FLOATABLES MANAGEMENT PLAN

June 1989

Marine Sciences Research Center

COAST Institute

Waste Management Institute

State University of New York
Stony Brook, Long Island, New York

MARINE SCIENCES RESEARCH CENTER
STATE UNIVERSITY OF NEW YORK
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J.R. Schubel, Director
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>ii</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>3</td>
</tr>
<tr>
<td>2. Background</td>
<td>4</td>
</tr>
<tr>
<td>3. The Plan</td>
<td></td>
</tr>
<tr>
<td>Introduction to the Plan</td>
<td>8</td>
</tr>
<tr>
<td>Development of the Plan</td>
<td>9</td>
</tr>
<tr>
<td>Section 1. Response to Floatable Materials on Beaches</td>
<td>10</td>
</tr>
<tr>
<td>Section 2. Clean-up of Stranded Floatable Debris in Back Bay Areas</td>
<td>18</td>
</tr>
<tr>
<td>Section 3. Response to Floatables Near Entry Points</td>
<td>20</td>
</tr>
<tr>
<td>Section 4. Preventing Floatables from Reaching the Marine Environment</td>
<td>23</td>
</tr>
<tr>
<td>Section 5. Reducing the Solid Waste Stream</td>
<td>26</td>
</tr>
<tr>
<td>Section 6. Education</td>
<td>30</td>
</tr>
<tr>
<td>Section 7. Floatable Wastes and the Media</td>
<td>36</td>
</tr>
<tr>
<td>4. Glossary</td>
<td>38</td>
</tr>
<tr>
<td>5. Appendix: Workshop Participants and Plans</td>
<td>41</td>
</tr>
</tbody>
</table>

# LIST OF COMMONLY USED ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIN</td>
<td>Beach Information Network</td>
</tr>
<tr>
<td>COAST</td>
<td>Coastal Ocean Action Strategies Institute</td>
</tr>
<tr>
<td>CSO</td>
<td>Combined Sewer Overflow</td>
</tr>
<tr>
<td>CTDEP</td>
<td>Connecticut Department of Environmental Protection</td>
</tr>
<tr>
<td>CTDOH</td>
<td>Connecticut Department of Health</td>
</tr>
<tr>
<td>DOH</td>
<td>Local Department of Health</td>
</tr>
<tr>
<td>ISC</td>
<td>Interstate Sanitation Commission</td>
</tr>
<tr>
<td>LIMRI</td>
<td>Living Marine Resources Institute</td>
</tr>
<tr>
<td>MSRC</td>
<td>Marine Sciences Research Center</td>
</tr>
<tr>
<td>MTS</td>
<td>Marine Transfer Station</td>
</tr>
<tr>
<td>NCDOH</td>
<td>Nassau County Department of Health</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NJDCJ</td>
<td>New Jersey Department of Criminal Justice</td>
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<tr>
<td>NJDEP</td>
<td>New Jersey Department of Environmental Protection</td>
</tr>
<tr>
<td>NJDOH</td>
<td>New Jersey Department of Health</td>
</tr>
<tr>
<td>NJMSC</td>
<td>New Jersey Marine Sciences Consortium</td>
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<tr>
<td>NYCDEP</td>
<td>New York City Department of Environmental Protection</td>
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<td>NYCDOS</td>
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</tr>
<tr>
<td>NYSDED</td>
<td>New York State Department of Economic Development</td>
</tr>
<tr>
<td>NYSDEC</td>
<td>New York State Department of Environmental Conservation</td>
</tr>
<tr>
<td>NYSDOH</td>
<td>New York State Department of Health</td>
</tr>
<tr>
<td>NYSOPRHP</td>
<td>New York State Office of Parks, Recreation and Historic Preservation</td>
</tr>
<tr>
<td>NYWPCA</td>
<td>New York Water Pollution Control Association</td>
</tr>
<tr>
<td>SCDOH</td>
<td>Suffolk County Department of Health</td>
</tr>
<tr>
<td>SUNY</td>
<td>State University of New York</td>
</tr>
<tr>
<td>USACE</td>
<td>United States Army Corps of Engineers</td>
</tr>
<tr>
<td>USCG</td>
<td>United States Coast Guard</td>
</tr>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>WMI</td>
<td>Waste Management Institute</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

1. An effective floatable waste management plan may be defined as a series of specific, detailed actions, which, if taken, would reduce the problems associated with floatable wastes and would eventually minimize the floatable wastes themselves.

2. The initial elements of this plan were developed during a workshop held at the Marine Sciences Research Center, SUNY at Stony Brook.

3. This plan relied heavily upon the documents and plans already developed by the NYWPCA, NCDOH, SCDOH, NYSDEC, NYSDOH, NYSOPRHP, NYSDED, NJDEP, and the USEPA.

4. Beach operators are responsible for the initial response to floatable debris present on the beaches of NY, NJ and CT. The information and guidance they receive from the departments of health, environmental conservation/protection and law enforcement must be the best, most consistent and least ambiguous of all that is available.

5. Beach operators need a workable definition of the term "limited medical waste." In this plan we define "limited medical waste" as medical waste present in quantities small enough so that an individual could pick the medical waste up in 10-15 minutes.

6. A scientific response and information team should be established as a central clearinghouse for information and emergency consulting in the event of a beach crisis. The Waste Management Institute of the MSRC will be performing this function for the summer of 1989.

7. While federal and private beaches on Long Island are not under the jurisdiction of the State, they should follow the same procedures and protocol as the state and local beaches, including participating in the NYSOPRHP-NYSDEC Beach Information Network.

8. Much floatable material is stranded along shorelines of the region's back bay areas (e.g., NY/NJ Harbor, Long Island Sound, south shore of Long Island) and is refloated and flushed out into open waters during high tides and storms. Annual clean-ups of these areas should occur prior to the opening of the beach season. Local governments and state health and environmental agencies should formulate collection and disposal plans to accommodate the nature and volume of the floatable material collected from back bay areas.

9. A large introduction of floatables into the marine environment occurs through mishandling at marine transfer stations, during transport to landfills, and as part of the effluent released through combined sewer outflows. A multi-agency Floatables Action Plan addresses these issues for NY/NJ Harbor in the
1989 beach season; this plan recommends certain enhancements and, in addition, calls for the development and implementation of alternative disposal methods to landfilling in the near future.

10. Operating agencies at all levels of government must take specific actions to reduce the quantity of floatables reaching the marine environment and to reduce the volume of garbage and trash being discarded directly on beaches. The specific actions to be taken include: increased street cleaning, flushing of CSOs and storm sewers prior to the opening of the beach season, providing back-up power supplies to sewage treatment plants, increasing the frequency of emptying trash containers at all marine facilities, developing incentive programs to encourage public participation in the proper disposal of garbage and trash, and developing public education programs to encourage the proper disposal of home healthcare-related wastes.

11. Every possible effort should be made to reduce the municipal solid waste stream through source reduction and recycling. These efforts must include legislation at the federal level aimed at reducing packaging materials; state and local governments must exert greater leadership in the development and implementation of recycling programs, alternatives to landfill disposal (e.g., incineration) for non-medical wastes and safe, effective, economic, environmentally sound disposal options for medical wastes.

12. NY, NJ and CT should establish a regional waste management commission to promote collaboration and cooperation among the three states on regional waste management issues.

13. Educational programs on floatables issues should be developed. These include formal programs in the schools (e.g., the development of curriculum modules dealing with the full range of solid waste management problems and solutions), distribution to the general public of one-page flyers (e.g., NYSDEC's "If You See It, Report It"), public forums and events (e.g., NYSDEC/NYSOPRHP Beach Environmental Awareness Day, NYSDEC beach clean-up days), and radio and television public service announcements.

14. A nation-wide network of organizations in coastal states committed to resolving the problem of floatables in the nation's waters will be developed by the MSRC at SUNY at Stony Brook. The purposes of this network will be to share data and information and to promote programs and, where appropriate, legislation to alleviate the causes of the floatables problem.

15. There is a need for effective and accurate communication on floatables, events involving floatables, and the human health or safety risks they present, among beach operators, agencies and the media. To this end, each agency and beach operator should take steps that will ensure consistency and clarity in contacts with the media about incidents involving floatables.
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INTRODUCTION

Floatable wastes in the marine environment and the stranding of floatables on the beaches of the tri-state region have long been a problem. The amount of floatable wastes present in the marine environment has, however, been increasing in recent years. The quantities of medical waste and drug paraphernalia, although forming a small portion of the total floatable materials, have also been increasing. The unusual meteorological conditions of the past two years contributed to the largest amounts of floatable materials washing ashore on area beaches since the summer of 1976. The presence of medically related wastes and drug paraphernalia among the floatables, the fear of AIDS, and the attention that both received from the media converged to create public alarm. The public's response resulted in large financial losses to coastal communities of the tri-state area. It also eroded the public's confidence in the health of our coastal marine environment -- which remains fundamentally sound -- and in the government's ability to safeguard the health of that environment and the public health. The plan proposed within this document outlines steps which, if taken, should reduce the probability of the recurrence of floatable-related events similar to those of the summer of 1988. If implemented, the plan would serve as a model for other coastal regions of the nation and, indeed, the world, in addressing the increasingly serious problems related to floatable wastes.
BACKGROUND

According to a report prepared by the New York State Department of Environmental Conservation (NYSDEC Investigation: Source of the Beach Washups of 1988), the wastes that washed ashore on Long Island's coastal beaches last year consisted mostly of wood. Common household garbage, street litter carried by storm sewer runoff, sewage-related debris carried by combined sewer overflows, and litter left by beach goers comprised the next largest fraction of the floatable debris. Medical-type waste (e.g. syringes, blood vials, intravenous [I.V.] tubing and bottles, and surgical gloves) accounted for less than 1% by weight of the total debris collected. Many of these items were understandably misidentified by the public, beach operators and the media as medical waste. Upon subsequent careful examination by authorities in the NYSDEC, the true nature of the waste was ascertained. A summary of the floatable waste collected from the coastal beaches of Long Island is presented in Box 1.

The NYSDEC reported that New York City beach operators found surgical gloves and I.V. supplies on their beaches. These are believed to have come from mishandling of medical wastes at hospitals, mishandling of wastes at marine transfer stations (MTS), or illegal dumping of hospital wastes.

As can be seen from Box 1 and the preceding discussion, the floatable debris which washed up on the region's beaches last summer contained a variety of materials, some medically-related, most not. To increase understanding of the sources of the material, its composition, the processes which control its occurrence on our beaches, and the public health and safety aspects associated with floatable materials, the Waste Management Institute (WMI) of the Marine Sciences Research Center (MSRC) at SUNY, Stony Brook, convened a two-day conference in March, 1989. Many significant points pertaining to the nature of floatable wastes and the reasons for last summer's occurrences were made at this conference and they are summarized in Box 2.

As can be seen from this summary, many factors contribute to the floatables problem. These factors include the disposal habits of

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**Box 1. Kinds of Items Collected from New York's Ocean Beaches in the Summer of 1988**

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td>Dunnage, driftwood, deteriorated piers and boats, charred wood</td>
</tr>
<tr>
<td>Litter</td>
<td>Cans, bottles, styrofoam cups, sheet plastic, straws, softballs, cigarette filters, garbage</td>
</tr>
<tr>
<td>Sewage-related Debris</td>
<td>Condoms, diaper liners, sanitary napkin liners, tampon applicators, grease balls (animal and vegetable fats)</td>
</tr>
<tr>
<td>Tar Balls</td>
<td></td>
</tr>
<tr>
<td>Fishing Gear</td>
<td>Nets, floats, traps, lines</td>
</tr>
<tr>
<td>Medical-type Wastes</td>
<td>Needles, syringes, bandages, red bags, enema bottles</td>
</tr>
</tbody>
</table>
1. Floatables are defined as buoyant waterborne waste materials and debris. Typical anthropogenic floatable materials include wood, beach litter, sewage-related debris, tar balls, garbage and trash, fishing gear, and, recently, medical wastes.

2. The wash-up of floatables onto area beaches has been a common, unsightly occurrence for years. The events of the summers of 1987 and 1988 were different in that medical wastes were a noticeable part of the floatable signal. However, they were probably <1% of the total waste load found on area beaches either by volume or weight.

3. Possible sources of floatables include:
   * Combined sewer outfalls (CSOs)
   * Storm sewers
   * Wastewater discharges from malfunctioning and improperly operated sewage treatment plants
   * Solid waste handling
   * Commercial ships, fishing vessels, and recreational boats
   * Beach users

4. Floatables, while primarily an aesthetic problem, have had a significant negative impact on the NJ/NY economy, at an overall cost estimated at $1.0-5.4 billion in 1988. Impact on the Long Island economy alone was at least $1.0 billion.

5. Beach use was down significantly in the summer of 1988.

6. The fear of AIDS infection from these medical wastes heightened public awareness of the floatables problem because of public health and public safety concerns.

7. In order for the transmission of infection to occur via floatables, all links in the communicable disease chain must be present:
   * Viable causative agent
   * Amount of agent sufficient to cause disease
   * Mode of escape
   * Mode of transmission capable of causing disease
   * Mode of entry
   * Susceptible host

# These are the findings of the sponsors, session chairs, and conference organizers.
8. With respect to the AIDS virus in marine systems, the chain has almost certainly been broken at several points.

9. There is no evidence to suggest that public health is threatened by the wash-up of medical wastes – the risk of acquiring AIDS through contact with floatable wastes is near zero.

10. As a result of the public perception of the floatable wash-up events, there was a decline in local seafood sales to markets and restaurants, but many fishermen were able to find alternative markets which kept fish prices up.

11. Party boat business appeared to be down. Some offshore species were not as abundant as usual owing to anomalous water temperatures, affecting some charter boat businesses. This was not related to the presence of floatables.

12. Fish and shellfish cannot transmit the HIV virus, as it will not grow or survive in shellfish or finfish. Shellfish contamination by the Hepatitis A virus may occur, though its contamination is not likely to occur through floatables.

13. Seafood products are not contaminated by floatable wastes. With regard to consuming seafood, the standard advisories issued by the states of New York and New Jersey should be followed.

14. In order to revive these portions of the economy, it is important to reduce the floatable load. The most effective way is to attack the sources, beginning with the individual. Other long- and short-term remedial actions are being implemented by the federal, state and local governments.

15. The south shore of Long Island is vulnerable to wash-up of floatable wastes. Summertime oceanographic and meteorological conditions favor transport of such materials towards the South Shore.

16. The Medical Waste Tracking Act (MWTA) will probably not be effective in significantly reducing medical wastes on beaches because these wastes are primarily a result of leaks in the existing disposal systems.

17. To make the MWTA more effective, it may need to start with medical supply manufacturers -- in the recent case in a New York City hospital where 250,000 needles were reported missing, these items were not covered by the tracking systems.

18. Small generators should be excluded from the MWTA. Provisions should be made for those not covered by the MWTA to easily and cost-effectively dispose of their medical wastes.
through intra-regional incineration.

19. An intra-regional incinerator would:
   • Eliminate the need for a uniform, clarified and simplified
definition of medical waste which is now lacking.
   • Eliminate the problem of interstate transport regulations.
   • Eliminate problems of variable regulations for in
     hospital/home medical waste handling.
   • Cut costs to hospitals, nursing homes, doctors' offices,
     etc., by eliminating out of state medical waste haulage costs.
   • Render all infectious medical waste from health care
     facilities non-infectious.

20. The medical waste industry should develop public
education materials to be distributed in physicians' offices,
pharmacies, and other health care facilities. These materials
should describe the proper disposal mechanisms for medical
wastes, the ultimate fate of the medical waste, and the health
risks related to medical wastes. The material should be region
specific in order to address regional waste disposal technologies.

21. Better coordination of federal, state and local programs
and plans dealing with wash-ups of floatable wastes is needed,
including criteria for cleaning beaches, closing beaches and
responding to requests of public health and safety issues.

On April 12-14, 1989, a two-day workshop was convened by the
COAST Institute of the Marine Science Research Center of the University
at Stony Brook as the first step in formulating an action plan which would
effectively address the floatables problem on all levels. The final plan,
detailed in the following sections, addresses the various components of
the floatables problem. The nature of the problem and the elements of the
plan are shown schematically in Figures 1 and 2.
FIGURE 1. LEVELS OF THE FLOATABLES PROBLEM ADDRESSED IN THE PLAN

FLOATABLE MATERIALS STRANDED ON BEACHES (SECTION 1)

FLOATABLE MATERIALS STRANDED WITHIN BACK BAY AREAS (SECTION 2)

FLOATABLE MATERIALS ENTERING THE MARINE ENVIRONMENT (SECTION 3)

PREVENTION OF FLOATABLES (SECTION 4)

REDUCTION OF THE SOLID WASTE STREAM (SECTION 5)

EDUCATION (SECTION 6)

THE MEDIA (SECTION 7)
FIGURE 2.
RESPONSIBILITIES

FLOATABLE MATERIALS STRANDED ON BEACHES
(SECTION 1)
* Beach operators
* Departments of Health
* States' Departments of Environmental Conservation/Protection
* States' Offices of Parks and Recreation

FLOATABLE MATERIALS STRANDED WITHIN BACK BAY AREAS
(SECTION 2)
* States' Departments of Environmental Conservation/Protection
* Departments of Health
* USEPA
* Local Governments

FLOATABLE MATERIALS ENTERING THE MARINE ENVIRONMENT
(SECTION 3)
* Local and municipal Departments of Sanitation
* State Departments of Environmental Conservation/Protection
* USEPA and their interagency task force

PREVENTION OF FLOATABLES
(SECTION 4)
* Local and municipal Departments of Sanitation
* Local governments
* State Departments of Environmental Conservation and Protection
* Offices of Parks and Recreation (all levels)

REDUCTION OF THE SOLID WASTE STREAM
(SECTION 5)
* All levels of government
* Industry
* Research and Educational Institutions
* The public
INTRODUCTION TO THE PLAN

An effective floatable waste management plan may be defined as a series of specific, detailed actions which, if taken, would reduce the problems associated with floatable wastes and would eventually minimize the floatable wastes themselves. Such a plan must include preventive measures, action-oriented responses, education and public awareness. Cooperation of federal, state, city, county, and town governments, the media, the educational system, and the public must be obtained if a floatable waste management plan is to succeed. Considering the growing population of our coastal areas, such a plan must succeed or the nation's coastal regions will face irreversible economic and aesthetic losses. It has been predicted that within 10 years more than 75% of the total population of the United States will live within 50 miles of the coastline of the ocean and the Great Lakes. We already have living within 50 miles of the coastline of the tri-state area -- New York, New Jersey and Connecticut -- more than 10% of the total population of the United States.

The plan outlined here, if undertaken, would significantly reduce the problems associated with floatable wastes in the tri-state region. While the elements contained in the plan are applicable to New York, New Jersey and Connecticut, it should be understood that the implementation of the actions outlined in Sections 1, 2 and 3 will be carried out in accordance with each state's own agencies and standard operating procedures. Those presented in this version of the plan are in accordance with New York State's agencies and operating procedures.
DEVELOPMENT OF THE PLAN

As mentioned previously, the initial elements of the plan were developed during a workshop held at the Marine Sciences Research Center at SUNY Stony Brook. The workshop consisted of a plenary session, followed by individual working groups assigned specific topics (i.e. education, media, helping the beach operator), followed by a second plenary session. The final plan, contained herein, represents a collaborative effort by representatives from the towns of Long Island, Nassau and Suffolk Counties, New York City, the states of New York, New Jersey and Connecticut, and various federal agencies. This document integrates the individual plans of these municipalities and agencies and the working groups' suggestions into one comprehensive unit.

In preparing this plan we have relied heavily upon the documents and plans already developed by the following agencies: the Long Island Chapter of the New York Water Pollution Control Association, Inc. (NYWPCA), the Nassau County Department of Health (NCDOH), the Suffolk County Department of Health (SCDOH), the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), the New Jersey Department of Health (NJDOH), the New Jersey Department of Environmental Protection (NJDEP), and the United States Environmental Protection Agency (USEPA). Without the cooperation of these agencies, this plan would not exist. In all cases, full credit is given to those agencies whose plans were incorporated into the present plan. The following symbols are used to indicate which actions are contained, in whole, in part or not at all, in any of the agency plans.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>●</td>
<td>This plan and some preexisting plans</td>
</tr>
<tr>
<td>⌂</td>
<td>A modification of some preexisting plans</td>
</tr>
<tr>
<td>○</td>
<td>Unique to this plan</td>
</tr>
</tbody>
</table>

The individual plans are presented in Appendix 1.
SECTION 1. RESPONSE TO FLOATABLE MATERIALS ON BEACHES

This section of the Plan has been developed to assist the beach operator in decision-making, as well as to provide maximum protection of the public's health and safety.

There are three components that comprise a response to the presence of floatable wastes on a beach -- clean-up, disposal of materials, and consideration of the necessity to close a beach. In most circumstances beach closure should not be necessary. The person responsible for the initial response to floatable debris present on the beaches of New York, New Jersey, and Connecticut is the beach operator. They are the line managers and are dependent on the various departments of health, environment conservation/protection, and law enforcement for instructions on the proper handling and disposal of the wastes.

Clean-up of floatable wastes from beaches has been a standard part of the beach cleaning process in the tri-state region for decades. Although careful handling is required in the event of medical wastes, clean-up of floatable waste is a routine part of normal beach maintenance.

Disposal of stranded materials has not proven to be a problem until recently. In 1987 and 1988, the reported presence of anomalous amounts of medical waste and drug paraphernalia in the floatables which washed ashore on the region's beaches, combined with the public outcry over them, posed a new problem for disposal of these materials.

The decision to close a beach in New York State, although under the domain of the state and county health departments, falls initially to the beach operator. Beach operators are the initial, and therefore, key decision makers regarding the evaluation of beaches for potential closings out of concern for the public's health and safety. Their decisions must be, to a significant extent, judgment calls. Therefore, beach operators must be as informed as possible to properly carry out their responsibilities. The information and guidance that they receive must be the best, most consistent, and least ambiguous of all that is available so that they can make the best decisions possible. Although large floatable wood has been known to cause injury and even death, it is not the topic of this plan.

The following steps should be taken when floatables other than wood are found on a beach.
ACTIONS REQUIRED

A. When Medical Waste and/or Drug Paraphernalia are Found

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine how abundant and/or widespread the medical wastes and drug paraphernalia are.</td>
<td>Beach Operator</td>
</tr>
<tr>
<td>2. a. If wastes are limited in abundance, they should be picked up and isolated from the rest of the floatable wastes collected. For open coastal beaches, limited may be defined as medical waste present, during beach operating hours, in quantities small enough so that clean-up can be completed in 10 - 15 minutes. DOH guidelines should be followed when handling medical waste.</td>
<td>Beach Operator</td>
</tr>
<tr>
<td>2.b. If small quantities of material are found in the water, the water should be closed to swimming. The beach operator and his staff should then assess the situation and take appropriate steps.</td>
<td>Beach Operator</td>
</tr>
<tr>
<td>2.c. Sections of a beach may be temporarily cleared of people during beach operating hours in order to clean-up newly stranded materials without closing the entire beach.</td>
<td>Beach Operator</td>
</tr>
<tr>
<td>3. If any of the medical waste has identifying markings or contains blood, the NYSDEC or its equivalent in NJ and CT should be called and the material held for pick-up by one of their officers.</td>
<td>Beach Operator</td>
</tr>
<tr>
<td>4. Medical wastes without identifying</td>
<td>Beach Operator</td>
</tr>
</tbody>
</table>
marks should be stored in the proper containers and brought to designated local health centers for proper disposal. In CT, they should be brought to the local Director of Health for disposal, while in NJ they should be turned over to the police department, which will then turn them over to NJDCJ for proper disposal.

5. If an extensive quantity of medical waste is found either on the beach or in the water or both, the beach should be closed and, in New York, the local health department called. In CT, CTDOH should be notified while in NJ, NJDEP should be notified.

6. Upon closing of a beach, the materials should first be documented (photographed) prior to collection. They should then be retained for further examination and scientific analysis. The measures taken to document the closing of a beach because of floatables will be used to monitor the effectiveness of the clean-up actions and to identify potential sources of problems.

7. Whenever wastes are found, regardless of quantity or character, the items are to be logged by the beach operator as they are received, indicating the type, quantity, condition (fresh, weathered, etc.), and date. These data are to be supplied to county DOHs and to NYSDEC on at least a monthly basis. These data are essential to document changing conditions of beaches over time and to assess floatable management strategies. In addition, if large quantities of medical-type waste are found, the BIN should be called. In New Jersey, beach operators must report every syringe found to the NJDCJ.

8. In the event that an individual comes into accidental physical contact with medical wastes, the beach operator should advise
the person to wash the exposed area of the body with soap and water. In the event of a laceration or puncture wound, the beach operator should advise the injured individual to wash the area with soap and water and seek medical attention. All medical-type waste items involved in these incidents should be collected and turned over to the local health department. The injured individual's physician may then contact the local DOH for information. A complete report containing all relevant information should be filed with the local DOH. The BIN should also be notified. In NJ, the local DOH should contact the injured individual for follow-up. In CT, the beach operator should simply administer appropriate first aid and not advise the injured party in any way.

B. When Sewage-Related Artifacts are Reported

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>1. Sewage-related artifacts should be cleaned up following routine cleaning procedures.</td>
<td>Beach Operator and Staff</td>
</tr>
<tr>
<td>2. If an unusual abundance of sewage-related artifacts is found, the local DOH should be notified. It is the responsibility of the local DOH to determine what actions are required. A determination should be made whether there are any known sewage treatment plant failures that are responsible for the problem.</td>
<td>Beach Operator and DOH Personnel</td>
</tr>
<tr>
<td>3. All unusual occurrences of sewage-related artifacts should be reported to the BIN, rather than NYSDEC, as should all information on sewage treatment plant breakdowns.</td>
<td>Beach Operator and Sewage Treatment Plant Operators</td>
</tr>
<tr>
<td>4. In the event raw sewage is believed to have been sighted, the local DOH should be called. Additionally, if the sighting occurs in NY, the Waste Management Institute at SUNY Stony</td>
<td>Beach Operator, DOH Personnel and WMI Team</td>
</tr>
</tbody>
</table>
Brook is willing to assist.

C. Opening a Closed Beach

**ACTION**

- Once closed, the beach can/should be reopened when clean-up of all floatables has been completed. No medical floatables should be present in the water, the beach must be clean, and water quality must have returned to acceptable levels (if water quality samples were mandated on closing of the beach).

**RESPONSIBILITY**

DOH Personnel and Beach Operator
**Actions Already Initiated**

1. Proper handling and disposal criteria for medical wastes have been developed by NYSDEC, NYSDOH and NYSOPRHP in conjunction with the Westchester, Nassau, and Suffolk County Health Departments. NJDOH and the CTDOH have also developed medical waste handling and disposal criteria.

2. NY, NJ, and CT Departments of Health have all established criteria which beach operators are to follow when determining whether or not to close a beach. The criteria which we have established in this plan is more explicit than those developed by the NYSDOH. We feel it is in the best interests of the beach operators to be as explicit as possible when establishing beach closure criteria.

3. NYSOPRHP has established a Beach Information Network (BIN). Beach Operators will be able to telephone the BIN in order to report occurrences of medically-related floatable wastes, unusual floatable events, and other floatable-related occurrences (e.g. injury). Beach operators may also phone the BIN to obtain information on conditions occurring at other beaches and offshore.

4. NYSOPRHP, NYSDEC, and NYSDOH jointly prepared a guidance document to be followed by beach operators when dealing with medically-related floatable wastes. This document includes descriptions of actual medical waste items, descriptions of objects commonly mistaken as medically-related wastes, procedures for handling and disposal of medical wastes, procedures to be followed if exposure occurs and the phone numbers of agencies to be contacted. Another similar document has been prepared by these agencies for distribution to the general public.

5. NYSOPRHP, in conjunction with NYSDEC and NYSDOH, sponsored three beach operators' meetings. All operators of regional and private beaches were invited to attend. At this workshop they explored how to best implement the guidance contained in the documents prepared by NYSDOH, NYSDEC and NYSOPRHP.

6. Nassau County Department of Health (NCDOH) and Suffolk County Department of Health (SCDOCH) are providing puncture-proof containers to beach operators to be used for storing sharps, vials and syringes with or without needles. Both NCDOH and SCDOCH have arranged for collection of these containers and subsequent proper disposal.
Recommendations

1. NYSDEC should prepare an annual summary report on the condition of the region's beaches from an analysis of the data collected by the BIN. This report should be finalized and available for distribution to beach operators, agency personnel, the scientific community, and the public by October 31 each year.

2. Meteorological conditions should be monitored to alert decision makers to potential problems. As there is not enough time for any agency to organize this initiative this year, the Waste Management Institute will take on this task for the 1989 beach season.

3. Although the USEPA's Floatables Action Plan includes the utilization of NOAA's computer models to forecast the general direction of movement of any offshore slick and to identify areas at risk, these models cannot predict precise landfalls. It is recommended that these predictions, as well as the predictions regarding possible stranding sites, be reported with extreme caution to the appropriate beach operator. An erroneous prediction could have negative economic consequences for the affected region.

4. A scientific response and information team should be established as a central clearinghouse for information and emergency consulting in the event of a beach crisis (e.g., identification of questionable materials, such as whether substances are sewage or simply a plankton bloom). As there is not enough time for any agency to organize this for the summer of 1989, the WMI will take on this role for the coming summer. It will serve in this capacity only for this summer.

5. Federal and private beaches (e.g., beach associations and clubs) on Long Island should follow the same procedures and protocol as the state and local beaches, including participating in the BIN.

6. If unusual quantities of floatable wastes are found in other than designated beach areas, the local DOH should be contacted.

7. The most recent guidance documents prepared by NYSOPRHP, NYSDEC and NYSDOH should be mailed to beach operators along with their yearly permit applications. This should occur early in the spring well before the opening of the beach season.

8. NY, NJ, and CT should each establish a network for cooperation (e.g., exchange of ideas, problem solving, education) among beach operators of federal, state, city, town, and private beaches within their states.
9. In NYS, the OPRHP should sponsor an annual year-end beach operators meeting wherein beach operators might exchange ideas and information and develop strategies for improving beach management the following year.

10. It is recommended that Departments of Health in Westchester County, New York City and of other municipalities establish collection and disposal procedures for medical-type wastes similar to those established by NCDOH and SCDOH.

11. Greater attention must be directed at ensuring that sewage treatment plants operate at design standards. This will require greater support for personnel and for back-up systems, including pumps and power supplies. This investment will have a greater benefit than a comparable investment to upgrade treatment.
SECTION 2. CLEAN-UP OF STRANDED FLOATABLE DEBRIS IN BACK BAY AREAS

Many of the floatable wastes entering coastal waters in the Greater New York Metropolitan Area are not immediately transported to the open waters of the New York Bight. Much of the material initially strands along the shorelines of the region's back bay areas. During high tides and storm events, this material is refloated and flushed out into open waters. This problem is particularly acute in the back bay areas of New York Harbor, although it also occurs in the sheltered harbors and bays of Long Island Sound and the south shore of Long Island. Material in many of these areas has been accumulating for years and ranges from huge tree trunks to tires to paper cups to sewage-related artifacts. In a recent clean-up effort along the coastline of New Jersey, the NJDEP reported a total of 4.3 million pounds of floatable wastes were collected. Only 4 pounds of this collected material (.0001%) was identified as medical-type waste, while 98% of it consisted of large pieces of wood. This section of the Plan focuses on reducing or eliminating this large proximate source of floatables.

**ACTIONS REQUIRED**

<table>
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<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>1. Prior to the opening of the beach season, cleanups of back bay areas should be conducted. Areas likely to contribute significant volumes of floatables to open waters should be cleaned first.</td>
<td>State and Local Governments</td>
</tr>
<tr>
<td>2. A training course on the identification and proper handling of medical wastes should be organized for individuals involved in the clean-up of back bay areas.</td>
<td>USEPA, NYSDOH and Other Agencies</td>
</tr>
<tr>
<td>3. Given the huge volume and varied character of stranded floatables in back bays, explicit disposal plans, including alternatives to landfilling, should be developed for these materials.</td>
<td>NYSDOH, NYSDEC, and Local Governments</td>
</tr>
</tbody>
</table>
Actions Already Initiated

1. New York City and New Jersey have initiated a pilot program utilizing prisoner labor to perform routine clean-ups of beaches and back bay areas.

2. Four hundred volunteers recently participated in a Huntington effort that removed tons of waste from 70 miles of shoreline. The program is expected to be repeated.

3. The USEPA has initiated a training course on the proper identification and handling of medical wastes by persons involved on the NY/NJ Harbor clean-up project.

Recommendations

1. Local governments should expand or initiate pilot programs like those of New York City and New Jersey to clean up back bay areas prior to the opening of the beach season. Where possible, maximum use should be made of volunteers, prisoner labor, etc.

2. State health agencies should develop and implement training programs designed to instruct those involved in back bay clean-ups in the identification and proper handling of medical wastes and other floatables. It is also recommended that the USEPA's training course be expanded to include those involved in back bay clean-ups.

3. State health agencies should develop a simple pictorial guide describing the proper identification and handling of medical wastes for use in these training programs.

4. Local governments and state health and environmental agencies should formulate collection and disposal plans to accommodate the nature and volume of the floatable material collected.
SECTION 3. RESPONSE TO FLOATABLES NEAR ENTRY POINTS

The following section of the Plan has been developed to remove floatables near their point of entry into the waters of the New York/New Jersey region. Much of the floatable waste stream is introduced into the marine environment through mishandling at transfer stations, during transport to landfills, and at landfills, through storm sewer discharge, and as part of the effluent released through combined sewer overflows. It is important that floatable materials from these sources be controlled, contained, and removed from the marine environment as close to their entry points as possible in order to alleviate the problem of floatable wash-ups on our region's beaches.

ACTIONS TO BE TAKEN

<table>
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<tr>
<th>ACTION</th>
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<tbody>
<tr>
<td>1. Expansion and refinement of the system of containment booms and nets deployed around marine transfer stations, in the waters near the Fresh Kills landfill, and around garbage barges during loading and unloading and nets placed over barges during transport should be undertaken.</td>
<td>NYCDOS</td>
</tr>
<tr>
<td>2. Captured floatable materials should be routinely removed from booms and nets and properly disposed of on a more frequent basis.</td>
<td>NYCDOS</td>
</tr>
<tr>
<td>3. The construction of covered facilities for loading and unloading of garbage barges should be undertaken.</td>
<td>NYC Government, NYCDOS</td>
</tr>
<tr>
<td>4. Routine daily boat patrols of New York Harbor should be made to spot and clean up slicks of floatable debris that may be present in the Harbor. Such patrols should be in daily contact with helicopter surveillance personnel.</td>
<td>USACE, USCG, USEPA, NJDEP, NYSDEC, NYCDOS</td>
</tr>
<tr>
<td>5. Helicopter surveillance of all New York-New</td>
<td>USCG, USEPA,</td>
</tr>
</tbody>
</table>
Jersey harbor and nearshore waters of the New York bight should be undertaken. Any slicks spotted will be reported to the BIN.

Actions Already Initiated

1. The USACE, USCG, USEPA, NJDEP, NYSDEC, and the NYCDOS are all involved in a Floatables Action Plan that began on May 15th, 1989 and will run through September 15th, 1989 (see Appendix 1). This plan, part of the New York Bight Restoration Plan, includes regularly scheduled clean-ups of floatable materials from the waters at Verrazano Narrows and Arthur Kill during spring tides (immediately before, during, and after) and after major storm events. The USACE is conducting regular clean-ups utilizing specially designed nets (1 3/4") provided by the states of New York and New Jersey. Non-routine clean-ups of slicks within the NY/NJ Harbor complex are also being carried out by the USACE and fishing vessels under contract to NJDEP. All captured materials are loaded onto NYCDOS barges and brought, eventually, to the Fresh Kills landfill. Helicopter patrols are surveying the waters outside of the Inner Harbor and noting the presence of any floatable slicks. A computer model developed by NOAA is being utilized to predict the movement of such slicks and their stranding sites, if any.

2. The NYCDOS has made improvements in its containment booms, net systems and barge transfer operations.

3. The NJ state police purchased 26 new boats and hired 75 new troopers to patrol the coastline.
Recommendations

1. It is recommended that the frequency of routine cleaning and maintenance of the booms and nets at Fresh Kills landfill and other sites around New Jersey/New York Harbor be increased.

2. Although the NYCDOS has taken steps to improve operations at the Fresh Kills landfill and during garbage barge transfers (e.g., purchasing new vehicles, emplacement of hydraulic booms, and covering barges with nets), these measures are not adequate to address the problem. It is recommended that covered loading and unloading facilities be constructed and utilized during garbage barge operations.

3. It is recommended that alternative disposal methods to landfilling for floatables (e.g. incineration) be implemented in the near future. Carrying the collected floatable materials back to the marine transfer stations ensures that a portion of this debris will return, once again, to the marine environment.
SECTION 4. PREVENTING FLOATABLES FROM REACHING THE MARINE ENVIRONMENT

This section specifies activities that can be undertaken primarily by operating agencies at all levels of government to reduce the quantity of floatables reaching the marine environment and to reduce the volume of garbage and trash being discarded directly on beaches. In some cases legislation will be required to increase funding levels and/or to tighten existing regulations.

**ACTIONS REQUIRED**

<table>
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<tr>
<th>ACTION</th>
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<tbody>
<tr>
<td>1. Streets should be cleaned more frequently, particularly just prior to and during the summer beach season.</td>
<td>All municipalities, especially those that have CSOs and/or storm sewers whose effluent reaches coastal waters and their tributaries</td>
</tr>
<tr>
<td>2. CSOs and storm sewers should be flushed and wastes collected at discharge points prior to the opening of the beach season. This has been shown to be effective in Cape May County, NJ.</td>
<td>Small municipalities especially those coastal communities along the eastern seaboard that have CSOs and/or storm sewers</td>
</tr>
<tr>
<td>3. The operating efficiencies of sewage treatment plants and the regulators in the CSOs should be improved in order to reduce the volume of floatables entering marine waters. This may mean increasing operation and maintenance budgets.</td>
<td>Legislative oversight bodies, Federal and State permitting authorities, and municipalities</td>
</tr>
<tr>
<td>4. Back-up generators should be provided for all sewage treatment plants in order to ensure primary treatment during power outages. More of the required energy supply may be captured from methane generation.</td>
<td>Federal, State, County, City, and Town Parks and Recreation Departments</td>
</tr>
</tbody>
</table>
5. Surveillance should be strengthened at marine transfer stations and at Fresh Kills landfill to ensure proper loading of garbage barges including covering of full barges with nets.

6. Direct untreated CSO discharges should be eliminated.

7. The number of trash containers available at all marine facilities (e.g. public marinas and beaches) should be increased, as well as the frequency at which these containers are emptied. Monitoring of such actions by supervisory personnel should be increased.

8. The terms of permits for private beach facilities providing service to the public should be reviewed and upgraded if necessary, and surveillance should be increased. Private beaches should adhere to the same criteria and standards as state and federal beaches.

9. Incentive programs to encourage public participation in keeping beaches and parking areas clean should be implemented.

10. The quantity of floatable materials inappropriately disposed in toilets should be reduced. Educational efforts should be expanded to prevent introduction of tampon applicators and syringes into the sewage system, including the revision of manufacturers' instructions to include proper disposal.

Legislative oversight bodies, federal and state permitting authorities, the ISC and other regulating agencies

Federal, state, county, city, and town parks and recreation departments

Federal, state, county, city, and town permitting authorities

Federal, state, county, city, and town parks and recreation departments

USEPA, NYSDEC and WMI working together with plastics manufacturers and medical supply companies

NYSDEC, NYCDOS
Actions Already Initiated

1. Some New Jersey coastal communities have implemented the flushing of storm sewers.

2. NYCDOS has increased surveillance at the Fresh Kills landfill.

3. Some New Jersey coastal communities are working with local businesses to develop incentive programs.

4. USEPA is currently negotiating with a public relations agency to create a national advertising campaign to discourage improper disposal of medical wastes.

5. The Marine Plastic Pollution Research Control Act of 1987, as well as Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL), which went into effect in 1988, prohibits dumping of plastics anywhere in the world oceans. Commercial ships are not allowed to discard garbage in the ocean within twelve nautical miles of the shore. The USCG is responsible for enforcement of these acts.

Recommendations

1. Industry/government partnerships might be effective whereby a free soft drink is provided for properly disposing of waste. At public beaches a free day's parking (NY) or a free day's beach pass (NJ) might be provided.

2. It is recommended that funding to the USCG be increased so they can effectively enforce MARPOL.

3. The federal government, health and hospital agencies and the medical products industry should jointly explore the feasibility and usefulness of placing serial numbers on syringes when they are produced.

SECTION 5. REDUCING THE WASTE STREAM

Society must be assiduous in its efforts to reduce the total waste stream through source reduction and recycling and to simplify the chemical composition of the waste stream through recycling, through fundamental changes in the character of the waste stream and through control of contamination at its source. Significant reduction in the municipal solid waste stream will be achieved only through major initiatives in source reduction and recycling. These initiatives should be accompanied by other initiatives to significantly reduce the amounts of contaminants of concern in that fraction of the waste stream requiring disposal. All of these strategies must be mandated and compliance must be rooted in significant economic incentives and disincentives.

The arguments for reducing and for simplifying the municipal solid waste stream are manifold and compelling. The benefits are environmental and economic: conservation of energy and of valuable and finite natural resources; protection of human health, the environment and living resources; and significant economic savings. In the context of this report it should be pointed out that a reduction in the municipal solid waste stream would reduce the inventory of floatables in the environment and therefore the probability of strandings of significant amounts of floatables on our beaches. The effort that will be required should not be underestimated. It will require a significant change in lifestyle.

Failure to bring the municipal solid waste stream under control in this region, and in other major metropolitan coastal regions, will cause increasingly undesirable environmental and economic perturbations. If municipal solid wastes and medical wastes are to be managed effectively on Long Island and in the metropolitan New York City area, solutions must be developed that can be exercised within the region and at acceptable costs. If solutions are not developed that meet these two criteria, we should expect to see an increase in illegal dumping, particularly of medical wastes. Getting tough is necessary, but not sufficient. We also need to get smart. We need to provide individuals and organizations disposal options that are convenient and affordable.
A BRIEF SYNOPSIS OF SOME ASPECTS OF THE REGIONAL MUNICIPAL SOLID WASTE PROBLEM

Since 1960, the total municipal solid waste stream of Long Island and the metropolitan New York City area has increased by 80%. It is predicted to increase by an additional 20% by the year 2000. The character of the waste stream has also changed. The percentages of plastics and paper have increased as well as the amounts of toxic and hazardous wastes.

The percentage of plastics in the nation's municipal solid waste stream more than doubled between 1970 and 1984 (from 2.7 to 7.2 %) and is expected to more than triple -- relative to 1970 -- by the year 2000. At that time, it is predicted that plastics will account for nearly 10% by weight of the total waste stream. In absolute weight this corresponds to an increase from 3 million tons nation-wide in 1970 to 9.6 million tons in 1984 to a projected 15 million tons of plastics by the year 2000. Each individual in the U.S. generated approximately 200 pounds of plastic waste in 1988, approximately 30% of which was packaging.

The big increase in plastic wastes is primarily from throw-away, single-use items. For example, in 1987, there were about 16 billion disposable diapers and 1.6 billion disposable pens used in the United States (Worldwatch Institute, 1987). Styrofoam cups and clamshell containers also are important components.

Another significant change in the waste stream is the increase in paper, which rose from 33% by weight in 1970 to 37% in 1980 and is projected to exceed 40% of the municipal solid waste stream by the year 2000.

Long Island. Long Island has the dubious distinction of leading the world in the per capita production of garbage and trash -- nearly 7 pounds per person per day. The Long Island Landfill Law of 1990 mandates that on 18 December 1990 all landfilling of garbage and trash within the deep recharge area shall cease, that landfilling of garbage and trash outside the deep recharge area shall be restricted to existing landfills, and shall cease when these landfills reach capacity. For all intents and purposes, Long Island -- Nassau and Suffolk Counties -- will be without landfills in about one and one-half years.

The two counties that make up Long Island have a population of about 2.6 million and produce about 2.6 million tons of garbage and trash each year. Even if the State's goal of reducing the solid waste stream by 50% by 1997 through source reduction and recycling is met, the two counties will have to dispose of more than 1.0 million tons of garbage and trash every year. Most will probably be incinerated.

New York City. The situation for New York City is little better. The City has only one landfill remaining -- Fresh Kills Landfill on Staten Island. With an area of about 3000 acres, it is the largest landfill in the world. While the largest, it is nearing capacity. Its remaining lifetime is less than 15 years. When it reaches capacity, it will be the highest elevation along the east coast of the United States from Florida to Mt. Desert, Maine -- over 500 feet in elevation.

Medical Waste. The situation for medical waste is comparable. While the amount of medical waste is small relative to the amount of garbage and trash, its disposal is even more problematic. Long Island and the metropolitan New York area generates almost 50,000 tons of infectious medical waste every year. Disposal costs range from about $0.50 to $1.00 per pound.
ACTIONS REQUIRED

1. Every possible effort should be made to reduce the municipal solid waste stream through source reduction and recycling. These two activities should be integral components of every municipal solid waste management plan. Goals should be ambitious but realistic. The New York State goal of 50% by 1997 meets these criteria.

Coastal states should initiate the legislative effort, led by NY, NJ and CT.

Industry

2. Approximately 50% of the U.S. municipal solid waste stream is packaging of one kind or another. Packaging reform will require legislation at the national level. Industry should demonstrate leadership in packaging reform.

3. Even with major and successful source reduction and recycling initiatives, the region will have significant amounts of solid waste that will require disposal. Disposal options should be developed within the region in a timely manner to avoid environmental and economic perturbations. On Long Island the landfilling option has been eliminated.

While primary responsibility rests with the towns, the counties and state should exert greater leadership

4. Disposal options for medical wastes should be developed in a timely way within the region; they must be options that are acceptable from the perspectives of human health, the environment and the economy. If options are not available at affordable costs, we should expect to see an increase in illegal disposal activities and an increased incidence of medical wastes on the region's beaches.

While primary responsibility rests with the towns, the counties and state should exert greater leadership
Actions Already Initiated

1. New York State has set a goal of reducing the waste stream by 50% through source reduction (10%) and recycling (40%) by the year 1997.

2. All of Long Island's towns have in place or in advanced planning stages recycling programs to meet the State mandate.

3. New York City has set a recycling goal of 25% by 1991.

4. New Jersey has set a recycling goal of 25% by 1991.

5. New York and Connecticut have bottle bills; New Jersey does not.

Recommendations

1. The counties and particularly the state must exert greater leadership if recycling programs are to be sustained. There are key roles they must play, for example, in the identification and stabilization of markets for recyclables and the purchase of materials made from recycled goods.

2. The design and construction of incinerators should be pursued on a regional basis to ensure that the total capacity is adequate to meet the region's needs while not reducing incentives for recycling.

3. New York, New Jersey and Connecticut should establish a regional waste management commission to promote collaboration and cooperation among the three states on regional waste management issues.

4. Existing beverage container deposits should be increased to at least $0.25 per container to promote recycling. Beverage container deposit programs should be extended to cover all beverages. Deposit programs should be implemented for batteries of all kinds, tires and other appropriate recyclable materials. New Jersey should enact a bottle bill.
SECTION 6. EDUCATION

There is a need for both short- and long-term educational programs dealing with floatables issues. These programs should involve government and educational institutions at all levels, environmental and other public interest groups, business, and industry. Different and distinctive programs should be developed and targeted at all levels from K-12, at the college level and at adult learners. The programs should range from formal programs in the schools to radio and television spots using well-known personalities as presenters. A major recurrent theme should be the importance of individuals in contributing to and in solving the floatables problem.

ACTIONS REQUIRED

ACTION

RESPONSIBILITY

A. Public Outreach

1. Trained groups of specialists should be developed to talk to school groups and to adults.

CT, NJ,* and NY Sea Grant and Local Universities

2. Public forums on beach processes and pollution should be convened throughout the summer at different locations.

CT, NJ,* and NY Sea Grant; NJDEP, NYSDEC, and Local Universities

3. Signs should be posted at beaches describing beach clean-up procedures and what people can do to help reduce the problem (e.g. reducing the volume of wastes through source reduction and recycling, proper disposal of wastes at the beach, etc.).

County, City and Town Departments of Parks and Recreation; CT, NJ and NY Sea Grant

4. One-page flyers should be produced and distributed to hotels, motels, beaches, doctors' offices, etc. These should clarify the public health and safety risks

NJ,* NY and CT Sea Grant, NJDEP, NYSDEC, NYSDOH, and Local Universities

*The New Jersey Marine Sciences Consortium (NJMSC) is the Sea Grant Administrator for New Jersey.
associated with contact with floatable wastes at the region's beaches.

5. A series of regularly scheduled clean-up days should be organized.
6. Beach Environmental Awareness Days (BEAD) should be organized and promoted.
7. A one-page flyer should be provided to beach goers describing the best types of packaged goods to bring to the beach and how to dispose of them properly. The emphasis should be on food and drink containers.
8. Marina operators and U.S. Coast Guard auxiliary personnel and power squadron course participants should be provided with a one-page flyer describing how recreational boaters contribute to the floatables problem and what they can do to help alleviate the problem. This flyer should complement the NYSDEC flyers ("Stow It, Don't Throw It" and "If You See It, Report It").
9. Graphic displays on what the public can do to alleviate the floatables problem should be prepared and placed in public libraries.

B. Institutional Outreach

1. A concise curriculum module should be developed dealing with the full range of municipal solid waste problems including floatables

NJDEP, NYSDEC, NYSOPRHP, Public Interest Groups
NYSDEC,
NYSOPRHP
NY Sea Grant,
NYSDEC, MSRC
CT, NJ* and NY Sea Grant, CTDEP, NJDEP, NYSDEC, NYSOPRHP, and Local Universities
CT, NJ* and NY Sea Grant; CTDEP, NJDEP, NYSDEC, MSRC
School Districts, NJMSC
and ways to reduce the problems.

2. Panels of experts should address professional associations of elementary and secondary school educators on the problems of municipal solid wastes, including floatables, and the kinds of solutions needed.

3. Large corporations (e.g. Westinghouse) which present assembly programs in schools on such topics as energy and the environment should be encouraged to develop or sponsor similar programs on solid waste management, recycling and floatables.

4. A nation-wide network of organizations in coastal states, (e.g., academic, public interest, governmental, etc.) committed to resolving the problem of floatables in the nation's waters should be developed. The purposes of the network should be to share data and information and to promote programs and, when appropriate, legislation to alleviate the causes of the problems of floatables.
Actions Already Initiated

1. Stony Brook's MSRC will form a group immediately to respond to requests for presentations on floatables by professional groups or educators and other organizations over the next year. Presentations will be free; only travel costs will be charged. MSRC will provide free training and materials to other groups of presenters.

2. MSRC will convene at least three public forums during the summer of 1989. Other State, County and local organizations will be invited to cosponsor these events.

3. MSRC has produced a flyer on floatables that will be made available for reproduction and distribution by interested groups.

4. NYSDEC organized beach clean-up days in 1987 and 1988 and has already planned for 1989. In addition, certain areas are in the Adopt-A-Beach program and are cleaned several times a year. CT and NJ have similar beach clean-up programs.

5. During the summer of 1989, MSRC will design a prototype graphic display on what the public can do to alleviate the floatables problem.

6. MSRC will prepare a proposal to work with major corporations to produce and sponsor school environmental and solid waste management presentations.

7. MSRC will prepare an initial list of organizations in the Northeast U.S. concerned with the floatables problem that could constitute a prototype network and will attempt to work through the National Governors Association to expand the network and to convene a meeting at the next annual meeting of the Coastal Society.

8. New York State Marine Educators Association (NYSMEA) held a plenary session on floatable waste at its June conference, at which representatives of USEPA, NYSDEC and SCDOH spoke.

9. The Center for Marine Conservation (Washington, D.C.) has established a national communications network focused on the impact of floatable debris on living marine organisms.

10. The New Jersey Marine Sciences Consortium has a thousand square foot "museum" of coastal phenomena which serves as a classroom for teaching groups about the marine environment.
Recommendations

1. It is recommended that more Beach Environmental Awareness Days (BEAD) be organized. OPRHP sponsored a BEAD on May 20, 1989. The potential for other similar events throughout the summer should be investigated.

2. It is recommended that educational modules on municipal solid waste should be suitable for use at different levels. For kindergarten and early elementary school grades, a coloring book might be useful.

3. It is recommended that towns investigate joining the nationwide "Keep America Beautiful" organization.

4. The Center for Marine Conservation's network should be expanded to include all aspects of the floatables problem (trash, garbage, sewage-related materials, and medical-type wastes).

Some Relevant Educational Materials Currently Available

a. **Floatable Wastes and the Region's Beaches: Answers to Some Common Questions** A question and answer book prepared by MSRC

b. A one-page flyer on Floatables and Beach Debris prepared by MSRC

Single copies of the above are free and may be obtained from:

Marine Sciences Research Center  
State University of New York at Stony Brook  
Stony Brook, New York 11794 - 5000  
Attn: Publications Office

c. NOAA/New Jersey Sea Grant Films on Floatables  
   "The Great Garbage Chase" (K-8)  
   "If Fish Could Talk" (9-12)

Contacts: Cornell Cooperative Extension of Suffolk County  
246 Griffing Avenue  
Riverhead, N.Y. 11901 or

New Jersey Marine Sciences Consortium  
Sandy Hook Field Station, Building 22  
Fort Hancock, N.J. 07732

d. NYSDEC one-page flyers, "If You See It, Report It" and tip sheets "Don't Mess with Our Beaches" and "Stow It, Don't Throw It."
e. **Plastics in the Ocean: What are we doing to clean it up?** (X. Augerot, 1988) Background, references and educational resources
   Contact: Washington Sea Grant
   Seattle, WA. 98115

   Contact: Center for Environmental Education
   1725 DeSales Street N.W.
   Washington, D.C. 20036
   (202) 429-5609

g. **Floatable Debris -- Connecticut and New York Sea Grant Extension Program Fact Sheet #8**
   Contact: CT Sea Grant Marine Advisory Program
   43 Maine Street
   Hamden, CT 06514
   (203) 789-7865 or
   New York Sea Grant Extension Program

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**Sources of Additional Educational Materials**

1. Connecticut Sea Grant Program
   Marine Sciences Institute
   University of Connecticut
   Avery Point
   Groton, Ct. 06340
   (203) 445-5108

2. New Jersey Sea Grant
   NJ Marine Sciences Consortium
   Sandy Hook Field Station, Bldg. 22
   Fort Hancock, N.J. 07732
   (201) 872-1300

3. New York Sea Grant Institute
   Duchess Hall
   SUNY Stony Brook
   Stony Brook, N.Y. 11794-5000
   (516) 632-8737

4. National Sea Grant
   College Program Office
   6010 Executive Boulevard
   Rockville, MD 20852
   (301) 443-8923

5. Center for Environmental Education
   1725 DeSales Street NW
   Washington, D.C. 20036
   (202) 429-5609

6. NOAA/National Marine Fisheries Service
   Marine Entanglement Research Pgm.
   7600 Sand Point Way
   BIN C15 700
   Seattle, WA 98115
   (206) 526-4009

7. Marine Mammal Commission
   1625 Eye Street N.W.
   Washington, D.C. 20006
   (202) 653-6237
SECTION 7. FLOATABLE WASTES AND THE MEDIA

Much has been said about media coverage of the floatable waste washups on area beaches in 1987 and 1988. This extensive coverage exerted a powerful influence on the public's perception of the nature and origins of floatable wastes, as well as the public health and safety risks associated with washup events. It is certain that the media will follow closely and scrutinize the impact of floatable wastes on regional shorelines during the 1989 beach season. This section focuses on enhancing the role of the print and electronic media as sources of informed, accurate information to the public about floatable wastes. Just as there is a need for officials in agencies at all levels of government to communicate effectively and share all available information on floatables, floatable events, and the human health or safety risk they present, each agency and beach operator should take steps that will ensure consistency and clarity in contacts with the media about floatable events.

**ACTIONS REQUIRED**

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>1. Prepare a comprehensive directory of beach operators and contact persons in cognizant local, state and federal agencies for floatable events. Distribute.</td>
<td>NYSDOH, WMI</td>
</tr>
<tr>
<td>2. For all major floatable washups, prepare fact sheets for use by media. Fact sheets should include location of wash-up, description of material, response(s) taken, name and telephone number of contact person.</td>
<td>Beach Operator, NYSOPRHP (BIN)</td>
</tr>
<tr>
<td>3. Disseminate (FAX) fact sheets on floatable events to the two State hotline numbers immediately and to all subscribers as soon as possible.</td>
<td>Beach Operators, NYSOPRHP</td>
</tr>
<tr>
<td>4. Develop public service announcements promoting the high quality of the beaches in the tri-state region.</td>
<td>NYSDED, NJ Tourism Bureau</td>
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<tr>
<td>5. When a beach experiences a floatable event, the beach operator is responsible for keeping his...</td>
<td>Beach Operator</td>
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staff appropriately informed. Each beach operator should have a procedure for dealing with the media about floatable events.

6. Establish a scientific information source base for media inquiries.

MSRC, WMI, NY Sea Grant

Activities Already Initiated

1. NYSDED Division of Tourism has established a toll-free consumer tourist information telephone number, 1-800-CALL-NYS, whose service included daily updates on beaches. The number is being publicized through a public service advertising campaign. The NJ Tourism Commission has a tourist information telephone number, 609-648-SAND.

2. NYSDED has created a Long Island Beach Speakers Bureau to respond to the press on issues relating to Long Island beaches.

3. The NJ Tourism Commission has begun an advertising campaign to reassure beachgoers and promote beach use.

Recommendations

The offices serving the NJ and NY tourist information telephone lines should have fax machines to receive fact sheets regarding floatable events.
GLOSSARY

AIDS (Acquired Immune Deficiency Syndrome) A group of symptoms caused by the infection by a particular virus, the Human Immunodeficiency Virus (HIV).

Beach Operator The person appointed to oversee beach operations on site.

Biodegradable plastics One form of enhanced degradable plastics (the other form is photodegradable), using cornstarch or other material in the polymer matrix that microorganisms break down readily into smaller and smaller pieces of plastic. Photodegradable plastics rely on sunlight to break them down.

Blood vials Glass vials with caps used by medical personnel to hold samples of blood.

Climatology Meteorological conditions of a region, usually averaged over 30 years (in contrast to weather, which is the state of the atmosphere at a particular time).

Coliform bacteria Rod-shaped bacteria associated with the gut of mammals. These are the harmless bacteria that are counted in seawater to give an indication of the possible presence of human feces.

CSO (Combined Sewer Overflow) The excess volume of water reaching the sewage treatment plants, usually during storms, which is too large to go through treatment and thus flows directly into coastal marine waters. The cause of this problem is the outmoded sewage system found in the New York metropolitan region that combines septic and storm sewers.

Floatable wastes Any articles of garbage, trash, litter, and septic sewer wastes that float and do not readily break up—wood, tampon applicators, and plastic cups are all floatable wastes.
Freshet  A flood or overflowing of a river from heavy rains or melted snow.

Grease balls (Also called "fat balls")  Coagulation of animal and vegetable fats disposed of via kitchen sink waste water.

HIV  Human Immunodeficiency Virus, the virus responsible for causing AIDS.

Litter  Trash and debris thrown into streets and roads or left on beaches by people.

Marine transfer station (MTS)  A facility where garbage and trash collected by trucks is offloaded to barges for the purpose of transporting the wastes to the Fresh Kills landfill.

Medical waste  Any wastes that are generated from the care of patients, including non-infectious, infectious, chemical, radioactive, and general waste, such as from food service.

Medical Waste Tracking Act (MWTA)  A 10-state program mandated by the federal government requiring physicians, dentists, veterinarians, small clinics, laboratories and hospitals to keep detailed records that follow a particular medical waste from origin to disposal--much like bills of lading for cargo. New York, New Jersey and Connecticut are required to participate in this program for two years.

Meteorology  The science that deals with the atmosphere and atmospheric phenomena; the study of weather and climate.

New York Bight  The portion of the ocean extending over the continental shelf southeast of Montauk Point, New York and east of Cape May, New Jersey and along the northern New Jersey shore and Long Island shore.

Ocean dumping  Waste materials hauled to sea by vessels or barges for the express purpose of disposing of the wastes in the ocean.
Pathogens (pathogenic organisms)  Any microorganism or virus that can cause disease.

Raw sewage  Untreated sewage.

Red bag waste  Infectious medical waste from hospitals and other health care facilities, which has been put into red plastic bags to designate it as infectious. This waste is specially handled and disposed of.

Sewage sludge  The settled material in waste treatment settling tanks, comprised of roughly 95% water and 5% solid organic matter derived from waste water.

Sewage treatment plant  The facility at which putrescible matter is removed from waste water and disease-causing microorganisms destroyed. Floatable materials are also screened and removed.

Storm sewers  Conduits for transporting storm water to a receiving body of water.

Wash-up  The stranding of large amounts of floatable wastes on beaches.
APPENDIX
<table>
<thead>
<tr>
<th>Name</th>
<th>Person/Agency Representing</th>
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<tbody>
<tr>
<td>Robert Abel</td>
<td>New Jersey Marine Sciences Consortium</td>
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<tr>
<td>Aldo Andreoli</td>
<td>Suffolk County Department of Health</td>
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<tr>
<td>John Baker</td>
<td>Congressman James Scheuer</td>
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<tr>
<td>Russell Barnett</td>
<td>Town of Smithtown</td>
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<tr>
<td>Trudy Bell</td>
<td>Marine Sciences Research Center</td>
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<tr>
<td>Melissa Beristain</td>
<td>Sea Grant Extension</td>
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<tr>
<td>I. William Bianchi</td>
<td>Legislative Commission on LI Water Resource Needs</td>
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<tr>
<td>Allan Binder</td>
<td>Senator James Lack</td>
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<tr>
<td>James Blumenstock</td>
<td>New Jersey Department of Health</td>
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<tr>
<td>Elsa Brunn</td>
<td>Town of Islip</td>
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<td>Stuart Buckner</td>
<td>Town of Islip</td>
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<tr>
<td>Richard Caspe</td>
<td>U.S. Environmental Protection Agency, Region II</td>
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<tr>
<td>Sheila Charnon</td>
<td>Waste Management Institute</td>
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<td>Roma Connable</td>
<td>Congressman James Scheuer</td>
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<td>Dennis Corcoran</td>
<td>Town of Brookhaven</td>
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<td>M. Carmela Cuomo</td>
<td>Marine Sciences Research Center</td>
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<tr>
<td>Thomas Doheny</td>
<td>Town of Hempstead</td>
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<td>Jennifer Epp</td>
<td>Senator Owen Johnson</td>
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<tr>
<td>Bert Fisher</td>
<td>New York State Department of Environmental Protection</td>
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<tr>
<td>Eugenia Flatow</td>
<td>Coalition for the Bight</td>
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<tr>
<td>Ronald Foley</td>
<td>NYS Office Parks, Recreation and Historic Preservation</td>
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<tr>
<td>Joshua Peck</td>
<td>Senator Suzi Oppenheimer</td>
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<td>George Proios</td>
<td>Long Island Water Commission</td>
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<td>Kenneth Reeves</td>
<td>Town of Southold</td>
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<td>Antonia Rettaliata</td>
<td>Town of Huntington</td>
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<tr>
<td>Jack Rice</td>
<td>Suffolk County Legislator Michael O’Donohoe</td>
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<tr>
<td>David Rosenblatt</td>
<td>New Jersey Department of Environmental Protection</td>
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<tr>
<td>John Rowell</td>
<td>New York State Department of Sanitation</td>
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<tr>
<td>Robert Runyon</td>
<td>New Jersey Department of Environmental Protection</td>
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<td>Harold Ryan</td>
<td>New York State Department of Environmental Conservation</td>
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<tr>
<td>Jeri Schoof</td>
<td>Marine Sciences Research Center</td>
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<td>J. R. Schubel</td>
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<td>Valerie Scopez</td>
<td>Town of Southold</td>
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<td>Robert Smith</td>
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<td>Janice Spelling</td>
<td>State Senator Norman Levy</td>
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<td>William Stasiuk</td>
<td>New York State Department of Health</td>
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<tr>
<td>David Stern</td>
<td>New York State Commission, Long Island Water Resources</td>
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<tr>
<td>R. Lawrence Swanson</td>
<td>Waste Management Institute</td>
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<tr>
<td>Eric Swenson</td>
<td>Town of Oyster Bay</td>
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<tr>
<td>Edward Wagner</td>
<td>New York Department of Environmental Protection</td>
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<tr>
<td>Roberta Weisbrod</td>
<td>New York State Department Environmental Conservation</td>
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<td>D. Marc Wilson</td>
<td>Congressman Charles Bennett</td>
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<td>William Wise</td>
<td>Marine Sciences Research Center</td>
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<tr>
<td>Dean Ziegel</td>
<td>Rivkin, Radler, Dunne and Bayh</td>
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<tr>
<td>Linda Zubowski</td>
<td>New Jersey Travel and Tourism</td>
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GUIDELINES FOR BEACH OPERATORS

Last summer, medically related debris was found on several beaches in the Northeast. This debris included syringes (some with needles), blood vials, and other discarded medical supplies. In some cases, the source of the medical debris was identified as a medical care facility. In most instances, the source could not be identified. In addition to hospitals and doctors’ offices, potential sources include medical supplies (such as syringes) which might be used at home or on a boat, and syringes and needles involved in the illicit use of drugs.

There is no evidence that anyone became ill from contact with this medical debris. In fact, studies have shown that even the risk of a hospital worker developing an infectious disease from being stuck with a recently used needle or from handling medical waste is very small. It is highly unlikely that medical debris which washes ashore would be infectious. Exposure to temperature extremes, sunlight and salt water for days and possibly weeks at a time, would be expected to neutralize most, if not all, pathogenic agents. For example, the AIDS virus is very fragile outside the body and has not been shown to be transmitted by water. However, it is remotely possible that one or more of the hardiest pathogens, such as the Hepatitis virus, could survive in sealed specimens within debris, and that infection could result from improper handling or exposure to this material.

Recently, the New York State government has taken a number of steps to provide better control of the handling and disposal of waste from medical care facilities. These new regulations should help prevent the type of incidents we had last summer. However, depending on weather conditions and ocean currents, tons of debris including garbage is washed up on our beaches each year. While medical wastes make up a very small portion of this material, we know that some medical debris will wash up on our beaches again this summer. These few guidelines should help you to recognize medical debris and know what to do if you see it.
1. **Recognition** - The most common medical debris found on beaches last summer included the following items.

   a. **Blood Vials**, usually about 4 inches long, are glass test tubes with colored rubber stoppers.

   b. **Syringes**, and items that look like syringes, are available in many sizes. The most common is the disposable type, about the size of a pencil, used by diabetics to inject insulin or by IV drug users. Syringes may be found with or without needles.

   c. **Needles** also come in several sizes and may be covered with a protective cap.

   d. **Medical or Surgical Gloves**, usually green or white in color, are thinner and lighter than rubber gloves found in the home.

   e. Many other items may be confused with medical debris but do not represent a hazard. Last summer these included:

      - Bottle rockets - may look like small colored test tubes;
      - Cheenito Pop containers - clear plastic tubes, about 9 inches long and pinched in the middle;
      - Crack vials - smaller than blood vials (less than 1 inch long);
      - Dust masks - made of paper with rubber straps. Surgical masks are made of cloth and have cloth ties;
      - CYALUME (R) light sticks - plastic tubes filled with a yellow liquid; and
      - Q-Tips (R) or household safety swabs - usually about 4 inches long with stems made of plastic or paper. Swabs used by hospitals and clinics are longer and have stems made of wood.

2. **Initial Response** - If medical debris is found on the beach, the following steps should be taken to limit public contact, collect and store the debris (see Handling Medical Debris), and notify the local health and enforcement agencies (listing attached). Medical debris should be collected before beach cleaning equipment is used. If you discover items containing blood or with identifying information (names, code numbers, addresses, etc.) contact the appropriate DEC Regional Office.

   - If there is no medical debris present in the water and small amounts of medical debris (amounts that are considered "routine") are found on the beach, the debris should be collected and stored before the beach is opened.

   - If there is no medical debris present in the water but larger amounts of medical debris are found on the beach, effected portions of the beach should be cleared of bathers until the area can be cleaned up. The beach operator should consult the local health department to determine whether additional action is required. The Beach Information Network should be notified of changes in beach status.

   - If medical debris is present in the water and medical debris is found on the beach or expected to wash up on shore, the beach operator should close the beach and immediately notify the local health department. The beach should not be reopened without the consent of the local health department. The Beach Information Network should be notified of changes in beach status and water quality.

3. **Handling Medical Debris** - If proper precautions are followed, medical debris can be handled without endangering the health of the people involved.

   a. **Equipment** - Leather work gloves, plastic bags, and a sturdy, puncture-proof container (for sharps) should be available to anyone handling this debris. Disposable plastic gloves may also be useful.

   b. **Handling "sharps"** - Puncture wounds from needles or other sharp medical objects are the greatest potential danger. These objects should be picked up wearing leather work gloves and placed in puncture-proof containers.

   c. **Handling other medical debris** - If there are no "sharps" in the medical debris, leather work gloves (or disposable plastic gloves) can be used to pick up the debris and place it in plastic bags.

   d. **Other steps** - If disposable gloves were used, they should be washed with soap and water. If leather gloves become contaminated, they should be discarded or washed thoroughly with soap and water.

   e. Puncture-proof containers and plastic bags should be sealed and stored in a secure area until arrangements can be made for disposal. Beach operators should consult their waste hauler, the local municipality, the local health department and the DEC Regional Office to determine the options available in their area for collection and final disposal of medical debris.

   The chance of contracting an illness is very small, even with the most hazardous type of contact such as being stuck with a needle from a discarded syringe. If someone is stuck with a needle or other sharp medical object, they should wash the affected area with soap and water as soon as possible and see their physician for follow-up care.
PUBLIC GUIDELINES FOR MEDICAL DEBRIS

Last summer, medically related debris was found on several beaches in the Northeast. This debris included syringes (some with needles), blood vials, and other discarded medical supplies. In some cases, the source of the medical debris was identified as a medical care facility. In most instances, the source could not be identified. In addition to hospitals and doctors’ offices, potential sources include medical supplies (such as syringes) which might be used at home or on a boat, and syringes and needles involved in the illicit use of drugs.

There is no evidence that anyone became ill from contact with this medical debris. In fact, studies have shown that even the risk of a hospital worker developing an infectious disease from being stuck with a recently used needle or from handling medical waste is very small. It is highly unlikely that medical debris which washes ashore would be infectious. Exposure to temperature extremes, sunlight and salt water for days and possibly weeks at a time, would be expected to neutralize most, if not all, pathogenic agents. For example, the AIDS virus is very fragile outside the body and has not been shown to be transmitted by water. However, it is remotely possible that one or more of the hardiest pathogens, such as the Hepatitis virus, could survive in sealed specimens within debris, and that infection could result from improper handling or exposure to this material.

Recently, the New York State government has taken a number of steps to provide better control of the handling and disposal of waste from medical care facilities. These new regulations should help prevent the type of incidents we had last summer. However, depending on weather conditions and ocean currents, tons of debris including garbage is washed up on our beaches each year. While medical wastes make up a very small portion of this material, we know that some medical debris will wash up on our beaches again this summer. These few guidelines should help you to recognize medical debris and know what to do if you see it.
The most common medical debris found on beaches last summer included the following items:

a. Blood Vials, usually about 4 inches long, are glass test tubes with colored rubber stoppers.

b. Syringes, and items that look like syringes, are available in many sizes. The most common is the disposable type, about the size of a pencil, used by diabetics to inject insulin or by IV drug users. Syringes may be found with or without needles.

c. Needles also come in several sizes and may be covered with a protective cap.

d. Medical or Surgical Gloves, usually green or white in color, are thinner and lighter than rubber gloves found in the home.

e. Many other items may be confused with medical debris but do not represent a hazard. Last summer these included:
   - Bottle rockets - may look like small colored test tubes;
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   - CYALUME (R) light sticks - plastic tubes filled with a yellow liquid; and
   - Q-Tips (R) or household safety swabs - usually about 4 inches long with stems made of plastic or paper. Swabs used by hospitals and clinics are longer and have stems made of wood.

If someone encounters items on the beach that may be medical debris, they should avoid contact and immediately notify the beach operator or nearest lifeguard who will be prepared to collect the debris.

If someone comes in contact with what they believe is medical debris, they should notify the beach operator or lifeguard and wash the affected area with soap and water as soon as possible. The chance of developing an illness is very small, even with the most hazardous type of contact such as being stuck with a needle on a discarded syringe. If someone is injured by a needle or other sharp medical object, they should wash the affected area with soap and water as soon as possible and see their physician for follow-up care.
On March 17, 1989, beach operators and regulatory agents from a variety of jurisdictions met at Jones Beach State Park to discuss the activities that have taken place since last July's wash-ups and to talk about the beach information system which evolved from a meeting that took place in July 1988. This meeting also involved a review of draft guidelines developed by N.Y.S. DEC and the State Health Department.

BEACH INFORMATION SYSTEM
Ronald Foley
(N.Y.S. Dept of Parks, Recreation and Historic Preservation)

Any beach operator participating in the Beach Information Network will be able to contribute or extract information so it will be important to maintain the integrity of the system. The target date for this system to be ready is May 10th. The system will:

1) identify what is happening on neighboring beaches
2) allow us as beach operators to make informed decisions affecting the status of our beaches
3) furnish information on offshore conditions so knowledge of what is developing offshore is available.

Each beach operator will be assigned a code number and will be able to call in 24 hours a day, 7 days a week. Information will be put into the computer immediately and will be available to anyone with an access code. Accurate, first hand information from beach operators is crucial to the success of the system. (Joe Lescinski is arranging for a dedicated phone line.)

We do not need a daily report if nothing is happening, only if there is some significant change in the quality or operating status of the beach (e.g., if any debris, including medical debris, is washing up.) This information will be shared with other beach operators. This is not a public information or media information system.

Ron Foley then discussed the different forms that had been distributed, asked for questions or suggestions and responded as follows:

- each beach will be reported as a separate entity
- public and private beaches can be included in the system.
  Each beach operator is welcome to belong to the system. (Ron Foley will contact private N.Y.C. beaches and Westchester County.)
- where and how are reports to be made - phone number is on registration sheet; reports can also be faxed in but phone
call with authorizing code must precede fax.
- someone will be available 24 hours a day to take reports.
- with aerial surveillance, there will be advance notice of
slicks offshore. EPA will provide input to BIN system and
must be given phone number and code.)
- there will be ways of going out and assessing what is out
there. (Jones Beach, for example, will be able to do this
and put info into system.)
- aside from information system, we have spent 1 1/4 million
dollars to enable state beaches to clean up 6 times faster
than before. State owned equipment and operators will be
available for other jurisdictions provided a genuine
emergency exists and is formally declared. (Type of equipment
available: Barber Surf Rake, 4-wheel drive trucks, etc. Ron
Foley and Joe Lescinski will develop guidelines for this.)
- waste handling and disposal guidelines will be forthcoming by
DEC and Department of Health.

TOURISM

Janet Mackey (N.Y.S. Department of Economic Development)

Ms. Janet Mackey of the Department of Economic Development then
spoke about a State Tourism Information System which will be
available for public tourism information. (1-800-CALL NYS) The
system is currently available for ski reports; starting in May,
beach reports will be given along with information on activities and
other attractions on Long Island. This number will be publicized by
radio, TV, literature, handouts, etc. (200,000 calls are made to
that number each year.) There will be 5 lines, 3 in-state and 2 out
of state. A PR campaign will inform public that beaches are part of
the voice response system. The question was asked if only Long
Island would be part of system and not New Jersey, Westchester, NYC,
etc. The answer was that the capability was in the system for many
areas to report. The system will try to accentuate the positive,
not the negative. Beach operators will be expected to prepare and
phone in daily reports.

Ron Foley and Michelle Vennard will resolve where, by whom and how
reports will be prepared and entered.

HEALTH DEPARTMENT GUIDELINES

Dr. James Melius (N.Y.S. Health Department)

Dr. James Melius, NYS Dept. of Health, spoke next and addressed the
subject of guidelines to open and close beaches. He handed out two
sets of draft documents:

1) beach opening and closing guidelines dealing with medical
debris
2) Draft of public information on medical waste and guidelines for beach operators in dealing with medical waste.

The first document dealt with beach closings: trying to come to an agreement on what level of problem requires decisions on beach closings and the criteria for beach re-openings. An isolated finding does not warrant a beach closing but an assessment will be made.

During the question and answer period, Dr. Melius received many inquiries concerning the health aspect of medical waste and the procedures recommended regarding this. One gentleman stated that the feeling is that even though the beaches are clean, the water is not. Another operator asked if there had been any follow up on people that were hurt last year from contact with needles. The answer was that he knew of no one who became ill from last summer despite the fact that seven individuals within the N.Y.C. metropolitan area received puncture wound injuries from contacts with syringes on the beaches. There are two separate problems:

1) Public perception that this is a major health concern
2) Can someone get ill from stepping on a needle? (Very, very slight chance but there is no way to absolutely rule this out)

The questioning then turned to the need for laboratory tests on the relatively low number of items involved in injuries. Is the Department of Health prepared to do lab analysis on items that are suspect, either on vials or needles where there is concern? The answer is that this summer, they should be better able to handle and report laboratory investigation, etc. Given the condition and minute quantity of fluid in some samples, however, detailed lab analysis will not always produce conclusive or meaningful results.

Draft Public Guidelines for Medical Waste are intended for educating the public. Individual health departments should be able to address the need for laboratory testing. Although the public fears AIDS, the hepatitis virus is very hearty and it is hard to judge how long it will live while the AIDS virus is very fragile. What steps are being taken by the medical community to get the message out on the unlikelihood of contracting AIDS from medical debris, what the real risks are, etc. This is a very hard message to get out. There are no plans for P.S.A.'s. Department of Health will work out a system to get debris tested (vials, needles). Beach operators raised questions dealing with lawsuits due to keeping beaches open after someone has stepped on needle. Can an injured person take custody of the needle after he/she has stepped on it or is the park supposed to retain the needle? Sharps should never be taken home. Patrons should notify the beach operator immediately of any injury. A procedure has to be developed and implemented to test, get information back to the patron's physician and beach operator, etc.

Dr. Melius agreed to develop a workable protocol.
GUIDELINES FOR HANDLING DISPOSABLE AND FLOATABLE DEBRIS

Bob Becherer (N.Y.S. Department of Environmental Conservation)

Last year, DEC became the repository for all medical waste. This will change as each facility will now be responsible for disposal. A patron at a beach should not be handling any medical waste. The beach operator should be contacted. The equipment used to remove medical waste would be a small shovel or trowel, leather work gloves (or plastic gloves), plastic bags, and a hard-walled container for sharps.

In handling sharps, the risk of contracting disease is very small. Nevertheless, they should be placed in hard containers by shovel or leather work gloves. For other medical debris (bandages, prescription drug containers), disposal plastic gloves can be used to pick up and place this material in plastic bags for further investigation. If a large amount of medical debris is found, DEC wants to be informed immediately for prompt investigation of possible violations and criminal activity.

Mr. Becherer then discussed options under consideration for disposal:

1) Currently working with Nassau/Suffolk hospital association to get support to allow beach owners to bring medical material to local hospital for disposal with their own medical waste.
2) County health department may collect debris instead of beach operators and take material to local hospital.
3) There are companies that supply postage mailers to enable a person to send sharps through the mail. Two companies that provide this service are 1) Integrated Medical (Indiana) and, 2) Safety First (Connecticut)
4) No sharps or blood vials should be disposed of with non-medical beach debris.
5) Have beach operators provide storage for medical debris (Part 364.) Control transportation of hazardous waste. (Local health facility might be making "milk runs" to collect material and dispose of infectious waste.)

Bob Becherer agreed to pursue resolution of the following issues: need for a clear definition of "medical waste", arrangement with county health departments for removal of medical debris recovered at beaches, and criteria for requesting inspection and investigation by DEC's enforcement staff.

REGULATORY ENFORCEMENT TO PREVENT BEACH WASHUPS

Roberta Weisbrod (N.Y.S. Department of Environmental Conservation)

Dr. Weisbrod spoke of what is being done to prevent the problem of medical waste reoccurring again in 1989. She named the three major sources of medical waste and what control measures are being taken:
1) Marine transport of solid waste (barge from Fresh Kills landfill to unloading sites); tighten up regulations, covers on barges, skimmer boats, booms (prevent waste from escaping from N.Y. harbor.)

2) Combined N.Y.C. sewer overflows: there are over 400 combined sewer overflow points; build holding tanks (probably a decade before this is done)

3) Slicks of floating or refloated debris following high tides: have to "get them" before they wash ashore or out of harbor; using helicopters for aerial surveillance, patrol boats with nets, shoreline cleanup using prison labor, barges on standby, etc. She mentioned the different places where the slicks form (New York Harbor, under Verrazano Bridge, Arthur Kill, Jamaica Bay, Outerbridge Crossing).

A multi-agency action plan (involving the U.S. Environmental Protection Agency, U.S. Coast Guard, Army Corps of Engineers, New York City, N.Y.S. Department of Environmental Conservation and New Jersey Department of Environmental Protection) has been composed to reduce significantly the amount of floatable debris escaping from N.Y. Harbor. This effort will include shoreline clean-up using prison labor teams, tighter restrictions on and closer surveillance of marine transfer operations, helicopter and boat patrols designed to quickly spot the information of garbage slicks, and netting of floatable debris within the harbor. New laws and stiffer fines will also enhance regulation of floatable debris.

Dr. Weisbrod agreed to pursue the development of concise hand-outs concerning the sources of debris and preventive measures being taken to reduce floatables in the ocean; she recommended the use of leather work gloves rather than plastic or vinyl for handling/collecting medical debris found on beaches, and she is working with Ron Foley and Michelle Vennard on media efforts to bring the public back to Long Island beaches.)

WRAP-UP: Ron Foley

In concluding the meeting, Mr. Foley noted that staff training would be critical to assure that beach employees remained fully informed regarding the concerns and follow up action taken to cope with beach wash-ups. These individuals remain the "front-line" link with the public and often with media representatives who need prompt access to accurate information. All beach operators must address the need for training and assure that the media will have ready access to officials who can speak knowledgeable and authoritatively for each beach operation. (Bert Fisher of DEP agreed to provide recommendations for dealing with the media.)

All meeting participants were encouraged to complete the registration forms needed to include them in the Beach Information Network based at Jones Beach.
DEC GUIDANCE FOR BEACH OPERATORS

Notification

1. If there is a debris wash up call the Beach Information Network (BIN) to report.
   A. If it contains medically related material call the County Health Department.
   B. If evidentiary value of medical type debris i.e., (identifiable markings) has been established or there are blood containing vials or syringes, containing 1 cc or more of blood, or petri dishes, call Regional DEC Conservation Officers (business hours) or call Spill Hotline (1-800-457-7362) (non-business hours) and they will contact conservation officer on duty.

2. As part of the State – Federal surveillance network you will be notified by BIN:
   A. If there is a wash-up on a nearby beach
   or
   B. If there is an offshore slick which may pose a threat to your beach.

Handling

1. For removing medical-type debris, use gloves, preferably leather.

2. If a beach cleaning machine is used, attempt to remove identifiable medical-type debris and blood vials from wash-up before use.

3. Record the following information, which may assist in identifying the source of the wash up:
   A. Percentage of medical: non-medical waste
   B. Quantity of waste
   C. Variety of waste
   D. Description of medical waste
BEACH INFORMATION NETWORK PROCEDURE AND GUIDELINES

The Beach Information Network (BIN) is a computerized information sharing system maintained at Jones Beach State Park and designed to provide current and accurate information among beach operators regarding the condition and operating status of beaches operated by officials participating in the network. It is intended to provide accurate information for use in sound decision making. The following guidelines and procedures apply:

1) Any public or private beach fronting waters of Long Island Sound or the Atlantic Ocean is welcome to participate in the system.

2) Members of the network may receive information from the system on all member facilities but may only input reports on their own facilities.

3) The BIN will not provide information to the media but instead will refer media representatives to those officials having jurisdiction over facilities about which the media pose questions.

4) To input or receive information from the BIN, a beach operator must first register as a participant and receive a unique access code.

5) Participants need only report unusual conditions affecting their beaches; there is no need to report normal operations.

6) The BIN will be activated commencing on May 10, 1989 at 9 A.M. Participants should be registered and receive their access codes no later than Monday, April 23, 1989 in order to assure access on May 1, 1989. Those registering after April 23 will be added to the system as soon as possible.

Registration forms may be obtained by calling (516) 785-1600, Ext.200 or 203 or by writing to:

Joseph F. Lescinski
Superintendent,
Jones Beach State Park
Box 1000
Wantagh, New York 11793

All completed registration forms should also be returned to this address.
Storage

1. Store sharps in puncture-proof container.

2. Store evidentiary material and other material (as described above) in secure place until DEC investigates and collects appropriate material for evidence.

3. Secure all other medically related material in plastic bag prior to disposal.

Disposition

1. Any waste which has identifying marks should be kept for evidentiary purposes, including but not limited to:
   A. Clothing with institutional names not routinely sold commercially (i.e., St. Charles Hospital as opposed to St. Charles University).
   B. Prescription bottles with labels, etc.
   C. Pharmaceutical containers with identifying marks such as saline bags stamped with hospital names and/or numbers.

2. Any medical wastes with or without identifying marks should be kept for evidentiary purposes, including but not limited to:
   A. Blood vials with more than 1 cc of blood.
   B. Syringes with more than 1 cc of blood.
   C. Petri dishes.
   D. Floatable hospital identification tags.
   E. Medical waste disposal bags (generally red or with "biohazard" marker).

   Note that not every article falling within these categories will be collected; each article will be evaluated.

3. Sharps may be mailed in approved mailer; post office has list of vendors.

4. Sharps and other medical-type debris may be disposed via the following equally acceptable options: By arrangement with County Health Department; by arrangement with cooperating hospital.
7) Once activated on May 10, 1989, phone calls to the BIN will be answered 24 hours a day until further notice.

8) PROCEDURE FOR USING THE BIN:
   a) To obtain information on any beach participating or to report on conditions at your beach(es), telephone 516-785-0123.
   
b) When the phone is answered, state that you wish to report information for or receive information from the BIN.
   
c) You will be asked to provide your name and access code.
   
d) You will then be given the information you request if it is available on the system or you will be asked for your report. (Keep in mind that the person responding to your call will be carefully logging your report or request for information. Please be patient; the few extra minutes taken to assure accuracy will benefit all who participate.)
   
e) Beach reports may be "FAXED" but Fax transmission must be preceded by a phone call to identify the sender and receive verbally the correct access code. DO NOT PRINT YOUR ACCESS CODE ON ANY FAXED MATERIAL! (Jones Beach FAX number is 785-6705.)
   
f) If you are seeking a "hard copy" of any report, please specify. Such information will be mailed to you but only at addresses authorized by you on your registration form.

NOTE: This is a new system. Every effort has been made to anticipate potential problems and prevent them from happening but some "glitches" are possible. If you encounter any difficulty with any part of the system (phone lines, people, procedures, etc.), please call Joe Lescinski (785-1600, Ext. 200) or Ron Foley (669-1000, Ext. 231) without delay.
Under certain emergency conditions, N.Y.S. Parks' equipment and operators may be made available for use in the cleanup of floatable debris at non-State public beach facilities. The following preliminary guidelines apply to such equipment "loans":

1. The emergency condition must relate directly to the deposit of floatable debris from the ocean or L.I. Sound in such quantity on a non-State-operated public beach on Long Island that normal cleaning capabilities are not sufficient to remove the offensive material within 24 hours of the deposit.

2. The deposit of debris must interfere with operation of the beach to the extent that the beachfront must be closed to the public for the duration of the cleanup.

3. The County Health Department having jurisdiction must certify that the debris warrants closing the facility until cleanup can be completed.

4. All other appropriate Village, City, Town and County cleanup capabilities (manpower, equipment, etc.) must have been exhausted.

5. The municipal facility operator must contact the County Emergency Management Office, which will assess the situation and contact the State Emergency Management Office (SEMO) in Albany. If SEMO agrees with the emergency nature of the situation, State assistance will be made available.
DEALING WITH THE MEDIA on the LONG ISLAND BEACH SITUATION

Medical waste that fouled the shore drove attendance at Long Island beaches down by 2 million people last summer.

The New York Daily News (10/29/88)

Medical waste was only part of the reason for drastic declines in beach attendance during summer 1988. Miscommunications were equally damaging.

REASONS:

- There was no single, unified voice addressing the media with a consistent, supportive message.
- There was no system for publicizing open beaches. So when news spread that one beach closed the public assumed all beaches were closed.
- Many of the reporters covering the beach crisis were inexperienced in their knowledge of Long Island beaches and the region.

WHAT CAN BE DONE:

All of you can help prevent a recurrence of last year’s declines in beach attendance by implementing an effective public relations strategy.

We need you to communicate a unified message:

"New York State Office of Parks and Recreation has dramatically enhanced its ability to clean beaches by purchasing over $1 million worth of equipment for beach cleaning and improved communications among Long Island’s beach operators. Being able to make decisions based on reliable information will allow greater consistency in determining when beaches should be closed and opened."

(continued)
By working with State and County Health Departments, the Long Island State Park and Recreation Commission has a much better understanding of what medical waste is and the very minimal likelihood of contracting disease from it. For the coming season, there should be no massive dumpings and wash-ups should be relatively small and widely dispersed.

A greater knowledge of the magnitude of the floatable waste problem and our ability to clean beaches more quickly, making them safe for public use, will result in fewer closings and a more pleasant season for beach users."

Municipal and private beach operators should develop a similar unified message.

Communicate DED Program Strategy:

You should be fully aware of and communicate to the media that the New York State Department of Economic Development, Division of Tourism has adopted a proactive marketing stance to prevent a recurrence of last year's decline in beach attendance.

Program Elements Include:

- Operation of a toll-free number, 1-800-CALL-NYS, beginning May 15, with a consumer tourism message about the Long Island region including a daily update on beaches and information on events and attractions of interest in the region.

- Public Service Announcements providing the public with the new 800 number beginning in June.

- Development of a Long Island Beach Speakers Bureau to respond to the press on issues relating to the Long Island Beaches. It consists of: Ron Foley (516-669-1000), Joe Lescinski (516-669-1000) and Jack Prenderville (518-474-0459) for the Office of Parks, Recreation & Historic Preservation; Bern Rotman (518-474-6950) and Michele Vennard (518-473-0715) for the NYS Department of Economic Development; George Fey (516-794-4222) for the Long Island Tourism and Convention Commission; and R.W. Groneman (518-457-5400) for the Department of Environmental Conservation.

- Beach Awareness Day on May 20, 1989 to include an extensive variety of events and exhibitions on two of Long Island's major beaches.
WHEN DEALING WITH THE MEDIA:

COMMUNICATE WITH HONESTY AND ACCURACY. Reporters will respect you and will remember to go back to you for information in the future. Honesty also results in the avoidance of having to clean up messes, explain misinterpretations and correct errors. This will also help to guarantee the deliverance of a consistent message.

USE CREDIBLE SOURCES. Your mother may think the world of you but the media is not interested in what she has to say. Be sure to use appropriate people when communicating a message about your facility. Someone with expertise about your facility or of influence in your industry is essential. Be sure the spokesperson is well-briefed and fully knowledgeable about your concerns before he or she speaks to the press.

UNDERSTAND THE NEEDS OF THE MEDIA. Like the rest of us, writers, reporters and broadcasters are extremely busy people. The better you understand their needs and methods of working, and their deadlines, the more successful your efforts will be in communicating a specific message to them.

RESPOND TO MEDIA REQUESTS. A large part of public relations is responding to requests from the media for information. Respond quickly and provide the information requested.

WHEN IN DOUBT. If you don’t know how to answer a specific question from the media, don’t make up an answer or provide inaccurate information. Use the Speakers Bureau which has been developed. Once you receive the appropriate answer, respond promptly to the media representative.
MEMORANDUM

NASSAU COUNTY DEPARTMENT OF HEALTH
240 Old Country Road
Minesola, New York 11501

To: Nassau County Beach Operators

From: John J. Dowling, M.D., M.P.H.
Commissioner of Health

Subject: PICK-UP OF MEDICAL DEBRIS

This is to advise you that we will be providing a pick-up service for certain medical debris which might wash ashore or be found on your beaches this season.

As beach operators you will be given small, empty medical waste containers at your request. These should be used to hold sharps, vials, and syringes with or without needles. All other debris can be disposed of in your normal trash. Care should be exercised in handling medical debris, as indicated in the State Health Department's guidelines.

When you have a full container or at the end of the bathing season, you should drop off the container at one of four "drop-off points": Jones Beach, Nassau Beach, Long Beach or Hempstead Harbor Park. (Specific site locations and hours of operation will be available in the near future). At the drop off location, you will be able to pick up another empty container, if needed.

At various times during the bathing season, as the need arises, Health Department personnel will pick up the full containers from the drop-off points and bring them to an approved disposal facility. Empty containers will be delivered to these locations as required by the beach operators.

It is not necessary to have one of these indicated medical waste containers on hand in order to bring this material to a drop-off point. Empty plastic detergent bottles, bleach bottles or other rigid, re-sealable containers could be used as suitable containers also.

For further information, or to arrange to receive a medical waste container, please contact Mr. George Gaige or Mr. Donald Scanlon, of our Bureau of Water Pollution Control at 535-3602, or 535-2404.

GPG:cas

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### Suffolk County Health Centers

<table>
<thead>
<tr>
<th>Center Name</th>
<th>Address</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tri-Community Health Center (Amityville)</td>
<td>1080 Sunrise Highway, Amityville, New York 11791</td>
<td>842-9582</td>
</tr>
<tr>
<td>Bay Shore Family Health Center</td>
<td>1700 Union Boulevard, Bay Shore, New York 11706</td>
<td>686-2600</td>
</tr>
<tr>
<td>Brentwood Family Health Center</td>
<td>1734 Brentwood Road, Brentwood, New York 11717</td>
<td>231-6600</td>
</tr>
<tr>
<td>No. Brookhaven Health Center</td>
<td>3600 Route 112, Coram, New York 11727</td>
<td>732-0400</td>
</tr>
<tr>
<td>South Brookhaven Health Center West</td>
<td>375 East Main Street, Patchogue, New York 11772</td>
<td>758-9000</td>
</tr>
<tr>
<td>Riverhead Health Center</td>
<td>Griffing County Center, Riverhead, New York 11901</td>
<td>548-3466</td>
</tr>
<tr>
<td>South Brookhaven Health Center East</td>
<td>Montauk Highway and Dorsett Place, Shirley, New York 11967</td>
<td>399-3700</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Center</td>
<td>1556 Straight Path, Wyandanch, New York 11798</td>
<td>654-3800</td>
</tr>
</tbody>
</table>
Dear Beach Operator:

Enclosed are guidelines for the handling of floatable material that might be stranded on your beach. Please note that most stranded floatables can be handled as part of the normal waste stream, that is, no special precautions are necessary.

However, in the event that medically related debris or unidentifiable material suspected of being medically related is found, it should be handled as described in the guidelines.

Syringes (with or without needles), vials, and other medically related "sharps" should be placed in an almost empty 1-gallon plastic chlorine bleach bottle (a small amount of bleach left in the bottle will serve as a disinfectant). Non-sharp medically related items can be stored in any suitable container such as a heavy plastic bag or an empty bucket with a lid.

While anything containing blood or anything of an evidentiary nature (ie. with identifying information) should be brought to our attention immediately, all other material should be stored in a secure area and, as the need arises or at the end of the bathing season, delivered to any of the eight Suffolk County Health Centers listed on the attached.

If you require further information, please contact the Bureau of Marine Resources at 548-3331 or 548-3376.

Very truly yours,

[Signature]

David Harris, M.D., M.P.H.
Commissioner

DH/Dr
Enclosures

cc: John Sheridan, Commissioner, SCPR&C
    Harold Berger, Regional Director, NYSDEC
    Ron Foley, NYSOPR&HP
    Superintendent Noel Pachta, FINS
    Town Supervisors
    Village Mayors
    Town Directors of Parks & Recreation
    Hon. Patrick G. Halpin
    Mrs. Evelyn Roth
    Mr. Thomas McAteer
    Mr. Larry Schwartz
DRAFT

TOWN OF HEMPSTEAD

BEACH OPENING AND CLOSING POLICY 1989

Each of our Town beachfront facilities are visually inspected each morning, before cleaning is undertaken, by town park and/or conservation personnel a practice which has been carried out over the last fifteen years.

If any medical related debris is found along the strand line or within the general beach area, those objects will be carefully sorted and placed in an approved container for further investigation by the New York State Department of Environmental Conservation (N.Y.S.D.E.C.) or the Nassau County Health Department personnel. The beach will then be cleaned in order to be used by the public that day. We do not intend to close any town beach as a result of one or two syringes.

Throughout the day lifeguards and park personnel will make periodic inspections of incoming and outgoing material strandings.

In the event of a large floatable slick of sewage or garbage related material approaching the bathing area or stranding onto our beachfront, park personnel will call for the immediate closure of that beach facility or part of any facility effected. The beach area will remain closed until the floatable material has either stranded or is moved out of the bathing area by the tides.

Total fecal coliform samples will be routinely taken from within the stranding slick and after the next high tide.

As in the past, examination and documentation of the stranding floatable material will be investigated to determine the type and amount as well as to observe the presence of medical related waste.

Notification of the stranding will be made to the New York State Coordinator at Jones Beach, Nassau County Department of Health and if necessary, the N.Y.S.D.E.C. in the event of substantial evidence of medical waste.

The effected beach will remain closed during the cleanup and for at least one complete tidal cycle before again opening for public bathing.

All material collected and documented by town personnel will be carefully marked and held in a secure location within the park until representative from either Nassau County Health Department or the N.Y.S.D.E.C. Division of Law Enforcement can inspect the waste material and afterward dispose of such waste at county or state facilities.

Periodic wash-ups of medical waste, specifically syringes, will also be held for routine pick up, at the same secure location, by county health personnel who will arrange to dispose such debris at county operated or affiliated facilities.
March 30, 1989

Dr. Carmela Cuomo
M.S.F.C.
S.U.N.Y. at Stonybrook
Stonybrook, NY 11794-5000

Dear Dr. Cuomo:

As per our conversation, please be advised that the following procedure regarding examination and cleaning of the beach is in force during our summer season.

At 7:00 am each day our Chief of Lifeguards and a representative of our Beach Maintenance Department inspects the tide line along our 3 1/2 miles of beach front as to ascertain whether any foreign matter i.e. medical waste, syringes, etc. has washed up during the night. Any such debris is collected, documented and ultimately sent to the Nassau County Department of Health.

Also, each and every morning during the summer season our beaches are completely cleaned by our sanitizing equipment. If there should be a high tide during beach hours (9:00 am - 6:00 pm), an examination of the beach front by the same employees mentioned above it once again takes place.

The activities referred to above take place during our beach park season which runs from May 25 through Labor Day. During the rest of the year examination of the tide lines are done on a sporadic basis only.

If you should require additional information regarding this matter, please do not hesitate to contact this office.

Sincerely,

Edwin L. Eaton
City Manager

ELE:mr
April 10, 1989

Dr. Carmela Cuomo
Marine Sciences Research Center
SUNY - Stony Brook
Stony Brook, New York 11794-5000

Re: Floatable Wastes

Dear Dr. Cuomo:

This letter is being provided in response to your request for information concerning existing Town of Smithtown programs and activities which have a bearing upon the problem of floatable wastes in the marine environment.

The Town of Smithtown has since 1985 conducted a boater education program designed to encourage local boaters to use proper waste disposal facilities. Attached is a copy of a flyer which is provided to every individual who receives a boating related permit from the town (berth, mooring and boat ramp permits). As can be seen from a review of this flyer, local boaters are informed as to the value of our marine environment, the need to protect it, the laws governing its use and are provided with both a map and verbal description of the location of sanitary pump-out facilities and trash receptacles.

With respect to the prevention of beach litter and related debris from entering our waterways, the town Department of Parks and Beaches has for many years conducted an active beach management program. During the beach season town beaches are cleaned daily during the early morning hours with a Barber Beach Cleaning Machine (a single municipal beach is inaccessible to the cleaning machine due to substantial topographic relief and is therefore cleaned manually on a daily basis). In addition, all
beach parking lots are swept prior to the commencement of the beach season and every two weeks thereafter for the duration of the season. Trash cans are emptied as needed, often three or four times daily, into dumpsters which are themselves emptied weekly.

The major change for 1989 will be the addition of a third sanitary pump-out station for local boaters. This new station will be installed in the Nissequogue River at the municipal boat ramp in proximity with two private marinas. I believe that this new facility when added to the two existing pump-out stations will make the Town of Smithtown the first Town within Suffolk County to make sanitary pump-out stations available at all of its municipal recreational boating facilities and within all of its navigable waterways. It should also be noted that these facilities are made available without charge so as to encourage their use.

I trust that the foregoing information is helpful. If you would like to discuss this matter in greater detail please let me know.

Sincerely,

[Signature]

Russell K. Barnett, Supervisor
Environment and Waterways

cc: Patrick R. Vecchio, Town Supervisor
Councilman Bradley L. Harris, Liaison
Charles Toner, Director of Facilities Management
The Long Island Chapter of the NYWPCA is comprised of over 400 environmental professionals such as environmental engineers, marine biologists, chemists, wastewater treatment plant operators, ecologists, environmental program administrators, educators, vendors and contractors. The chapter is recognized as the most active in the State Association, which is a leading force in the Water Pollution Control Federation representing over 35,000 members nationwide.

In an effort to resolve our beach wash-up problem, our Environmental Science Committee has pursued a rigorous investigation into the causes of the problem and canvassed the "experts", the professionals working in the field dealing with this tremendous issue, as to the viable solutions available for resolving the problem. The results of that investigation have been structured into an Action Plan containing a series of recommendations developed to resolve our beach wash-up problem. It is our conclusion that if these recommendations are not implemented, the beach wash-up problem will continue to persist with potentially disastrous impacts upon the Long Island economy and our treasured way of life.
ACTION PLAN FOR RESOLVING THE BEACH WASH-UP PROBLEM

This Action Plan has been developed in an effort to provide immediate improvement in beach conditions for the 1989 bathing season as well as solutions for major environmental problems which will require years to implement. In accordance with this goal, the Plan has been structured with Short-Term Action Items and Long-Term Planning Items, so that a targeted comprehensive program may be pursued.

I SHORT-TERM ACTION ITEMS

These items, if implemented, will result in a significant beneficial effect on beach conditions for the 1989 bathing season.

A. Augment Beach Cleaning Activities

In addition to extensive pre-season clean-up activities, permitted bathing beaches should be required to clean the strand line (high tide marking) and surrounding intertidal areas daily prior to the opening of the beach for swimming.

B. Conduct Spring Clean-Up of Back Bay and Upper Canal Areas

These areas become repositories for floating debris scoured from the harbor areas as a result of winter storm activities. If left to remain in shoreline areas, these materials are resuspended into the tidal waters by storm and high tide activities, thus permitting their eventual wash-up on area beaches.

C. Establish a Uniform Procedure for Beach Closings

Support the development of a uniform Bi-County procedure for beach
closings in conjunction with providing the proper training of beach operators for following established procedures.

D. **Educate the Public and the Media Regarding the Facts Surrounding Beach Wash-Up Events.**

Much misinformation has been presented regarding the beach wash-up problem: its causes, its effects and the public health significance of the wash-ups. It is critical that proper and accurate information be reported by the media and that the public be advised as to what measures are necessary to control the problem and what the actual public health significance any future events might represent. Specific targets for education campaigns will include marinas, beaches, charter boats, bait and tackle shops, schools, libraries, television, radio and newspapers. As an initial step toward this goal, a news release will be issued by the Chapter regarding this proposed plan.

E. **Restrict the Use of Food and Beverage Containers at Beaches to those made either of Aluminum or Biodegradable Material.**

Materials made of plastic are readily blown into the tidal areas while glass containers represent the potential for another hazard should they become broken; therefore only aluminum or biodegradable food and beverage containers should be allowed at permitted beaches.

F. **Support the Implementation of Viable Land-Based Alternatives for Disposal of Municipal Sludges.**

Cessation of ocean barging of sludges requires the implementation of land-based alternates. Viable plans for such and the siting of these facilities should be supported to ensure the successful transition of the mode of sludge disposal. It is also essential to increase enforcement of industrial waste pretreatment programs which directly affect the chemical quality of these sludges. The potential reuse options available for sludges depend heavily upon the chemical quality of each sludge generated; therefore industrial discharges into sewage collection...
systems must be properly controlled under the aegis of various pretreatment programs.

G. **Support Controls of Combined Sewer Overflows (CSO’S)**

Although CSO’s have been determined to be a major contributing source in beach wash-ups, their overall control will take a number of years to implement. Steps to treat and control these discharges must be instituted immediately if major reductions in the amount of floatable material in the Long Island and surrounding marine waters are to be realized.

H. **Encourage Improved Street Sweeping Activities for Shoreline Communities.**

Improvements in street sweeping operations, especially in shorefront communities should result in less debris being transported into the surface waters as a result of stormwater runoff.

II **LONG-TERM PLANNING ITEMS**

These items have been designated as "long-term" since they will require a protracted period of time to implement. Many of these items require legislative action or construction of facilities, which reasonably cannot be fully implemented by the Summer of 1989.

A. **Encourage the Use of Biodegradables or Recyclable Products.**

The discarding of potentially floatable materials into the environment is directly affected by the availability and effectiveness of recycling programs. Greater utilization of biodegradable and recyclable materials will result in reduced amounts of floatables present in the marine environment.
B. **Support Greater Control over Marine Solid Waste Transfer Operations.**

Wind-blown and spilled debris is a direct cause of deposition of floatables in our marine waters. More effective control of these operations will result in reduced floatable contributions from these sources.

C. **Ensure Implementation of Combined Sewer Overflow (CSO) Controls.**

The primary dominance of this source of floatables dictates its resolute effective control. Proper control though will undoubtedly take years to implement. A rigid schedule for control of this source must be followed for a long-term.

D. **Support Siting of Regional Hospital Waste Incinerator(s).**

Hospital waste is improperly disposed of principally due to the lack of viable economical methods of proper disposal. Since siting is the major obstacle in implementing environmental projects, support of prudently developed facilities should be strongly offered. Without the availability of such facilities, significant quantities of medical wastes will continue to be encountered in the surrounding environment.

E. **Support Tracking of Medical Wastes.**

"Cradle to grave" manifesting of medical wastes will enable regulatory and enforcement authorities to track the proper transport and disposal of such regulated wastes.

F. **Review Adequacy of Existing Legislation and Propose New Legislation Where Deemed Necessary.**
Current and proposed legislation affecting waste disposal practices should be reviewed by government and industry alike to determine the adequacy of such. Support for strong enforcement over existing regulations should be offered as a preferred approach with proposals for additional regulatory requirements preferred only as deemed absolutely necessary.

G. Increase Public Education Effort

The Chapter will be working on a continuing basis with government, industry, civic groups, schools and the media in order to educate the public more fully regarding environmental issues.

It is the conclusion and assertion of the professional community represented by the Long Island Chapter of the New York Water Pollution Control Association that implementation of these stated recommendations will have a dramatic effect upon the beach wash-up problem, thus resulting in significantly improved environmental quality for the Region's bathing beaches.
April 17, 1983

TO: Health Officers, National Park Service, and Other Interested Parties

FROM: Mr. James S. Blumenstock

SUBJECT: Medical Waste Ocean Debris

As you are well aware, there is a growing concern over and an increased public awareness of floatables impacting on the shoreline of this state. Floatables (solid wastes that float or remain suspended in the water column) not only represent a source of pollution that degrades the aesthetic quality of our recreational waters but may pose a human health and safety risk as well, regardless if these wastes are inadvertently or intentionally introduced into the waterways.

As a result, the New Jersey Division of Criminal Justice has prepared and distributed a guidance document entitled "Beach Wash-up and Evidence Collection Procedures," a copy of which is enclosed for your reference. This document establishes a method for a uniform incident reporting and evidence collection system and is an integral component of the Interagency Coastal Waters Floatables Coordination Network between the U.S. Environmental Protection Agency, U.S. Coast Guard, U.S. Army Corps of Engineers, New Jersey Departments of Environmental Protection and Health, New Jersey Marine Police, New Jersey Division of Criminal Justice, and the various local and county health departments having jurisdiction over coastal communities.

Since a number of floatables sightings and wash-ups have involved medical wastes, the State Department of Health recognized the need to disseminate information on the proper handling and disposal of these special types of wastes. The recently revised document entitled "Safeguards To Be Employed in the Collection, Removal & Disposal of Medical Wastes Involved in Beach Wash-ups" is designed to supplement the Division of Criminal Justice's evidence collection guidance document and provide the information necessary to minimize or eliminate the potential risks associated with the handling of medical wastes. A copy of this guide is also enclosed for your reference.
Unlike last year, it is imperative that all medical waste sightings and strandings be accurately documented but, more importantly, that all citizen exposure and injuries be documented and reported immediately to the State Department of Health. This information will be provided to the U.S. Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry (U.S. Public Health Service) and become part of a national data base to be used in preparing a number of reports to Congress as required by the federal "Medical Waste Tracking Act of 1988" (H.R. 3515).

You are encouraged to share this information with the agencies involved in the management of your beaches (e.g. lifeguards, beach litter patrol, police department, public works, etc.) and the general public, when appropriate. The department will also provide this guidance document to all hospital emergency rooms servicing the coastal areas. We are requesting, however, that you provide this document to the primary care clinics, centers, and offices in your jurisdiction that would also provide medical services in response to these types of environmental exposures.

If you have any questions or require assistance (manpower and/or technical support) feel free to contact me at (609) 984-0794 during business hours or through the department's answering service at (609) 392-2020 after hours and on weekends.

Thank you for your cooperation and assistance in this matter.

Enclosures
SAFEGUARDS TO BE EMPLOYED IN THE COLLECTION, REMOVAL, AND DISPOSAL OF MEDICAL WASTES INVOLVED IN BEACH WASH-UPS

REVISED: APRIL 17, 1989

A. INTRODUCTION

This document prescribes prudent safeguards to be employed while handling medical wastes involved in shoreline wash-ups in order to minimize or eliminate the potential risks associated with such activities. It must be emphasized that this guidance is only applicable to incidents requiring the handling of medical wastes as a result of floatables debris wash-ups and should not be applied to situations where exposure to medical wastes are occupationally related (e.g. health care workers, emergency medical personnel, law enforcement, etc.) where the types of exposure and degree of risk may be different.

B. EVIDENCE COLLECTED AND PRESENTED BY INDIVIDUALS

- When medical wastes are presented to you by individuals, complete the "Beach Debris Evidence Questionnaire" and adhere to the "Beach Wash-Up Evidence Collection Procedures" issued by the Division of Criminal Justice.

- If the individuals appear to have had direct contact with the material, recommend that they thoroughly wash their hands.

- Determine if parenteral exposure occurred such as a needle puncture, laceration, fluid contact with an existing open sore or wound, etc. If so, refer to the section entitled "Medical Concerns."

- If appropriate and necessary, allay the individuals’ fears and provide the reassurance that casual, incidental, environmental exposure of this type poses virtually no risk of contracting a communicable disease such as hepatitis or acquired immunodeficiency syndrome (AIDS).

C. COLLECTION OF MEDICAL WASTES

- Direct contact with the material should be avoided. Shovels and rakes should be used when a manual cleanup is necessary. Forceps are extremely useful since they eliminate the need for direct contact and provide the dexterity needed for evidence collection and site remediation. If direct contact cannot be avoided, protective gloves (puncture resistant and impervious) should be issued and worn.
- During cleanup activities, beach crews should be instructed to wear foot protection (no bare feet) and such activities should be supervised by an adult. Personnel should be briefed on the standard operating procedures and safeguards prior to commencing such activities.

- Adhere to the policies and procedures established by the Department of Environmental Protection for the storage and disposal of medical wastes and other floatable debris.

D. MEDICAL CONCERNS

The medical risks from accidental exposure to medical waste vary with the type of medical waste and the condition of the waste at the time of exposure. In general, the only exposures of concern are parenteral, mucous membrane, or cutaneous exposures to non-intact skin. If any individuals report such exposures, the following guide should be used.

- Administration of appropriate first aid.

- Consultation with a physician on the following:

  - **Tetanus** - Determine the vaccination status of the individual and if post-exposure prophylaxis is warranted.

  - **Hepatitis B** - After assessing the nature and degree of exposure, a determination should be made if post-exposure prophylaxis is warranted. Even though this precaution is not necessary in every instance, the State Department of Health strongly recommends the administration of post-exposure prophylaxis where parenteral exposure occurs from a medical instrument containing perceptible amounts of blood or body fluids (e.g. blood vacuum collection containers). If the circumstances surrounding a needlestick exposure make it likely that the needle was abandoned by a drug addict even stronger consideration should be given to the use of post-exposure prophylaxis.

Post-exposure prophylaxis in unvaccinated individuals consists of two hepatitis B immune globulin shots one month apart or a hepatitis B immune globulin shot followed by the three shot series of hepatitis B vaccine. (Vaccine is given at 0, 1, 6 months.) A single shot of hepatitis B immune globulin is only 50% effective in preventing hepatitis B. (1)

- **Human Immunodeficiency Virus (HIV)** - The risk of HIV infections, even from a needlestick of this type freshly contaminated with HIV-positive blood, is very low. Since the virus is very susceptible to temperature changes and drying, in most cases where medical waste has washed up on a beach the conditions are such that there is virtually no risk of contracting AIDS and serological testing for HIV infection is, therefore, not warranted.

(1) Centers for Disease Control, MMWR, June 7, 1985, Vol. 34 No. 22.
It is important to mention, however, that needles found in other locations (for example a park or street) may not have been exposed to these conditions. As such, each situation must be evaluated separately based upon whether blood is present, how long the needle was in the environment, nature of exposure, and whether the needle was likely to come from a drug addict. The Department of Health will provide the necessary assistance in assessing these exposure situations to determine the appropriate course of action.

- Report incident immediately to the State Department of Health (James S. Blumenstock, Director of Consumer Health Services, (609) 984-0794).

E. ASSISTANCE

If at any time you require assistance (technical guidance or manpower support) contact the New Jersey State Department of Health:

- General Assistance/Inquiries

  James S. Blumenstock, Director of Consumer Health Services
  (609) 984-0794

  Anthony T. Monaco, Chief of Environmental Services
  (609) 984-3400

- Medical Concerns

  Communicable Disease Control Services
  (609) 588-7500

These elements of the State Department of Health can also be reached after hours and on weekends through an answering service by calling (609) 392-2020.
Primary Concern

Keeping the beaches safe and clean is the State's primary concern. Therefore, harmful items should be removed as quickly as possible. Further, it is the NJDCJ's responsibility to protect the integrity of any evidence gathered through this process. However, collection of evidence is secondary to the protection of public health and welfare.

Purpose of Evidence Collection

- To determine source of material.
- To determine responsible party.

Types of Material That May Wash Up

- Garbage, ordinary trash
- Wood, poles, timbers
- Medical-type items

Which Items Should Be Preserved as Evidence for NJDCJ

- Except for the items noted below, routine wash-up debris can be discarded (after filling out a Beach Debris Evidence Questionnaire for the items)
- The following types of washed-up items should be retained and preserved as evidence for NJDCJ:
  - All blood vials
  - Syringes/hypodermic needles
  - All medical-type items (e.g. prescription pill bottles, IV bags, empty vials, hospital tubing, etc.)
  - Any item of ordinary trash with markings that indicate geographic origins (e.g. paper napkins/bags from a named cruise ship line, a laundry tag from NYC, etc.)

Contact NJDCJ (609-984-4470) any time an item is retained as evidence for DCJ. A DCJ investigator will either arrange for pick-up or will advise as to disposition of the item.
How Will Evidence be Collected

- Turned in by individuals (private citizens, or public employees) - Obtain individual's name and address
- Obtained from beach clean-up operations conducted by municipalities or other agencies (State or federal).
- Beach Debris Evidence Questionnaire should be filled out for all items/debris that wash up

Washed-Up Evidence Collected by Individuals
(private citizens or public employees)

- Bring material (evidence) to one of the following locations:
  - Police Department
  - Municipal or County Health Department
  - Lifeguard Station
- Individuals should fill out form that will be provided. (Beach Debris Evidence Questionnaire)

Washed-Up Evidence Collected From Municipal/Agency Beach Clean-Up

I. Major Beach Wash-up (no swimming permitted in ocean
   - notify NJDCJ of beach closure.

II. Other Washed-Up Materials

A. Place material into plastic bags or other containers.
   - Store bags at secure location, fill out form for each bag or set of bags, and notify NJDCJ as to storage location.

B. Timbers, wood, poles.
   - Notify NJDCJ of large quantities of such material, or if bathers are injured.
   - Retain object that caused injury.

Notification Procedures

Call the NJDCJ (609) 984-4470 during normal working hours, or (609) 292-7172 after hours and on weekends. State that you wish to report on the collection of beach wash-up evidence. Appropriate action will be taken at this time.
# State of New Jersey

**DEPARTMENT OF LAW AND PUBLIC SAFETY**  
**DIVISION OF CRIMINAL JUSTICE**

**MARINE POLLUTION UNIT**  
**BEACH DEBRIS EVIDENCE QUESTIONNAIRE**

**ITEM(S) FOUND BY:**

<table>
<thead>
<tr>
<th>Name</th>
</tr>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Citizen</th>
<th>Permanent Address</th>
<th>Local Address</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>City, State, Zip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Telephone Number</td>
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<table>
<thead>
<tr>
<th>Agency</th>
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<table>
<thead>
<tr>
<th>WHERE ITEM(S) WERE FOUND:</th>
<th>WHEN WERE ITEM(S) FOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Town:</td>
<td>Date:</td>
</tr>
<tr>
<td>Beach:</td>
<td>Time:</td>
</tr>
<tr>
<td>Street:</td>
<td>By Whom: Other than above write address on back</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF ITEM(S) FOUND:</th>
<th>INJURIES REPORTED</th>
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<tbody>
<tr>
<td>Water</td>
<td>Name:</td>
</tr>
<tr>
<td>At Water's Edge</td>
<td>Nature:</td>
</tr>
<tr>
<td>Between High Tide Line &amp; Water</td>
<td>Address:</td>
</tr>
<tr>
<td>Beyond High Tide Line (Beach)</td>
<td>Telephone:</td>
</tr>
<tr>
<td>In Dunes</td>
<td>State DOH Notified: [ ] Yes</td>
</tr>
<tr>
<td>Under Boardwalk</td>
<td>[ ] No</td>
</tr>
<tr>
<td>Other</td>
<td>Retain all Medical Waste</td>
</tr>
<tr>
<td>Describe:</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>DESCRIPTION OF ITEM(S):</th>
<th>MEDICAL RELATED WASTE</th>
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<tbody>
<tr>
<td>NON-MEDICAL WASTE</td>
<td>QTY.</td>
</tr>
<tr>
<td></td>
<td>[ ] Hypodermic Syringes</td>
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<tr>
<td></td>
<td>[ ] Dialysis Bags</td>
</tr>
<tr>
<td></td>
<td>[ ] Blood Vials</td>
</tr>
<tr>
<td></td>
<td>Labels or markings</td>
</tr>
<tr>
<td></td>
<td>[ ] Yes or [ ] No</td>
</tr>
<tr>
<td>Drug Paraphernalia</td>
<td>[ ] Tubing</td>
</tr>
<tr>
<td>(crack vials, druggist papers, etc.)</td>
<td>[ ] Small Vials</td>
</tr>
<tr>
<td>Fireworks</td>
<td>Other</td>
</tr>
<tr>
<td>Shopping Bags (w/logos retain)</td>
<td></td>
</tr>
<tr>
<td>Trash Retain any with dates or identifiers</td>
<td></td>
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</tbody>
</table>

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<tr>
<th>DISPOSITION OF ITEM(S) FOUND:</th>
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</thead>
<tbody>
<tr>
<td>[ ] Discarded, send form to NJDCJ, Marine Pollution Unit, Justice Complex, CN 085 Trenton, New Jersey 08625</td>
</tr>
<tr>
<td>[ ] Retained By Whom:</td>
</tr>
</tbody>
</table>

**IF RETAINED CONTACT NJDCJ**  
**MARINE POLLUTION UNIT**  
(609) 984-4470
To report any medical waste or marine pollution incident, please contact the N.J. Department of Environmental Protection at (609) 292-7172.
FEDERAL REGULATIONS

"Medical Waste Tracking Act of 1988" (H.R. 3515)

Signed into law November 1, 1988, the regulations were issued last March.

Establishes a two year demonstration program in which New Jersey will participate.

Requires a manifest tracking system for all generators.

Requires the registration of all generators and transporters with the EPA and State.

Provides for specific labeling requirements for regulated medical waste: waste must be identified as regulated material; name and address of generator must appear on the package.

Provides for specific packaging requirements for regulated medical waste: rigid, leak-resistant, impervious to moisture and tear resistant. For sharps, it must also be puncture-resistant. For fluids, the container must be break-resistant and lidded.

Generators who incinerate on-site are not required to manifest but they must maintain a record of the regulated material incinerated and submit two reports to the EPA covering a six month period.

Transporters must submit four reports to the EPA. These reports will provide information on the disposition and destination of regulated medical waste as well as generator information.

Expands the current State definition of regulated medical waste to include unused sharps.

Class A: cultures & stocks of infectious agents
Class B: bulk bloods & body fluids
Class C: pathology wastes
Class D: sharps which include not only needles and syringes but such items as scalpel blades, test tubes, slides and carpules
Class E: animal carcasses exposed to pathogens
Class F: waste from rare communicable diseases

New Jersey is an Equal Opportunity Employer
Recycled Paper
New York Bight
Floatables Action Plan

Background

Floating material in our waterways has once again become a prevalent sight in the past decade. However, it wasn't until the summer of 1987 that we saw a significant number of washups of floating debris (wood, plastic, etc.) including small amounts of medical type waste on the beaches in New Jersey and New York. Beginning early June, 1988, the appearance of these materials resulted in the closings of beaches on Long Island, New York City and New Jersey.

After the 1987 washups, the Environmental Protection Agency (EPA) - Region II undertook three months of helicopter surveillance and on-site investigations of floatables accumulation in the New York/New Jersey Harbor. From November 1987 through January, 1988, EPA scientists mapped the estuaries and shorelines that were most heavily impacted, and looked at possible sources, and the dynamics of floatables material.

Our mapping efforts revealed the following:

1) The most heavily impacted areas were the Arthur Kill, Pralls Island, shoreline of Staten Island and the Island of Meadows.

2) The further south and east of the New York Metropolitan Areas, the cleaner the shorelines.

3) Minimal floatables pollution was found along the most developed shorelines.

Sources of floatable materials identified included combined sewer overflows, stormwater runoff, beach and pleasure vessel litter, marine transfer operation of solid waste, wood from decaying piers and vessels, and the resuspension of the materials already deposited on the shoreline. EPA's investigation into the dynamics of floatables pollution determined that slicks are most prevalent during the high lunar tides from a new or full moon and after heavy rains which result in combined sewer overflows.

To further EPA's understanding of floating debris in the New York Bight area, its Ocean Survey Vessel, Peter W. Anderson was utilized to collect debris along different transects within the New York/New Jersey Harbor Complex and perpendicular to the New Jersey and Long Island shorelines. The survey was conducted from August 29, through September 1, 1988, following severe thunderstorms and a full moon. This sampling survey revealed that floatables were most heavily concentrated in the Harbor and the collected material included plastic bags, wood, cigarette butts, paper products, tar balls, grease balls, and sewage.
related items (condoms, tampon applicators, etc.). The sampling of the Long Island and New Jersey transects recovered only a small amount of floatables which consisted mainly of small pieces of plastics and pellets.

**Floatables Action Plan**

In August, 1988, an Interagency work group was formed to develop a floatables action plan as part of the New York Bight Restoration Plan. Members of the work group are EPA (chair), New Jersey Department of Environmental Protection, New York State Department of Environmental Conservation, New Jersey Authorities Association, National Oceanic and Atmospheric Administration, United States Coast Guard, United States Army Corps of Engineers, Interstate Sanitation Commission, the Waste Management Institute of SUNY at Stony Brook, New York City Department of Environmental Protection and the New York City Department of Sanitation. The work group has developed an Action Plan to ameliorate the problem to the greatest degree possible during the summer of 1989. This plan has been approved by all involved agencies and was announced on March 7, 1989.

The Action Plan is a multi-agency effort for the summer of 1989 to address the problem of floatables within the New York/New Jersey Harbor. The plan basically consists of surveillance, regular cleanups at established key locations, nonroutine cleanups, and a communication network.

As discussed above, most floatable debris slicks that can impact the shorelines of New Jersey and New York are known to originate in the New York/New Jersey Harbor. Major slicks have been primarily observed in Upper New York Harbor, Lower New York Harbor in Arthur Kill River, and Hudson River (see Figure 1). Therefore the surveillance plan that will be implemented from May 15 to September 15 concentrates on detecting floatable debris slicks within the Harbor but still provides monitoring of the Long Island and New Jersey shorelines.

Surveillance will be provided as follows:

- New Jersey Department of Environmental Protection (NJDEP) Helicopter
  - Daily surveillance of New Jersey shoreline and Lower New York Harbor - Monday through Sunday except Wednesday

- United States Environmental Protection Agency (USEPA)
  - Helicopter: Daily Surveillance of New York harbor, and surveillance of New Jersey and Long Island shores as part of the normal water quality monitoring program - Monday through Saturday
- Research Vessel Clean Waters: Patrol NY Harbor twice/week and is manned by USEPA and NYSDEC staff.

- United States Coast Guard (USCG) -
  - Helicopter: Routine patrols 3 days/week
  - Patrol Vessel: Routine patrol daily in New York/New Jersey Harbor and weekly patrol of the New York Bight

An integral part of the plan will be the regular cleanup of the harbor at established key locations. These locations have been identified as the Verrazano Narrows and the outflow of the Arthur Kill into the lower Harbor. The USACE will perform the cleanups with their drift vessels utilizing specially designed nets (effective openings of less than 1 3/4 inch). To dispose of the collected debris, New York City Department of Sanitation will supply barges or allow the USACE access to the Marine Transfer Stations.

The regular scheduled clean-ups will occur on the day before, day of, and day after the full and new moon high tides. These operations will be performed only during daylight hours. During the period of May 15 to September 15, twenty-six days of cleanup will be accomplished. Also the USACE will conduct cleanups at the two key locations following significant storm events that cause combined sewer overflows.

The plan also will focus on the capturing of debris slicks that are spotted within New York/New Jersey Harbor. The USACE vessels and a fishing cooperative, vessels under contract with NJDEP will be available to conduct clean-up operations. For slicks that are observed beyond the Sandy Hook-Rockaway Point transect, a NOAA/USCG model will be used to predict potentially impacted areas. The State floatables coordinators will be informed of the potential slick washups and will notify the local authorities of it.

To administer the plan, a communication network (Figure 2) has been established for reported sightings of floatable debris. The EPA floatables coordinator will function as the center of the reporting network and will coordinate cleanups activities. All agencies involved in the surveillance and clean-up operations will be available 24 hours/day through the use of hotline numbers and paging systems.

In conclusion, the Floatables Action Plan for the Summer of 1989 has been developed as a short-term measure to ameliorate the problem to the greatest degree possible. The successful operation of this plan does not guarantee that no washups of marine debris will occur. These washups will not cease until all sources of marine debris are controlled.
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Class F: waste from rare communicable diseases
**FLOATABLES ACTION PLAN**

**SUMMER 1989**

**MAY 15 TO SEPTEMBER 15**

*Surveillance*

- **New Jersey Department of Environmental Protection (NJDEP) Helicopter**
  - Daily surveillance of New Jersey coast and Lower New York Harbor – Monday through Sunday except Wednesday

- **United States Environmental Protection Agency (USEPA)**
  - Helicopter: Daily Surveillance of New York Harbor, and surveillance of New Jersey and Long Island shores as part of normal water quality monitoring program – Monday through Saturday
  - Research Vessel Clean Waters: Patrol NY Harbor twice/week and is manned by USEPA and NYSDEC staff.

- **United States Coast Guard**
  - Helicopter: Routine patrols 3 days/week
  - Patrol Vessel: Routine patrol daily in New York/New Jersey Harbor and weekly patrol of the New York Bight
Regular Cleanups

- Regular scheduled cleanups will take place at established key locations – Verrazano Narrows and Arthur Kill
  - New and Full Moon High Tides
    - 3 days/moontide
  - Following significant storm events that cause combined sewer overflows

- US Army Corps of Engineers (USACE) to attempt normal cleanups with its vessels utilizing specially designed nets provided by the States of New York and New Jersey

- New York City Department of Sanitation will supply barges/allow USACE access to Marine Transfer Stations and dispose of the collected material
Nonroutine Cleanups

- Will focus on capturing slicks within New York/New Jersey Harbor Complex.

- USACE will attempt to capture slicks using their vessels. NJDEP is also developing the capability to utilize fishing vessels to capture slicks.

- Slicks spotted outside of Harbor Complex
  - National Oceanic & Atmospheric Administration/USCG model to be utilized to predict potentially impacted areas
  - State coordinators will notify local authorities of potential washup
COMMUNICATIONS NETWORK FOR REPORTING AND RESPONDING TO FLOATABLE DEBRIS SLICKS.