LA Bag Ban Support List
as of 6/5/13

Item #1

SUPPORT LIST

GROCERS

California Grocers Association – Supports LA County model (ban plastic/fee paper)
Sarah Sheehy, Director, Southern California Local Government Relations
916-448-3545
ssheehy@cagrocers.com

ENVIRONMENTAL & SOCIAL JUSTICE GROUPS

Heal the Bay
Kirsten James, Water Quality Director
(310) 451-1500
kjames@healthebay.org

Californians Against Waste
Mark Murray, Executive Director
(916) 443~5422

City Vida
Nidia Garcia-Erceg, Principal
(323) 550-1244

Date: 6/5/13
Submitted in E&E Committee
Council File No: 11-1931
Item No.: 1
~~Deputy~~: PUBLIC

Clean Water Action
Miriam Gordon, California Director
mgordon@cleanwater.org

Colibri Strategies
Elva Yanez, President
ekyanez@yahoo.com

Desal Response Group
Siobahn Dolan, Director of Communications
Siobhan.dolan@gmail.com
(323) 854-9657

Environment California
Julia Ritchie, Ocean Associate
julia@environmentcalifornia.org

Generation Water
Marcus Castain, CEO
marcus@generationwater.org
(213) 687-0781 ext. 1

Green LA Urban Ecosystems Work Group
Stephanie Taylor, President of Green LA Coalition
staylor@greenlacoalition.org

Los Angeles County Bicycle Coalition
Alexis Lantz, Planning and Policy Director
Alexis@la-bike.org

Los Angeles Neighborhood Land Trust
Alina Bokde, Executive Director
(213) 572-0188

Los Angeles Walks
Deborah Murphy, Founder
(323) 661-3173

7th Generation Advisors
Leslie Mintz Tamminen, Ocean Program Director
leslie.tamminen@gmail.com

Occidental College, Urban & Environmental Policy Institute
Jessica Gudmundson, Program Associate, Urban Nature
jdudmundson@oxy.edu
(323) 259-1460

Pacoima Beautiful
Veronica Padilla
veronicapadilla@pacoimabeautiful.org
(818) 899-2454, ext. 112

Rise Above Plastics, Surfrider Foundation, West LA/Malibu Chapter
Juli Schultz, Committee Chair
jschulz@riseaboveplastics.org

The River Project
Melanie Winter
winter@theriverproject.org

Sierra Club Angeles Chapter
Ron Silverman, Senior Chapter Director
ron.silverman@sierraclub.org
(213) 387-4289

Southern California Watershed Alliance
Conner Everts, Executive Director
connere@west.net
(310) 829-1229, ext. 232

Surfrider Foundation – South Bay Chapter
Craig Cadwallader, Rise Above Plastics Committee Chair
primal1@primal-image.com

Ryan Snyder Associates
Ryan Snyder, President
(310) 475-3895
ryan@rsa.cc

Surfrider Foundation
Angela Howe, Legal Director
ahowe@surfrider.org

Turtle Island Restoration Network
Teri Shore, SeaTurtles.org
tshore@tirn.net

TreePeople
Deborah Weinstein, Senior Manager, Natural Urban Systems Group
(818) 623-4884

Urban Semillas
Miguel Luna, Executive Director
Miguel@urbansemillas.com

USC CalPirg Chapter – delivered 4,703 signed postcards of Los Angelenos in support of a plastic bag ban
Anne Ohliger, Organizer
anne@calpirgstudents.org

Josh Joiner, President
jjoiner@usc.edu

LOS ANGELES NEIGHBORHOOD COUNCILS
(support from councils representing more than 977,049 stakeholders in Los Angeles, more than a quarter of the city)

Bel-Air Beverly Crest NC, resolution of support (2/24/12), (27,000 stakeholders)
Robert Ringler, President
raringler@babcnc.org

Brentwood Community Council letter of support for plastic bag ban (40,000 stakeholders)
Nancy Freedman, Chair
gjf165@gmail.com

Canoga Park NC plastic bag ban ltr of support, (48,723 stakeholders)
Gerardo Palos, President
gpalos62@yahoo.com

~~**Del Rey NC** letter of support, (30,000 stakeholders)~~
Eric DeSobe, President
Eric.DeSobe@delreync.org

Downtown LA NC plastic bag letter of support, (45,518 stakeholders).
Valerie Watson, Parks Committee Chair
vawatson@gmail.com

East Hollywood NC, letter of support, 5/16/11, (50,566 stakeholders)
David Bell, President
davidb@easthollywood.net

Greater Griffith Park NC ltr of support for LA ban, (37,000 stakeholders)).
Leslie VanKeuren, Green Committee
Leslie@sustainLA.com

Mar Vista CC letter of support, (55,000 stakeholders).
Sherri Akers, MVCC Green Committee Chair
sherri@yogitoes.com

Mid-Town North Hollywood Neighborhood Council, letter of support
Mary Garcia, President
president@midtownnoho.org

North Hollywood North East NC support ltr, (12,000 stakeholders).
John Basteghian, Vice President
jbasteghian@nhnenc.org

Northridge East NC, resolution of support, 11/16/11 (22,632 stakeholders)
Don Dwiggins
d.dwiggins@nenc-la.org

Northridge West NC, resolution of support, 3/13/12
Gerry Malais, President
gmalais@northridgewest.org or g.malais@yahoo.com

Craig Michayluk, Secretary
craigmmichayluk@yahoo.com

Palms NC letter of support, (40,000 stakeholders).
Eli Lipman, Green Committee Chair
secretary@palmsla.org

Reseda NC plastic bag ban ltr of support, (62,174 stakeholders).
Cary Iaccino, Chair, Reseda Neighborhood Council
ciaccino@resedacouncil.org

Silverlake NC letter of support (35,000 stakeholders)
Rusty Millar, Green Committee Chair
larunner1@sbcglobal.net

South Robertson NC letter of support (45,000 stakeholders).
Paula Waxman, Green Committee Chair
pwmw100@yahoo.com

Sun Valley Area NC letter of support, (81,788 stakeholders).
Angelica Duenas, President
angelica.m.duenas@gmail.com

Tarzana NC plastic bag ban ltr of support, (35,502 stakeholders).
Joel Jaffe, Green Committee Chair
joljaffe@gmail.com

United Neighborhoods NC plastic bag ban ltr of support, (70,472 stakeholders).
Stevie Stern
president@unnc.org

Venice NC letter of support, (40,885 stakeholders),
Linda Lucks
president@venicenc.org

West Hills NC letter of support, (39,000 stakeholders), 6/1/2011
Barry Seybert, Valley Alliance of NCs Representative
barry.Seybert@westhillsnc.org

West Los Angeles NC letter of support, (30,873 stakeholders)
Jay Handal, Chair
jhandal@wlanc.com

Westside NC resolution of support, (80,000 stakeholders), 3/9/2012
Terri Tippit, Chair
tmtippit@ca.rr.com

Westwood NC resolution of support, (47,916 stakeholders), 8/10/2011
Jerry Brown, President
jbrown@wwnc.org

SAVE THE PLASTIC BAG COALITION

1. **AFFIRMATION OF OBJECTIONS TO EIR ON PROPOSED SINGLE-USE CARRYOUT BAG ORDINANCE**

2. **OBJECTION TO FAILURE TO ADDRESS SAVE THE PLASTIC BAG'S SUPPLEMENTAL SUBMISSION AND OBJECTIONS DATED MARCH 26, 2013**

3. **AFFIRMATION OF DEMAND FOR REVISION AND NEW FINDINGS OF SIGNIFICANT NEGATIVE ENVIRONMENTAL IMPACT**

4. **AFFIRMATION OF DEMAND FOR RECIRCULATION OF REVISED DRAFT EIR AND NOTIFICATION TO THE PUBLIC OF SIGNIFICANT ERRORS IN INITIAL DRAFT AND FINAL EIR**

5. **AFFIRMATION OF NOTICE OF INTENT TO LITIGATE TO ENFORCE CEQA, INCLUDING PETITION FOR WRIT OF MANDATE OR PRELIMINARY INJUNCTION TO REQUIRE RECIRCULATION OF REVISED DRAFT EIR**

Presented to City of Los Angeles City Council
Energy and Environment Committee
as part of public comments

June 5, 2013

Stephen L. Joseph, Counsel
SAVE THE PLASTIC BAG COALITION
11693 San Vicente Blvd. #150
Los Angeles, CA 90049
Phone: (310) 266-6662 Fax: (310) 694-9067
E-mail: savetheplasticbag@earthlink.net
Website: www.savetheplasticbag.com

Date: 6/5/13
Submitted in Committee
Council File No: 11-1172
Item No: 7
Deputy: PUBLIC

Save The Plastic Bag Coalition ("STPB") hereby:

1. Affirms and reasserts all of its objections to the Draft and Final EIR on the proposed single-use carryout bag ordinance.

2. Objects to the failure to address STPB's supplemental submission and objections dated March 26, 2013

3. Affirms and reasserts its demand for revision and new findings of significant negative environmental impact.

4. Affirms and reasserts its demand for recirculation of a revised Draft EIR and prominent notification to the public of significant errors in initial Draft and Final EIR.

5. Affirms its notice of intent to litigate to enforce CEQA, including but not limited to the filing of a petition for writ of mandate or preliminary injunction to require recirculation of a revised Draft EIR.

COMMENTS AND FURTHER OBJECTIONS

1. **LA COUNTY'S FALSE FIGURES:** The EIR falsely states that the Los Angeles County ordinance with its 10-cent paper bag fee has led to a massive reduction in paper bag usage. This assertion is critically important to the validity of the findings in the EIR. The findings in the In fact, ***the County has no paper bag figures whatsoever for the period prior to the ordinance*** and therefore no conclusion about reduction can be drawn. The EIR fails to disclose this critically important fact. The amount of the fee is fundamental to the success of the ordinance in achieving environmental benefits. The Los Angeles County figures including the new 2012 figures do not satisfy the substantial evidence test.

2. **FALSE AND INCORRECT ASSERTION THAT LDPE REUSABLE BAGS ARE ONE OF THE MOST COMMONLY USED:** The EIR asserts that that a switch to reusable bags instead of paper bags would have a insignificant or a positive environmental impact, because LDPE reusable bags are "one of the most common types of reusable bags." ***This is a falsehood.*** LDPE reusable bags are a tiny percentage of reusable bags. In its March 11, 2013 submission, STPB included numerous photographs of stores in Long Beach, West Hollywood, and San Francisco showing that LDPE reusable bags are rarely provided and used. The photographs were taken at Vons, Ralphs, Pavilions, CVS, Gelson's, Whole Foods, Bristol Farms, and Safeway. The overwhelming majority of reusable bags in the photographs are not LDPE. If there is a major switch to reusable bags, it will be primarily polypropylene ("PP") reusable bags, which have a much greater negative impact on the environment than LDPE reusable bags. The author of the EIR has ***cynically and deceptively*** chosen the best reusable bag for the environment, that is a plastic LDPE reusable bag, as being representative of all or a majority of reusable bags.

Incredibly, the City's response is as follows: "The photographs taken by the commenter at selected locations, while anecdotal, do not provide any substantive evidence that LDPE bags "are the least common reusable bag." And, even at these locations selected by the commenter, while the commenter "certified that he did not see any LDPE or HDPE reusable bag at the checkouts of any of the stores that he visited," two of the commenter's photographs show and provide captions that these LDPE reusable bags are provided in the stores (at Ralph's and Gelson stores in West Hollywood)."

It is utter nonsense for the City to claim that photographs of reusable bags at stores do not constitute substantial evidence. We will ask the Superior Court to view the photographs and determine whether they constitute substantial evidence.

3. **UNJUSTIFIED ASSUMPTION THAT EACH AND EVERY REUSABLE DISTRIBUTED IN THE CITY WILL BE USED AT LEAST 52 TIMES:** The EIR asserts that each reusable bag will be used on average a sufficient number of times to offset the greater environmental impacts compared to a banned plastic carryout bag. However, this is merely an assumption by the author of the EIR. If the assumption turns out not to be correct, then the entire thesis that the ordinance will not have a significant negative environmental impact will be incorrect. There is no substantial evidence that each reusable bags will be used on average at least 52 times. STPB has shown that they will not be used that many times and it is in fact dangerous to use them that many times if they are not washed. (97% of consumers do not wash their reusable bags.) The 52 times usage assumption is designed to produce favorable results in the environmental impact tables in the EIR. It does not reflect reality.

4. **FALSE ASSERTION THAT REUSABLE BAGS ARE RECYCLABLE:** With the exception of plastic reusable bags (i.e. LDPE and HDPE), reusable bags are ***not*** recyclable. This is a major deception on an issue of great importance, especially as plastic carryout bags which the proposed ordinance would ban are totally recyclable. This is a significant environmental impact.

   The Final EIR is even more misleading on this point than the Draft EIR. The Final EIR asserts at pages 117 and 121 that polypropylene ("PP") reusable bags are recyclable. This is a bare assertion. There is no substantial evidence supporting it. Where are they recyclable? They are certainly not recyclable in the City of Los Angeles. The City must provide some substantial evidence that PP reusable bags can be recycled in the City of Los Angeles.

   The Final EIR also asserts at pages 117 and 121 that cotton and canvas bags are compostable. This is nonsense. They are not compostable at all. And even if they were, what difference what that make? There is no composting program or facility that serves the City of Los Angeles and certainly no program anywhere that would accept cotton and canvas bags for composting because they are not compostable. Doc # 523 submitted herewith is the only document regarding composting on the City of LA Bureau of Sanitation website.

See:

http://www.lacitysan.org/solid_resources/recycling/composting/composting_guide.htm

http://www.lacitysan.org/solid_resources/pdfs/composting.pdf

We will ask the Superior Court to view Doc. # 523 to see if it constitutes substantial evidence that cotton and canvas reusable bags can be composted in the City of Los Angeles. Here is a list of what Doc # 523 says can be composted:

- Vegetable trimmings
- Coffee grounds
- Fruit peels
- Egg shells
- Tea bags
- Yard clippings
- Livestock manure
- Fresh hay
- Chopped cornstalks
- Shredded paper
- Paper towels
- Shredded cardboard
- Dried leaves
- Wood chips
- Sawdust
- Straw

Notice that canvas and cotton and bags are not on the list.

There is no substantial evidence whatsoever supporting the assertions in the EIR regarding the recyclability or compostability of reusable bags, other than the recyclability of LDPE and HDPE reusable bags.

5. **FALSE ASSERTION ABOUT PLASTIC BAGS IN THE LA RIVER WATERSHED:** The EIR asserts at page 34 that in 2007 "plastic bag litter comprised up to 25% of the litter stream entering the Los Angeles River Watershed via storm drains." This is not true and there is no substantial evidence for it. Further, the words "up to" render the assertion meaningless and misleading. "Up to" could mean 1%.

   Full capture devices prevent plastic bags from entering the Los Angeles River Watershed and the Los Angeles River and Ballona Creek, as even Heal the Bay accepts. ***In response to STPB's objections, the Final EIR acknowledges that full capture devices are and will prevent any plastic bags from entering the LA River.*** However, the City apparently could not tell the public and the City Council that the full capture devices solve the problem. The Final EIR states at page 34-35 that bags could enter the "waterways"

during "intense storm events" and bags could be carried by the wind. This is ambiguous. ***The City stubbornly refuses to accept that there is no problem of plastic bags entering the LA River or the watershed.***

6. **FALSE AND MISLEADING ASSERTIONS AND EXAGGERATIONS ABOUT MARINE IMPACTS:** The Draft EIR asserted that plastic bags cause a massive number of deaths and entanglements of marine animals and deaths. The DEIR states: "In 2005, the ICFC found that 2.2% of animals found dead during the 2004 survey had been entangled by plastic bags – one of many harmful biological effects of plastic bag litter in coastal and marine habitats." No such statement is made in the document cited in the DEIR, but even if the statement had been made, the total US entanglements in 2005 were six fish and two unidentified marine animals. Unfortunately, the 2.2% would suggest that hundreds or thousands or tens of thousands of marine animals might have been entangled. People would be shocked to hear that it was actually six fish and two unidentified marine animals, none of which apparently died.

In response to STPB's objection, the foregoing assertion has been removed from the EIR. However, it has been replaced with the following assertion: "In 2010, that the Ocean Conservancy founds that 14.6% of marine wildlife found entangled were entangled by plastic bags." Citing:

http://act.oceanconservancy.org/images/2010ICCReportRelease_pressPhotos/2010_ICC_Report.pdf

The Ocean Conservancy document is provided herewith as Doc # 732. The relevant table in the document which is apparently the basis for the 14.6% figure is shown below.

MARINE WILDLIFE FOUND ENTANGLED IN MARINE DEBRIS

WILDLIFE	BEVERAGE BOTTLES	BEVERAGE CANS	CRAB, LOBSTER, & FISH TRAPS	FISHING HOOKS	FISHING LINE	FISHING NETS	PLASTIC BAGS	RIBBON/ STRINGS	ROPE	6-PACK HOLDERS	WIRES	TOTAL
AMPHIBIANS	1	0	0	0	3	1	6	0	0	1	0	12
BIRDS	2	0	0	5	45	53	19	5	5	1	3	138
FISH	5	1	2	1	48	11	11	2	5	1	2	89
INVERTEBRATES	6	2	1	1	14	12	6	7	6	0	0	55
MAMMALS	0	0	0	3	6	1	6	1	5	1	0	23
REPTILES	0	0	0	0	10	4	1	1	2	0	1	19
TOTAL DEBRIS ITEMS	14	3	3	10	126	82	49	16	23	4	6	336

The world total for entanglement by plastic bags was 49 incidents. 11 of those were fish. When the City makes a statement that "14.6% of marine wildlife found entangled were entangled by plastic bags" this conjures up images of thousands or millions. The City must state in the EIR that the 14.6 % is comprised of a mere 49 incidents with 11 being fish.

The public and the City Council have the right to know and must be told that the number of entanglement incidents is small and insignificant. This must be disclosed to prevent the 14.6% figure from being misleading. STPB objects to the failure to disclose it.

Also, the EIR states that 260 species of marine animals are "reported to ingest or become entangled in plastic debris." The issue for the public is whether plastic bags are being ingested or causing entanglement, not "plastic debris." There is no substantial evidence for this assertion. The City's response is that they found the assertion in the Master Environmental Assessment ("MEA"). The MEA is not substantial evidence for anything, except to the extent that it is backed up or supported by substantial evidence from other sources. The MEA does not provide any substantial evidence for the assertion, and regardless, the assertion is ambiguous and is not about plastic bags.

7. **FAILURE TO PROPERLY ADDRESS SANTA MONICA SURVEY.** The City has completely ignored STPB's March 26, 2013 submission and objections, including the Santa Monica survey, although it is attached to the Final EIR. The City has provided no explanation for ignoring the submission and objections.

   With respect to "regular" stores, the Santa Monica survey is substantial evidence that:

   A. Paper bag usage was between 0 and 10% of market share before the Santa Monica ordinance took effect. At times it was very close to zero percent.
   B. When the ban took effect in September 2011, paper bag usage increased dramatically to about 27%. It then dropped and rose again to about 30% by September 2012.
   C. The paper bag trend line shows that paper bag usage is ***increasing***.
   D. When the ban took effect in September 2011, reusable bag usage increased dramatically to about 49%. It then dropped to 30% by September 2012.
   E. The reusable bag trend line shows that reusable bag usage is ***decreasing***.

   The City has ignored this evidence in the Final EIR. Instead, the City states:

   > While these data points are excerpted from the report, the report's main conclusions are: (1) "Contrary to statements by pro-plastic bag groups, paper bags did not replace plastic bags as the predominant bag type"; and (2) The results, "suggest that the post-ban ten cent fee per paper bag was an effective incentive to increase reusable and no bag selections."

   That is not an excuse or acceptable justification for not addressing Petitioner's points. We are not saying that paper bags replaced plastic bags as the predominant bag type, as the City knows. Further, a 10-cent fee obviously does increase reusable bag and no fee selections, but by how much?

NOTICE OF INTENT TO LITIGATE

If the City refuses to

(i) issue a revised Draft EIR corrected in accordance with STPB's objections; and

(ii) recirculate it for public comments; and

(iii) issue a prominent notice telling the public that there were errors in the Draft EIR, clearly identifying the errors, and stating the correct facts; and

(iv) hold a new round of public meetings in the same locations as those previously held;

then STPB will file a petition for writ of mandate or complaint in the Los Angeles Superior Court. STPB will also request a preliminary injunction or other injunctive relief to order the City to perform the action items stated above.

All rights are reserved. No waivers are intended by any statement or omission herein.

CONCLUSION

All rights are reserved. No rights are waived by any statement or omission herein.

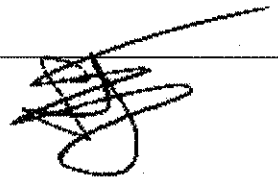
Our society faces critical environmental decisions, including important energy and transportation choices that will have long-term environmental consequences. California's city councils and boards of supervisors will make many of those decisions. Understandably, they will want to make "green" choices. EIRs will play a critical role in ensuring that the facts are not lost in a green fog. As the Court of Appeal stated in *People v. County of Kern* (1974) 39 Cal.App.3d 830:

> Only by requiring [an agency] to fully comply with the letter of the law can a subversion of the important public purposes of CEQA be avoided, and only by this process will the public be able to determine the environmental and economic values of their elected and appointed officials, thus allowing for appropriate action come election day should a majority of the voters disagree.

(*Id.* at 842.)

The EIR is an argumentative and deceptive document designed to support a predetermined conclusion that the proposed ordinance will have no significant negative environmental impacts. The City Council and the public must be told the truth. STPB will take all appropriate legal steps to ensure that they are told the truth.

SAVE THE PLASTIC BAG COALITION



By: STEPHEN L. JOSEPH, Counsel

International Coastal Cleanup® | 25 ANNIVERSARY

Strpk Doc # 782

TRASH TRAVELS

From Our Hands to the Sea, Around the Globe, and Through Time

Date: 6/9/10

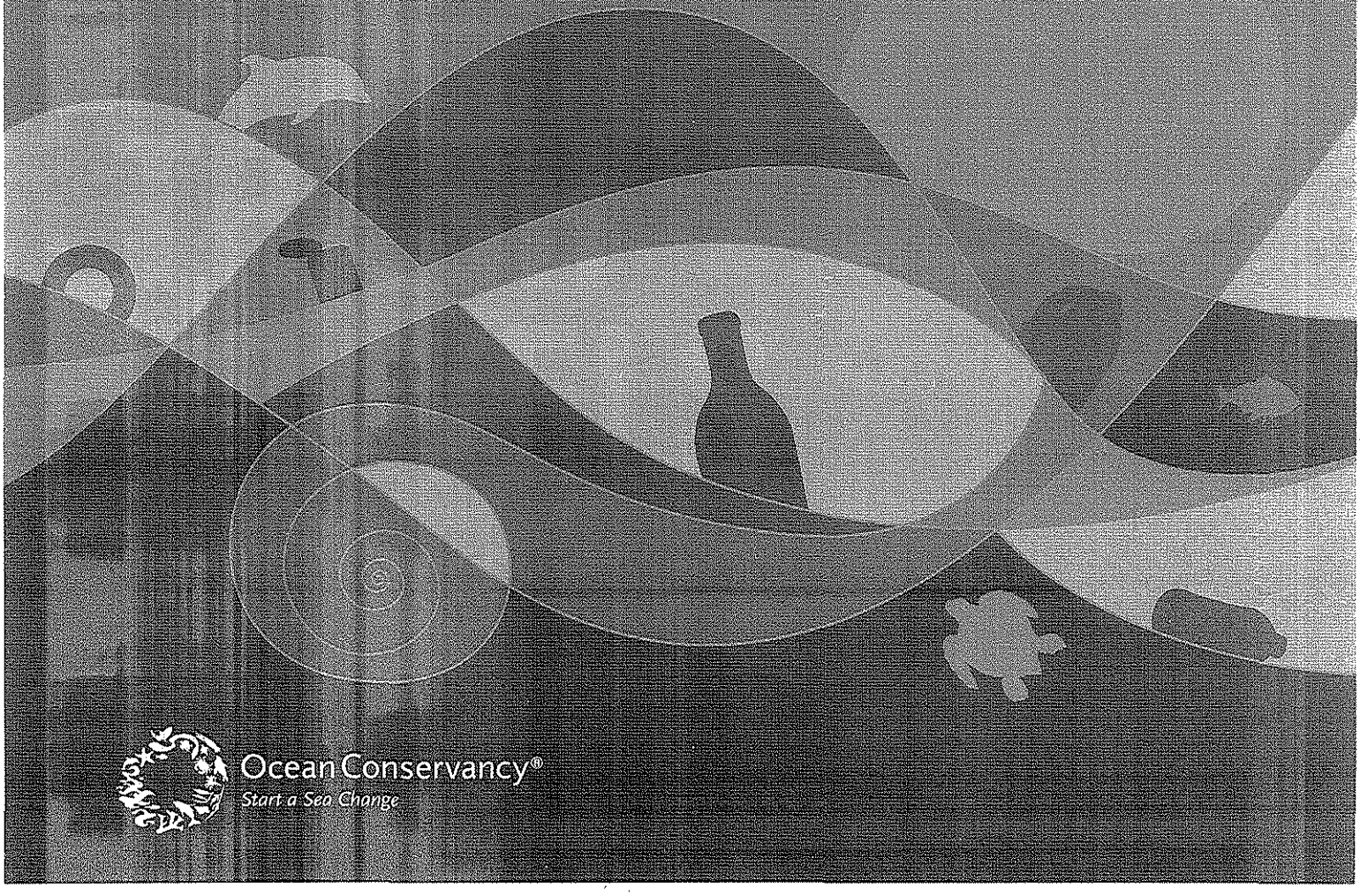
Submitted in: E&C Committee

Control File No.: 11-1091

Item No.: 1

Page: PUBLIC

2010 REPORT



Ocean Conservancy®
Start a Sea Change

Contents

Ocean Conservancy

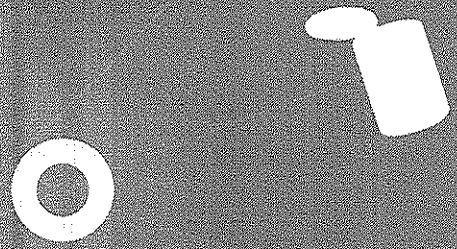
Ocean Conservancy promotes healthy and diverse ecosystems and opposes practices that threaten ocean life and human life. Through research, education, and science-based advocacy, Ocean Conservancy informs, inspires, and empowers people to speak and act on behalf of the ocean. In all its work, Ocean Conservancy strives to be the world's foremost advocate for the ocean.

The International Coastal Cleanup

In partnership with volunteer organizations and individuals across the globe, Ocean Conservancy's International Coastal Cleanup engages people to remove trash and debris from the world's beaches and waterways, to identify the sources of debris, and to change the behaviors that cause marine debris in the first place.

ISBN: 978-0-615-34420-9

LOOKING TOWARD THE 25TH ANNIVERSARY INTERNATIONAL COASTAL CLEANUP ON SEPTEMBER 25, 2010, **Ocean Conservancy is releasing this annual marine debris report spotlighting how trash travels to and throughout the ocean, and the impacts of that debris on the health of people, wildlife, economies, and ocean ecosystems. When we allow trash to fall from our hands and move from land to sea and around the world on ocean currents, we create much more than an eyesore. Marine debris has become one of the worst pollution problems of our time. We've trashed our ocean–and it's time for us to turn the tide.**



FRANCE

INTRODUCTION

Message in a Bottle

Growing up, I loved beachcombing. I was enthralled with the romantic possibility that I might come across a note in a bottle, launched from across the globe and carried to me on ocean currents.

That notion isn't so romantic today. During the International Coastal Cleanup in September 2009, half-a-million volunteers in 108 countries and locations around the world picked up trash from the world's waterways. Divers went below the surface to collect debris, and boaters scooped up trash on hard-to-reach beaches. These volunteers also recorded what they found—including more than a million bottles, each carrying a new message: Trash in our ocean and waterways has created one of the worst pollution problems of our time.

Trash travels, and no beach, lakeshore, or riverfront is untouched—no matter how remote. All of us have contributed. An estimated 60–80 percent of marine litter starts out on land. Much originates along the coast, but litter also finds its way to the ocean by way of storm drains and waterways. Once trash arrives in the ocean, it can travel thousands of miles carried by ocean currents and winds.

There's no doubt, trash in the ocean is ugly. From single-use shopping bags to huge lost fishing nets, marine debris impacts ecosystems, coastal economies, and wildlife. Items like syringes and disposable diapers along with sharp pieces of metal and glass pose health hazards. And trash that falls from our hands to the sea could be there for generations to come, affecting the health of the ocean—a life-support system that provides us food, water, and oxygen. The ocean also drives our climate, and fuels economies. When we trash our ocean, we are trashing our own health and well-being.

The exciting news is that elected officials, CEOs, community leaders, and private citizens are coming together to solve this problem. President Obama has appointed an Interagency Ocean Policy Task Force, making ocean protection a top national priority. Local governments are working hand-in-hand with residents and nongovernmental organizations to develop comprehensive marine debris prevention plans across entire regions. Corporations are using their ingenuity to create technological solutions through "greener" product design and packaging. And Ocean Conservancy's International Coastal Cleanup represents a growing network of hundreds of thousands of people each year who join in the world's largest volunteer effort to clean up the ocean and waterways.

The data these volunteers collect are used to update the Marine Debris Index. In the pages of this report, you will learn about the impacts of traveling trash, and where this traveler originates. Cleanups alone can't solve the problem; we must also stop marine debris at the source.

Please join us for our landmark 25th Anniversary Cleanup in September 2010. To sign up for a Cleanup—or lead one of your own—visit **www.oceanconservancy.org/cleanup**. Together, we can start a sea change.

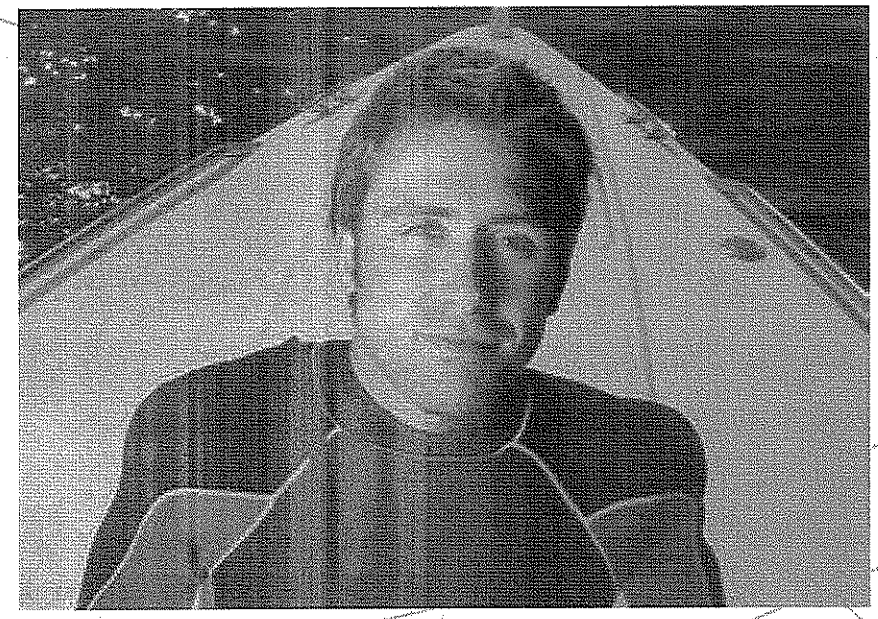
For the ocean,

Vikki Spruill

VIKKI SPRUILL
PRESIDENT AND CEO,
OCEAN CONSERVANCY

A MESSAGE FROM

Philippe Cousteau



WE CAN COME TOGETHER– youth and adults, governments and corporations, nonprofits and scientists– and **STOP MAN-MADE ITEMS FROM GETTING INTO OUR OCEAN.**

Water, one of the most precious substances on the planet, sustains all life. I come from a family that has studied and revered the ocean for three generations; my grandfather Jacques Cousteau called our home "the water planet," and devoted his life's work to showing the world how important the ocean is to our very existence on Earth. It covers more than two-thirds of the globe, an area so large that we've thought of it like outer space–out of sight and seemingly infinite. But today we have the ability to explore the farthest corners of the sea, and we've documented big changes since my grandfather's time.

We know that the trash we put in the ocean is affecting everything from water quality to local economies and human health. I saw it myself in beautiful Papua New Guinea, where cans, bottle caps, and countless other items from our disposable society had arrived ahead of me on those remote shores. When trash travels, it carries impacts along with it that affect us all. We live in a global community, connected by cutting-edge social networking technologies–yet we are bound together as well by our common connection to the ocean. And that's what I tell the young people I work with.

We can find solutions to great environmental problems like this one, and I believe there are millions of young people in the world who have the will to implement those solutions. My sister and I founded the nonprofit organization EarthEcho International to empower youth to take action that restores and protects our water planet. EarthEcho's new Water Planet Challenge will provide the tools and resources they need to plan their own service-learning projects. Experts will provide a solid foundation of knowledge, and through hands-on experiences, like Ocean Conservancy's International Coastal Cleanup, these young people will gain conservation knowledge and skills they can use throughout their lives.

The Challenge is reaching out to them at a time when they are forming lifelong behaviors. There are behavior changes we can all make to craft a world we can thrive in and protect for generations to come. We can come together–youth and adults, governments and corporations, nonprofits and scientists–and stop man-made items from getting into our ocean. From the habits of concert-goers or picnickers to the daily workings of large corporations, we can make changes to stop the dangerous flow of marine debris. Please read this report to learn more, and especially encourage the young people you know to join this global movement. The future of our ocean depends on them.

PHILIPPE COUSTEAU
CEO, EARTHECHO INTERNATIONAL
BOARD MEMBER, OCEAN CONSERVANCY

Executive Summary

> "Marine litter is symptomatic of a wider malaise: namely the wasteful use and persistent poor management of natural resources. The plastic bags, bottles, and other debris piling up in the oceans and seas could be dramatically reduced by improved waste reduction, waste management, and recycling initiatives."

Achim Steiner UNITED NATIONS UNDER-SECRETARY-GENERAL AND UNITED NATIONS ENVIRONMENT PROGRAMME EXECUTIVE DIRECTOR

Each year, Ocean Conservancy provides a compelling global snapshot of marine debris collected and recorded at more than 6,000 sites all over the world on a single day during the International Coastal Cleanup. The world's largest volunteer effort for the ocean and waterways began nearly twenty-five years ago with the efforts of one woman, and today works towards global solutions through the cumulative efforts of half-a-million volunteers around the world. This year's annual report, *Trash Travels: From Our Hands to the Sea, Around the Globe, and Through Time*, highlights the 2009 data and also explains how trash improperly discarded can travel long distances in the water, becoming one of our greatest global pollution problems.

During the 2009 International Coastal Cleanup, 498,818 volunteers picked up 7.4 million pounds of marine debris, in 108 countries and locations around the world and 45 US states and the District of Columbia. Marine debris is defined as "any persistent, manufactured or processed solid material discarded, disposed of, or abandoned in the marine and coastal environment."[31] Items ranging from cigarette butts to 55-gallon drums and household appliances inflict major impacts on the health of the ocean as a whole as well as that of humans, wildlife, and coastal economies.

No matter where we live, the ocean is our life support system, providing much of the food, water, and oxygen we need to survive. When we compromise the ocean's health, we compromise our own. Marine debris also directly impacts human health. Sharp items like broken glass or metal cans cut beachgoers, while disposable diapers, condoms, and old chemical drums introduce bacteria, toxic compounds, and other contaminants into the water. Marine wildlife suffers from dangerous encounters with marine debris as well, facing sickness and death from entanglement or ingestion of man-made objects. And the pervasive problem of marine litter even impacts economic health.

The comprehensive, long-term body of data compiled by Ocean Conservancy and an army of volunteers each year—the Marine Debris Index—is the only country-by-country, state-by-state, item-by-item accounting of trash on beaches and along coastal and inland waterways. These data have been

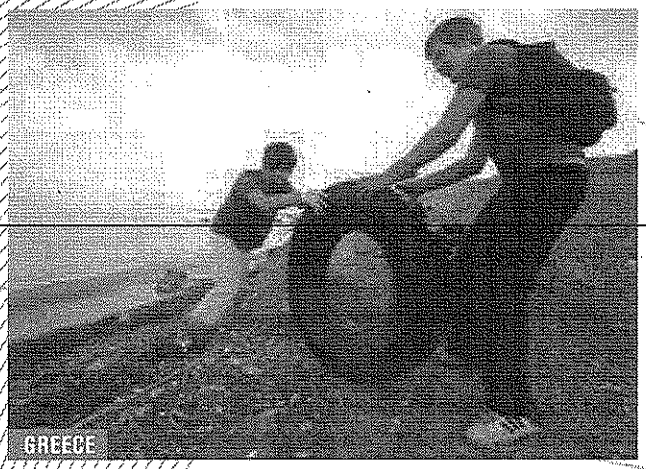
2009 INTERNATIONAL COASTAL CLEANUP:

498,818
VOLUNTEERS

7.4 million
POUNDS OF MARINE DEBRIS

108
COUNTRIES AND LOCATIONS

45
US STATES & THE DISTRICT OF COLUMBIA


GREECE

ABOVE & BELOW: DEDICATED VOLUNTEERS PUT THEIR HEARTS AND MUSCLES INTO THEIR WORK DURING THE CLEANUP, WHETHER HEFTING DUMPED TIRES OR COLLECTING THE MYRIAD LITTER THAT ACCUMULATES ON BEACHES.


INDIA

collected systematically since 1989. Of the 43 items tracked during the Cleanup, the top three items (by number) found worldwide in 2009 were cigarettes/cigarette filters, plastic bags, and food wrappers/containers.

The knowledge that certain items show up more in certain places can help shape local prevention efforts. During the 2009 Cleanup, volunteers found 18,000 derelict fishing nets in the United Kingdom alone, and 70,000 plastic bottles in Nicaragua. In 2009, 60 percent of all debris items found on just one day were "disposable."

The Marine Debris Index has informed major marine debris laws like the US Marine Debris Research, Prevention, and Reduction Act, and has also helped inspire changes in the behaviors that cause marine debris. The data have been cited in a number of major reports and plans concerning this global pollution problem, from California's state marine debris action plan[6] to the United Nations Environmental Programme's 2009 worldwide survey *Marine Litter: A Global Challenge*.[31]

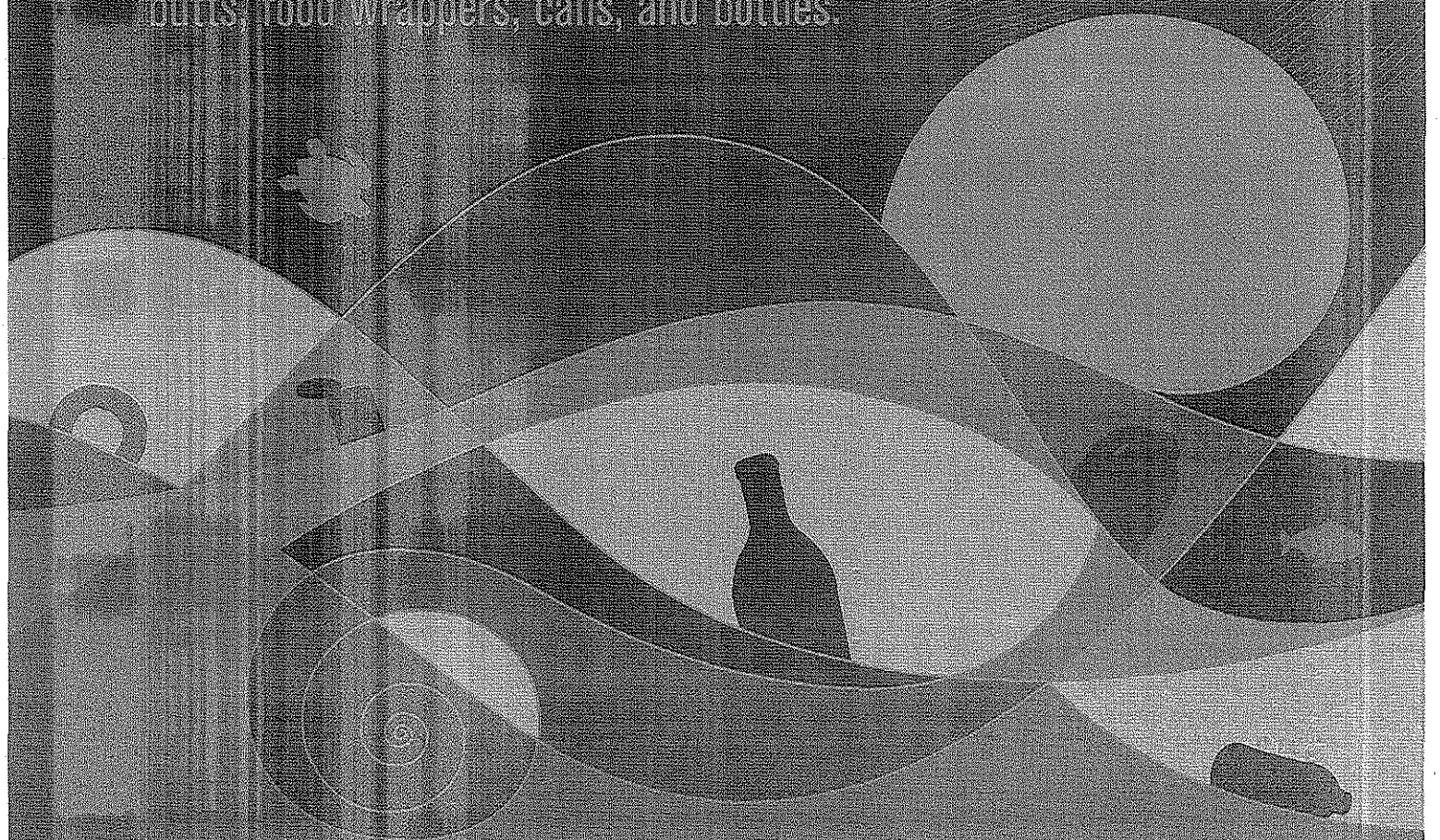
Because trash travels, we are all part of the problem—and the solution—whether we live hundreds of miles inland or along the ocean's shores. This year's Cleanup report examines the phenomenon of trash on the move to and throughout the ocean, and the resulting impacts worldwide. Cleanup data tell us that an estimated 60–80 percent of marine litter starts out on land. Lakes, rivers, streams, and storm drains, helped by the wind, transport litter hundreds of miles to the ocean. And ocean currents and winds carry that marine debris all around the globe. Trash travels through time as well; estimates vary, but some items may last hundreds or even thousands of years in the water.[4]

The data from the International Coastal Cleanup help provide a roadmap for eliminating marine debris by showing what is out there so we can work together to reduce it at the source, change the behaviors that cause it, and support better policies to prevent marine debris from causing further harm to our vital ocean ecosystems.

CLEANUP RESULTS

THE MARINE DEBRIS INDEX

The International Coastal Cleanup is THE WORLD'S LARGEST VOLUNTEER EFFORT ON BEHALF OF OCEAN HEALTH. During the 2009 Cleanup, 498,818 volunteers were united in spirit on a single day across many time zones in 108 countries and locations around the world, as well as in 45 US states and the District of Columbia. THESE DEDICATED OCEAN CHAMPIONS PICKED UP 7,446,130 POUNDS OF DEBRIS AND RECORDED 10,239,538 INDIVIDUAL PIECES OF TRASH, including cigarette butts, food wrappers, cans, and bottles.



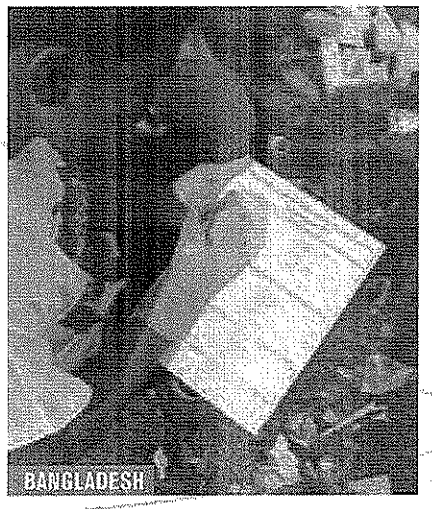
PARTICIPATING COUNTRIES AND LOCATIONS

Argentina
Aruba
Australia
Austria
Bahamas
Bahrain
Bangladesh
Barbados
Belgium
Belize
Brazil
British Virgin Islands
Cambodia
Canada
Cape Verde
Cayman Islands
Chile
China
Colombia
Cook Islands
Costa Rica
Croatia
Cyprus
Denmark
Dominican Republic
East Timor
Ecuador
Egypt
El Salvador
Estonia
Fiji
Finland
France
Germany
Ghana
Gibraltar
Greece
Grenada
Guam
Guatemala
Honduras
Hong Kong
Hungary
India
Indonesia
Iran
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kenya
Libya
Lithuania
Luxembourg
Malaysia
Maldives
Malta
Marshall Islands
Mauritius
Mexico
Namibia
Netherlands
Netherlands Antilles
New Zealand
Nicaragua
Northern Mariana Islands
Norway
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Puerto Rico
Republic of Korea
Russia
Samoa
Saudi Arabia
Singapore
Slovakia
Slovenia
South Africa
Spain
Sri Lanka
St. Kitts and Nevis
St. Vincent and the Grenadines
Sweden
Switzerland
Taiwan
Tanzania
Thailand
Togo
Tonga
Trinidad and Tobago
Turkey
Ukraine
United Arab Emirates
United Kingdom
United States
US Virgin Islands
Uruguay
Vanuatu
Venezuela
Vietnam

LEFT: SCHOOLCHILDREN IN MOMBASA TEAM UP TO CLEAR A LOCAL BEACH OF TRASH.

The Cleanup: History and Logistics

The International Coastal Cleanup got its start with one woman's effort to clean up marine debris on a local beach. Linda Maraniss, a former employee of Ocean Conservancy (then known as the Center for Environmental Education), was appalled by the amount of trash she saw while walking along the shores of South Padre Island, Texas. She felt compelled to clean up what she found, and she also wanted to know which trash items were the most prevalent.



ABOVE: VOLUNTEERS RECORD EVERY ITEM THEY FIND ON STANDARDIZED DATA CARDS.

From that first Cleanup in 1986, the event has been a collaborative effort. Linda and her colleague Kathryn O'Hara worked together on a data card so people could catalogue the trash as they picked it up. Joining forces with the Texas General Land Office, they rallied volunteers. The results: In a mere two hours, 2,800 Texans picked up 124 tons of trash from 122 miles of coastline. As Maraniss says, "Trash travels; it's an international problem. If you're going to succeed with beach cleanups, you need the cooperation of citizens, government, and industry." In the course of nearly a quarter of a century, interest has surged and the Cleanup has become a major international movement to clean shorelines and waterways, collect data, and raise awareness about marine debris.

The hands-on International Coastal Cleanup brings together like-minded people across the world to address one of the greatest pollution problems of our time, involving local residents along with employees of local businesses and governments, all of whom have a stake in finding solutions. Marine debris, which consists of "any persistent, manufactured or processed solid material discarded, disposed of, or abandoned in the marine and coastal environment,"[31] starts as a local issue, but requires global solutions because it often travels far beyond its origins, crossing political and geographical boundaries.

The Cleanup generally takes place on the third Saturday in September (though events may be scheduled throughout September and October to accommodate holidays, religious observances, or extreme weather). Throughout the year, a network of volunteer Cleanup coordinators identifies sites to be cleaned within their country, state, or territory, and recruits sponsors as well as volunteers for the day of the event. More people sign on each year (a million helping hands picked up debris in 2009), drawn not only by the serious and compelling impacts of this major pollution problem, but also by the fact that almost anyone, at any age or any stage of life, can easily participate and make a difference.

Volunteers including friends, neighbors, students, and co-workers fan out across shorelines picking up marine litter. Because lakes, rivers, and streams, along with the wind, can carry litter to the sea, Cleanups occur not just at the ocean, but inland as well, and take place in landlocked states and countries like Nevada and Luxembourg.

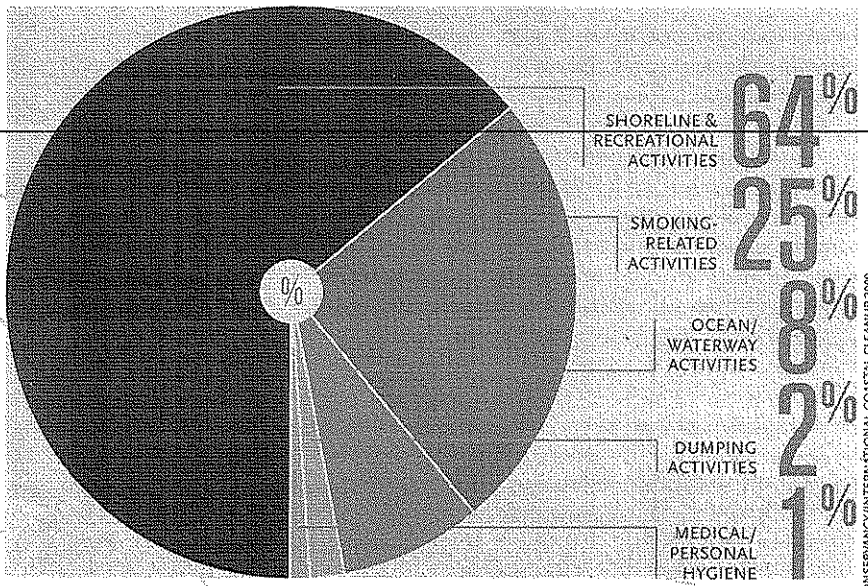
The Data: A Tool for Better Decision-making

Volunteers don't just clean up; they tally every item they find on Ocean Conservancy's standardized data cards. This accounting of items picked up in just a few hours on one day provides a global snapshot of the marine debris problem. The item-by-item, location-by-location data have a long history of raising awareness about this global problem and informing policies and programs to address it.

To give a few examples, in 1987 Ocean Conservancy (then called the Center for Environmental Education) produced the report *Plastics in the Ocean: More Than a Litter Problem*, which was one of the first studies to identify plastics as a significant marine debris hazard. Information cited in the report helped spur the US Congress to enforce restrictions against dumping of garbage at sea by adopting Annex V of the International Convention for the Prevention of Pollution from Ships, also known as MARPOL 73/78 Annex V.

Corresponding national legislation, called the Marine Plastic Pollution Research and Control Act of 1987, restricted the dumping of garbage from boats, including a complete ban on dumping of plastics at sea, and helped control land-based sources of marine debris, such as storm water systems and combined sewer systems. In 2004, the US Commission on Ocean Policy report[32] cited the International Coastal Cleanup data as significant in characterizing the types, amounts, and sources of marine debris collected along the beaches and waterways in the US and its territories. The data from the International Coastal Cleanup also helped inform the passage of the 2006 Marine Debris Research, Reduction, and Prevention Act. In Washington, DC, where Cleanup data documented that single-use bags comprise a large component of local marine debris, the Anacostia River Cleanup and Protection Act of 2009 implemented a five-cent fee on disposable paper or plastic bags provided by retailers; anecdotal information reported in the press suggests that consumption of the bags dropped fifty percent almost immediately. And California used the data when developing a comprehensive state plan to address all aspects of marine debris.[6]

2009 WORLDWIDE SOURCES OF MARINE DEBRIS



MARINE DEBRIS starts as a local issue, but requires global solutions because it **OFTEN TRAVELS FAR BEYOND ITS ORIGINS,** crossing political and geographical boundaries.

Data collection

Volunteers record what they find on standardized data cards that list the most common marine debris items, and allow volunteers to record unusual finds as well. In 2009, "weird finds" included go-karts, a gumball machine, plastic vampire teeth, and a swimsuit-wearing mannequin. From bottle caps to major appliances, debris items are catalogued in categories according to sources (see page 40 for definitions). Coordinators ensure that the data reach Ocean Conservancy, which compiles and analyzes the information. A new online data entry system streamlines the process and minimizes transcription errors.

60 PERCENT of all debris items found in 2009 were "DISPOSABLE."

DURING THE 2009 CLEANUP, VOLUNTEERS FOUND

58,881

BOTTLES OF OIL/LUBE

REPRESENTING OIL CHANGES FOR NEARLY

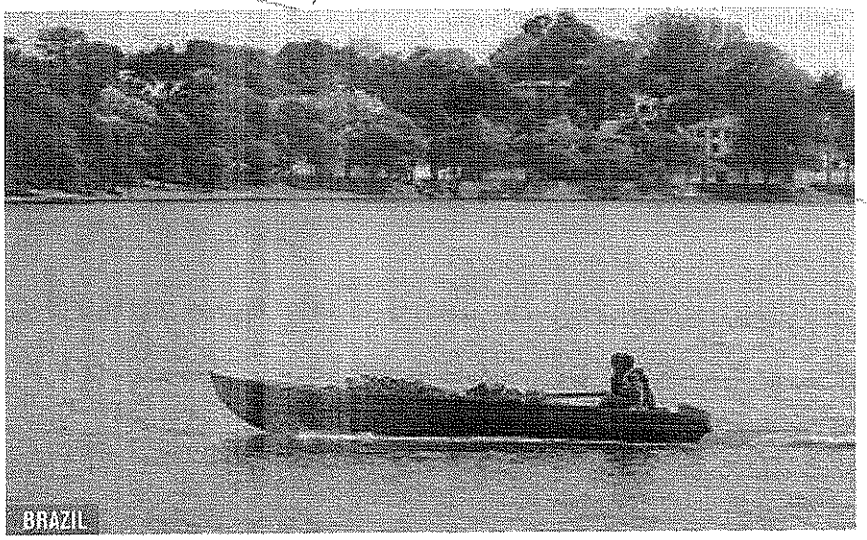
12,000

CARS

The resulting Marine Debris Index helps identify the sources of marine debris so that solutions can be put in place. For example, the data show that 60 percent of all debris items found in 2009 were "disposable," including 512,517 cups, plates, forks, knives, and spoons—enough for a picnic for over 100,000 people. Focusing prevention efforts on reducing and properly disposing of these items has great potential for reducing debris in our ocean and waterways.

For the complete Marine Debris Index and methodology, including state-by-state and country-by-country breakdowns, please see pages 41 through 53; to view additional information, visit www.oceanconservancy.org.

In 2009, hard-to-reach locations were covered by 1,986 boaters who collected 52,133 pounds of debris. And because marine debris doesn't stop at the waterline, 14,116 scuba divers (organized by the Project AWARE Foundation) plunged into the water to retrieve 320,437 pounds more. The Cleanup took place at 6,430 sites around the world.



ABOVE: AT PAMPULHA LAKE IN BELO HORIZONTE, A BOATER FERRIES DEBRIS COLLECTED DURING THE CLEANUP; VOLUNTEERS IN BOATS CAN OFTEN REACH AREAS INACCESSIBLE BY THOSE ON FOOT.

Sources of Marine Debris

Identifying where marine debris originates is key to developing solutions. Ocean Conservancy identifies five categories of marine debris sources to better understand where the trash reaching our ocean starts out.

» **SHORELINE & RECREATIONAL ACTIVITIES.** The majority of marine debris comes from land-based activities like eating fast food and discarding the wrappers, beach trips and picnics, sports and recreation, and festivals. Litter travels into the ocean from streets, parking lots, and storm drains.

» **OCEAN/WATERWAY ACTIVITIES.** People engaged in recreational fishing and boating, commercial fishing, cargo/military/cruise ship operations, and offshore industries such as oil drilling contribute to marine debris.

» **SMOKING-RELATED ACTIVITIES.** Careless disposal of cigarette filters, cigar tips, lighters, and tobacco product packaging is common on both land and sea.

» **DUMPING ACTIVITIES.** Legal and illegal dumping of domestic and industrial garbage, construction materials, and large household appliances puts large quantities of harmful items into the sea.

» **MEDICAL/PERSONAL HYGIENE.** Items ranging from tampons and disposable diapers to syringes enter the water most often through sewer systems.

SOURCES OF MARINE DEBRIS BY REGION

SOURCE	AFRICA	NORTH AMERICA	CENTRAL AMERICA	SOUTH AMERICA	CARIBBEAN	SOUTH-EAST ASIA	WESTERN ASIA	EUROPE	OCEANIA
SHORELINE & RECREATIONAL ACTIVITIES	76.1%	55.2%	84.9%	69.7%	82.6%	72.4%	60.5%	60.4%	75.2%
OCEAN/WATERWAY ACTIVITIES	12.7%	5.0%	4.8%	12.0%	6.6%	12.7%	9.7%	24.9%	5.2%
SMOKING-RELATED ACTIVITIES	8.4%	37.2%	8.0%	15.4%	7.7%	11.2%	27.7%	11.1%	19.7%
DUMPING ACTIVITIES	1.8%	1.9%	1.1%	2.0%	1.8%	1.6%	1.5%	2.8%	1.8%
MEDICAL/PERSONAL HYGIENE	1.0%	0.7%	1.2%	1.0%	1.3%	2.0%	0.6%	0.8%	1.1%

SOURCE: OCEAN CONSERVANCY/ INTERNATIONAL COASTAL CLEANUP 2009

In addition, regional trends tracked by source can help local planners identify and manage specific marine debris items. As the chart above shows, in 2009 Central America had the largest percentage of debris from Shoreline and Recreational Activities (84.9 percent). Europe had the largest percentage of items from Ocean/Waterway Activities, nearly a quarter of all their debris items. The United Kingdom removed nearly 18,000 fishing nets during the Cleanup, while North America had the highest percentage of debris from Smoking-related Activities, with 37 percent of debris items coming from this category. Percentages of debris from both Dumping Activities and Medical/Personal Hygiene were fairly consistent throughout the world. One item collected in large numbers in a particular region can point decision-makers towards specific solutions, as in Nicaragua where volunteers found over 70,000 plastic bottles during the 2009 Cleanup—an average of 11 plastic bottles per volunteer. To put the Nicaragua statistic in perspective, only the United States picked up more bottles as a country, and the much larger US has 28 times more volunteers cleaning its shores.

On the list of top ten items found worldwide, cigarettes and cigarette filters were the most prevalent debris items found during the Cleanup, accounting for nearly twice the number of any other debris item; volunteers removed more than 2.2 million from beaches and inland waterways. Plastic bags placed second (1.1 million), accounting for one out of every ten items removed and tallied, followed by food wrappers/containers (943,233). In addition, 73 percent of the top ten debris items came from Shoreline and Recreational Activities, and 27 percent from Smoking-related Activities. Nine out of the top ten debris items are disposable.

ABOVE: CIGARETTES, PLASTIC BAGS, AND FOOD WRAPPERS/CONTAINERS TOP THE LIST, BUT VOLUNTEERS FIND EVERY KIND OF MAN-MADE ITEM IMAGINABLE.

TOP TEN MARINE DEBRIS ITEMS

RANK	DEBRIS ITEM	NUMBER OF DEBRIS ITEMS	PERCENTAGE OF TOTAL DEBRIS ITEMS
1	CIGARETTES/CIGARETTE FILTERS	2,189,252	21%
2	BAGS (PLASTIC)	1,126,774	11%
3	FOOD WRAPPERS/CONTAINERS	943,233	9%
4	CAPS, LIDS	912,246	9%
5	BEVERAGE BOTTLES (PLASTIC)	883,737	9%
6	CUPS, PLATES, FORKS, KNIVES, SPOONS	512,517	5%
7	BEVERAGE BOTTLES (GLASS)	459,531	4%
8	BEVERAGE CANS	457,631	4%
9	STRAWS, STIRRERS	412,940	4%
10	BAGS (PAPER)	331,476	3%
	TOP TEN TOTAL DEBRIS ITEMS	**8,229,337**	**80%**
	TOTAL DEBRIS ITEMS WORLDWIDE	**10,239,538**	**100%**

SOURCE: OCEAN CONSERVANCY/INTERNATIONAL COASTAL CLEANUP 2009

Nearly 380,000 VOLUNTEERS WORKED ALONG THE OCEAN'S COASTS, while more than 120,000 PEOPLE PARTICIPATED INLAND.

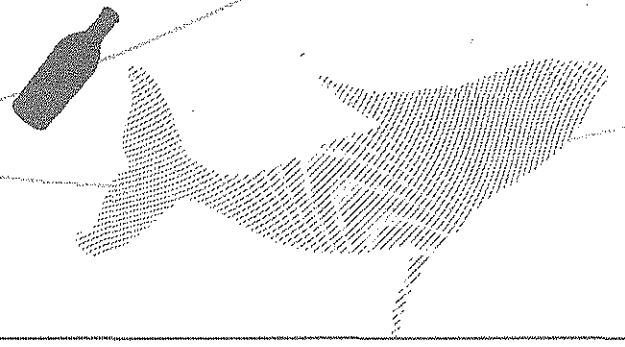
2009 WORLDWIDE DEBRIS ITEM TOTALS

DEBRIS ITEMS/SOURCES	COUNTS
SHORELINE & RECREATIONAL ACTIVITIES	
BAGS (PAPER)	331,476
BAGS (PLASTIC)	1,126,774
BALLOONS	82,902
BEVERAGE BOTTLES (PLASTIC)	883,737
BEVERAGE BOTTLES (GLASS)	459,531
BEVERAGE CANS	457,631
CAPS/LIDS	912,246
CLOTHING/SHOES	242,928
CUPS/PLATES/FORKS/KNIVES/SPOONS	512,517
FOOD WRAPPERS/CONTAINERS	943,233
PULL TABS	92,970
6-PACK HOLDERS	43,257
SHOTGUN SHELLS/WADDING	37,609
STRAWS, STIRRERS	412,940
TOYS	101,543
SUBTOTAL	**6,641,294**
OCEAN/WATERWAY ACTIVITIES	
BAIT CONTAINERS/PACKAGING	47,361
BLEACH/CLEANER BOTTLES	55,814
BUOYS/FLOATS	56,276
CRAB/LOBSTER/FISH TRAPS	15,463
CRATES	12,807
FISHING LINE	88,794
FISHING LURES/LIGHT STICKS	33,711
FISHING NETS	46,189
LIGHT BULBS/TUBES	26,721
OIL/LUBE BOTTLES	58,881
PALLETS	9,376
PLASTIC SHEETING/TARPS	86,729
ROPE	201,739
STRAPPING BANDS	43,682
SUBTOTAL	**783,543**

DEBRIS ITEMS/SOURCES	COUNTS
SMOKING-RELATED ACTIVITIES	
CIGARETTES/CIGARETTE FILTERS	2,189,252
CIGARETTE LIGHTERS	59,884
CIGAR TIPS	133,418
TOBACCO PACKAGING/WRAPPERS	129,234
SUBTOTAL	**2,511,788**
DUMPING ACTIVITIES	
APPLIANCES (REFRIGERATORS, WASHERS, ETC.)	11,112
BATTERIES	29,598
BUILDING MATERIALS	111,134
CARS/CAR PARTS	23,459
55-GALLON DRUMS	3,634
TIRES	19,126
SUBTOTAL	**198,063**
MEDICAL/PERSONAL HYGIENE	
CONDOMS	26,617
DIAPERS	38,550
SYRINGES	15,076
TAMPONS/TAMPON APPLICATORS	24,607
SUBTOTAL	**104,850**

TOTAL DEBRIS ITEMS COLLECTED WORLDWIDE **10,239,538**

SOURCE: OCEAN CONSERVANCY/INTERNATIONAL COASTAL CLEANUP 2009



AVERAGE AMOUNT OF TRASH PICKED UP PER PERSON:

15

POUNDS

The Inland Connection

Blown by the wind or carried on lakes, rivers, and streams, trash from far inland can travel to the ocean, so Cleanups take place both inland and along the ocean's coasts. During the 2009 Cleanup, 75 percent of all debris items were collected from coastal areas, and 25 percent were collected from inland waterways. Nearly 380,000 volunteers worked along the ocean's coasts, while more than 120,000 people participated inland. The average amount of trash picked up per person was 15 pounds. Nearly every item found in the top ten coastal Cleanups was also found in the top ten inland Cleanups, showing that the most prevalent items are common to each. Cigarettes and cigarette filters were the number one item found during both, with 1.5 million removed during coastal Cleanups and over 620,000 picked up inland.

Volunteer Participation

Slightly more than half the participants in 2009 came from outside the United States, where the Philippines, Canada, and India had the greatest turnouts. The Philippines nearly doubled their numbers from 2008. Five countries joined the effort for the first time: Cambodia, Cape Verde, Namibia, Samoa, and Togo. The countries with the most Cleanup sites were the United States (2,669), Canada (1,337), and the United Kingdom (418).

In the United States, 218,779 volunteers collected 4,253,650 pounds of trash along an estimated 9,151 miles of shoreline. They covered 45 states and the District of Columbia. The states with the most individual Cleanup sites were California (612), Florida (360), and New York (269). California reached an all-time high of 82,365 volunteers, 38 percent of the US total. Georgia was second with 23,668 volunteers (nearly 11 percent of the US total), followed closely by Florida with 22,703 volunteers (10 percent). The top ten states accounted for nearly 84 percent of US volunteers.

TOP TEN PARTICIPATING COUNTRIES & LOCATIONS

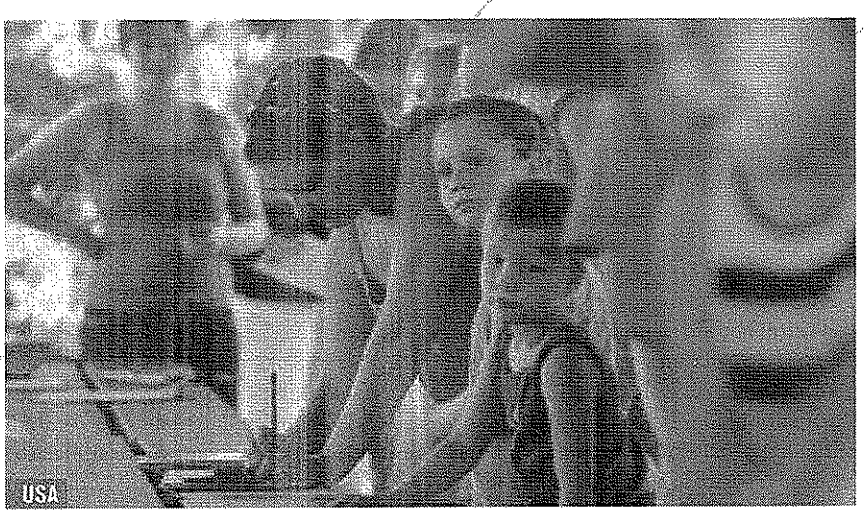
RANK	COUNTRY OR LOCATION	NUMBER OF VOLUNTEERS
1	UNITED STATES	218,779
2	PHILIPPINES	74,493
3	CANADA	37,147
4	INDIA	18,284
5	PUERTO RICO	14,705
6	JAPAN	13,867
7	BRAZIL	13,664
8	DOMINICAN REPUBLIC	11,636
9	SOUTH AFRICA	7,832
10	MEXICO	6,772
	108 COUNTRIES & LOCATIONS	498,818

SOURCE: OCEAN CONSERVANCY/INTERNATIONAL COASTAL CLEANUP 2009

TOP TEN PARTICIPATING US STATES

RANK	US STATE	NUMBER OF VOLUNTEERS
1	CALIFORNIA	82,365
2	GEORGIA	23,668
3	FLORIDA	22,703
4	NORTH CAROLINA	18,433
5	NEW YORK	10,425
6	TEXAS	9,374
7	VIRGINIA	5,641
8	ALABAMA	3,473
9	SOUTH CAROLINA	3,472
10	MISSISSIPPI	3,205
	45 US STATES AND DISTRICT OF COLUMBIA	218,779

SOURCE: OCEAN CONSERVANCY/INTERNATIONAL COASTAL CLEANUP 2009



ABOVE: MOMS AND KIDS, CO-WORKERS, NEIGHBORS, AND FRIENDS SIGN UP TOGETHER TO SHARE THE CLEANUP EXPERIENCE WITH LIKE-MINDED PEOPLE THE WORLD OVER.

COASTAL VS. INLAND SOURCES OF MARINE DEBRIS

SOURCE	NUMBER OF COASTAL DEBRIS ITEMS	NUMBER OF INLAND DEBRIS ITEMS	TOTAL NUMBER OF DEBRIS ITEMS
SHORELINE & RECREATIONAL ACTIVITIES	5,023,636	1,617,658	6,641,294
OCEAN/WATERWAY ACTIVITIES	1,792,801	718,987	2,511,788
SMOKING-RELATED ACTIVITIES	653,646	129,897	783,543
DUMPING ACTIVITIES	139,043	59,020	198,063
MEDICAL/PERSONAL HYGIENE	83,032	21,818	104,850
TOTALS	**7,692,158**	**2,547,380**	**10,239,538**

SOURCE: OCEAN CONSERVANCY/ INTERNATIONAL COASTAL CLEANUP 2009

Threats to Human Health

Nearly 200,000 items tallied during the Cleanup pose a direct public health threat. Debris from Dumping Activities (appliances, batteries, cars/car parts, and 55-gallon chemical drums) can release toxic compounds into the water, while items from the Medical/Personal Hygiene category (condoms, disposable diapers, syringes, and tampons/tampon applicators) may convey bacteria and other contaminants. Volunteers found 15,076 syringes worldwide during the 2009 Cleanup.

Dangers to Wildlife

As they pick up litter, volunteers also note wildlife they find entangled in debris. In 2009, they found 336 marine birds and animals entangled in debris. 120 were alive and released, and 216 entangled birds and animals were found dead, including a seal in California discovered entangled in fishing line. Birds were the number-one victim, accounting for 41 percent of dead marine life found. Fishing line and lost or derelict fishing nets were the two most prevalent types of entangling debris (62 percent).

Wildlife doesn't just become entangled in debris; birds, animals, and fish often ingest items they encounter in their ocean homes. They eat bottle caps, cigarette butts and lighters, fishing line, and a host of other objects. Ocean Conservancy surveyed the literature to identify the items known to choke or entangle wildlife.

WORLDWIDE DEBRIS ITEMS FROM DUMPING ACTIVITIES

198,063

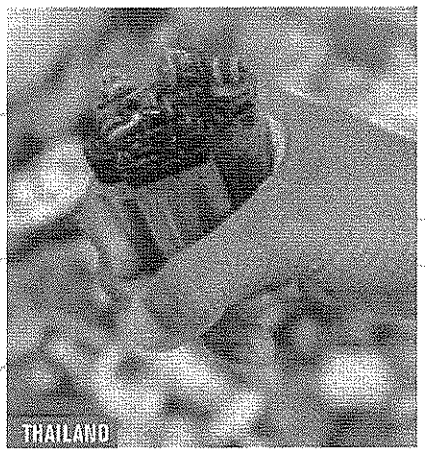
WORLDWIDE DEBRIS ITEMS FROM MEDICAL/PERSONAL HYGIENE

104,850

DEBRIS ITEMS KNOWN TO BE DANGEROUS TO WILDLIFE

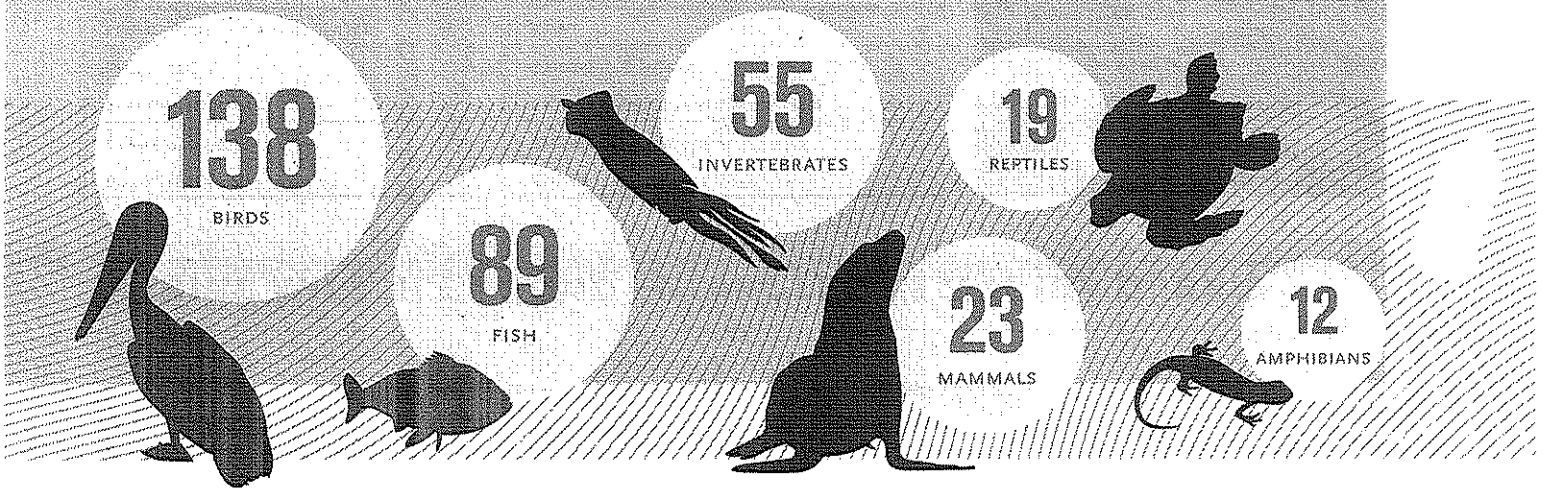
BAGS (PAPER)	CRAB/LOBSTER/FISH TRAPS
BAGS (PLASTIC)	FISHING LINE
BALLOONS	FISHING LURES/LIGHT STICKS
CAPS, LIDS	FISHING NETS
CLOTHING, SHOES	PLASTIC SHEETING/TARPS
FOOD WRAPPERS/CONTAINERS	ROPE
PULL TABS	STRAPPING BANDS
6-PACK HOLDERS	CIGARETTES/CIGARETTE FILTERS
STRAWS, STIRRERS	CIGARETTE LIGHTERS
BUOYS/FLOATS	CIGAR TIPS

SOURCE: OCEAN CONSERVANCY


THAILAND

MARINE WILDLIFE FOUND ENTANGLED IN MARINE DEBRIS

WILDLIFE	BEVERAGE BOTTLES	BEVERAGE CANS	CRAB, LOBSTER, & FISH TRAPS	FISHING HOOKS	FISHING LINE	FISHING NETS	PLASTIC BAGS	RIBBON/ STRINGS	ROPE	6-PACK HOLDERS	WIRES	TOTAL
AMPHIBIANS	1	0	0	0	3	1	6	0	0	1	0	**12**
BIRDS	2	0	0	5	45	53	19	5	5	1	3	**138**
FISH	5	1	2	1	48	11	11	2	5	1	2	**89**
INVERTEBRATES	6	2	1	1	14	12	6	7	6	0	0	**55**
MAMMALS	0	0	0	3	6	1	6	1	5	1	0	**23**
REPTILES	0	0	0	0	10	4	1	1	2	0	1	**19**
TOTAL DEBRIS ITEMS	**14**	**3**	**3**	**10**	**126**	**82**	**49**	**16**	**23**	**4**	**6**	**336**



TRASH TRAVELS

THE TRUTH—AND THE CONSEQUENCES

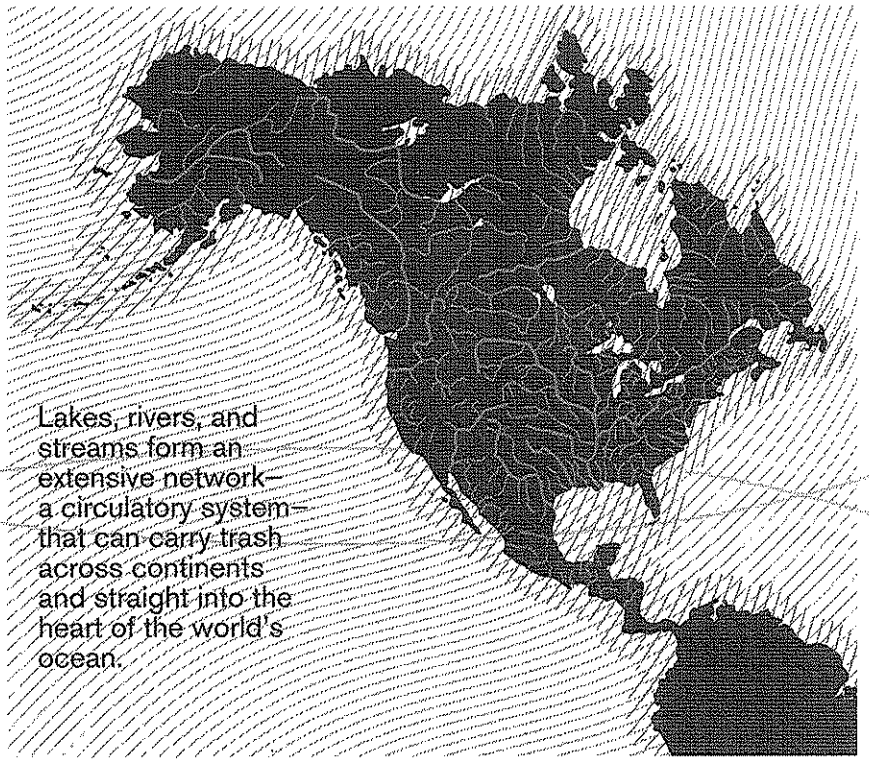
The hardest truth about the state of our marine environment is that **WE'VE TRASHED OUR OCEAN**, the source of much of the food, water, and oxygen we need to survive. No matter where we live, the ocean is our life-support system, providing all these essentials for us on a daily basis. **MARINE DEBRIS IS NOW CONSIDERED ONE OF THE MOST PERVASIVE POLLUTION PROBLEMS PLAGUING OUR OCEAN AND WATERWAYS**, and our growing population is generating more of it than ever before.[39]

An estimated 60–80 PERCENT of marine debris STARTS OUT ON LAND.

Because trash travels, we are all part of the problem—and the solution—whether we live hundreds of miles inland or along the ocean's shores. Trash travels from our hands to a storm drain to a stream to the sea. Many items move around the world on ocean currents, to even the most remote areas in the Antarctic. And trash travels through time; estimates vary, but some items may remain for hundreds or even thousands of years.[4]

Trash accumulating in our majestic ocean and along our beautiful beaches, riverbanks, and lakeshores is not only ugly, it's dangerous, degrading the ocean environment and harming countless marine animals and birds. It poses risks to our personal health: Paint cans and chemical drums leach toxic materials, diapers and medical waste spread bacteria and germs, and sharp items cut beachgoers. And trash takes a toll on economic health. The Asia-Pacific Economic Cooperation (APEC) found that, in the Asia-Pacific region alone, marine debris was estimated to cost more than US$ 1 billion a year, from clean-up to boat repairs.[16] Fishing, transportation, and tourism industries around the world feel the impact along with governments and local communities.

Rising population pressures (particularly near coastal areas), inadequate infrastructure and waste management facilities, littering and improper waste disposal, a lack of effective regulatory policies and enforcement, and a wasteful society all contribute to the problem.



Lakes, rivers, and streams form an extensive network—a circulatory system—that can carry trash across continents and straight into the heart of the world's ocean.

Trash Travels from Our Hands to Land to Sea

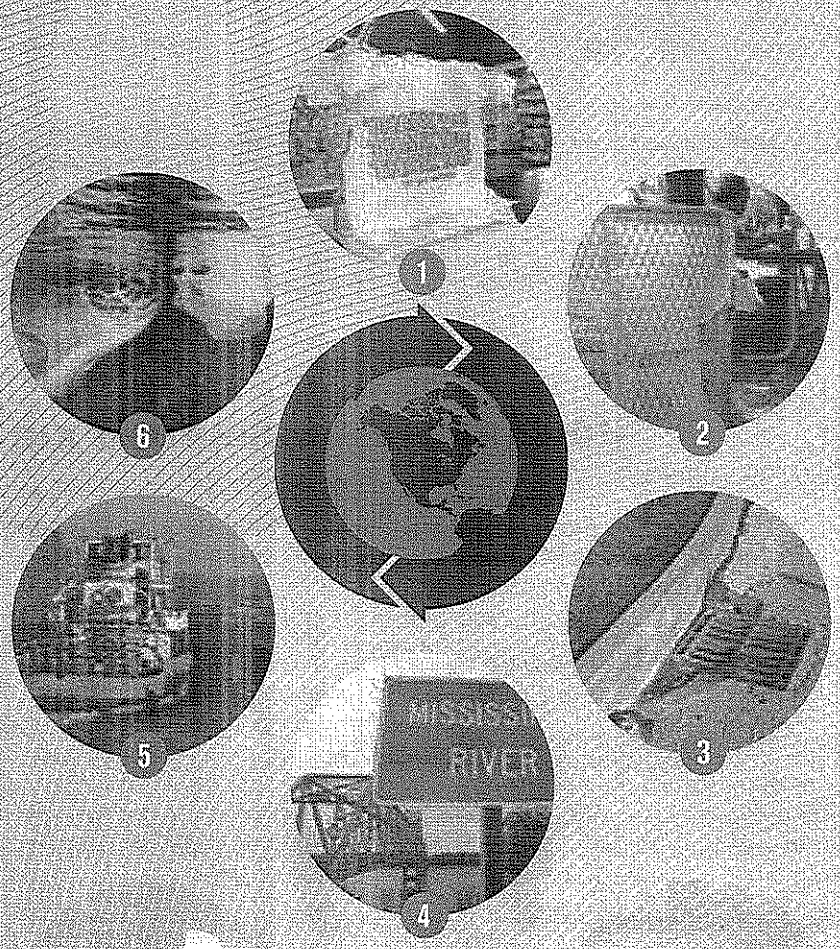
An estimated 60–80 percent of marine debris starts out on land.[14] Clearly, preventing land-based debris can reduce the problem of trash entering our waterways dramatically. Lakes, rivers, and streams form an extensive network—a circulatory system—that can carry trash across continents and straight into the heart of the world's ocean. A beverage can carelessly cast away in a park hundreds of miles inland might blow into a nearby waterway and make it to the ocean.

The role of watersheds

A watershed is a region in which all precipitation and all waterways eventually flow together. Picture this: Thirteen major rippling streams and creeks feed into Washington, DC's Anacostia River, each collecting and carrying litter like food wrappers blown or thrown from land. The Anacostia then merges into the bigger Potomac River, which surges on to Chesapeake Bay and from there to the Atlantic Ocean, ferrying debris all the way. The Anacostia and its tributaries are but a part of the Potomac watershed, which collects trash from an area of over nine million acres encompassing portions of four states and the District of Columbia. Five million people make their home there.[22] And so it goes; there are countless watersheds all over the world, each bearing trash toward the ocean. For this reason, the US Environmental Protection Agency, a leader in marine debris prevention in the US and a long-time Cleanup partner, follows a watershed approach in battling trash that targets the types, sources, and conveyances of marine debris throughout watersheds, not just where it accumulates along shorelines.

SIX DEGREES OF SEPARATION

A bag from a store in Tennessee (1) blows from a picnic site (2) into a storm drain (3) to the Mississippi River (4) and travels downriver (5) to the Gulf of Mexico, where it endangers a sea turtle that tries to eat it (6).



Storm drains don't just carry rain water

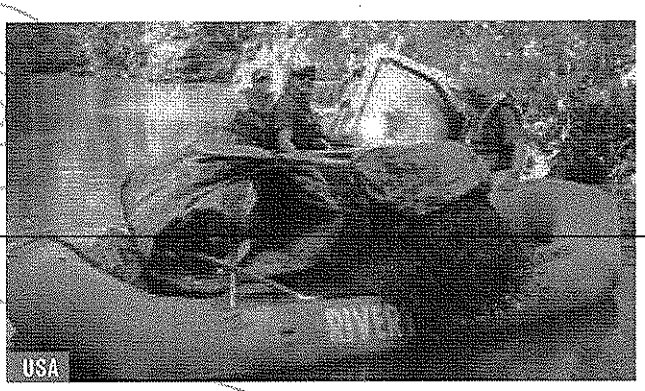
Storm drains are a key portal in the transport of trash. Heavy rains surging along roads, sidewalks, and parking lots sweep up cigarette butts, food wrappers, plastic bottles, and other items carelessly cast aside and carry them into storm sewers. These sewers do not usually flow into municipal water treatment systems, but instead empty directly into nearby waterways. Small, lightweight items are easily borne by the water. For example, volunteers with the International Coastal Cleanup find more cigarette butts than any other single item—millions of them. Unsightly to look at, slow to degrade, and difficult to clean up, cigarette butts in the water aren't just unsightly; they can clog the digestive tracts of birds, fish, and other animals that eat them.

Another concern is combined sewer systems that connect sewer and storm-water runoff pipes; during heavy rains, these systems can be overwhelmed, causing everything from litter to medical waste, condoms, and tampon applicators to flow directly into local waterways.[33] In countries without storm drains, debris washes directly into stream beds, eventually making its way to the ocean.

Trash Circling the Globe Driven by Wind and Ocean Currents

Marine debris starts out as a local problem, but easily goes global as it circulates thousands of miles in the ocean. How far can it travel? In 1990, a cargo ship bound for Los Angeles from Korea encountered a storm, and 78,932 Nike™ sneakers were lost at sea. Eight months later, they were washing

up 2,000 miles away on Vancouver Island in Canada. Others drifted south to the Oregon coast. In 1992, another cargo ship, this one en route from Korea to Tacoma, Washington, lost 28,800 colorful plastic bathtub toys. A rainbow flotilla of "rubber duckies," turtles, beavers, and frogs began roaming the seas. Sixteen years later many were still drifting, some as much as 34,000 miles—far enough to circle the planet almost one-and-a-half times.[10]



LEFT: INLAND CLEANUPS LIKE THIS ONE ON A MARYLAND CREEK ARE CRITICAL BECAUSE TRASH CAN TRAVEL ON TO RIVERS AND THE SEA.

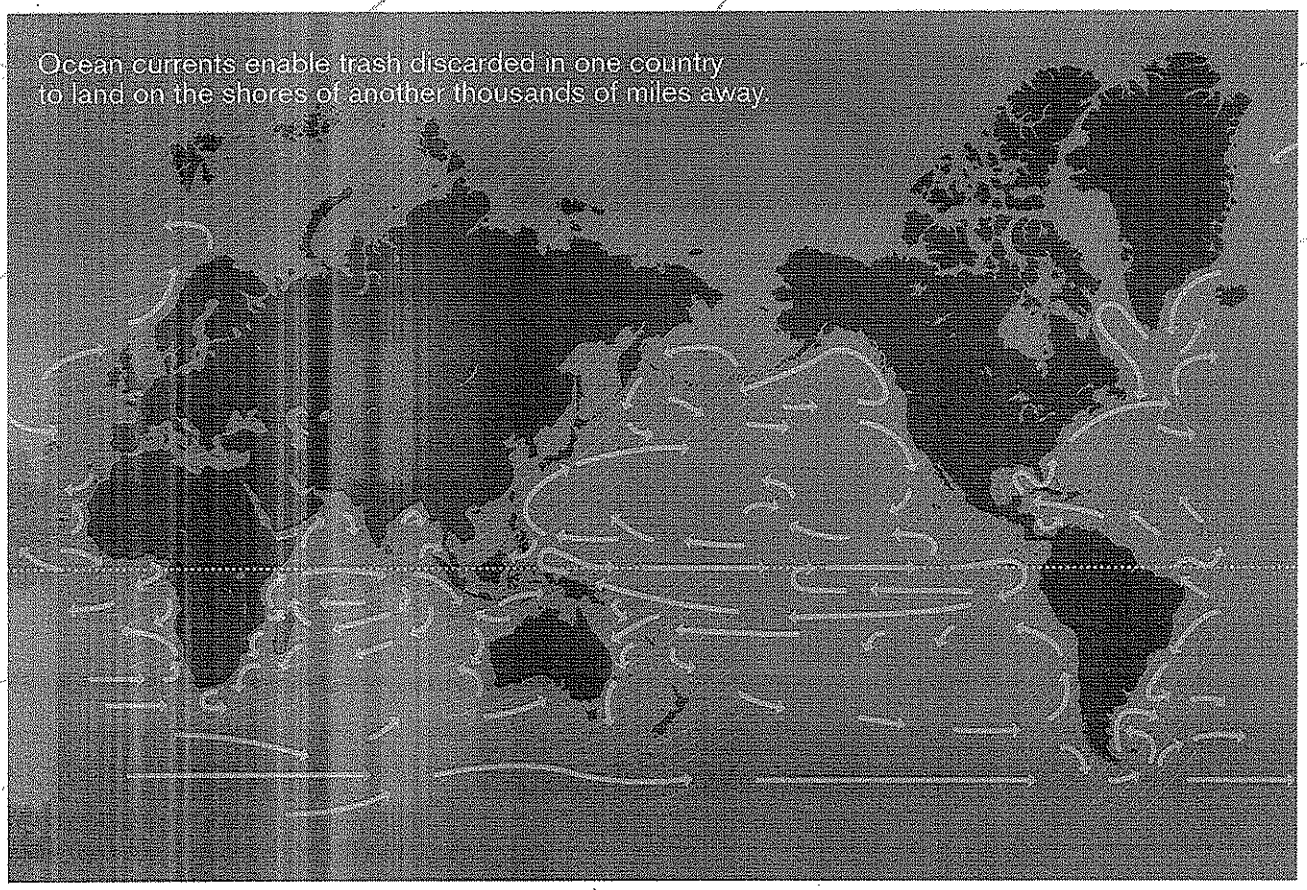
Unfortunately, the very traits that make today's modern synthetic materials so useful turn them into ideal ocean travelers. Lightweight and buoyant, yet sturdy items like drinking straws, balloons, and disposable cups easily travel long distances.

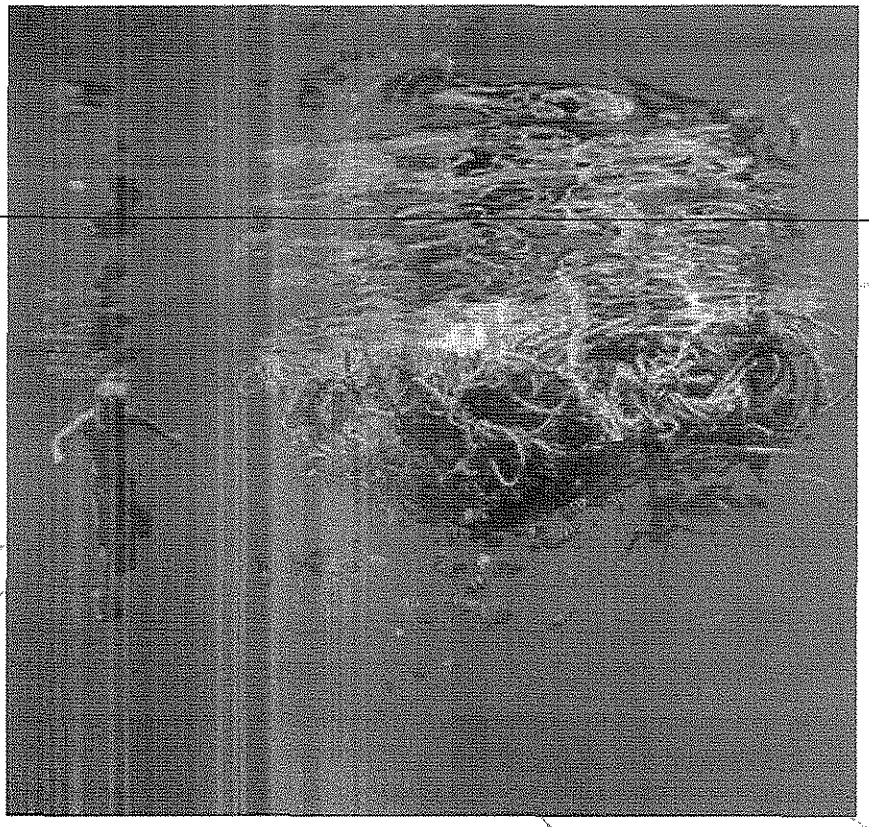
Alien hitchhikers

Marine debris has also become an all-too-common mode of transport for disruptive invasive species. Living organisms may hitch rides on marine debris and end up in new ecosystems where they can disrupt ecosystem relationships. Centuries ago, black rats stowed away on ships from Europe and traveled to Hawaii where none lived before. In this environment, without natural predators, the newly arrived species reproduced rapidly and preyed upon native bird populations, exacting a heavy toll.

The same thing occurs today, only the species have changed. The risk of alien invasions is increasing because of the sheer volume of buoyant, man-made debris that can transport species across vast stretches of ocean—much of this debris ending up in coastal areas where hitchhiker-carrying ships can't reach. One researcher has estimated that marine debris has increased the opportunities for organisms to hitch a ride by two to three times.[3] Once in their new home, they can compete with local species, often without natural predators to keep their populations in check. If they thrive and reproduce, these invasive species can upset key functions of local ecosystems.

GLOBAL SURFACE CURRENTS



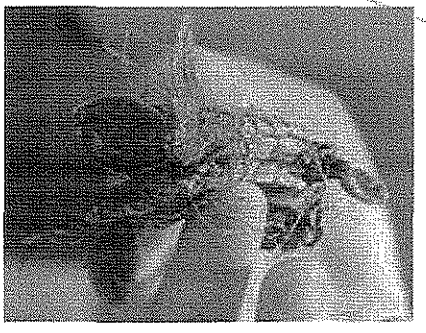


ABOVE: ROPES, OLD FISHING GEAR, AND SIMILAR DEBRIS CAN POSE AN ENTANGLEMENT DANGER TO WILDLIFE AND ALSO DAMAGE BOAT PROPELLERS.

Trash Traveling Through Time

Like so much of what we put into the ocean, those spilled bathtub toys didn't just travel physically, they traveled through time as well. Think of the useful life of a single-use shopping bag, designed to be the length of your errand, maybe a half-hour, tops. But like so many inexpensive conveniences of our modern world, that bag can find its way to the ocean, taking years to degrade. Once in the water, it might be eaten by an endangered sea turtle that could mistake it for a jellyfish and die. Or it could tangle in a propeller and burn out a boat motor, causing expensive repairs, delays, or safety problems.

Estimates for how long it takes particular items to degrade in the ocean vary widely and more research is needed, but much of the modern-day litter traveling the ocean and washing up on beaches will likely remain for many years into the future. Manufactured goods made from more durable synthetic materials last a lot longer than those once made from biodegradable, natural materials. And long-lasting debris like lost fishing gear has long-lasting impacts. Nets, buoys, traps, and fishing line are now manufactured with stronger synthetic materials. In the Northwestern Hawaiian Islands, 52 metric tons of fishing gear and other debris—the weight of more than ten Dodge Ram pickup trucks—are estimated to accumulate annually.[7] This debris breaks delicate coral reefs, smothers sea life on the ocean floor, and entangles animals like the critically endangered Hawaiian monk seal.



ABOVE: DISCARDED FISHING LINE HAMPERS THE ABILITY OF THIS LOGGERHEAD SEA TURTLE HATCHLING TO SWIM AND FEED.

"Ghost fishing" occurs when these nets and traps, left untended by fishermen, continue to catch marine life that ultimately dies.

Plastic is a particularly pervasive time traveler. The National Research Council's 2008 report, *Tackling Marine Debris in the 21st Century*, states that "Marine debris, especially plastic debris, is now ubiquitous in the oceans and along coasts."[19] Plastics have improved our lives in many ways, from innumerable technological advances to energy savings and packaging,[2] but it should come as no surprise that there is a wide range of evidence and diversity of scientific opinion about plastics. In fact, an entire issue of the prestigious *Philosophical Transactions of the Royal Society B* was recently devoted to the theme of "Plastics, the environment, and human health."[21]

What is clear is that the physical characteristics that make plastics ideal for manufactured items like food containers and packaging—low cost, low weight, and durability—also allow them to travel a long time and great distances as debris. This problem is exacerbated in the ocean; most plastics degrade more slowly in water than on land due to reduced exposure to the sun's UV rays and cooler temperatures.[1]

Some other types of debris—glass, for example—also may persist for long periods of time, but one of the characteristics of plastic products is the tendency to break down into smaller and smaller pieces (less than 5 mm) called "microplastics" over time. Because of their tiny size and light weight, microplastics can circulate and remain physically and biologically available in ocean waters and sediments for a long time, and researchers have identified them as an emerging concern for global conservation of biodiversity.[26]

Microplastics can come from several sources: Debris items like food containers abrade and disintegrate. Pre-production plastic pellets called "nurdles," which are used in the process of manufacturing finished plastic products, can spill and wash down storm drains and rivers to the ocean or get blown there on the wind. Yet another source is personal hygiene or household products, like exfoliating body scrubs and household cleaners, which contain abrasives made of tiny plastic beads. Virtually invisible to the

THE MOUNTING COSTS OF TRASH IN OUR OCEAN AND WATERWAYS

AS MORE TRASH TRAVELS TO OUR OCEAN AND WATERWAYS, IT IMPARTS A VARIETY OF SERIOUS IMPACTS—HERE ARE A FEW EXAMPLES:

TOURISM: When the water and beaches fill with trash, tourists and residents leave, and they take their money with them. Cleaning up beaches, disposing of the waste, and dealing with public health issues are a routine financial drain on communities that depend on tourism. In New York, debris washing up on shore was estimated to cost the state between US$ 050 million and US$ 2 billion in lost tourism and other revenue.[20] Estimates to clean the coasts of Peru came to US$ 2.5 million for cleanup alone, more for necessary equipment.[21]

FISHERIES/NAVIGATION: When lost nets (some the size of football fields) and traps drift abandoned through the water, they continue to "ghost fish," depleting already stressed populations of marine life. In Indonesia, a huge net found snagged on a coral reef killed more than 100 sea turtles along with sharks and other marine life.[22] Large numbers of commercially valuable fish killed in this way may impact local fisheries.[23] In the northeast Atlantic, an estimated US$ 250 million in marketable lobster is lost each year.[24] In the United Kingdom, 92 percent of Shetland fishermen reported recurring problems with debris in nets and that each boat could lose up to US$ 32,000 per year; the cost to the local industry was estimated as high as US$ 4.3 million.[25] And debris impedes navigation, from fishing boats and pleasure craft to huge cruise ships and tankers. Collisions with debris can scratch or dent hulls; items like plastic sheeting, bags, and rope break propellers or jam engines, resulting in expensive repairs, delays, and safety hazards as crews dive to try and cut the debris free. Even submarines have been ensnared in huge fishing nets.

PUBLIC HEALTH/WATER QUALITY: Medical waste washes ashore on a popular vacation beach. Swimmers exposed to bacteria in the water become ill. Syringes, glass, and metal in the sand cut beach walkers. Studies are exploring how medical waste and other debris may carry and release toxic compounds into the water, affecting water quality and possibly the health of living things. For example, new research suggests that as certain kinds of plastic break down in the ocean, they may produce and give off chemical compounds not normally found in nature, compounds in a form that may be more easily assimilated into the bodies of both humans and marine life.[26] A study at the University of Athens sought to determine if secondary pollution is caused by leaching of pollutants from litter, and found that trace metals can enter the water from debris,[27] which could have implications for human health.

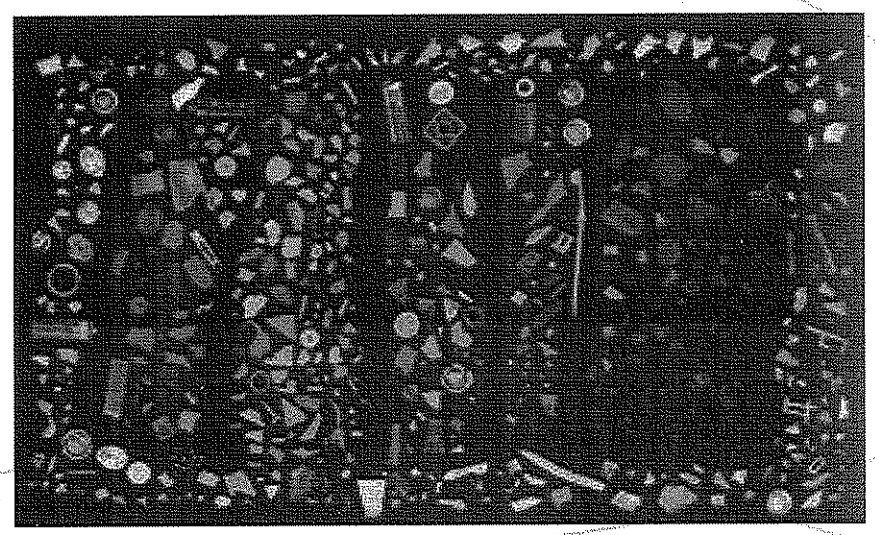
WILDLIFE: Dolphins and harbor porpoises in the Black Sea, monk seals in the Mediterranean and Hawaii, and sea turtles in the Red Sea and Indonesia. These are just a few of the over 260 species that have been documented as impacted by either entanglement in or ingestion of marine debris. When wildlife becomes entangled, movements, feeding habits, and reproduction can be greatly impaired. Animals that eat trash can choke or die a slow death because the debris clogs their digestive tracts. Or they may starve because they feel full and stop eating altogether. Marine debris also degrades their home, the ocean environment, by smothering fragile ecosystems.

Ocean Conservancy recently completed a survey of published literature on marine mammal interactions with marine debris, confirming that marine mammal species entangle in and ingest many different types of debris, including derelict fishing gear and plastics. These interactions may be hindering the recovery of at-risk species that are also being stressed by other human activities, including global warming. Of the 12 species listed as critically endangered or endangered on the International Union for the Conservation of Nature (IUCN) Red List, recovery of at least five may be hindered by marine debris impacts. While entanglement in derelict fishing gear and plastic materials like packing straps still seems to be a more likely cause of death, ingestion of fishing gear and plastic debris is increasingly cited as a cause of mortality, especially for small cetaceans such as dolphins and beaked whales.

Most **PLASTICS DEGRADE MORE SLOWLY IN WATER** than on land due to reduced exposure to the sun's UV rays and cooler temperatures.

human eye, these minute pieces of plastic go down the drain, through water treatment facilities, and on to the sea.[11,34]

Smaller pieces of plastic are more easily consumed by marine life, but more research is needed to understand the effects on animals and marine ecosystems more broadly. What is known, however, suggests reason for concern. For example, laboratory studies indicate that the surfaces of tiny plastic debris can carry and introduce toxic contaminants into animals, such as through marine worms[28] and blue mussels.[5] Also in laboratory studies, crustaceans and amphibians that had eaten plastic pieces exhibited impaired reproduction.[20] Scientists have noted changes in both behavior and hormone levels in fish exposed to plasticizers (chemicals added to plastics to aid in the manufacturing process).[20] For our part, Ocean Conservancy is doing its best to monitor the latest research findings about plastics in the ocean, and to prevent plastics from becoming marine debris in the first place.



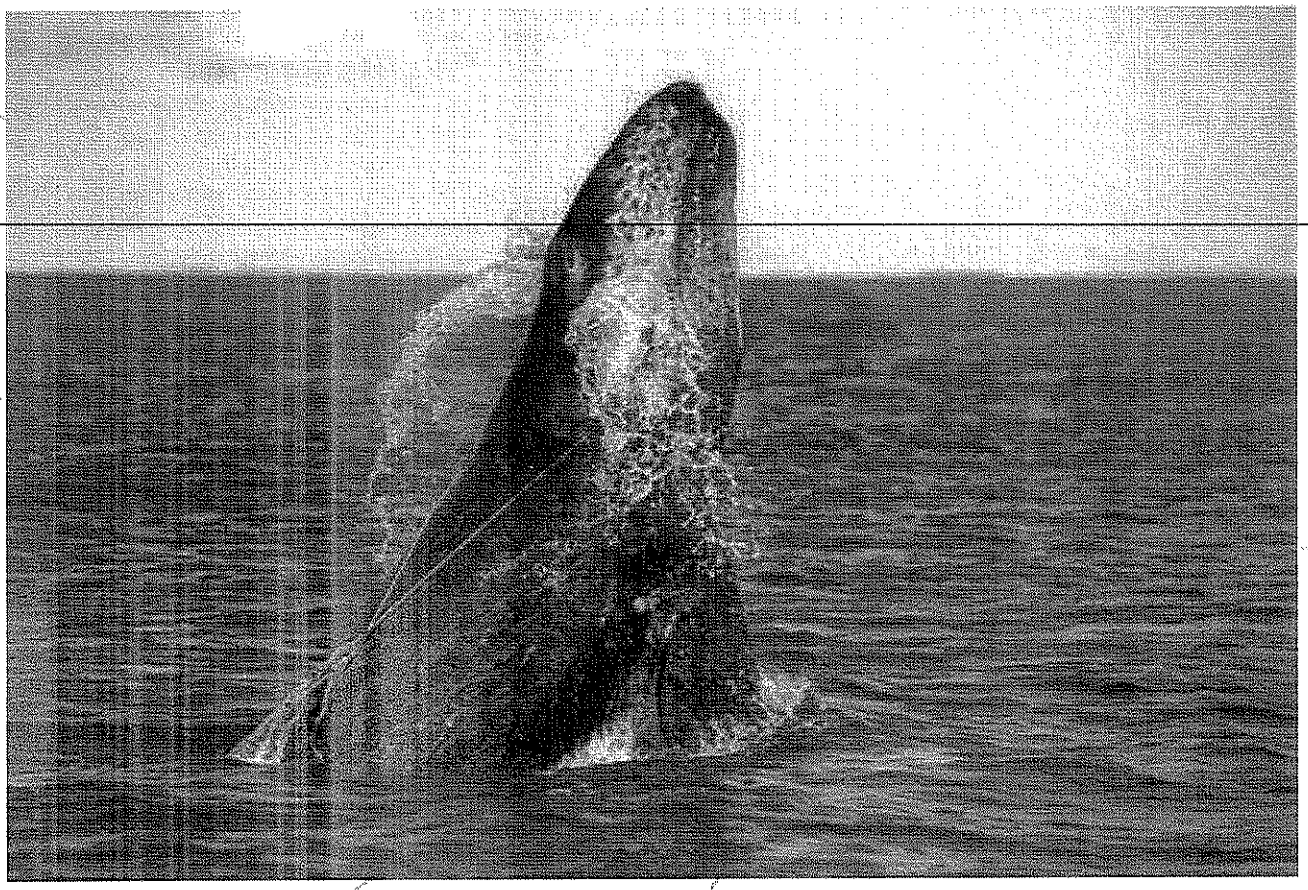
ABOVE: ASTOUNDINGLY, ALL OF THIS DEBRIS—INCLUDING CIGARETTE LIGHTERS AND A TOOTHBRUSH—WAS FOUND IN THE CARCASS OF A SINGLE DEAD LAYSAN ALBATROSS FLEDGLING DISCOVERED ON HAWAII'S KURE ATOLL BY RESEARCHER CYNTHIA VANDERSLIP.

ANNUAL ACCUMULATION OF FISHING GEAR AND OTHER DEBRIS IN THE NORTHWESTERN HAWAIIAN ISLANDS

52

METRIC TONS

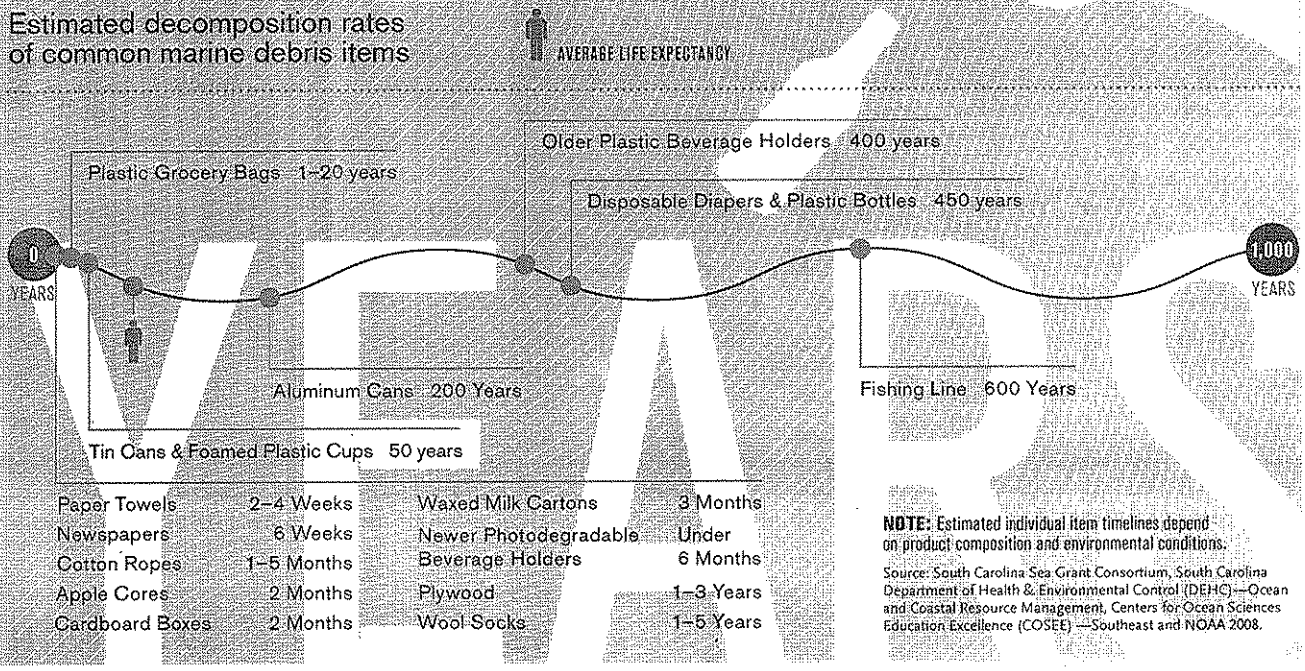
LEFT: SEA BIRDS LIKE THIS LAYSAN ALBATROSS ARE ATTRACTED BY SMALL BITS OF DEBRIS; THEY NOT ONLY INGEST THIS TRASH THEMSELVES, BUT FEED IT TO THEIR YOUNG.



ABOVE: LOST ROPES AND FISHING GEAR WEIGH DOWN EVEN MIGHTY ANIMALS LIKE THIS GRAY WHALE, AND CAUSE LACERATIONS THAT OPEN THE WAY FOR LIFE-THREATENING INFECTIONS.

HOW LONG 'TIL IT'S GONE?

Estimated decomposition rates of common marine debris items



Paper Towels	2–4 Weeks	Waxed Milk Cartons	3 Months
Newspapers	6 Weeks	Newer Photodegradable Beverage Holders	Under 6 Months
Cotton Ropes	1–5 Months	Plywood	1–3 Years
Apple Cores	2 Months	Wool Socks	1–5 Years
Cardboard Boxes	2 Months		

NOTE: Estimated individual item timelines depend on product composition and environmental conditions.

Source: South Carolina Sea Grant Consortium, South Carolina Department of Health & Environmental Control (DEHC)—Ocean and Coastal Resource Management, Centers for Ocean Sciences Education Excellence (COSEE) —Southeast and NOAA 2008.

THE PACIFIC GARBAGE PATCH: MYTHS & REALITIES

THE PACIFIC GARBAGE PATCH, THE POPULAR NAME GIVEN TO THE TRASH THAT HAS ACCUMULATED IN THE NORTH PACIFIC SUBTROPICAL GYRE, IS ONE OF SEVERAL AREAS OF HIGHLY-CONCENTRATED MARINE DEBRIS LOCATED IN THE PACIFIC OCEAN. OCEAN AND WIND CURRENTS MOVE IN A CIRCULAR PATTERN THERE, CREATING A VORTEX THAT TRAPS AND CONCENTRATES FLOATING ITEMS IN EVER-INCREASING AMOUNTS.

This spiraling whirlpool of trash between California and Hawaii has captured the imagination of the public—and the attention of the scientific community—since it was first publicized in 1997 by Charles Moore of the Algalita Marine Research Foundation, who came across it while on a sailing trip. The eastern Pacific Garbage Patch is created by one of five ocean gyres worldwide; the Algalita Foundation has conducted extensive research on the Pacific Garbage Patch, and most recently took part in an expedition to the North Atlantic Ocean as part of the new 5 Gyres Initiative to determine if other "garbage patches" are forming; the accumulation of marine debris we have seen *in the North Pacific may* well be occurring in other ocean realms.

Over time, a few misconceptions about the Garbage Patch have been commonly repeated, and scientists are working to convey accurate information to the public.

MYTH: The Pacific Garbage Patch is twice the size of Texas.

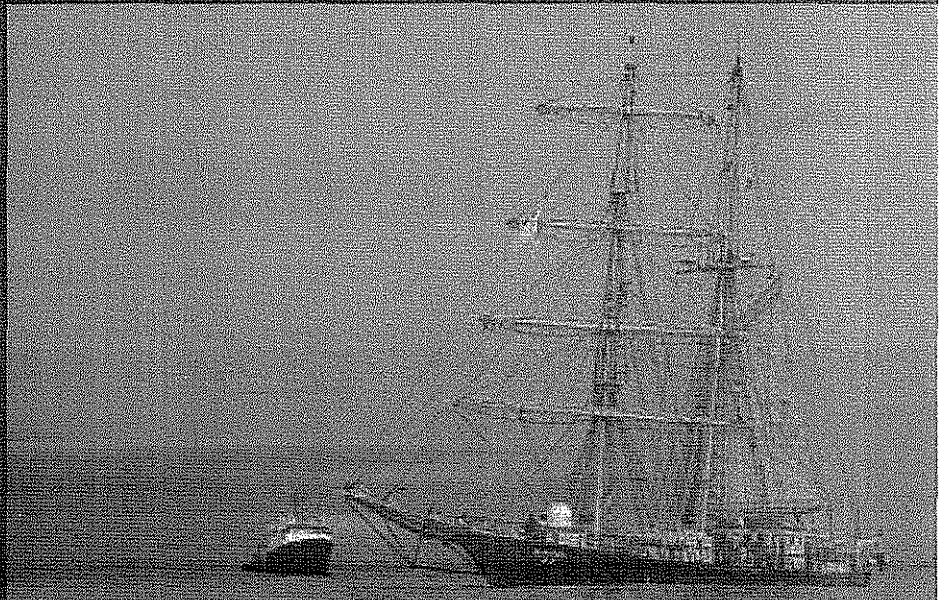
FACT: *It is impossible* to measure the exact size of a gyre because it is a fluid system that moves constantly. But the fact remains that huge amounts of man-made debris accumulate there.

MYTH: The Pacific Garbage Patch is like a big island of floating trash.

FACT: No vast island or blanket of garbage is visible in the North Pacific in aerial photographs or satellite images; the accumulation of trash here is like a chunky soup rather than a solid island of garbage you could walk across. Varying concentrations of debris occur in different places at different times; there are at least three separate spots in the North Pacific where currents cause large accumulations of trash. While rubber rain boots, toothbrushes, and food containers can be seen, much of the debris has been broken down by wind, sun, and wave action into tiny pieces that are harder to see, many of them plastic. Scientists skimming the water with fine mesh nets have discovered that in some parts of the Garbage Patch, while tiny marine life called plankton is still more abundant than plastic fragments in terms of numbers, plastic outweighs plankton six to one.[18]

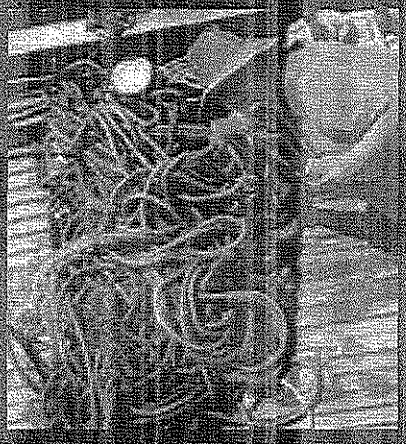
MYTH: The solution is easy, we can just clean it up.

FACT: That's not as simple as it might seem. Finding economically and environmentally viable methods poses a challenge. Locating debris can be tricky because the currents that create the Pacific Garbage Patch shift, moving the litter along with them; time spent searching for it will cost money. Because animals of all sizes, from sea turtles to tiny sea snails, inhabit these trash-laden waters, we can't just scoop up trash without scooping up essential marine life at the same time.



ABOVE: THE TALL SHIP *KAISEI* AND THE VESSEL *NEW HORIZON* CRISSCROSSED THE GARBAGE PATCH IN 2009 CARRYING RESEARCHERS WHO CONDUCTED AN EXTENSIVE MARINE DEBRIS SURVEY.

THE GREAT PACIFIC GARBAGE PATCH



ABOVE: A THOUSAND MILES FROM SHORE, PROJECT KAISEI CO-FOUNDER MARY CROWLEY AND COLLEAGUES FOUND EVERYTHING FROM ABANDONED FISHING GEAR TO TRASH BROKEN DOWN INTO TINY BITS BY WIND, WAVES, AND SUNLIGHT.

Mary Crowley, a lifelong sailor and advocate, went further than most upon learning of the Garbage Patch: she resolved to do all that she could to clean it up. "The huge problem of marine debris, which is mainly plastic, happened on our watch," says Crowley, who along with two co-founders established Project Kaisei in 2008. "I feel a responsibility."

In August 2009, Project Kaisei launched its maiden voyage to the Garbage Patch, teaming up with the University of California's Scripps Institution of Oceanography to travel throughout the area gathering marine debris samples, which they are now analyzing. The scientific team on board the tall ship *Kaisei* recorded a steady increase in debris as the ship moved deeper into the North Pacific Gyre. The Scripps team conducted similar research from a second research boat, *New Horizon*.

"We were 1,000 miles from shore, with no sign of human life for days, yet our human 'footprint' is now apparent there in one of the most remote places on the planet," says Doug Woodring, co-founder and director of Project Kaisei. "It was shocking to see the amount of small pieces of plastic continuously found in all of our 100 nets, in over 1,200 miles of sampling. This should be a message to everyone that our consumption patterns, and ways in which we dispose of products, have failed us. The water in our oceans is like blood for our planet. If we continue to fill it with toxic materials such as plastic, it will be to the detriment of all life on Earth."

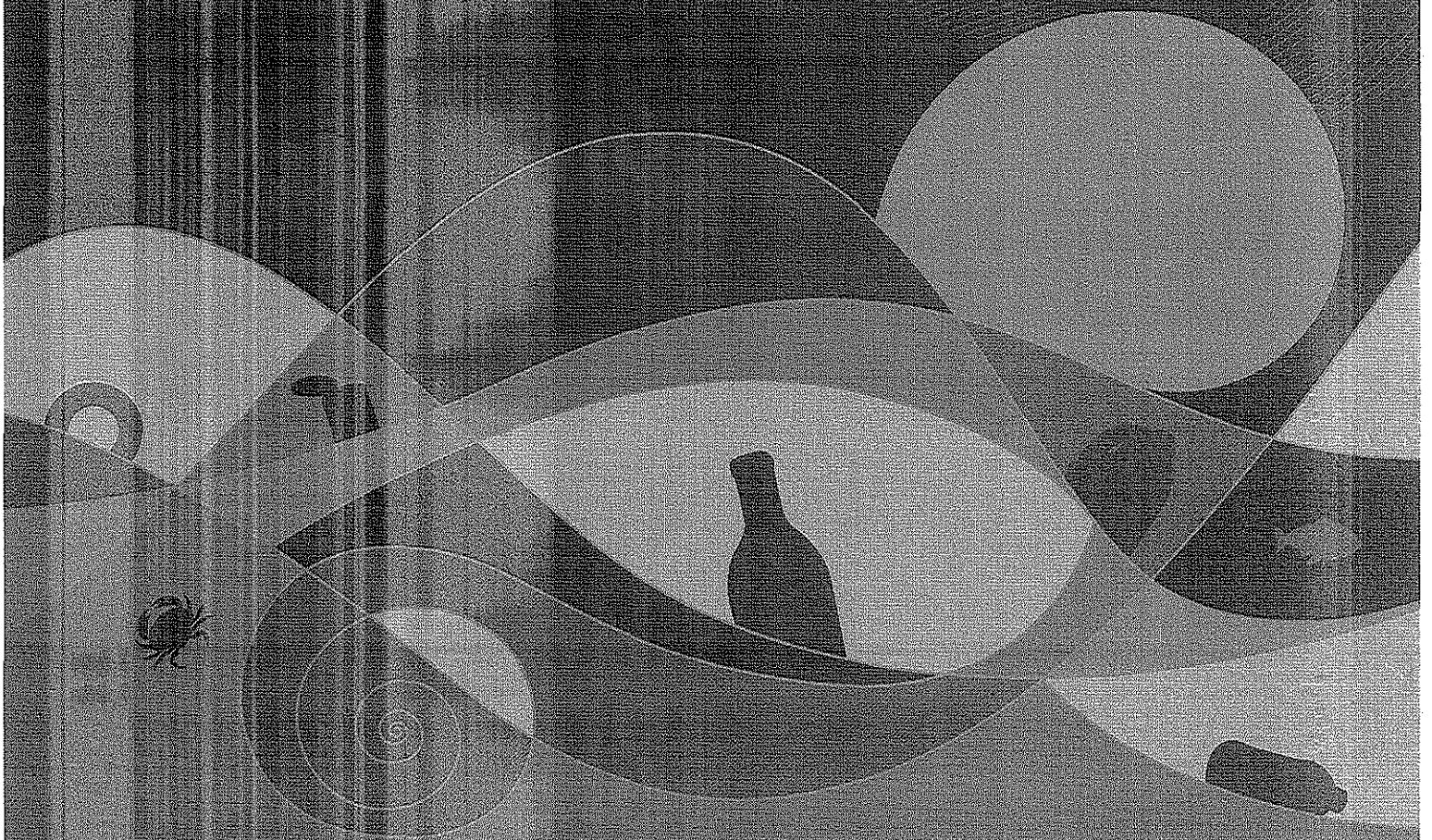
One idea scientists are exploring is whether the debris can be efficiently cleaned up and converted to fuel or some other useful material. Project Kaisei has already tested some methods that can be used with low energy input and low impacts on marine life, and is ready to test them on a larger scale during a second expedition in the summer of 2010.

Research about this critical region is on the rise along with concern about overall ocean health. With support from Ocean Conservancy and The Coca-Cola Company, researchers at Duke University in North Carolina are compiling all current research on the Pacific Garbage Patch and other similar accumulations of marine debris in order to make a full assessment. They will also evaluate costs and the degree of effectiveness of cleanup options. The growing body of research about the Pacific Garbage Patch will lend itself to a greater understanding of marine debris worldwide.

The reality is that marine debris is now recognized as a major pollution problem around the world—and the Garbage Patch is an ideal living laboratory for investigating the nature of the problem, impacts on water quality and marine life, and science-based solutions. The Garbage Patch has alerted us to the fact that the ocean is not infinite; we can't just throw trash in it and expect that trash to disappear. Now we know that trash isn't just accumulating on beaches, but also out in the remotest parts of the ocean. What we learn from the Garbage Patch can help us protect the ocean as a whole—and ourselves— from harmful impacts.

SPONSORING PARTNERS

The International Coastal Cleanup could not take place without the GENEROUS SUPPORT of our DEDICATED partners.



THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

A LEADER IN MARINE DEBRIS PREVENTION

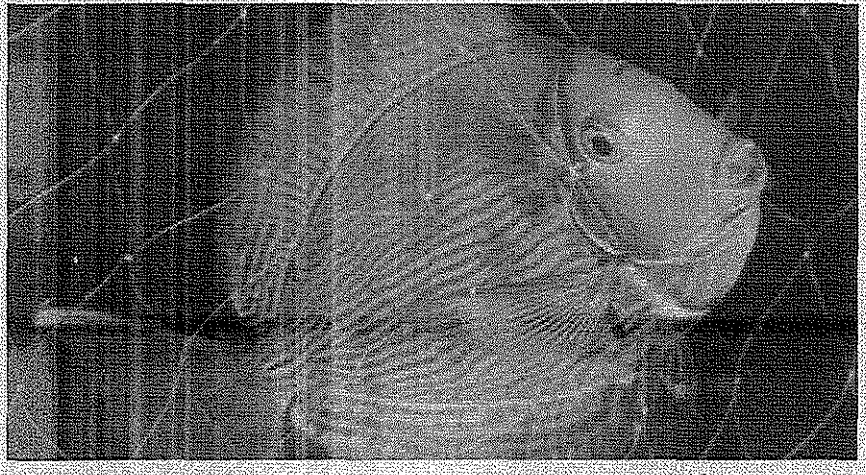
Since 2005, cutting-edge work by the NOAA Marine Debris Program (MDP) has moved the cause forward dramatically. The federal program, tasked by the 2006 Marine Debris Research, Prevention and Reduction Act with protecting the US marine environment from the harmful effects of debris, has partnered with the International Coastal Cleanup since its inception.

NOAA program staff are committed to finding science-based solutions to marine debris. NOAA's research about marine debris has helped inform the public about this issue. Educational materials available online at www.marinedebris.noaa.gov explain the science in everyday language. The NOAA MDP supports innovative projects such as "Fishing for Energy" and "Nets to Energy," which convert old fishing gear—a major marine debris problem—into electricity. NOAA is also leading efforts to plan the 5th International Marine Debris Conference, likely to be held in early 2011. The conference will provide a much-needed opportunity to share knowledge and work toward global solutions.

The NOAA MDP contributes experience as well as funding for Cleanup outreach and education. NOAA MDP experts share invaluable research and insights with Cleanup staff, and employees get personally involved by participating in Cleanup events in Seattle, Honolulu, and Washington, DC. In 2009, over 170 NOAA employees and family members participated.

"Our goal is to make sure people learn about marine debris, and are engaged and empowered to make a change," says Dr. Holly Bamford, director of the NOAA Marine Debris Program. "The International Coastal Cleanup network allows us to do that across the country and around the world and NOAA is proud to partner with Ocean Conservancy in its Cleanup efforts."

> Our goal is to make sure people learn about marine debris, and are engaged and empowered to make a change.
>
> **Dr. Holly Bamford** DIRECTOR OF THE NOAA MARINE DEBRIS PROGRAM



ABOVE: "GHOST FISHING" OCCURS WHEN LOST FISHING GEAR CATCHES MARINE LIFE, WHICH IS THEN DOOMED TO PERISH.

ABOVE: DR. HOLLY BAMFORD PITCHES IN AT THE ANACOSTIA RIVER CLEANUP IN WASHINGTON, DC.

ALTRIA GROUP, INC

ADDRESSING THE NUMBER ONE ITEM FOUND DURING THE INTERNATIONAL COASTAL CLEANUP

In 1999, an employee of Philip Morris USA learned that during the International Coastal Cleanup, volunteers around the world pick up more cigarette butts each year than any other item—millions of them. The company took action, calling to ask Ocean Conservancy how they could help, and a partnership was born. Today, Philip Morris USA, which is owned by Altria Group, works to help smokers dispose of smoking-related items properly. "Research shows that often, smokers don't think of cigarette butts as litter," says Alisia Rudd, senior manager of corporate responsibility for Altria.

Altria provides funding for materials and other support for the thousands of Cleanup events worldwide, helping modernize our data collection and event registration systems, and supplying travel stipends to help coordinators who might not otherwise be able to attend the annual Coordinators' Conference. Most recently, an Altria-funded pilot project provided new insights into working with people to change behaviors that cause marine debris. And hundreds of employees of Altria's companies give of themselves each year at Cleanup events. Altria also supports community prevention programs with Keep America Beautiful (another Cleanup partner).

At the 2009 Cleanup in Washington, DC, Alisia saw the scope of the watershed litter problem firsthand. "I saw a lot of cigarette butts, but I also saw a lot of food packaging, bottles, cans, rubber tires—all kinds of things," she says. "And I realized that no single entity can solve the problem alone. It will take a combined effort of corporations, individuals, and organizations to educate people about the impacts of their behavior."

> It will take a combined effort of corporations, individuals, and organizations to educate people about the impacts of their behavior.
>
> **Alisia Rudd** SENIOR MANAGER OF CORPORATE RESPONSIBILITY, ALTRIA CLIENT SERVICES

BRAZIL

SPONSORS EXPLAIN THEIR COMMITMENT TO THE CLEANUP

THE COCA-COLA COMPANY
"We are proud to be a longstanding partner with Ocean Conservancy, working towards sustainable solutions to the marine debris issue through the International Coastal Cleanup and other programs."

BANK OF AMERICA
"Bank of America is proud to partner with Ocean Conservancy to restore the vitality of our ocean and waterways. This year's International Coastal Cleanup provided a tangible way to fight for a thriving ocean and address climate change for our associates, who volunteer in Cleanups around the world."

ALTRIA GROUP, INC.
"Altria Group, Inc. is committed to reducing the environmental impact of its businesses. We are proud to support Ocean Conservancy's efforts through grants and volunteer activities that help reduce the amount of litter in waterways."

BOOZ ALLEN HAMILTON
"Booz Allen Hamilton, a strategy and technology consulting firm, is committed to delivering results that endure and is proud to partner with Ocean Conservancy to help protect the ocean for future generations."

THE DOW CHEMICAL COMPANY
"Dow is proud to have sponsored the Cleanup efforts for the last 24 years. We value our relationship with Ocean Conservancy and their dedication in developing global solutions and public education needed to change the behaviors that cause marine debris and litter."

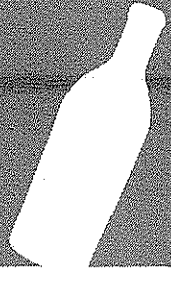
NOAA
"The National Oceanic and Atmospheric Administration Marine Debris Program is proud to participate in and partner with Ocean Conservancy on this Cleanup. By working together we can all make a difference in solving the problem of marine debris."

BRUNSWICK PUBLIC FOUNDATION
"Brunswick Foundation supports Ocean Conservancy in encouraging environmentally responsible behavior on the water. With the boaters we serve, we seek to maintain and protect our invaluable ocean and waterways."

ORACLE
"Oracle is proud to support the Cleanup. Hundreds of Oracle volunteers worldwide rally annually to help protect the health of our oceans, beaches, and waterways."

U.S. ENVIRONMENTAL PROTECTION AGENCY
"For 24 years, the Environmental Protection Agency has been proud to sponsor the Cleanup, allowing volunteers to witness how trash from streets travels to our waterways."

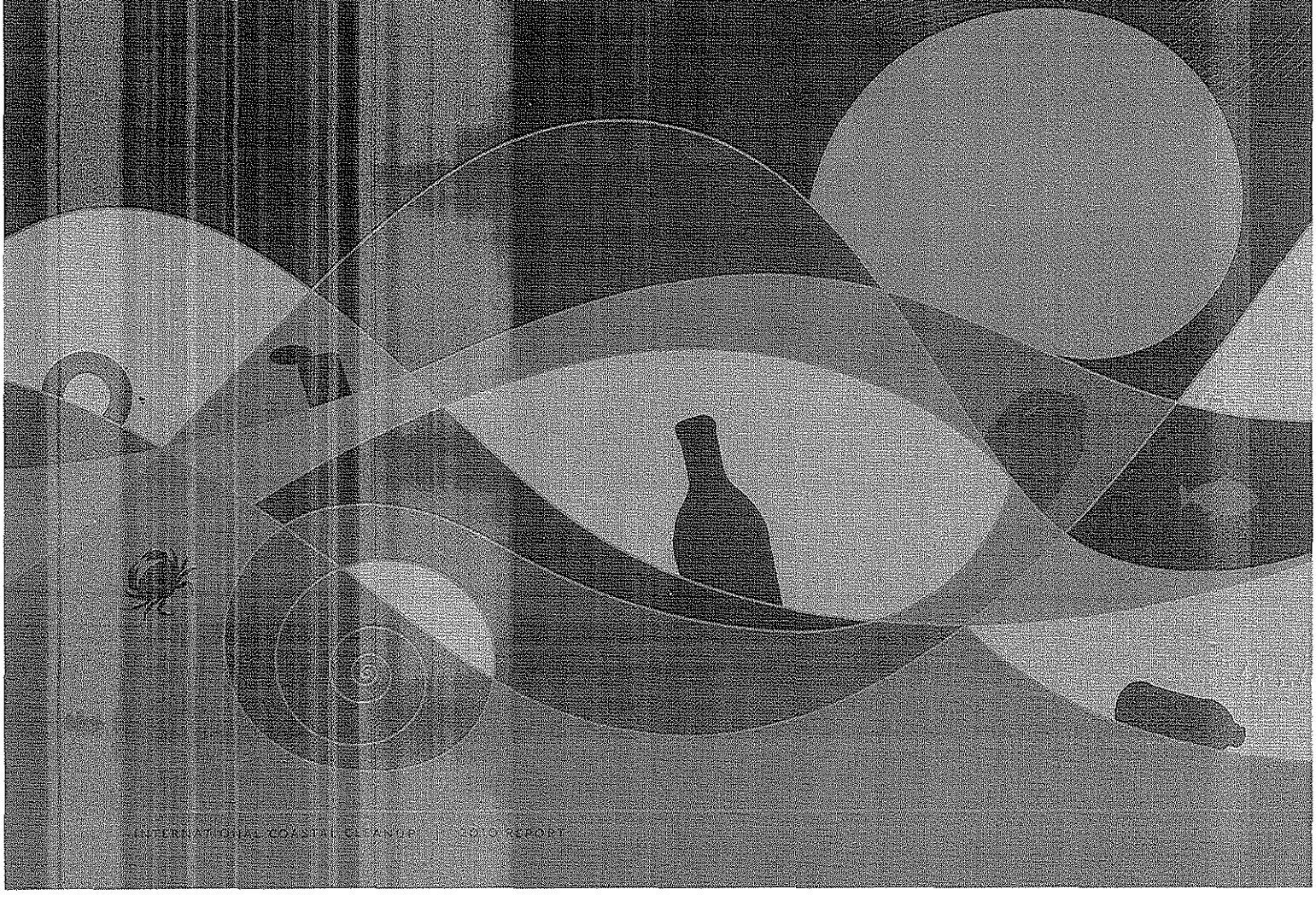
The statements above recognize the leading sponsoring partners of the International Coastal Cleanup. For the complete sponsor list, please see page 55.



VOLUNTEER COORDINATORS

AND SPONSORS

Coordinators, at the heart of the International Coastal Cleanup, make an EXTRAORDINARY CONTRIBUTION of their time and energy all year long. They encourage sponsor support, recruit hundreds of thousands of volunteers, and ENSURE THAT THE CLEANUP RUNS SMOOTHLY. They also make sure the all-important data reaches Ocean Conservancy.



2009 CLEANUP COUNTRY AND LOCATION COORDINATORS

ARGENTINA
Daniel Rolleri
Asociación ReCrear

BAHAMAS
Anita Knowles, D'Shan Maycock (Abaco)
Friends of the Environment
Renamae Symonette, Erika Gates (Grand Bahama Island)
Bahamas Ministry of Tourism
Tanya Moss (Nassau)
Dolphin Encounters

BANGLADESH
S. M. Muntasir Mamun
Kewkradong

BARBADOS
Michael Thompson
National Conservation Commission
Osmond Harewood
Caribbean Youth Environmental Network

BELIZE
Hilberto Riverol
The Scout Association of Belize

BRAZIL
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Laboratorio de Mastozoologia e Manejo de Fauna

BRITISH VIRGIN ISLANDS
Jasmine Bannis
Conservation & Fisheries Department

CAMBODIA
Koch Savath
Ministry of Environment

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Gay Wittrien (New Brunswick)
The Green Network–ACAP Saint John
David Boyce (Prince Edward Island)
Three Rivers Heritage Association

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Cayman Islands Tourism Association

CHILE
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Coastal Resources Management Office

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Dominica Youth Environment Organisation

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Fundación Vida Azul

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Cap. Miguel Mosquera B., Sergio Bazan (Galapagos)
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HELMEPA

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St. George's University

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Guam Coastal Management Program

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Eco Pro Diver

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GuyberNet

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Ecovision Asia
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Green Council

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Captain Rajan Vir
Indian Maritime Foundation

INDONESIA
Hani Taufik
Yayasan JARI

ISRAEL
Ronen Alkalay
Marine and Coastal Division –Ministry of the Environment

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Jamaica Environmental Trust (JET)

JAPAN
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Japan Environmental Action Network (JEAN)
Edo Heinrich-Sanchez, Naoko Kiyan (Ryukyu Islands, Okinawa)
Okinawa O.C.E.A.N.

KENYA
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The Body Shop West Malaysia

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Universidad de Colima
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VIDA–Instituto para la Protección del Medio Ambiente

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PROJECT AWARE FOUNDATION (AMERICAS)
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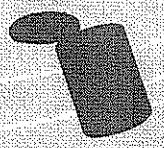
Joanne Marston, Joanna McNamara
Asia Pacific

Dominic Ziegler, Daniela Mülheim
Europe

Domino Albert, Suzanne Pleydell
International



SPOTLIGHT

COUNTRY COORDINATOR, JAPAN

AZUSA KOJIMA

Co-Founder and Director,
Japan Environmental Action Network, Japan

As an eight-year-old, Azusa Kojima collected cherry shells during school outings to the beach. "I brought those precious treasures home with great care," she recalls. "The beaches in Japan were free of trash then—unlike today."

Azusa is a person who faces challenges head-on. When she noticed litter on the ground where she lives, she picked it up on her daily walks and also designed reusable shopping bags. In 1990 when she heard about the first International Coastal Cleanup (ICC) event in Japan, she contacted the coordinator. As she learned about the impacts of trash on the ocean through materials from Ocean Conservancy, she knew she had to do more. Together, they founded the non-profit Japan Environmental Action Network (JEAN), and the achievements over the past two decades have been phenomenal.

As JEAN celebrates its 20th anniversary with the ICC, this longtime partner has grown the event from 800 volunteers at 80 sites at the first event to about 13,000 participants at more than 200 sites today. Clearly, the ICC has captured attention across this nation cradled by the ocean. JEAN also lobbied for a law giving local governments responsibility for removing and disposing of trash along shorelines—and got it, a history-making accomplishment for a small, non-governmental organization.

"It is very exciting to be able to join the global action of the ICC while working where you live," says Azusa, who explains that her current challenge is getting people to realize they are responsible for marine litter: "There is a lot in the media about trash reaching Japanese shores from other countries, but people seem unaware of Japanese trash flowing from land out into the ocean. We want to turn that around and promote the perception of marine debris as the responsibility of our entire global society."

Michihisa Kimizuka, Kensuke Nukui
Japan

PUERTO RICO
Alberto Martí
Scuba Dogs Society

REPUBLIC OF KOREA
Sun Wook Hong
Our Sea of East Asia Network

RUSSIA
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Sea Protection Institute Maritime State University

SINGAPORE
N. Sivasothi, Angeline Tay
Raffles Museum of Biodiversity Research, NUS

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Coastal Cleanup–South Africa
Wayne Munger (KwaZulu-Natal)
KwaZulu-Natal Wildlife

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Miriam Knorr (Nevis)
Nevis Historical & Conservation Society
Randolph Edmead, Andy Blanchette (St. Kitts)
Department of Physical Planning and Environment

ST. LUCIA
Marcia Dolor
Caribbean Youth Environment Network

ST. VINCENT AND THE GRENADINES
Andrew Simmons
JEMS Environmental Management Services

TAIWAN
Ted Chang
Kuroshio Ocean Education Foundation

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Office of Marine and Coastal Resources Conservation
Kanyarat Kosavisutte
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Caribbean Network for Integrated Rural Development

TURKEY
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TURKS AND CAICOS ISLANDS
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Cleanup TCI

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Emirates Diving Association

UNITED KINGDOM
Emma Snowden
Marine Conservation Society

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Marcia Taylor (St. Croix)
University of the Virgin Islands–VIMAS
Heather Hitt (St. Thomas)
University of the Virgin Islands–VIMAS
Audrey Penn (St. John)
Friends of Virgin Islands National Park

URUGUAY
Cristina Quintas
EcoPlata

VENEZUELA
Deborah Bigio
FUDENA

VIETNAM
Thu Hue Nguyen, Vu Thu Hang
Centre for Marinelife Conservation and Community Development

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Scout Zona Atlántica No. 17
Gigot
Cadenario
Procter & Gamble
Ternium Siderar
Municipalidades de Berisso y de Ensenada

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Conoito PR
Artcell

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Coca Cola Barbados
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Greenlanders–Lester Vaugh Environmental Club
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BELIZE
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Belize Bureau of Standards
Hofius Ltd.
Belize Audubon Society
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Johnson & Johnson Group of Consumer Companies
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The Dow Chemical Company–Brazil
Intel
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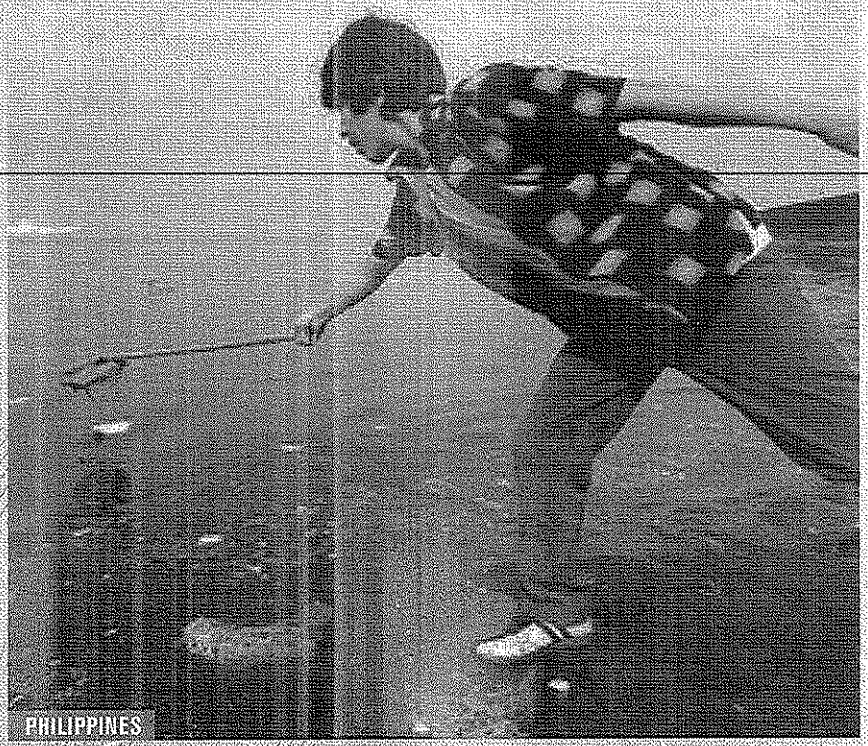
Grupo de Estudos de Mamíferos Aquáticos de Rio Grande do Sul

BRITISH VIRGIN ISLANDS
Conservation and Fisheries Department
Ocean Conservancy
Road Town Whole/Dasani
TICO Wines & Spirit



PHILIPPINES

CANADA
- TD Bank Financial Group
- TD Friends of the Environment Foundation
- Canadian Plastics Industry Association
- BC Hydro-Team Power Smart
- Canadian Association of Zoos and Aquariums
- WWF-Canada
- Dow Chemicals

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- Shanghai Rendu Enterprise Consulting Co., Ltd.
- Committee of CCYL of East Sea Ocean Environment Supervision Centre of State Ocean Administration
- Grassroots Community
- Friends of Nature
- Shanghai Oasis Wide Life Conservancy
- Exchange Centre
- Johnson & Johnson China Ltd. Global Strategic Design Operations –Packaging Development
- China Pacific Insurance (Group) Co. Ltd.
- Sinochem International Corporation
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COSTA RICA
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- Restaurante Tin Jo
- Bridgestone
- Intel
- Bac-Credomatic
- Coca-Cola
- Day Star Properties
- Municipalidad de Garabito
- Municipalidad de San Jose
- Municipalidad de Curridabat

DOMINICAN REPUBLIC
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- Coca-Cola
- AFP Siembra
- AES Dominicana
- Scotiabank
- British American Tobacco
- Diario Libre
- Hotelbeds and Accommodation
- Nestlé
- Caribbean Plastic Shoes

GRENADA
- Grenada Breweries Ltd.
- Grenada Solid Waste Management Authority
- Tikal Art and Crafts
- Flying Fish Ventures
- Digicel
- The Grenada Scuba Diving Association
- Blue Horizons Garden Resort
- Glenelg Spring Water
- Grenada Broadcast Network
- Levera Development Company

GUAM
- Fisheye Marine Park
- Pacific Daily News
- Foremost Crystal Clear
- National Park Service
- Guam Community College
- Micronesian Divers Association
- Pyramid Recycling
- Guahan Waste Control
- Trashco
- Pacific Waste

HONG KONG–ECOVISION ASIA
- Nomura
- CLSA
- Carlsberg
- Ecols, Join Merit + Optiled
- Gammon
- Hong Kong Tree Care
- Hyder Consulting
- Kerry Logistics
- Wallem Group
- South China Morning Post

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- Hong Kong International Airport
- The China Paint Mfg. Co. (1932) Ltd.
- GreenGood Eco-Tech Co. Ltd.
- SPI (Overseas) Ltd.
- ReKRETE Asia Ltd.
- SML Group
- Coca-Cola China Ltd.
- Forleda Eco-Services Company Ltd.
- Goody Environmental (HK) Co. Ltd.
- RISO HK Ltd.

INDIA
- Indian Maritime Foundation
- Rotary Club of Pune Central
- Mak Lubricants, Bharat Petroleum
- Children's Movement of Civic Awareness
- People's Action for Development (PAD)
- Tamil Nadu State AIDS Control Society
- Tamil Maiyam
- Marg Karaikal Port
- ABN AMRO Bank
- Programme of Environmental Awareness in School (PEAS)

ISRAEL
- Ministry of Environment Protection
- Ruach Tova, Arison Group
- Straus Group
- Intel Israel
- Clean Coast Program
- Aqua Dora Dive Club

JAMAICA
- Tourism Enhancement Fund (Ministry of Tourism)
- Airports Authority of Jamaica
- Nestle Jamaica Ltd.
- Jamaica Energy Partners
- General Accident Insurance Company Ltd.
- Jamaica Broilers Group (Reggae Jammin')
- WISYNCO Group Ltd.
- Pepsi Cola Jamaica Bottling Co. Ltd.
- Peak Bottling Company Ltd.
- National Solid Waste Management Authority

JAPAN (JAPAN ENVIRONMENTAL ACTION NETWORK)
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- EI Publishing Co. Ltd. "Everblue"
- Foundation of River and Watershed Environment Management
- Greenstyle
- Japan Nus Co. Ltd.
- Mitsui Sumitomo Insurance Co. Ltd + Smile Hear Club
- NETOFF, Inc.
- Philip Morris Japan, K.K.
- Sapporo Breweries Ltd.
- The Beverage Industry Environment Beautification Association

(Okinawa–Ryukyu Islands)
Citigroup Japan Holdings Corp.
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Lahaina Co. Ltd.
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BMO Music Fest '09, Positive Productions

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NETHERLANDS ANTILLES
Saba
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Hotel Intercontinental Miramar
Patronato Panamá Viejo
Suplimedic S.A.
Banco HSBC
Agua Cristalina
SCUBA Panamá
Hielo Fiesta
PROLUXSA

PUERTO RICO
Puerto Rico Department of Natural
and Environmental Resources
Puerto Rico Solid Waste
Management Authority
Puerto Rico Tourism Company
Puerto Rico National Park Company
T-Mobile
Coca-Cola Company
Medalla Light
Santander Bank
Empresas Fonalledas
El Nuevo Día Newspaper

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Marine State University
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(MorEco Tech Ltd.)
Primorsky Kray Administration

SOUTH AFRICA
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Plastic Federation of South Africa
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SPAIN
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CWSA
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Randy's Supermarket
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Scotia Bank SVG

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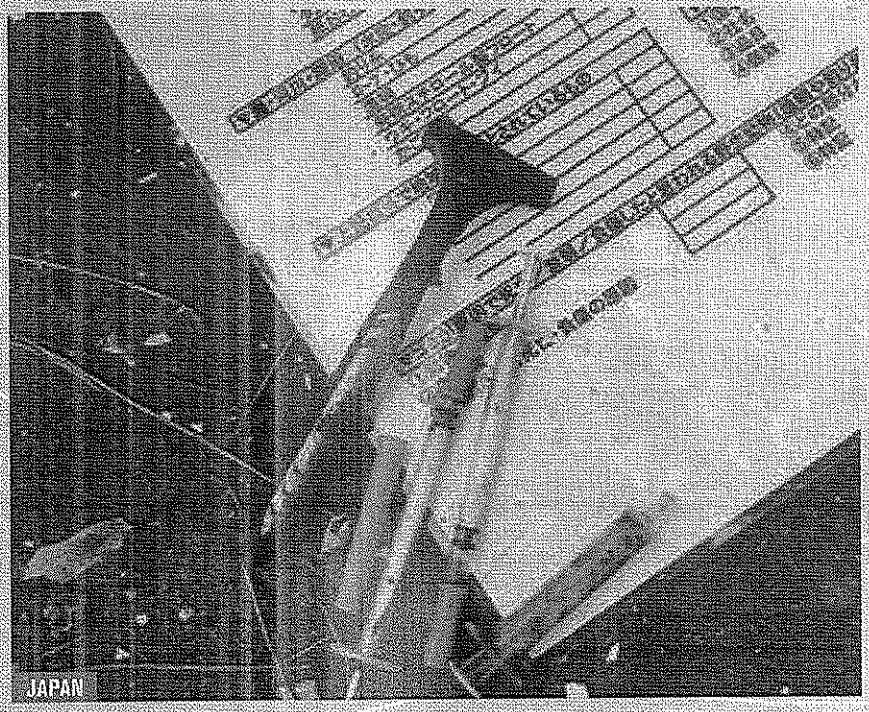
National Museum of Marine Science
& Technology
Tainan Community College


JAPAN

THAILAND
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Center for Alaskan Coastal Studies

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Geri Schlenoff (Baltimore)

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Blue Ocean Society for Marine Conservation

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Randy Kraft
SCUBA One

OHIO
Jill Woodyard, Linda Zmudzinski
Ohio Lake Erie Commission

SPOTLIGHT

ICC STATE COORDINATOR, MICHIGAN

JAMIE CROSS

Acting Adopt-a-Beach™ Manager, Alliance for the Great Lakes, US

Because trash travels from rivers, lakes, and streams to the ocean, International Coastal Cleanup (ICC) events are held on shorelines everywhere. As Jamie Cross will tell you, the Great Lakes, the world's greatest freshwater resource, are no exception. Jamie has been Michigan ICC coordinator for eight years, since becoming involved through her job with the Alliance for the Great Lakes, a nonprofit that works on lake conservation and restoration through policy and education. The Alliance has a special focus on involving local residents. That's an ideal match for the hands-on ICC, and Jamie has helped the Cleanup grow and make a profound difference over the years.

"The Alliance for the Great Lakes has participated in the ICC in Michigan since 1991," says Jamie. The events range in size from a couple of people working together in a remote area to a crowd of 200. In Michigan, Jamie and the Alliance organized 2,455 volunteers who removed 6,203 pounds of trash in 2009—115,309 debris items in all. Jamie works to promote awareness and increase participation in the ICC by working closely with local media. "The ICC does two things," she explains. "It improves the health of the beaches and shorelines, because volunteers remove debris, and it also helps connect people to the resources in their backyard, in this case the Great Lakes. Then they become better stewards, and take action beyond that day at the beach."

Jamie says the ICC has a visible impact on awareness: "I see more and more people picking up trash on their own through my years of involvement with the Cleanup." And keeping trash out of the Great Lakes makes a truly great difference for the ocean.

OKLAHOMA
Tom Rhodes
Grand Divers Supply

OREGON
Diana Bartlett
SOLV

PENNSYLVANIA
Leni Herr
Verizon TelecomPioneers

PROJECT AWARE FOUNDATION
Lauren Wiskerson,
Jenny Miller Garmendia (Americas)

RHODE ISLAND
Eugenia Marks, July Lewis
Audubon Society of Rhode Island

SOUTH CAROLINA
Susan Ferris Hill (coastal)
South Carolina Sea Grant Consortium
Tanjie Paulin (inland)
Land, Water and Conservation Division

SOUTH DAKOTA
Dennis Lively
High Plains Diving & Mick's Scuba Center

TEXAS
Renee' Tuggle
Texas General Land Office

UTAH
Kristen Bonner
The Living Planet Aquarium

VIRGINIA
Katie Register
Clean Virginia Waterways
–Longwood University

WASHINGTON
Joan Hauser-Crowe

WISCONSIN
Kae DonLevy

2009 US SPONSORS

ALABAMA
ADCND State Lands Division, Coastal Section
Alabama People Against a Littered State (PALS)
Alabama Department of Transportation
Baldwin County Commission
Bebo's Car Wash
ExxonMobil
Honda Manufacturing of Alabama
Mobile Gas
NOAA
Vulcan Materials Company

ALASKA
NOAA Community Based Marine Debris Clean-up and Prevention Program
Turning the Tides
The Marine Conservation Alliance
Juneau Watershed Partnership
The Alaskan Brewing Company
The Center for Alaskan Coastal Studies
McDonalds
Litter Free Inc.
Capitol Disposal

ARIZONA
Arizona Clean & Beautiful
Coca-Cola Bottling Company of Arizona

ARKANSAS
City of Hot Springs Sanitation Dept.
Entergy Arkansas Inc.
Hot Springs/Garland County Beautification Commission
Garland County Dept. of Environmental Services
Keep America Beautiful
Keep Arkansas Beautiful
Garvan Woodland Gardens
Smokin in Style
Cajun Boilers
Greater Hot Springs Chamber of Commerce

CALIFORNIA
Whole Foods Market
Crystal Geyser
Oracle
Kohl's
Sunset Magazine
Aquarium of the Bay
Nature's Path
See's Candies
KPMG
Fairmont Hotels & Resorts

CALIFORNIA (PROJECT AWARE FOUNDATION)
McBeth Foundation
Wyland Foundation
Costco
Jack's Surfboards

CONNECTICUT
Timex Group
Barrett Outdoor Communications, Inc.
Kayak for a Cause (KFAC)
Patagonia of Westport
Playtex Products, LLC
Perf Go Green

DELAWARE
Delmarva Power
Playtex
Delaware Department of Natural Resources and Environmental Control
Assateague Coastal Trust
Maryland Department of Natural Resources–Maryland Park Service
Nanticoke Watershed Alliance
Sailwinds Park, Inc.
Salisbury University Bioenvirons Club
Salisbury Zoological Park
The Nature Conservancy of New Jersey–Delaware Bayshores Program

DISTRICT OF COLUMBIA
Covanta Energy
Urban Service System Corporation
Triumph Enterprises, Inc.
Booz Allen Hamilton
Virgin America Airline IAD
Capitol Host Catering
Howard University Students
Alumni–College of Charleston and University of Michigan
Girl Scout Troop 2288
Staff and Attorneys from Seyfarth Shaw LLP

GEORGIA
Georgia Power
Coca-Cola Company
Oglethorpe Power
Burns & McDonnell
Eastman Kodak
Hunton & Williams
Sutherland

HAWAII
A & B Foundation
Friends of Honolulu Parks & Recreation
Aloha Aina
Hawaii Coastal Zone Management Program
Keep the Hawaiian Islands Beautiful
Hawaii Ocean Safety Team, H.O.S.T.
County of Hawaii Parks & Recreation
Save Our Seas
Architects Hawaii Ltd
Community Work Day Program

ILLINOIS
Dr. Scholl
The Scotts Miracle-Gro Company
REI
Brunswick Public Foundation
Aveda
Bank of America
ITW Hi-Cone
The Field Foundation of Illinois, Inc.
Grand Victoria Foundation
The Searle Funds at the Chicago Community Trust

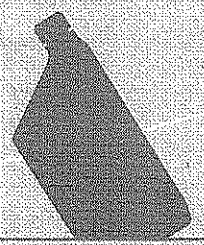
INDIANA
Dr. Scholl
The Scotts Miracle-Gro Company
Aveda
Home Depot
NiSource
Shedd Aquarium
Northwestern Cutlery
Northwestern Indiana Regional Planning Commission

KANSAS
Black & Veatch
Treat America
City of Overland Park, Department of Parks

LOUISIANA
Toyota
Entergy
Atmos Energy
Kentwood Spring Water
Orleans Parish Criminal Sheriff's Office
River Parish Disposal
University of New Orleans

MAINE
Orenstein Photography
Penmor Lithographers
Maine Coastal Program

MARYLAND
Baltimore Magazine
Whole Foods Market
Costco
Sam's Club
Chick-Fil-A
Maryland Monogram Products
Walgreens
Delmarva Power
Walmart



MASSACHUSETTS
- Bank of America
- Massachusetts Marine Trades Association
- Weston Solutions
- Tronex
- Massachusetts Department of Conservation and Recreation
- The Paragon Carousel
- REI
- Cape Cod Potato Chips
- Dunkin' Donuts Hull

MICHIGAN
- Michigan Department of Environmental Quality Coastal Management Program
- National Oceanic and Atmospheric Administration
- Johnson Controls Care & Share Program
- Frederick S. Upton Foundation
- Consumers Energy Foundation

MISSISSIPPI
- Chevron Pascagoula Refinery
- High Cotton Grill
- Matthews Brothers Inc.
- Mississippi Department of Marine Resources

MISSOURI
- City of Truesdale
- Coca-Cola

NEBRASKA
- Nebraska Department of Environmental Quality
- KWBE Radio
- Beatrice Daily Sun
- Raitgan-Schottler Manufacturing
- Shew Towing
- Hull's Towing
- Walmart Super Center
- Cedar River Stabilization Committee
- Nebraska H20.org
- Loup Basin RC&D

NEW HAMPSHIRE
- New Hampshire Coastal Program/ New Hampshire Department of Environmental Services
- Waste Management
- NextEra Energy Seabrook Station
- Coca-Cola
- Starbucks Coffee
- Poland Spring
- Portsmouth Regional Hospital
- Wentworth-Douglass Hospital
- Exeter Hospital
- Celebrity Sandwich

NEW YORK
- New York City Environmental Fund
- National Grid Foundation
- Max & Victoria Dreyfus Foundation
- National Fish & Wildlife Foundation
- Consolidated Edison
- Josh & Judy Weston
- NextEraEnergyResources
- Richmond County Savings Bank
- Patagonia
- Frank J. Antun Foundation

NORTH CAROLINA
- Philip Morris USA
- Walmart
- Reynolds American
- Duke Power
- First Citizens Bank
- WGHP Fox 8
- WLOS-TV 13
- WNCT-TV 9
- WRAL-TV 5
- WWAY-TV 3

OHIO
- Ohio Lake Erie Commission
- Ohio Department of Natural Resources
- Friends of Magee Marsh
- Village of Put-in-Bay
- Cleveland Zoo Crew
- Brunswick Green Advisory Group
- Tucket Ellis & West, LLP
- Mentor Marsh Nature Center
- Ann Rapose

OREGON
- Oregon State Parks and Recreation Department
- Fred Meyer
- Portland General Electric
- Wells Fargo
- AAA of Oregon
- Alaska Brewing Co./ Columbia Distributing
- Confederated Tribes of the Grand Ronde
- Hawthorne Farm Athletic Club
- Pelican Pub & Brewery/ Inn at Cape Kiwanda
- Curry Coastal Pilot

PENNSYLVANIA
- Verizon TelecomPioneers
- Laurel Foundation
- Lord Corporation
- Waste Management Inc.
- Pur Blu Beverages
- PennDOT
- Pennsylvania Department of Environmental Protection
- PACleanways
- Coca-Cola
- Blue Mountain Outfitters

RHODE ISLAND
- ABC 6
- Audubon Society of Rhode Island
- Dunkin' Donuts
- Fidelity Investments
- Lowes
- National Grid
- Rhode Island Mobile Sportfishermen
- Washington Trust

SOUTH CAROLINA
- Applied Technology & Management
- BP Cooper River Plant
- Charleston City Marina
- Charleston Water System
- Coastal Expeditions
- Duke Energy Foundation
- Mount Pleasant Waterworks
- Ocean Conservancy
- S.C. State Ports Authority
- Walmart Market 123

SOUTH DAKOTA

Underwater
- Black Hills Scuba/ Scott & Tammi Williams

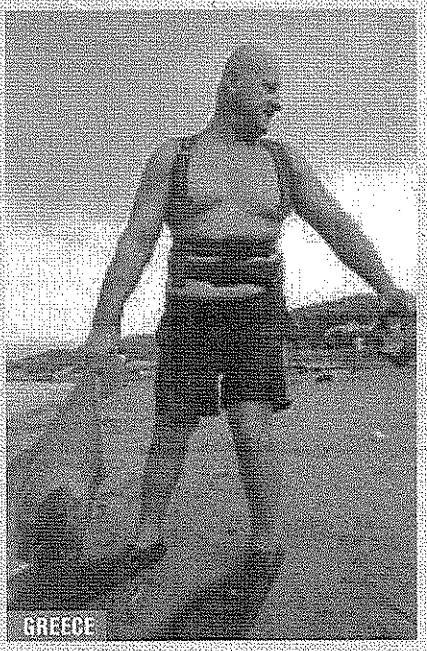
Beach/Shoreline
- Murdo's
- Dairy Dock
- Chesterman Coke
- Keep Yankton Beautiful
- US Coast Guard Auxiliary
- Corps of Engineers, Gavins Point Project
- Mount Mart College
- Yankton Unit Boys' & Girls' Club
- First United Methodist Youth Group

TEXAS
- Shell Oil Company
- Newfield Foundation
- Halliburton
- Johnson Controls Inc.
- Flint Hills Resources Community Action Council

VIRGINIA
- Clean Virginia Waterways
- Longwood University
- Altria Group Inc.
- Glad Trash Bags
- Virginia Department of Conservation & Recreation
- Virginia Department of Environmental Quality

WASHINGTON
- Pacific Northwest 4 Wheel Drive Assoc.
- Washington State Parks & Recreation Commission
- Department of Ecology
- NOAA
- ReSources
- Puget Soundkeeper Alliance
- Seattle Parks
- Brem-Air Disposal Inc.
- Grays Harbor Commissioners
- Kitsap Diving Assoc. & Washington Scuba Alliance

WISCONSIN
- Wisconsin Coastal Management Program
- Milwaukee Metropolitan Sewerage District


GREECE

THE MARINE DEBRIS INDEX

The Marine Debris Index presents STATE-BY-STATE AND COUNTRY-BY-COUNTRY DATA ABOUT MARINE DEBRIS collected and tallied by volunteers around the world on one day each September AT THE INTERNATIONAL COASTAL CLEANUP.

Terminology

SEE TABLE BELOW FOR THE DEFINITION OF TERMS USED THROUGHOUT THE REPORT:

Inland Cleanup
This type of Cleanup site borders waterways that are located inland, such as rivers, lakes, streams, and ponds. It is not located on the ocean.

Coastal Cleanup
This type of Cleanup site borders the ocean.

Land Cleanup
A Cleanup that was conducted on a beach or waterway.

Underwater Cleanup
A Cleanup that was conducted underwater by certified scuba divers.

Watercraft Cleanup
A Cleanup that was conducted offshore by watercraft, including kayaks, canoes, sailboats, and motorboats.

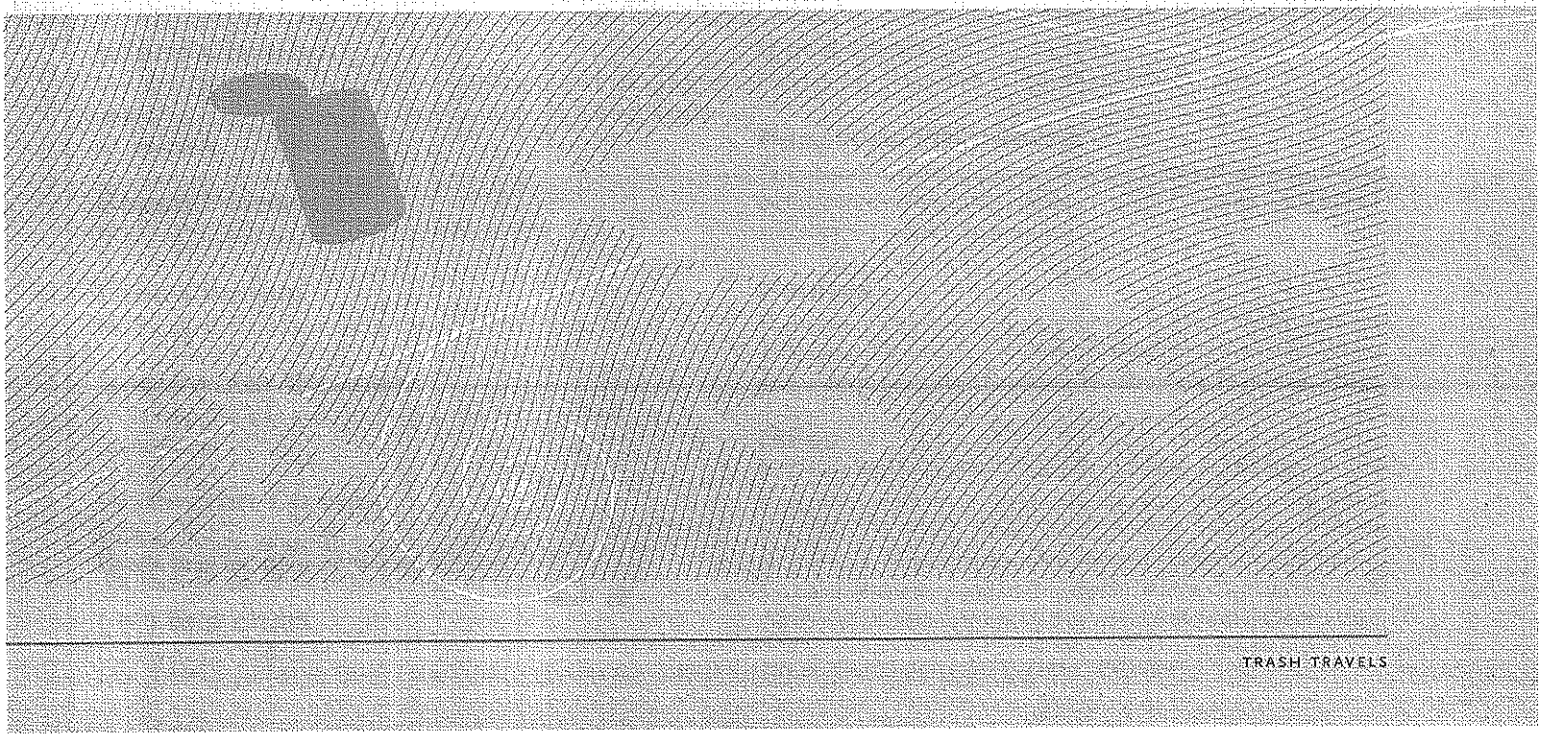
(–) in a chart
Data were not collected.

0 in a chart
The quantity of the data collected was equal to zero.

People or Volunteers
The number of people or volunteers at a Cleanup site are counted by the coordinator, totaled for each country, location, or US state, and sent to Ocean Conservancy.

Pounds
The pounds determined for a country, location, or US state are weighed if the resource to determine weight is available. Where scales are not available, coordinators estimate at 15 pounds a bag.

Miles
The miles determined for a country, location, or US state are the sum of the estimated distances of each Cleanup site within the country, location, or state. The distance for a Cleanup site is the estimated number of miles from where volunteers started work to the point where they ended. The distance for a Cleanup site is not the sum of all distances covered by all volunteers at a Cleanup site.



Methodology and Research Notes

Ocean Conservancy, in conjunction with its international and US volunteer coordinators, has collected data during the International Coastal Cleanup since 1986 within the US and internationally since 1989. From 1986 through 2000, Cleanup volunteers tallied debris items on standardized data cards developed and provided by Ocean Conservancy. During this time, debris was categorized by the type of material. In 2001, Ocean Conservancy revised and simplified the data card to include 42 specific debris items and groupings related to five debris-producing activities and sources. The new groupings identify the behavior associated with the debris' presence:

SHORELINE & RECREATIONAL ACTIVITIES: indiscriminate and intentional littering by beachgoers, picnickers, participants at waterside sports and festival events washing down creeks and rivers, and litter carried from streets, drains, gutters, and culverts.

OCEAN/WATERWAY ACTIVITIES: improper handling of solid wastes from recreational fishing/boating, subsistence/commercial fishing and shipping, military ships, cruise ships, and offshore oil and gas rigs.

SMOKING-RELATED ACTIVITIES: improper disposal and littering of smoking-related materials and packaging.

DUMPING ACTIVITIES: improper disposal of building and construction materials, drums, tires, cars/car parts, household trash, and appliances.

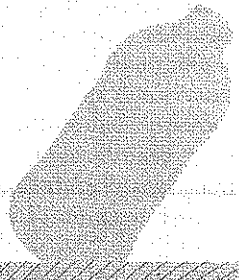
MEDICAL/PERSONAL HYGIENE: materials discarded into sewer systems, dumped into storm drains (along roadways and culverts) and toilets, or left behind by beachgoers.

Starting in 2008, we separated out plastic and paper bags, bringing the number of items tracked to 43. This categorization of the data and volunteer collection is used in 2009. Totals for each site are mailed, emailed, and faxed to Ocean Conservancy, or are entered into Ocean Conservancy's secure Online Data Collection and Reporting Tool by the Cleanup coordinator for the country, territory, or US state. All data sent to Ocean Conservancy and not entered online by the coordinator are entered into the online tool by Ocean Conservancy staff. The result is a unique global, online database of debris information collected from Cleanup sites around the world.

DATA ANALYSIS: Data are analyzed by Ocean Conservancy staff. Data are broken down by country, territory, and US state using reports generated by the Online Data Collection and Reporting Tool. Country, territory, and US state geographic designations are made using the CIA World Factbook, www.cia.gov/library/publications/the-world-factbook/geos/uk.html. Data are also analyzed by regions which are determined using the UN Statistical Division, http://unstats.un.org/unsd/methods/m49/m49regin.htm.

LIMITATIONS OF THE DATA: Data are collected by volunteers, not by paid staff or researchers, on a single day in more than 100 countries and territories. Ocean Conservancy currently produces data cards in seven languages; data collection could be more complete with more options, and additional translations are pending. In order to maximize data return, Ocean Conservancy asks for estimates of measurements such as pounds and miles. The totals represented in this report are only what was shared with Ocean Conservancy, and are likely higher due to under-reporting. Weather events can impact planned events and may decrease data return for any country, territory, or US state in any given year.

INTERPRETATION OF THE DATA: The data collected provide a snapshot of what was removed from a certain location, on a certain day, by volunteers. The data also provide a local picture of sources and debris items found in US states, countries and territories, and regions of the world, and trends in debris sources, quantities, and types over time. Due to the large sample and long-term, global nature of the collection, the data are effective for educating the public, business, industry, and government officials about the sources and types of marine debris.



COUNTRY OR LOCATION	ARGENTINA	ARUBA	AUSTRALIA	AUSTRIA	BAHAMAS	BAHAMAS	BAHAMAS	BAHAMAS	BAHAMAS	BAHRAIN	BANGLADESH	BARBADOS	BELGIUM	BELIZE	BRAZIL	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS
ISLAND OR ARCHIPELAGO					ANDROS	EXUMA	GREAT GUANA CAY ISLAND	NASSAU	TOTAL							VIRGIN GORDA	SALT ISLAND
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	1,078	25	539	9	0	0	0	586	586	5	560	0	21	477	3,017	0	0
Bags (plastic)	1,926	202	10,044	29	0	0	10	609	619	13	381	62	66	3,940	19,194	48	2
Balloons	38	0	292	2	0	0	0	8	8	0	32	0	2	57	759	0	0
Beverage Bottles (plastic)	6,522	187	3,030	28	0	2	242	1,147	1,391	85	370	47	43	2,282	11,594	33	500
Beverage Bottles (glass)	229	130	2,173	17	1,000	1	44	1,368	2,413	124	179	46	25	926	4,500	154	60
Beverage Cans	117	118	1,997	45	0	0	72	1,439	1,511	193	552	9	39	506	18,508	108	30
Caps, Lids	1,022	83	2,936	4	0	0	2	572	574	0	714	88	1	2,361	12,120	0	183
Clothing, Shoes	148	5	751	8	0	0	4	451	455	2	138	0	6	319	1,768	23	42
Cups, Plates, Forks, Knives, Spoons	238	15	1,280	14	0	0	141	717	858	95	2,493	0	10	1,511	12,053	12	0
Food Wrappers/Containers	902	150	5,888	17	0	2	3	215	220	47	9,426	52	5	1,223	9,747	0	52
Pull Tabs	13	0	803	2	0	0	0	6	6	0	267	0	0	61	1,839	0	0
6-Pack Holders	13	6	175	0	0	0	0	5	5	0	0	0	2	48	1,502	0	0
Shotgun Shells/Wadding	4	0	34	0	0	0	0	297	297	0	0	0	0	13	46	0	0
Straws, Stirrers	292	12	1,823	10	0	0	0	90	90	0	1,463	0	6	710	25,016	2	0
Toys	42	10	191	7	0	0	2	44	46	1	40	0	2	76	446	2	7
TOTAL	**12,582**	**893**	**31,896**	**185**	**1,000**	**5**	**520**	**7,554**	**9,079**	**565**	**16,603**	**304**	**230**	**13,930**	**122,097**	**382**	**876**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	14	5	331	10	0	0	0	22	22	0	19	0	0	13	52	0	0
Bleach/Cleaner Bottles	58	5	79	0	0	0	0	41	41	2	6	4	5	212	940	0	35
Buoys/Floats	16	0	41	0	0	1	0	9	10	0	37	0	1	92	550	0	12
Crab/Lobster/Fish Traps	19	0	31	0	0	0	1	26	27	0	62	0	0	35	34	0	0
Crates	17	0	58	0	0	0	0	14	14	0	0	0	2	10	146	0	2
Fishing Line	54	5	1,249	0	0	0	6	19	25	7	49	33	8	14	263	5	0
Fishing Lures/Light Sticks	13	2	287	20	0	0	0	11	11	0	3	0	0	26	105	0	1
Fishing Nets	29	0	134	14	0	0	0	22	22	0	98	0	98	1	111	0	35
Light Bulbs/Tubes	29	0	7	0	0	0	9	33	42	0	11	0	1	6	154	0	10
Oil/Lube Bottles	77	0	79	10	0	1	0	59	60	22	18	0	6	88	490	0	75
Pellets	4	0	20	0	0	0	2	2	4	0	0	0	0	57	492	0	0
Plastic Sheeting/Tarps	63	3	132	0	0	0	2	46	48	0	141	0	6	67	352	0	4
Rope	104	1	486	11	0	1	7	107	115	12	66	17	15	36	435	11	32
Strapping Bands	33	0	123	8	0	0	0	20	20	0	14	5	5	17	140	0	0
TOTAL	**530**	**21**	**3,056**	**73**	**0**	**3**	**27**	**431**	**461**	**43**	**539**	**59**	**147**	**675**	**4,264**	**16**	**206**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	4,159	573	7,094	0	0	0	0	84	84	0	9,663	0	32	231	32,463	0	3
Cigarette Lighters	70	4	516	5	0	0	0	42	42	0	44	0	2	19	366	0	0
Cigar Tips	127	0	217	0	0	0	0	62	62	0	2	0	0	184	23	0	0
Tobacco Packaging/Wrappers	349	65	670	0	0	0	1	21	22	2	458	0	7	57	2,014	2	0
TOTAL	**4,735**	**642**	**8,497**	**5**	**0**	**0**	**1**	**209**	**210**	**2**	**10,187**	**0**	**41**	**491**	**34,866**	**2**	**3**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	20	0	18	5	0	0	17	60	77	0	0	0	1	3	33	0	6
Batteries	23	10	93	3	0	0	0	51	51	0	96	0	0	36	295	2	0
Building Materials	99	48	114	0	0	0	76	1,015	1,091	0	18	0	14	72	1,605	0	50
Cars/Car Parts	17	1	26	8	0	0	0	451	451	0	0	0	1	21	105	0	0
55-Gallon Drums	4	0	7	4	0	0	0	3	3	0	0	9	0	2	32	0	1
Tires	24	2	42	2	0	0	8	29	37	2	9	2	0	35	184	0	0
TOTAL	**182**	**61**	**300**	**22**	**0**	**0**	**101**	**1,609**	**1,710**	**2**	**123**	**2**	**16**	**170**	**2,254**	**2**	**57**
MEDICAL/PERSONAL HYGIENE																	
Condoms	105	5	15	3	0	0	0	47	47	1	37	0	0	38	173	2	1
Diapers	56	2	568	0	0	0	0	17	17	0	4	0	0	128	151	5	0
Syringes	8	0	40	0	0	0	0	1	1	0	26	0	0	32	187	0	0
Tampons/Tampon Applicators	22	10	51	0	0	0	0	3	3	0	0	0	0	24	209	1	0
TOTAL	**192**	**17**	**674**	**3**	**0**	**0**	**0**	**68**	**68**	**1**	**67**	**0**	**0**	**280**	**720**	**8**	**1**
DEBRIS ITEM TOTALS	**18,221**	**1,634**	**44,423**	**288**	**1,000**	**8**	**649**	**9,971**	**11,828**	**613**	**27,519**	**365**	**434**	**15,546**	**164,201**	**410**	**1,143**

COUNTRY OR LOCATION	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS	BRITISH VIRGIN ISLANDS	CALIFORNIA	CANADA	CAPE VERDE	CAYMAN ISLANDS	CAYMAN ISLANDS	CAYMAN ISLANDS	CHILE	CHINA	COLOMBIA	COOK ISLANDS	COSTA RICA	CROATIA	CYPRUS	DENMARK
ISLAND (if applicable)	TORTOLA	VIRGIN GORDA	TOTAL				GRAND CAYMAN	LITTLE CAYMAN	TOTAL				RAROTONGA				
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	93	16	109	50	27,682	18	78	0	78	3,363	99	1,080	7	260	21	12	81
Bags (plastic)	193	115	358	300	70,712	352	294	350	644	7,744	469	5,668	90	5,312	16	353	734
Balloons	11	0	11	5	6,706	0	25	0	25	504	10	15	0	19	0	27	1
Beverage Bottles (plastic)	527	220	1,280	100	36,711	402	402	9	411	2,522	217	5,574	138	40,444	7	429	351
Beverage Bottles (glass)	543	40	797	50	29,282	991	269	5	274	2,171	365	3,627	70	3,894	43	324	455
Beverage Cans	419	65	621	22	38,953	150	308	0	308	3,896	139	3,052	123	4,008	75	481	406
Caps, Lids	324	130	637	1	59,527	126	327	16	343	5,314	186	2,461	93	26,390	90	949	939
Clothing, Shoes	85	5	155	2	9,935	172	120	5	125	956	66	413	38	5,160	11	162	119
Cups, Plates, Forks, Knives, Spoons	267	19	293	21	38,643	0	218	8	226	1,702	216	1,322	53	3,158	7	212	160
Food Wrappers/Containers	302	1	355	0	108,958	23	229	14	243	5,222	384	3,942	80	2,532	72	205	949
Pull Tabs	14	1	15	0	10,281	0	39	0	39	479	44	173	9	66	14	319	35
6-Pack Holders	17	0	17	0	2,930	0	62	0	62	422	30	95	3	153	21	18	0
Shotgun Shells/Wadding	0	0	0	0	2,099	0	5	0	5	47	10	5	0	32	0	3	0
Straws, Stirrers	181	7	190	0	28,322	27	152	8	160	920	102	1,280	64	5,209	0	280	1,088
Toys	5	9	14	0	6,174	54	56	2	58	329	22	133	6	573	5	138	64
TOTAL	**2,980**	**619**	**4,857**	**751**	**476,306**	**2,315**	**2,584**	**417**	**3,001**	**35,501**	**2,361**	**28,862**	**774**	**101,210**	**382**	**3,912**	**4,831**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	1	0	1	0	3,540	0	16	6	22	111	19	14	0	48	1	20	10
Bleach/Cleaner Bottles	73	0	108	1	940	2	10	0	10	175	5	63	6	1,391	3	33	39
Buoys/Floats	12	12	36	0	2764	2	19	0	19	437	274	70	2	1,022	5	16	24
Crab/Lobster/Fish Traps	0	0	0	0	475	16	1	1	2	91	0	30	0	11	16	9	15
Crates	6	7	15	0	411	15	11	0	11	78	6	4	0	43	2	3	5
Fishing Line	1	2	6	3	4,190	56	87	9	96	403	129	451	12	76	42	322	22
Fishing Lures/Light Sticks	2	10	13	0	1,135	0	10	1	11	180	1	331	0	224	0	20	7
Fishing Nets	3	3	41	6	923	59	19	0	19	376	124	79	0	94	5	18	47
Light Bulbs/Tubes	2	5	17	0	457	0	1	0	1	144	8	39	0	74	0	13	27
Oil/Lube Bottles	39	1	115	0	1,216	0	15	0	15	230	4	38	0	1,483	0	22	6
Pallets	2	6	8	0	278	0	18	0	18	86	10	0	0	22	1	5	1
Plastic Sheeting/Tarps	45	151	200	0	4,423	45	17	0	17	1,127	42	924	15	172	1	45	12
Rope	23	38	104	2	8,044	32	43	6	49	1,682	158	220	13	370	32	177	1,077
Strapping Bands	4	0	4	0	3,319	0	1	3	4	231	15	40	0	13	0	86	2
TOTAL	**213**	**235**	**670**	**12**	**32,015**	**227**	**268**	**26**	**294**	**5,351**	**795**	**2,303**	**48**	**5,043**	**108**	**789**	**1,294**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	143	2	146	0	335,771	478	484	6	490	14,891	678	2,552	979	2,912	50	5,332	2,455
Cigarette Lighters	7	1	8	0	3,539	16	49	0	49	693	127	180	7	801	2	49	93
Cigar Tips	2	0	2	0	16,259	2	25	0	25	2,286	7	37	0	73	0	48	6
Tobacco Packaging/Wrappers	15	1	18	0	18,599	20	104	3	107	1,792	26	566	44	160	72	52	105
TOTAL	**167**	**4**	**176**	**0**	**374,168**	**516**	**662**	**9**	**671**	**19,642**	**838**	**3,335**	**930**	**3,946**	**124**	**5,481**	**2,658**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	9	0	15	0	384	49	0	0	0	30	1	28	2	30	2	3	0
Batteries	3	1	6	2	1,480	14	20	0	20	208	8	27	21	298	20	22	6
Building Materials	67	12	129	0	11,542	66	164	0	164	865	10	147	0	482	4	54	11
Cars/Car Parts	3	1	9	0	2,226	13	14	0	14	40	3	40	3	128	2	6	4
55-Gallon Drums	0	1	2	0	131	0	2	0	2	15	2	1	0	9	0	0	27
Tires	12	0	12	1	1,137	6	9	0	9	94	11	101	3	85	32	11	7
TOTAL	**99**	**15**	**173**	**3**	**16,900**	**148**	**209**	**0**	**209**	**1,942**	**35**	**344**	**29**	**1,032**	**60**	**96**	**55**
MEDICAL/PERSONAL HYGIENE																	
Condoms	6	0	6	5	2,413	19	30	2	32	215	108	16	0	51	0	12	11
Diapers	10	0	15	0	1,305	1	22	0	22	408	12	207	3	64	0	17	105
Syringes	0	0	0	0	1,115	4	6	1	7	44	3	12	0	162	0	11	1
Tampons/Tampon Applicators	12	0	13	0	3,222	7	7	0	7	47	16	7	0	48	0	9	0
TOTAL	**28**	**0**	**37**	**6**	**8,055**	**31**	**65**	**3**	**69**	**714**	**141**	**242**	**3**	**325**	**0**	**49**	**117**
DEBRIS ITEM TOTALS	3,487	873	5,913	772	907,444	3,237	3,793	455	4,243	63,150	4,170	35,086	1,784	111,508	674	10,327	8,955

COUNTRY OR LOCATION	DOMINICAN REPUBLIC	EAST TIMOR	ECUADOR	EGYPT	EL SALVADOR	ESTONIA	FIJI	FINLAND	FRANCE	GERMANY	GHANA	GIBRALTAR	GREECE	GRENADA	GUAM	GUATEMALA	HONDURAS
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	26,173	0	18,309	288	0	6	211	2	203	642	25	0	42	667	42	0	0
Bags (plastic)	52,963	36	18,325	6,628	700	16	184	34	598	1,588	3,639	20	1,718	4,251	8,080	643	80
Balloons	3,058	0	1,509	31	5	0	2	0	5	52	13	0	3	28	245	13	0
Beverage Bottles (plastic)	63,378	1,881	61,937	6,530	370	25	254	41	189	2,404	113	50	10,465	11,735	8,448	135	85
Beverage Bottles (glass)	27,181	199	17,840	1,619	60	15	32	1,145	251	2,484	36	60	358	2,081	9,362	64	53
Beverage Cans	17,996	69	9,316	1,360	15	14	29	383	91	1,825	32	50	10,516	717	21,909	268	60
Caps, Lids	49,756	0	52,560	1,978	870	15	129	64	612	1,693	457	0	248	2,180	6,782	96	333
Clothing, Shoes	32,640	415	10,094	3,751	70	9	328	42	28	656	210	0	77	189	1,917	16	58
Cups, Plates, Forks, Knives, Spoons	27,188	2	25,226	489	290	11	73	389	97	1,441	95	0	5,352	2,828	6,051	46	56
Food Wrappers/Containers	23,724	298	16,571	3,049	0	3	47	26	209	2,336	974	20	1,378	4,027	5,096	65	19
Pull Tabs	3,571	0	10,972	254	0	7	12	3	15	477	27	0	64	12	1,062	192	0
6-Pack Holders	3,554	0	5,681	59	0	2	0	0	1	194	0	0	6	24	825	0	0
Shotgun Shells/Wadding	2,887	0	296	7	0	0	0	1	16	58	0	2	3	0	72	0	0
Straws, Stirrers	20,841	6	13,696	277	0	7	66	0	476	399	670	15	1,119	429	1,409	0	50
Toys	6,010	8	2,470	87	30	4	14	2	2	225	37	1	45	29	468	12	40
TOTAL	**360,970**	**2,914**	**269,802**	**26,417**	**2,410**	**134**	**1,381**	**2,632**	**2,793**	**16,481**	**6,328**	**218**	**31,304**	**28,891**	**71,766**	**1,550**	**834**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	1,968	0	2,287	310	0	1	0	10	5	110	12	0	20	25	133	16	0
Bleach/Cleaner Bottles	3,370	0	4,922	92	0	0	5	6	7	247	7	10	32	39	199	4	11
Buoys/Floats	2,130	1,214	8,926	87	0	0	4	2	8	74	6	0	38	6	66	8	20
Crab/Lobster/Fish Traps	624	0	1,000	34	0	0	100	1	7	66	2	0	8	5	83	15	5
Crates	1,068	0	751	10	0	4	0	0	6	16	0	0	10	0	72	0	0
Fishing Line	525	10	5,530	1,551	0	3	6	3	26	184	37	15	176	12	421	300	15
Fishing Lures/Light Sticks	2,363	0	505	170	0	0	6	20	18	196	0	0	18	2	64	3	0
Fishing Nets	752	4	3,928	131	0	0	18	8	27	104	25	0	22	8	118	1	3
Light Bulbs/Tubes	2566	0	1,761	36	0	0	11	2	5	55	6	0	26	38	110	0	0
Oil/Lube Bottles	10,036	0	7,040	59	20	0	5	11	6	116	13	0	23	66	200	0	10
Pallets	342	0	1,539	3	0	0	0	13	3	19	1	0	5	1	72	0	0
Plastic Sheeting/Tarps	3,352	0	3,333	79	0	2	7	2	4	265	37	0	6	37	867	23	7
Rope	2,985	13	26,128	202	40	11	23	5	526	235	71	1	59	44	413	2	16
Strapping Bands	1,810	0	1,155	185	0	0	3	16	0	147	47	0	10	3	293	95	0
TOTAL	**44,992**	**1,241**	**68,805**	**2,949**	**60**	**21**	**188**	**93**	**648**	**1,834**	**284**	**26**	**453**	**286**	**3,131**	**462**	**87**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	18,846	0	35,157	2,654	90	6	177	53	1,665	2,304	28	0	10,721	92	9,301	136	235
Cigarette Lighters	1,539	83	3,517	234	0	1	11	8	34	343	6	0	1,052	5	375	24	22
Cigar Tips	1,454	0	701	358	0	0	29	39	0	120	13	0	141	5	1,303	0	0
Tobacco Packaging/Wrappers	1,153	7	2,453	189	0	4	44	8	11	414	13	0	193	75	1,070	0	40
TOTAL	**22,992**	**90**	**41,828**	**3,435**	**90**	**13**	**281**	**108**	**1,910**	**3,181**	**60**	**0**	**12,107**	**177**	**12,054**	**160**	**297**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	896	0	986	4	0	0	3	18	0	60	0	0	7	39	180	0	3
Batteries	1,493	0	4,982	122	0	0	0	23	1	135	1	0	16	19	656	29	30
Building Materials	1,461	1	1,690	174	0	22	27	16	7	901	44	0	107	283	612	16	20
Cars/Car Parts	661	0	351	23	0	9	5	20	7	120	4	0	16	27	257	0	6
55-Gallon Drums	951	0	152	0	0	0	0	1	1	20	1	0	0	4	74	0	0
Tires	708	2	369	19	2	36	3	25	0	53	15	0	25	27	194	3	3
TOTAL	**6,170**	**3**	**8,460**	**342**	**2**	**70**	**38**	**103**	**16**	**1,289**	**65**	**0**	**171**	**399**	**1,973**	**49**	**62**
MEDICAL/PERSONAL HYGIENE																	
Condoms	2,460	0	3,776	7	0	0	0	1	12	76	32	0	10	49	85	28	5
Diapers	2,746	0	264	39	0	0	12	0	2	121	9	0	32	35	536	0	10
Syringes	1,982	0	409	0	0	0	0	0	5	26	20	0	2	0	10	0	6
Tampons/Tampon Applicators	681	3	474	6	0	0	7	0	17	84	16	1	15	6	44	6	5
TOTAL	**7,889**	**3**	**4,923**	**52**	**0**	**0**	**19**	**1**	**36**	**307**	**77**	**1**	**59**	**90**	**675**	**34**	**25**
DEBRIS ITEM TOTALS	**442,013**	**4251**	**393,818**	**33,195**	**2,562**	**238**	**1,907**	**2,937**	**5,403**	**23,098**	**6,794**	**245**	**44,104**	**29,943**	**89,599**	**2,254**	**1,305**

COUNTRY OR LOCATION	HONG KONG	HUNGARY	INDIA	INDONESIA	IRAN	IRELAND	ITALY	JAMAICA	JAPAN	JORDAN	KENYA	LIBYA	LITHUANIA	LUXEMBOURG	MALAYSIA	MALDIVES	MALTA
ITEMS (IF APPLICABLE)																	
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	11,709	0	20,534	349	0	34	442	5,887	13,267	4	241	33	1	27	2,131	146	61
Bags (plastic)	16,149	45	30,042	2,202	217	499	1,444	21,511	1,140	90	315	120	34	25	5,196	407	318
Balloons	1,306	0	5,877	217	0	0	87	553	1,014	0	22	0	0	0	225	13	9
Beverage Bottles (plastic)	10,241	210	11,977	1,134	160	568	1,432	32,269	15,089	96	358	43	40	17	3,512	1,064	199
Beverage Bottles (glass)	6,742	76	11,639	716	114	268	1,104	6,805	8,502	32	579	18	11	50	1,367	536	125
Beverage Cans	6,356	128	8,748	813	130	78	1,384	4,428	8,436	148	164	48	20	43	1,605	402	126
Caps, Lids	16,744	141	14,100	1,009	401	165	602	15,653	14,603	26	74	11	0	40	1,641	534	985
Clothing, Shoes	4,492	4	11,659	668	35	70	203	5,402	2,639	13	431	6	2	7	780	390	160
Cups, Plates, Forks, Knives, Spoons	6,334	11	9,417	169	0	41	396	13,857	1,659	259	134	4	52	24	1,681	112	301
Food Wrappers/Containers	16,040	17	18,265	1,348	100	265	661	7,447	19,349	5	231	8	31	12	4,713	374	601
Pull Tabs	773	25	1,325	486	0	4	116	1,072	1,081	0	39	0	0	21	169	13	112
6-Pack Holders	390	0	2,493	833	0	0	16	90	35	0	42	2	0	2	40	0	14
Shotgun Shells/Wadding	833	0	720	113	0	0	63	74	76	0	13	0	0	8	36	17	13
Straws, Stirrers	9,874	2	9,624	307	200	8	422	3,541	3,909	13	70	0	2	0	2,294	140	105
Toys	1,463	9	9,947	85	2	4	120	671	2,767	1	6	1	0	2	302	24	10
TOTAL	**109,480**	**668**	**166,287**	**10,449**	**1,359**	**1,945**	**6,502**	**118,590**	**93,668**	**626**	**2,719**	**294**	**193**	**308**	**25,692**	**4,171**	**3,040**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	1,436	1	8,804	21	0	6	191	200	304	9	50	0	4	2	72	28	27
Bleach/Cleaner Bottles	477	13	7,546	175	5	3	136	804	1,237	12	52	2	0	2	60	36	0
Buoys/Floats	1,013	0	1,266	41	50	0	44	136	2,273	0	111	3	0	0	668	735	3
Crab/Lobster/Fish Traps	265	3	1,942	8	2	1	100	129	429	2	40	0	2	0	116	17	0
Crates	572	4	2,154	57	0	0	72	74	89	4	16	0	0	0	7	1	1
Fishing Line	933	18	3,177	310	5	50	806	269	1,162	29	23	4	1	20	126	662	6
Fishing Lures/Light Sticks	1,561	2	6,152	83	0	0	215	48	2,092	31	15	0	1	4	54	200	5
Fishing Nets	1,001	3	3,450	16	221	0	29	239	421	0	51	3	3	0	65	35	52
Light Bulbs/Tubes	358	0	5,870	42	0	6	36	156	188	3	38	2	0	0	82	21	0
Oil/Lube Bottles	311	6	12,193	55	18	0	80	689	82	8	51	7	0	0	103	12	1
Pellets	505	0	604	5	0	1	4	23	43	2	10	4	0	0	4	0	1
Plastic Sheeting/Tarps	11,364	0	3,419	196	0	3	48	493	368	5	31	13	0	16	130	225	4
Rope	6,308	7	4,230	266	215	4	443	476	11,586	5	85	4	1	3	567	342	10
Strapping Bands	1,026	0	1,528	19	0	2	36	87	944	8	16	0	0	4	269	112	0
TOTAL	**27,332**	**57**	**62,135**	**1,295**	**516**	**76**	**2,240**	**3,823**	**21,412**	**118**	**591**	**42**	**12**	**51**	**2,303**	**2,424**	**110**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	16,321	34	14,386	2790	0	26	3,353	2,096	51,077	204	68	0	2	30	12,082	564	1,585
Cigarette Lighters	1,402	9	1,469	174	0	12	79	1,267	2,394	28	23	5	0	0	312	85	3
Cigar Tips	352	0	2,274	752	0	0	327	519	847	0	7	0	0	0	342	0	0
Tobacco Packaging/Wrappers	10,896	0	21,273	823	100	56	162	455	1,629	69	9	4	5	0	1,467	72	122
TOTAL	**28,971**	**43**	**39,404**	**4,539**	**100**	**94**	**3,921**	**4,377**	**56,147**	**295**	**106**	**9**	**7**	**30**	**14,203**	**721**	**1,710**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	182	0	472	21	1	5	25	176	214	3	0	4	0	0	29	1	0
Batteries	884	8	2,378	122	3	5	100	123	410	25	21	1	1	2	122	83	34
Building Materials	14,481	0	2,808	174	5	163	357	747	3,486	10	13	9	0	24	1,157	571	2
Cars/Car Parts	201	9	954	26	4	4	59	631	102	2	6	1	5	0	22	8	5
55-Gallon Drums	61	0	484	4	0	0	2	22	20	1	6	1	0	0	1	0	4
Tires	268	4	678	77	9	4	208	164	302	8	10	22	8	0	11	15	39
TOTAL	**16,077**	**15**	**7,774**	**424**	**22**	**184**	**751**	**1,885**	**4,534**	**49**	**56**	**38**	**14**	**26**	**1,342**	**678**	**84**
MEDICAL/PERSONAL HYGIENE																	
Condoms	873	0	850	181	0	0	27	606	25	0	104	7	0	0	25	0	1
Diapers	192	0	3,370	172	3	13	30	896	35	23	8	4	0	0	162	14	143
Syringes	235	0	3,261	22	0	0	0	69	233	0	20	1	0	0	34	0	0
Tampons/Tampon Applicators	369	0	483	127	7	0	124	85	23	17	4	0	0	0	4	0	1
TOTAL	**1,669**	**0**	**7,964**	**502**	**10**	**13**	**181**	**1,656**	**316**	**40**	**136**	**12**	**0**	**0**	**226**	**14**	**145**
DEBRIS ITEM TOTALS	**193,520**	**783**	**383,564**	**17,209**	**2,007**	**2,312**	**15,595**	**130,111**	**176,077**	**1,128**	**3,608**	**495**	**226**	**415**	**43,785**	**7,995**	**5,089**

COUNTRY OR LOCATION	MARSHALL ISLANDS	MAURITIUS	MEXICO	NAMIBIA	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS ANTILLES	NETHERLANDS	NEW ZEALAND	NICARAGUA	N. MARIANA ISLANDS	N. MARIANA ISLANDS	N. MARIANA ISLANDS	N. MARIANA ISLANDS	NORWAY
ISLAND (IF AVAILABLE)					BONAIRE	CURACAO	SABA	ST. MAARTEN	TOTAL				ROTA	SAIPAN	TINIAN	TOTAL	
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	0	0	7,005	1,136	31	0	3	867	901	216	124	14,791	516	483	185	1,184	82
Bags (plastic)	75	2,003	26,109	2,274	87	6	38	1,305	1,436	2,580	644	98,561	580	4	54	638	150
Balloons	0	0	1,159	99	0	0	4	53	57	26	20	1,046	152	38	0	190	13
Beverage Bottles (plastic)	734	24	34,839	883	33	16	1,739	1,934	3,729	626	752	70,797	2,181	2,748	233	5,162	70
Beverage Bottles (glass)	101	27	10,346	1,204	13	11	307	2,224	2,555	482	826	13,599	1,520	583	264	2,367	34
Beverage Cans	24	10	5,229	756	36	97	113	1,509	1,755	794	691	10,934	1,432	1,356	1,049	3,837	94
Caps, Lids	102	30	29,055	957	0	6	929	1,738	2,573	229	685	18,272	745	2,956	241	3,942	125
Clothing, Shoes	55	1	4,431	831	8	4	171	312	495	149	88	16,525	143	291	20	454	18
Cups, Plates, Forks, Knives, Spoons	230	0	21,512	244	0	15	70	2,227	2,312	165	289	12,215	820	323	1,387	2,530	38
Food Wrappers/Containers	155	20	8,992	388	0	10	75	1,147	1,232	606	759	13,224	662	417	712	1,791	211
Pull Tabs	1	10	1,057	42	0	0	0	103	103	193	58	585	116	12	1,104	1,232	26
6-Pack Holders	97	30	2,270	84	0	0	2	123	125	22	18	324	186	52	314	552	1
Shotgun Shells/Wadding	0	0	185	50	0	0	0	22	22	28	6	45	2	21	0	23	3
Straws, Stirrers	28	8	5,896	207	24	0	8	793	825	254	263	10,191	281	350	534	1,165	30
Toys	4	10	1,090	191	0	0	13	45	58	217	175	2,923	66	44	5	117	10
TOTAL	**1,606**	**2,173**	**159,185**	**9,346**	**237**	**167**	**3,372**	**14,402**	**18,178**	**6,592**	**5,398**	**282,032**	**9,354**	**9,678**	**6,102**	**25,134**	**955**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	0	1	196	45	0	0	10	39	49	247	81	82	6	10	0	16	3
Bleach/Cleaner Bottles	25	6	1,242	109	0	0	28	72	100	709	59	2,385	36	58	4	98	24
Buoys/Floats	33	0	373	35	0	0	25	6	31	5	19	548	16	66	0	82	11
Crab/Lobster/Fish Traps	1	0	80	172	0	0	1	14	15	2	10	218	4	31	1	36	4
Crates	1	2	127	37	0	0	16	10	26	3	20	174	2	1	1	4	6
Fishing Line	5	40	938	692	0	2	11	22	35	56	645	576	100	22	2	124	204
Fishing Lures/Light Sticks	0	0	294	119	0	7	2	1	10	17	160	330	10	4	0	14	17
Fishing Nets	33	1	356	354	0	0	5	9	14	18	73	670	12	5	0	17	36
Light Bulbs/Tubes	4	20	292	30	0	0	3	27	30	209	2	412	8	26	2	36	3
Oil/Lube Bottles	31	50	950	72	0	0	33	34	67	6	19	2,439	86	29	4	119	3
Pellets	0	0	129	17	0	0	4	66	70	3	1	32	4	2	1	7	4
Plastic Sheeting/Tarps	1	0	702	217	0	0	3	177	180	2,407	74	805	25	30	0	55	40
Rope	65	100	3,059	909	0	3	45	99	147	73	194	956	109	45	2	156	134
Strapping Bands	12	5	465	95	0	1	7	23	31	19	27	148	54	7	5	66	42
TOTAL	**211**	**225**	**9,143**	**2,903**	**0**	**13**	**193**	**599**	**805**	**3,777**	**1,364**	**9,775**	**472**	**336**	**22**	**830**	**631**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	10	0	41,929	1,019	102	0	28	2,099	2,229	834	1,319	5,043	1,318	1,111	3,050	5,479	344
Cigarette Lighters	0	0	616	63	12	0	22	37	71	155	67	401	40	69	3	112	4
Cigar Tips	0	0	2,848	209	0	0	0	392	392	88	1,116	2,928	204	0	0	204	0
Tobacco Packaging/Wrappers	28	0	1,635	81	0	0	3	139	142	127	146	2,927	88	82	1,309	1,479	15
TOTAL	**38**	**0**	**46,428**	**1,372**	**114**	**0**	**53**	**2,667**	**3,034**	**1,204**	**2,650**	**11,297**	**1,650**	**1,262**	**4,362**	**7,274**	**363**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	0	0	310	12	0	0	0	15	15	3	1	191	8	1	0	9	8
Batteries	0	0	541	22	0	0	21	16	37	36	51	1,029	56	72	1	131	1
Building Materials	0	2	1,298	238	0	0	99	403	502	103	90	414	470	48	1	519	45
Cars/Car Parts	0	0	548	33	0	0	14	49	63	8	38	51	44	2	1	47	0
55-Gallon Drums	0	1	50	10	0	0	0	0	0	1	0	37	0	1	1	2	10
Tires	0	2	328	65	0	1	12	11	24	25	22	521	34	5	3	42	7
TOTAL	**0**	**5**	**3,075**	**380**	**0**	**1**	**146**	**494**	**641**	**176**	**202**	**2,243**	**614**	**129**	**7**	**750**	**71**
MEDICAL/PERSONAL HYGIENE																	
Condoms	1	0	568	195	0	0	0	85	85	1	22	978	13	3	1	17	18
Diapers	40	0	1,828	52	0	0	0	59	59	6	71	2,595	46	40	27	113	7
Syringes	6	0	283	3	0	0	1	1	2	0	4	573	6	150	0	156	7
Tampons/Tampon Applicators	22	0	176	15	0	0	0	26	26	9	24	776	8	20	8	36	6
TOTAL	**69**	**0**	**2,855**	**265**	**0**	**0**	**1**	**171**	**172**	**16**	**121**	**4,922**	**75**	**213**	**36**	**324**	**38**
DEBRIS ITEM TOTALS	**1,923**	**2,405**	**220,684**	**14,566**	**351**	**181**	**3,765**	**18,533**	**23,030**	**11,765**	**9,735**	**310,269**	**12,165**	**11,618**	**10,529**	**34,312**	**2,060**

COUNTRY OR LOCATION	PALAU	PANAMA	PAPUA NEW GUINEA	PARAGUAY	PERU	PHILIPPINES	POLAND	PORTUGAL	PUERTO RICO	REPUBLIC OF KOREA	RUSSIA	SAUDI ARABIA	SINGAPORE	SLOVAKIA	SLOVENIA	SOUTH AFRICA	SPAIN
ISLAND (IF AVAILABLE)																	
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	161	4,220	11	2	27	32,826	141	123	3,779	209	74	1,124	3,286	0	22	120	725
Bags (plastic)	921	11,667	15	1,980	39	300,716	248	238	28,320	561	377	594	16,031	0	668	3,379	3,315
Balloons	55	1,638	3	12	0	11,764	12	4	1,152	28	14	0	284	0	26	33	70
Beverage Bottles (plastic)	1,086	56,725	9	24	8	19,557	198	467	26,392	509	214	115	7,389	1	1,342	5,154	2,617
Beverage Bottles (glass)	539	7,184	24	12	12	16,132	128	759	33,361	467	324	99	3,699	30	691	1,467	2,282
Beverage Cans	686	2811	26	6	26	13,887	304	294	16,628	132	201	165	1,219	5	785	984	2,587
Caps, Lids	647	10,508	14	17	17	6,914	69	250	29,976	311	120	52	4,796	0	808	8,675	2,176
Clothing, Shoes	309	12,152	4	38	8	30,223	28	57	6,298	146	65	15	1,779	4	185	902	498
Cups, Plates, Forks, Knives, Spoons	485	8,972	10	6	6	21,924	74	19	39,180	396	261	22	3,415	3	305	898	1,005
Food Wrappers/Containers	357	6,824	10	30	3	110,939	46	352	18,518	474	310	98	10,185	0	630	2,223	1,496
Pull Tabs	82	2,486	5	0	0	2,683	12	20	4,526	9	45	25	378	0	79	119	311
6-Pack Holders	27	2,806	3	0	8	1,605	7	54	2,429	10	39	2	48	0	85	45	146
Shotgun Shells/Wadding	10	466	20	0	0	4,115	1	15	420	17	1	127	2,341	0	1	13	4
Straws, Stirrers	257	2,198	4	19	0	40,280	7	13	15,006	201	10	33	8,023	0	174	1,860	1,579
Toys	315	1,348	2	5	0	8,883	8	10	2,289	51	8	2	1,256	1	42	271	135
TOTAL	**5,947**	**138,955**	**160**	**2,151**	**148**	**622,448**	**1,277**	**2,725**	**233,214**	**3,539**	**2,082**	**2,464**	**65,038**	**44**	**6,343**	**26,143**	**18,882**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	52	241	0	0	13	2,665	9	38	748	2	0	1	331	0	3	228	560
Bleach/Cleaner Bottles	153	3,781	0	4	0	4,060	16	33	2,177	3	0	5	393	1	90	225	139
Buoys/Floats	231	2,933	0	4	3	2,814	2	50	618	61	8	3	159	0	18	85	47
Crab/Lobster/Fish Traps	16	647	0	0	0	1,862	3	115	106	2	0	6	186	0	9	68	22
Crates	18	149	1	0	2	686	2	109	480	1	4	2	108	0	6	59	72
Fishing Line	40	68	15	0	9	3,174	6	883	738	69	2	51	626	0	18	1,828	1,088
Fishing Lures/Light Sticks	22	101	14	0	2	2,168	8	161	326	30	0	1	261	0	2	255	103
Fishing Nets	2	520	0	0	3	2,826	2	665	302	30	15	1	350	0	170	97	195
Light Bulbs/Tubes	53	166	0	5	0	1,917	0	12	334	138	0	4	357	0	6	95	19
Oil/Lube Bottles	183	3,636	0	2	2	2,846	12	7	2,244	24	13	3	237	0	38	195	99
Pellets	0	143	2	0	0	747	2	11	162	6	0	0	60	0	8	56	6
Plastic Sheeting/Tarps	35	791	8	12	0	15,999	4	8	1,955	175	17	7	4,043	0	185	131	47
Rope	54	904	8	3	11	11,354	5	138	1,430	610	11	21	2,054	6	46	1,695	537
Strapping Bands	50	259	0	2	14	4,963	5	111	328	68	36	0	999	0	9	205	33
TOTAL	**917**	**14,358**	**48**	**32**	**59**	**58,181**	**76**	**2,341**	**11,948**	**1,219**	**106**	**105**	**10,074**	**7**	**602**	**5,422**	**2,967**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	60	1,723	0	4	39	28,622	225	1,592	39,472	1,238	905	559	21,924	0	2,518	1,146	7,747
Cigarette Lighters	126	384	6	0	4	8,010	16	93	661	135	20	8	879	0	49	1,435	417
Cigar Tips	99	148	0	0	0	7,462	14	21	4,432	48	0	0	1,779	0	0	123	265
Tobacco Packaging/Wrappers	29	558	16	0	3	7,932	27	110	1,426	78	79	123	351	0	140	99	474
TOTAL	**334**	**2,813**	**22**	**4**	**46**	**51,946**	**282**	**1,806**	**45,991**	**1,499**	**1,004**	**690**	**24,927**	**0**	**2,707**	**2,805**	**8,903**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	7	184	0	0	0	1,310	3	50	1,409	2	6	0	159	0	3	171	6
Batteries	35	312	3	0	0	2,021	11	20	488	30	3	10	586	1	39	9	270
Building Materials	16	963	2	5	10	566	12	92	2,729	23	59	16	1,909	15	95	194	163
Cars/Car Parts	4	466	0	3	0	532	5	18	1,334	8	12	0	231	0	28	261	39
55-Gallon Drums	1	50	0	0	0	321	0	62	48	0	0	0	63	0	2	48	13
Tires	5	572	0	9	0	1,193	59	8	801	19	14	11	144	4	12	63	62
TOTAL	**68**	**2,547**	**5**	**17**	**10**	**5,883**	**90**	**250**	**6,789**	**82**	**94**	**37**	**3,112**	**20**	**171**	**746**	**553**
MEDICAL/PERSONAL HYGIENE																	
Condoms	50	208	0	0	2	1,979	20	75	722	3	2	0	71	0	13	133	34
Diapers	61	854	4	7	1	12,102	3	0	1,490	1	10	10	54	0	65	235	120
Syringes	45	248	0	3	0	2,109	0	10	601	8	1	2	72	0	7	15	9
Tampons/Tampon Applicators	7	124	0	0	0	2,344	3	9	454	1	10	0	32	0	10	76	42
TOTAL	**163**	**1,434**	**4**	**10**	**3**	**18,528**	**26**	**94**	**3,267**	**13**	**23**	**12**	**229**	**0**	**95**	**459**	**205**
DEBRIS ITEM TOTALS	7,429	160,107	239	2,214	266	756,986	1,751	7,226	301,209	6,352	3,315	3,308	103,380	71	9,918	35,575	31,510

COUNTRY OR LOCATION	SRI LANKA	ST. KITTS & NEVIS	ST. VINCENT & THE GRENADINES	ST. VINCENT & THE GRENADINES	ST. VINCENT & THE GRENADINES	SWEDEN	SWITZERLAND	TAIWAN	TANZANIA	THAILAND	TOGO	TONGA	TRINIDAD & TOBAGO	TURKEY	UKRAINE	UNITED ARAB EMIRATES	UNITED KINGDOM
(ISLAND OF ANTIGUA)		NEVIS	GRENADINES	ST. VINCENT	TOTAL								TRINIDAD				
SHORELINE & RECREATIONAL ACTIVITIES																	
Bags (paper)	3,912	1,110	748	336	1,084	19	60	39	0	11,670	5	0	1,470	1	13	521	1,410
Bags (plastic)	2,802	1,166	1,764	4,855	6,619	38	178	682	25	12,719	1,580	0	5,358	211	94	977	8,633
Balloons	119	6	21	18	39	0	1	40	0	108	0	0	157	0	1	22	1,523
Beverage Bottles (plastic)	2,340	4,606	1,863	7,188	9,051	11	352	193	50	3,970	6	0	12,162	171	136	1,177	17,692
Beverage Bottles (glass)	1,222	1,608	1,591	672	2,263	3	646	723	100	2,446	2	0	8,355	1,639	245	295	2,924
Beverage Cans	502	1,482	1,467	938	2,405	30	397	320	20	1,524	2	0	3,073	274	139	445	9,894
Caps, Lids	2,760	3,969	415	1,600	2,015	15	201	531	25	13,974	76	0	13,902	0	11	494	25,480
Clothing, Shoes	743	458	304	835	1,139	1	102	197	25	3,350	28	8	2,246	63	5	185	3,031
Cups, Plates, Forks, Knives, Spoons	494	1,292	1,925	687	1,712	3	162	82	0	9,198	6	0	9,437	67	45	357	8,016
Food Wrappers/Containers	1,001	567	776	1,316	2,092	5	267	364	20	3,305	100	0	7,025	8	17	397	37,083
Pull Tabs	26	42	89	36	125	0	21	25	0	206	0	0	258	0	3	84	81
6-Pack Holders	147	5	165	182	347	0	0	1	0	24	0	0	80	0	0	78	32
Shotgun Shells/Wadding	250	2	73	3	76	0	2	6	0	1,239	0	0	25	0	0	71	1,719
Straws, Stirrers	2,252	175	84	1,314	1,398	12	27	472	25	7,718	16	0	1,857	7	14	77	490
Toys	353	17	54	136	190	3	32	42	0	707	2	0	452	2	17	85	1,804
TOTAL	**18,863**	**15,545**	**10,439**	**20,016**	**30,455**	**140**	**2,388**	**3,656**	**290**	**77,152**	**1,823**	**0**	**65,869**	**2,443**	**740**	**5,205**	**119,812**
OCEAN/WATERWAY ACTIVITIES																	
Bait Containers/Packaging	670	3	75	21	96	0	17	20	0	74	0	0	147	3	2	97	324
Bleach/Cleaner Bottles	476	104	250	599	849	1	220	109	0	143	0	12	259	0	1	63	642
Buoys/Floats	4,683	19	63	8	71	6	13	17	5	5,716	8	5	903	4	9	61	545
Crab/Lobster/Fish Traps	274	18	4	4	8	0	101	9	0	86	0	1	48	6	0	35	164
Crates	48	27	8	4	12	1	8	3	0	251	0	0	99	0	0	18	828
Fishing Line	419	44	17	15	32	66	109	111	0	1,431	80	25	220	95	23	141	8,667
Fishing Lures/Light Sticks	37	0	0	0	0	17	50	76	0	128	0	1	135	1	4	88	603
Fishing Nets	425	35	32	5	37	1	5	19	9	1,020	20	5	706	11	0	54	17,822
Light Bulbs/Tubes	199	27	226	22	248	0	7	34	0	520	0	0	103	0	0	14	158
Oil/Lube Bottles	436	252	281	398	679	23	25	3	0	181	0	5	425	5	0	37	265
Pellets	188	1	7	0	7	0	3	2	0	5	0	0	46	0	0	39	119
Plastic Sheeting/Tarps	159	29	7	13	20	6	9	15	0	1,084	2	0	313	3	3	146	127
Rope	518	355	80	134	214	4	34	71	15	18,984	60	20	1,125	122	8	266	24,550
Strapping Bands	491	39	4	12	16	0	29	8	0	1,264	30	0	123	12	5	69	3,273
TOTAL	**9,018**	**953**	**1,054**	**1,235**	**2,289**	**125**	**635**	**492**	**29**	**30,890**	**209**	**74**	**4,057**	**262**	**46**	**1,128**	**58,087**
SMOKING-RELATED ACTIVITIES																	
Cigarettes/Cigarette Filters	2,987	114	35	375	410	110	2,243	846	25	1,832	10	25	1,054	3	55	248	13,395
Cigarette Lighters	691	6	4	26	30	17	138	180	0	1,718	0	10	402	0	11	104	1,930
Cigar Tips	1,209	4	8	36	44	0	13	0	0	970	0	0	353	0	0	75	224
Tobacco Packaging/Wrappers	511	37	28	84	112	12	209	94	0	209	6	50	497	11	4	71	1,438
TOTAL	**5,398**	**161**	**75**	**521**	**596**	**139**	**2,603**	**1,120**	**25**	**4,129**	**16**	**85**	**2,306**	**14**	**70**	**498**	**16,396**
DUMPING ACTIVITIES																	
Appliances (refrigerators, washers, etc.)	250	8	4	15	19	0	45	14	0	160	0	0	49	3	0	0	1,054
Batteries	196	14	6	28	34	11	6	11	0	480	0	15	41	15	2	4	131
Building Materials	113	138	42	62	104	1	36	28	0	1,817	0	0	354	54	0	53	2,616
Cans/Car Parts	42	10	10	68	78	0	595	3	0	161	0	0	119	0	1	20	564
55-Gallon Drums	0	5	3	3	6	0	7	0	0	251	0	0	15	0	0	1	43
Tires	50	26	4	58	62	1	14	17	0	55	0	0	39	73	3	3	232
TOTAL	**651**	**201**	**69**	**234**	**303**	**13**	**643**	**73**	**0**	**2,875**	**0**	**15**	**617**	**145**	**6**	**81**	**4,634**
MEDICAL/PERSONAL HYGIENE																	
Condoms	43	25	7	69	76	0	17	4	0	74	0	0	116	0	3	0	171
Diapers	59	27	21	143	164	2	0	1	0	42	0	60	300	45	0	30	378
Syringes	85	1	30	8	38	0	6	5	0	144	2	0	29	0	0	0	216
Tampons/Tampon Applicators	15	4	0	52	52	0	1	3	0	82	2	0	89	0	12	0	893
TOTAL	**202**	**57**	**58**	**272**	**330**	**2**	**24**	**13**	**0**	**342**	**4**	**60**	**536**	**45**	**15**	**30**	**1,658**
DEBRIS ITEM TOTALS	**34,130**	**16,917**	**11,695**	**22,278**	**33,973**	**419**	**6,293**	**5,354**	**339**	**115,388**	**2,052**	**234**	**73,385**	**2,909**	**877**	**7,542**	**200,697**

COUNTRY OR LOCATION	UNITED STATES	UNITED STATES VIRGIN ISLANDS	UNITED STATES VIRGIN ISLANDS	UNITED STATES VIRGIN ISLANDS	UNITED STATES VIRGIN ISLANDS	URUGUAY	VANUATU	VENEZUELA	VIETNAM	TOTAL
ISLAND (IF APPLICABLE)		ST. CROIX	ST. JOHN	ST. THOMAS	TOTAL					
SHORELINE & RECREATIONAL ACTIVITIES										
Bags (paper)	89,626	1,172	195	1,135	2,506	242	4	5	0	341,478
Bags (plastic)	268,166	2,265	436	3,706	6,407	1,570	57	22	74	1,136,774
Balloons	39,744	311	37	193	541	93	1	1	0	87,502
Beverage Bottles (plastic)	223,392	2,134	760	3,142	6,036	357	31	18	8	869,730
Beverage Bottles (glass)	172,869	3,393	307	2,160	5,860	261	14	125	0	439,531
Beverage Cans	199,750	2,299	393	1,765	4,457	61	26	22	22	457,681
Caps, Lids	410,078	3,626	1,302	4,880	9,808	1,071	27	46	0	832,226
Clothing, Shoes	52,459	802	179	640	1,621	135	18	21	2	241,398
Cups, Plates, Forks, Knives, Spoons	190,175	2,270	263	3,191	5,723	324	32	4	0	512,517
Food Wrappers/Containers	427,439	1,632	392	3,468	5,492	1,303	157	134	0	843,233
Pull Tabs	40,776	316	48	555	919	0	8	0	0	92,976
6-Pack Holders	11,664	143	13	123	279	0	5	1	0	23,402
Shotgun Shells/Wadding	18,314	97	1	7	105	0	0	0	0	37,800
Straws, Stirrers	167,674	1,010	298	2,585	3,893	278	19	25	0	417,940
Toys	44,618	196	51	143	390	72	6	5	0	101,540
TOTAL	**2,345,730**	**21,626**	**4,668**	**27,713**	**54,007**	**5,765**	**405**	**428**	**106**	**6,681,264**
OCEAN/WATERWAY ACTIVITIES										
Bait Containers/Packaging	19,849	64	17	51	132	11	3	0	0	47,361
Bleach/Cleaner Bottles	8,259	107	48	145	300	7	5	1	0	35,514
Buoys/Floats	12,031	85	59	81	235	2	0	5	4	58,276
Crab/Lobster/Fish Traps	5,019	111	3	14	128	1	0	0	2	15,465
Crates	2,523	28	9	23	60	13	0	0	0	12,402
Fishing Line	40,545	267	51	374	692	22	36	30	41	98,794
Fishing Lures/Light Sticks	11,817	71	23	15	109	6	2	1	4	33,711
Fishing Nets	6,095	62	63	75	200	21	20	1	3	46,189
Light Bulbs/Tubes	3,501	36	15	26	77	6	0	1	0	28,721
Oil/Lube Bottles	7,643	149	64	192	405	5	0	1	0	66,861
Pellets	2,943	23	2	9	34	7	0	0	0	9,379
Plastic Sheeting/Tarps	23,757	289	172	117	578	398	7	6	2	58,226
Rope	59,909	545	411	784	1,740	165	56	0	40	261,230
Strapping Bands	18,159	65	30	136	231	23	9	10	0	53,482
TOTAL	**222,351**	**1,912**	**967**	**2,042**	**4,921**	**687**	**141**	**50**	**96**	**793,513**
SMOKING-RELATED ACTIVITIES										
Cigarettes/Cigarette Filters	1,386,050	977	1,645	2,024	4,646	546	8	48	23	2,189,252
Cigarette Lighters	19,941	272	36	158	466	32	4	0	0	59,994
Cigar Tips	79,039	419	0	114	527	118	0	0	0	193,418
Tobacco Packaging/Wrappers	39,221	131	31	254	416	97	2	0	8	159,134
TOTAL	**1,526,251**	**1,793**	**1,712**	**2,550**	**6,055**	**793**	**14**	**48**	**31**	**2,311,798**
DUMPING ACTIVITIES										
Appliances (refrigerators, washers, etc.)	1,589	52	0	19	71	6	0	0	0	11,112
Batteries	2,587	46	7	47	100	4	3	1	33	29,508
Building Materials	49,118	161	23	403	607	132	6	23	7	111,184
Cars/Car Parts	11,196	133	10	161	304	14	3	2	0	28,459
55-Gallon Drums	521	4	0	1	5	0	0	0	0	3,536
Tires	9,287	125	1	28	154	2	0	0	2	19,126
TOTAL	**79,298**	**541**	**41**	**659**	**1,241**	**158**	**12**	**26**	**42**	**196,043**
MEDICAL/PERSONAL HYGIENE										
Condoms	7,630	188	12	367	567	56	0	0	0	25,617
Diapers	5,457	146	6	74	226	12	3	0	0	33,530
Syringes	2,388	7	2	4	13	2	0	0	0	15,078
Tampons/Tampon Applicators	12,857	36	3	42	81	6	2	0	0	24,007
TOTAL	**28,332**	**377**	**23**	**487**	**887**	**76**	**5**	**0**	**0**	**104,650**
DEBRIS ITEM TOTALS	**4,261,962**	**26,248**	**7,411**	**35,451**	**67,111**	**7,479**	**577**	**552**	**276**	**10,216,530**

		LAND				UNDERWATER				TOTAL			
COUNTRY OR LOCATION	STATE	PEOPLE	PLACES	TYPES	SIZE	PEOPLE	PLACES	TYPES	SIZE	PEOPLE	PLACES	TYPES	SIZE
Argentina		1,336	26,592	14.2	542	-	-	-	-	1,336	26,592	14.2	542
Aruba		25	386	-	22	11	551	0.3	25	36	937	0.3	47
Australia		474	8,622	41.1	629	509	12,549	20.1	498	983	21,171	61.2	1,127
Austria		103	893	7.5	37	155	997	5.0	37	258	1,890	12.5	74
Bahamas	Abaco	48	390	2.7	20	-	-	-	-	48	390	2.7	20
	Andros	-	-	-	-	2	500	1.0	50	21	500	1.0	50
	Exuma	-	-	-	-	8	9	1.0	1	8	9	1.0	1
	Grand Bahama Island	-	-	-	-	10	100	1.0	30	10	100	1.0	30
	Nassau	255	6,316	2.3	1,200	200	6,000	2.0	400	455	12,316	4.3	1,600
	Total	303	6,706	5.0	1,220	220	6,603	5.0	481	523	13,309	10.0	1,701
Bahrain		8	110	0.6	5	17	441	0.6	15	25	551	1.2	20
Bangladesh		483	8,150	7.5	52	-	-	-	-	483	8,150	7.5	52
Barbados		107	2,599	2.5	135	14	110	1.0	11	121	2,709	3.5	146
Belgium		94	366	0.6	17	44	229	1.7	18	138	595	2.3	35
Belize		400	7,577	13.8	266	-	-	-	-	400	7,577	13.8	266
Brazil		13,553	68,473	104.8	3,014	111	753	11.6	57	13,664	69,226	116.4	3,071
British Virgin Islands	Anegada Island	22	22	1.2	23	18	24	1.2	15	40	46	2.4	38
	Ball Island	10	900	0.5	20	-	-	-	-	10	900	0.5	20
	Tortola	151	1,968	4.0	143	-	-	-	-	151	1,968	4.0	143
	Virgin Gorda	57	530	1.8	32	-	-	-	-	57	530	1.8	32
	Total	240	3,420	7.5	218	18	24	1.2	15	258	3,444	8.7	233
Cambodia		-	-	-	-	2	55	0.1	2	2	55	0.1	2
Canada		36,890	348,415	1,510.6	14,002	257	6,356	16.4	281	37,147	354,761	1,527.0	14,283
Cape Verde		25	220	1.2	20	40	551	0.2	20	65	771	1.4	40
Cayman Islands	Grand Cayman	52	840	1.1	69	87	310	3.7	60	139	1,150	4.8	129
	Little Cayman	28	300	1.0	12	-	-	-	-	28	300	1.0	12
	Total	80	1,140	2.1	81	87	310	3.7	60	167	1,450	5.8	141
Chile		2,259	72,615	1.4	14	61	243	1.6	17	2,320	72,858	3.0	31
China		2,977	3,012	3.6	887	79	174	1.3	36	3,056	3,186	4.9	923
Colombia		2,788	56,919	8.1	615	273	3,990	5.2	60	3,061	60,909	13.3	675
Cook Islands	Rarotonga	12	220	0.6	10	12	176	0.6	6	24	396	1.2	16
Costa Rica		1,759	23,178	31.8	953	44	284	2.2	39	1,803	23,462	34.0	992
Croatia		14	104	1.2	7	34	754	2.5	49	48	858	3.7	56
Cyprus		180	4,868	7.5	319	130	1,248	2.7	73	310	6,116	10.2	392
Denmark		14	33	0.7	5	28	132	1.1	11	42	165	1.8	16
Dominican Republic		11,558	138,967	39.5	8,681	78	2,011	3.5	313	11,636	140,978	43.0	8,994
East Timor		56	-	0.1	45	14	-	0.1	5	70	-	0.2	50
Ecuador		6,162	101,274	72.5	107	44	1,307	9.3	34	6,206	102,581	81.8	141
Egypt		201	2,138	6.8	204	585	3,408	15.2	237	786	5,546	22.0	441
El Salvador		20	350	2.5	15	-	-	-	-	20	350	2.5	15
Estonia		159	3,638	3.1	204	106	14,440	1.8	114	265	18,078	4.9	318
Fiji		121	2,164	9.5	143	15	77	3.1	6	136	2,241	12.6	149
Finland		105	1,213	0.9	415	124	10,428	2.6	926	229	11,641	3.5	1,341
France		95	1,818	6.9	55	33	496	2.6	23	128	2,314	9.5	108
Germany		996	15,580	34.2	461	362	7,150	21.0	248	758	22,730	55.2	709
Ghana		103	1,200	0.3	-	-	-	-	-	103	1,200	0.3	-
Gibraltar		-	-	-	-	14	220	0.6	20	14	220	0.6	20
Greece		2,195	37,029	32.3	1,614	385	17,474	5.7	754	2,580	54,503	38.0	2,368
Grenada		360	5,316	21.6	267	7	140	2.0	18	367	5,456	23.6	285
Guam		3,008	12,776	22.5	1,650	-	-	-	-	3,008	12,776	22.5	1,650
Guatemala		2	55	0.1	40	-	-	-	-	2	55	0.1	40
Honduras		24	942	0.9	46	20	155	0.7	15	44	1,097	1.6	61
Hong Kong		4,601	45,117	26.8	3,074	207	1,221	1.5	79	4,808	46,338	28.3	3,153
Hungary		10	441	0.6	13	19	507	0.6	16	29	948	1.2	29
India		18,254	52,889	184.7	8,978	30	112	1.2	3	18,284	53,001	185.9	8,981
Indonesia		693	10,800	12.8	466	253	3,064	6.3	142	946	13,864	19.1	610
Iran		80	2,046	0.7	143	133	2,630	16.4	40	213	4,676	17.1	183
Ireland		87	1,389	6.5	263	5	66	1.9	2	92	1,455	8.4	265
Israel		585	4,570	2.0	744	90	1,815	-	200	675	6,385	2.0	944
Italy		453	7,341	25.5	346	452	6,370	19.5	389	905	13,711	45.0	735
Jamaica		2,323	20,447	34.1	1,618	29	126	1.9	8	2,352	20,573	36.0	1,626
Japan		13,072	31,901	98.0	4,518	795	27,583	4.0	1,347	13,867	59,484	42.0	5,865
Jordan		-	-	-	-	12	148	0.6	22	12	148	0.6	22
Kenya		170	2,315	1.7	50	26	694	0.7	11	196	3,009	2.4	61
Libya		25	121	0.3	10	14	254	0.1	6	39	375	0.4	16
Lithuania		-	-	-	-	11	154	1.2	17	11	154	1.2	17
Luxembourg		-	-	-	-	27	130	1.9	13	27	130	1.9	13

		LAND				UNDERWATER				TOTAL			
COUNTRY OR LOCATION	STATE	PEOPLE	PLACES	TYPES	SIZE	PEOPLE	PLACES	TYPES	SIZE	PEOPLE	PLACES	TYPES	SIZE
Malaysia		1,347	6,883	15.1	371	358	4,052	76	427	1,705	10,935	22.7	798
Maldives		247	2,353	9.2	142	209	4,718	3.8	166	456	7,071	13.0	308
Malta		20	22	1.4	23	23	300	2.2	42	43	322	3.6	65
Marshall Islands		74	2,000	2.0	300	20	500	1.0	100	94	2,500	3.0	400
Mauritius		64	653	0.6	27	11	137	0.6	4	75	790	1.2	31
Mexico		6,640	125,567	123.1	2,854	132	1,770	23.7	252	6,772	127,337	146.8	3,106
Namibia		371	7,568	11.8	425	-	-	-	-	371	7,568	11.8	425
Netherlands Antilles	Bonaire	2	154	0.2	11	-	-	-	-	2	154	0.2	11
	Curacao	-	-	-	-	18	88	0.1	9	18	88	0.1	9
	Saba	44	2,740	2.0	192	14	2,205	0.5	20	58	4,945	2.5	192
	St Maarten	616	6,092	2.0	193	10	140	1.0	-	626	6,232	3.0	193
	Total	662	5,661	5.3	366	42	2,357	2.2	29	704	8,018	7.5	395
Netherlands		109	886	7.3	91	178	3,492	4.4	137	287	4,378	11.7	228
New Zealand		511	3,072	13.4	282	198	9,683	8.3	168	709	12,755	21.7	450
Nicaragua		6,442	332,985	1627	-	-	-	-	-	6,442	332,985	1627	-
Northern Mariana Islands	Rota	638	2,908	0.5	382	-	-	-	-	638	2,908	0.5	382
	Saipan	237	1,414	0.1	223	-	-	-	-	237	1,414	0.1	223
	Tinian	24	685	0.1	40	-	-	-	-	24	685	0.1	40
	Total	899	5,007	0.7	645	-	-	-	-	899	5,007	0.7	645
Norway		56	1,066	5.9	40	48	961	1.9	7	104	2,027	6.8	47
Palau		15	100	1.0	50	15	500	1.0	100	30	600	2.0	150
Panama		4,062	72,105	2.0	7,493	64	470	1.0	38	4,126	72,575	3.0	7,531
Papua New Guinea		74	121	1.2	93	2	11	0.2	3	76	132	1.4	96
Paraguay		70	6	-	-	-	-	-	-	70	6	-	-
Peru		120	3,307	-	280	-	-	-	-	120	3,307	-	280
Philippines		73,564	712,599	1,483.3	24,244	929	9,075	25.0	507	74,493	721,674	1,508.3	24,751
Poland		990	4,409	11.2	311	126	1,168	5.0	115	516	5,577	16.2	426
Portugal		177	2,363	25	159	227	6,336	10.0	165	404	8,699	175	324
Puerto Rico		14,276	208,789	367.0	9,433	429	52,845	22.0	507	14,705	261,634	408.0	9,940
Republic of Korea		46	750	5.1	42	45	401	3.1	25	93	1,151	8.2	67
Russia		161	829	0.5	28	78	227	0.1	34	239	1,056	0.6	62
Samoa	Swain Island	13	44	-	17	-	-	-	-	13	44	-	17
Saudi Arabia		100	1,006	1.1	22	40	331	3.4	13	140	1,337	4.5	35
Singapore		3,064	30,252	12.4	1,498	-	-	-	-	3,064	30,252	12.4	1,498
Slovakia		10	7	0.3	3	5	22	0.3	10	15	29	0.6	13
Slovenia		79	718	3.7	47	134	2,553	1.7	65	213	3,271	5.4	112
South Africa		7,718	26,581	68.3	90	114	551	1.9	46	7,832	27,132	70.2	136
Spain		495	14,169	6.8	414	305	2,957	12.3	155	800	17,126	19.1	569
Sri Lanka		534	3,616	3.3	70	-	-	-	-	534	3,616	3.3	70
St. Kitts & Nevis	Nevis	189	6,065	7.4	-	9	160	0.2	-	198	6,225	7.6	-
St. Vincent & the Grenadines	Grenadines	155	3,084	6.5	144	-	-	-	-	155	3,084	6.5	144
	St Vincent	341	14,731	12.5	265	-	-	-	-	341	14,731	12.5	265
	Total	496	17,815	0.2	409	-	-	-	-	496	17,815	0.2	409
Sweden		18	33	0.7	5	15	559	0.7	20	33	591	1.4	25
Switzerland		70	225	5.1	20	226	8,232	6.4	134	296	8,457	11.5	154
Taiwan		197	652	1.7	71	173	1,072	1.2	104	370	1,724	2.9	175
Tanzania		146	1,579	3.1	92	10	571	0.6	19	156	2,150	3.7	101
Thailand		4,208	52,713	38.9	2,195	557	8,259	16.9	639	4,765	60,855	55.7	2,834
Togo		94	220	0.3	14	-	-	-	-	94	220	0.3	14
Tonga		75	794	1.3	100	-	-	-	-	75	794	1.3	100
Trinidad & Tobago	Trinidad	1,510	16,212	9.5	1,220	-	-	-	-	1,510	16,212	9.5	1,220
Turkey		2,033	34,771	29.1	3,344	102	12,595	2.5	70	2,135	47,366	31.6	3,414
Ukraine		35	326	1.2	45	20	615	1.2	32	55	941	2.4	77
United Arab Emirates		890	2,822	0.6	350	18	331	0.6	12	908	3,153	1.2	362
United Kingdom		5,217	29,935	134.2	3,184	261	3,414	14.0	127	5,478	33,349	148.2	3,311
United States		216,009	4,210,385	9,330.6	129,112	2,770	43,265	89.1	1,438	218,779	4,253,650	9,419.7	130,550
US Virgin Islands	St Croix	632	9,080	9.7	536	31	350	0.9	34	663	9,430	10.6	570
	St. John	160	2,472	11.4	109	-	-	-	-	160	2,472	11.4	109
	St Thomas	777	11,426	16.1	639	16	540	4.0	3	793	11,966	20.1	642
	Total	1,569	16,978	37.2	1,284	47	890	4.9	37	1,616	17,868	41.5	1,321
Uruguay		210	1,559	-	101	-	-	-	-	210	1,559	-	101
Vanuatu		308	7,209	1.6	654	73	322	1.5	34	378	7,531	3.1	688
Venezuela		83	331	1.6	14	32	64	1.1	6	115	395	2.7	20
Vietnam		-	-	-	-	85	128	0.9	30	85	128	0.9	30
Country & Location Totals		454,704	7,125,693	14,422.0	249,555	14,116	320,477	569.3	13,600	468,819	7,446,170	14,991.3	263,215

U.S. STATE / DISTRICT OF COLUMBIA	ALABAMA	ALASKA	ARIZONA	ARKANSAS	CALIFORNIA	COLORADO	CONNECTICUT	DELAWARE	DISTRICT OF COLUMBIA	FLORIDA	GEORGIA	HAWAII	ILLINOIS	INDIANA	IOWA	TEXAS
SHORELINE & RECREATIONAL ACTIVITIES																
Bags (paper)	2,462	136	30	172	32,335	29	1,492	825	799	8,802	994	3,719	2,762	582	1	88
Bags (plastic)	5,068	1,145	187	867	71,336	174	6,505	3,778	2,352	29,655	3,823	6,238	5,236	1,219	3	700
Balloons	583	71	1	35	9,609	4	823	1,093	202	4,691	167	610	1,975	902	0	11
Beverage Bottles (plastic)	9,146	988	440	679	29,299	155	4,997	5,384	3,716	29,442	8,921	2,699	2,863	557	5	284
Beverage Bottles (glass)	5,745	1,142	301	788	33,633	165	3,174	2,191	2,170	26,282	7,776	4,361	5,553	807	1	119
Beverage Cans	8,599	1,877	587	1,417	25,941	187	3,190	2,605	2,057	24,582	8,486	2,805	3,123	775	6	241
Caps, Lids	6,407	1,196	221	312	99,243	256	7,845	7,179	3,226	64,955	3,208	17,624	11,626	3,384	3	155
Clothing, Shoes	1,297	193	112	95	15,058	38	918	954	644	6,930	912	1,736	723	211	2	48
Cups, Plates, Forks, Knives, Spoons	5,722	470	203	346	43,837	102	4,130	2,620	2,558	23,308	2,391	4,967	4,189	1,017	0	198
Food Wrappers/Containers	6,572	1,489	516	735	143,556	506	11,958	5,646	3,897	44,119	6,110	11,573	10,831	3,126	2	446
Pull Tabs	999	342	37	257	12,664	65	925	373	484	5,842	912	2,100	760	242	3	20
6-Pack Holders	599	140	34	47	1,973	11	202	197	827	1,691	374	283	222	53	1	15
Shotgun Shells/Wadding	312	479	13	78	4,807	0	263	968	8	545	84	151	194	170	0	1
Straws, Stirrers	3,615	186	50	118	38,572	54	3,287	2,445	942	24,481	1,746	3,383	5,860	2,301	2	121
Toys	926	117	52	106	12,577	37	1,216	1,162	377	4,621	596	1,222	1,331	375	1	49
TOTAL	**58,002**	**9,871**	**2,784**	**6,043**	**574,440**	**1,763**	**50,925**	**37,116**	**24,659**	**299,945**	**44,502**	**63,891**	**57,249**	**15,728**	**30**	**2,496**
OCEAN/WATERWAY ACTIVITIES																
Bait Containers/Packaging	808	106	38	211	4,043	111	254	240	179	2,160	718	920	190	29	10	10
Bleach/Cleaner Bottles	423	47	19	44	599	0	62	164	32	1,278	195	299	69	5	0	10
Buoys/Floats	417	191	1	24	1,037	7	369	254	35	1,587	177	1,153	48	32	0	2
Crab/Lobster/Fish Traps	116	8	0	2	461	0	32	50	1	396	20	809	30	2	0	0
Crates	82	22	0	12	429	1	28	58	20	304	14	624	17	1	0	1
Fishing Line	1,752	188	179	399	5,806	96	1,067	424	458	7,264	1,931	2,657	98	91	1	7
Fishing Lures/Light Sticks	812	48	52	87	1,871	56	238	264	41	2,036	141	521	133	37	0	12
Fishing Nets	164	39	1	15	1,199	10	70	82	9	910	20	918	43	16	0	11
Light Bulbs/Tubes	187	5	0	37	718	0	44	78	6	542	156	322	70	1	0	0
Oil/Lube Bottles	446	45	8	26	1,166	1	85	172	26	1,171	507	231	52	8	0	7
Pellets	35	31	2	9	410	0	29	24	1	185	1,072	50	33	3	0	0
Plastic Sheeting/Tarps	447	253	14	44	5,888	2	384	207	157	4,114	233	632	1,171	112	0	32
Rope	899	463	30	83	5,819	36	539	521	72	7,226	499	6,651	344	188	1	15
Strapping Bands	646	121	10	43	4,184	5	218	198	27	2,288	670	769	933	91	0	21
TOTAL	**7,213**	**1,567**	**354**	**956**	**33,730**	**325**	**3,419**	**2,831**	**1,064**	**31,461**	**6,254**	**16,556**	**2,631**	**616**	**12**	**128**
SMOKING-RELATED ACTIVITIES																
Cigarettes/Cigarette Filters	22,747	2,246	498	1,406	384,620	1,308	23,092	15,878	4,835	205,393	12,025	34,101	44,570	15,202	5	300
Cigarette Lighters	478	108	9	31	4,723	3	384	395	131	3,433	193	575	420	219	0	5
Cigar Tips	1,285	45	2	36	18,493	14	1,116	1,325	1,058	13,864	265	1,318	4,081	1,375	0	6
Tobacco Packaging/Wrappers	1,412	175	36	185	9,649	82	760	414	313	5,701	1,695	1,406	761	422	2	32
TOTAL	**26,917**	**2,574**	**545**	**1,718**	**427,785**	**1,405**	**25,352**	**18,000**	**6,337**	**228,391**	**14,378**	**37,501**	**49,832**	**17,218**	**7**	**343**
DUMPING ACTIVITIES																
Appliances (refrigerators, washers, etc.)	34	10	1	6	415	0	13	4	5	86	303	48	29	1	0	2
Batteries	177	21	6	10	2,107	5	75	36	28	713	141	530	232	17	0	4
Building Materials	2,311	1,065	24	32	9,501	10	558	922	83	5,552	1,905	749	511	110	0	51
Cars/Car Parts	258	594	10	50	2,469	1	111	135	68	902	1,453	491	107	31	1	13
55-Gallon Drums	23	14	1	2	77	0	4	1	0	77	19	25	1	0	0	2
Tires	315	36	14	51	1,783	0	56	125	6	569	1,020	114	59	11	1	4
TOTAL	**3,118**	**1,734**	**58**	**151**	**16,352**	**16**	**811**	**1,223**	**190**	**7,930**	**4,841**	**1,896**	**939**	**170**	**2**	**76**
MEDICAL/PERSONAL HYGIENE																
Condoms	133	85	3	13	2,342	4	221	60	196	980	195	165	306	22	0	9
Diapers	153	38	15	14	1,219	2	89	60	132	441	193	249	78	27	0	4
Syringes	23	11	0	0	693	0	33	42	16	364	86	45	49	9	0	0
Tampons/Tampon Applicators	110	82	1	29	1,492	0	228	280	101	702	66	134	206	179	0	6
TOTAL	**419**	**216**	**19**	**56**	**5,686**	**6**	**566**	**442**	**445**	**2,487**	**520**	**593**	**639**	**237**	**0**	**19**
DEBRIS ITEM TOTALS	**104,669**	**18,159**	**3,760**	**8,924**	**1,087,993**	**3,523**	**81,273**	**60,612**	**34,118**	**570,715**	**70,695**	**120,437**	**111,285**	**34,049**	**61**	**3,062**

US STATE / DISTRICT OF COLUMBIA	LOUISIANA	MAINE	MARYLAND	MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NEVADA	NEW HAMPSHIRE	NEW JERSEY	NEW MEXICO	NEW YORK	NORTH CAROLINA
SHORELINE & RECREATIONAL ACTIVITIES																
Bags (paper)	1,071	626	589	1,351	1,405	135	1,345	9	3	149	204	595	1,002	0	8,628	1,890
Bags (plastic)	2,280	2,653	4,419	6,418	4,840	425	4,239	57	0	472	58	1,834	5,722	0	26,902	7,288
Balloons	59	251	755	1,696	2,234	30	305	1	0	4	21	239	1,440	0	5,493	384
Beverage Bottles (plastic)	3,091	1,451	11,162	4,893	1,851	454	3,002	27	8	556	96	1,018	7,600	0	21,583	9,711
Beverage Bottles (glass)	1,740	2,472	3,207	3,230	1,293	403	4,386	26	5	475	84	1,785	2,693	0	15,412	7,372
Beverage Cans	1,955	933	4,094	3,463	1,314	654	4,012	22	8	1,048	126	1,422	2,970	0	14,403	8,015
Caps, Lids	2,330	1,907	4,938	8,135	10,510	276	4,699	16	6	560	298	4,967	19,471	0	88,129	6,475
Clothing, Shoes	234	479	655	1,097	913	124	887	19	4	86	33	457	805	0	4,846	1,230
Cups, Plates, Forks, Knives, Spoons	1,562	1,202	3,871	4,253	3,479	225	2,193	22	0	274	64	1,517	6,167	0	18,499	5,049
Food Wrappers/Containers	2,805	3,366	9,352	11,555	16,166	1,217	3,645	6	0	1,058	655	3,531	10,946	0	50,145	11,212
Pull Tabs	301	190	262	795	830	25	668	4	0	54	45	376	446	0	2,704	806
6-Pack Holders	123	50	152	165	139	7	239	1	0	27	1	27	155	0	1,220	172
Shotgun Shells/Wadding	13	257	384	712	1,021	10	114	0	0	49	0	210	592	0	3,168	238
Straws, Stirrers	1,171	580	1,921	4,142	5,126	128	1,812	6	0	90	85	1,039	11,874	0	18,125	2,293
Toys	170	428	627	1,097	1,394	95	376	16	0	70	12	339	1,528	0	4,490	915
TOTAL	**18,705**	**16,855**	**45,328**	**52,824**	**51,957**	**4,148**	**31,923**	**231**	**24**	**4,992**	**1,787**	**19,406**	**72,811**	**0**	**213,687**	**62,993**
OCEAN/WATERWAY ACTIVITIES																
Bait Containers/Packaging	252	252	431	330	417	39	209	1	0	217	33	183	265	0	1,841	1,512
Bleach/Cleaner Bottles	19	319	142	477	37	1	223	0	0	0	0	28	246	0	885	138
Buoys/Floats	41	1,149	185	967	78	1	124	2	0	28	0	356	315	0	1,215	253
Crab/Lobster/Fish Traps	9	673	50	285	12	0	57	0	0	0	1	639	50	0	563	30
Crates	3	46	38	74	12	2	24	1	0	0	0	54	41	0	217	31
Fishing Line	124	158	1,104	1,840	286	26	539	0	10	81	58	295	684	0	3,017	1,281
Fishing Lures/Light Sticks	36	44	198	204	175	4	165	4	0	27	2	86	540	0	1,023	387
Fishing Nets	25	152	60	462	39	2	81	0	0	12	0	79	103	0	364	74
Light Bulbs/Tubes	11	32	36	58	52	2	72	0	0	2	0	24	57	0	297	92
Oil/Lube Bottles	50	234	197	163	151	4	296	7	0	5	0	116	186	0	745	205
Pellets	12	31	16	33	24	1	76	0	0	1	0	43	76	0	188	36
Plastic Sheeting/Tarps	113	372	216	452	473	25	341	1	0	20	2	435	299	0	3,275	470
Rope	165	3,901	572	4,983	544	8	359	1	10	4	29	2,520	937	0	3,187	549
Strapping Bands	98	999	157	889	440	6	242	0	0	2	10	523	336	0	1,076	262
TOTAL	**958**	**7,762**	**3,402**	**11,217**	**2,756**	**121**	**2,750**	**17**	**20**	**399**	**135**	**5,412**	**4,135**	**0**	**17,893**	**5,320**
SMOKING RELATED ACTIVITIES																
Cigarettes/Cigarette Filters	5,087	27,384	7506	32,148	53,443	3,978	8,102	77	0	760	1,508	35,023	19,415	0	57,459	24,621
Cigarette Lighters	86	78	343	500	267	70	202	0	0	9	8	92	652	0	2,122	347
Cigar Tips	165	236	1,105	859	4,710	37	926	2	0	7	8	404	4,203	0	5,393	1,241
Tobacco Packaging/Wrappers	367	246	463	788	552	205	756	3	0	90	11	273	1,286	0	2,441	1,168
TOTAL	**5,705**	**27,944**	**9,427**	**34,295**	**58,972**	**4,290**	**9,986**	**82**	**0**	**866**	**1,535**	**35,792**	**25,556**	**0**	**67,415**	**27,377**
DUMPING ACTIVITIES																
Appliances (refrigerators, washers, etc.)	23	8	18	20	10	14	58	4	0	3	0	4	1	0	116	94
Batteries	39	35	83	54	136	31	83	0	0	6	5	42	20	0	472	293
Building Materials	385	721	1,105	843	1,190	75	2,058	27	0	31	0	436	454	0	6,159	1,559
Cars/Car Parts	154	181	127	122	90	41	266	0	0	13	3	86	25	0	984	358
55-Gallon Drums	0	5	26	3	6	3	55	0	0	1	0	2	6	0	44	26
Tires	37	68	199	46	51	18	165	15	0	98	0	55	121	223	657	1,613
TOTAL	**638**	**998**	**1,558**	**1,089**	**1,483**	**182**	**2,685**	**46**	**0**	**152**	**9**	**625**	**627**	**223**	**8,432**	**3,943**
MEDICAL/PERSONAL HYGIENE																
Condoms	27	27	120	103	94	14	121	0	0	3	0	31	150	0	731	205
Diapers	57	26	61	79	123	10	85	0	0	29	3	18	57	0	502	246
Syringes	11	11	81	60	33	7	16	0	0	0	0	1	179	0	308	15
Tampons/Tampon Applicators	19	53	187	501	366	3	47	1	0	17	3	48	1,577	0	3,589	110
TOTAL	**114**	**117**	**449**	**743**	**616**	**34**	**269**	**1**	**0**	**49**	**6**	**98**	**1,963**	**0**	**5,130**	**576**
DEBRIS ITEM TOTALS	**26,120**	**53,676**	**60,164**	**100,167**	**115,784**	**8,775**	**47,613**	**377**	**44**	**6,458**	**3,472**	**61,331**	**105,092**	**223**	**312,657**	**100,209**

US STATE / DISTRICT OF COLUMBIA	OHIO	OREGON	PENNSYLVANIA	RHODE ISLAND	SOUTH CAROLINA	SOUTH DAKOTA	TENNESSEE	TEXAS	UTAH	VERMONT	VIRGINIA	WASHINGTON	WISCONSIN	TOTAL
SHORELINE & RECREATIONAL ACTIVITIES														
Bags (paper)	1,566	927	1,963	1,876	970	37	2	5,570	4	0	2,487	399	174	85,926
Bags (plastic)	5,243	890	6,521	9,047	4,394	213	1	23,039	33	4	10,642	2,396	366	305,186
Balloons	258	161	620	1,096	620	16	0	1,947	0	1	835	242	123	39,744
Beverage Bottles (plastic)	4,103	485	5,701	7,236	3,987	216	14	19,691	2	14	13,297	1,866	797	223,392
Beverage Bottles (glass)	3,450	344	2,141	5,382	2,747	103	8	9,840	26	0	7,910	1,698	428	172,662
Beverage Cans	5,232	693	3,524	6,604	4,553	186	12	21,952	240	2	12,942	2,381	1,580	198,750
Caps, Lids	2,974	1,166	3,693	13,957	5,408	163	11	40,705	0	5	6,577	2,572	2,862	210,073
Clothing, Shoes	919	251	895	2,031	926	23	0	3,777	24	0	1,352	687	211	83,450
Cups, Plates, Forks, Knives, Spoons	3,688	403	3,578	6,289	2,381	174	8	17,459	6	4	9,995	917	681	190,125
Food Wrappers/Containers	7,980	1,316	9,855	15,355	8,095	375	69	13,426	0	8	10,249	2,717	2,052	427,439
Pull Tabs	329	158	507	838	580	93	3	4,054	0	1	492	175	95	40,775
6-Pack Holders	96	51	105	311	109	6	0	1,159	0	0	442	212	26	17,884
Shotgun Shells/Wadding	260	197	145	713	378	1	0	664	0	0	379	399	339	19,814
Straws, Stirrers	1,372	298	2,195	7,448	2,932	80	1	11,651	28	0	3,838	1,359	800	197,674
Toys	884	149	931	1,398	813	8	7	3,063	2	0	714	279	161	44,616
TOTAL	**38,336**	**6,881**	**42,374**	**80,583**	**39,057**	**1,664**	**137**	**178,189**	**365**	**37**	**82,152**	**18,293**	**10,725**	**2,345,738**
OCEAN/WATERWAY ACTIVITIES														
Bait Containers/Packaging	294	34	471	719	339	212	4	654	0	2	853	191	57	19,640
Bleach/Cleaner Bottles	58	31	193	331	98	0	1	1,365	0	0	182	134	2	8,259
Buoys/Floats	23	169	96	605	266	3	0	363	0	0	238	174	16	12,041
Crab/Lobster/Fish Traps	6	16	1	418	44	0	0	150	0	0	80	8	0	5,670
Crates	23	10	26	113	17	1	0	111	0	0	61	10	0	2,523
Fishing Line	169	177	330	2,482	412	157	9	3,753	0	0	776	382	48	30,646
Fishing Lures/Light Sticks	43	94	156	489	206	24	6	1,130	24	0	293	71	57	11,617
Fishing Nets	25	21	32	276	72	1	0	511	0	0	139	55	3	8,055
Light Bulbs/Tubes	27	20	176	79	123	0	0	313	4	0	93	60	5	3,901
Oil/Lube Bottles	91	6	149	229	89	2	0	459	0	0	279	87	2	7,642
Pallets	10	36	57	58	33	0	0	250	0	0	11	20	5	2,845
Plastic Sheeting/Tarps	251	65	432	741	251	11	0	1,238	0	0	342	215	26	23,757
Rope	324	851	273	2,790	427	28	0	6,373	3	0	700	7,455	31	59,809
Strapping Bands	92	146	234	760	168	14	0	1,191	0	2	246	519	23	16,159
TOTAL	**1,436**	**1,676**	**2,628**	**10,090**	**2,545**	**453**	**20**	**17,991**	**31**	**4**	**4,303**	**9,481**	**275**	**222,351**
SMOKING-RELATED ACTIVITIES														
Cigarettes/Cigarette Filters	3,473	4,925	41,025	49,114	82,393	488	65	54,062	0	5	14,679	13,455	18,815	1,389,053
Cigarette Lighters	238	64	397	619	272	7	0	1,861	2	0	298	150	64	19,941
Cigar Tips	1,319	71	1,105	1,309	4,625	23	0	4,861	0	0	769	284	734	75,030
Tobacco Packaging/Wrappers	487	153	1,098	1,248	776	36	0	1,395	0	3	1,089	903	115	39,221
TOTAL	**6,017**	**5,213**	**43,625**	**52,290**	**88,066**	**556**	**65**	**61,999**	**2**	**8**	**16,835**	**14,792**	**19,728**	**1,523,251**
DUMPING ACTIVITIES														
Appliances (refrigerators, washers, etc.)	35	3	91	27	10	0	0	45	0	0	21	24	3	1,089
Batteries	69	11	159	70	1,351	5	0	381	0	0	81	47	10	7,557
Building Materials	681	761	1,469	2,002	1,092	14	0	3,291	0	0	863	419	100	49,119
Cars/Car Parts	248	16	329	417	121	4	0	673	0	1	197	122	4	11,196
55-Gallon Drums	9	0	26	5	3	0	0	25	0	0	15	3	8	521
Tires	167	14	446	117	45	0	0	220	0	0	640	157	32	9,267
TOTAL	**1,209**	**805**	**2,521**	**2,639**	**2,624**	**23**	**0**	**4,635**	**0**	**1**	**1,817**	**772**	**157**	**79,208**
MEDICAL/PERSONAL HYGIENE														
Condoms	106	20	75	311	105	0	0	497	0	2	91	47	16	7,690
Diapers	63	25	105	187	66	5	0	705	0	0	193	75	33	5,497
Syringes	23	3	18	75	12	0	0	195	0	0	24	17	8	2,368
Tampons/Tampon Applicators	400	51	161	985	67	3	0	837	0	0	112	66	43	12,467
TOTAL	**592**	**99**	**359**	**1,558**	**250**	**8**	**0**	**2,234**	**0**	**2**	**420**	**205**	**90**	**28,432**
DEBRIS ITEM TOTALS	**47,590**	**14,674**	**91,507**	**147,159**	**132,542**	**2,704**	**222**	**264,558**	**408**	**52**	**105,527**	**43,548**	**30,975**	**4,201,982**

US STATE	LAND				WATERWAY				TOTAL			
	PEOPLE	POUNDS	TONS	BAGS	PEOPLE	POUNDS	TONS	BAGS	PEOPLE	POUNDS	TONS	BAGS
Alabama	3,467	85,874	282.1	4,726	6	350	1.0	12	3,473	86,224	283.1	4,738
Alaska	569	2664	72.6	361	3	30	-	-	572	2694	72.6	361
Arizona	158	2,945	132.1	127	155	1,034	5.6	114	313	3,979	137.7	241
Arkansas	672	41,325	39.0	79	98	1,395	4.0	48	766	42,720	43.0	127
California	81,808	1,382,457	2,441.7	5,977	557	4,746	16.8	156	82,365	1,387,193	2,458.5	6,133
Colorado	715	3,759	-	-	4	40	-	2	719	3,799	-	2
Connecticut	2,133	13,611	51.6	587	32	620	1.3	48	2,165	14,231	52.9	635
Delaware	2,002	15,339	79.1	880	-	-	-	-	2,002	15,339	79.1	880
District of Columbia	348	4,611	6.4	375	-	-	-	-	348	4,611	6.4	375
Florida	22,565	316,923	1,105.5	9,615	118	1,340	28.2	67	22,703	318,263	1,134.7	9,682
Georgia	23,658	601,619	1,576.8	21,892	10	425	1.0	21	23,668	602,044	1,577.8	21,913
Hawaii	2,363	38,781	78.7	839	90	3,289	6.0	23	2,453	42,070	84.7	862
Illinois	2,530	9,339	33.5	1,079	84	627	1.4	15	2,614	9,966	34.9	1,094
Indiana	776	2,895	23.4	350	109	695	4.0	51	885	3,590	27.4	401
Iowa	8	51	1.0	4	35	1	1.0	1	43	52	2.0	5
Kansas	377	2,197	2.5	117	-	-	-	-	377	2,197	2.5	117
Louisiana	572	7,111	52.2	454	-	-	-	-	572	7,111	52.2	454
Maine	1,810	9,931	115.1	22	13	400	1.0	16	1,823	10,331	116.1	38
Maryland	1,109	18,493	10.7	628	-	-	-	-	1,109	18,493	10.7	628
Massachusetts	2,229	23,282	126.8	1,159	4	50	1.0	2	2,233	23,332	127.8	1,161
Michigan	2,465	6,239	172.5	366	23	260	0.4	10	2,488	6,499	172.9	376
Minnesota	291	1,021	22.6	29	6	15	2.3	-	297	1,036	24.9	29
Mississippi	3,205	46,873	190.5	3,022	-	-	-	-	3,205	46,873	190.5	3,022
Missouri	293	3,073	2.2	419	69	1,850	0.1	20	362	4,923	2.3	439
Montana	-	-	-	-	4	25	0.1	4	4	25	0.1	4
Nebraska	290	9,925	38.5	248	-	-	-	-	290	9,925	38.5	248
Nevada	35	50	3.0	-	37	750	0.2	43	72	840	3.2	43
New Hampshire	1,028	6,205	16.5	374	15	1,300	0.7	14	1,043	7505	19.2	388
New Jersey	2,756	21,857	100.1	1,464	50	400	-	20	2,806	22,257	100.1	1,484
New Mexico	504	297,000	-	1,077	-	-	-	-	504	297,000	-	1,077
New York	10,344	140,552	323.6	10,092	81	4,285	2.1	50	10,425	144,837	325.7	10,142
North Carolina	18,346	520,592	1,379.0	18,031	87	250	2.0	15	18,433	520,842	1,381.0	18,046
Ohio	1,005	13,954	64.6	1,168	217	2,400	1.8	285	1,222	16,354	66.4	1,453
Oregon	1,013	6,624	3.5	352	29	100	1.0	17	1,042	6724	4.5	369
Pennsylvania	2,421	94,870	86.4	3,294	8	200	3.5	8	2,429	95,070	89.9	3,302
Rhode Island	2,303	22,045	75.7	1,184	44	144	0.5	16	2,347	22,189	76.2	1,200
South Carolina	3,472	39,447	78.9	492	-	-	-	-	3,472	39,447	78.9	492
South Dakota	32	550	5.3	36	-	-	-	-	32	550	5.3	36
Tennessee	4	23	-	-	-	-	-	-	4	23	-	-
Texas	8,611	196,762	131.0	32,666	563	9,221	2.0	155	9,174	205,983	133.0	32,821
Utah	12	218	1.0	17	16	218	1.0	17	28	436	2.0	34
Vermont	2	1	-	1	-	-	-	-	2	1	-	1
Virginia	5,590	168,458	276.9	5,375	51	1,059	2.0	37	5,641	169,517	278.9	5,412
Washington	1,075	23,624	99.2	170	35	1,815	4.0	40	1,110	25,439	103.2	210
Wisconsin	788	2,056	20.7	14	99	3,991	3.1	109	887	6,047	23.8	123
Wyoming	35	145	-	-	-	-	-	-	35	145	-	-
US State & District of Columbia Total	215,709	4,210,945	9,738.6	129,118	2,770	43,235	104.1	1,431	218,479	4,254,180	9,842.7	130,549

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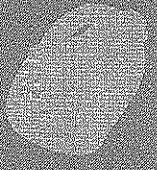
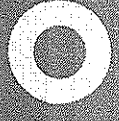
SEPTEMBER 25, 2010

www.oceanconservancy.org/cleanup





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FSC Mixed Sources

Each year, Ocean Conservancy provides a compelling global snapshot of marine debris collected and recorded at sites all over the world on a single day during the International Coastal Cleanup—the world's largest volunteer effort for the world's ocean and waterways. This year's report, *Trash Travels: From Our Hands to the Sea, Around the Globe, and Through Time*, reveals the data recorded by 498,818 volunteers in 108 countries and locations and 45 US states and the District of Columbia during Ocean Conservancy's 24th annual International Coastal Cleanup. They picked up and tallied 7.4 million pounds of marine debris.

Trash traveling to and throughout the ocean is one of the major pollution problems of our time. The comprehensive body of data compiled by Ocean Conservancy each year—the Marine Debris Index—is the only country-by-country, state-by-state, item-by-item accounting of trash in the ocean. The Marine Debris Index has informed efforts to reduce marine debris at the source, change the behaviors that cause it, and create better policies to reduce it.

This year's report explains how trash travels and why that matters. We've created the marine debris problem, and it's time we take responsibility for it. By working together across all boundaries, the global community—individuals, governments, nongovernmental organizations, and corporations—can solve this global pollution problem.

Ocean Conservancy®
Start a Sea Change

For More Information on Ocean Conservancy's International Coastal Cleanup please contact:

Ocean Conservancy
1300 19th Street, NW | 8th Floor | Washington, DC 20036 | USA | 202.429.5609

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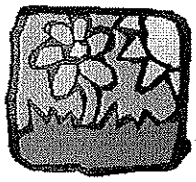

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Call (213) 485-2260 to find out when the next FREE composting workshop is scheduled, or visit our website at: www.cityofla.org/san

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Department of Public Works
Bureau of Sanitation
Solid Resources Citywide Recycling Division
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Los Angeles, CA 90015-2213

CITY OF LOS ANGELES
SANITATION
DEPARTMENT OF PUBLIC WORKS

City of Los Angeles
Department of Public Works • Bureau of Sanitation

YOUR GUIDE TO

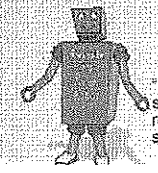
Home Composting

Save the Planet in Your Own Backyard!

Item No. 7 Date 6/7/11
Committee Sanitation
Council File No. 09-1811-S1
Motion
Date 6/7/11
Item No. 7
Council File No. 09-1811-S1
Committee
Submitted in
Date
Deputy

Solid Resources Citywide Recycling Division

Reduce, Reuse, Recycle, and Buy Recycled

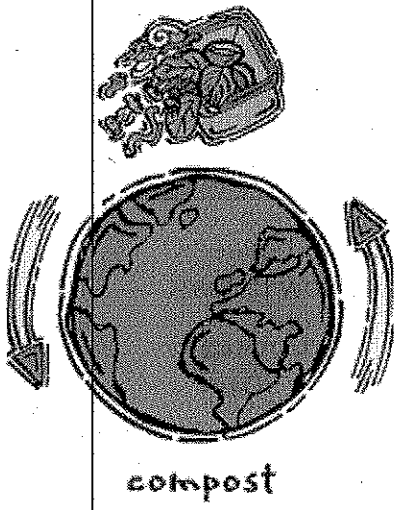


"Don't just stand there, recycle something"
-Recycle Robot

Composting is nature's way of recycling. It's an easy way to transform your yard trimmings, fruit scraps, and vegetable peels into humus-rich, sweet-smelling soil conditioner.

HOME-MADE COMPOST

- Helps your garden by improving the texture, fertility and water holding capacity of your soil. Healthy soil grows healthy plants.
- Helps you save money by replacing store-bought soil conditioners with a natural, home-made product.
- Helps the environment by recycling valuable organic resources.
- Helps the City save money by lowering curbside collection costs.



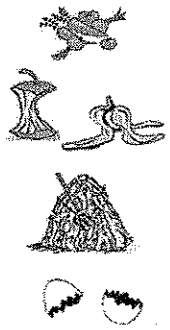
WHAT CAN YOU COMPOST?

A healthy pile needs a variety of ingredients that contain carbon (brown materials) and nitrogen (green materials). A well balanced diet will create a friendly environment for nature's tiny composters (worms, bacteria, fungi, etc.).

It is easy to create a healthy pile when you follow the do's and don'ts listed below:

DO COMPOST:

GREENS
- Vegetable trimmings
- Coffee grounds
- Fruit peels
- Egg shells
- Tea bags
- Yard clippings
- Livestock manure
- Fresh hay



BROWNS
- Chopped cornstalks
- Shredded paper
- Paper towels
- Shredded cardboard
- Dried leaves
- Wood chips
- Sawdust
- Straw

DON'T COMPOST:

- Meat
- Fatty food
- Bones
- Dog or cat feces
- Diseased plants
- Treated wood

CHOOSE A LOCATION

Composting can be done indoors or outdoors. Worm composting is best done indoors, and backyard composting is best done outdoors.

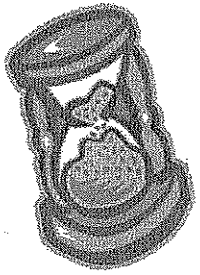
CHOOSE A METHOD

There are different ways to set up a composting pile. Use the description below to choose a method for outdoor composting that best fits your lifestyle.

SLOW & COLD COMPOSTING

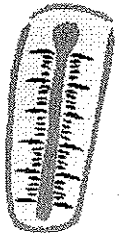
This method requires little to no mixing and can be done in a pile or bin. Start by mixing together equal amounts of green and brown material by placing the mixture in a pile or bin. Add new ingredients as they become available. The compost will be ready in about 4 to 6 months.

or



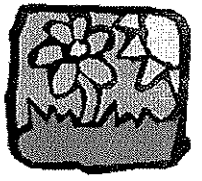
FAST & HOT COMPOSTING

The ideal size of a hot compost pile is 1 cubic yard (3 feet x 3 feet x 3 feet). Equal amounts of green and brown materials are mixed together and placed in a pile or bin. Turn the pile and add water about once a week to provide good air circulation and moisture. The pile will get hot (up to 140°F) which will speed up the composting process. Compost may be ready in 4 to 6 weeks. Do not add new material to the pile. Save it for your next compost pile.

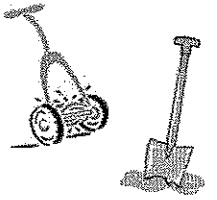


Whichever method you choose, you'll always get better results if you:

Choose a composting location that gets equal amount of sunlight and shade during the day.
This keeps the compost from drying out too fast.

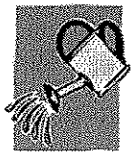


Chop or shred your ingredients before putting them in the pile. Smaller pieces help speed up the decomposition process. A shovel, shredder, or lawnmower are useful choppers for your yard clippings

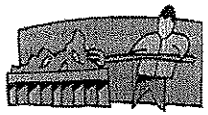


Try to mix equal parts of greens and browns into your pile, and mix as many different types of
greens and browns as possible. Nature likes a balanced variety.

Add water when you build your pile, and maintain the moisture level as damp as a wrung-out sponge.

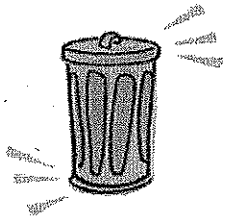


Choose a bin or pile style based on your ingredients, pile location, cost and compost method.

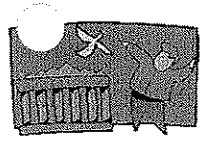


OPEN PILE
Simply mix the material together, and keep it in a dense heap, no smaller than 1cubic yard. If you have problems keeping the pile moist, try covering it partway with a tarp. An open pile is not recommended if your ingredients include kitchen scraps.

BINS
You can make the bin yourself or purchase one.



Homemade Bin
Convert an old plastic trash can into a composter by drilling about four rows of holes 4 to 6 inches apart all around the sides. Cut the base for drainage;
or
Make a wire mesh bin by using 12 feet by 3 feet galvanized chicken wire or hardware cloth;
or
Build a wooden bin with 4 used wood pallets.



Store Bought
These bins are available at most garden centers
and home improvement stores. Store bought bins differ in price, ease of mixing, size, shape, etc.
Call 1 (213) 485-2260 to learn more about the City of Los Angeles' Discounted Compost Bin Sales Events.

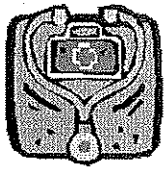
Your compost is ready when it is dark brown in color, feels crumbly like soil, and it no longer heats up and has a pleasant earthy aroma. Before using your compost, break up any large clumps, and put any material that is not fully composted back into your new compost pile.

Here are some easy ways to use compost:

AS MULCH
Spread a layer of compost 1-3 inches thick around plants and over bare soil to prevent soil erosion, conserve water and control weed growth.

AS SOIL CONDITIONER
Mix about 6 inches of compost into the soil each time you start a new flower or vegetable garden or plant new trees or shrubs.

AS POTTING MIX
Sift the compost through a 1/4 inch screen for use as planting mix. For indoor potted plants, mix together 2 parts of compost, 1 part sand and 1 part vermiculite.

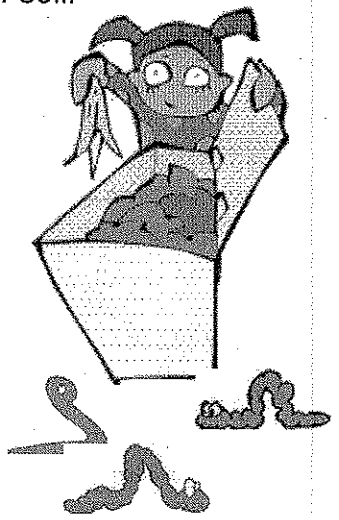
 SYMPTOMS	 CAUSES	 SOLUTIONS
Pile not composting	Too dry	Moisten, until slightly damp
	Too much woody material	Turn the pile and add fresh green material
Pile smells rotten – attracts flies	Too wet	Turn the pile and add dry material
	Non-compostable items present	Remove meat, fatty foods, etc. and turn the pile
	Too much green material	Turn the pile and add dry woody material
Rodents in pile	Food waste in open bin. Holes too large	Turn compost and rodent-proof your bin

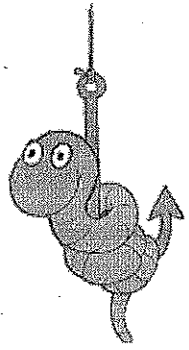
Kids love worm composting. It's an easy and fun way to compost kitchen scrap (remember, no meat or fatty foods). You'll get small amounts of excellent fertilizer from your bin.

CREATING A WORM HOME

You will need a plastic or wood container with a snug fitting lid and holes in the bottom for drainage. A large box (1 foot deep x 2 feet long x 3 feet wide) can handle about six pounds of food scraps per week. A small box (8 inches deep x 2 feet long x 2 feet wide) can handle about three pounds of food scraps per week. Place the box where it will not freeze or overheat — in a kitchen corner, garage or patio.

Complete your worm home by filling your box about 3/4 full with bedding material. Worms like to be cool and moist, so make your bedding material out of a mixture of shredded black and white newspaper, leaves, moist straw and a bit of soil.





FINDING THE RIGHT WORMS

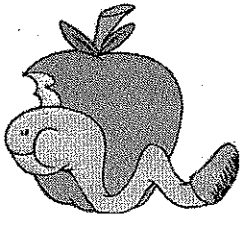
The best worms to use are "red worms," sometimes called "African Reds," "Red Wigglers" or "Manure Worms." You can purchase them at a bait shop or find them in an old compost pile. The common brown garden worm cannot survive in temperatures above 90°F, so don't put them in your worm bin.

Start with 1/2 to 1 pound or two big handfuls of worms. They will eat their weight in food each day and double their numbers every 30 to 45 days. Place your red worms on top of the bedding. They will burrow down into it.

THE FIRST MEAL

Red worms love kitchen scrap, like fruit and vegetable peels, eggshells, tea leaves and coffee grounds. Worms do not like dairy products or oily and woody food.

Gently mix about one quart (1 pound) of kitchen scraps into the worm bedding. Cover and leave the worms alone for a couple of weeks while they get used to their new home.



MAINTAINING A GOOD HOME AND HAPPY WORMS

Maintain a 4 to 6 inch layer of fresh bedding in your bin by adding fresh bedding every 1 to 3 months. Make sure the bedding is moist, like a wrung-out sponge. Plastic bins may need extra bedding to absorb excess moisture. Wooden bins may need extra water to maintain moisture.

Observe the amount of food being eaten by the worms. Adjust the amount as needed. They will probably need to be fed about one quart (one pound) of food scraps per square foot of bin area every week.

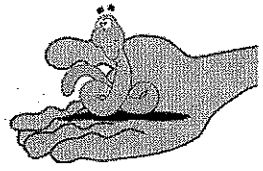
Be sure to bury the food to avoid fruit flies and odors. Bury the food in a different corner of the box at each feeding. The next time you look, the food should be gone. If not, try feeding your worms a little less for a while.

HARVESTING

Finished compost material will settle to the bottom as worms turn the food scrap into a rich natural fertilizer (worm castings). When the original bedding has been transformed into compost, it's harvest time. Stop feeding your worms. In a few days, you can either:

Move the worms and castings to one side of the box, and add fresh bedding to the empty side. Place food on top and cover with some fresh bedding to prevent fruit flies. Within a few weeks, the worms will move over to the new bedding and food. At that point, you can harvest the castings from the worm-free side. Replace the empty space with fresh bedding and new food.

or

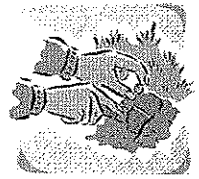


Separate the worms from the compost by hand, and start anew with fresh bedding and food.

Worm castings are richer in nutrients than yard trimmings compost and should be used more sparingly. Worm castings are rich in nitrogen, calcium, iron, magnesium, sulphur and 60 other trace minerals. They are best used as part of a planting mix or a slow release fertilizer. Here are some simple applications:

GERMINATING SEEDS

When germinating seeds, place some castings in the bottom part of the soil.

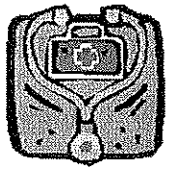


TRANSPLANTING SEEDLINGS

At transplanting time, put a small handfull of castings into each hole as you plant.

POTTING PLANTS

Mix a small amount of castings into your potting soil. The worm castings should be no more than one-fifth of all the ingredients in your potting mix.

 SYMPTOMS	 CAUSES	 SOLUTIONS
Worm bin smells bad	Too much food	Feed less
	Too wet	Check drainage holes and add dry bedding
Fruit flies	Food is not buried	Bury food
		Cover surface of bedding with sheets of newspaper
Worms aren't eating	Too much food	Feed less
	Too acidic	Stop feeding citrus peels
		Sprinkle crushed oyster shells

REFERENCE BOOKS

Let It Rot!
1975, Stu Campbell
Storey Publishing, Pownal, VT
152 pp.

Rodale Guide to Composting
1979, Organic Gardening Staff
Rodale Press, Emmaus, PA
405 pp.

Backyard Composting
1992, Harmonious Technologies
Harmonious Press, Ojai, CA
96 pp.

Worms Eat My Garbage
1982, Mary Appelhof
Flower Press, Kalamazoo, MI
100 pp.

WEBSITES

City of Los Angeles Department of Public Works
www.lacity.org/san

Los Angeles Department of Water & Power
Free Home Shade Trees
www.ladwp.com/trees or Call 1-800-GREENLA

Million Trees LA
www.milliontreesla.org

County of Los Angeles
www.smartgardening.com

Gardening For Kids
www.geocities.com/EnchantedForest/Glade/3313/

Worm Composting
www.yucky.com/worm

Garden Web: The Internet's Gardening Community
www.gardenweb.com