

DIVISION OF COASTAL MANAGEMENT



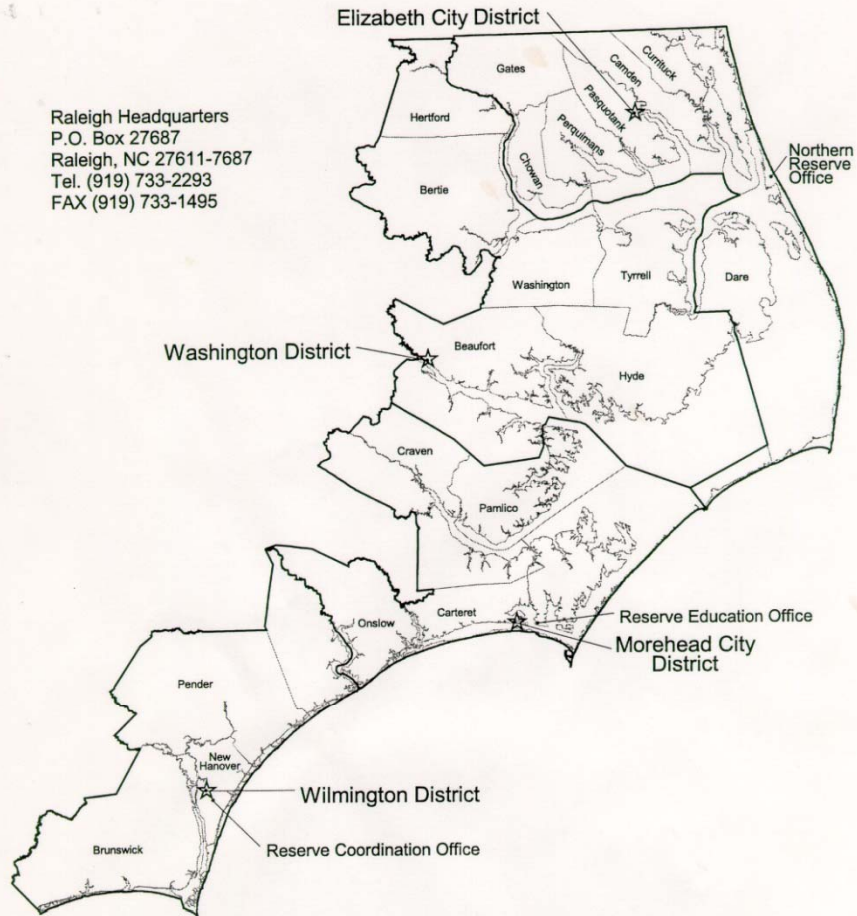


NORTH CAROLINA

CAMA

N.C. Division of Coastal Management

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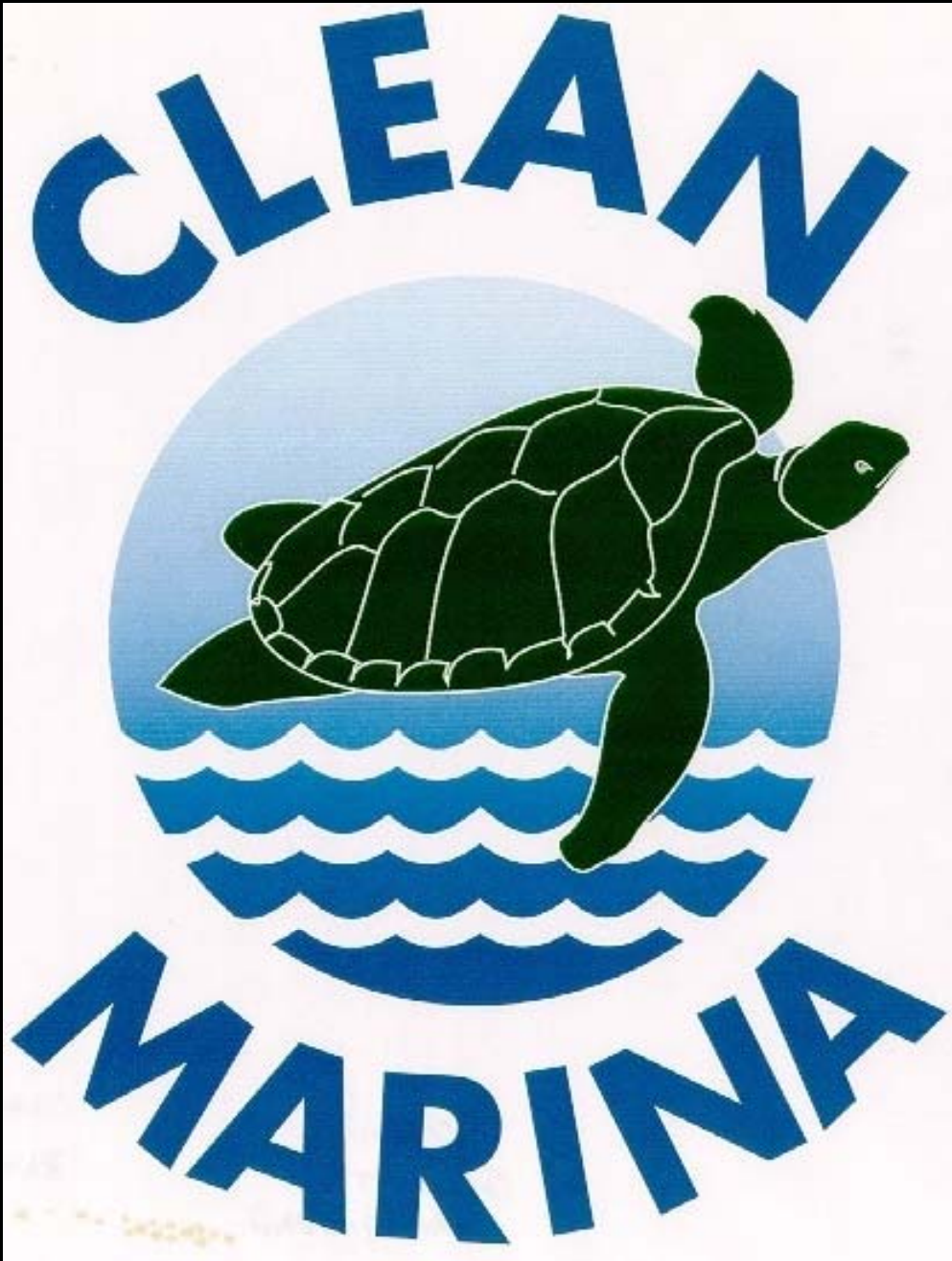
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 Kitty Hawk, NC 27949
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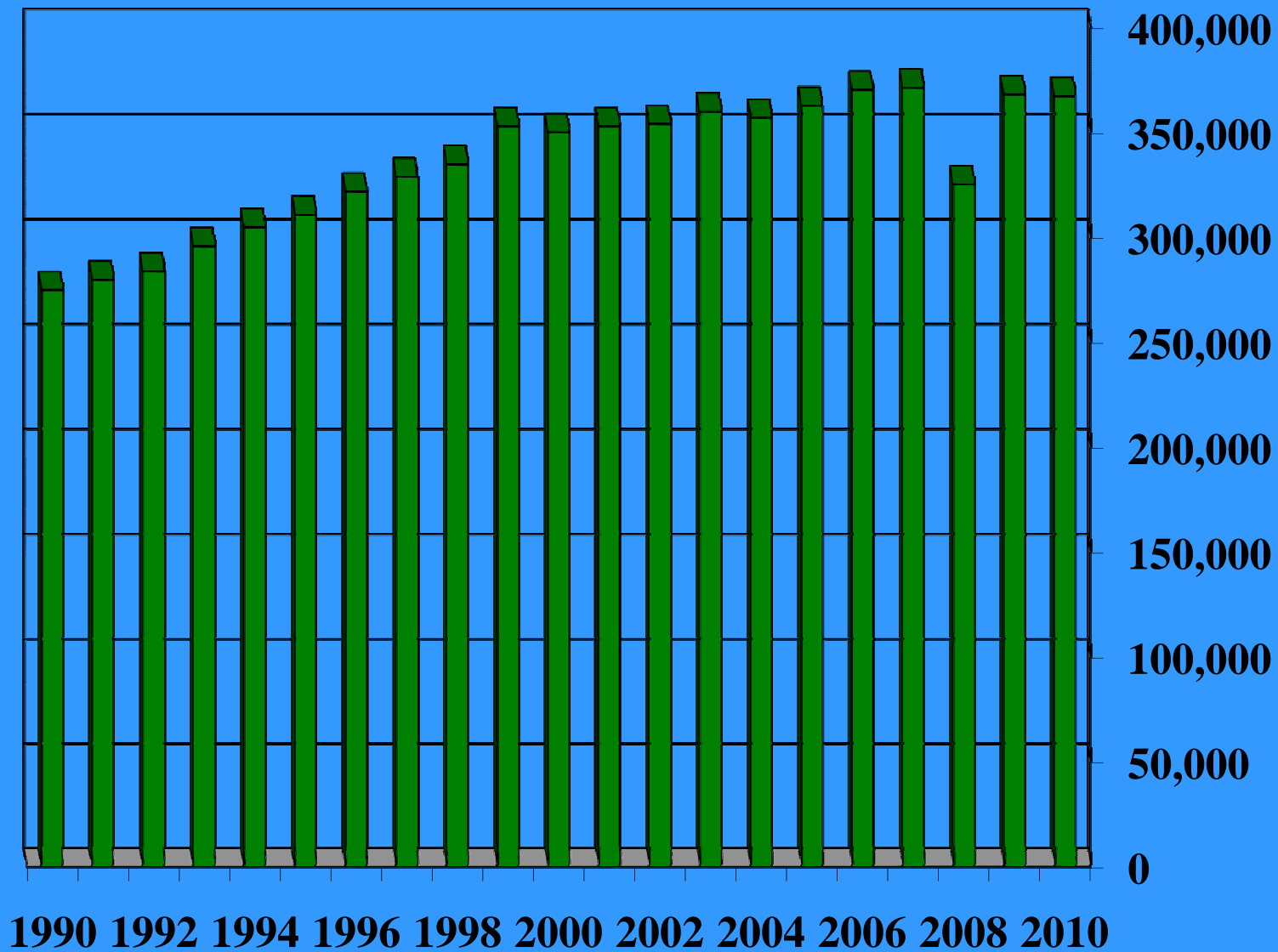
NC Pumpout Grant Program

Why Pumpouts?

**Raw Sewage From
One Person
Equals the Treated
Sewage of 10,000**



Total Boat Registration in NC



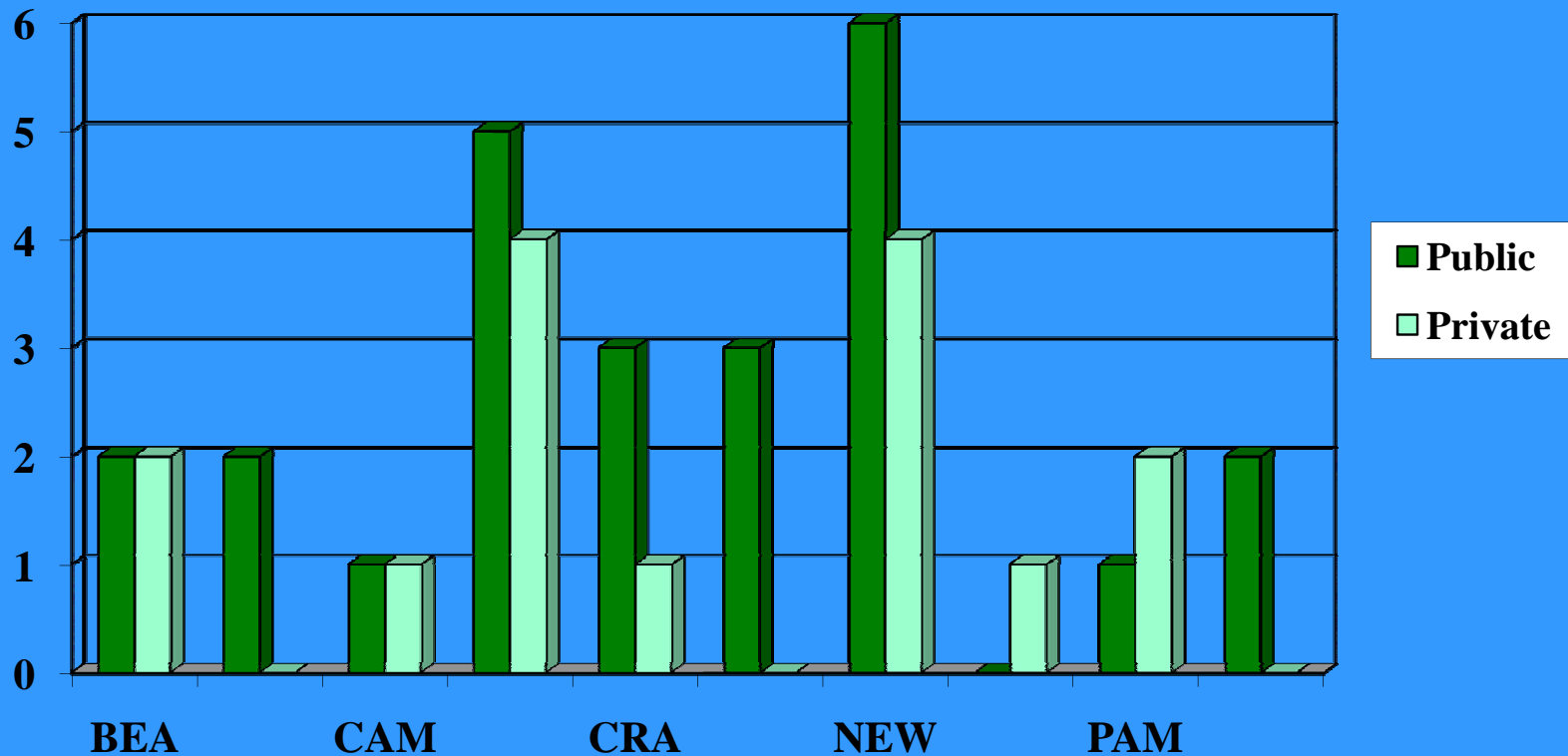
1992 EPA Near Coastal Waters Grant

- 330 Miles of AIWW in NC
- 144 Permitted Marinas
- Over 7,000 Slips
- 421 Permits for “Multi-slip Docking Facilities (up to 10 slips)
- 47% Increase in Boat Registrations

1992 EPA Near Coastal Waters Grant

- Surveyed 293 Marinas
- Identified 40 Marinas with Pumpouts
- Pumpouts Located in Only 10 of the 20 Coastal Counties
- 25 Pumpouts Open to the Public
- Fees for Use Range \$0 - \$125

Public & Private Pumpouts



A Portable Transfer Tank for Boat Waste

To meet current Coast Guard regulations concerning boat waste, more marinas are receiving requests to empty sewage from boat holding tanks. Commercially available pump-out systems have shown they can do the job, but these systems cost three to five thousand dollars. Marina operators often consider this cost prohibitive, especially if the systems are likely to be used infrequently, and refer pump-out business elsewhere. A low-cost alternative can be put together in an afternoon for less than \$250 in parts for all new materials, or for much less if you can find some used materials.

What is a portable transfer tank?

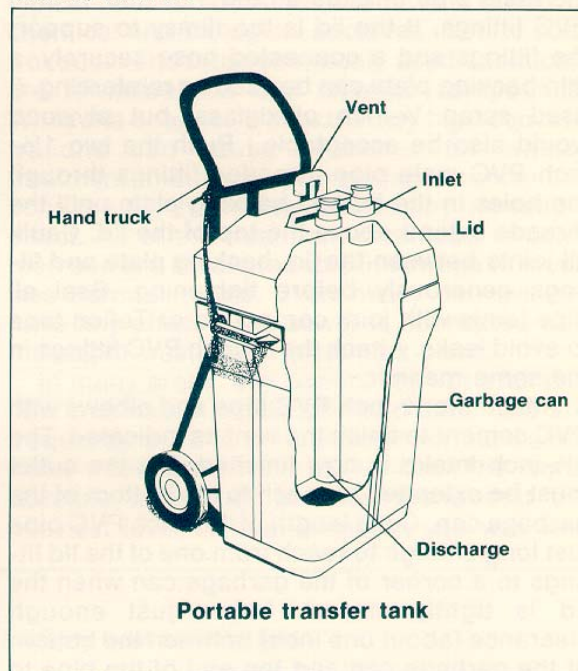
A portable transfer tank is used to empty boat holding tanks, eliminating the need for lengthy hoses and sewer lines at marinas. Also, the shorter hoses used with the portable tank allow the use of manual rather than motorized pumps. A 30-gallon tank mounted on a hand truck is rolled on the dock to the boat, where the holding tank is pumped into the transfer tank. The transfer tank is then rolled back to a sewer connection on land and emptied into the marina's existing treatment system.

Materials

Most common plastics, such as polyvinyl chloride (PVC) and polypropylene, are highly resistant to sewage and to the chemicals used in holding tanks. Many metals are much more corrosion-prone and may require more maintenance and early replacement. Given a choice of plastic or metal parts for the transfer system, you may want to consider plastic for its durability and low maintenance.

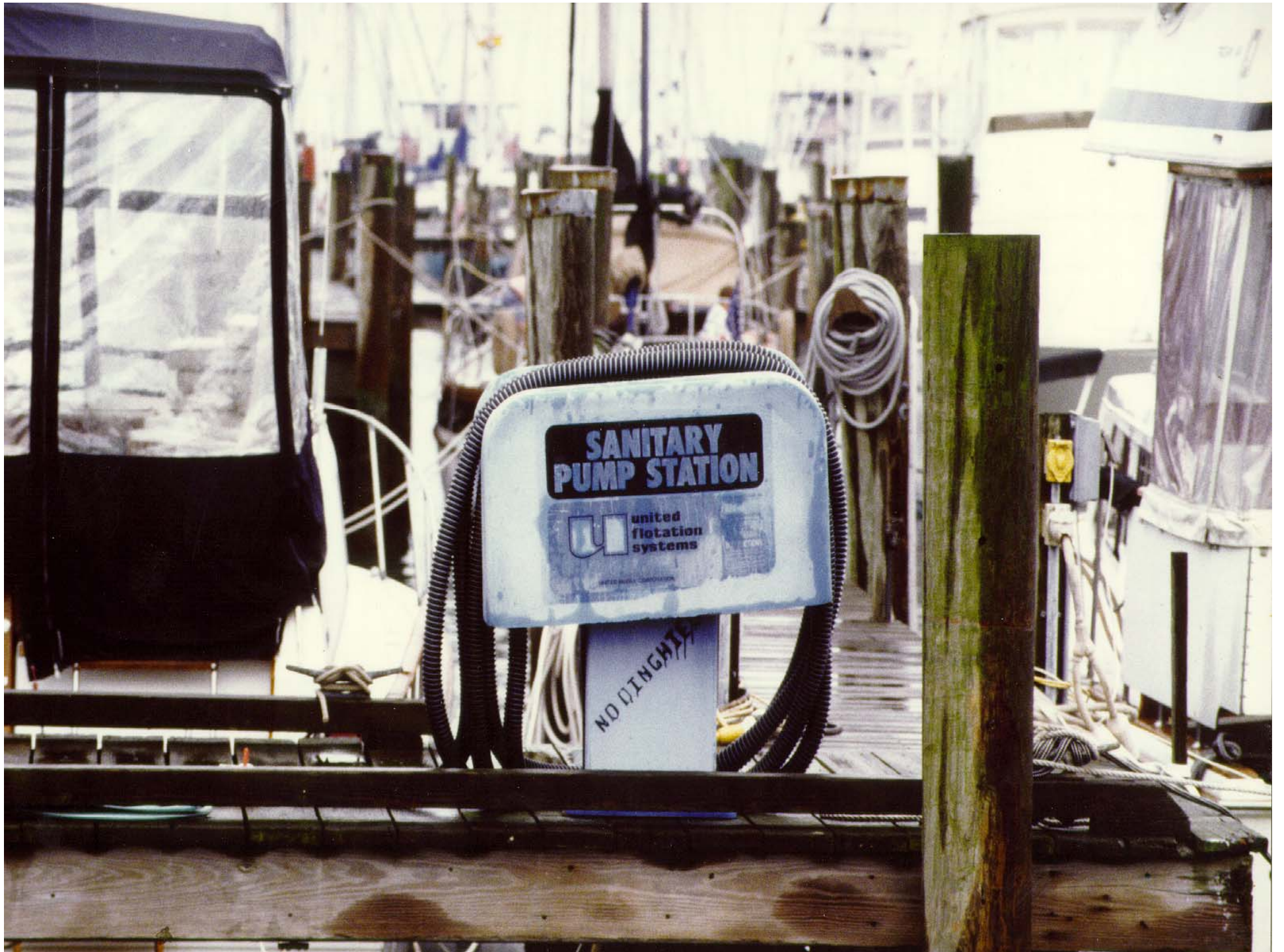
The transfer tank itself is a 30-gallon, plastic garbage can strapped securely to a hand truck. When full the tank can weigh 250 to 300 pounds. So before you assemble and use a transfer tank, make sure your truck, garbage can, and dock can withstand the heavy load.

Graphics by Deborah Ford



A 1½-inch diaphragm bilge pump and 1½-inch plastic waste hose are used to move the wastes. Both are available from most marine suppliers. Make sure the bilge pump can handle the pressure of pulling and pushing water from the bottom of a boat holding tank to the top of the tank on the dock. (I used the least expensive pump available locally, but had to carry the first one back when the flapper valves couldn't take the pressure. The second pump does fine even though it is the same make and model.) Pressure check the pump with fresh water before trying to empty a holding tank.

Valves and fancy plumbing to fill and empty the transfer tank aren't necessary if you use quick-release fittings similar to those used on fire hoses. The cam and groove fittings are available in plastic from plumbing or industrial suppliers at a reasonable cost. PVC pipe and elbow connectors are used for the intake di-



**SANITARY
PUMP STATION**


**united
flotation
systems**

NO DINGHIE

DOCK B
BOATOWNERS
AND
GUEST ONLY

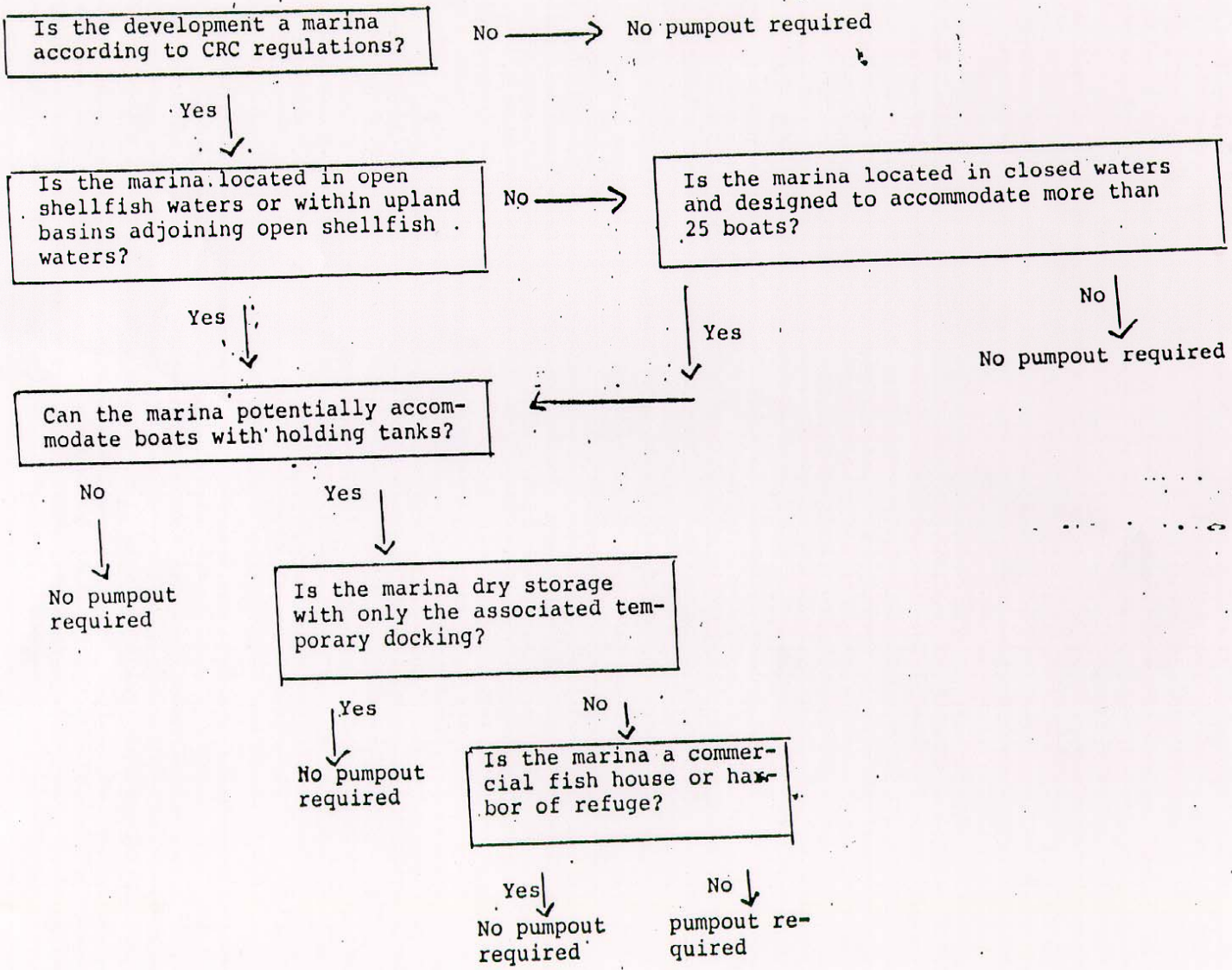
NO
SEWAGE DISCHARGE
TREATED OR UNTREATED
PUMPOUT AVAILABLE





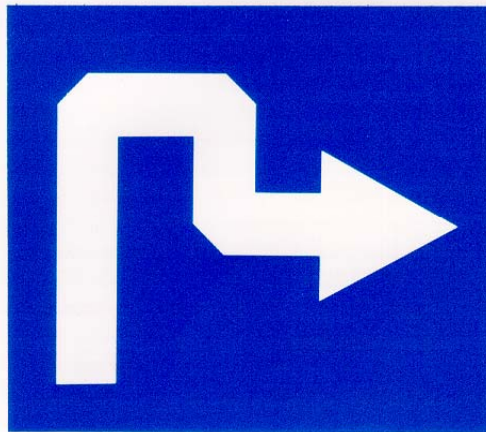
CLOSED AREA
UNLAWFUL TO TAKE
OYSTERS, CLAMS
OR MUSSELS
N.C. MARINE FISHERIES

PUMPOUT REQUIREMENT CRITERIA

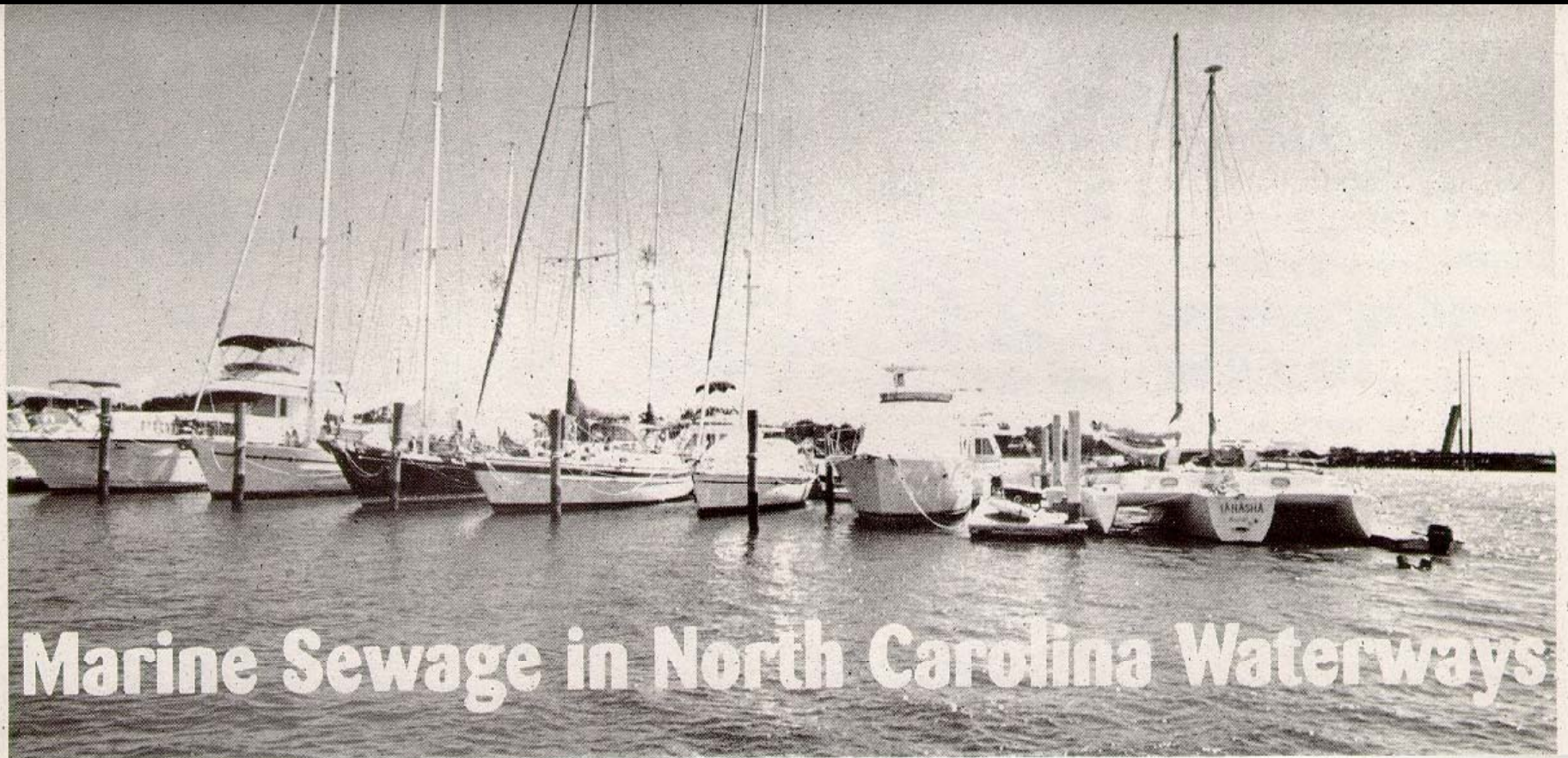


A Guide to

**Marine Sewage
Pumpout Stations
in Coastal
North Carolina**



N.C. Division of Coastal Management
Department of Environment, Health,
and Natural Resources

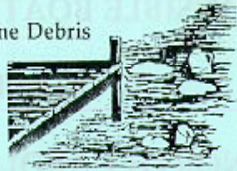


Marine Sewage in North Carolina Waterways

How You Can Help Protect North Carolina's Coastal Waters

North Carolina has an abundance of coastal resources - thousands of acres of rivers, estuaries, and other coastal waters from the Albemarle and Currituck Sounds to the Cape Fear River. These waters are important to us all. You can make a difference in keeping our waters clean.

Marine Debris



- Keep trash and loose objects from falling, blowing, or washing overboard.
- Stow trash, garbage and old fishing gear aboard your boat for disposal on shore. Plastic ice bags, monofilament line, and six pack rings kill fish and wildlife.
- Reduce the amount of non-degradable products on board by bringing reusable cups and containers.
- When possible, retrieve trash found in the water.

Maintenance



Deck Cleaning

- Scrub and rinse more frequently - with no soap or detergent.
- Use soap conservatively.
- Use "environmentally safe" products.



Topside Surface Preparation

- Use a sander that has a dust containment bag.
- Sweep and vacuum all residual dust.
- Avoid sanding in windy conditions.
- Plug scuppers to prevent accidental run-off of dust and debris.

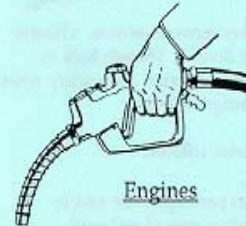


Painting and Varnishing

- When possible, mix paints on land rather than the dock.
- Always mix paints on a tarp.
- Keep containers sealed when not in use.
- Keep absorbent pads handy in case of spills.

Bottom Painting

- Use the antifouling paint which is best suited for your boat and conditions.
- Consider using harder finish paints, such as copolymers.
- Minimize underwater scrubbing of the boat bottom which releases toxic compounds



Engines

- Gasoline: Avoid spills by using a gauge or dipstick when refueling and check for leaking fuel lines.
- Oil: A pint of spilled oil equals a one acre slick! Use an oil absorbing pad in the bilge and recycle used oil properly.
- Recycle used antifreeze, hydraulic fluids and other lubricants. Check for and repair leaks.
- Don't pump contaminated bilge wastes overboard.



PUMP
OUT
STATION

Installed Heads and Portable Toilets

- Be sure your boat head is working properly.
- Use onshore facilities when possible.
- Don't dump untreated waste in the water; use pumpout and dump stations.
- Use environmentally safe products to deodorize holding tanks.



Underway

- Large wakes increase erosion. Observe "No Wake Zones." Throttle back in creeks and near shore. Particular where there are seagrass beds.
- Do not harass wildlife.
- Ensure that passengers are told to keep all refuse stowed on board.

Fish Wastes

- Clean the catch at sea; avoid dumping wastes in marinas and other confined waters.
- When available, use designated upland stations for cleaning fish.

1992 EPA Near Coastal Waters Grant

- Mailed Pumpout Guide Directly to 16,454 boat owners
- Aired Radio Spot on 54 Stations
- Printed Standardized Pumpout Sign

PUMP OUT STATION



A Division of Coastal Services & Technology
1-800-424-7528

This government facility was partially funded under the Clean Water Act by the purchase of Federal Lands. Environmental and Public Health.

KEEP OUR WATERS CLEAN

This pumpout facility was partially funded under the Clean Vessel Act by your purchase of fishing equipment and motor boat fuels.



Sport Fish Restoration



U.S. Fish & Wildlife Service



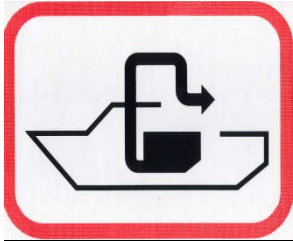
NC Division of Coastal Management



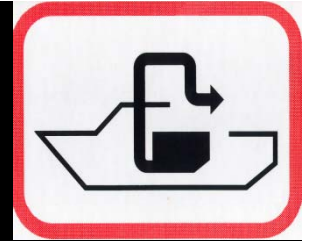
NC Division of Marine Fisheries



Your purchase
of fishing equipment
and motor boat fuels supports
Sport Fish Restoration and
boating access facilities



Clean Vessel Act



NC Pumpout Station Grant Program

- **Established Advisory Committee**
- **Set Priorities & Goals**
- **Developed Guidelines & Application**
- **Geo-located Coastal Marinas**
- **Survey of Marinas & Boat Owners**
- **Optimizing Facility Placement Study**



NC Pumpout Station Grant Program Goals



- Focus on Albemarle & Pamlico Sounds - Second Largest Estuarine System
- Construct Facilities at All Marinas Catering to Boats with Holding Tanks
- Identified Specific Bodies of Water that are at Risk from Boat Sewage
- Concentrate on PNAs, ORWs, NSWs and Open Shellfish Waters



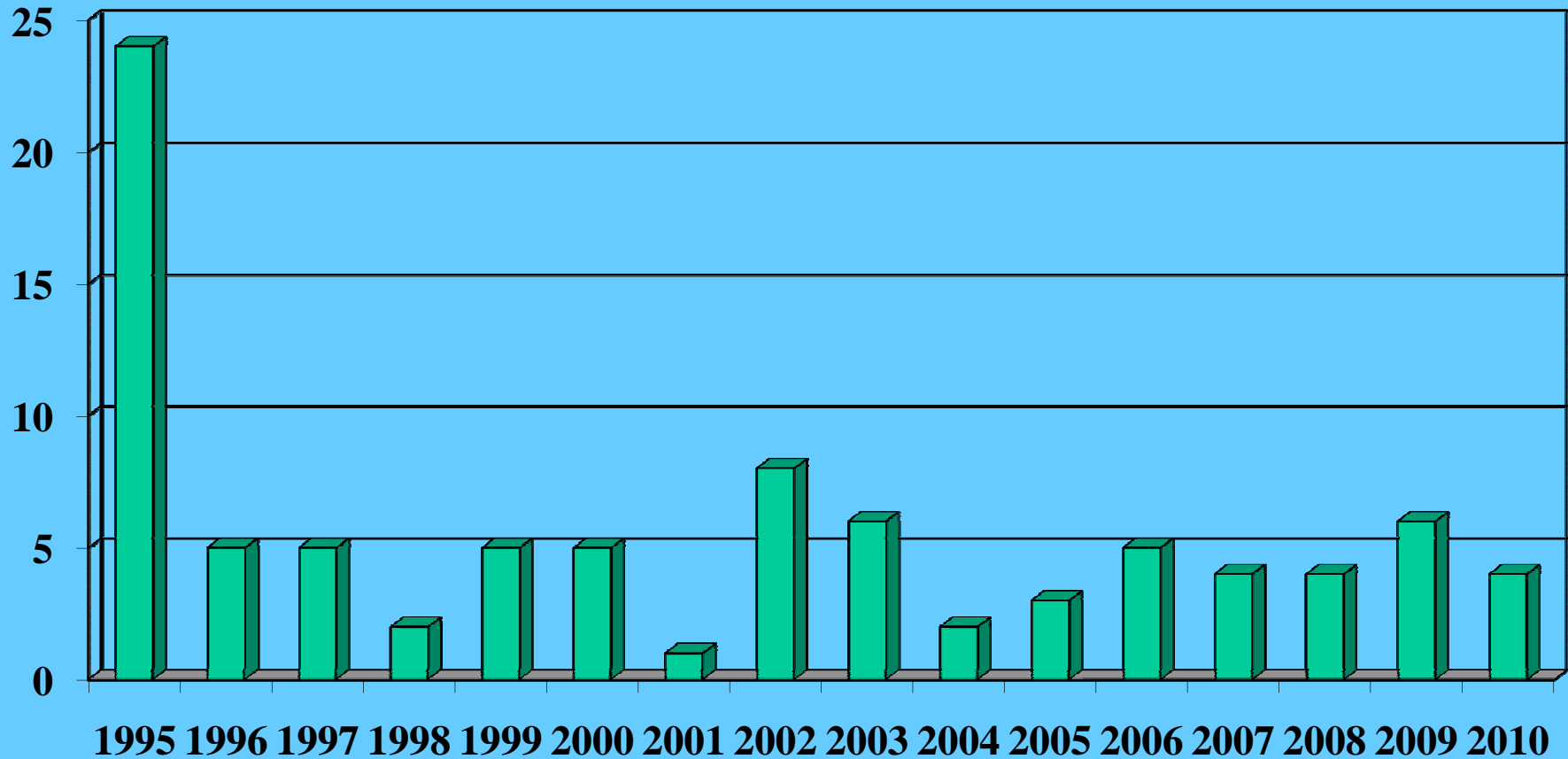
NC Pumpout & Dump Station

Grant Amount & Match Requirements



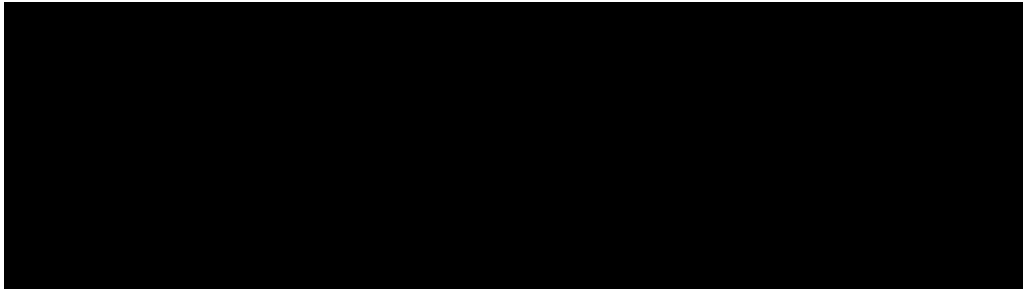
- Max Grant - \$15,000
- Min Match - 25% of Total Project
- Maximum Charge for Use - \$5*
- Facility must be open to all recreational boaters

Pumpouts Constructed



49 Fixed Units 13 Portable Units 1 Boat
2 Trailers 1 Slip-Side System (6 Reconstructions)







NC Pumpout Station Grants Past 5- Years



- Average Grant - \$10,420
- Average Project Cost - \$15,003
- Average Marina Match - \$4,583
- Total Project Costs - \$330,060
- Total Grants - \$229,234
- Total Marina Match - \$100,826



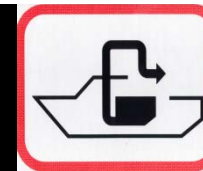
NC Pumpout Station Grants Process



- Application – Quotes, Certifications, Approval from Health Dept/Town
- DCM Review – Violations, Location, 2 Weeks
- Award Notification
- E-Procurement – Register as a Vendor
- DENR Contract – 45 days, Don't spend money until contract signed!



NC Pumpout Station Grants Process



- Contract Period – Generally One Year, Extensions (30 days notice)
- Reimbursement – Copies of paid receipts, 10 days to process.
- Done? Not Quite....

NCGrants Reporting – If not completed,
banned from future State grants



For More Information...

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www.nccoastalmanagement.net