

# Road Scholars: Marin Debris

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# What killed this baby Albatross?









# What is Marine Debris?

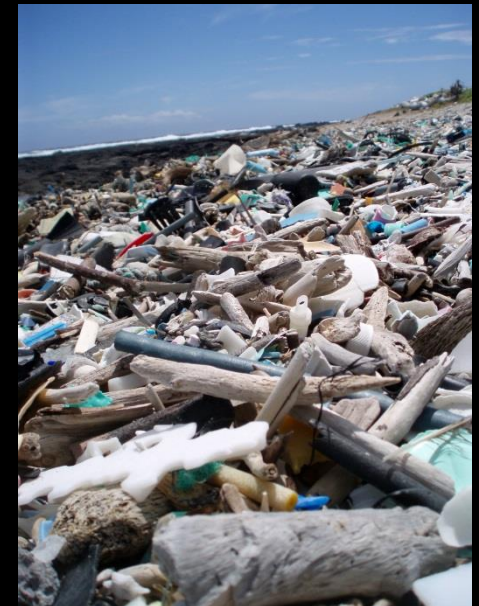
Marine debris is typically defined as any **man-made object** discarded, disposed of, or abandoned that **enters the coastal or marine environment**. It may enter directly from a ship, or indirectly when washed out to sea via rivers, streams and storm drains.



<http://www.watercache.com/blog/2013/03/austin-plastic-bag-ban-and-connection-to-water/>



<http://www.dailymail.co.uk/news/article-1077325/The-plastic-waste-British-seas-brink-ecological-disaster.html>



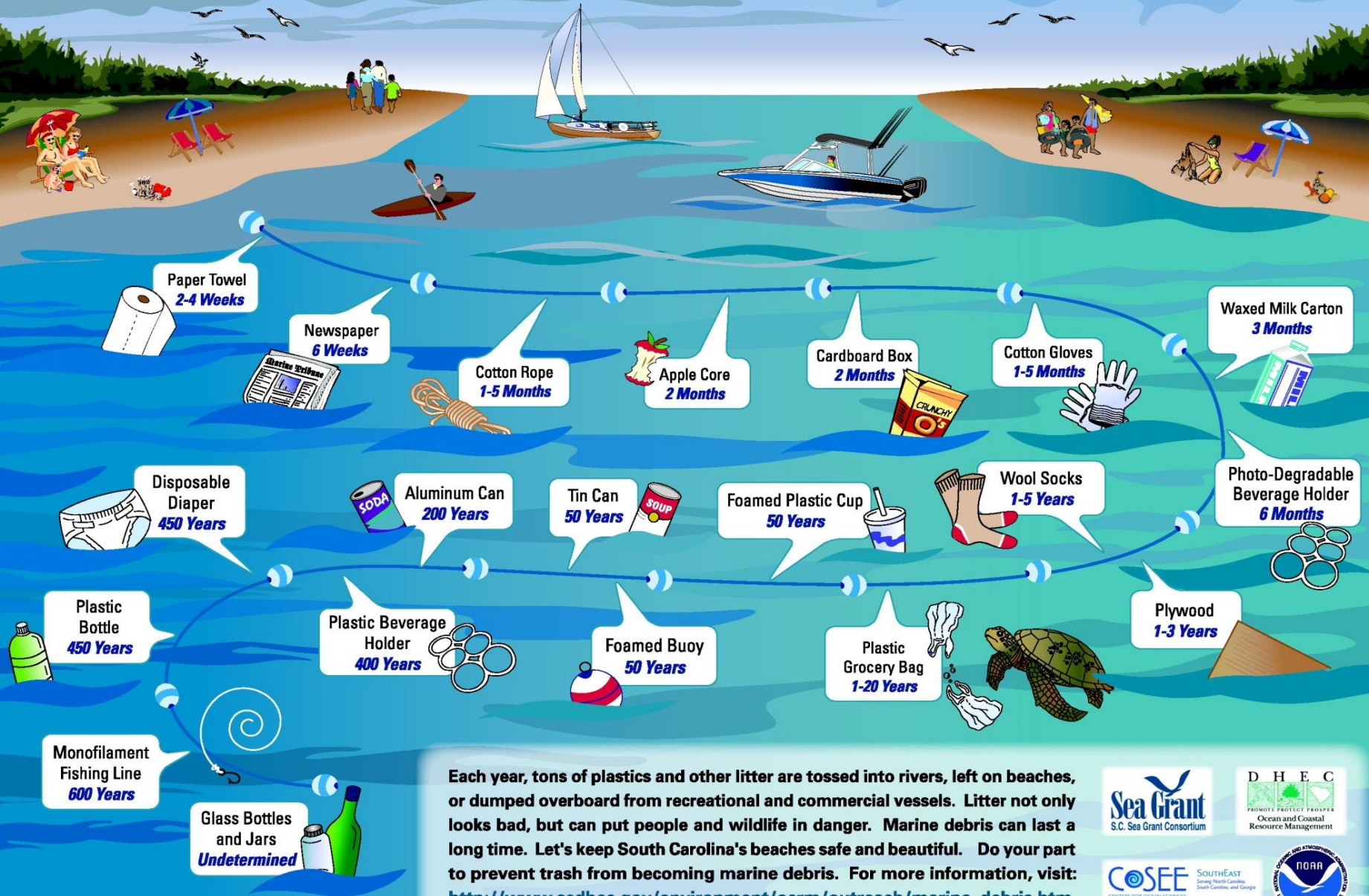
# Types of Marine Debris

- Plastic
- Glass
- Metal
- Styrofoam
- Rubber
- Derelict Fishing Gear
- Derelict Vessels





# Marine Debris from Land and Sea In the environment a long, long time



Each year, tons of plastics and other litter are tossed into rivers, left on beaches, or dumped overboard from recreational and commercial vessels. Litter not only looks bad, but can put people and wildlife in danger. Marine debris can last a long time. Let's keep South Carolina's beaches safe and beautiful. Do your part to prevent trash from becoming marine debris. For more information, visit: [http://www.scdhec.gov/environment/ocrm/outreach/marine\\_debris.htm](http://www.scdhec.gov/environment/ocrm/outreach/marine_debris.htm)

Estimated individual item time lines depend on production composition and environmental conditions.

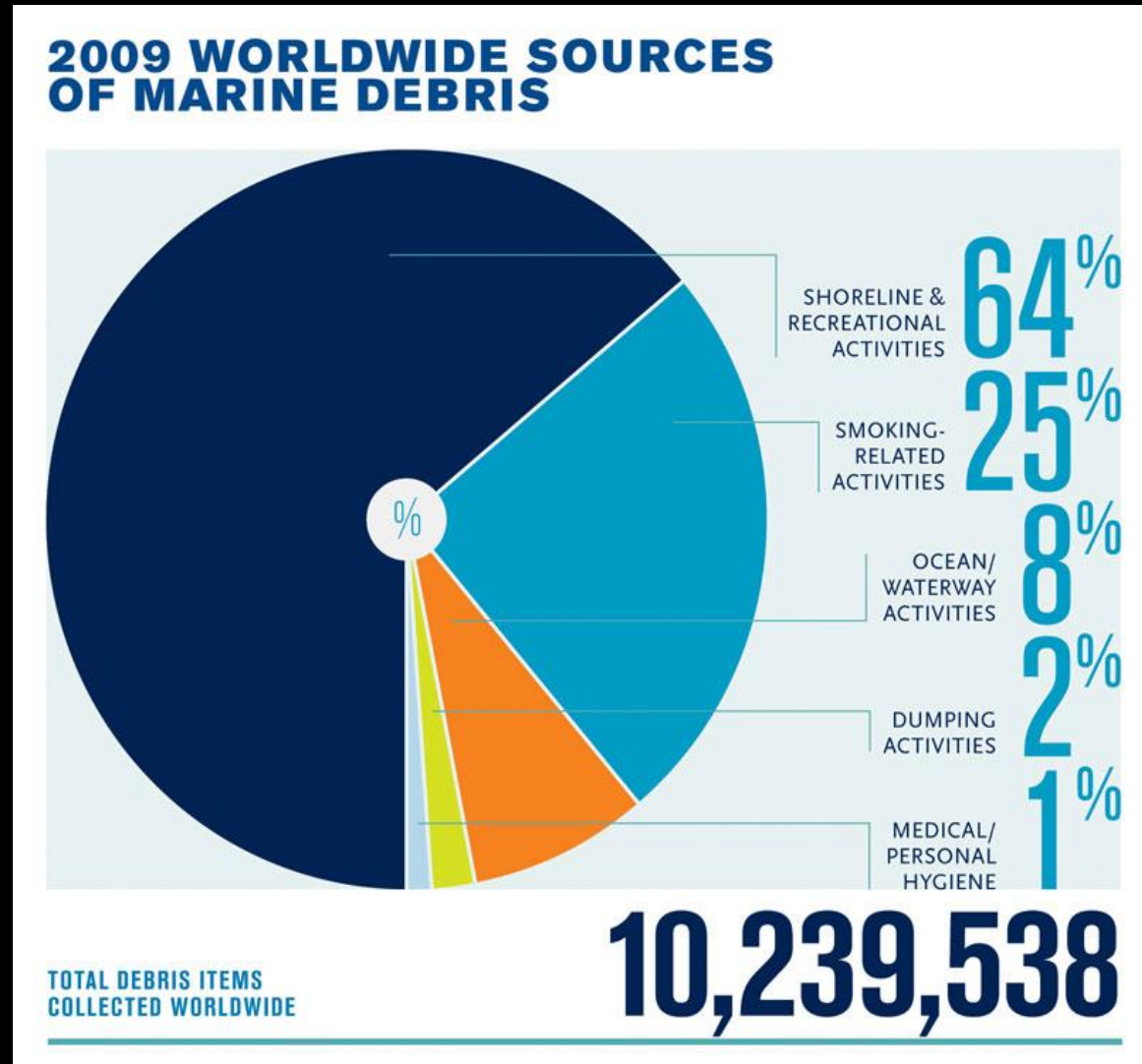


SOUTHEAST  
Coastal Program  
South Carolina, and Georgia



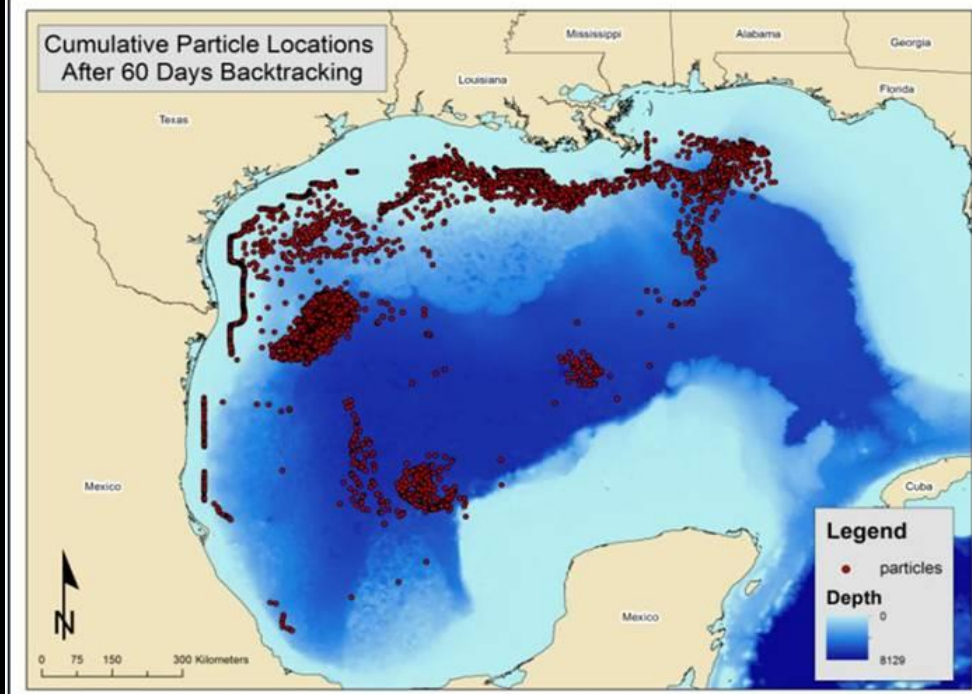
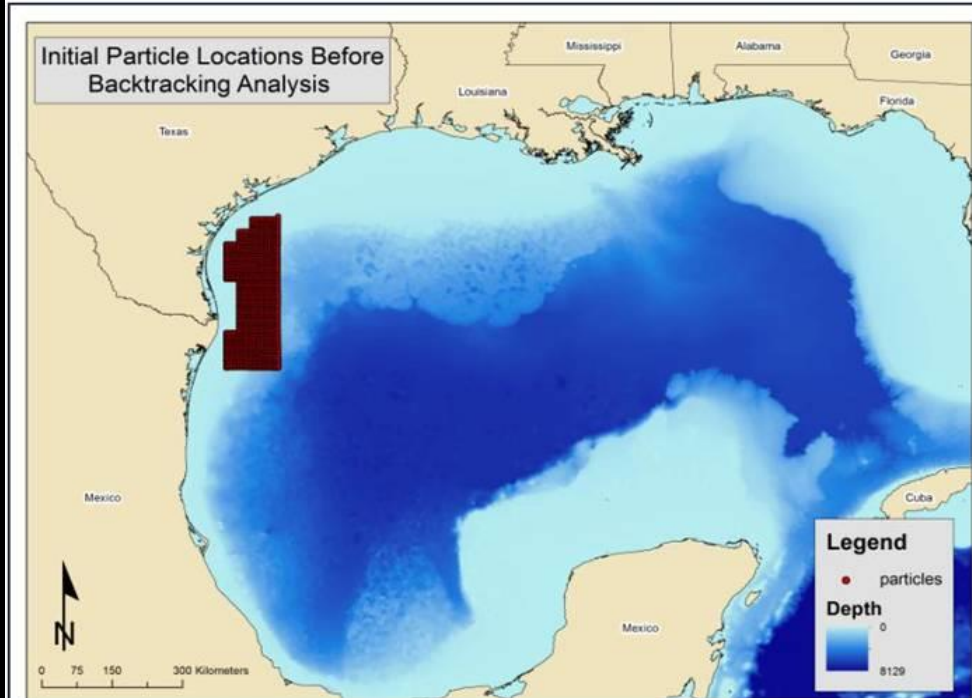
# Where does the trash come from?

- Ocean-based Sources:
  - Fishing Vessels
  - Stationary Platforms
  - Cargo Ships and Other Vessels
- Land-based Sources
  - Littering, Dumping, & Poor Waste Management Practices
  - Storm Water Discharges
  - Extreme Natural Weather Events





Where does the trash come from in the GOM?



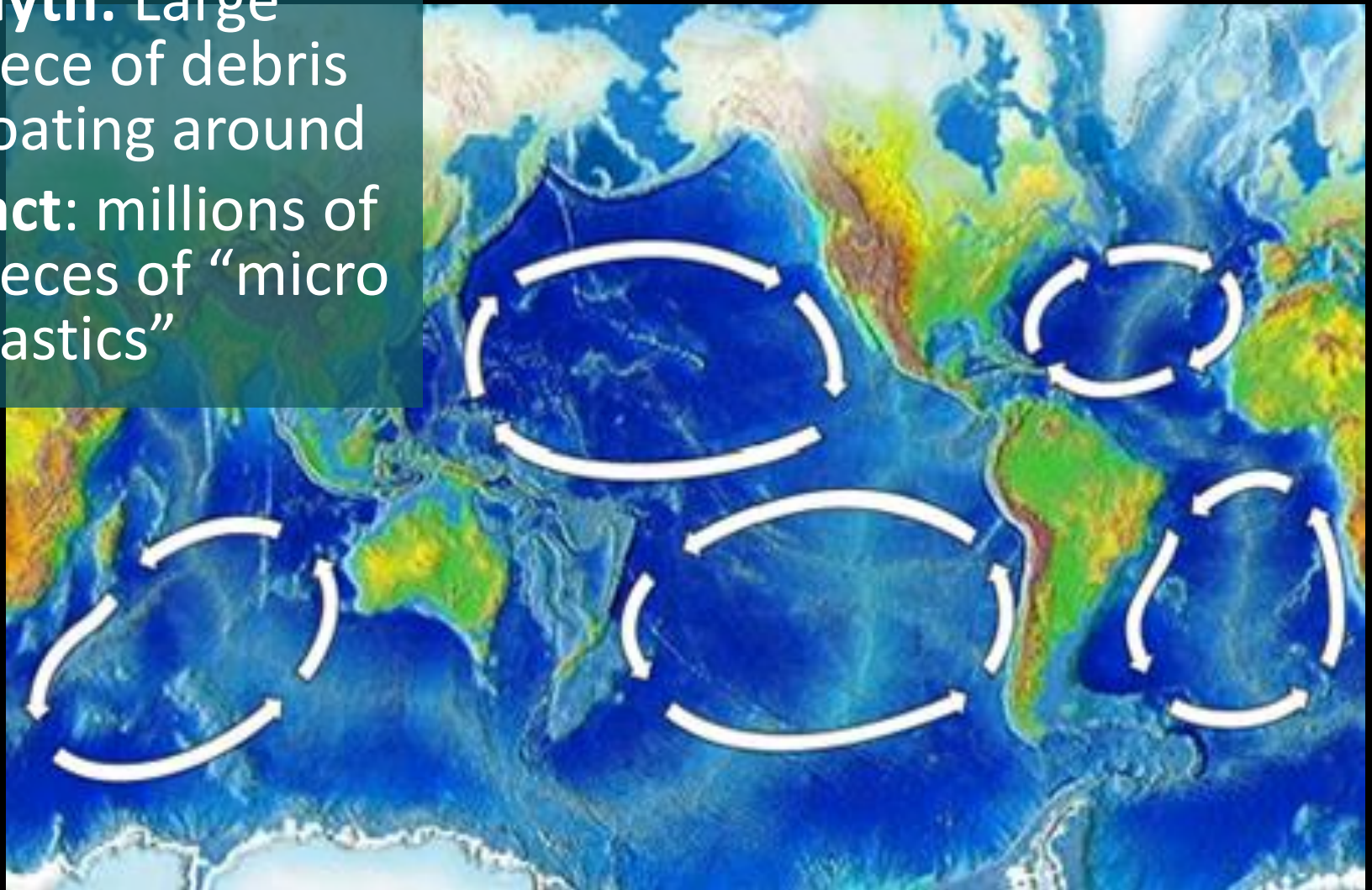


# North Pacific Garbage Patch



# Garbage Patches Around the World

- **Myth:** Large piece of debris floating around
- **Fact:** millions of pieces of “micro plastics”





# IMPACTS OF MARINE DEBRIS

Marine debris does more than you may think...

# IMPACT: Eyesore





# IMPACT: Habitat Damage





# IMPACT: Habitat Damage





# IMPACT: Wildlife Entanglement



Photo courtesy of Wayne Hartley, Save the Manatee Club









# IMPACT: Ingestion



<http://changingthetides.blogspot.com/>



Image: Victoria Gonzales Carman



# Stomach Contents of a Leatherback



Photo by P. Richardson



# IMPACT: Vessel Damage/Navigational



Image courtesy of KatDoc's World



# IMPACT: Ghostfishing

41 Different species known to get caught in traps

**A trap pulled from Corpus  
Christ Bay contained**

- 9 Sheepshead
- 7 Gulf toadfish
- 6 Mangrove snapper
- 4 Black drum
- 3 Atlantic spadefish



# IMPACT: Human Health and Safety



© ZAK NOYLE/A-FRAME

ZakNoyle/AFramePhoto

<http://blog.dripswater.com/the-global-marine-debris-problem-and-indonesia/>



# IMPACT: Human Health and Safety



# BEACH CLEAN UP

<input type="checkbox"/> Cans (glass)	<input type="checkbox"/> Cans (plastic)	<input type="checkbox"/> Cans (metal)	<input type="checkbox"/> Cans
<input type="checkbox"/> Clothing, Shoes	<input type="checkbox"/> Fishing Nets	<input type="checkbox"/> Light Bulbs/Tubes	<input type="checkbox"/> Oil/Lube Bottles
<input type="checkbox"/> Fishing Nets	<input type="checkbox"/> Light Bulbs/Tubes	<input type="checkbox"/> Oil/Lube Bottles	<input type="checkbox"/> Pallets
<input type="checkbox"/> Plastic Sheet/Tarps	<input type="checkbox"/> Rope	<input type="checkbox"/> Strapping Bands	<input type="checkbox"/> Straps
<input type="checkbox"/> Straps	<input type="checkbox"/> Straps	<input type="checkbox"/> Straps	<input type="checkbox"/> Straps

**OCEAN/WATERWAY ACTIVITIES**

- Debris from recreational/commercial fishing and boat/vessel operations
- Beer Containers/Packaging
- Beach/Cleaner Bottles
- Buoys/Floats
- Cans/Lobster/Fish Traps
- Crates
- Light Sticks

**RELATED ACTIVITIES**

- Cigarette Filters
- Fishing Nets
- Light Bulbs/Tubes
- Oil/Lube Bottles
- Pallets
- Plastic Sheet/Tarps
- Rope
- Strapping Bands

**DUMPING**

- Appliances (refrigerators, washers)
- Building Materials
- Cars/Trucks/Parts
- Tires
- Other

**Other items:**

- Cups, Plates, Forks, Knives, Spoons
- Food Wrappers/Containers
- Pull Tabs
- 6-Pack Holders
- Shotgun Shells/Wadding
- Straws, Stirrers
- Toys





# Be Careful!!





QUESTIONS?

