



EPA's Marine Debris Prevention Program

Marine Debris



Prevention Program



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Watersheds*

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March 16, 2010



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Overview

- Background
- EPA's role in preventing marine debris
- Federal coordination in preventing marine debris



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What is marine debris?

- Any man-made solid material that enters our waterways either directly or indirectly
 - Trash
 - Litter
 - Industrial by-products
 - Lost or abandoned equipment from vessels



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What are the sources?

- Ocean-based sources
 - Vessels (Fishing, Public, Private)
 - Off-shore platforms
 - Fishing piers
 - Marinas
 - Storm and natural events
- Land-based sources
 - Littering
 - Dumping
 - Poor waste management
 - Manufacturers/processors/distributors
 - Debris from waterfront sources
 - Stormwater and wastewater systems
 - Storm and natural events

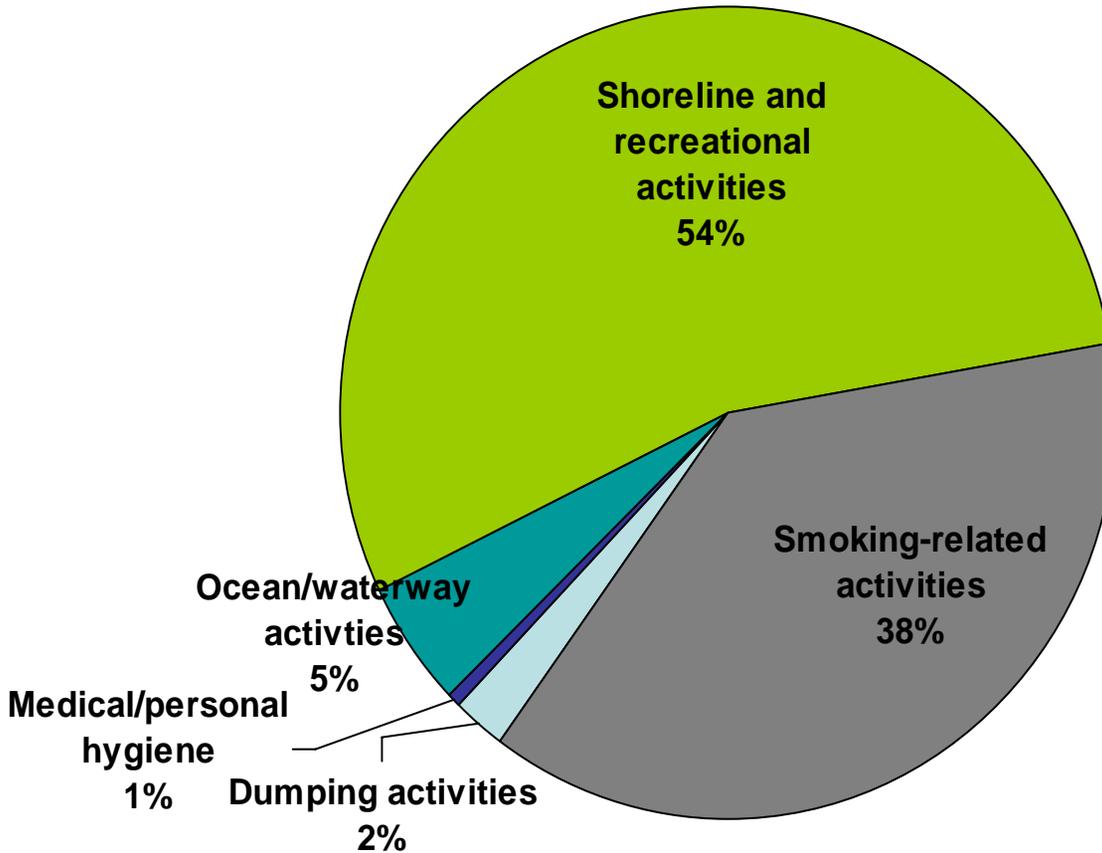


Sources of Debris

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2008 International Coastal Cleanup – Ocean Conservancy (www.oceanconservancy.org)



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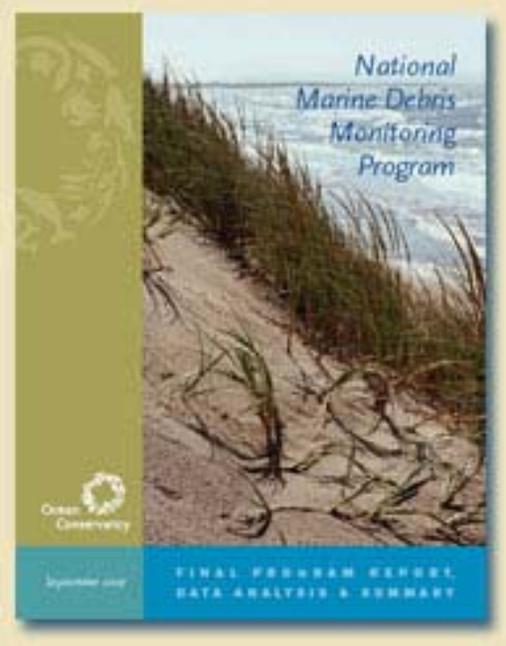
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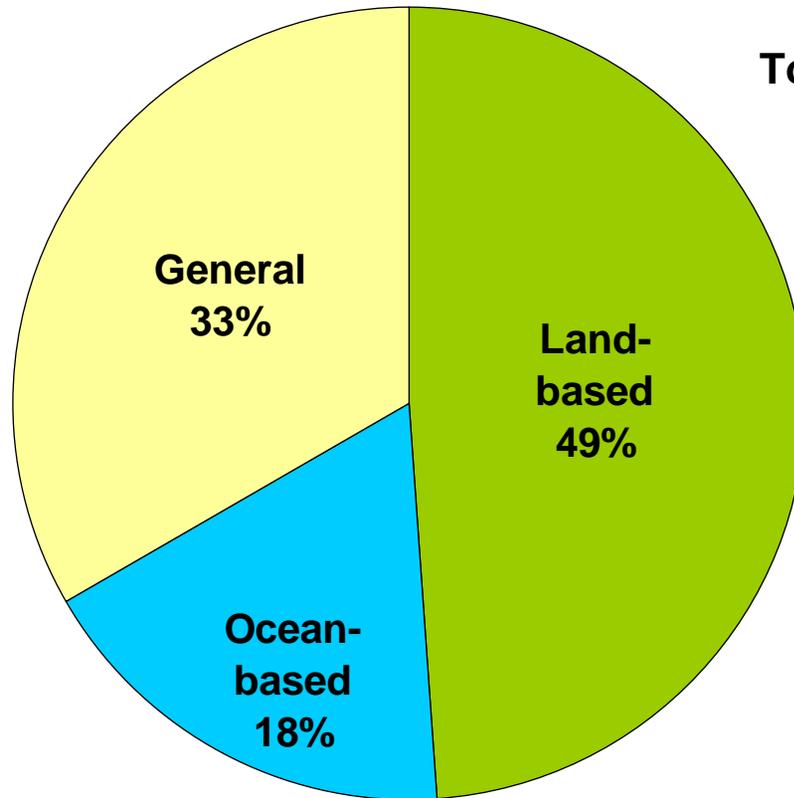
Top 10 Items Collected in the US

1. Cigarette filters
2. Caps/Lids
3. Food wrappers/containers
4. Bags
5. Cups/plates/forks/knives/spoons
6. Beverage bottles (plastic)
7. Beverage bottles (glass)
8. Beverage cans
9. Straws/stirrers
10. Rope

1989- 2008 International Coastal Cleanup –
Ocean Conservancy (www.oceanconservancy.org)



Trends on US beaches



Top 5 items collected:

- Straws (27.5 %)
- Plastic bottles (21%)
- Plastic bags (10.3%)
- Balloons (7.8%)
- Beverage cans (7.4%)

National Marine Debris Monitoring Program

www.oceanconservancy.org/site/News2?abbr=icc_&page=NewsArticle&id=12507



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Ecological Impacts

- Entanglement of marine species
 - Starvation (constricted movement)
 - Exhaustion (constricted movement)
 - Infection (wounds from marine debris)
 - Drown
 - Suffocation
 - Increase predation (constricted movement)
- Harm to ecosystem
- Ghost fishing
- Marine species mistakenly ingest marine debris
 - Starvation
 - Suffocation
 - Toxicity
- Beach cleaning and raking can increase beach erosion
- Beach cleaning and raking can destroy nesting sites



Economic Impacts

- Loss in tourism (aesthetics / closed beaches)
- Loss in catch revenue
- Cleanup costs
- Vessel damage repairs
- Lost fishing gear replacement

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Human Impacts

- Human entanglement during cleanups
- Human injury on the beach
- Human safety risks on damaged vessels

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Who is working on the issue?

- Non-profits and NGOs
- Industry
- Public
- Regional and local organizations
- States
- Federal agencies

What is EPA's Role in Marine Debris Prevention?



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EPA's Approach to Marine Debris Prevention

- EPA uses a comprehensive watershed approach to address the types, sources, movement, and impacts of marine debris
 - Regulatory authorities and mandates
 - Pollution prevention, recycling, and waste treatment and control programs
 - Partnerships



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EPA Cross-office Workgroup

- Purpose:
 - Marine debris prevention and response to marine debris already in the environment requires a cross-office approach addressing sources, transport, and impacts on land and at sea
 - EPA is in a unique position to address land-based sources of material that could become marine debris



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Diverse Set of Programs



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EPA's Regulatory Mandates



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- **Oceans and Coasts**

- Marine Debris Research, Prevention, and Reduction Act
- Marine Plastic Pollution Research and Control Act
- Marine Protection, Research, and Sanctuaries Act
- Shore Protection Act
- BEACH Act
- Coastal Zone Act Reauthorization Amendments

- **Stormwater/Wastewater and Watersheds**

- Clean Water Act

- **Solid Waste and Pollution Prevention**

- Resource Conservation and Recovery Act
- Pollution Prevention Act



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EPA Programs and Efforts

- **Oceans and Coasts**

- National Marine Debris Monitoring Program
 - Lessons Learned White Paper
- Support of Cleanup Efforts (ICC)
- EPA Urban Waters Initiative
- OSV BOLD Marine Debris Monitoring
- EPA Marine Debris Prevention Summit Follow-Up
- Interagency Marine Debris Coordinating Committee
- EPA Marine Debris Prevention Program Workgroup
- EPA Marine Debris Website
- EPA Marine Debris Prevention Toolkit

- **Stormwater/Wastewater and Watersheds**

- Non-point Source Toolbox
- Storm Drain Programs

- **Solid Waste and Pollution Prevention**

- Waste Wise
- Recycling on the Go
- Pay As You Throw
- Sustainable Packaging Coalition
- P2 Programs

Federal Agency Coordination

- Interagency Marine Debris Coordinating Committee
 - Department of Commerce – NOAA
 - U.S. Environmental Protection Agency
 - Department of Defense – Army Corp of Engineers
 - Department of Defense – Navy
 - Department of Homeland Security – U.S. Coast Guard
 - Department of Interior – Minerals Management Service
 - Department of Interior – U.S. Fish and Wildlife Service
 - Department of Interior – U.S. Geological Survey
 - Department of Justice
 - Department of State
 - Marine Mammal Commission
 - Coastal America (Ex-Officio Member)



Interagency Marine Debris Coordinating Committee (IMDCC)



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- Co-chaired by EPA and NOAA
- Re-established by Marine Debris Research, Prevention, and Reduction Act 2006
- IMDCC 2008 Report to Congress
 - Discusses sources, ecological and economic impacts, and strategies, priorities, and recommendations to reduce incidence of marine debris
 - 20 recommendations for Federal agencies and the IMDCC