dune ecosystems and her students work on research in many aspects of marine science from ocean acidification to ecology of coastal species. In addition to teaching, she has volunteered for NOAA research cruises including studying changes in the water chemistry at the wellhead of the oil spill in the Gulf of Mexico in 2010 and one this summer working on benthic sampling and habitat assessment in proposed wind energy areas along the coast.

Michael Campellone, Data Analyst, Bloomberg LP — Michael graduated from Johns Hopkins University in 2013 with a bachelors in Public Health. Prior to joining Bloomberg, he spent the previous summer working at Merck in their automated biology lab conducting research on myc gene expression in cancerous cells. At Bloomberg, Michael works within the Credit Research Data Group covering Financial Institutions where he builds and maintains capital structure models for his portfolio of companies.

Victoria Cerullo, Bloomberg Intelligence Global Content Coordinator, Bloomberg LP— Bloomberg Intelligence is a unique research platform consisting of 200+ research analysts, providing in-depth analysis and data sets on the industry, company, credit, government, litigation and economic factors that impact decision-making. Previously, Victoria served as Program Manager of the Environment and Sustainability Program as part of Bloomberg's Philanthropy & Engagement team. Prior to her current position at Bloomberg, Victoria served as Chief of Staff to NYC Parks Commissioner Veronica M. White. Victoria also served in the Bloomberg Administration from 2007-2013, as Legislative Representative in the Office of City Legislative Affairs and as Staten Island Borough Director in the Mayor's Community Affairs Unit. Additionally, Victoria was part of a team assembled by Mayor Bloomberg to handle Sandy recovery for Staten Island right after the storm. Victoria currently serves as co-chair for Governor Cuomo's Living Breakwaters Community Advisory Committee. She previously served as ex-officio for Mayor Bloomberg on the Staten Island Museum Board and has been honored by the Staten Island Economic Development Corporation, the Downtown Staten Island Council, the Todt Hill Civic Association, as well as the St. George Theatre.

Keith Cialino, Northeast Regional Coordinator, NOAA Marine Debris Program— Keith is an Environmental Scientist with expertise in water quality sampling and analysis, field work, policy integration, and science communication. Prior to joining the Marine Debris Program, Keith served as a Project Consultant for development of a Waterfront Protection Plan for Southampton, NY, was the Outreach Coordinator for the Massachusetts component of the International Coastal Cleanup, and was a Knauss Marine Policy Fellow with NOAA's Fisheries Service, focused on policy development related to international tuna fisheries management. Additionally, he taught science at three Boston Public schools as a Graduate Teaching Fellow. Keith has a B.A. in Environmental Science from La Salle University in Philadelphia, and a M.S. and Ph.D. in Environmental Science from the University of Massachusetts Boston. He is originally from Toms River, NJ.

Jennifer M. Coffey, Executive Director, Association of New Jersey Environmental Commissions (ANJEC) — Jennifer joined ANJEC as their Executive Director in July 2014. For 10 years prior, she served as the Policy Director for central New Jersey's first watershed association, the Stony Brook-Millstone Watershed Association. She chaired the Upper Freehold Environmental Commission for seven years and also served as a member of the Planning Board. Jennifer is a member of the New Jersey State Water Supply Advisory Council, New Jersey Society of Women Environmental Professionals, and New Jersey Women's Political Caucus. She holds a Bachelor's Degree in Communications from Stockton University and dual Master's Degrees in Environmental Policy and Environmental Science from the New Jersey Institute of Technology.

Jessica Donohue, Marine Research Assistant, SEA Education Association—Jessica is a research assistant at Sea Education Association (SEA) in Woods Hole, MA. She studies marine plastic debris, working with microplastics collected using surface plankton nets onboard SEA research vessels. This research looks at how these polymers behave and degrade in the marine environment and variability in the composition of microplastics over time and by region. She has a MS from the University of Rhode Island in Environmental Science and Hydrogeology and a background in science education outreach.