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SOUTH RIVER COMPREHENSIVE VESSEL MANAGEMENT PLAN
and
PLAN DEVELOPMENT FOR THE COASTAL BAYS

Final Report

for

Coastal Zone Management Grant
October 1991 - December 1992

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Prepared Pursuant to
Intra-Departmental Agreement
#C283-92-005, 05 NA170Z0497-01

MARYLAND

NA170Z0497-01

TASK 8

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WORK PRODUCTS & ACCOMPLISHMENTS
SOUTH RIVER COMPREHENSIVE VESSEL MANAGEMENT PLAN

1) Final text of the South River Comprehensive Vessel Management Plan

* The final text was prepared after an extensive public participation process that included the February 26, 1992 public hearing, several meetings with citizens and groups, and a lengthy public comment period in which 40 letters were submitted for consideration. The plan contains final speed limit regulations and policy recommendations.

2) Final speed limit regulations and area designations for the South River Comprehensive Vessel Management Plan, COMAR 08.18.25

* The final regulations are in accordance with recommendations presented in the hearing officer's report for the South River issued May 19, 1992. The regulations became effective June 8, 1992. Changes to the regulations include Almshouse Creek to 6 knots effective at all times for the entire year.

3) Hearing Officer's Report for the South River Comprehensive Vessel Management Plan

* The report contains a discussion of issues raised at the February 26, 1992 public hearing and during the comment period, and recommendations based on a review of all information submitted for the record. The hearing officer issued several recommendations related to the speed limit regulations and monitoring of boating activities on the river.

4) Buoys and Signage on the South River

* 25 regulatory buoys and 51 signs were used to mark the South River to inform users of the speed limits and area designations. Buoys are placed in March and April and retrieved in October and November for maintenance. Signs remain in place year-round. All regulatory markers are in accordance with the Uniform State Waterway Marking System described in the Code of Federal Regulations.

5) **The South River Comprehensive Vessel Management Plan brochure and poster**

* The brochure includes a description of the plan, the plan goals, a map of the final speed limit regulations, and information on safe and responsible boating. The poster shows a map of the river complete with the final speed limit regulations and definitions of the area designations.

  The brochure was initially distributed during the 1992 boating season to educate and inform the public about the South River Plan. It will also be distributed to marine businesses and community associations throughout the 1993 boating season. The poster will be displayed at boat launch sites along the South River in 1993.

6) **Request for Proposal and Scope of Work for Study of Recreational Boating Impacts on Water Quality and Submerged Aquatic Vegetation in the South River**

* The proposal and scope of work was prepared in accordance with a recommendation given in the hearing officer's report for the South River to investigate the impacts of recreational boating on submerged aquatic vegetation and water quality.

  The proposal and scope of work was submitted to the Center for Estuarine and Environmental Studies at the University of Maryland at Horn Point. Work is slated to begin in March of 1993.

7) **South River Citizen Review Panel**

* As recommended in the plan, a seven-member citizen review panel was established to assess the effectiveness of the South River Plan and speed limit regulations and provide recommendations for potential changes. The panel consists of representatives from the various boating and community interests on the river, i.e. water skiers, sailors, community association members, etc., and is expected to provide input over the next two years.

  The members are currently reviewing boating data from 1992 and will provide a statement of their opinions and recommendations for the 1993 boating season.

Maryland Department of Natural Resources
Boating Administration
580 Taylor Avenue
Tawes State Office Building, E-4
Annapolis, MD 21401
(410) 974-2916

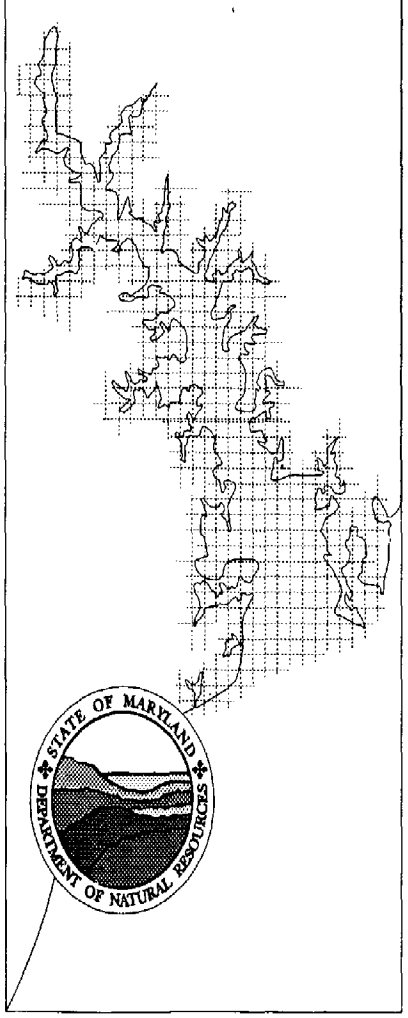
PUMP OUT STATION

NATURAL RESOURCES POLICE RADIO ROOM

EMERGENCY PHONE NUMBERS
(410) 267-7740 OR 1-800-628-9944

SOUTH RIVER

Comprehensive Vessel Management Plan



SPEED LIMITS & AREA DESIGNATIONS (Year-Round)

6 Knots At All Times

Boyd Point Cove
Cedar Point Cove
Gingerville Creek
Granville Creek
Harness Creek
Lake Hillsmere
Oyster Creek entrance channel
Pocahantas Creek
Ramsey Lake Bridge channel
Route 2 Bridge area
Warehouse Creek

6 Knots Sat., Sun. and State Holidays

Ramsey Lake
Selby Bay

Minimum Wake Area At All Times

Beards Creek (upper portion)
Cherrytree Cove
Flat Creek
Upper South River
(near Route 50 Bridge)

RESPONSIBLE BOATERS

* RESPONSIBLE BOATERS ARE PROPERLY TRAINED AND THEIR VESSELS ARE PROPERLY EQUIPPED

* RESPONSIBLE BOATERS TAKE THE TIME TO BE SAFE PRIOR TO LEAVING THE DOCK

* RESPONSIBLE BOATERS OPERATE THEIR VESSELS IN A SAFE & CONSCIENTIOUS MANNER

* RESPONSIBLE BOATERS ENSURE THAT MARYLAND'S WATERS ARE PROTECTED FOR FUTURE GENERATIONS

SPEED LIMITS & AREA DESIGNATIONS (April 15 through October 15)

35 Knots Daytime/20 Knots Night time

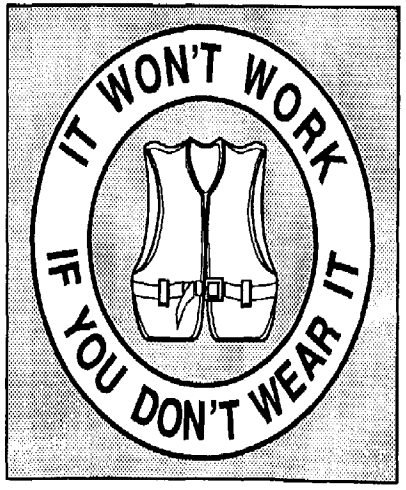
Area west of the Route 2 Bridge (including Beards and Broad Creeks when 6 knot speed limit not in effect) to Upper South River Controlled Ski Area

6 Knots At All Times

Aberdeen Creek (upper portion)
Almshouse Creek
Crab Creek
Church Creek
Duvall Creek
Glebe Creek
Little Aberdeen Creek
Riva Road Bridge area

6 Knots Sat., Sun. and State Holidays

Aberdeen Creek (lower portion)
Beards Creek (lower portion)
Brewer Creek
Broad Creek (upper portion)



What is a Comprehensive Vessel Management Plan

During the past two decades, recreational use on Maryland's waterways has increased dramatically. In 1970, there were 68,714 registered and approximately 3,000 documented vessels in the State. By 1991, the count was 180,808 registered and 9,674 documented boats on Maryland waters, almost a threefold increase.

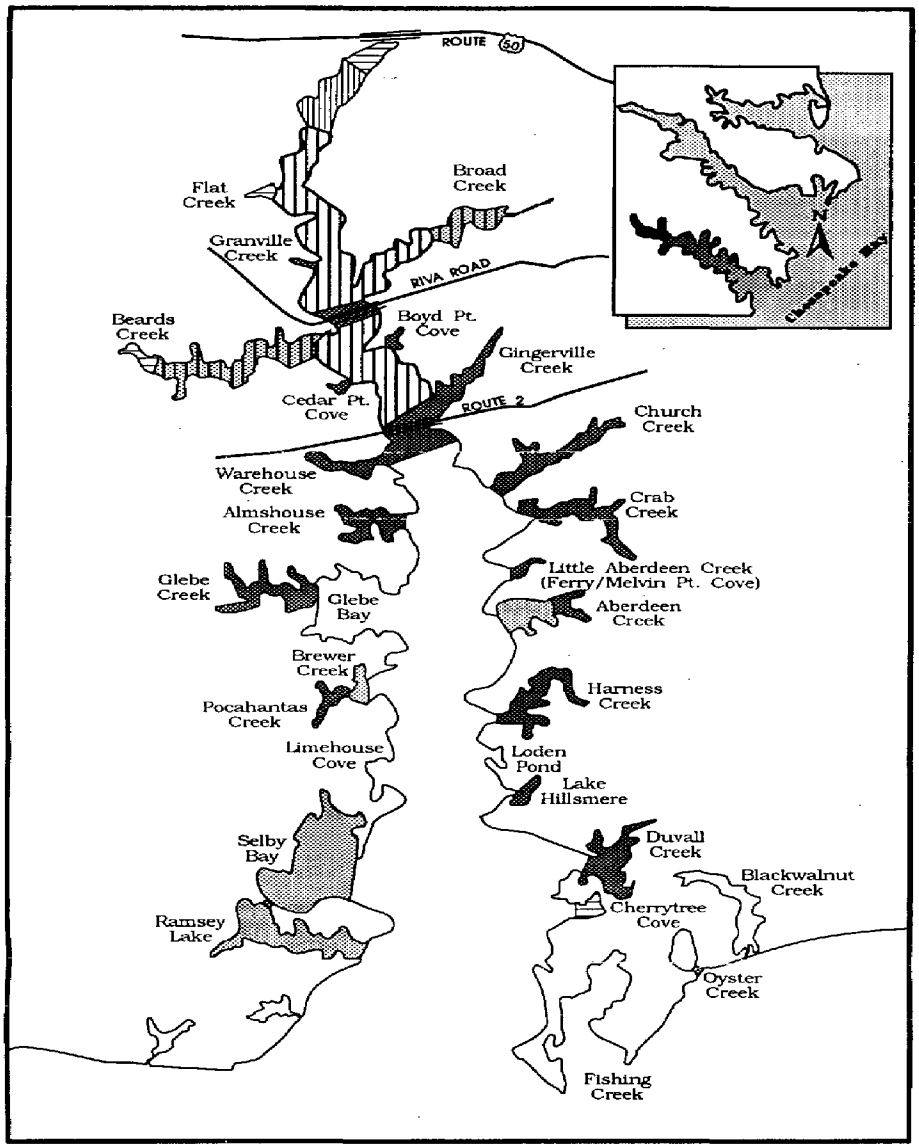
In an effort to balance recreational activities, protect the environment and increase safety on the water, the Department of Natural Resources (DNR), with the assistance of river users and the general public, reviews boating activities on congested Maryland waterways. The end result of such a review is a comprehensive vessel management plan.

The plan provides for the continued enjoyment of boating and other water-related activities on Maryland waters for everyone.

South River Comprehensive Vessel Management Plan

In 1990, in response to public outcry over high vessel speeds, traffic congestion and concern for the environment on the South River, the DNR began working with citizens to develop a South River Comprehensive Vessel Management Plan. Specifically designed to increase public safety, enhance recreational opportunities and protect natural resources, the plan regulations include maximum speed limits for daytime and nighttime operation of boats; minimum wake speed limits for safety and natural resources protection; 6 knot speed limits during times of high boat traffic and congestion; and a "controlled water ski area" for slalom course water skiing and jumping.

The South River speed limits and use areas are posted on regulatory buoys and signs. Boaters should be aware of these regulatory markers which are colored white, black and international orange.



CONTROLLED SKI AREA - A portion of the Upper South River has been designated as a "controlled ski area." The following provisions apply to the controlled ski area:

a) when the permitted slalom course or ski jump is in use, all other vessels must operate at a minimum wake speed; and

b) the placement of mooring buoys within 200 feet of the permitted slalom course or ski jump is prohibited.

MINIMUM WAKE AREA - Areas on the South River which have significant natural resources and/or are often used for passive recreational activities are regulated as a "minimum wake area." Minimum wake is defined as the minimum speed necessary to maintain vessel steerage.

DAYTIME HOURS
Sunrise to Sunset

NIGHTTIME HOURS
Sunset to Sunrise

SPEED LIMITS & AREA DESIGNATIONS

- 6 Knot Maximum at All Times
- 6 Knot Maximum Sat., Sun., & State Holidays
- 35 KNOT DAYTIME, 20 KNOT NIGHTTIME
- MINIMUM WAKE AREA
- CONTROLLED SKI AREA

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

YOU ARE RESPONSIBLE FOR YOUR WAKE

Realize that your vessel wake may damage property, cause erosion, and affect the safety of other boaters. An unexpected boat wake could be a tragedy to a fellow boater or skier.

Restoring The Chesapeake

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The facilities and services of the Department of Natural Resources are available to all without regard to race, color, religion, sex, age, national origin, physical or mental disability.

BOATERS...

Maryland's Endangered Species Need Your Help!

ENTERING CLOSED AREAS IS A VIOLATION OF STATE LAW!

STATE OF MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Boaters have a long history of helping to protect Maryland's natural resources. By utilizing marine sewage pump-out facilities and by avoiding illegal dumping of plastics and other trash, boaters are spearheading conservation efforts in the coastal waters as well as throughout the State. Once again, your assistance is needed to improve and protect the environment. As the popularity of boating and other water-related activities has grown, problems with the disturbance of wildlife and their habitats have become more common.

WHAT TYPES OF WILDLIFE ARE BEING DISTURBED?

Threatened/Endangered species and colonial nesting waterbirds such as herons, plovers, terns, gulls, pelicans, ibises, egrets and skimmers are under increasing pressure from human activity. In Maryland, there are only 100 locations where these birds nest. Typically, they nest in isolated areas on small islands and beaches. Some of these areas are also popular with boaters and beachgoers because of the natural beauty of the setting. It is in these sensitive areas that conflicts occur.

WHERE ARE PROBLEMS MOST SEVERE?

In Maryland's Coastal Bays, these problems are especially evident. Although relatively small water bodies, the Coastal Bays provide recreational opportunities for boaters from throughout the Mid-Atlantic region. These boaters sail, clam, cruise and fish the waters of the Coastal Bays and the Atlantic Ocean. Assateague Island National Seashore also draws a large number of hikers, beachcombers, clammers, surfers, campers and canoeists, who use the surrounding Bay waters.

WHAT BIRDS IN THE COASTAL BAYS ARE IN NEED OF PROTECTION?

Of greatest concern in the Coastal Bays are bird species listed as "Endangered", "Threatened" or "In Need of Conservation". Species designated as endangered or threatened have experienced a significant decline in population and a substantial habitat loss. Species designated as in need of conservation are limited or declining in Maryland and may become threatened in the foreseeable future. Although boaters should avoid disturbing all wildlife, of particular concern are the following birds which are listed as either threatened, endangered or in need of conservation: Piping Plovers, Royal Terns, Black Skimmers, Gull-billed Terns and Least Terns.

HOW ARE BOATERS DISTURBING THE BIRDS?

A major threat to these birds in the Coastal Bays is boaters operating and landing their vessels in areas which serve as critical nesting and feeding habitats. Once in these areas, boaters and beachgoers disturb the birds in several ways. Hiking or walking on beaches or islands may unintentionally scare birds from the nest, leaving the eggs unprotected and exposed to predation and the hot sun. Clamming or walking on exposed mudflats may inadvertently disturb adult birds and chicks when feeding. On occasion, boaters release pets that enter the bird's nesting and foraging areas, frequently chasing and killing chicks. Coupled with loss of habitat and predation, these actions can so severely stress the birds that nesting failure, malnutrition and starvation can occur.

WHAT SHOULD YOU DO TO PROTECT NESTING & FEEDING BIRDS?

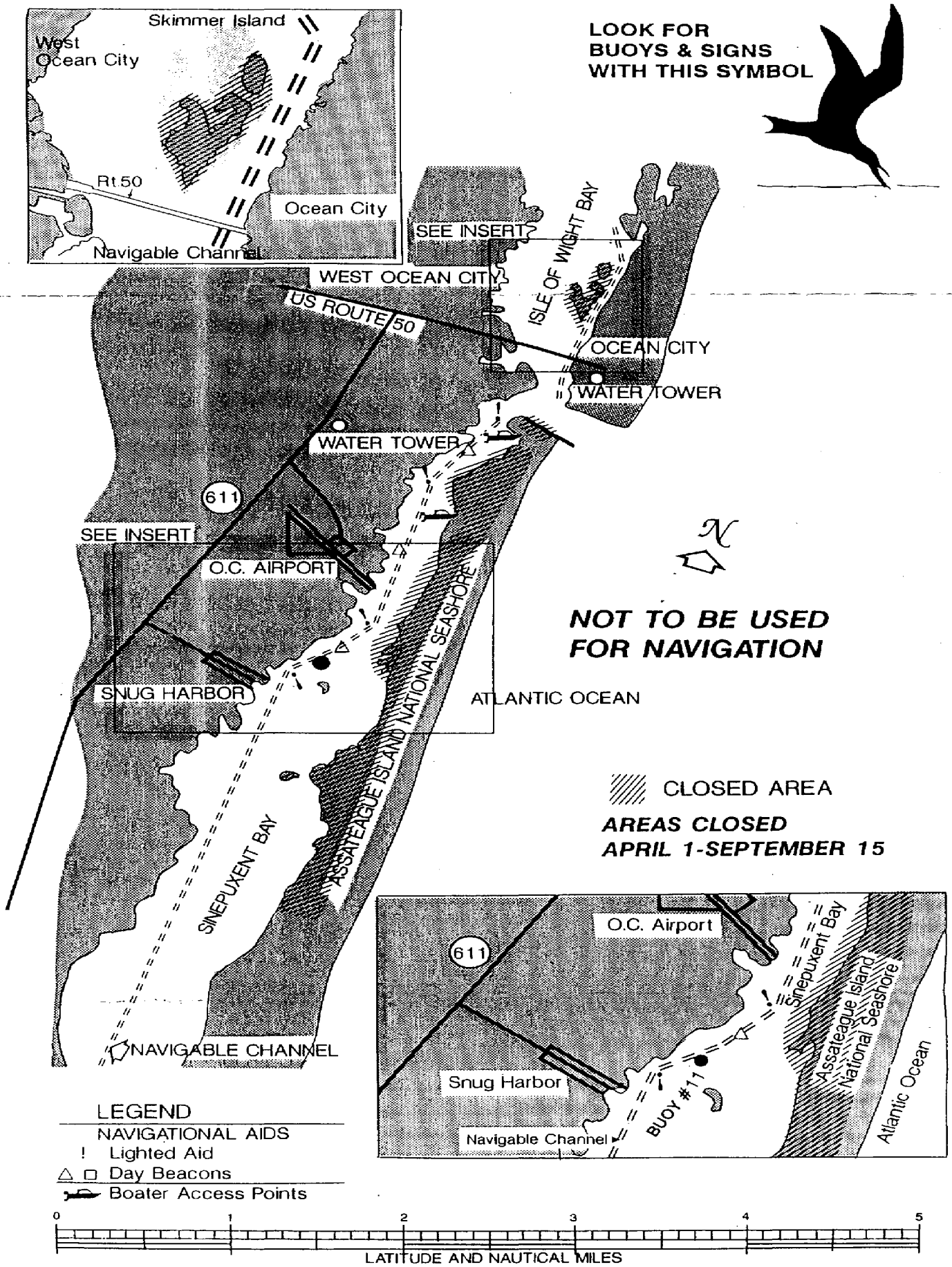
Limited areas in Sinepuxent and Isle of Wight Bays have been closed to boating by the Maryland Department of Natural Resources (DNR) to protect threatened and endangered birds species. The boating closures serve as narrow buffers to important nesting and feeding areas. Please refer to the map on the reverse side of this brochure which details the closed areas. Closures are in effect only during those critical periods of the year when the birds nest and feed in the Coastal Bays. Boaters should look for regulatory buoys and signs designating areas off limits to boats. These signs and buoys are colored black, white and international orange. Closure areas correspond to posted areas on shore. Boaters should also exercise caution when operating in close proximity to any other bird nesting and feeding sites in the Coastal Bays. These sites are posted, "Bird Nesting Area-Keep Out". Enjoy the birds at a distance. Binoculars are the best way to observe these birds and other wildlife. The Guide for Cruising Maryland Waters depicts these sites throughout the Coastal Bays. Please do not release pets in areas where birds are located.

WILL BOATERS BE ALLOWED ACCESS TO ASSATEAGUE ISLAND NATIONAL SEASHORE AND OTHER BAY ISLANDS?

Yes. However, to conserve Piping Plovers the National Park Service has closed much of the northern portion of Assateague Island National Seashore to all activities. Narrow boating closures also prohibit vessels from landing on portions of the National Seashore. Access for boaters and beachgoers has been provided in other areas. Please refer to the map on the reverse side of this brochure which details those areas. Many unclosed Coastal Bay islands are available, however, boaters should be aware that some of these islands are under private ownership and that permission may be required. Through cooperation and assistance, you can ensure the enjoyment and protection of wildlife for all those who live and recreate on Maryland's waters.

DEPARTMENT OF NATURAL RESOURCES
BOATING ADMINISTRATION
580 TAYLOR AVENUE
ANNAPOLIS, MARYLAND 21401
(410) 974 2918

DEPARTMENT OF NATURAL RESOURCES
RESOURCE CONSERVATION SERVICE
580 TAYLOR AVENUE
ANNAPOLIS, MARYLAND 21401
(410) 974-2870 NATURAL HERITAGE PROGRAM
(410) 827-8612 NONGAME & URBAN WILDLIFE PROGRAM



The facilities and services of the Department of Natural Resources are available to all without regard to race, color religion, sex, age, national origin, and physical or mental disability.

PERSONAL WATERCRAFT
QUESTIONS & ANSWERS

What Is Considered A Personal Watercraft?

1. Motorcraft less than 16' in length.

2. Inboard motor/combustion engine powering a water jet pump.

3. Operator/passenger ride on outside, not inside of vessel.

4. Operator/passenger may in the normal course of operation fall overboard.

5. Designed with no open load carrying area to retain water.

Can I TOW another person on water skis behind my Personal Watercraft?

No.

Should I thouroughly study & understand these regulations before operation?

Yes.

Restoring
The
Chesapeake

William Donald Schaefer
Governor
State of Maryland

Torrey C. Brown, M.D.
Secretary
Department of Natural Resources

CHECK LIST

- ☐ You must be 14 years of age or older.
- ☐ No towing of water skiers, aquaplanes, or similar devices.
- ☐ If you were born AFTER July 1, 1972, you must carry your Boater Safety Education Certificate.
- ☐ Each person on watercraft must wear an approved Personal Floatation Device.
- ☐ You will be operating the craft between Sunrise and Sunset.
- ☐ Is your craft equipped with an operating self-circling or lanyard engine cut-off, and are you using it.
- ☐ In Maryland Atlantic Ocean waters you are not operating within 300 feet of people or surf fishing activities, or at a speed greater than 6 knots when approaching within 100 feet of vessels, wharfs, jetties, or piers.
- ☐ In other Maryland waters you are not operating at a speed greater than 6 knots when approaching within 100 feet of a vessel, shore, wharf, pier, piling, bridge structure, abutment, or people in the water.
- ☐ You are operating your personal watercraft in a responsible and safe manner.

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STATE OF MARYLAND

DEPARTMENT OF NATURAL RESOURCES

PERSONAL WATERCRAFT REGULATIONS

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
BOATING ADMINISTRATION
580 TAYLOR AVENUE, E-4 ANNAPOLIS, MD 21401
410/974-2918

PERSONAL WATERCRAFT REGULATIONS

.01 Scope.

A. The regulations of this chapter govern the use of personal watercraft on all waters of the state.
B. Personal watercraft shall comply with all laws and regulations governing Class A vessels, unless otherwise noted in these regulations.

.02 Purpose.

In addition to these regulations, personal watercraft operated on the waters of Deep Creek Lake are subject to restrictions under COMAR 08.08.02.01J.

.03 Exceptions.

This chapter does not apply to:
A. Personal watercraft used solely for the purpose of emergency rescue operations & associated training programs;
B. The following activities, if approved by the Department of Natural Resources or the U.S. Coast Guard:
(1) Personal watercraft engaged in a professional exhibition,
(2) A regatta,
(3) A motorboat race, or other boat race,
(4) A marine parade,
(5) A tournament or exhibition.

.04 Definitions.

A. In this chapter the following terms have the meanings indicated.
B. Terms Defined:
(1) "Class A Vessel" means a motorboat less than 16' in length, as defined by the U.S. Coast Guard in 46 CFR 24.10-17.
(2) "Personal Watercraft" means a Class A vessel, which:
(a) Has an inboard motor which uses an internal combustion engine powering a water jet pump as its primary source of motive propulsion ;
(b) Is designed with the concept that the operator & passenger ride on the outside surfaces of the vessel as opposed to riding inside the vessel;
(c) Has the probability that the operator and passenger may, in the normal course of use, fall overboard; &
(d) Is designed with no open load carrying area which would retain water.
(3) "Specialty prop craft" means a vessel less than 16' in length similar in appearance & operation to a personal watercraft but the primary source of propulsion is a propeller. For the purpose of this chapter, a specialty prop craft shall be considered a personal watercraft.

.05 Restrictions.

A. A person may not lease, hire, rent, operate or give permission to operate a personal watercraft unless the operator is 14 years old or older.

B. A person may not operate nor give permission to operate a personal watercraft for the purpose of towing a person on water skis, aquaplane, or similar device.

C. A personal watercraft operator born after July 1, 1972 shall carry a certificate of Boater Safety Education pursuant to Natural Resources Article, §8-712.2, Annotated Code of Maryland.

D. A person may not operate or give permission to operate personal watercraft on the waters of the state unless each person on board is wearing a Type I, Type II, Type III or Type V personal flotation device approved by the United States Coast Guard.

E. A person may not operate or give permission to operate a personal watercraft on the waters of the state between sunset & sunrise.

F. A person may not operate or give permission to operate on the waters of the State a personal watercraft unless it is equipped with a self-circling device, or a lanyard-type engine cutoff switch.

G. Notwithstanding the requirements of §F of this regulation, a person may not operate or give permission to operate on the waters of the state a specialty prop craft unless it is equipped with a lanyard-type engine cutoff switch.

H. A person may not operate or give permission to operate on the waters of the State a personal watercraft equipped by the manufacturer with a lanyard-type engine cutoff switch unless the lanyard is operational & attached to the operator of the personal watercraft, the operator's clothing, or a personal flotation device worn by the operator.

I. A person may not operate or give permission to operate on the waters of the State a personal watercraft equipped by the manufacturer with a self-circling device, if the self-circling device or engine throttle has been altered in any way that would prohibit the self-circling device from operating in its intended manner.

J. Within the Maryland waters of the Atlantic Ocean, a person may not operate or give permission to operate a personal watercraft at any time:

(1) Within 300' of people in the water or surf fisherman; &
(2) At a speed of more than 6 knots when approaching within 100' of a vessel, wharf, pier, or jetty.

K. On Maryland waters other than the Atlantic Ocean, a person may not operate or give permission to operate a personal watercraft on the waters of the state at any time at a speed in excess of 6 knots when approaching within 100' of a vessel, shore, wharf, pier, piling, bridge structure or abutment, or people in the water.

L. A person may not operate a personal watercraft in a negligent manner. The following are examples of negligent operation & are not intended to limit the actions which may constitute negligent operation:

(1) Jumping, or attempting to jump, the wake of another vessel, within 100' of the vessel;
(2) Following within 100' of a water skier;
(3) Weaving through congested vessel traffic;
(4) Speeding on restricted areas; or
(5) Operating a personal watercraft in a manner that endangers the life, limb, or property of a person, including the operator.

M. A personal watercraft livery owner, or the livery owner's agent or employee shall:

(1) Prominently display these regulations governing personal watercraft;
(2) Advise renters to read the regulations;
(3) Within 30 days of the effective date of these regulations, add to the rental contract a statement that the renter or operator has read & understands the personal watercraft regulations. This statement shall be signed by the renter or operator, retained in the files of the livery operator for at least 30 days, & be made available to the Department upon request.

.06 Designated Areas.

The Department may establish special areas for the use of personal watercraft governed by rules & regulations particular to that area.

WORK PRODUCTS & ACCOMPLISHMENTS
PLAN DEVELOPMENT FOR THE COASTAL BAYS, WORCESTER COUNTY

1) **Emergency and Proposed Prohibited Areas Regulations for the Coastal Bays, COMAR 08.18.18.05**

* The emergency regulation was promulgated in May 1992 to address immediate concerns relating to the disturbance of threatened and endangered bird species from recreational boating activities in critical habitat areas. The emergency regulation expired on September 15, 1992.

  A permanent boating regulation was proposed to permanently protect the birds during their nesting period in Maryland. Companion wildlife regulations prohibit public access to beach and intertidal areas where the birds nest and feed. A public hearing was held on September 30, 1992, and comments were accepted until November 2, 1992. No changes to the proposed regulation are anticipated. The regulation's effective date is April 1, 1993.

2) **Hearing Officer's Report for the Prohibited Areas Regulation for the Coastal Bays**

* The report contains a discussion of issues raised at the September 30, 1992 public hearing and during the comment period, and recommendations based on a review of all information submitted for the record. No changes to the proposed regulation were recommended.

3) **Prohibited Areas Brochure and Poster**

* The brochure describes the endangered and threatened bird species, their habitat and the conflicts between the birds and human activities. The brochure and the poster includes a map of the areas around Skimmer Islands and Assateague Island in Isle of Wight and Sinepuxent Bays.

  The brochure was used to inform and educate the public about the prohibited areas for the 1992 season. The brochure and poster will also be distributed at marinas and boat launch sites throughout the Ocean City area in the Spring of 1993.

4) **Personal Watercraft Information and Education**

* One of the most common complaints, statewide, is the improper operation of personal watercraft (PWC). In response, during the 1992 boating season, the Boating Administration undertook an aggressive public information and education campaign directed at PWC users and dealers. There was particular emphasis in the Coastal Bays due to

the large numbers of PWC used there. All the PWC dealers and rental operations in the Ocean City area were personally visited by a BOA staffperson. Supplies of PWC brochures (attached) and a poster describing PWC rules of operation were distributed.

5) Route 50 Bridge Alternate Channel Proposal

* Options for an alternate channel under the Route 50 Bridge have been evaluated. The purpose of the alternate channel will be to improve public safety by giving smaller boats and PWC another choice in negotiating an area which is often congested and has a very strong current. A meeting with the City Council of the Town of Ocean City is scheduled for February 1993 to discuss this proposal.

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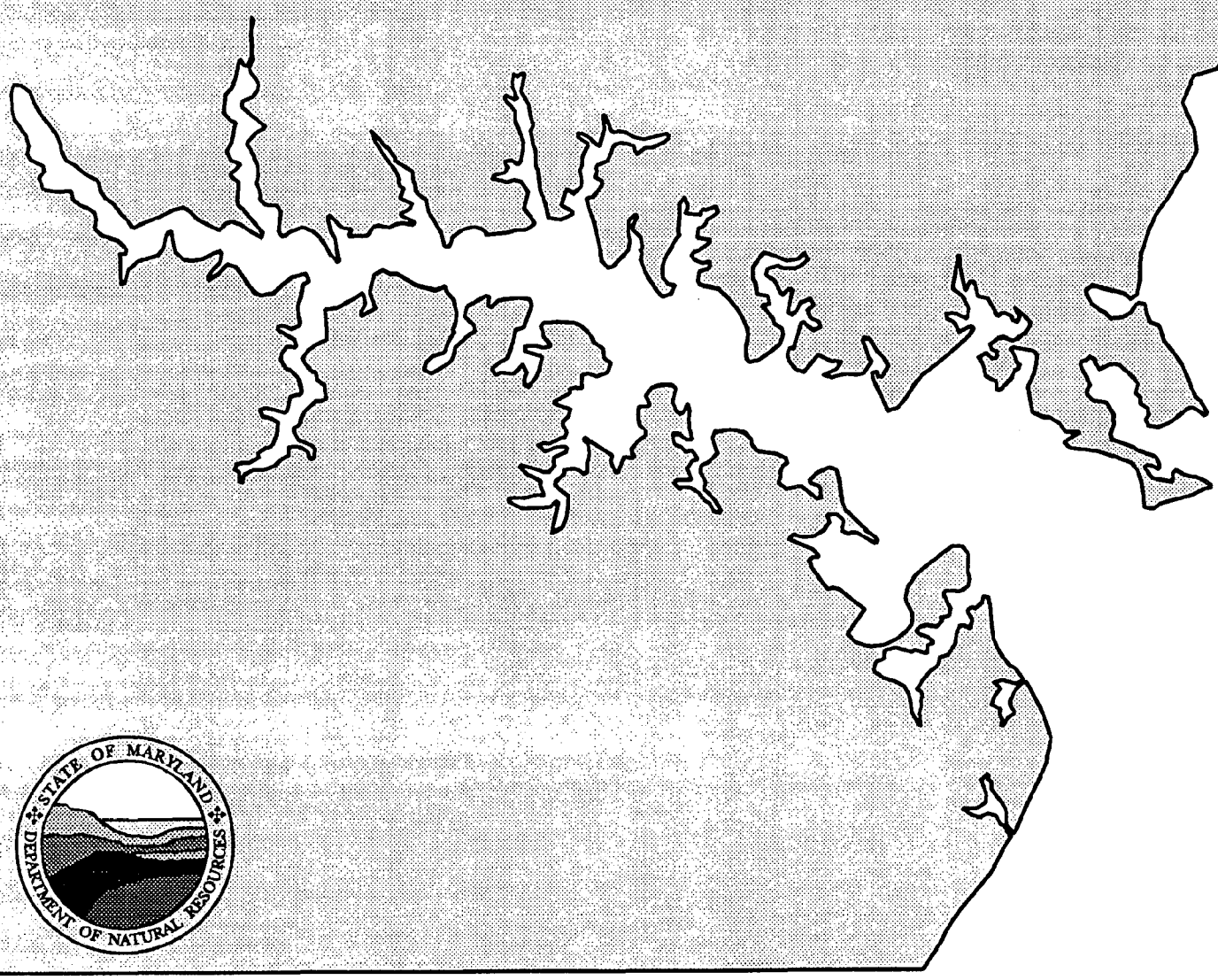
South River Comprehensive Vessel Management Plan

Prepared by:
MARYLAND DEPARTMENT OF NATURAL RESOURCES
BOATING ADMINISTRATION



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I. THE NEED FOR WATERWAY REGULATION

The use of Maryland's bays, rivers, creeks, lakes and coves continues to grow every year. On weekends and holidays especially, tens of thousands of people retreat to our waterways to recreate and relax. This attraction to our waters is the impetus for the Department of Natural Resources to study and regulate the impacts of recreational uses on Maryland's surface water resources, as mandated by the State Boat Act.

Boat Registration and Usage

In 1991, the number of registered and documented boats principally using Maryland waters was 190,182. This represents a dramatic increase over the previous two decades. Since 1970, the number of registered vessels has increased by 162% from 68,714 to 180,508 (Figure 1). Since 1982, the number of documented boats has increased by approximately 100% from 4,840 to 9,674 (Figure 2).

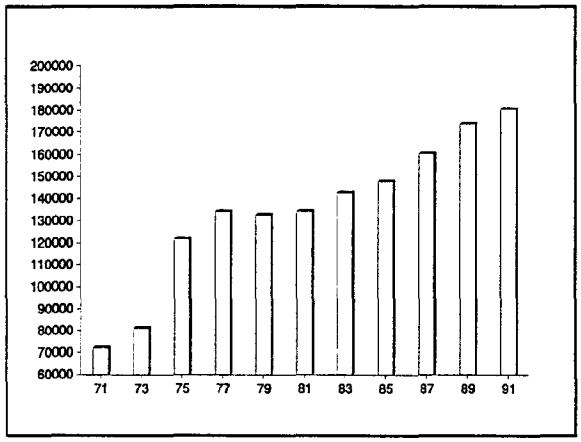

Figure 1 - Registered vessels in Maryland, 1970 - 1991. (DNR Office of Licensing and Watercraft Registration Services)

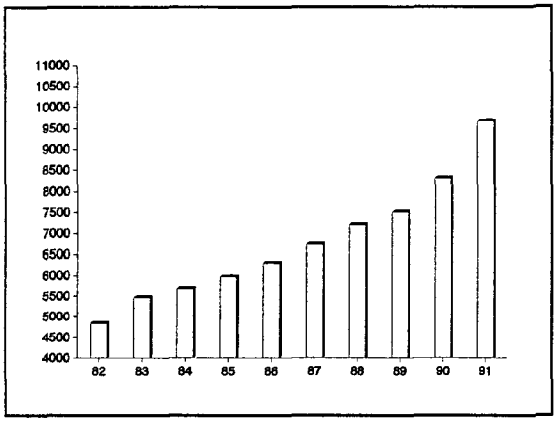

Figure 2 - Documented vessels in the State of Maryland, 1982 - 1991. (DNR Office of Licensing and Watercraft Registration Services)

Of the 190,182 registered and documented vessels, 21,087 or 11% were homeported in Anne Arundel County, making it the most populous boating area in Maryland. These numbers do not include non-motorized watercraft such as sailboats, rowboats, paddleboats, canoes and sailboards.

There is a wide diversity of boat types, sizes and power classes using Maryland's waterways. These boats may include runabouts, skiffs, auxiliary sailboats, cruisers, jonboats, rowboats, personal watercraft, sailboats, performance boats, houseboats and pontoon boats. Boating activities on the waterways also vary and these activities may be classified into seven general categories as used for planning purposes:

1) High Performance Power Boating;
2) Cruising;
3) Water Skiing;
4) Sailing;
5) Fishing;
6) Personal Watercraft Operation; and
7) Manually Propelled Watercraft.

In the following section are descriptions and general characteristics of each of the seven categories:

1. High Performance power boating is typically done in a vessel whose hull and propulsion system are designed to attain high speeds. High performance vessels usually require large open areas of water in order for the boat to achieve peak performance. These boats are capable of reaching very high speeds and are often used for cruising, fishing and racing.
2. Cruising is usually done at speeds much lower than high performance power boating. All forms of watercraft are used for cruising. This activity is primarily concerned with travel from one area to another or the "sight-seeing" opportunities of a trip. Cruising typically involves pre-determined courses and specific travel plans. Cruisers operate in all navigable waters of the State.
3. Water skiing can be divided into two distinct forms: recreational and competitive. Both forms of water skiing typically require vessels which can achieve speeds between 18-32 knots (20-37 mph) and are highly maneuverable. Both forms also require relatively open areas where room to maneuver is available. Ideally, water skiing takes place in protected areas where wave action is reduced and vessel traffic is low. A form of recreational water skiing known as tubing or "boogie boarding" is also growing in popularity on Maryland's waterways.
4. Sailing, unlike power boating, is a slow speed activity. Sailors are typically concerned with the proper operation of their craft and achieving peak wind performance. Sailboats have less maneuverability and are subject to frequent changes in course. Sailboaters generally prefer large open areas and water depth in excess of 6 feet. Sailing may include racing, cruising and sailboarding.
5. Fishing takes place in two forms: sportfishing and commercial fishing. Sportfishing occurs in all waters of the State from various sized vessels. Traditional commercial fishing includes the taking of finfish or shellfish for sale. For planning purposes, commercial fishing may also involve charter boat or "head boat" operation.
6. Personal watercraft (PWC) operation is a relatively new boating phenomenon. PWCs are usually small, highly maneuverable motorized vessels whose operator sits on, rather than in, the craft. PWCs usually use a jet drive for propulsion and may attain speeds of 20-30 knots (22-36 mph). They generally carry only one or two passengers; however, some may carry three persons. These vessels are operable in waters of limited depth.
7. Manually propelled watercraft include canoes, rowboats, rowing shells and kayaks, among others. These activities take place on all waters of the State; however, users typically opt for quiet, less congested waterways. In addition to the recreational boating activities mentioned, thousands of people use the State's waterways to swim, hunt, crab, and bird watch.

User Conflicts

One of the greatest challenges confronting the Department of Natural Resources is providing sufficient recreational opportunities for all groups and individuals using Maryland's waterways. With such a large number of users on the water at the same time, the amount of usable surface water area per boat is significantly reduced, thereby increasing the density of users and forcing non-conforming activities into the same space. When this crowding occurs, conflicts may arise.

The boating activities mentioned above have distinct operational and spatial requirements which tend to differ from one another. For example, a water skier requires uncongested open expanses of water, while a cruiser can operate in more congested waters and narrow channels. Take, for instance, a river

in Anne Arundel County on a summer weekday. Typically, few people use the waterways during the week so there is ample room to participate in water skiing, sailing, cruising or wind surfing. However, that same river on a summer weekend may have a tenfold or greater increase in boat density.

While on-water conflicts are more prevalent, the most volatile conflict appears to be between waterfront property owners and users of the waterways. Some property owners assert that certain uses such as water skiing, cruising and personal watercraft operations deny them the enjoyment of the waterway due to noise, lack of available water area for more passive uses and unsafe conditions. To help reduce the friction among user groups, the Department of Natural Resources encourages boater education and, where necessary, imposes restrictions which limit vessel speeds, reduce noise and designate special activity areas.

Impacts on Public Safety

The impacts of recreational boating on public safety commonly occur in areas of high speed activity and heavy vessel traffic; areas where channel obstructions such as bridge pilings and piers limit the boater's line of sight; areas where heavy passive and active uses conflict; or areas where the physical characteristics of the waterway such as depth, width and meander may hinder or confine vessel operation.

The Department of Natural Resources typically imposes speed limits in areas where public safety is threatened. The speed limits commonly include a 6 knot maximum for Saturdays, Sundays and State Holidays or a 6 knot maximum at all times. Maximum speed limits on main channels that are heavily congested may also be used. For example, on the Severn River, the Department of Natural Resources adopted a 35 knot maximum daytime speed limit and a 20 knot maximum nighttime speed limit on the main channel. Speed limits may be imposed either year-round or from April 15 through October 15 (peak boating period).

Regulations regarding the operation of personal watercraft, water skiing and noise level limits are also in effect. Some of the provisions pertaining to the operation of personal watercraft include: 1) operators must be 14 years old or older; 2) the towing of people is prohibited; and 3) a U.S. Coast Guard approved personal flotation device must be worn at all times. Water skiing is permitted in tidal waters consistent with existing area speed limits and provided that the towing boat remains 100 feet from shore, wharfs, piers, bridge structures or abutments, other boats, and people in the water. The noise level limit for all watercraft operating on Maryland waters, with certain exceptions, is 75 decibels.

Impacts on Natural Resources

Escalating demand for development of recreational activities in Maryland's coastal areas has placed pressures upon estuarine ecosystems. Much of this pressure comes in the form of additional boat launch ramps, pilings, boats, piers, dredging projects and marinas. Potential impacts to natural resources by recreational boating, as used for planning purposes, may occur in four ways:

1) disturbance of wildlife;
2) disturbance of wildlife habitat;
3) water quality degradation; and
4) shoreline erosion.

To protect natural resources that may be harmed by unrestricted vessel traffic, the Department of Natural Resources may designate certain waters as minimum wake areas. Minimum wake refers to the minimum speed necessary to maintain vessel steerage. The Department may also prohibit boat access in areas determined to be highly unsafe or in areas possessing significant natural resource features.

To improve the ambient water quality of the Chesapeake Bay and its tributaries, the Department

administers a marine sewage grant program whereby public and private marinas are reimbursed up to $12,500 for the purchase and the installation of marine sewage pump-out facilities.

The protection of public and private properties from the effects of shoreline erosion and the education of the public about shoreline erosion, are the responsibilities of the Department's Shore Erosion Control Program. The Program provides technical and financial assistance to property owners and local jurisdictions. Assistance is given in the form of on-site consultations, and design and construction services. Both structural and non-structural erosion control measures are utilized by the Program.

Impacts on Recreation

As the number of boats on the Chesapeake Bay and its tributaries continues to grow, uses that are enjoyed by many are in danger of being lost. Increasing demand on tidal waters by the public has caused many quiet, outlying waterways to be congested with boat traffic. The results of this situation may range from hazardous safety conditions to a loss of recreational experiences for those on the water.

To protect traditional recreational uses, the Department of Natural Resources will implement speed limits, register group moorings and designate activity areas for certain uses. The use and specific conditions within each of these activity areas may vary depending on the nature and characteristics of each region and/or site. For example, on the Severn River the Department of Natural Resources established:

1. "Rowing Areas";
2. "Controlled Ski Areas"; and
3. "Designated Beach/Swim Areas".

Under Title 08, Subtitle 18, Chapter 24 of the Code of Maryland Regulations (COMAR), there are special provisions that apply to vessels operating in each of these areas. Provisions in the rowing areas are: 1) a minimum wake speed limit; 2) a person may not place or give permission to place a mooring buoy in the rowing area; and 3) a person may not operate or give permission to operate a vessel within 50 feet of a rowing shell.

Similar conditions apply to controlled ski areas: 1) areas must be marked with buoys by the Department of Natural Resources; 2) the slalom ski course must be permitted by the United States Army Corps of Engineers; 3) vessels using the slalom course must display an inspection decal issued by the Department of Natural Resources. A person may not operate or give permission to operate a vessel at a speed greater than 6 knots, or tow a person on a ski, aquaplane, or similar device unless that vessel displays an inspection decal issued by the Department of Natural Resources; and 4) a person may not place or give permission to place a mooring buoy when the arc of the swing is closer than 100 feet to the controlled ski course. Please note, these conditions do not necessarily apply to all controlled ski areas within the State.

To protect swimmers from interference by boats, the following provisions apply to designated beach areas: 1) the areas shall be marked by the Department of Natural Resources; 2) a person may not operate or give permission to operate a vessel in excess of 6 knots in the designated beach area; and 3) a person may not place a mooring buoy or give permission to place a mooring buoy in a designated beach area.

Swim areas approved by the local health department or the Department of Natural Resources may be established in designated beach areas. The following conditions pertain to swim areas: 1) The operation of watercraft is prohibited in designated swim areas; and 2) swim areas shall be marked by the Department of Natural Resources.

II. INSTITUTIONAL FRAMEWORK

While governmental roles and relationships may be complex and confusing, it is helpful for the public, recreational user groups and other organizations to understand the institutional framework involved in the development and implementation of a comprehensive vessel management plan. An increased awareness and a working knowledge of the process should provide additional opportunities for public input and help to reduce tension among user groups.

Federal Government Role

The federal government has a limited role in the implementation of comprehensive vessel management plans. The United States Coast Guard is the federal agency designated with responsibility for law enforcement, safety and protection of navigable waters. The Coast Guard enforces all federal laws and regulations regarding the operation and equipage of boats, and marks all waterways.

The United States Army Corps of Engineers is the lead federal agency in the permitting process related to dredge and fill operations in waters of the United States. As the lead agency, the Corps is responsible for the issuance of a permit as well as the notification and coordination of the review efforts of all other participating federal, state, and local agencies and the general public. Federal natural resource agencies, such as the United States Fish and Wildlife Service, may also provide important data on a river's natural features.

State Government Role

The Maryland Department of Natural Resources is charged with the protection and enhancement of the State's waterways. The Boating Administration and the Natural Resources Police are responsible for the formation and implementation of comprehensive vessel management plans. The Boating Administration develops the plans, drafts all regulations needed to implement the plans and monitors the implementation efforts. The Natural Resources Police contributes valuable information used in drafting the plans, enforces the regulations, and provides information about the implementation of the plans.

Other divisions of the Department of Natural Resources, such as the Tidewater Administration, Water Resources Administration, Wildlife Division, Chesapeake Bay Critical Areas Commission, Maryland Geological Survey, Natural Heritage Program, Greenways and Resources Planning, Licensing and Watercraft Registration Services; and other state agencies including the Maryland Historical Trust; and the Maryland Department of the Environment contribute important data and review the plans.

Local Government Role

The role of local government is to provide information that will be incorporated into the plan and used in the decision making process. For example, planning and zoning offices may provide data on existing and future land use patterns and historic and archeological resources. Local health departments may contribute data on community bathing beaches and water quality.

Other Entities

The Maryland Boat Act Advisory Committee is a 21 member committee appointed by the Secretary of the Department of Natural Resources to review and advise the Secretary on all proposed waterway regulations which affect the operation and equipage of recreational boating. The committee is comprised of officials of representative boating associations, yacht clubs, and local, state or federal governments or officials having knowledge or experience with the subject matter of the proposed regulations.

III. HISTORY OF WATERWAY PLANNING IN MARYLAND

In 1957, the General Assembly enacted the State Boat Act [Section 8-701 et seq, Natural Resources Article, Annotated Code of Maryland] in which it clearly enunciated the specific authority of the Department of Natural Resources to enhance the use of Maryland's waterways. The General Assembly stated its mandate in Section 8-702, "It is the intent of this subtitle to foster the development, use and enjoyment of all waters of the State...." The General Assembly also authorized the Department of Natural Resources to adopt regulations necessary to carry out the provisions of this subtitle [Section 8-704(a)]. In addition, the Department of Natural Resources was directed to "...draft regulations governing the operations of any vessels subject to this subtitle so that each vessel complying with the regulations may be operated with equal freedom or under similar requirements on all waters of the State" [Section 8-704 (b-1)].

To assist the Department of Natural Resources in establishing a regulatory program to enhance recreational boating, the General Assembly provided that an advisory committee be established comprised of "officials of representative boating associations, yacht clubs" and others from which the Secretary of the Department of Natural Resources "shall solicit the advice and opinions" on "any proposed regulation affecting the equipment or operation of any vessel subject to this subtitle" [Section 8-704(e)]. This advisory committee is known formally as the Maryland Boat Act Advisory Committee (BAAC) and is composed of citizen volunteers who are experienced boaters and who provide expert advice to the Secretary on boating related matters, and who review and provide recommendations on proposed boating regulations.

In 1988, the Secretary of the Department of Natural Resources, Dr. Torrey C. Brown, M.D., with the strong support of the Governor, established the Boating Administration as a new agency within the Department of Natural Resources to consolidate recreational boating related activities. The establishment of the Boating Administration provided the Department of Natural Resources with the opportunity to more effectively address the mandate of the State Boat Act to foster the development, use and enjoyment of the waters of Maryland. The Boating Administration is comprised of several divisions: the Waterway Improvement Program, which is responsible for dredging and marine construction; the Operations Program, which operates and maintains State marina facilities and State vessels; the Planning and Policy Program, which handles regulations related to recreational boating; and the Shore Erosion Control Program, which addresses the impact of shore erosion on the waters of the State.

A substantial source of funding for the Boating Administration and its respective programs comes from boaters. When a boat is purchased in Maryland or used principally in Maryland waters, there is a 5% excise tax levied in lieu of a sales tax. These excise tax funds are directed to the Waterway Improvement Fund and are used to benefit the Maryland boating public. In addition, three-tenths of one percent (0.3%) of the total gasoline tax revenues attributable to boating are credited to the Fund. Therefore, the planning and regulatory programs, as well as the capital construction and operations program of the Boating Administration, are financed from the excise and gasoline tax paid by the boaters themselves.

Over the years, planning for safe recreational boating use on Maryland's waterways has consisted primarily of responding to speed limit petitions submitted by citizens. The Administrative Procedures Act of the Annotated Code of Maryland prescribes the Department of Natural Resources' responsibilities regarding the petition process. Individuals desiring a speed limit change in a particular area must submit a speed limit petition complete with names and addresses of 25-50 citizens supporting the proposal. Once submitted, the Boating Administration performs a preliminary survey followed by a summertime field survey. Other Department of Natural Resources agencies such as the Natural Resources Police review the petition and make comments and recommendations. The petition is presented to the BAAC which

counsels the Secretary of Natural Resources who makes the final decision for approval or denial of the petition. During the past several years, the Boating Administration has received approximately 15-20 speed limit petitions per year.

While the petition process is widely used, it leads to a fragmented management approach. Little or no attention is given to the waterway as a complete system. In contrast, a process of comprehensive review maintains that a full investigation of all river system features, i.e. natural resources, traditional uses, etc., be evaluated prior to regulation. In 1989, citizen concern about boat speed, congestion and noise on the Severn River prompted the General Assembly to enact a law [Section 8.725.2] that required the Department of Natural Resources to develop and implement a management plan for the Severn River and its tributaries. The General Assembly intended the Severn River Plan to serve as a model for subsequent river management plans. The Boating Administration was charged with the responsibility of developing a plan that:

1) increased public safety;
2) protected natural resources; and
3) enhanced recreational opportunities.

The Boating Administration designed a planning process that maximized public participation while involving private organizations and state and local government agencies. A total of one public hearing and five public meetings were held to solicit and address public views. The Severn River Plan became effective May 24, 1990, and included maximum daytime and nighttime speed limits for the main stem of the river and maximum speed limits for the tributaries. Eight tributaries of the Severn River were designated "protected areas" where a minimum wake speed limit protects natural resources and provides for the enjoyment of passive recreational uses such as bird watching and canoeing. Areas were also designated for rowing and slalom course water skiing so that participants in those recreational activities can practice their sports in safety. The mouth of the Severn River, an area of heavy traffic and congestion, was also regulated with a lower weekend speed limit.

While the Severn River Comprehensive Vessel Management Plan is a model for the South River planning process, the Maryland General Assembly clearly indicated that the authority of the Department of Natural Resources to adopt regulations concerning boating was in place and the enactment of Chapter 585 underscores the existence of that authority. It is through this authority, the advice of BAAC and the public participation process, that the Boating Administration developed a vessel management plan for the South River.

IV. SOUTH RIVER

The following section presents information that was collected by the Boating Administration over the previous two years regarding the South River. The information was used to analyze and develop management recommendations for this plan.

Boating and Land Use Information

The proximity to Annapolis and the short driving distance from Baltimore and Washington, D.C. distinguishes the South River as one of the most heavily used rivers for recreational boating in Maryland.

Between 1990 - 1992, the Boating Administration surveyed the South River to collect information on boating activities and traffic patterns; to count the numbers and types of vessels, piers, and community and commercial facilities; and record physical data such as the depth, width and meander of channels for the tributaries.

The South River is approximately 9 nautical miles in length with a depth ranging from 2 feet to 24 feet at mean low tide. The river has 25 tributaries which include creeks, bays, coves, lakes and ponds (Map 1). Three other tributaries (Fishing Creek, Oyster Creek and Blackwalnut Creek) located on the Chesapeake Bay north of Thomas Point, are also included within the management plan boundary (Map 1).

Prior to June 8, 1992, most of the South River's tributaries were regulated with either a 6 knot speed limit for Saturdays, Sundays and State Holidays, year-round or a 6 knot speed limit at all times, year-round. The main stem of the river had no speed limit with the exception of a 6 knot speed limit for Saturdays, Sundays and State Holidays, year-round, around the Route 2 Bridge. The regulated tributaries included (Map 2):

6 Knots At All Times	**6 Knots Sat., Sun. & State Holidays**	
Church Creek	Aberdeen Creek	Almshouse Creek
Harness Creek	Beards Creek	Beards Creek
Lake Hillsmere Channel	Boyd Point Cove	Broad Creek
Pocahantas Creek Channel	Brewer Creek	Crab Creek
Ramsey Lake Bridge Channel	Duvall Creek	Gingerville Creek
	Glebe Creek	Granville Creek
	L. Aberdeen Creek	Pocahantas Creek
	Ramsey Lake	Selby Bay
	Warehouse Creek	

The primary activities on the river include: cruising, high performance power boating, sailing, water skiing (competitive & recreational), personal watercraft operation, anchoring, fishing, canoeing, bird watching, swimming and crabbing. There are no boat access facilities held in the public domain along the South River. Boat access to the river is provided through commercial marinas, or through private property owners and community associations.

Residential development is the primary land use along the South River with pockets of commercial waterfront development near the Route 2 Bridge, Riva Road Bridge and Selby Bay/Ramsey Lake. Many of the residential waterfront communities have private marinas, piers, boat launch ramps and swimming beaches. Community boat slips, boat ramps and swimming beaches number approximately 771, 13 and 40, respectively.

On the South River there are 20 commercial marinas with approximately 3,125 wet and dry slips,

four restaurants and two yacht clubs with approximately 220 slips. Most of the commercial facilities are located near the Route 2 Bridge and Selby Bay/Ramsey Lake (Map 3). There are two marine sewage pump-out facilities on the South River located at Bayview Marina and Little Island Marina, both on Ramsey Lake (Map 3).

Aids to Navigation and Marking

The U.S. Coast Guard operates and maintains 24 aids to navigation in the general vicinity of the South River and Fishing Creek. These aids are a mix of unlighted and lighted channel markers and buoys. The Department of Natural Resources maintains a system of 60 buoys and 75 signs for marking speed limits, clam lines, float free channels and shoal areas in the South River. In addition to the federal and state markings, there are a number of navigation aids and signs maintained by private individuals.

Vessel Homeports

Vessel homeport refers to the water body on which the owner states a boat is located. For example, boats kept on the South River are referred to as having a South River homeport.

The Department of Natural Resources' Office of Licensing and Watercraft Registration Services records information on the two types of vessels: registered boats and documented vessels. All watercraft equipped with a motor and used principally in Maryland must be numbered (registered) and titled. Documented boats are vessels that weigh five net tons or more and are documented by the United States Coast Guard. Since 1982, all documented vessels principally using Maryland waters are required to display a validation decal issued by the State of Maryland.

The Office of Licensing and Watercraft Registration Services reported 3,019 registered and documented boats homeported on the South River and its tributaries in 1990, and 3,406 in 1991. This, however, is only a fraction of actual boats trafficking the South River.

Derelict Boat Removal

Abandoned and derelict boats are not only an eyesore, but also pose risks to public safety and the environment. The Derelict Boat Removal Program of the Department of Natural Resources, Boating Administration, is responsible for the removal of these vessels in the Chesapeake Bay and its tributaries. Since 1989, a total of 17 boats have been removed from the South River and its creeks.

Law Enforcement Statistics

The Maryland Natural Resources Police produced a report in 1990 and supplied law enforcement statistics for 1991 and 1992 to assist the Boating Administration with the development of this plan. The report included a speed limit survey, law enforcement statistics on citations, warnings and boating accidents, and information on river activities and line of sight.

The Natural Resources Police interviewed 126 people along the South River between November 15 and November 25, 1990. One hundred and eight of those interviewed favored some type of speed limit on the South River. The reasons cited included noise, shoreline erosion and high speeds. Eleven of the interviewees were against a speed limit on the South River. Eight of those interviewed had no opinion.

Most of the citations and warnings issued by the Police between 1990-1992 were for boating or boating-related violations. The most frequent boating violations were: exceeding the posted speed limit, insufficient number of Coast Guard approved life jackets on-board, and not having boat registration in possession. Most boating violations occur between the months of March and October, with June, July and August the most active. There were eight reported boating accidents on the South River in 1990, 11 in

1991 and 15 in 1992. They involved collisions with other vessels, collisions with fixed structures, fires and explosions, capsizings and boat wake-related accidents.

Natural Resources Features

While much of the South River corridor is heavily developed, it contains a diversity of environmental resources. The following section contains natural resources information obtained from various state and federal natural resource agencies. Included is information on: fisheries, wildlife, wetlands, submerged aquatic vegetation, and endangered or threatened species.

Fisheries

Finfish in the Chesapeake Bay use a broad range of habitats and often change feeding habits and migrate to different aquatic environments throughout their life cycle. Anadromous fish, such as herring and shad, spawn in freshwater and live in ocean saltwater. Semi-anadromous fish, such as white perch, spawn in tidal freshwater and after spawning move into waters of greater salinity. Catadromous fish, such as the American eel, migrate from fresh water to the open ocean to spawn. Finfish found in the South River include: yellow perch, white perch, striped bass, bluefish, and American eel.

Shellfish require a variety of saline aquatic habitat. Oyster beds occur in brackish estuarine waters to high salinity waters. Blue crabs inhabit the brackish waters of the Bay's tributaries. Softshell clams frequently share oyster habitats and are also found in various salinities. The shellfish resource in the South River is limited and is generally not found above Glebe Bay. There are 568 acres of natural oyster bars and several acres of leased oyster bars in the South River. Approximately 12 acres of the natural bars are used as areas for planting immature oysters.

Fishing is a popular activity and occurs throughout the South River system with heavy activity near the mouth of the river. Commercial fishing is limited, with some activity near the mouth of the river. Recreational crabbing is done throughout the entire river system. There is little commercial shellfishing in the South River, although harvesting that does occur is done at the mouth of the river.

Diamondback terrapins are the dominant reptile species on the South River. Terrapins generally prefer the brackish portions of the tributaries on the river and are rarely observed in the main channel.

Wildlife

The presence of wildlife in the South River corridor is the result of the suitability and the availability of habitats that provide food and shelter.

Two bald eagle nesting territories are located along the South River. One of the territories is located on Cedar Point near Glebe Bay and Brewer Creek. Eagles nesting in this territory use the South River and surrounding tributaries as a feeding area. The second nesting territory is located near the Route 50 Bridge on the Upper South River. The feeding area for this territory is the South River above and below the Route 50 Bridge (Map 4). The nesting season for bald eagles in Maryland starts in late November or December. Eggs generally are laid in early February and are incubated for 35 days, hatching from mid-March to April. One to three young are usually produced. The young remain in the nest 11 to 12 weeks before they take their first flight. The last of the young leave the nest by late July.

Waterfowl are the dominant wildlife species on the South River. Waterfowl primarily use the river as a feeding and resting area during the winter; however, there are some year-round nesting birds.

Waterfowl identified on the South River include: mallard, black duck, canvasback, scaup, bufflehead, Canada geese, whistling swan, ruddy duck, mute swan, oldsquaw, goldeneye and scoter.

Endangered or Threatened Species

"Endangered species" means any species whose continued existence as a viable component of the State's flora and fauna is determined to be in jeopardy including any species determined to be an "endangered species" pursuant to the Federal Endangered Species Act of 1973. "Threatened species" means any species of flora or fauna which appears likely, within the foreseeable future, to become endangered including any species determined to be a "threatened species" pursuant to the Federal Endangered Species Act of 1973.

Bald eagles, a federal and state endangered species, nest along and feed in the South River. No other endangered or threatened animal or plant species are identified in the river corridor.

Wetlands

Wetlands serve many functions: habitat for wildlife and spawning areas for fish; water quality maintenance by filtering sediments and other contaminants before entering a waterway; flood and storm damage protection by storing excess water; shellfish production; recreation (i.e. waterfowl hunting, crabbing, fishing, bird watching); and aesthetics.

Tidal wetlands exist throughout the South River with common occurrence at the headwaters of most of the tributaries and near and around the Route 50 Bridge (Map 4).

Public Lands

There are 581 acres of publicly owned lands along the South River. These lands are owned by Anne Arundel County and include: South River Farms Park, Mayo Beach Park, Thomas Point Park, Londontown Publik House and Quiet Waters Park (Map 4). There are no boat launch facilities on these properties. However, a concessionaire rents rowboats and paddleboats from Quiet Waters Park.

Submerged Aquatic Vegetation

Submerged aquatic vegetation (SAV) refers to those vascular plants that live and grow completely underwater or just up to the surface. SAV are found in shallow areas where sufficient light for photosynthesis can penetrate through the water. In the Chesapeake Bay region this is normally in water less than six feet deep, although some species can tolerate low light conditions and are better able to exist in deeper waters.

SAV has many valuable ecological functions. Many parts of the plants are ingested by ducks, geese and swans. SAV serve as habitat and nursery areas for various species of fish, blue crab and invertebrates. Other significant attributes of SAV are its capacities to absorb nutrients such as nitrogen and phosphorous and remove suspended sediments from the water column.

SAV are found throughout the South River's tributaries. They are generally located near the shoreline in close proximity to wetlands. Horned pondweed is the dominant species found in the South River.

Historic and Archeological Resources

The Maryland Historical Trust's Inventory of Historic Properties contains numerous historic properties (including historic structures, prehistoric and archeological sites) recorded along the shorelines of the South River. The Trust reports that the South River contains an abundance and diversity of historic properties, reflecting human occupation and the use of the rivers throughout prehistoric time periods and since the earliest historic settlement of the area. However, there are no recorded submerged sites on the South River.

While no recorded submerged sites exist on the South River, it is important that the South River Comprehensive Vessel Management Plan consider the river's potential for containing submerged cultural resources. The Maryland Historical Trust believes that systematic underwater surveys are needed to identify and protect these areas.

Recreational boating should have very little impact on these resources. Related activities such as dredging and shoreline protection efforts may affect submerged historic and archeological sites.

Public Participation

Involving river users and the general public is an important part of the planning process. Between 1990 - 1992, the Boating Administration has received approximately 60 telephone calls and 69 letters expressing interest in the draft South River Plan, and three speed limit petitions with approximately 400 signatures.

To increase public participation in the plan, "Notice to Boaters" buoys were placed in the South River to inform waterway users of potential changes in speed limits. A questionnaire was developed to survey people's opinions regarding conditions on the South River, and a public workshop, public meetings and a public hearing were held to discuss river issues and solicit public input about the draft South River Plan.

User Survey

To obtain the public's opinions about boating conditions on the South River, approximately 200 questionnaires were mailed to recreational user groups, community associations, environmental groups, boating organizations, marine trades groups and boaters-at-large. Another 600 questionnaires were distributed to boat licensing offices, local grocery stores, seafood restaurants and marine supply stores.

Of the 800 questionnaires circulated, 217 or 27% were returned to the Boating Administration. One hundred and seventy-five (175) of the respondents were private citizens and forty-two (42) were from various organizations. Most respondents classified their primary activity as power boating followed by swimming, sailing, recreational water skiing, crabbing, anchoring, bird watching, and fishing. Other responses included rowing, competitive water skiing, canoeing, outdoor education, parasailing, hunting, and gunkholing (the exploring of creeks and coves) as favored activities.

The survey found that users are concerned with existing boating conditions on the South River. Four concerns dominated the survey:

1) high vessel speeds;
2) noise;
3) shoreline erosion; and
4) the environment.

Asked whether they thought problems were specific to an area, most cited the main channel, bridge areas, water ski areas and environmentally sensitive areas. Exact locations were not given by most survey respondents.

One hundred seventy (170) or 78% responded that the problems encountered decreased the enjoyment of their activity. One hundred fifty-six (156) or 72% believed that existing speed restrictions were not adequate. When asked what changes were necessary to improve conditions on the river, the majority of respondents replied that enforcement should be increased; activity areas should be designated; and speed restrictions should be increased. Over 50% of the respondents supported restrictions that included:

* maximum daytime and nighttime speed limits;
* 6 knot speed limit zones near bridges;
* controlled water ski areas;
* minimum wake areas;
* designation of activity areas; and
* natural resources protected areas.

In sum, existing boating conditions on the South River were viewed negatively. The level of use was heavy, and there was evidence of a continuing upward trend. Differences among the user groups (i.e. sailors, power boaters, crabbers, water skiers, etc.) were not substantial. Generally speaking, all groups preferred additional management to the present situation.

Public Workshop

A joint South River/Magothy River public workshop was held on Saturday, May 18, 1991. Approximately 35 people attended the South River sessions. The people were randomly assigned to a work group (Green, Red and Yellow) that discussed issues and developed management recommendations that were presented to all workshop participants. Listed below are the recommendations of the three groups.

The "Yellow Group" developed a management scheme that suggested a 6 knot speed limit at all times on most of the tributaries; reduced the main channel daytime speed to 30 knots and nighttime speed to 20 knots; established 6 knot at all times speed limits around the Riva Road Bridge and the Route 2 Bridge; designated a controlled water ski area on the Upper South River; and established environmental protection areas in Flat Creek and around Cedar Point near Brewer Creek.

The "Green Group" recommended that a controlled water ski area be established in the Upper South River; a 6 knot speed limit be imposed around the Riva Road Bridge (50 yards east, 100 yards west); identified Granville Creek, Beards Creek, Glebe Creek and Glebe Bay as areas of high shoreline erosion; established a daytime speed limit of 35 knots on the main channel above Selby Bay and Duvall Creek, and a 20 knots nighttime speed limit on the entire river; and designated a 6 knot speed limit at all times in Glebe Creek and Gingerville Creek.

The "Red Group" recommended that Church Creek be designated as a 6 knot speed limit area for Saturdays, Sundays and State Holidays; that all of Harness Creek be included in the 6 knot at all times zone; that all federal holidays be included in the 6 knot speed limit for Saturdays, Sundays, and State Holidays; that a 6 knot speed limit or minimum wake area be established around the Riva Bridge; a 35 knots nighttime speed limit be imposed on the main stem; that the 6 knot Saturdays, Sundays and State Holidays speed limit line in Selby Bay be changed to include all of Selby Bay; and that more of the navigational aids be lighted.

Public Meeting

A public meeting was held on October 30, 1991, to formally record public comments on the draft South River Comprehensive Vessel Management Plan. Approximately 85 people attended the meeting of which 38 registered to speak in opposition to or in support of the proposed speed limit regulations.

Participants identified several areas of discord with the South River speed limit proposals. Those areas include: the main channel below the Route 2 Bridge; Beards Creek, Broad Creek and Aberdeen Creek; the Route 2 and Riva Road Bridge areas; and the Upper South River. Participants also contributed opinions about Ramsey Lake, Harness Creek and Fishing Creek. A public comment period from October 30, 1991 to November 6, 1991 was established to allow additional citizen input. Approximately 50 letters and telephone calls were received within the comment period.

Boat Act Advisory Committee Meeting

The Boat Act Advisory Committee held a meeting on November 26, 1991, to review the draft South River Comprehensive Vessel Plan and the proposed speed limit regulations. Prior to the Committee meeting, the proposed regulations were modified to reflect public sentiment at the public meeting and throughout the public comment period.

Generally speaking, the Advisory Committee believed that the speed limit regulations proposed for "year-round" should be replaced by speed limit regulations in effect only at the heavy traffic times from April 15 through October 15 given that the majority of boat traffic on the South River occurs between April and October. The Committee voted to recommend to the Secretary of the Department of Natural Resources that many of the proposed South River speed limit regulations be effective from only April 15 through October 15.

Public Hearing

A public hearing was held on February 26, 1992 to provide an opportunity for public comment on the proposed speed limit regulations and area designations. Approximately 45 people attended the hearing. Twenty-eight people provided verbal testimony on the proposed regulations and 24 exhibits were submitted for the record. Forty-two letters were received during the comment period, including two speed limit petitions. One of the petitions contained approximately 100 signatures from citizens of the South River Landing Community and surrounding communities requesting that the speed limit in Almshouse Creek be six knots at all times for the entire year. The second petition included eleven signatures of area residents requesting that the Boating Administration re-evaluate their speed limit proposals. The public hearing record remained open until April 24, 1992. The hearing officer issued his report on May 19, 1992, which included a discussion of issues raised at the hearing and during the comment period, and recommendations based on a review of all information submitted for the record.

V. ANALYTICAL BASIS & FINDINGS

As discussed earlier, federal, state and local government agencies were asked to contribute a variety of land use and natural resources data; the public was solicited to comment on and develop proposals for the draft South River Comprehensive Vessel Management Plan; and the BAAC was consulted and invited to develop management recommendations.

Boating issues identified by the public in meetings, letters, telephone calls, surveys and workshops have focused on the environment, recreational use conflicts and boat traffic. The boat traffic issues include safety, congestion, high speeds and noise.

Public Safety

As discussed earlier, public safety is compromised in areas of high speed activity and heavy vessel use; in areas where channel obstructions such as bridge pilings and piers limit the boater's line of sight; in areas where heavy passive and active uses conflict; or in areas where the physical characteristics of the waterway such as depth, width and meander may impede the operation of watercraft.

The Department of Natural Resources imposes speed limits where public safety is compromised. The speed limits commonly include a maximum of 6 knots for Saturdays, Sundays and State Holidays or a maximum of 6 knots at all times. Main channel maximum speed limits may be utilized in circumstances of heavy traffic and conflicting high speed activities. For example, a maximum speed limit of 35 knots daytime and of 20 knots nighttime has been adopted on the Severn River. Speed limit regulations may be imposed either year-round or from April 15 through October 15.

The criteria for establishing a speed limit area depends on many factors such as the number of marinas, slips, piers and ramps; shoreline development; the type of recreational activities; amount of boat traffic; area length, area width and channel depth; and the presence of natural resources such as wildlife, wildlife habitat, threatened and endangered species and submerged aquatic vegetation. All of these factors are considered in determining the speed level for safe operation of vessels in the area.

The following materials were consulted, compiled and/or reviewed to gain an understanding of the safety issues on the South River:

* "South River Creek Survey", Boating Administration, Maryland Department of Natural Resources, 1991.
* "South River User Survey", Boating Administration, Maryland Department of Natural Resources, 1991.
* "South River Comprehensive Vessel Management Plan Information Base", Natural Resources Police, Maryland Department of Natural Resources, 1990.
* "South River Speed Zone Recommendation Report", Coastal Resources Division, Maryland Department of Natural Resources, 1988.

Included below is a list and a description of areas or tributaries in the South River that have one or more of the characteristics mentioned previously and which have a bearing on speed limits for the safe operation of watercraft:

1. Route 2 Bridge & Riva Road Bridge area;
2. Upper South River (area west of Riva Road Bridge);
3. Glebe Creek, Almshouse Creek, Pocahantas Creek & Beards Creek;
4. Lake Hillsmere, Boyd Point Cove, Little Aberdeen Creek, Cedar Point Cove, Granville Creek, Loden Pond and Oyster Creek;
5. Harness Creek;
6. Duvall Creek;

7. Warehouse Creek, Crab Creek & upper Aberdeen Creek;
8. Gingerville Creek; and
9. Selby Bay & Ramsey Lake.

1. The Route 2 Bridge and the Riva Road Bridge areas contain commercial marinas and restaurants with approximately 950 wet and dry slips. In addition, these facilities sell food, fuel, boats and marine supplies; rent boats and personal watercraft; offer launching access for trailered vessels; and serve as permanent residences for liveaboard persons. Both bridge areas are used by watercraft ranging from 50 foot cruisers and sailboats to personal watercraft and kayaks. The presence of small vessels adds to the precarious nature of the area because of their size and the limited visibility around the bridge pilings. Traffic patterns in these areas are highly erratic. There is a mix of vessels that either pass through the bridge areas or slow down to dock or fuel. The physical nature of the river and the development pattern along the shoreline in these areas also contribute to safety and congestion problems. North of the Route 2 Bridge, the river channel and the navigable channel narrows and meanders. Residential development and its adjoining waterfront facilities (i.e., piers and pilings) are dense along the main channel and approach the shoreline to a greater degree than downstream. Approximately 62% of the private piers on the main channel are west of the Route 2 Bridge.

2. West of the Riva Road Bridge, the river is heavily traversed by recreational and competitive water skiers, cruisers, high-performance power boaters, and personal watercraft operators. The South River Water Ski Club operates and maintains a United States Army Corps of Engineers permitted slalom water ski course and jump in the upper portions of the river. In this area the channel continues to be narrow and meanders, and two communities and a yacht club operate marinas with a capacity of approximately 75 slips.

3. Glebe, Almshouse, Pocahantas and Beards Creeks are waterways that are heavily developed for residential purposes and contain intense concentrations of boats, piers, mooring areas, marinas or swim areas. In addition, Glebe, Pocahantas and Almshouse Creeks have narrow channels.

4. Tributaries such as Lake Hillsmere, Boyd Point Cove, Cedar Point Cove, Little Aberdeen Creek, Granville Creek, Loden Pond and Oyster Creek have either limited access channels or narrow navigable channels with moderate to heavy numbers of private piers. In addition, these tributaries are small and offer little or no opportunity for the safe enjoyment of high speed activities.

5. Harness Creek is used throughout the summer by paddleboats, rowboats and cruisers, and year-round by anchoring boats. A concession stand rents rowboats and paddleboats from Quiet Waters Park. Furthermore, the area around the creek entrance is frequented by excessive numbers of watercraft on weekends.

6. Duvall Creek is heavily developed along its western shore and serves approximately 30-40 individually moored vessels. The eastern portion of the creek and the entrance is shallow. In addition, passive activities such as canoeing and wind surfing have been observed in and around Duvall Creek.

7. Warehouse Creek, Crab Creek and upper Aberdeen Creek are characterized as having narrow channels with limited lines of sight. Warehouse Creek is heavily developed with private piers and

situated near the commercial marinas of the Route 2 Bridge. Crab Creek and the upper reaches of Aberdeen Creek also have high numbers of private piers.

8. The mouth of Gingerville Creek serves as the home for several commercial facilities. The wet slip capacity of these businesses is over 200. In addition, this area also functions as a launch site for trailered boats.

9. Selby Bay and Ramsey Lake are waterways that contain substantial numbers of commercial facilities with approximately 850 wet slips. These areas are used heavily on the weekends. In addition, access to Ramsey Lake is limited to a small narrow channel under the Turkey Point Road Bridge which has a clearance of 10 feet at mean high water. The bridge will be rebuilt in 1991-1993, to a clearance of 14 feet with current width dimensions maintained.

The South River Comprehensive Vessel Management Plan and its regulations address the safety issues on the South River and tributaries by establishing:

* *A maximum speed limit of 6 knots effective at all times or during peak traffic times in areas which are narrow or confined, have heavy cross traffic, include extensive slip and marina development, or have poor a line of sight. These speed limits apply seven days a week or Saturdays, Sundays and State Holidays;*
* *Establish areas to facilitate safe recreational use of slalom course water skiing and passive uses such as swimming, canoeing, etc;*
* *A maximum speed limit of 35 knots maximum, sunrise to sunset from April 15 through October 15; and*
* *A maximum speed limit of 20 knots maximum speed limit, sunset to sunrise, from April 15 through October 15.*

Natural Resources

Through an outreach program that included a user survey, a public workshop and public meetings, a number of environmental concerns were identified by the general public. The Department of Natural Resources undertook initiatives to address these issues.

Certain natural resources, including threatened/endangered species and submerged aquatic vegetation, may be harmed by unrestricted vessel traffic. For this reason, the Department designate certain waters as minimum wake areas. Minimum wake areas provide added protection to flora and fauna by requiring that vessels maintain only the minimum speed necessary to maintain vessel steerage. In extreme cases where public safety is threatened, i.e., near dams and spillways, and in particularly sensitive areas, watercraft may be prohibited.

In an effort to improve water quality by reducing the amount of boat generated sewage that is entering Maryland's waters, the Department has been administering a grant program whereby public and private marinas are reimbursed up to $12,500 for the purchase and the installation of marine sewage pump-out facilities.

To assist property owners who are experiencing shore erosion problems, the Department's Shore Erosion Control Program provides technical and financial assistance to property owners and local jurisdictions. Through on-site consultations, erosion problems are assessed and recommendations made. Shoreline erosion control measures may then be designed and constructed utilizing interest-free loans and matching grants. These measures include structural projects, such as bulkheads and stone revetments, and non-structural projects, such as the creation of marshes.

The following information was consulted and reviewed to gain an understanding of the natural resources issues on the South River:

* Fisheries correspondence, Tidewater Administration, Maryland Department of Natural Resources, 1991.
* "Recreational Boat Pollution and the Chesapeake Bay", Chesapeake Executive Council, 1991.
* "The Influence of Marinas, Related Facilities and Activities Upon Wintering and Nesting Waterfowl: A Literature Review", Wildlife Division, Maryland Department of Natural Resources, 1990.
* Wildlife correspondence, Wildlife Division, Maryland Department of Natural Resources, 1991.
* Submerged Aquatic Vegetation Maps, United States Fish and Wildlife Service, 1989 & 1990.
* "Maryland Scenic Rivers Study: Tributaries of the Chesapeake Bay", Scenic and Wild Rivers Program, Maryland Department of Natural Resources, 1988.
* "The Role of Boat Wakes in Shore Erosion in Anne Arundel County, Maryland", Maryland Department of Natural Resources, Tidewater Administration, 1980.

Listed below are four potential impacts of recreational boating on natural resources, as used for planning purposes, followed by a description of each of those impacts and identification of sensitive areas in the South River system:

1) disturbance of wildlife;
2) disturbance of wildlife habitat;
3) water quality degradation; and
4) shoreline erosion.

Disturbance of Wildlife

In most cases, disturbance of wildlife occurs when watercraft enter their habitat. Much of the high-quality wildlife habitat, in the form of wetlands and SAV beds in the South River, is located in the headwaters of most tributaries and the area near the Route 50 Bridge (Map 4).

Fisheries

The impact of boating on fisheries appears to be minimal. There is a large yellow perch spawning run in the South River, but it occurs north of the Route 50 Bridge where little boat traffic is observed and is generally complete before heavy boating activity takes place. The mating season for diamondback terrapins is in March and April and nesting season runs from May through July. Terrapins will typically nest on sandy beaches in the tributaries of the South River. Fisheries biologists believe that terrapins may be vulnerable to injury and mortality from boating activity during this time due to their orientation near the water surface. However, as stated, the impact is believed to be minimal.

Wildlife

Two types of wildlife have been identified as being potentially impacted by recreational boating: (1) bald eagles, and (2) waterfowl. The bald eagles on the South River have had much success in nesting and raising young. Current boating activity does not appear to be disturbing the nesting and feeding habits of the eagles. However, it is unknown as to what level of activity the eagles may tolerate. Wildlife biologists recommend that boating activity be minimized in and around nesting and feeding areas. Public and private boating facilities should not, therefore, be upgraded. This allows for continued use of the nesting and feeding sites by the eagles.

Wildlife biologists believe that increased boating activity may either directly or indirectly affect waterfowl. One of the factors involved in this determination appears to be the size of the water body and

whether boating occurs over the entire surface area. Biologists have identified regions on the South River where waterfowl congregate or that may serve as refuge areas (Map 4). The greatest use of the river by waterfowl occurs during the months of November through April. Disturbance of the birds from current boating activity appears to be slight. Nevertheless, as is the case with the eagles, boating activity should be minimized in areas where waterfowl are known to congregate and feed. It should be understood that federal law prohibits the disturbance of resting waterfowl.

Disturbance of Wildlife Habitat

The South River offers several habitat types which are critical for wildlife and fishery resources. Submerged Aquatic Vegetation (SAV) is of utmost importance for waterfowl, blue crab, and a number of fish species.

SAV provides food and cover for a wide variety of wildlife and fishery resources. SAV occurs or may occur in most of the South River's tributaries in waters approximately 3 feet deep, near the shoreline and in close proximity to wetlands. In recent years, citizen SAV surveys have identified SAV in the following tributaries:

* Almshouse Creek
* Aberdeen Creek
* Beards Creek
* Blackwalnut Creek
* Broad Cove
* Cherrytree Cove
* Duvall Creek
* Fishing Creek
* Glebe Creek
* Harness Pond
* Loden Pond
* Selby Bay
* Upper Crab Creek
* Upper South River

Boating activity in shallow water areas may cause harm to SAV by resuspending sediments, thus reducing light penetration and the plant's photosynthetic opportunities; physically damaging or uprooting the plants; and by the discharging of boat pollutants that degrade ambient water quality.

Water Quality Degradation

There are a number of sources of pollution that are affecting the health of the Chesapeake Bay. Although sewage discharge from boats is a relatively minor contributor to this problem, boaters are being asked to do their part in the effort to improve the waters of the Bay. While the affect of a single boat may seem insignificant, multiply it by the number of boats that use the South River at various times and such effects become both significant and apparent. Raw sewage, oil and grease, anti-freeze, boat bottom paint and trash have all been identified as elements of the boating community's waste stream.

Perhaps more than any other boat-generated pollutant, discharges of human wastes from boats have the potential to degrade water quality. According to federal law, the discharge of raw sewage from a vessel in United States territorial waters (within the three mile limit) is illegal. The entire Chesapeake Bay is considered territorial waters of the United States; therefore, the discharge of raw sewage in the Bay is prohibited regardless of the distance from shore. Boats are not required to be equipped with a toilet or marine head. However, if a toilet is installed it must be equipped with a Marine Sanitation Device (MSD) that meets United States Coast Guard standards. Although portable toilets or "porta-potties" are not considered installed toilets and are not subject to MSD requirements, it is still illegal to dump the contents into United States territorial waters. For the most part, vessel discharges pose the greatest threat to water quality in places where boats tend to congregate. These marina, mooring and anchoring areas are often located in quiet, protected waters.

Since there are only two marine sewage pump-out facility on the South River (Map 3) which has limited access due to the clearance of the Turkey Point Road Bridge, the ambient water quality in several locations on the river that receive heavy use by recreational vessels may be jeopardized. These areas

include the commercial marinas around the Route 2 Bridge and Turkey Point Road; community marinas and moorings in Beards Creek, Fishing Creek, Glebe Creek and Duvall Creek; and anchoring areas in Harness Creek.

Shoreline Erosion

Shoreline erosion is one of the most often cited environmental problems resulting from recreational boating. In the user survey, 126 or 60% of the respondents believed that shoreline erosion was a serious problem.

Although it is very difficult to ascertain shoreline erosion from boat wakes, certain physical factors have been identified as playing an important role in the determination of erosion generated by boat wakes. These parameters include high frequency of boat passes near shore (100-200 feet); steep shoreline gradient; easily erodible material such as sand; and exposed points of land in narrow channels.

Shoreline erosion is evident throughout the South River system. This loss causes costly shoreline protection measures for landowners, loss of property and loss of water depth in near shore areas. However, it has not been determined to what extent boat wakes are responsible. Land runoff and wind generated waves are significant contributors to shoreline erosion. Workshop participants identified erosion areas in Glebe Creek, Glebe Bay, Beards Creek, Long Point (Selby Bay) and the mouth of Granville Creek.

The South River Comprehensive Vessel Management Plan and regulations address natural resources protection by:

* *Establishing minimum wake areas in areas where boat traffic may have an impact on existing beds of submerged aquatic vegetation;*
* *Establishing minimum wake areas in areas that offer important natural habitat values such as waterfowl resting, staging and feeding areas; bald eagle nesting and feeding areas; and areas with shallow, easily disturbed bottoms; and*
* *Recommending the placement of marine sewage pump-out facilities in areas or adjacent to areas identified as having potential water quality problems.*

Recreation

As boating on the South River continues to grow, more traditional and passive uses will be lost. Traditional uses such as swimming, water skiing, anchoring, fishing and canoeing are under increasing pressure from the more popular sailing and power boat activities, and by shoreline development. To protect traditional recreational uses, the Department of Natural Resources implemented speed limits and designated areas on the river for certain uses.

The following information was consulted, compiled and/or reviewed to gain an understanding of recreation issues on the South River:

* "South River Creek Survey", Boating Administration, Maryland Department of Natural Resources, 1991.
* "South River User Survey", Boating Administration, Maryland Department of Natural Resources, 1991.
* "South River Comprehensive Vessel Management Plan Information Base", Natural Resources Police, Maryland Department of Natural Resources, 1990.
* "South River Speed Zone Recommendation Report", Coastal Resources Division, Maryland Department of Natural Resources, 1988.

Areas such as Beards Creek, the mouth of Broad Creek, Glebe Bay, and the Upper South River have been identified as traditional recreational and competitive water ski areas. The Upper South River has long been used as a site for slalom water skiing and jumping. Much of the site's attractiveness is the virtual undeveloped nature of the shoreline (i.e., no bulkheads, piers or pilings), the low number of pass-through vessels, and the excellent line of sight.

Beards Creek is used primarily by recreational water skiers. The creek's wide channel and a good line of sight afford opportunities for water skiing. Trick water skiers find upper Beards Creek attractive because it offers protection from the prevailing winds, as well as low numbers of bulkheads and piers. Much to the distress of both recreational and trick water skiers is the increased number of homeported boats in Beards Creek, as well as shoreline development.

Broad Creek, Glebe Bay and lower Aberdeen Creek are also used by recreational water skiers. These areas offer wide expanses of water and protection from weather conditions and vessel traffic.

Harness Creek is identified as a traditional week-long anchoring area and an area for passive uses such as paddleboating and rowing. Cherrytree Cove is a popular area for swimming, picnicking, sunbathing, sailboarding, bird watching and occasional personal watercraft operation. Aberdeen and Glebe Creeks are popular weekend anchoring sites. These areas offer pleasing aesthetics and protection from adverse weather conditions and vessel traffic.

Mooring is a recreational use in the South River. Duvall Creek, Beards Creek and Fishing Creek have significant numbers of individually moored vessels. Additionally, there is a registered group mooring area in both Limehouse Cove and the main river channel west of Almshouse Creek along South River Landing community.

Swimming, by far, is the most popular passive activity on the South River. Designated and undesignated swim areas exist throughout the river system. Concentration of swim areas usually corresponds to the density of nearby residential development. Glebe Creek and Almshouse Creek have many community swim beaches.

No recreational activity was witnessed in Blackwalnut Creek, however, canoes, rowboats and other small, manually propelled vessels were observed on shore.

The South River Comprehensive Vessel Management Plan and regulations addresses recreation issues and enhance recreational opportunities by:

* *Establishing a "Controlled Ski Area" to aid in the safe recreational enjoyment for those participating in slalom course water skiing;*
* *Establishing minimum wake areas in locations with unique natural features and to facilitate passive recreational activities such as nature study, bird watching, canoeing, swimming; and*
* *Establishing speed limit regulations from April 15 through October 15 to provide potential recreational opportunities for boaters during the "off-season".*

VI. MANAGEMENT RECOMMENDATIONS

All proposals for the South River Comprehensive Vessel Management Plan were developed from public comments, workshop recommendations, the Boat Act Advisory Committee, the Natural Resources Police, and the Boating Administration's waterway data base information. The recommendations are presented as either regulatory changes by tributary or river area, or as policy statements. All proposed regulatory changes apply either year-round or from April 15 through October 15 (Map 5).

Regulatory Changes for South River

Aberdeen Creek (lower portion)

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - Saturdays, Sundays and State Holidays, April 15 through October 15
* Rationale: The creek is wide and has a good line of sight. Heavy traffic periods are primarily on weekends during the boating season. Current vessel traffic levels do not support speed limits during the non-boating season.

Aberdeen Creek (upper portion)

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - At all times, boating season, north of Mimon Cove
* Rationale: The presence of community marinas, private piers and a narrow channel provide problems for boaters during heavy traffic times. Existing traffic levels during the non-boating season do not support "year-round" speed limit regulations.

Almshouse Creek

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - At all times, year-round [1]
* Rationale: The creek has a fair line of sight. Shoreline development is high, and little room exists for any type of safe high speed activity. During the boating season, recreational activity throughout the week is constant.

Beards Creek (lower portion)

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - Saturdays, Sundays and State Holidays, April 15 through October 15 (the main channel speed limit of 35 knots daytime & 20 knots nighttime from April 15 through October 15 will apply on the weekdays.)
* Rationale: Beards Creek is a traditional water ski area, both recreational and trick skiing. Community development is high, although the creek is wide with a good line of sight. Existing traffic levels during the non-boating season do not support "year-round" speed limit regulations.

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[1] Although Almshouse Creek was proposed in the February 1992 draft of the South River Plan as 6 knots at all times effective for the boating only, the hearing officer in his report issued May 19, 1992 recommended changing the speed limit to 6 knots at all times effective year-round.

Beards Creek (headwaters)

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	Minimum wake area, year-round
* Rationale:	The shoreline is undeveloped, consisting primarily of wetlands. The area is approximately 2 feet deep and contains well-established beds of submerged aquatic vegetation. Also, Anne Arundel County is proposing this area of Beards Creek as a "natural or conservancy area."

Blackwalnut Creek

* Previous Regulation:	None
* Change:	None
* Rationale:	Access to the creek is severely restricted by a shallow entrance channel. The creek is also very shallow.

Boyd Point Cove

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, year-round
* Rationale:	The cove has a narrow and shallow entrance channel. The cove's navigable area is limited, and shoreline development is high.

Brewer Creek

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - Saturdays, Sundays and State Holidays, April 15 through October 15
* Rationale:	The creek has a good line of sight, and periods of heavy use are primarily on the weekends from April 15 through October 15. Current traffic levels do not support speed limit regulations during the non-boating season.

Broad Creek (lower portion)

* Previous Regulation:	No regulation
* Change:	No specific proposal (The main channel speed limit of 35 knots daytime & 20 knots nighttime - At all times, April 15 through October 15, will apply.)
* Rationale:	The creek is a traditional water ski area. The line of sight is good with no impediments for boating activity.

Broad Creek (upper portion)

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - Saturdays, Sundays and State Holidays, April 15 through October 15 (The main channel speed limit of 35 knots daytime & 20 knots nighttime - April 15 through October 15, will apply on the weekdays.)
* Rationale:	This area has several undesignated swim areas and a Girl Scout Camp on its eastern shore. Some boating activity occurs on week days, especially on days closest to the weekend. Current traffic levels do not support non-boating season regulations.

Cedar Point Cove

* Previous Regulation:	None
* Change:	6 knots - At all times, year-round

* Rationale: The cove has a narrow and shallow entrance channel, and a limited navigable area.

Cherrytree Cove

* Previous Regulation: None
* Change: Minimum wake area, year-round
* Rationale: The cove is a traditional picnicking and swim area. The area is also shallow and has a limited navigable area. Submerged aquatic vegetation and wetlands are also present.

Church Creek

* Previous Regulation: 6 knots - At all times, year-round
* Change: 6 knots - At all times, April 15 through October 15
* Rationale: There are two community marinas located in the creek. The line of sight is good throughout the entire creek with the exception of the upper portions. Existing traffic levels during the non-boating season do not support "year-round" regulations.

Crab Creek

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - At all times, April 15 through October 15
* Rationale: From April 15 through October 15, activity on the creek is frequent. While no community facilities exist, there are high numbers of private piers, pilings and other structures. The creek entrance is shallow and narrow, and the line of sight is fair. Current traffic levels do not support non-boating season speed limits.

Duvall Creek

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round
* Change: 6 knots - At all times, April 15 through October 15
* Rationale: The creek has heavy mooring and anchoring activity from April 15 through October 15. The entrance channel is narrow and shallow. Current traffic levels do not support non-boating season speed limits.

Fishing Creek

* Previous Regulation: None
* Change: None
* Rationale: The creek has a good line of sight. Recreational use in the creek is low, primarily local residential activity and some anchoring.

Flat Creek

* Previous Regulation: None
* Change: Minimum wake area, year-round
* Rationale: The creek has an undeveloped shoreline, consisting primarily of wetlands, and limited depths. The creek and surrounding area is used as a feeding area for resident bald eagles.

Gingerville Creek

* Previous Regulation: 6 knots - Saturdays, Sundays and State Holidays, year-round

* Change:	6 knots - At all times, year-round
* Rationale:	The mouth of the creek is in close proximity to the busiest location on the South River. The area is characterized as having heavy vessel traffic from local marinas.

Glebe Bay

* Previous Regulation:	None
* Change:	None
* Rationale:	The bay is very wide and has a good line of sight. This is a traditional water ski area, and is popular for other high-speed activities.

Glebe Creek

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, April 15 through October 15
* Rationale:	The creek has a fair line of sight. The shoreline is highly developed with several community marinas and swim areas. Existing traffic levels during the non-boating season do not support "year-round" regulations.

Granville Creek

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, year-round
* Rationale:	The creek has a narrow and shallow entrance, and a limited navigable area.

Harness Creek

* Previous Regulation:	Approximately two-thirds of creek is 6 knots - At all times, year-round
* Change:	Extend 6 Knots - At all times, year-round, to the entire length of the creek
* Rationale:	The creek is used throughout the year by anchoring vessels. A concessionaire rents paddleboats and rowboats from Quiet Waters Park. Other uses, such as gunkholing, also occur in Harness Creek.

Lake Hillsmere

* Previous Regulation:	Entrance channel is 6 knots - At all times, year-round
* Change:	6 knots - At all times, year-round, for the entire creek
* Rationale:	The lake has a narrow and shallow entrance channel, and a limited navigable area.

Limehouse Cove

* Previous Regulation:	None
* Change:	None
* Rationale:	The cove receives little recreational use and has a good line of sight.

Little Aberdeen Creek

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, April 15 through October 15
* Rationale:	The creek has a narrow channel, especially in the upper reaches, and shoreline development is high. The greatest amount of use the creek receives is from April 15 through October 15. Current traffic levels do not support speed limits during the non-boating season.

Loden Pond

* Previous Regulation:	None
* Change:	None
* Rationale:	The pond has a narrow entrance channel and is very shallow. Virtually no recreational use can take place in the tributary.

Main Channel

* Previous Regulation:	None, except that around the Route 2 Bridge is designated as 6 knot speed limit - Saturdays, Sundays and State Holidays, year-round
* Change:	35 knot daytime and 20 knot nighttime speed limit - At all times, April 15 through October 15, west of Route 2 Bridge in areas not otherwise regulated.
* Rationale:	The main channel narrows and meanders above the Route 2 Bridge. Boat traffic from April 15 through October 15 is very heavy. All types of high speed recreational uses occur in the main channel. Existing traffic levels do not support speed limits during the non-boating season.

Oyster Creek

* Previous Regulation:	None
* Change:	Entrance channel 6 knots - At all times, year-round
* Rationale:	The creek's entrance channel is very narrow and shallow.

Pocahantas Creek

* Previous Regulation:	Entrance channel is 6 knots - At all times, year-round, remainder is 6 knots - Saturdays, Sundays and State Holidays
* Change:	6 knots - At all times, year-round for the entire creek
* Rationale:	The creek has a poor line of sight, a narrow channel, and a high number of private piers and commercial marinas.

Ramsey Lake

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round, and 6 knots - At all times, year-round, around the Turkey Point Road Bridge channel.
* Change:	None
* Rationale:	The lake receives heavy weekend use throughout the year. Access is restricted by shoaling and the Turkey Point Road Bridge. The shoreline is highly developed with private piers and commercial marinas.

Riva Road Bridge Area

* Previous Regulation:	None
* Change:	6 knots - At all times, April 15 through October 15
* Rationale:	The area receives constant use from April 15 through October 15. Boats of all sizes and power classes operate in this area, and bridge pilings obstruct the boater's line of sight. Current traffic levels do not support speed limits during the non-boating season.

The speed limit lines are marked at approximately 230 yards below the bridge and 75 yards above the bridge.

Route 2 Bridge Area

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, year-round
* Rationale:	This area is the busiest and most congested area in the South River. Boats traverse this area throughout the year, although most activity occurs between April and November-December. The bridge pilings obstruct boater's line of sight, and there is high commercial activity on the south and north shorelines.

The speed limit line are marked at approximately 500 yards below the bridge and 125 yards above the bridge on the southern shoreline.

Selby Bay

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	Moved speed limit line to a point on opposite shore parallel from Long Point. No change to existing speed limit.
* Rationale:	Selby Bay receives heavy weekend use throughout the year. The line of sight is good, and the shoreline is highly developed with private piers and commercial marinas. The speed limit line was moved to slow vessels down as they enter Selby Bay because the channel is adjacent to the highly developed eastern shoreline.

Upper South River

* Previous Regulation:	None
* Change:	"Controlled Ski Area" designation for existing permitted water ski course and jump, year-round. Minimum wake area for area west of controlled ski area, year-round.
* Rationale:	This is a traditional slalom course water ski and water ski jump area. The slalom course and jump are permitted by the U.S. Army Corps of Engineers. The area offers excellent conditions for competitive water skiing and jumping. The area also offers high quality wildlife habitat, such as wetlands and submerged aquatic vegetation, and serves as a feeding area for resident bald eagles.

The following restrictions apply to the South River Controlled Ski Area: 1) when the existing permitted slalom course or ski jump is in use, all other vessels in the controlled ski area must not exceed a minimum wake speed (the minimum speed necessary to maintain vessel steerage); and 2) the placement of mooring buoys within 200 feet of the existing permitted slalom course or ski jump is prohibited.

Warehouse Creek

* Previous Regulation:	6 knots - Saturdays, Sundays and State Holidays, year-round
* Change:	6 knots - At all times, year-round
* Rationale:	The creek has a poor line of sight and a narrow channel. There is one commercial marina in the creek, and the creek entrance is situated near several large commercial marinas. The tributary receives vessel traffic throughout the year.

Policy Recommendations

The following recommendations are policies meant to direct state and local government agencies to improve public safety, protect natural resources and enhance recreation on the South River:

1. Marine Sewage Pump-out Facilities

To improve ambient water quality, the Department of Natural Resources with its marine sewage pump-out grant program, should focus its efforts to establish additional marine sewage pump-out facilities on the South River. Prime locations for the facilities are the Route 2 Bridge/Riva Road Bridge areas, Glebe Bay and Selby Bay.

2. Boat Access Facilities

The boat traffic on the South River is heavy, especially on the weekends and holidays. An increase in the number of boat access facilities such as launching ramps may worsen congestion problems. Public expenditures for public boat access facilities should be discouraged, and the approval of private boat access facilities on the South River should be carefully considered by the Department and by Anne Arundel County.

3. Shoreline Erosion Study

Shoreline erosion has been identified as an important issue on the South River. Determination of boat wake induced erosion is, at best, difficult. Given that the most recent empirical analysis of boat wakes on shore erosion is dated, the Department of Natural Resources should initiate a study using the latest technologies to determine the effects of boat wakes on shoreline erosion.

4. Non-Structural Shoreline Erosion Control

Given that a natural shoreline is beneficial to the environmental and recreational features of an area, the Department of Natural Resources and Anne Arundel County should continue to support the placement of non-structural shoreline erosion control measures in areas where other measures may deter those features.

Full consideration of non-structural shoreline erosion control measures, where appropriate, should be given. When non-structural erosion control is not appropriate, stone revetments or rip-rap should be used. As a final consideration, bulkheads should be placed above the mean high water mark to minimize impacts on shallow bottoms.

5. Mooring Devices

The placement of individual and group mooring devices pose a potential problem to navigation and to the enjoyment of the State's waterways. The Department of Natural Resources currently regulates mooring devices, but allows local jurisdictions to administer their own programs. The Department should investigate additional management strategies for mooring devices to ensure safe navigation and balanced recreational opportunities on State waterways.

VII. IMPLEMENTATION, ENFORCEMENT AND MONITORING

The following section details the implementation, enforcement and monitoring efforts of the Department of Natural Resources for the South River Comprehensive Vessel Management Plan.

Implementation

The implementation of the South River Plan includes the subsequent components:

1) Marking - buoys and signs; and
2) Boater education.

As stated on page 10, approximately 60 buoys and 75 signs are used to mark speed limits and other conservation regulations in the South River. The Boating Administration placed an additional 12 buoys and a number of signs in the South River and its tributaries to better portray the plan's speed limit regulations.

Boater education performs an important role in creating a "responsible boater" on Maryland's waterways, and will play a vital function in the implementation of the South River Comprehensive Vessel Management Plan. The Boating Administration is educating the public about the South River Plan through the following means:

1) Press releases to local newspapers;
2) Open houses - invite the public to stop at the Boating Administration office to talk informally with staff about the South River Plan as well as other topics;
3) South River Plan brochure - distribute a brochure describing the South River Plan regulations that will be distributed to local marinas, restaurants and other businesses;
4) South River Comprehensive Vessel Management Plan - make the plan available to local libraries and, upon request, from individuals; and
5) Presentations to local community groups, boating safety organizations, recreational user groups, etc. Presentations are available upon request from organizations.

Enforcement

There are three Natural Resources Police officers stationed at Liberty Yacht Club on the South River. The officers are responsible for the enforcement of all State natural resources laws, including speed limit regulations, on the South River and the surrounding Chesapeake Bay area. In addition, a mobile enforcement team, consisting of two officers, a vehicle and a boat, will provide support and relief to the officers stationed at Liberty Yacht Club. The mobile enforcement team is not, however, permanently assigned to the South River; they provide enforcement support to Natural Resources Police officers across Anne Arundel County.

Monitoring

To assist in the evaluation of the success of the South River Comprehensive Vessel Management Plan, the Boating Administration proposes has established an independent review panel that reports and recommends changes to the Boating Administration about speed limits on the South River. The panel consists of boaters-at-large, area residents, and members of recreational user groups. Members of the panel records their observations about conditions on the South River and accepts comments from river users. The panel convenes at the end of the boating season to summarize their findings and before the start of the boating season to recommend any potential changes to the speed limit regulations.

VIII. MAP ATTACHMENTS

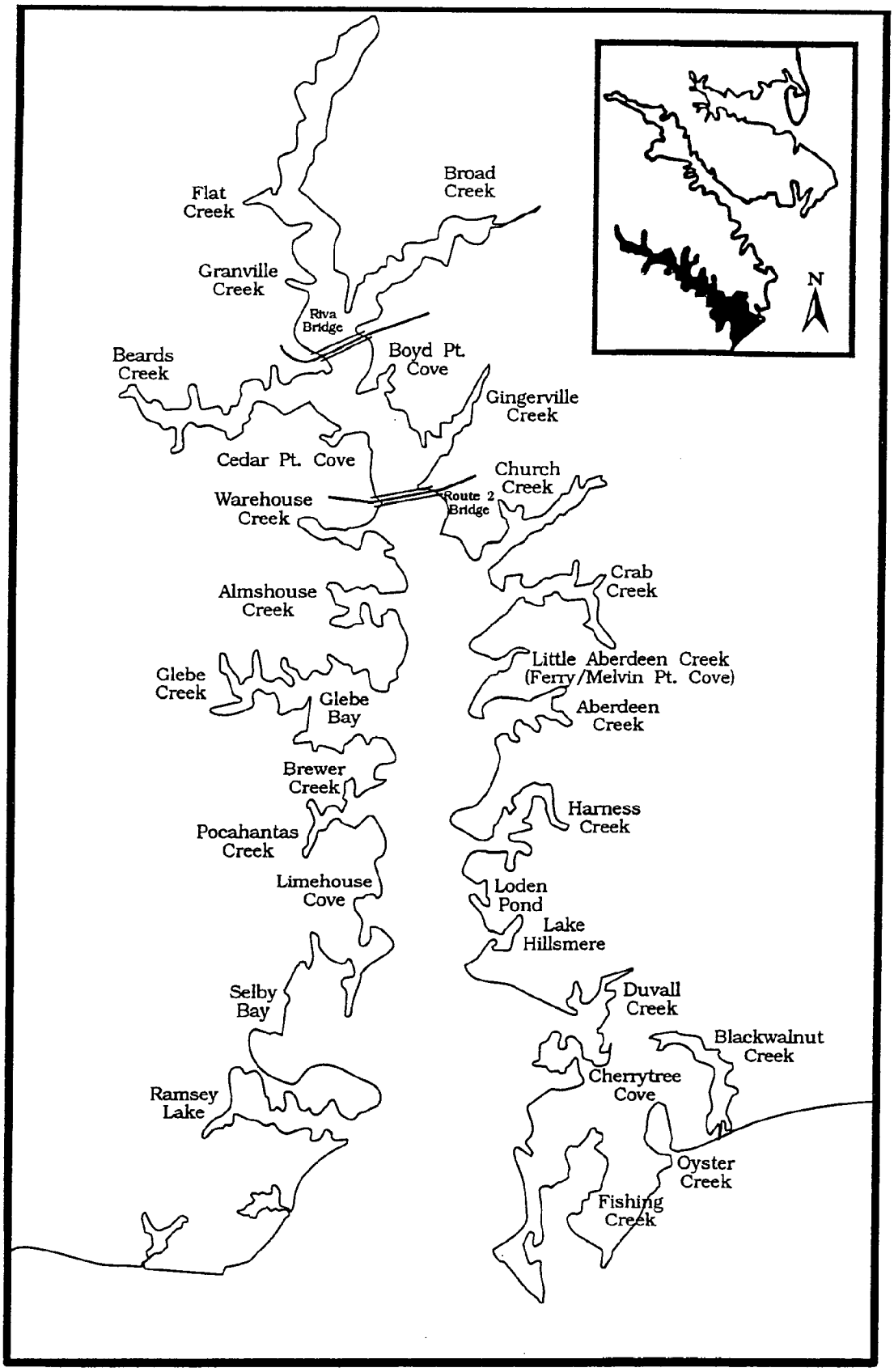
Map 1 - Tributaries of the South River

Map 2 - Speed Limits on the South River Prior to June 8, 1992

Map 3 - Commercial Facilities on the South River

Map 4 - Natural Resources on the South River

Map 5 - Speed Limits and Use Areas on the South River



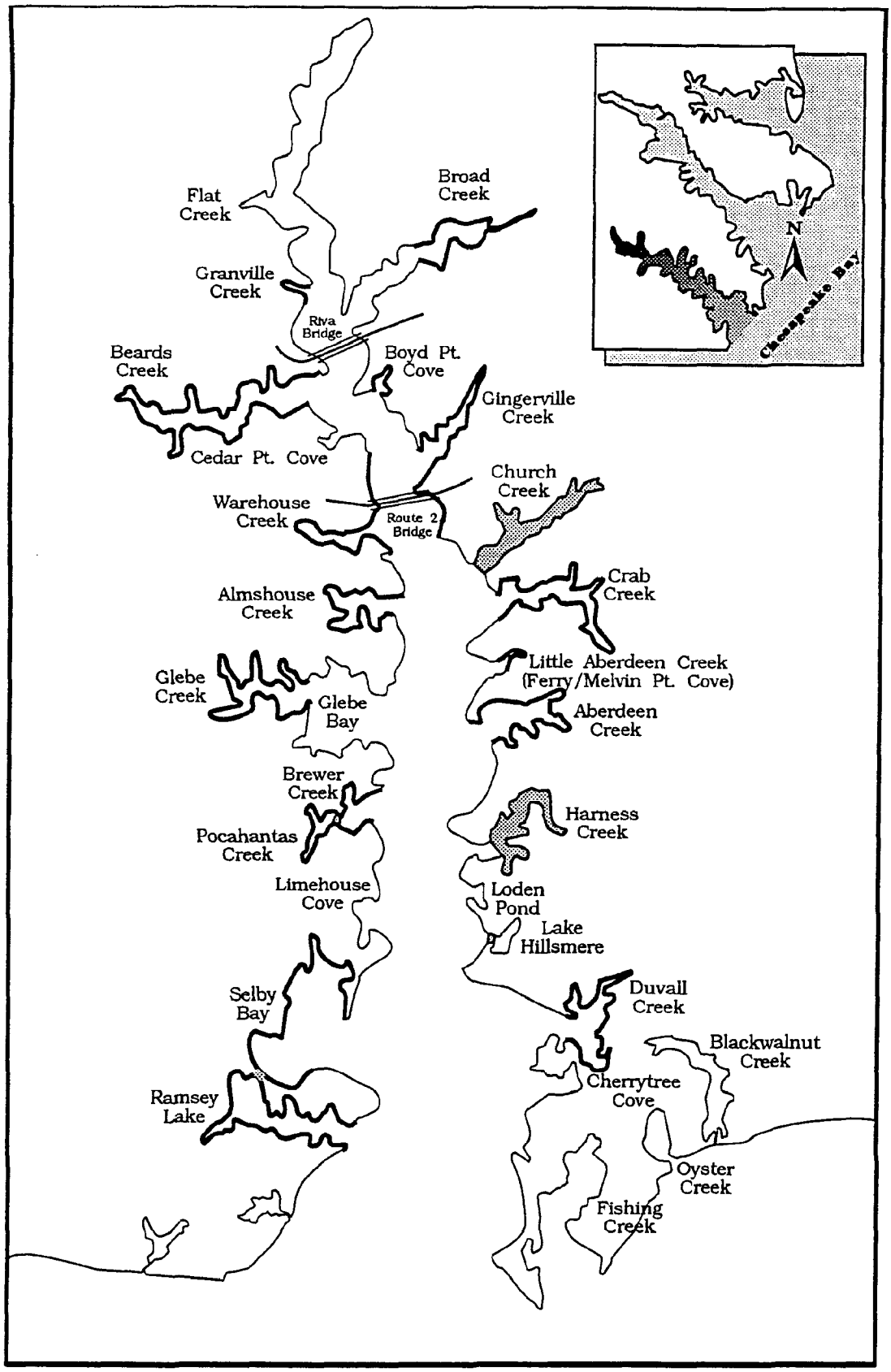
TRIBUTARIES

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

Map 1



SPEED LIMITS
(Prior to June 8, 1992)

6 Knot Maximum at All Times All Year

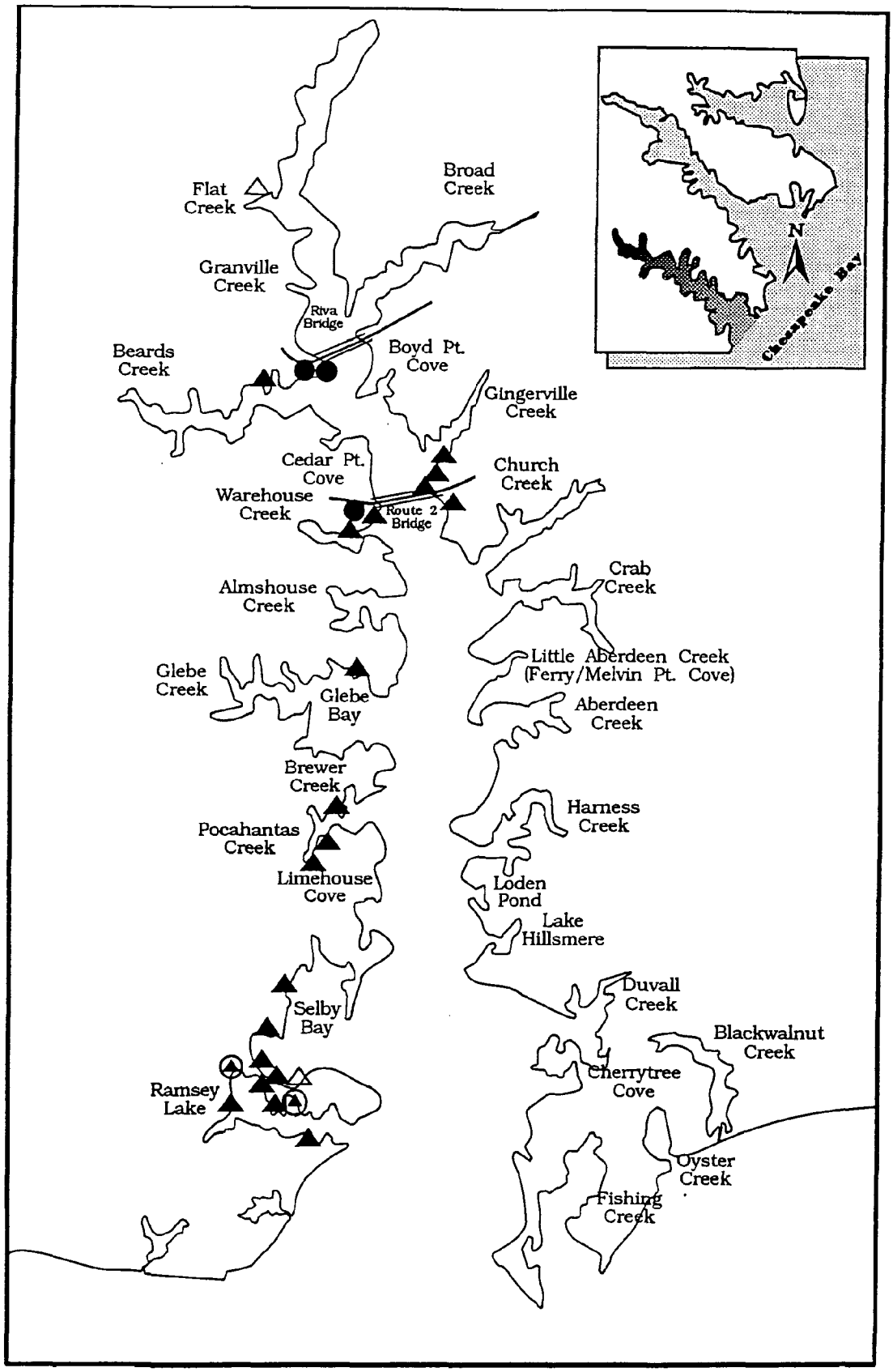
6 Knot Maximum Sat., Sun., & State Holidays All Year

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

Map 2



COMMERCIAL WATERFRONT FACILITIES

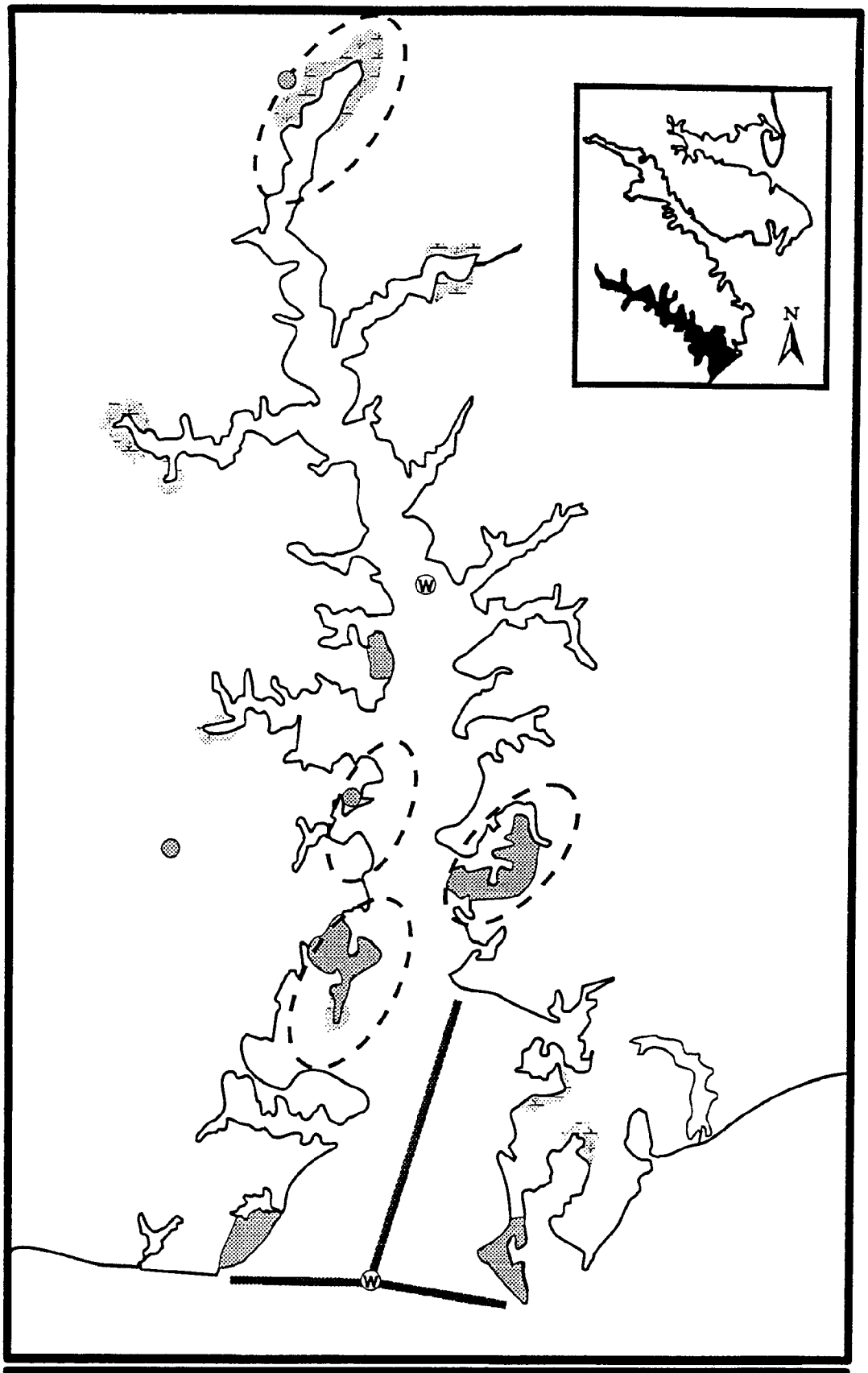
- ▲ COMMERCIALS MARINAS
- ● RESTAURANTS
- △ YACHT CLUB
- ⊙ MARINE SEWAGE PUMP-OUT FACILITY

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

Map 3



NATURAL RESOURCE FEATURES

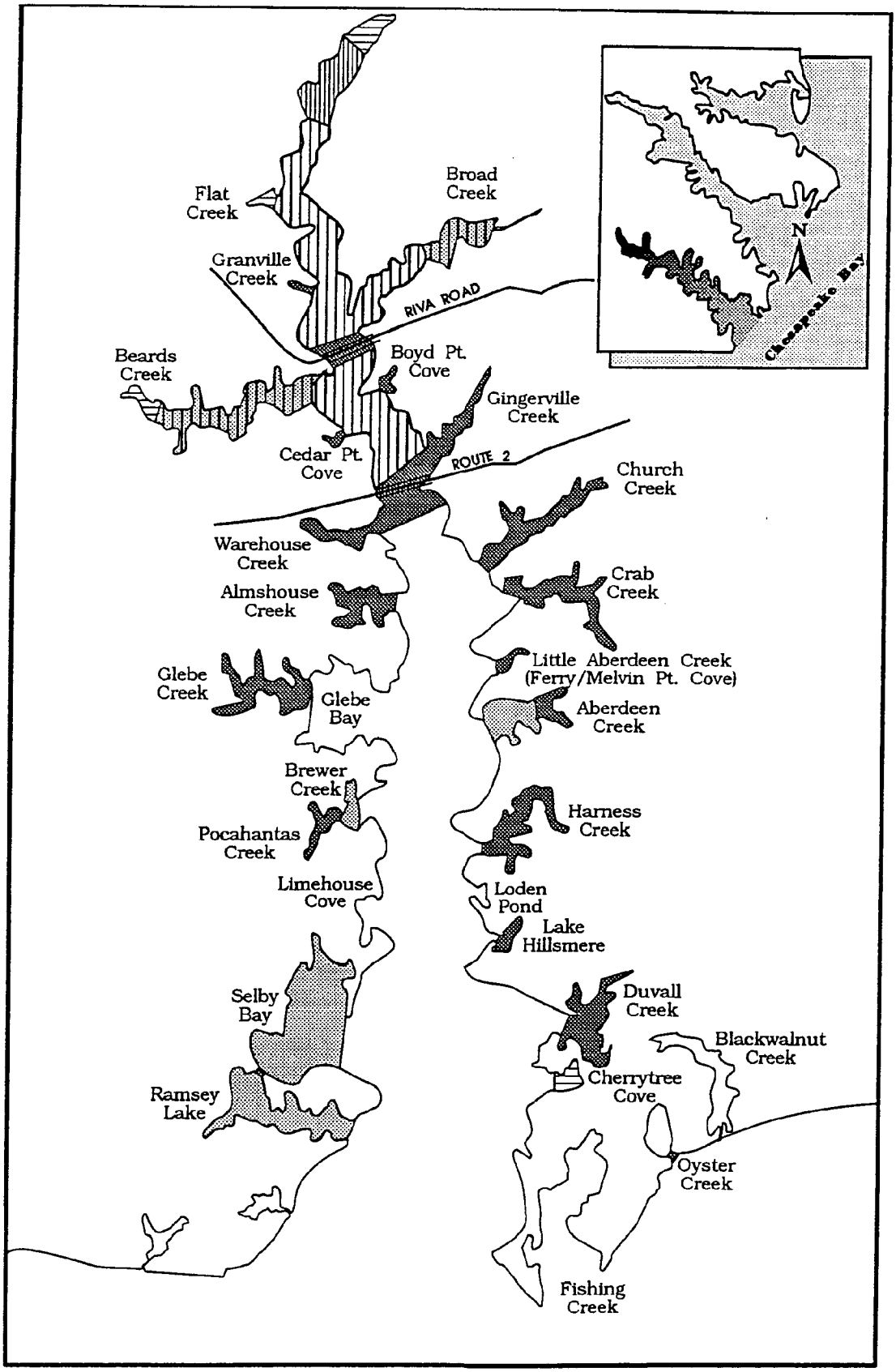
- TIDAL WETLANDS
- PUBLICLY OWNED LAND
- EAGLE FEEDING & WATERFOWL REFUGE AREAS
- BALD EAGLE NESTING SITES
- WATERFOWL CONCENTRATION AREAS

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

Map 4



SPEED LIMITS & USE AREAS

- 6 Knot Maximum at All Times
- 6 Knot Maximum Sat., Sun., & State Holidays
- 35 KNOT DAYTIME, 20 KNOT NIGHTTIME
- MINIMUM WAKE ZONE
- CONTROLLED SKI AREA

South River

MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration

Map 5

SOUTH RIVER

Speed Limits and Use Areas

YEAR-ROUND

6 Knots At All Times

Almshouse Creek
Boyd Point Cove
Cedar Point Cove
Gingerville Creek
Granville Creek
Harness Creek
Lake Hillsmere
Oyster Creek entrance channel
Pocahantas Creek
Ramsey Lake bridge channel
Route 2 Bridge area
Warehouse Creek

6 Knots Sat., Sun. & State Holidays

Ramsey Lake
Selby Bay

Minimum Wake Area At All Times

Beards Creek (upper portion)
Cherrytree Cove
Flat Creek
Upper South River
(near Route 50 Bridge)

DAYTIME HOURS
Sunrise to Sunset

NIGHTTIME HOURS
Sunset to Sunrise

APRIL 15 through OCTOBER 15

35 Knots Daytime/20 Knots Nighttime

Area west of the Route 2 Bridge to the Upper South River Controlled Ski Area. This includes Beards and Broad Creeks when the 6 knot speed limit is not in effect.

6 Knots At All Times

Aberdeen Creek (upper portion)
Crab Creek
Church Creek
Duvall Creek
Glebe Creek
Little Aberdeen Creek
Riva Road Bridge area

6 Knots Sat., Sun. & State Holidays

Aberdeen Creek (lower portion)
Beards Creek (lower portion)
Brewer Creek
Broad Creek (upper portion)

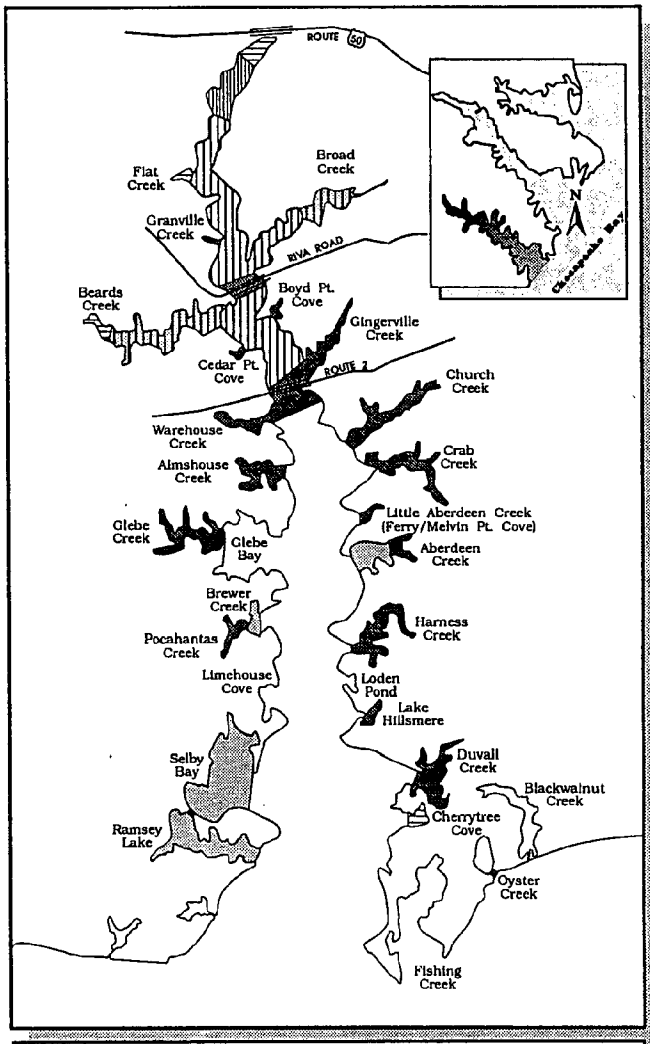
NATURAL RESOURCES POLICE
EMERGENCY TELEPHONE NUMBERS
(410) 267-7740 OR 1-800-628-9944

CONTROLLED SKI AREA - A portion of the Upper South River has been designated as a "controlled ski area." The following provisions apply to the ski area:

A) when the permitted slalom course or ski jump is in use, all other vessels must operate at a minimum wake speed;

B) the placement of mooring buoys within 200 feet of the permitted slalom course or ski jump is prohibited.

MINIMUM WAKE AREA - Areas on the South River that have significant natural resources and/or are often used for passive recreational activities are regulated as a **"minimum wake area."** Minimum wake is defined **as the minimum speed necessary to maintain vessel steerage.**



SPEED LIMITS & AREA DESIGNATIONS

- 6 Knot Maximum at All Times
- 6 Knot Maximum Sat., Sun., & State Holidays
- 35 KNOT DAYTIME, 20 KNOT NIGHTTIME
- MINIMUM WAKE AREA
- CONTROLLED SKI AREA

South River

COMPREHENSIVE VESSEL MANAGEMENT PLAN

State of Maryland
Department of Natural Resources
Boating Administration
580 Taylor Avenue, E-4
Annapolis, MD 21401
(410) 974-2918

The facilities and services of the Department of Natural Resources are available to all without regard to race, color, religion, sex, age, national origin, physical or mental disability.

ACTUAL SIZE OF POSTER - 14x18

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES

IN THE MATTER OF:
PROPOSED NEW REGULATIONS
COMAR 08.18.25.02 - .05
SOUTH RIVER COMPREHENSIVE VESSEL MANAGEMENT PLAN
BEFORE A HEARING OFFICER

REPORT AND RECOMMENDATION

I. INTRODUCTION

I, Bruce Gilmore, Director of the Boating Administration, Department of Natural Resources, served as the Hearing Officer to establish a formal record regarding proposed regulations to implement the South River Comprehensive Vessel Management Plan. The regulations are proposed as an addition to the Code of Maryland Regulations, under COMAR, 08.18.25.02 - .05. The regulations were developed in response to citizen concern about decreased public safety, recreational opportunities and environmental issues on the South River and its tributaries. Some background relating to the South River Comprehensive Vessel Management Plan follows.

In the spring of 1990, in response to letters and telephone calls from citizens who were concerned with conditions on the South River, the Boating Administration placed several "Notice to Boater" buoys in the South River to obtain comments from and to notify rivers users about a review of the river's speed limit regulations. Approximately one dozen letters and two dozen telephone calls resulted from the placement of the buoys.

In the fall of 1990, the Boating Administration, with the assistance of other federal, state and local government agencies, collected data and information pertaining to land use, natural resources features, boat traffic patterns, water-dependent facilities, conservation violations and warnings, vessel homeports and navigation aids. Also at this time, a mailing list of river users including recreational user groups, boating safety organizations, marine trades groups, community associations, environmental organizations, boaters-at-large and the general public was compiled. Elected officials from the South River area were contacted and informed as to the purpose and goals of the plan.

In January 1991, a user survey was performed to obtain comments and concerns regarding river conditions and issues. The survey was sent to those individuals and groups on the mailing list, circulated to local businesses and distributed to local and regional boat licensing offices. All those responding to the survey were added to the mailing list.

To further increase public participation, a joint South/Magothy River workshop was held on May 18, 1991. Again, a notification was sent to those individuals and groups on the mailing list and released to local newspapers. Approximately 40 people attended the sessions for the South River. Workshop participants provided comments which were used in developing draft proposals for the South River Plan.

Throughout the summer of 1991, the Boating Administration staff continued to collect information on boat use and traffic patterns on the river and its tributaries. Based on comments received from letters and telephone calls, the user survey and the workshop, a draft of the South River Comprehensive Vessel Management Plan and proposed speed limit regulations was released in October of 1991. Elected officials from the area were notified and briefed on the details of the plan. On October 30, 1991, a public meeting was held to solicit further opinions and to provide the public with a forum to comment on the draft South River Plan. Approximately 85 people attended the meeting, of which 35 spoke in opposition to or in favor of the plan. Following the meeting, approximately 50 letters addressing concerns with the South River Plan were received by the Boating Administration.

The Maryland Boat Act Advisory Committee reviewed the plan at their meeting on November 6, 1991, and made recommendations to Dr. Torrey C. Brown, M.D., Secretary of the Department of Natural Resources, as is their statutory requirement. The Committee voted against several of the Boating Administration's speed limit proposals. They believed that the presence or absence of boat traffic during the non-boating season should be considered when evaluating waterways for speed limit regulations.

Based on extensive input, which included letters and telephone calls, the public meetings and the Boat Act Advisory Committee recommendations, the Boating Administration modified their speed limit proposals and released a new draft of the South River Plan in February 1992.

A public hearing was held to provide the opportunity for public comment on the proposed regulations. The hearing was held on February 26, 1992, from 7:05 P.M. - 8:45 P.M. at Southern Senior High School in Harwood, Maryland. Approximately 45 people attended the hearing. Twenty-eight (28) people provided verbal testimony on the proposed regulations, and 24 exhibits were submitted for the record. Following the hearing, forty-two (42) letters were received during the comment period, including two speed limit petitions. One of the petitions contained approximately 100 signatures from citizens of the South River Landing Community and the surrounding communities requesting that the speed limit in Almshouse Creek be six knots at all times for the entire year. The second petition included eleven signatures of area residents requesting that the Boating Administration re-evaluate their speed limit proposals. The public hearing record remained open until April 24, 1992.

Included in the following section is my summary of the issues raised at hearing itself and in the comments for the public record, a discussion of these issues and my recommendations which are based on a careful review of all information submitted for the record, additional site visits and further consultations with DNR staff and scientific experts.

II. REVIEW OF ISSUES, DISCUSSION & RECOMMENDATIONS

MAIN CHANNEL SPEED LIMIT

Concerns were raised about no maximum speed limit for the main channel below the Route 2 Bridge to the mouth of the river. Testimony was presented at the public hearing and letters were received describing dangerous situations resulting from vessels operating at high speeds, large boat wakes, vessel congestion and conflicting recreational uses (sailing vs. powerboating, etc.). Suggestions were made to restrict the speed of vessels to 35 knots daytime and 20 knots nighttime effective to the mouth of the South River.

The basis for a main channel maximum speed limit on the South River is public safety. Above the Route 2 Bridge to the Upper South River Controlled Ski Area, there is a proposed main channel maximum speed limit of 35 knot daytime and 20 knot nighttime at all times effective for the boating season. This is an area that is characterized by: 1) heavy boat use during the boating season; 2) a narrow and meandering navigable channel; 3) high residential and commercial waterfront development; and 4) a variety of recreational activities including water skiing, kayaking, cruising and personal watercraft operation. Collectively, these conditions compromise public safety in the main channel of the South River above the Route 2 Bridge.

Below the Route 2 Bridge to the mouth of the river, these conditions are not necessarily present. While this area experiences high volumes of boating activity, high speeds and conflicting uses, the navigable channel is wider eastward to the mouth of the river, and residential and community waterfront development is low. The Natural Resources Police report that most boating violations and warnings on this section of the river were not related to high vessel speeds and reckless and negligent operation.

I consulted with a former U. S. Coast Guard marine inspector and other boating experts to address the issue of large boat wakes. These conversations revealed that a majority of large boats wakes are not caused by vessels traveling at speeds in excess of 35 knots. Rather, the primary cause of large wakes is vessels traveling at speeds well below 35 knots, and in many cases, result from boats traveling at less than 20 knots. The key factor involved in determining the scale of boat wakes is hull size and configuration. That is, a large motor cruiser with a displacement hull is prone to "throw" more wake than a water ski boat with a planing hull. Thus, the issue of boat wakes will not be resolved by the imposition of a 35 knots daytime and a 20 knots nighttime speed limit.

In an effort to resolve this issue and educate boaters on the impact of boat wakes, I am instructing the Boating Administration to increase their "Responsible Boater" campaign through the use of public service announcements (PSA), informational brochures and posters, and public speaking engagements.

The expression of concern about the main channel speed limit is indicative that his issue merits further consideration by the Boating Administration. A substantial number of river users are asserting that the main channel is dangerous and that they are, on occasion, too frightened to recreate with their families and friends on the South River on a weekend or holiday.

To address this public concern, I recommend that the Boating Administration undertake the public process to consider a possible change to the South River Plan to address this issue in terms of a maximum speed limit in some portions of the main channel east of the Route 2 Bridge. Such a proposed change would not go into effect before the 1993 boating season.

It should be understood that I am not endorsing such a change in the speed limit of the main stem of the South River. Indeed, this issue, while raised by many in comments for the public record, has not been fully explored in a public process. This process must take place so that all interested people and organizations can be aware of this issue and can convey to the Boating Administration their views as to its efficacy. To impose such a change as part of the plan for the 1992 boating season and in absence of a public process would be manifestly unfair to the broad boating public. In this respect, I expect the Boating Administration to announce this public process soon.

ALMSHOUSE CREEK

Concerns were raised about the 6 knots at all times speed limit effective for the boating season. Citizens from the surrounding communities claim that boat traffic after the close of the boating season (October 15) is significant and would cause damage to personal property and jeopardize public safety. Residents also cite shoaling in the main channel as a hazard to navigation. Recommendations were made and a petition was submitted to restrict the speed of vessels operating in Almshouse Creek to 6 knots at all times effective for the entire year.

The hearing record shows a great deal of support for an all year speed limit. In addition to a large number of letters backing the recommendation, a petition of approximately 100 signatures was received requesting that the Boating Administration review the area and change their proposal to a 6 knots at all times speed limit effective for the entire year.

These citizens claimed that boat traffic is heavy in late October through December and warrants restriction because of public safety concerns. In addition, residents of the South River Landing Community stated that once underway from their marina they encounter a blind spot and a shoal that presents a hazard when boats entering the creek travel at speeds greater than 6 knots. Other comments against the boating season proposal included damage to unprotected shorelines and submerged aquatic vegetation from boat wakes and other boating-related effects.

Furthermore, the Boating Administration was asked by the Londontowne Property Owners Association to include in the public hearing record a 1989 speed limit petition from the Association requesting a speed limit of 6 knots at all times effective for the entire year in Glebe and Almshouse Creeks. The Boating Administration responded to the request, and also included in the hearing record other information from their files relating to Almshouse Creek (other information includes a petition opposing an at all times, year-round regulation in Almshouse Creek).

The shoaling in the creek on the west shoreline near the South River Landing Community marina does not appear to be as extensive as originally thought, although a vessel with a draft of 4 feet or more should exercise caution when navigating in the vicinity. The "blind spot" near the South River Landing Community marina as discussed by its users is evident due to shoreline vegetation. This may cause a problem for small vessels with a low height of visibility. Large vessels, however, should not encounter any difficulties with the blind spot.

A great effort was made by the Boating Administration to enhance recreational opportunities on the South River. By proposing boating season/non-boating season speed limits, the Boating Administration opened areas that were previously regulated year-round to provide boaters the occasion to use the waterways for recreation. It was reasoned that boating activity decreased significantly after October 15th and public safety issues and on-water recreational conflicts would not be prevalent.

The Boating Administration's effort is commendable and merits some application in the South River as will be discussed in a later section. However, upon reviewing Almshouse Creek, I found that the recreational opportunity provided by the seasonal speed limit would be minimal at best, and that any high speed activity in this creek would compromise public safety. The creek is marginal for both water skiing and cruising. In fact, in order for water skiing to legally take place, a boat would either have to make one pass in the creek and "drop the skier", or the boat would have to possess a very tight turning radius and run a specific course. The creek is very short in length (approximate 700 yards), and increased regulation should not pose a great inconvenience to boaters traveling at 6 knots throughout the year. There are also several community marina facilities in the creek which are used a large portion of the year.

Therefore, given the physical nature of Almshouse Creek and the limited recreational potential of the creek, I recommend that the Boating Administration amend their current speed limit proposal for Almshouse Creek to 6 knots at all times effective for the entire year.

BEARDS CREEK

Concerns were raised about the proposed 6 knots Saturdays, Sundays and State Holidays speed limit effective for the boating season. Citizens claimed that water skiing and other high speed activities throughout the entire year were significant, and would cause property damage and jeopardize public safety. Concern over environmental harm from boat operation was also apparent. Recommendations were made to restrict the speed of vessels to 6 knots at all times effective for the entire year, and to extend the minimum wake area north to the Annapolis Landing Community marina.

Field visits to Beards Creek show that waterfront development is substantial, however, the development is relatively compact, as opposed to scattered, along the shoreline. Accordingly, the creek is wide with a good line of sight. Good water skiing and cruising opportunities exist for boaters, especially in the lower portion of the creek.

The public hearing record indicates that recreational/trick water skiing is a traditional and popular activity in the upper portion of the creek near the vicinity of Scotts Cove. There is not much shoreline development near Scotts Cove, but some does exist to the north. While shoreline development may present a conflict with water skiing, the foremost hazard appears to be the increasing number of moored and anchored boats in Beards Creek. Just south of the Annapolis Landing Community marina, the Boating Administration reports approximately 20 moored and anchored boats. While this activity is legal, it may present a problem to boats maneuvering in the creek where the channel narrows.

The Boating Administration's current speed limit proposal for Beards Creek is 6 knots at all times effective for the boating season. This was proposed in an attempt to provide additional recreational opportunities to boaters during the non-boating season when traffic levels are much reduced and waterway conflicts are lessened.

Although the boating/non-boating season proposal is not a popular one among many residents along Beards Creek, there is some support within the communities along the creek as well as the water skiing public for the DNR to undertake new strategies to manage recreational use on the State's waterways. I believe that the physical configuration of the area and the traditional nature of the use lends itself to the application of a seasonal speed limit on Beards Creek. Thus, I recommend no changes to the Boating Administration's proposal.

In addressing the problem of mooring buoys, the Boating Administration is currently reviewing Maryland's mooring buoy program and collecting information on other mooring programs from across the United States. This will hopefully lead to solutions to this issue. Additionally, I request the Boating Administration to review non-boating season traffic patterns and work with the local water ski community to ensure safe and respectful use on Beards Creek.

Other issues on Beards Creek, including the impact of boat wakes on shoreline erosion and disturbance of submerged aquatic vegetation, will be addressed in later sections.

GLEBE CREEK

Concerns were raised over the proposed speed limit of 6 knots at all times effective for the entire year. Citizens claimed that boating traffic was heavy after October 15th, and that property damage and shore erosion would occur due to boat wakes.

The public hearing record shows that public opinion on Glebe Creek is divided. While a large number of area residents support year-round regulation, there are also residents who maintain the creek should be available for water skiing and other recreational uses.

The Boating Administration was asked by the Londontowne Property Owners Association to include in the public hearing record their 1989 speed limit petition requesting a speed limit of 6 knots at all times effective for the entire year in Glebe and Almshouse Creeks. The Boating Administration responded to the request, and also included in the hearing record other information from their files relating to Glebe Creek (other information includes a petition opposing an at all times, year-round regulation in Almshouse Creek).

Water skiing, while not the dominant recreational activity on Glebe Creek, appears to be popular among local residents. The area near the entrance of the creek is the most often used area for water skiing. Also popular in Glebe Creek is swimming, crabbing, sailing and anchoring. These activities are prevalent between the months of May and October.

The issue of non-boating season traffic is a difficult one to address. While it is commonly accepted that boat use falls off after the middle of October, I realize that weather is a determining factor in this issue. That is, if the weather is unseasonably pleasant, boaters will be on the water well into late November or early December.

In an effort to recognize the interests and concerns of both groups, the Boating Administration proposed 6 knots at all times effective for the boating season. This proposal would provide protection to users of the creek during periods when traffic and congestion is high, yet allow recreational activities to take place during the time when congestion is low.

While this proposal appears to address any safety concerns and offers occasion for high speed recreational boating, there is a concern about shoreline erosion. The residents of the Londontowne Community have made a large financial investment in protecting their shoreline from erosion and are concerned about the impact of boat wakes.

I recommend no change to the Boating Administration's speed limit proposal for Glebe Creek. Although discussed in a later section, I also advise that the Boating Administration review boat traffic during the non-boating season and investigate the impact of boat wakes on shoreline erosion in Glebe Creek.

GLEBE BAY

Citizen concerns were raised about the lack of regulation on Glebe Bay, especially for the southeast shoreline. Area residents stated that water skiing and other power boating activities were occurring too close to shore and were affecting submerged aquatic vegetation and impacting the property owners ability to participate in more passive recreational activities.

Very few comments, with the exception of comments from residents along the southeast shoreline, have been received regarding watercraft use in Glebe Bay. Glebe Bay has long been used for a variety of recreational activities. Recreational uses include: canoeing, fishing, crabbing and sailing. Active uses include: recreational water skiing, "tubing" or "bogey boarding" and cruising. As stated in the public hearing record, Glebe Bay is large and very wide, and offers unobstructed views for boaters and provides fine recreational water skiing opportunities.

Given the nature of the southeast shoreline in that it is relatively shallow and undeveloped, it is a popular site for water skiing, especially for those individuals wanting to water ski from shore. There are, however, some piers and pilings in this area, and reports of skiers violating the 100 foot distance requirement are common from the residents.

In an effort to address these concerns, the Boating Administration placed "Caution - You Are Responsible For Your Wake" buoys along the southeast shoreline of Glebe Bay. I have also instructed the Boating Administration to provide surrounding community and commercial marinas with brochures and other literature regarding safe and responsible boating. Hopefully, this action will lessen the problem and alleviate the need for regulation.

Issues of natural resources impacts from boating will be addressed in a later section.

RIVA ROAD BRIDGE

Two conflicting concerns were raised about the Riva Road Bridge: 1) the 6 knots speed limit at all times effective for the boating season should be imposed throughout the year due to heavy boat traffic and a poor line of sight; and 2) the 6 knots speed limit at all times effective for the boating season is too restrictive and unnecessary for the weekdays during the boating season.

The public hearing record indicates great concern about traffic and congestion around the Riva Road Bridge. This area can get very congested, especially during the boating season. Of primary note, two petitions consisting of several hundred signatures were submitted by Mike's Crabhouse. The petitions were requesting a speed limit of 6 knots at all times effective for the entire year around the Riva Road Bridge. Telephone calls and letters relate heavy boat wake action resulting from boats going up and down off plane as they exit and/or enter the area

around the restaurants. A petition of 32 signatures was submitted to the Boating Administration opposing any form of week-long speed limit restriction. These opponents of week-long restrictions believe that traffic levels do not support regulation and that recreational enjoyment of the area will be lost.

Recently, the Natural Resources Police have expressed great concern over the fact that the bridge area was not regulated throughout the entire year, and have also brought to the attention of the Boating Administration the recent construction and modification of the Riva Road Bridge by the State Highway Administration. They report that the line of sight around the bridge is further diminished by the construction and upgrading of the bridge abutments.

Boating Administration communication with the Anne Arundel County Department of Public Works revealed that much of the work entails repair of the pilings and caps, and replacing the deck of the bridge. There will be no change in the profile of the bridge, i.e. no increase in the diameter of the pilings. Much of the existing supporting structure which is visible and results in the poor line of sight around the bridge is considered "false work". That is, it is temporary in nature and will be removed upon completion of the work in November of 1992.

Boating Administration field personnel conducted a visit to the site and found that where the false work and supporting equipment (this includes the construction barge) was in place, the line of sight was indeed poor. However, the remainder of the bridge area was not affected greatly by the construction.

While the issue of the bridge repair does not appear to be a problem outside of the construction phase, I believe that the issues of boat traffic and congestion and decreased recreational opportunity raised during the comment period are important and should be investigated further.

Therefore, I recommend that the Boating Administration undertake a public process to consider a potential change to the speed limit around the Riva Road Bridge. Such a proposed change would not go into effect before October 1992.

ROUTE 2 BRIDGE

Concern that the 6 knots speed limit for all times effective for the entire year is too restrictive and unnecessary for the weekdays during the boating season and during the non-boating season.

The public hearing record reflects overwhelming support for the Boating Administration's proposal. The proponents of the week-long, year-round speed limit includes many river users, the commercial establishments in the area, live-a-board residents, the Natural Resources Police and Boating Administration field staff.

This is reported to be the most active boating area on the South River with a variety of sizes and types of watercraft transitting the area. There are also several commercial marina establishments in the area which generate a large amount of vessel traffic throughout the year.

As part of their proposal, the Boating Administration is recommending that the speed limit lines around the bridge be adjusted so as to limit the length of the regulated area. On the eastern side of the bridge, the speed limit area would be reduced from 900 yards to approximately 650 yards. On the western side of the bridge, the speed limit area would be reduced along the southern shoreline from 300 yards to approximately 150 yards.

As in other parts of the plan, the Boating Administration is making efforts at reducing the amount of regulations without compromising the goals of the plan. The hearing record does not reveal serious opposition to the Boating Administration's proposal, and I recommend no change to the Boating Administration's speed limit proposal for the Route 2 Bridge area.

UPPER SOUTH RIVER CONTROLLED SKI AREA

Concerns were raised about the lack of restrictions placed on the controlled ski area. Citizens claimed that provisions similar to the Severn River Controlled Ski Areas are needed on the South River course to establish consistency and understanding among slalom course water skiers. Additionally, citizens requested that the Boating Administration prohibit the placement of mooring pilings in and around the existing slalom water ski course and ski jump, and the construction of bulkheads along the shoreline in the vicinity of the slalom ski course and jump.

The regulations which apply to the Upper South River Controlled Ski Area are as follows: 1) when the existing permitted slalom course or ski jump is in use, all other vessels in the controlled ski area must not exceed a minimum wake speed (the minimum speed necessary to maintain vessel steerage); and 2) the placement of mooring buoys within 200 feet of the existing permitted slalom course or ski jump is prohibited.

Originally, the Upper South River Controlled Ski Area was envisioned similar to the Maynadier Creek and the Sunrise Beach Controlled Ski Areas on the Severn River. That is, water skiers wishing to use the course would be required to have their boat inspected by the Boating Administration, display an inspection decal, pass a performance test, and meet other special provisions set down by the Boating Administration.

However, upon reevaluating the site and reviewing the historical and current recreational uses, it was determined that by restricting the area to only certain users and watercraft, a large number of boaters would be excluded from utilizing this area. Recreational skiers, primarily, have used the Upper South River for many years. If the area was highly regulated, these skiers would be forced to compete with boaters in other parts of the river; thereby, not only causing

recreational conflicts, but also increasing the potential for boat accidents. Hence, the Boating Administration modified its proposal which resulted in incorporating only those regulations to support the continued use of slalom course water skiing and jumping, but allow other recreational activities to continue.

The hearing record reveals very little opposition to the current proposals for the Upper South River Controlled Ski Area. I believe that the proposals offer sufficient protection to slalom water skiing and jumping, yet allow recreational skiers and others to use the area when the existing permitted slalom ski course or jump is not being utilized.

A concern was raised regarding the placement of structures in the vicinity of the existing ski course which would render the slalom ski course and jump useless. Specifically, testimony pointed to the placement of mooring pilings and bulkheads.

The construction of bulkheads and the placement of fixed structures that may deter the recreational experience of the Upper South River is of great concern to the Boating Administration. However, the Boating Administration does not have authority over the construction and placement of structures in waters of the State. Efforts have been made, however, to educate and improve communication among the various resource agencies that review and comment on permit applications for piers, pilings, bulkheads and other structures. Within the South River Plan, the Boating Administration discusses this issue and recommends that State and local resource agencies consider the use of non-structural shoreline protection measures in areas wherever possible, especially in areas where recreational and competitive water skiing is practiced.

I believe the Boating Administration is adequately dealing with this concern through its existing actions. Land use issues, such as the construction of bulkheads and piers, fall outside the authority of the Boating Administration and cannot be addressed through boating regulations.

I recommend no change to the Boating Administration's proposals for the Upper South River Controlled Ski Area.

DUVALL CREEK

Concerns were raised that boat traffic in Duvall Creek was significant in the non-boating season to the detriment of community and personal property and the environment, and that the speed limit line be extended to the entrance channel day markers.

The issues of boating/non-boating season speed limits and environmental impacts are addressed in later sections.

Due to shoaling and the narrowness of the entrance channel, the recommendation to move the speed limit line to the day markers in the entrance channel of Duvall Creek is a good one and should be considered by the Boating Administration as it monitors the South River during the 1992 boating season and as it reviews the plan for the 1993 season.

I recommend that the Boating Administration accept public comment, and consult with the Natural Resources Police on the movement of the speed limit line.

OYSTER CREEK & BLACKWALNUT CREEKS

Concerns were raised that Oyster and Blackwalnut Creeks are not proposed to be regulated with speed limits, with the exception of the entrance channel to Oyster Creek at 6 knots at all times effective for the entire year. Issues of heavy traffic congestion and environmental impacts were of primary note.

The Boating Administration's proposal for Oyster Creek is to impose a speed limit of 6 knots at all times effective for the entire year in the entrance channel. According to the Natural Resources Police, most of the complaints received and accidents investigated for the Oyster Creek area result from boat operation in and around the entrance channel. The entrance channel is very narrow and the line of sight is poor. The remainder of the creek is wide with unobstructed views for boaters.

I believe the location of Oyster Creek is also an issue in this discussion. Although the creek is situated in close proximity to both the South and Severn Rivers, its location on the shoreline of the Chesapeake Bay (approximately one mile north of the mouth of the South River) and being adjacent to shoal waters does not provide a favorable setting for heavy boating activity. Most of the boat traffic on Oyster Creek appears to be local in nature.

Citizen comments cited a dredge project and possible expansion of the Oyster Creek entrance channel as potentially increasing boat traffic and congestion. Upon consulting with resource managers in the Waterway Improvement Program, I found that the dredge project is modest in scope (500 cubic yards) and should not increase boating activity in and around the creek.

Blackwalnut Creek has highly restricted access. In fact, it appears that most people are unaware that it exists. The entrance channel is very shallow and narrow, although the remainder of the creek is relatively wide with a good line of sight. Boating activity is limited to small motorboats and manually propelled vessels.

Given the nature of boating activity on both creeks as reported by the Natural Resources Police and Boating Administration field staff and input received from the public, I do not recommend changes to the proposed speed limit regulations.

BOATING SEASON/NON-BOATING SEASON SPEED LIMITS

Concerns were raised about heavy boat traffic occurring after the close of boating season (October 15th) affecting public safety and sensitive natural resources. Recommendations were made requesting the Boating Administration to propose speed limits effective for the entire year. This was an issue in Brewer, Duvall, Crab, Beards, Little Aberdeen and Glebe Creeks, and the main channel of the river

During the full public comment process, there was a great deal of discussion over the use of boating season/non-boating season speed limits on the South River. Public sentiment expressed throughout the hearing period underscored the belief that boat traffic is just as high during the non-boating season (October 16th through April 14th) as it is during the boating season (April 15th through October 15th). It is also believed that the boating season/non-boating season speed limits will be confusing to users of the waterway and that protection is being taken away in creeks where year-round speed limits once existed.

The criteria used by the Boating Administration was sound. When evaluating the necessity of a speed limit on a creek, several factors were considered, such as the number of marinas, slips, piers and boat ramps; shoreline development; type of recreational activities; amount of boat traffic and area length, width, depth and meander; and the presence of sensitive natural resources.

In areas where the physical configuration of the creek and extensive shoreline development posed a safety problem, the Boating Administration recommended a 6 knot speed limit at all times effective for the entire year. This type of speed limit was determined to be appropriate in areas to address all levels of boating traffic. In areas where the creek's physical and development features were not necessarily a limiting factor, but when combined with high boat traffic levels public safety was thought to be compromised, a 6 knot speed limit effective for peak boating periods was proposed.

It is evident that the Boating Administration recognizes the problems associated with the imposition of seasonal speed limit regulations: 1) frequent boat use on certain portions of the river during the non-boating season, especially in October/November and early April; 2) confusion and misunderstanding for boaters; 3) difficulty with marking speed limits, i.e., the placement of buoys and signs; 4) increased expense of posting signs and placing buoys; and 5) problems with enforcement of the speed limits and prosecution of violators since seasonal limits are not widely understood by the general public and the judiciary system.

However, as evidenced in the public hearing record, other individuals and groups within the boating community, such as the water skiers and the Boat Act Advisory Committee, support seasonal speed limits, and maintain that they allow boaters to partake in recreational activities in certain creeks during the periods when vessel traffic is light. They also believe that seasonal speed limits offer some equity to river users who are not allowed to use creeks that are regulated year round.

This is not an easily resolvable issue. On both sides of the issue are legitimate concerns. Although the opinions are split on this issue, I believe that the use of boating season/non-boating speed limits in the South River merit application. The rivers of the State of Maryland are public waterways. As recreational demand in the Chesapeake Bay and the South River increases, innovative management strategies must be utilized to balance use so as not to overburden any groups or individuals. Therefore, I recommend no changes to the Boating Administration's seasonal speed limit proposals.

I present this recommendation with some reservation, however. The public hearing record shows some misgivings as to the use of seasonal speed limits on the South River. Therefore, I include as part of my recommendation a request for the Boating Administration to review traffic patterns on the South River during the 1992 non-boating season; to accept public comment on seasonal speed limits; to work with the Natural Resources Police in identifying problem areas; and to make the necessary changes to the South River Plan before the start of the 1993 non-boating season to ensure that the goals of the plan--increasing public safety, balancing recreational uses, and protecting natural resources--are achieved.

I also ask the Boating Administration to pay close attention to several areas that received less attention and generated few comments during the public comment period. Those areas include: Little Aberdeen Creek, Duvall Creek and the upper portion of Aberdeen Creek. These areas appear to possess some of the same characteristics as the tributaries regulated with a year-round speed limit yet are proposed for a boating season regulation only.

SHORELINE EROSION

Concern was raised that boat wakes are causing shoreline erosion throughout the entire South River system, especially in the creeks and coves such as Glebe, Almshouse, Beards, Crab, Oyster and Duvall Creeks.

The effects of boating and boating activity on the shoreline is often a contentious and difficult issue to address. The public hearing record reveals that many citizens, including boaters, believe that boat wakes cause shoreline erosion. As a result, many citizens are requesting that the Boating Administration impose 6 knot speed limits at all times effective for the entire year in many of the South River's creeks and coves.

Unfortunately, there is very little scientific literature and professional opinion to consult when examining this issue. One of the documents I reviewed, however, was a 1980 study by Mr. Chris Ostram and Dr. Chris Zabawa entitled "The Role of Boat Wakes in Shore Erosion in Anne Arundel County, Maryland", prepared by the Tidewater Administration, Maryland Department of Natural Resources, which looked at the impacts of boat wakes upon shore erosion rates at five sites in Anne Arundel County, Maryland. There were several significant findings in this report:

1. There was no increase in shore erosion which could be ascribed to boating and boating activities at four out of the five study sites.(Tropical Storm David was determined to have the greatest affect on shoreline change during the study period.)

2. Wind waves ranked behind storm events in causing shoreline changes over the year of observation, and in all cases, boat wakes represented lower levels of wave energy.

3. One study site revealed that there was considerable erosion of the fastland during the boating season. In this case, the boats passed particularly close to shore relative to the other study sites, and boat wake energy did not dissipate before reaching the beach. This site received the highest boat wake energy during the boating season, even though some of the other sites had higher frequencies of boat passes.

4. The study showed that different types of boats and modes of operation of the same boat can produce measurable differences in boat wakes.

5. The site which experienced the most fastland erosion had all of the following characteristics:

   * an exposed point of land in a narrow creek or cove;
   * fastland consisting of easily erodible material such as sand or gravel;
   * steep, near-shore gradient on the shoreline profile; and
   * location adjacent to a high rate of boating, with local passes relatively close to shore.

According to staff within the Boating Administration's Shore Erosion Control Program, only site specific shoreline studies can accurately determine the cause(s) of shoreline erosion and the value of subsequent speed limit restrictions for the South River and its tributaries.

Given this and other information, I find it difficult to recommend the imposition of six (6) knot speed limits at all times effective all year on many of the South River's creeks. I also find it difficult, though, to disregard the current public sentiment and concern over this issue.

I request, therefore, that the Boating Administration investigate shoreline erosion caused by boat wakes on the South River. Specifically, I recommend that Beards and Glebe Creeks be included because of their physical configuration and the general nature of their shorelines. That is, I believe that the shorelines of Beards and Glebe Creeks possess some of the characteristics which demonstrate susceptibility to boat wakes as mentioned earlier.

IMPACTS ON NATURAL RESOURCES

Concerns were raised over the impact of boating on submerged aquatic vegetation and nesting bald eagles. Particularly, citizens from Glebe Bay, Brewer, Beards, Glebe, Duvall, Crab Creeks are concerned about the Boating Administration's proposals, and have recommended six (6) knot speed limits at all times effective for the entire year.

As evidenced in the public hearing record, environmental issues on the South River are very important. Citizens point to shoreline erosion caused by boat wakes (addressed in the previous section), disturbance of bottom sediments by watercraft operating in shallow water, and disturbance of bald eagles by boating activity and vessel noise.

The hearing record indicates that wave action, boat-induced turbidity and "prop-scarring" are felt by many to be the primary factors in the decline of submerged aquatic vegetation in the South River. I do not challenge that boating, in some instances, may be a contributing factor; however, a direct relationship between the decline of submerged aquatic vegetation and boating is unsubstantiated.

A literature review performed by the Boating Administration, although not yet complete, includes very little data that supports the accounts found in the public hearing record. Most of the studies reviewed are undecided and assert that further investigation is needed to determine a causal relationship between boating and submerged aquatic vegetation decline.

Personal communication between the Boating Administration and Dr. Robert J. Orth, Virginia Institute of Marine Sciences, a co-author of the 1990 edition of Distribution of Submerged Aquatic Vegetation in the Chesapeake Bay, revealed that the available body of scientific knowledge on the subject of boating and its effects on submerged aquatic vegetation is very limited. He stated that most work pertaining to boating and submerged aquatic vegetation has investigated the incidence of physical damage or "prop-scarring" on submerged aquatic vegetation. Dr. Orth commented that re-colonization of submerged aquatic vegetation along the entire western shore of Maryland from the Patuxent River north to Susquehanna Flats is very poor, and, he noted, that submerged aquatic vegetation recolonization was poor in areas not commonly associated with heavy boating activity.

The most recent work reviewed was a 1991 study of submerged aquatic vegetation and water quality in Maynadier Creek in the Severn River near Annapolis, Maryland, conducted by Dr. William Dennison of the University of Maryland for the Department of Natural Resources, Boating Administration. This study was in response to citizen concern over the designation of a "controlled water ski area" by the Boating Administration as part of the Severn River Comprehensive Vessel Management Plan in 1990. Local residents believed that water skiing activity would have a detrimental impact on the ecology of the creek. Of particular concern was the impact on submerged aquatic vegetation.

Very briefly, Dr. Dennison found that nutrient (principally phosphorus) and sediment loading were the limiting factors in the growth and survival of submerged aquatic vegetation in Maynadier Creek. Dissolved phosphorus levels were found to exceed the tolerable limits prescribed for submerged aquatic vegetation survival. Fertilizer runoff, failing septic systems and other non-point sources were identified as the most significant contributors of phosphorus. Water skiing was believed not to have a significant adverse impact on the submerged aquatic vegetation. Dr. Dennison stated, however, that it was difficult to measure boating impacts on submerged aquatic vegetation in Maynadier Creek since few submerged aquatic vegetation exist. This study, like many of the other studies reviewed, is inconclusive as to the direct impact of boating on submerged aquatic vegetation, and also imparts that measurement of these impacts is, at best, difficult.

While more review is needed, the available professional opinion does not support many of the claims represented in the public hearing record. However, I do believe it is important to continue researching and studying this issue to develop a reliable and creditable data base.

Therefore, I recommend that the Boating Administration undertake a study to analyze the impacts of boating and boating related activities on shallow water aquatic ecosystems. An excellent location for this study is the upper portion of Beards Creek, a site which is characterized by relatively shallow depths, submerged aquatic vegetation and moderate boating activity.

The public hearing record contains comments from citizens who believe that boating activity around bald eagle nest sites are disturbing the birds and preventing them from nesting successfully. Specifically, the comments pointed to a nest site located on Cedar Point on the shoreline of Brewer Creek.

The Boating Administration's proposal for Brewer Creek is a 6 knots Saturdays, Sundays and State Holidays speed limit effective for the boating season.

According to wildlife biologists with the DNR's Wildlife Division, the nest site on Cedar Point is not utilized currently. Two other nest sites, one along the South River near the Route 50 Bridge and the other approximately one-half mile inland from the Cedar Point site, are active. In past years, the site on Cedar Point was used, and the DNR still considers it an active site.

It is highly questionable that the Cedar Point nest site is vacant due to boating activity, and more unlikely that the nest site will remain so due to the lack of a year-round 6 knot speed limit. Biologists do caution about heavy boating activity around these sites, and request that the Boating Administration take action so as not to increase boating activity around the nest sites. They do not specify, however, nor can they specify, as to what level of activity is harmful to the birds.

Until further research is performed and information gathered on the eagles, it is difficult to recommend further boating restrictions in the

areas surrounding the nest sites. It appears that the eagles along the South River are adaptable to boating activity. A case in point is the nest site near the Route 50 Bridge which has remained active for many years even though the surrounding area supports a heavily used water ski course and jump.

I recommend no changes to the Boating Administration's speed limit proposals. I also request that communication between the Boating Administration and the Wildlife Division be maintained and in the event of new information regarding the bald eagles, this issue be reinvestigated.

MISCELLANEOUS

Concerns were raised about the width of the main channel near Harness Creek being too narrow for vessels to safely navigate on a busy weekend or holiday. Recommendations were made to restrict the speed of vessels operating in this area.

The public hearing record contains verbal testimony and several letters which cited safety problems due to narrowness of the main channel in the vicinity of Harness Creek. One letter in particular stated that the navigable channel was no wider than 250 yards.

Consultations with Boating Administration field staff reveal the navigable channel in this area to be approximately 400 yards wide with a good line of sight. It should be noted, however, that a vessel with a deep draft may not be able to utilize the entire navigable channel in the vicinity of Harness Creek.

As I discussed in an earlier section, consideration of a maximum speed limit on the main channel east of the Route 2 Bridge is necessary due to substantial public support for such a speed limit; and I requested the Boating Administration undertake a public process to investigate this issue.

A recommendation was made to the Boating Administration to allow water skiing to take place in regulated areas during times of little boating activity (early mornings).

The recommendation to allow water skiing and other high speed activities in regulated areas during periods of light traffic deserves further discussion by the Boating Administration and the Natural Resources Police. At the present time, however, I do not believe that time restrictions for recreational activities is a workable solution.

My primary concerns with this proposal are ease of understanding for boaters and the expense of marking the areas with signs and buoys. To implement a program of time restrictions, it would require a significant boater education and public relations campaign and require additional regulatory signs and buoys conveying the time restrictions.

A question was asked of the Boating Administration to explain why speed limit proposals for the South River does not conform to the Severn River Plan.

Although the Severn River Comprehensive Vessel Management Plan serves as a model for the South River Plan, it was not the intention of the DNR to duplicate speed limit regulations and area designations. Boating patterns, recreational activities and vessel types vary from river to river. Although the South and Severn Rivers are located in close proximity to Washington, D.C., Baltimore and Annapolis, they serve different and varied boating communities. For example, the South River is very popular with high performance powerboaters whereas the Severn River is popular among sailors.

In addition, river users are largely responsible for the formation of the comprehensive vessel management plans. Through letters and telephone calls, public workshops, site visits, and public meetings and hearings, river users assist the DNR in developing speed limit proposals to be incorporated into the plan.

Concerns were raised about increased traffic and congestion in the creeks during times of no regulation resulting from increased speed limit restrictions on other tributaries. Concerns were also raised over the lack of water skiing opportunities in the Magothy River and the potential for water skiers from the Magothy River coming to the South River to water ski.

This is a common concern of the public as evidenced in the hearing record. Many people believe that certain creeks will be over-utilized by water skiers and other high speed boaters due to increased regulation on other creeks and the Magothy River. I do not believe that this situation will occur in the case of regulation on the South River's creeks or the Magothy River.

In both rivers, the Boating Administration has identified and maintained the most popular and traditional water ski areas. In the South River, the lower portion of Aberdeen Creek, Glebe Bay, Beards Creek, Broad Creek, and the main channel of the South River above the Riva Bridge, remain available to recreational and competitive water skiers throughout most of the year. Under the Boating Administration's current speed limit proposals, more water skiing opportunities are provided through the use of seasonal speed limit regulations and designation of a "controlled ski area".

In the Magothy River, only one traditional water ski area (Eagle Cove) is proposed for additional regulation on the weekends of the boating season only.

Concern was raised over the lack of a main channel speed limit on the South River which could influence the future speed limit proposals for the Rhode River.

At the present time, the Boating Administration does not anticipate initiating a vessel management plan for the Rhode River. Other river systems, namely the Middle and Upper Potomac River, are targeted for vessel management plans by the Boating Administration for the coming year.

In the event of a comprehensive vessel management plan for the Rhode River, actions taken on the South River should not influence any speed limit proposal for the Rhode River.

Concerns were raised that all public comment was not being considered when developing speed limit proposals for the South River Plan.

The hearing record indicates that some members of the public do not believe that their comments and concerns were properly addressed and considered. They relate the fact that their specific speed limit recommendations for the river and its tributaries were not incorporated into the 1992 February draft of the South River Plan.

I believe the Boating Administration has fully considered and adequately addressed the views of the public during the planning process for the South River Plan. It is impossible to incorporate everyone's proposals. The final plan is the result of compromise and balance.

Bruce A. Gilmore, Hearing Officer — May 19, 1992 Date

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES

ON THE MATTER OF:
PROPOSED REGULATIONS
COMAR 08.18.18.05
COASTAL BAYS PROHIBITED AREAS
BEFORE A HEARING OFFICER

REPORT AND RECOMMENDATIONS

I. INTRODUCTION

On September 30, 1992, I, Bruce Gilmore, Director of the Boating Administration, Maryland Department of Natural Resources, served as the Hearing Officer to establish a formal record regarding proposed regulations for boating prohibited areas in Isle of Wight and Sinepuxent Bays, Worcester County, Maryland. The regulations are proposed as an addition to the Code of Maryland Regulations (COMAR), under 08.18.18.05. The regulations were promulgated to protect threatened and endangered bird species from human disturbance by prohibiting recreational boating adjacent to critical habitat areas. Some background information relating to the threatened and endangered species and the prohibited areas regulation is included in the following section.

Four endangered and/or threatened bird species are of concern in Maryland's Coastal Bays: the Piping Plover, the Gull-billed Tern, the Black Skimmer and the Royal Tern. The Piping Plover is listed as endangered in Maryland and is on the U.S. Fish and Wildlife Service's list of threatened species. The Royal Tern is listed as endangered and the Gull-billed Tern and the Black Skimmer are listed as threatened in Maryland. These species are among the rarest breeding birds in Maryland, and their numbers have significantly declined since the 1950s.

The reasons underlying these declines are many. By far the most important factor is the loss of breeding habitat. In the case of the Piping Plover, the additional loss of protected mudflats for feeding has also been of great significance. Commercial and residential development along with recreational activity are the primary causes of this habitat loss. For nesting, each of these species require bare sand areas with

little vegetative cover that are free from mammalian predators. Plovers also require easy access to nearby inter-tidal areas (mudflats and beaches) for feeding.

Piping Plovers are solitary nesters. The last remaining Piping Plover population in Maryland inhabits the northern Assateague Island (primarily north of the Maryland Route 611 Bridge). The inter-tidal areas in Sinepuxent Bay along the bay-side of Assateague Island are critical foraging habitat for adult and juvenile Plovers. Between 1986 and 1992, the number of pairs of Piping Plovers breeding on Assateague Island has fluctuated between 14 and 25, and reproductive success has been very poor. Based on Maryland's record of Piping Plover breeding success, current population models indicate that the State's Plovers could suffer extinction in the near future.

Royal Terns, Gull-billed Terns and Black Skimmers are colonial nesters that gather in dense groups to breed. There are less than 10 sites in Maryland where these species nest and most of these are in Worcester County. At present, Skimmer Islands in Isle of Wight Bay provide the best breeding habitat in Maryland.

In 1990, 42 pairs of Royal Terns attempted to breed at three sites in Worcester County. By season's end they were only successful at one site - Skimmer Islands. This was the first successful breeding attempt by Royal Terns in the State since 1982. Eight pairs of Royal Terns nested on Skimmer Islands in 1991. During the summer of 1992, Royal Terns again returned to Skimmer Islands and 125 pairs nested.

The population of breeding Gull-billed Terns in Maryland is very low. In the last 10 years, these Terns have been limited to only one or two sites in Maryland each year. In four out of the previous eight summers they attempted to breed on Skimmer Islands.

Between 1985 and 1992, the Black Skimmer breeding population has varied from 151 to 328 pairs. During this period, Black Skimmers have never used more than seven sites during a single year. Over the last four years, there has been a trend towards a greater usage of Skimmer Islands. Since 1988, the percentage of breeding Black Skimmers in Maryland using Skimmer Islands has increased from 8% to 61%.

The Department of Natural Resources (DNR) has been monitoring

breeding populations of Piping Plovers and 20 species of colonial nesting waterbirds. DNR has also been implementing conservation measures designed to protect and increase the birds' breeding population. To date, most of DNR's efforts have been focused on managing human activities in and around critical habitat areas.

Human disturbance in nesting and chick rearing areas has a serious effect on the reproductive success of these four bird species. Disturbance at Plover nest sites leaves eggs exposed to predators and adverse weather conditions. For Royal Terns, Gull-billed Terns and Black Skimmers, these risks are substantially increased as a result of their colonial nesting behavior. Because all these species are beach nesters, unattended eggs on a hot day are very quickly killed by overheating. In nesting colonies, several disturbances on a hot day or during inclement weather conditions can result in complete breeding failure at that site for an entire season.

The DNR's initial conservation efforts began in 1987 and included posting of islands used by colonial nesting waterbirds. Landowners of non-state-owned properties were contacted and asked to restrict access by the public via voluntary closures. The goal of this program was to identify sites used by Piping Plover and colonial nesting waterbirds as significant habitat. It was hoped that recreational boaters would voluntarily use other areas, thereby reducing harmful disturbances. Posting was pursued only in those areas where human disturbance was a problem, primarily Worcester County. Since 1989, the area of most frequent conflict, near the Ocean City Inlet, has been patrolled each summer by an educational waterbird warden to further reduce human intrusions on the birds' habitat. These programs reduced and controlled disturbance at most of the sites, but were not fully effective on Skimmer Islands and Assateague Island.

By 1991, it became obvious to DNR wildlife ecologists that the importance of Skimmer Islands to colonial nesting waterbirds was growing, and that the reproductive success of the Piping Plover on Assateague Island continued to be very poor. Despite progress that had been made through voluntary closures and public education and information, increased protection measures were needed. Further, state

law requires that state agencies take necessary action for the protection of species listed as threatened, endangered or in need of conservation.

In February 1991, DNR wildlife ecologists and staff from the Boating Administration discussed protection strategies for Piping Plovers and colonial nesting waterbirds, including limiting boater access to portions of Assateague Island and Skimmer Islands. This effort also involved the cooperation of officials from the U.S. National Park Service.

On Skimmer Islands, public access was restricted through the use of a regulation existing in Maryland's wildlife codes (COMAR 08.03.02.16) that allows the creation of restricted areas on state-owned land. Access to inter-tidal lands, i.e. mudflats and beaches, was prohibited through the introduction of new regulations. These restrictions were first published in the Maryland Register as an emergency regulation on May 1, 1992, and became permanent on August 3, 1992 (COMAR 08.03.08.11-1). On Assateague Island, the National Park Service closed land areas above mean high tide north of Route 611. This action prohibited most public access to the island along Sinepuxent Bay and closed all of the interior areas where Plovers nested. The ocean-side beaches on Assateague Island remained open for public use.

While these federal and state restrictions were essential to this management effort, they alone did not offer sufficient protection to the threatened and endangered species. Recreational boaters continued to beach their vessels, trespass and release pets in areas critical for the birds' survival. A closed water area adjacent to the closed land areas was needed as a buffer to keep boaters at a safe distance from the birds and their habitat.

In September 1991, a regulation was drafted prohibiting boat access to nesting and foraging habitat necessary for the survival of threatened and endangered bird species. This was to be effective annually from April 1 through September 15. In October 1991, the Maryland Boat Act Advisory Committee, a 21 member citizen committee that advises the Secretary of the Department of Natural Resources on recreational boating matters, recommended adoption of the regulation by the Department of

Natural Resources. The regulation was published as an emergency action in the Maryland Register on May 15, 1992 to address immediate concerns during the 1992 boating season. The proposed permanent regulation (COMAR 08.18.18.05) was published in the Maryland Register on May 29, 1992.

In order to comply with federal regulations governing the closure of navigable waters, the DNR was issued a Section 10 permit by the United States Army Corps of Engineers. This permit allowed the DNR to place regulatory buoys designating the restricted areas.

The legal framework and public notice for the emergency closure was completed by July 1, 1992, and buoys and signs were in place by July 10, 1992. The DNR produced and distributed a brochure to local marine businesses and interest groups to inform the public about the boating prohibited areas. Meetings with local officials and citizens were also held to accept public comments and address concerns about this issue.

The emergency closure of Skimmer Islands in Isle of Wight Bay was in effect until September 15, 1992, and boat access in Sinepuxent Bay along the northern portion of Assateague Island was restricted through September 1, 1992.

In August 1992, a public hearing on the proposed prohibited areas regulation was requested by local elected officials and citizens to provide an opportunity for public comment. The hearing was held on September 30, 1992 from 7:05 P.M. - 8:45 P.M. at Stephen Decatur High School in Berlin, Maryland. Approximately 25 people attended the hearing, and 16 letters were received during the comment period following the public hearing.

Included in the following section is my summary of the issues raised at the hearing itself and in the comments for the public record; a discussion of these issues; and my recommendations which are based on a careful review of all information submitted for the record, additional site visits, and further consultations with DNR staff and scientific literature.

II. REVIEW OF ISSUES, DISCUSSION & RECOMMENDATIONS

LACK OF RECREATIONAL OPPORTUNITIES

Concerns were raised about decreasing recreational opportunities in the Coastal Bays as a result of the proposed regulation and the restriction of public access on Skimmer Islands and the northern portion of Assateague Island.

The public hearing record reveals concern that the proposed regulation will decrease recreational opportunities in Isle of Wight and Sinepuxent Bays.

While the proposed regulation does preclude boating around Skimmer Islands and along the northern portion of Assateague Island, the actual amount of navigable water within the restricted areas is very small. Along the eastern side of Skimmer Islands, the restriction is limited to a buffer of only 100-200 feet off-shore. On the western side, regulatory signs were placed on inter-tidal areas or in the water where depths were two feet or less at mean low water (MLW). With the exception of personal watercraft, no boats could reasonably navigate these waters.

Along Assateague Island, the proposed restriction would prohibit boating from 100 feet to one-quarter mile off-shore from the northern tip of the island for a distance of approximately two miles south in Sinepuxent Bay. While this restriction may seem quite large, the actual amount of navigable water within the prohibited area is limited because of shallow depths. This is especially evident at the southern end of the restricted area between day beacons #8 and #10.

In an effort to lessen the recreational impact of the proposed regulation, the National Park Service will provide access for boaters at two sites on Assateague Island. The first site, located near the Ocean City Inlet, provides an area where boaters can beach their vessels and get to the ocean-side beach by means of a designated trail. The second site, located just northeast of the Ocean City Airport, also permits boaters to beach their vessels and picnic on shore. At this second site, however, access to the ocean-side will not be permitted.

It should be clarified that most of the comments presented at the

public hearing and received during the public comment period expressed concern about the closure of the northern portion of Assateague Island, Skimmer Islands and the surrounding inter-tidal areas, and not the proposed boating restriction. The proposed regulation only restricts boating activity in certain parts of Sinepuxent and Isle of Wight Bays annually from April 1 through September 15. The location of these restricted areas may vary from year-to-year, given the nesting and foraging patterns of the birds, and will be established only in waters adjacent to federal or state lands where public access is also restricted. Land-side and inter-tidal restrictions are accomplished through other existing state regulations and by a directive of the National Park Service. Those restrictions are described briefly in the following paragraph.

DNR restricts trespassing on Skimmer Islands under an existing regulation (COMAR 08.03.02.16). To prohibit public access to inter-tidal areas in Isle of Wight and Sinepuxent Bays, a regulation was promulgated earlier this year to protect birds while foraging. This regulation (COMAR 08.03.08.11-1) prohibits all human activities, including clamming and walking. On Assateague Island, the National Park Service closes much of the island north of Route 611 between April and September to protect nesting Piping Plovers. The ocean-side beaches on this part of the island remain open to the public for recreational use.

Those interested in learning more about the restrictions on Skimmer Islands and the inter-tidal areas should contact: Maryland Department of Natural Resources, Wildlife Division, 580 Taylor Avenue, E-1, Annapolis, MD 21401. Questions about the closure of Assateague Island should be directed to: Superintendent, Assateague Island National Seashore, National Park Service, Route 611, 7206 Seashore Lane, Berlin, MD 21811.

ECONOMIC IMPACT

Concerns were raised about the economic impact of the proposed regulation and the effect it would have on marine businesses and tourism in Ocean City and Worcester County.

Although these concerns were raised both at the public hearing and during the public comment period, no information or testimony was introduced into the hearing record that readily supports this claim. To the contrary, information in the public record reveals that the endangered and threatened bird species may serve to draw tourists (naturalists, birdwatchers, etc.) to Ocean City and Worcester County, and therefore provide benefits to the local economy.

While the emergency regulation was in effect this past summer, DNR received only a few negative comments about the regulation's economic impact. DNR addressed these comments by meeting with local citizens and elected officials in June 1992, and discussing the purpose of the regulation and defining the location, size and scope of the boating prohibited areas. DNR also affirmed the importance of these species to both the environment and economy of Ocean City and Worcester County and presented information that detailed non-consumptive recreational uses and expenditures in Maryland. This outreach effort was very successful in answering the public's questions, and lessened many of the concerns about the proposed regulation's economic impact. This information was again presented by DNR at the public hearing.

While the proposed regulation may be an inconvenience to some boaters, it does not appear to be a great hinderance to marine and boating businesses and the local economy. I should also mention that no comments were received from the Ocean City Chamber of Commerce or any local business association. The support of the proposed regulation by the Maryland State Boat Act Advisory Committee and many of the local elected officials also upholds my judgement that the proposed regulation will not be detrimental to the local economy.

VOLUNTARY COMPLIANCE

A proposal was made to use voluntary compliance as a way to achieve protection of the bird species on Assateague Island and Skimmer Islands.

The proposal of voluntary compliance to protect these endangered and threatened species is well-taken. Public and private partnerships are important in managing the State's natural resources and improving public education and information.

As mentioned in the introductory section, DNR has engaged in volunteer efforts to protect these threatened and endangered bird species since 1987. This effort included the posting of signs on islands used by colonial nesting waterbirds, and requesting that private landowners restrict public access on their property where nest sites were identified. This was and continues to be a successful program throughout Maryland. Most boaters respect these voluntary closures and utilize other areas for recreation.

Compliance in Worcester County, specifically near Ocean City, is another matter. Posting of signs on Skimmer Islands and Assateague Island and patrol efforts by a waterbird warden in these areas has not provided sufficient protection to threatened and endangered bird species. The boating population of Ocean City during the summer is simply too large, transient and diverse for voluntary compliance efforts to be totally effective. Along those lines, the National Park Service reports that over 25% of the citations and warnings this past summer for violations of the Assateague Island closure were issued to local residents - those who should respect and be familiar with the restrictions.

Based on this information, I believe that voluntary compliance with regard to closed areas on Skimmer Islands and Assateague Island will not suffice in protecting these species, and that the proposed boating restriction is essential for the birds' long-term survival in Maryland.

DISTURBANCE FROM AIRCRAFT NOISE AND BEACH REPLENISHMENT ACTIVITIES

Concerns were raised that aircraft noise from the Ocean City Airport and beach replenishment activities in Ocean City are disturbing the birds to a greater degree than recreational boating activities.

Due to the proximity of the Ocean City airport to the northern end of Assateague Island, there is the potential for low-flying aircraft to disturb nesting or foraging Piping Plovers and other foraging shorebirds. Biologists have observed incubating and foraging Plovers while aircraft were flying above the area, and in almost all cases, no significant behavioral changes were noticed.

A documented case from New York State reports a situation where a Piping Plover was observed to stop foraging and fly away when the Concorde jet took off from Kennedy airport. It was also reported that Plovers were disturbed by low helicopter flights. Biologists believe that these behavioral changes and disturbances are likely the result of the loud noise created by the Concorde and helicopters as opposed to disturbance from the presence of aircraft itself.

With respect to beach replenishment activities, populations of Piping Plovers and colonial nesting waterbirds at the northern end of Assateague Island and on nearby smaller islands have been monitored for the last several years. To date, no reports of direct harm to the birds from the Ocean City beach replenishment activities have been documented. In fact, several nesting pairs of Piping Plovers at the northern end of Assateague Island have been observed with no evidence of disturbance while boat traffic associated with the beach project traveled in and out of the Inlet.

Thus, based on documented observations of Piping Plovers and the professional opinions of DNR biologists, I must conclude that it is unlikely that aircraft (remaining as high above the island as possible during take-off and landing) from the Ocean City Airport will disturb the Piping Plover. Accordingly, as long as vessels and equipment associated with the Ocean City beach replenishment project do not approach too close to the shoreline or land on the beach on the northern

end of Assateague Island, there should be no detrimental impact to the Piping Plover population.

RECOMMENDATION TO OPEN THE NORTHERN ONE-QUARTER MILE OF ASSATEAGUE ISLAND FOR PUBLIC RECREATION

A recommendation was made to open the northern one-quarter mile of Assateague Island to the public for recreation. Comments suggested that this area is not adequate nesting and foraging habitat for the Piping Plovers because of its close proximity to the Ocean City Inlet and noise. It was also suggested that a "compromise" could be worked out to allow people and birds to share the closed areas.

As stated earlier, the proposed boating regulation involves only the closure of waters to boating in designated areas of Isle of Wight and Sinepuxent Bays, and in no way restricts public access on Assateague Island or adjacent inter-tidal areas. The National Park Service has complete responsibility for managing recreational activities and natural resources on the island. It is solely the decision of park officials that much of island north of Route 611 be restricted to protect and preserve Maryland's Piping Plover population. DNR supports these actions and will continue to work with the Park Service to ensure protection of this endangered species. However, it must be understood that the restriction of public access on Assateague Island is not within the jurisdiction of the Maryland Department of Natural Resources.

It must also be understood that the land, inter-tidal and surface water buffer areas that are being restricted to public access for a portion of the year are mere remnants of former habitat that once supported the bird species. The proposed boating prohibited areas and restricted land and inter-tidal areas are the result of a compromise. The restricted areas are the minimum size believed necessary to support the bird populations. Also, these areas are available to the public outside the nesting season (September 16 through March 31), and the vast majority of Assateague Island and the Coastal Bays remain open to the public year-round.

In addressing the issue of whether the northern portion of

Assateague Island offers suitable habitat for the Piping Plover, I reviewed DNR's testimony as presented during the public hearing and discussed this question with DNR wildlife ecologists. All of the available information and discussion on this issue asserts that the northern portion of the island (area north of Route 611) offers the best nesting and foraging feeding habitat for Plovers in the State.

VEHICLE USE IN NESTING AREAS & RED FOX AND HERRING GULL PREDATION

Concerns were raised that the use of off-road vehicles (ORV) by the National Park Service on the northern portion of Assateague Island in conjunction with predation by Red Foxes and Herring Gulls was causing significant harm to Piping Plovers.

To reduce the impact to the fragile dune systems and natural resources at the northern end of Assateague Island, management policies at Assateague Island National Seashore have long prohibited recreational vehicular use with the exception of providing access to Seashore staff in instances involving maintenance, enforcement, research, accidents or other emergencies.

For the last several years, the resource management staff at the Seashore have taken steps to reduce the impact of vehicular disturbance. These steps have included minimizing the number of projects that require vehicular access to the northern end of the island and the number of maintenance and patrol trips. Further, there are strict rules that require traffic to stay in designated areas, primarily away from the nesting areas of the Piping Plover. All Seashore staff needing to drive to the northern end of the island receive a weekly update on the locations and status of the Plovers.

During the last seven years, predation has been one of the primary limiting factors affecting the productivity of Piping Plovers on Assateague Island. Although avian predators such as Herring Gulls are potential problems, the primary predators are Red Foxes. To reduce the mortality of Plover chicks at the egg stage, resource management staff at the National Seashore began using "predator exclosures" at the nest sites. Exclosures are wire mesh circular or triangular fences placed

around a nest to prevent a fox from eating the eggs. String is also placed across the top of the exclosure to prevent gulls and other birds from reaching the eggs.

Although National Park Service management practices have not entirely eliminated disturbance to the birds or predation, the practices have been effective in reducing stress to the Plovers, thereby increasing hatching success of the eggs and the overall health of the population.

DESIGNATE THE WATERS SURROUNDING REEDY ISLAND AS A PROHIBITED AREA

A suggestion was made to establish a prohibited area around Reedy Island, which is located in Isle of Wight Bay at 57th Street, Ocean City. The proponent of this proposal stated that Reedy Island supports tern and skimmer populations.

Black Skimmers nested on Reedy Island from 1985 through 1989. They abandoned the island for more secure colony sites, such as Skimmer Islands. Common Terns, an abundant species that is neither threatened or endangered, continue to nest on Reedy Island.

Each summer since 1987, Reedy Island has been included in DNR's voluntary closure program whereby the island is posted with signs and local residents routinely police the area. This combination of posting and monitoring is sufficiently effective in reducing human disturbance at Reedy Island.

Since Reedy Island no longer supports breeding skimmers and does not offer suitable habitat for Piping Plovers, it is not appropriate to restrict boating around this colony site.

SIGNS IN NESTING & FEEDING AREAS

A recommendation was made that DNR post better, more visible signs in areas used by colonial nesting waterbirds and endangered and threatened bird species to inform and educate the public.

While the emergency boating regulation was in effect this past summer, DNR and the National Park Service spent a great deal of time and energy signing and buoying the prohibited land and water areas to inform the public of these closures.

On Assateague Island, the Park Service lined the entire shoreline of the island from the Ocean City Inlet south for a distance of approximately 2.5 miles with signs advising boaters about the land-side restrictions. DNR also placed 14 buoys in Sinepuxent Bay to alert boaters about the prohibited areas. On Skimmer Islands, DNR encircled both islands with buoys and signs to caution boaters about trespassing on the islands and the emergency boating restriction.

To inform the public about the proposed boating prohibited areas regulation, DNR will distribute a brochure that describes the purpose of the regulation and post a map at local boat launch ramps and commercial marinas.

Skimmer Islands and Assateague Island are the two most heavily utilized areas for recreational boating in the Bay system and are also the only sites under the proposed boating regulation and other restrictions. Therefore it is important that DNR make every effort to clearly post the areas and inform the public. Other nesting and feeding sites do not require as much signage. Given the importance of this issue and the large amount of public interest in the Coastal Bays, DNR should replace and upgrade signs in areas where appropriate.

PERSONAL WATERCRAFT

Concerns were raised about the operation and use of personal watercraft in the Coastal Bays and their impact on the environment.

The operation of personal watercraft (PWC) on the waters of the State is a controversial issue. Over the last few years, PWC

registration in Maryland has increased dramatically to almost 3,800 vessels (1991 data). With this increase has come problems with safety, recreation, and most recently, the environment. In the Coastal Bays, these problems are especially apparent because the Ocean City region supports the greatest number and concentration of PWCs in the State.

There are regulations that govern the use of PWCs on all of Maryland's waters. Very briefly, the following are the main components of the regulations:

* PWC operators must be 14 years old or older;

* All persons on-board a PWC must wear a U.S. Coast Guard approved personal flotation device;

* PWC operation is prohibited between sunset and sunrise;

* On Maryland waters other than the Atlantic Ocean, PWCs cannot be operated in excess of 6 knots when approaching within 100 feet of a vessel, shore, wharf, piling, pier, bridge structure, abutment, or people in the water; and

* On waters of the Atlantic Ocean, PWCs may not be operated within 300 feet of people in the water or surf fishermen, and at a speed in excess of 6 knots when approaching within 100 feet of a vessel, wharf, pier or jetty.

At the present time, the impacts of personal watercraft on the environment are largely unknown. DNR, however, does encourage PWC operators to restrict their use to waters where the impact on sensitive natural resources, such as submerged aquatic vegetation, waterfowl and threatened and endangered species, is limited. Federal and state law currently prohibits disturbance of waterfowl from or in any type of boat. Additionally, in waters designated as a minimum wake zone, PWCs are restricted to operating at a minimum wake speed (minimum speed necessary to maintain steerage under existing wind and weather conditions).

VOLUNTEER ENFORCEMENT AND MONITORING

A recommendation was made to use volunteers to enforce the proposed regulation and other conservation restrictions.

Volunteers are utilized by the DNR on various conservation projects around the State. While this recommendation is well-taken, it is not legal for citizen volunteers to enforce Maryland's conservation laws and regulations.

LACK OF PUBLIC NOTICE FOR THE PUBLIC HEARING & SCHEDULING ANOTHER PUBLIC HEARING

Concerns were raised that DNR did not give sufficient notice of the September 30, 1992, public hearing held at Stephen Decatur High School on the proposed boating prohibited areas, and that DNR should hold another public hearing.

Although I understand that certain individuals were unaware of the September 30 public hearing, I can find no legitimate basis for scheduling another public hearing. Two weeks prior to the hearing, public notices were sent to three Worcester County news publications: the Maryland Coast Dispatch, the Maryland Times Press and the Worcester County Messenger. The notice stated the purpose of the proposed regulation, the time and place of the hearing, and the expiration date for the hearing record. The emergency and the proposed regulations were widely published throughout the summer in local newspapers and announced over the radio. In fact, the Department of Natural Resources exceeded the legal requirement for a public meeting notice in an effort to solicit input from interested citizens and organizations.

Bruce A. Gilmore 1/27/93

Bruce A. Gilmore, Hearing Officer Date

Long. 76°25'45.69" W., a line running 272° True to the opposite shore, Lat. 39°02'46.59" N., Long. 76°25'47.08" W., and running upstream to a line beginning at a point Lat. 39°02'38.98" N., Long. 76°25'45.90" W, and running to the opposite shore, Lat. 39°02'39.59" N., Long. 76°25'50.71" W. This area has a 6-knot (6.9 MPH) speed limit all year.

(2) The Upper Little Magothy River encompasses the area from a point Lat. 39°02'16.09" N., Long. 76°25'57.59" W., a line running 122° True to the opposite shore, Lat. 39°02'13.31" N., Long. 76°25'51.88" W., and running to the head of the river. This area has a 6-knot (6.9 MPH) speed limit all year.

pli H. Spriggs Pond encompasses the area beginning at the mouth of the pond, Lat. 39°03'58.30" N., Long. 76°29'50.06" W., a line running 147° True to the opposite shore, Lat. 39°03'57.46" N., Long. 76°29'49.36" W., and running to the head of the pond. This area has a 6-knot (6.9 MPH) speed limit all year.

.05 Magothy River North Shore.

A. The Magothy River north shore areas, with their corresponding speed limits, are set forth in §§B—J of this regulation.

B. Blackhole Creek encompasses the area beginning at the mouth of the creek, Lat. 39°04'51.15" N., Long. 76°29'49.96" W., a line running 080° True to the opposite shore, Lat. 39°04'52.05" N., Long. 76°29'43.39" W., and running to the head of the creek, including all tributaries. This area has a 6-knot (6.9 MPH) speed limit all year.

C. Broad Creek encompasses the area beginning at a point Lat. 39°05'09.40" N., Long. 76°28'46.19" W., a line running 270° True to the opposite shore, Lat. 39°05'09.40" N., Long. 76°28'59.86" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

D. Cornfield Creek encompasses the area beginning at the mouth of the creek, Lat. 39°05'34.35" N., Long. 76°26'24.65" W., a line running 063° True to the opposite shore, Lat. 39°05'37.26" N., Long. 76°26'17.33" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

E. Grays Creek encompasses the area beginning at the mouth of the creek, Lat. 39°05'17.20" N., Long. 76°27'52.20" W., a line running 037° True to the opposite shore, Lat. 39°05'19" N., Long. 76°27'50.46" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

F. The inner harbor of Gibson Island encompasses the area beginning at a point Lat. 39°05'23.09" N., Long. 76°25'47.13" W.(Purdy Point), a line running 050° True to the opposite shore, Lat. 39°05'28.16" N., Long. 76°25'39.40" W., and running upstream to the head of the harbor, including Redhouse Cove. This area has a 6-knot (6.9 MPH) speed limit all year.

G. Magothy Narrows, except James Pond and Cornfield Creek encompasses the area beginning at a point Lat. 39°05'13.78" N., Long. 76°26'39.52" W., a line running 000° True to the opposite shore, Lat. 39°05'40.98" N., Long. 76°26'39.52" W., and running upstream to a line beginning at a point Lat. 39°05'23.09" N., Long. 76°25'47.13" W. (Purdy Point), and running 050° True to the opposite shore, Lat. 39°05'28.16" N., Long. 76°25'39.40" W. This area has a 6-knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, during the boating season only, which is April 15 through October 15.

H. Ross Cove encompasses the area beginning at the mouth of the creek, Lat. 39°05'14.15" N., Long. 76°30'55.19" W., a line running 090° True to the opposite shore, Lat. 39°05'14.15" N., Long. 76°30'53.86" W., and running to the head of the cove. This area has a 6-knot (6.9 MPH) speed limit all year.

I. Sillery Bay, the area of Dobbins Island and Little Island beginning at a point Lat. 39°04'41.95" N., Long. 76°27'50.51" W. (west end of Dobbins Island), a line running northerly 003° True to Lat. 39°05'00.65" N., Long. 76°27'49.06" W.(west end of Little Island), then easterly following the shoreline to Lat. 39°05'02.93" N., Long. 76°27'43.70" W.(east end of Little Island), then southerly 152° True to Lat. 39°04'43.80" N., Long. 76°27'30.87" W.(east end of Dobbins Island), then westerly following the shoreline to the point of beginning. This area has a 6-knot (6.9 MPH) speed limit all year.

J. James Pond encompasses the area beginning at the mouth of the pond, Lat. 39°05'35.73" N., Long. 76°26'11.96" W., a line running 106° True to the opposite shore, Lat. 39°05'34.83" N., Long. 76°26'07.85" W., and running to the head of the pond. This area has a 6-knot (6.9 MPH) speed limit all year.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING: SPEED LIMITS AND OPERATION OF VESSELS

08.18.25 South River

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Proposed Action

[92-088-P]

The Secretary of Natural Resources proposes to amend Regulation **.01**, repeal existing Regulations **.02—.04** and adopt new Regulations **.02—.05** under **COMAR 08.18.25 South River.**

Statement of Purpose

This action will re-establish existing speed limits, create new speed limits and provide for a controlled ski area in the South River.

Estimate of Economic Impact

I. Summary of Economic Impact. These regulations will require the purchase and installation of buoys and signs for marking the various speed limit areas, and the distribution of information to the public.

II. Types of Economic Impacts.	Revenue (+) Expense (−)	Magnitude
A. On issuing agency: Boating Administration	(−)	$27,022
B. On other State or local agencies:	NONE	
	Benefit (+) Cost (−)	Magnitude
C. On regulation industries or trade groups:	NONE	
D. On other industries or trade groups:	NONE	
E. Direct and indirect effects on public:	(+)	Undeterminable

III. Assumptions. (Identified by Impact Letter and Number from Section II.)

A. Will require 14 new buoys costing $1,941.80. This includes shackles, chains, and weights, and 6 new signs and posts costing $81. Expenditures are anticipated to rise approximately 4 percent per year for buoys, and 4 percent every 3 years for signs and posts. There are currently 25 buoys and 75 signs and posts. Costs for the current buoys,

signs and posts have been provided for in the current budget. Public information brochures (25,000) will be distributed to marinas, boat dealers, marina supply stores, and through boat registration renewal.

E. There may be an indirect effect on tourism and boating services in the South River.

Opportunity for Public Comment

The Department of Natural Resources held a public hearing concerning these regulations on February 26, 1992. Notice of the public hearing was published in 19:3 Md.R 329 (February 7, 1992) and in local newspapers twice during the week of February 17, 1992.

Written comments may be sent to Daniel Ciekot, Boating Administration, Tawes State Office Building, Annapolis, Maryland 21401 or call (410) 974-2916 until the close of business on April 24, 1992.

.01 South River.

The South River encompasses all the waters of the South River and its tributaries westerly of a line from Lat. 38°54'26.64"N., Long. 76°27'36.46"W. (*Thomas Point*), running 228° True to the opposite shore, Lat. 38°53'11.45"N., Long. 76°29'24.68"W. (*Saunders Point*).

.02 South River Proper.

A. The South River proper areas, with their corresponding speed limits, are set forth in §§B—F of this regulation. The Upper South River Controlled Ski Area is part of the South River Proper and the requirements for this area are set forth in Regulation .05 of this chapter.

B. The Route 2 bridge area encompasses the area beginning at a point Lat. 38°56'45.97"N., Long. 76°33'05.49"W., a line running 035° True to the opposite shore, Lat. 38°57'05.69"N., Long. 76°32'48.13"W.(Shadow Point), upriver to a line beginning at a point Lat. 38°56'58.56"N., Long. 76°33'26.49"W., and running 000° True to the opposite shore, Lat. 38°57'23.06"N., Long. 76°33'26.49"W. This area has a 6-knot (6.9 MPH) speed limit all year. These coordinates are approximately 500 yards below the bridge and 465 yards above the bridge.

C. The area between Riva Bridge and the Route 2 Bridge encompasses the area beginning at a point Lat. 38°56'58.56"N., Long. 76°33'26.49"W., a line running 000° True to the oppositeshore, Lat. 38°57'23.06"N., Long. 76°33'26.49"W., upriver to a line beginning at a point Lat. 38°57'14.15"N., Long. 76°34'20.50"W., and running 020° True to the opposite shore, Lat. 38°57'28.95"N., Long. 76°34'13.60"W. This area has a:

(1) 20 knot (23 MPH) speed limit, sunset to sunrise (nights), during the boating season only, which is April 15 through October 15.

(2) 35 knot (40.25 MPH) speed limit, sunrise to sunset (daylight), during the boating season only, which is April 15 through October 15.

D. The Riva bridge area encompasses the area beginning at a point Lat. 38°57'14.15"N., Long. 76°34'20.50"W., a line running 020° True to the opposite shore, Lat. 38°57'28.95"N., Long. 76°34'13.60"W., upriver to a line beginning at a point Lat. 38°57'12.18"N., Long. 76°34'32.64"W., and running 020° True to the opposite shore, Lat. 38°57'29.10"N., Long. 76°34'24.75"W. (Addison Point). This area has a 6-knot (6.9 MPH) speed limit during the boating season only, which is April 15 through October 15. These coordinates are approximately 236 yards below the bridge and 75 yards above the bridge.

E. The area between the Riva Bridge and the controlled ski area encompasses the area beginning at a point Lat. 38°57'12.18"N., Long. 76°34'32.64'W., a line running 020° True to the opposite shore, Lat. 38°57'29.10"N., Long. 76°34'24.75"W., upriver to a line beginning at a point Lat. 38°58'08.16"N., Long. 76°36'00.83"W., and running 068° True to Lat. 38°58'10.88"N., Long. 76°35'52.27"W. This area has a:

(1) 20 knot (23 MPH) speed limit, sunset to sunrise (nights), during the boating season only, which is April 15 through October 15.

(2) 35 knot (40.25 MPH) speed limit, sunrise to sunset (daylight), during the boating season only, which is April 15 through October 15.

F. The Route 50 bridge area encompasses the area beginning at a point Lat. 38°58'38.05"N., Long. 76°36'21.21"W., a line running 070° True to the opposite shore, Lat. 38°58'41.13"N., Long. 76°36.10.37"W., and running to the head of the river. This area has a minimum wake zone all year.

.03 South River South Shore.

A. The South River south shore areas, with their corresponding speed limits, are set forth in §§B—L of this regulation.

B. Almshouse Creek encompasses the area beginning at the mouth of the creek, Lat. 38°56'41.71"N., Long. 76°32'36.47"W., a line running 168° True to the opposite shore, Lat. 38°56'33.50"N., Long. 76°32'34.23"W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

C. Beards Creek.

(1) Lower Beards Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'01"N., Long. 76°34'16.60"W.(Cedar Point), a line running 280° True to the opposite shore, Lat. 38°57'02.52"N., Long. 76°34'27.64"W., and running up the creek to a line beginning at a point Lat. 38°56'10.75"N., Long. 76°34'57.50"W., and running 000° True to the opposite shore, Lat. 38°56'17"N., Long. 76°34'57.50"W. This area has a:

(a) 6-knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, during the boating season only, which is April 15 through October 15;

(b) 20 knot (23 MPH) speed limit, weekdays, sunset to sunrise (nights), during the boating season only, which is April 15 through October 15;

(c) 35 knot (40.25 MPH) speed limit, weekdays, sunrise to sunset (daylight), during the boating season only, which is April 15 through October 15;

(2) Upper Beards Creek encompasses the area beginning at a point Lat. 38°56'10.75"N., Long. 76°34'57.50"W., a line running 000° True to the opposite shore, Lat. 38°56'17"N., Long. 76°34'57.50"W., and running to the head of the creek. This area has a minimum wake zone all year.

D. Brewer Creek encompasses the area beginning at the mouth of the creek, Lat. 38°55'33.70"N., Long. 76°31'35.55"W., a line running 080° True to the opposite shore, Lat.38°55'35.16"N., Long. 76°31'24.66"W., and running up the creek to a line beginning at a point Lat. 38°55'26.08"N., Long. 76°31'32.40"W., and running 328° True to the opposite shore, Lat. 38°55'28.48"N., Long. 76°31'34.33"W. This area has a 6-knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, during the boating season only, which is April 15 through October 15.

E. Flat Creek encompasses the area beginning at a point Lat. 38°57'38.47"N., Long. 76°35'41.83"W., a line running 135° True to the opposite shore, Lat. 38°57'35.28"N., Long. 76°35'37.76"W., and running to the head of the creek. This area has a minimum wake zone all year.

F. Glebe Creek encompasses the area beginning at the mouth of the creek, Lat. 38°55'47.80"N., Long. 76°32'27.69"W., a line running 267° True to the opposite shore, Lat. 38°55'47.38"N.,

Long. 76°32'37.92" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

G. Granville Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'26" N., Long. 76°34'55.75" W., a line running 270° True to the opposite shore, Lat. 38°57'26" N., Long. 76°34'58.20" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

H. Pocahontas Creek encompasses the area beginning at the mouth of the creek, Lat. 38°55'26.08" N., Long. 76°31'32.40" W., a line running 328° True to the opposite shore, Lat. 38°55'28.48" N., Long. 76°31'34.33" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

I. Ramsay Lake.

(1) The Turkey Point bridge area at Ramsay Lake encompasses the area 25 yards on both sides of the Turkey Point road bridge. This area has a 6-knot (6.9 MPH) speed limit all year.

(2) Ramsay Lake encompasses the area beginning at the mouth of the creek, Lat. 38°54'18.30" N., Long. 76°29'39.93" W., a line running 146° True to the opposite shore, Lat. 38°54'14.18" N., Long. 76°29'36.34" W., and running up the creek to 25 yards south of the Turkey Point road bridge, including all tributaries. This area has a 6-knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, all year.

J. Selby Bay encompasses the area beginning at the mouth of the creek, Lat. 38°54'41.20" N., Long. 76°30'21.52" W., a line running 136° True to the opposite shore, Lat. 38°54'27.75" N., Long. 76°30'04.74" W., and running up the bay to 25 yards north of the Turkey Point road bridge including all tributaries. This area has a 6-knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, all year.

K. Cedar Point Cove (Spring Lake) encompasses the area beginning at the mouth of the cove, Lat. 38°57'01.28" N., Long. 76°33'54.94" W., a line running 076° True to the opposite shore, Lat. 38°57'01.68" N., Long. 76°33'52.85" W., and running to the head of the cove. This area has a 6-knot (6.9 MPH) speed limit all year.

L. Warehouse Creek encompasses the area beginning at the mouth of the creek, Lat. 38°56'44" N., Long. 76°33'11.40" W., a line running 157° True to the opposite shore, Lat. 38°56'41" N., Long. 76°33'09.80" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

.04 South River North Shore.

A. The South River north shore areas, with their corresponding speed limits, are set forth in §§B—L of this regulation.

B. Aberdeen Creek.

(1) Lower Aberdeen Creek encompasses the area beginning at the mouth of the creek, Lat. 38°56'30.99" N., Long. 76°31'24.18" W., a line running 094° True to the opposite shore, Lat. 38°56'30.38" N., Long. 76°31'13.33" W., and running up the creek to a line beginning at a point Lat. 38°56'31.32" N., Long. 76°31'24.11" W., and running 100° True to the opposite shore, Lat. 38°56'29.82" N., Long. 76°31'13.26" W. This area has a 6-knot (6.9 MPH) speed limit Saturdays,Sundays, and State holidays, during the boating season only, which is April 15 through October 15.

(2) Upper Aberdeen Creek encompasses the area beginning at a point Lat. 38°56'31.32" N., Long. 76°31'24.11" W., a line running 100° True to the opposite shore, Lat. 38°56'29.82" N., Long. 76°31'13.26" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

C. Boyd Point Cove encompasses the area beginning at the mouth of the cove, Lat. 38°57'22" N., Long. 76°33'58.50" W., a line running 072° True to the opposite shore, Lat. 38°57'22.50" N., Long. 76°33'56.50" W., and running to the head of the cove. This area has a 6-knot (6.9 MPH) speed limit all year.

D. Broad Creek.

(1) Lower Broad Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'31.61" N., Long. 76°34'36.63" W. (Porter Point), a line running 109° True to the opposite shore, Lat. 38°57'28.74" N., Long. 76°34'25.97" W. (Addison Point), and running up the creek to a line beginning at a point Lat. 38°58'05.92" N., Long. 76°34'32.16" W., and running 270° True to the opposite shore, Lat. 38°58'05.92" N., Long. 76°34'39.62" W. This area has a:

(a) 20 knot (23 MPH) speed limit, sunset to sunrise (nights), during the boating season only, which is April 15 through October 15;

(b) 35 knot (40.25 MPH) speed limit, sunrise to sunset (daylight), during the boating season only, which is April 15 through October 15.

(2) Upper Broad Creek encompasses the area beginning at a point Lat. 38°58'05.92" N., Long. 76°34'32.16" W., a line running 270° True to the opposite shore, Lat. 38°58'05.92" N., Long. 76°34'39.62" W., and running to the head of the creek. This area has a:

(a) 6 knot (6.9 MPH) speed limit Saturdays, Sundays, and State holidays, during the boating season only, which is April 15 through October 15;

(b) 20 knot (23 MPH) speed limit, weekdays, sunset to sunrise (nights), during the boating season only, which is April 15 through October 15.

(c) 35 knot (40.25 MPH) speed limit, weekdays, sunrise to sunset (daylight), during the boating season only, which is April 15 through October 15.

E. Cherrytree Cove encompasses the area beginning at the mouth of the cove, Lat. 38°55'12.37" N., Long. 76°28'51.40" W., a line running 312° True to the opposite shore, Lat. 38°55'22.53" N., Long. 76°29'05.75" W., and running to the head of the cove. This area has a minmum wake zone all year.

F. Church Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'06.73" N., Long. 76°32'24.14" W., a line running 084° True to the opposite shore, Lat. 38°57'07.36" N., Long. 76°32'16.50" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

G. Crab Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'07.46" N., Long. 76°32'05.69" W., a line running 080° True to the opposite shore, Lat. 38°57'12" N., Long. 76°31'55.73" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

H. Duvall Creek encompasses the area beginning at the mouth of the creek, Lat. 38°55'44.01" N., Long. 76°29'14.38" W., a line running 117° True to the opposite shore, Lat. 38°55'40.01" N., Long. 76°29'04.34" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

I. Gingerville Creek encompasses the area beginning at the mouth of the creek, Lat. 38°57'19.21" N., Long. 76°33'22.17" W., a line running 052° True to the opposite shore, Lat. 38°57'22.47" N., Long. 76°33'16.82" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

J. Harness Creek encompasses the area beginning at the mouth of the creek, Lat. 38°55'55.53" N., Long.

76°30'55.40" W., a line running 080° True to the opposite shore, Lat. 38°55'57.83" N., Long. 76°30'38.68" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit all year.

K. Hillsmere Lake encompasses the area beginning at the mouth of the lake, Lat. 38°55'41.26" N., Long. 76°30'03.53" W., a line running 310° True to the opposite shore, Lat. 38°55'41.90" N., Long. 76°30'04.51" W., and running to the head of the lake. This area has a 6-knot (6.9 MPH) speed limit all year.

L. Little Aberdeen Creek encompasses the area beginning at the mouth of the creek, Lat. 38°56'47.05" N., Long. 76°31'45.10" W., a line running 050° True to the opposite shore, Lat. 38°56'47.75" N., Long. 76°31'44.02" W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit, during the boating season only, which is April 15 through October 15.

.05 Upper South River Controlled Ski Area.

A. The Department may designate a controlled ski area within the waters of the upper South River by marking with buoys. This area shall encompass a slalom ski course or ski jump course permitted by the U.S. Army Corps of Engineers pursuant to the River and Harbor Act of 1899, §10 (33 U.S.C. 403).

B. The Upper South River Controlled Ski Area encompasses the area from a line Lat. 38°58'08.16" N., Long. 76°36'00.83' W., a line running 068° True to the opposite shore, Lat. 38°58'10.88" N., Long. 76°35'52.27" W., upriver to a line beginning at a point Lat. 38°58'38.05" N., Long. 76°36'21.21" W., and running 070° True to the opposite shore, Lat. 38°58'41.13" N., Long. 76°36'10.37" W. This area is approximately 1,114 yards in length.

C. The Upper South River Controlled Ski Area has a minimum wake zone when the permitted:

(1) Slalom ski course is in use; or

(2) Ski jump course is in use.

D. A person may not place or give permission to place a mooring buoy when the arc of the swing is closer than 200 feet to the permitted:

(1) Slalom ski course; or

(2) Ski jump course.

E. The Department shall mark the controlled ski area.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Title 09
DEPARTMENT OF LICENSING AND REGULATION

Subtitle 12 DIVISION OF LABOR AND INDUSTRY

09.12.31 Maryland Occupational Safety and Health Act

Authority: Labor and Employment Article, §§2-106(b)(4), 5-312(b) and 5-313, Annotated Code of Maryland

Notice of Proposed Action

[92-098-P]

The Commissioner of Labor and Industry proposes to adopt through incorporation by reference to the Maryland Occupational Safety and Health Standards, under **COMAR 09.12.31 Maryland Occupational Safety and Health Act**, and issue the standard relating to Occupational Exposure to Bloodborne Pathogens as codified in 29 CFR 1910.1030, including Appendix A, and published in 56 Federal Register No. 235 (December 6, 1991) pages 64174 — 64182, together with amendments. The Maryland Occupational Safety and Health (MOSH) Advisory Board recommended that the Commissioner adopt the federal standard at a public meeting held on January 8, 1992. Notice of the meeting was given in 18:25 Md. R. (2,783) December 13, 1991.

Statement of Purpose

The purpose of this action is to adopt for Maryland a new standard promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), which addresses occupational exposure to blood and other bodily fluids for the purpose of minimizing the risk of exposure to Hepatitis B Virus ("HBV"), Human Immunodeficiency Virus ("HIV") and other pathogens. The standard will require Maryland employers to eliminate or minimize the risk of occupational exposure to these pathogens by specified means. Employers would be required to determine job classifications, tasks, and procedures in which occupational exposure occurs; to implement engineering and work practice controls; to provide personal protective equipment to limit contact; to provide medical and work place monitoring, including the Hepatitis B vaccination; to establish and provide an employee education program; and to maintain certain records. The standard provides a schedule for achieving compliance with its various requirements.

Estimate of Economic Impact

I. Summary of Economic Impact. Based on OSHA economic impact analysis, it appears that achieving full compliance with the standard will carry a moderate to substantial cost. Employers in industries involving substantial employee contact with blood and other potentially infectious materials will experience the greater costs. The ultimate cost of compliance for many of these employers will be moderated to some extent, however, because many are in compliance with various provisions of the standard. OSHA has determined that the requirements concerning personal protective equipment will account for the largest amount of net compliance costs. Also, significant costs will be incurred for training, vaccination, post-exposure follow-up and housekeeping. 56 Federal Register at 64039. Cost estimates are provided below.

With respect to small businesses, OSHA has determined that although a large number will be affected, the impact on these businesses will not differ significantly from the impact on establishments as a whole because small businesses implement certain practices already. 56 Federal Register at 64041.

II. Types of Economic Impacts.	Revenue (+) Expense (−)	Magnitude
A. On issuing agency:		
(1) Training of inspectors	(−)	$1,000
(2) As an employer, see C, below		
B. On other State or local agencies:		
As an employer, see C below		
	Benefit (+) Cost (−)	**Magnitude**
C. On regulated industries or trade groups:		
(1) Exposure control plan	(−)	Minimal to Moderate
(a) Employee exposure determination		
(b) Create written record and make a copy available		

Final Action On Regulations

For information concerning Final Action on Regulations, see inside front cover.

Symbol Key

Roman type indicates text already existing at the time of the proposed action. *Italic type* indicates new text added at the time of proposed action. A single underline indicates text added at the time of final action. [Single brackets] indicate deleted text. [[Double brackets]] indicate text deleted at the time of final action.

Computer Printouts Available

Computer printouts of newly adopted regulations are available to the general public and to State agencies from the Maryland Information Retrieval System (MIRS) database. MIRS automatically updates COMAR, integrating new and amended text into existing text, and removing all symbols and obsolete material. State agencies may find MIRS printouts particularly valuable in preparing the next generation of regulation amendments for publication in the *Maryland Register*. For more information, call (410) 974-3500.

Title 08
DEPARTMENT OF NATURAL RESOURCES

Subtitle 18 BOATING — SPEED LIMITS AND OPERATION OF VESSELS

08.18.13 Magothy River

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Final Action

[92-089-F]

On May 13, 1992, amendments to Regulation .01, the repeal of existing Regulations .02 — .04, and new Regulations .02 — .05 under **COMAR 08.18.13 Magothy River**, were adopted by the Secretary of Natural Resources. These actions, which were proposed for adoption in 19:6 Md. R. 678 — 679 (March 20, 1992), have been adopted as proposed.

Effective Date: June 8, 1992.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING — SPEED LIMITS AND OPERATION OF VESSELS

08.18.25 South River

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Final Action

[92-088-F]

On May 13, 1992, amendments to Regulation .01, the repeal of existing Regulations .02 — .04, and new Regulations .02 — .05 under **COMAR 08.18.25 South River**, were adopted by the Secretary of Natural Resources. These actions, which were proposed for adoption in 19:6 Md .R. 679 — 682 (March 20, 1992), have been adopted as proposed.

Effective Date: June 8, 1992.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Title 09
DEPARTMENT OF LICENSING AND REGULATION

Subtitle 01 OFFICE OF THE SECRETARY

09.01.09 New Home Warranty Security Plans

Authority: Real Property Article, Title 10, Subtitle 6, Annotated Code of Maryland

Notice of Final Action

[91-431-F]

On April 30, 1992, the Secretary of Licensing and Regulation adopted new Regulations .01 — .08 under a new chapter, **COMAR 09.01.09 New Home Warranty Security Plans.** These regulations, which were proposed for adoption in 18:23 Md. R. 2558 — 2561 (November 15, 1991), have been adopted with the nonsubstantive changes shown below.

Effective Date: June 8, 1992.

Attorney General's Certification

In accordance with State Government Article, §10-113(c), Annotated Code of Maryland, the Attorney General certifies that the following changes do not differ substantively from the proposed text. The nature of the changes and the basis for this conclusion are as follows:

Regulation .03B: (1) deleting the word "purchase" and substituting the words "have the builder obtain" makes clear that the builder purchases the home warranty from the warranty company and makes that warranty available to the homebuyer; (2) deleting the words "to Buyer" makes clear that the builder purchases the home warranty from the warranty company and makes that warranty available to the homebuyer; (3) deleting the words "to the buyer" and "agrees to pay this cost and" makes clear that the builder purchases the home warranty from the warranty company and makes that warranty available to the homebuyer.

Regulation .07A: inserting the words "unless the buyer is not charged directly or indirectly for the cost of the warranty" makes clear that the warranty is purchased by the builder and that the cost of the warranty is disclosed when the builder has given the homebuyer an option of obtaining the warranty.

.03 Disclosure Required by Builder Leaving Decision to Participate in New Home Warranty Security Plan to the Buyer.

A. (proposed text unchanged)

B. The disclosure shall read as follows:

Mines at the above address or call (301) 689-6104 until the close of business on December 18, 1992.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING — SPEED LIMITS AND OPERATION OF VESSELS

08.18.25 South River

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Proposed Action
[92-419-P]

The Secretary of Natural Resources proposes to amend Regulation .03 under **COMAR 08.18.25 South River.**

Statement of Purpose

This action will change the Almshouse Creek 6-knot (6.9 MPH) boating season only speed limit to a 6-knot (6.9 MPH) speed limit all year.

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

Written comments may be sent to Bess Crandall, Boating Administration, Tawes State Office Building, Annapolis, Maryland 21401 or call (410) 974-2939 until the close of business on December 15, 1992.

.03 South River South Shore.

A. (text unchanged)

B. Almshouse Creek encompasses the area beginning at the mouth of the creek, Lat. 38°56′41.71″N., Long. 76°32′36.47″W., a line running 168° True to the opposite shore, Lat. 38°56′33.50″N., Long. 76°32′34.23″W., and running to the head of the creek. This area has a 6-knot (6.9 MPH) speed limit [, during the boating season only, which is April 15 through October 15] *all year.*

C. — L. (text unchanged)

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Title 09 DEPARTMENT OF LICENSING AND REGULATION

Subtitle 10 RACING COMMISSION

09.10.01 Thoroughbred Rules

Authority: Business Regulation Article, §11-210, Annotated Code of Maryland

Notice of Proposed Action
[92-414-P]

The Racing Commission proposes to amend Regulation **.66** under **COMAR 09.10.01 Thoroughbred Rules.** This amendment was considered by the Racing Commission at a public meeting held September 9, 1992, notice of which was given by publication in 19:17 Md. R. 1633 (August 21, 1992) pursuant to State Government Article, §10-506, Annotated Code of Maryland.

Statement of Purpose

The purpose of the amendment is to provide an exception to the requirement that all horses in excess of the maximum number of wagering units on the tote board, less one, be grouped in a "field" on races which emanate from another site.

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

Written comments may be sent to Kenneth A. Schertle, Executive Director, Maryland Racing Commission, 501 St. Paul Place, Baltimore, Maryland 21202, or call (410) 333-6267. These comments must be received not later than January 11, 1993.

Open Meeting

Action on the proposed amendment will be considered by the Maryland Racing Commission during a public meeting to be held January 13, 1993 at 11 a.m. in the Commission's Office, 501 St. Paul Place, Baltimore, Maryland, pursuant to State Government Article, §10-506(c), Annotated Code of Maryland.

.66 Part-Mutuels.

A. — L. (text unchanged)

M. [On all tracks] *Except as provided in §N of this regulation,* where the [number of horse] *capacity for betting* units [provided for wagering] on the tote board [are] *at a track is* less than the number of [horses] *betting interests* competing in the race, all [horses] *betting interests* in excess of the maximum number of *betting* units, [provided for wagering] less one, shall be grouped together [in the betting] to constitute the "field", a [wager] *bet* on [any one of] the "field" being a [wager] *bet* on all horses so grouped.

N. [(Repealed)]*If a race emanates from a track whose tote board provides for a number of betting units different than the tote board at a track receiving the race, and the receiving track elects to use the same number of betting units as the sending track, the receiving track shall:*

(1) Advertise that the wagering units at the receiving track site shall be the same as at the sending track; and

(2) Display the odds only on the monitors throughout the facility if the receiving track's tote board is not capable of displaying at least the same number of betting units as displayed on the tote board of the sending track.

O. When safety regulations and the width of the track (county fairs) require that the number of horses permitted to compete shall be limited to 10 or less, there may not be a "field", *except as provided in §N of this regulation.*

P. — JJ. (text unchanged)

KENNETH A. SCHERTLE
Executive Director
Racing Commission

were proposed for adoption in 19:23 Md. R. 2052 – 2053 (November 13, 1992), have been adopted as proposed.

Effective Date: February 1, 1993.

JACQUELINE H. ROGERS
Secretary of Housing and Community Development

Subtitle 07 COMMUNITY ASSISTANCE PROGRAM

05.07.06 Main Street Improvement Grant Programs

Authority: Article 83B, §§1-205 and 4-202(a)(5), Annotated Code of Maryland

Notice of Final Action

[92-432-F]

On December 30, 1992, the Secretary of Housing and Community Development adopted amendments to Regulations **.05, .08,** and **.11** under **COMAR 05.07.06 Main Street Improvement Grant Program.** These amendments, which were proposed for adoption in 19:23 Md. R. 2053 (November 13, 1992), have been adopted as proposed.

Effective Date: February 1, 1993.

JACQUELINE H. ROGERS
Secretary of Housing and Community Development

Title 08 DEPARTMENT OF NATURAL RESOURCES

Subtitle 13 ENERGY AND COASTAL ZONE ADMINISTRATION

Authority: Natural Resources Article, §§7-203(a) and (h), 7-503, 7-501(k), Annotated Code of Maryland

Notice of Final Action

[92-421-F]

On January 4, 1993, the repeal of Regulations **.01** and **.02** under **COMAR 08.13.05 Reclamation of Auger Mines**; the repeal of Regulations **.01–.06** under **COMAR 08.13.06 Safety Regulations**; and the repeal of Regulations **.01–.08** under **COMAR 08.13.07 Blasting**, were adopted by the Secretary of Natural Resources. These actions, which were proposed for adoption in 19:23 Md. R. 2054–2055 (November 13, 1992), have been adopted as proposed.

Effective Date: February 1, 1993.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING—SPEED LIMITS AND OPERATION OF VESSELS

08.18.21 Potomac River

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Final Action

[92-338-F]

On January 8, 1993, amendments to Regulation **.04** under **COMAR 08.18.21 Potomac River**, were adopted by the Secretary of Natural Resources. These amendments, which were proposed for adoption in 19:20 Md. R. 1823 (October 2, 1992), have been adopted as proposed.

Effective Date: February 1, 1993.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING—SPEED LIMITS AND OPERATION OF VESSELS

08.18.25 South River

Final (Rimshouse Creek)

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Final Action

[92-419-F]

On January 8, 1993, an amendment to Regulation **.03** under **COMAR 08.18.25 South River**, was adopted by the Secretary of Natural Resources. This amendment, which was proposed for adoption in 19:23 Md. R. 2055 (November 13, 1992), has been adopted as proposed.

Effective Date: February 1, 1993.

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 09 MEDICAL CARE PROGRAMS

10.09.08 Free-Standing Clinics

Authority: Health-General Article, §§2-104(b), 15-103, and 15-105, Annotated Code of Maryland

Notice of Final Action

[92-408-F]

On December 31, 1992, amendments to Regulation **.05** under **COMAR 10.09.08 Free-Standing Clinics**, were adopted by the Secretary of Health and Mental Hygiene. These amendments, which were proposed for adoption in 19:23 Md. R. 2056–2057 (November 13, 1992), have been adopted as proposed.

Effective Date: February 1, 1993.

NELSON J. SABATINI
Secretary of Health and Mental Hygiene

For information concerning Emergency Action on Regulations, see inside front cover.

Symbol Key

Roman type indicates text existing before emergency status was granted. *Italic type* indicates new text. [Single brackets] indicate deleted text.

Title 07 DEPARTMENT OF HUMAN RESOURCES

Subtitle 04 CHILD CARE ADMINISTRATION

07.04.02 Child Care Center Licensing

Authority: Family Law Article, §§5-570 — 5-585, Annotated Code of Maryland

Notice of Extension of Emergency Status

[91-147-E-2]

The Joint Committee on Administrative, Executive, and Legislative Review (AELR) has granted an extension of the emergency status of the repeal of Regulations .01 — .81 under **COMAR 10.05.01 Group Day Care Centers** and new Regulations .01 — .75 under a new chapter, **COMAR 07.04.02 Child Care Center Licensing.**

Emergency status has been extended to: January 9, 1993.

Emergency action was published in: 18:9 Md. R. 986 — 1003 (May 3, 1991).

Extension of emergency action was published in: 18:21 Md. R. 2300 (October 18, 1991).

CHARLES A. KASKY
Committee Counsel
Joint Committee on Administrative, Executive, and Legislative Review

Title 08 DEPARTMENT OF NATURAL RESOURCES

Subtitle 18 BOATING — SPEED LIMITS AND OPERATION OF VESSELS

08.18.18 Ocean City — Back Bay Areas

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Emergency Action

[92-180-E]

The Joint Committee on Administrative, Executive, and Legislative Review has granted emergency status to new Regulation .05 under **COMAR 08.18.18 Ocean City — Back Bay Areas.**

Emergency status began: May 6, 1992.

Emergency status expires: September 15, 1992.

.05 Prohibited Areas — Coastal Bays.

A. A person may not operate or give permission to operate a vessel during the period April 1 through September 15 in areas established as a protective buffer for nesting sites, and feeding areas of birds listed as endangered, threatened, or in need of conservation under COMAR 08.03.08. These areas may change in response to the location of the nesting sites and feeding areas as identified by the Department.

B. This regulation only applies to waters adjacent to lands owned or controlled by the State or federal government which have been restricted from human intrusion.

C. Prohibited areas shall be marked by the Department.

TORREY C. BROWN
Secretary of Natural Resources

Title 10 DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 10 LABORATORIES

10.10.01 Medical Laboratories in Maryland

Authority: Health-General Article, §§17-202, 17-212, and 17-214.1, Annotated Code of Maryland

Notice of Emergency Action

[92-179-E]

The Joint Committee on Administrative, Executive, and Legislative Review has granted emergency status to amendments to Regulations .05, .10 — .12, .15, .18, and new Regulation .20 under **COMAR 10.10.01 Medical Laboratories in Maryland.**

Emergency status began: May 1, 1992.

Emergency status expires: September 30, 1992.

.05 Permits and Fees.

A. Initial Application.

(1) (text unchanged)

(2) The application forms shall be filed with the Laboratories Administration. The forms shall be accompanied by check or money order payable to the Laboratories Administration in amounts as follows for each fiscal year ending June 30, or part of it:

(a) Application fee of $50 *for each laboratory seeking a permit to perform testing limited to one or two scientific disciplines*; [and]

(b) Application fee of $100 for each laboratory seeking a permit to perform testing in three or more scientific disciplines; and

[b] *(c)* (text unchanged)

(3) — (7) (text unchanged)

B. — F. (text unchanged)

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

No public hearing is scheduled. Written comments may be sent to Robert A. Bachman, Director of the Freshwater Fisheries Program, Tawes State Office Building E-1, 580 Taylor Avenue, Annapolis, MD 21401. Comments must be received by June 30, 1992, or call (410) 974-3061.

.01 Trout Fishing and Management Areas.

A. (text unchanged)

B. Put-and-Take Trout Fishing Areas.

(1) (text unchanged)

(2) The following areas are subject to these regulations:

Closure Periods

(a) — (h) (text unchanged)

(i) Howard County, Montgomery County, and Prince George's County:

[(i) Little Seneca Creek watershed upstream of Route 28] [1,3]

[(ii)] *(i)* — [(xv)] *(xiv)* (text unchanged)

(j) — (k) (text unchanged)

TORREY C. BROWN, M.D.
Secretary of Natural Resources

Subtitle 18 BOATING — SPEED LIMITS AND OPERATION OF VESSELS

08.18.18 Ocean City — Back Bay Areas

Authority: Natural Resources Article, §8-704, Annotated Code of Maryland

Notice of Proposed Action

[92-182-P]

The Secretary of Natural Resources proposes to adopt new Regulation **.05** under **COMAR 08.18.18 Ocean City — Back Bay Areas.**

Statement of Purpose

This action will prohibit vessels from entering certain coastal bay areas in Worcester County for the protection of nesting sites and feeding areas of endangered and threatened birds.

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

Written comments may be sent to Daniel Ciekot, Boating Administration, Tawes State Office Building, Annapolis, Maryland 21401 or call (410) 974-2916 until the close of business on June 30, 1992.

.05 Prohibited Areas — Coastal Bays.

A. A person may not operate or give permission to operate a vessel during the period April 1 through September 15 in areas established as protective buffers for nesting sites, and feeding areas of birds listed as endangered, threatened, or in need of conservation under COMAR 08.03.08. These areas may change in response to the location of the nesting sites and feeding areas as identified by the Department.

B. This regulation only applies to waters adjacent to lands owned or controlled by the State or federal government which have been restricted from human intrusion.

C. Prohibited areas shall be marked by the Department.

TORREY C. BROWN
Secretary of Natural Resources

Title 09 DEPARTMENT OF LICENSING AND REGULATION

Subtitle 10 RACING COMMISSION

09.10.01 Thoroughbred Rules

Authority: Article 78B, §11, Annotated Code of Maryland

Notice of Proposed Action

[92-183-P]

The Racing Commission proposes to amend Regulation **.23** under **COMAR 09.10.01 Thoroughbred Rules.**

This action was considered by the Racing Commission at a public meeting held February 12, 1992, notice of which was given by publication in 19:2 Md. R. 194 (January 24, 1992) pursuant to State Government Article, §10-506, Annotated Code of Maryland

Statement of Purpose

The purpose of these amendments is to reinstitute a graduated weight allowance for apprentice jockeys with provisions for certain cut-off times for the weight allowances.

Estimate of Economic Impact

The proposed action has no economic impact.

Opportunity for Public Comment

Written comments may be sent to Kenneth A. Schertle, Executive Director, Racing Commission, 501 St. Paul Place, Baltimore, Maryland 21202, or call (410) 333-6267. These comments must be received not later than July 6, 1992.

Open Meeting

Action on the proposed amendments will be considered by the Racing Commission during a public meeting to be held July 8, 1992, at 11 a.m. in the Commission's Office, 501 St. Paul Place, Baltimore, Maryland, pursuant to State Government Article, Title 10, Subtitle 5, Annotated Code of Maryland.

.23 *Apprentice* Jockey Contracts *and Certificates.*

A. [A] *In order to qualify for an apprentice jockey license, an* [person] *individual* 16 years old or older who has never been licensed *and has never ridden* as a *thoroughbred* jockey in any country, *other than as an apprentice jockey,* and [has], if under age, [the] *has* written *parental* consent, [of his parents or guardian, may] *shall:*

(1) [of his own free will, bond himself to] *Enter into a binding contract with* an owner or trainer for a term of not less than 3 or more than 5 years (subject to written extension if made for less than 5 years) [by] *to serve as an apprentice jockey,*

ACTUAL SIZE OF POSTER - 14x18

ATTENTION BOATERS!

MARYLAND'S ENDANGERED SPECIES NEED YOUR HELP!

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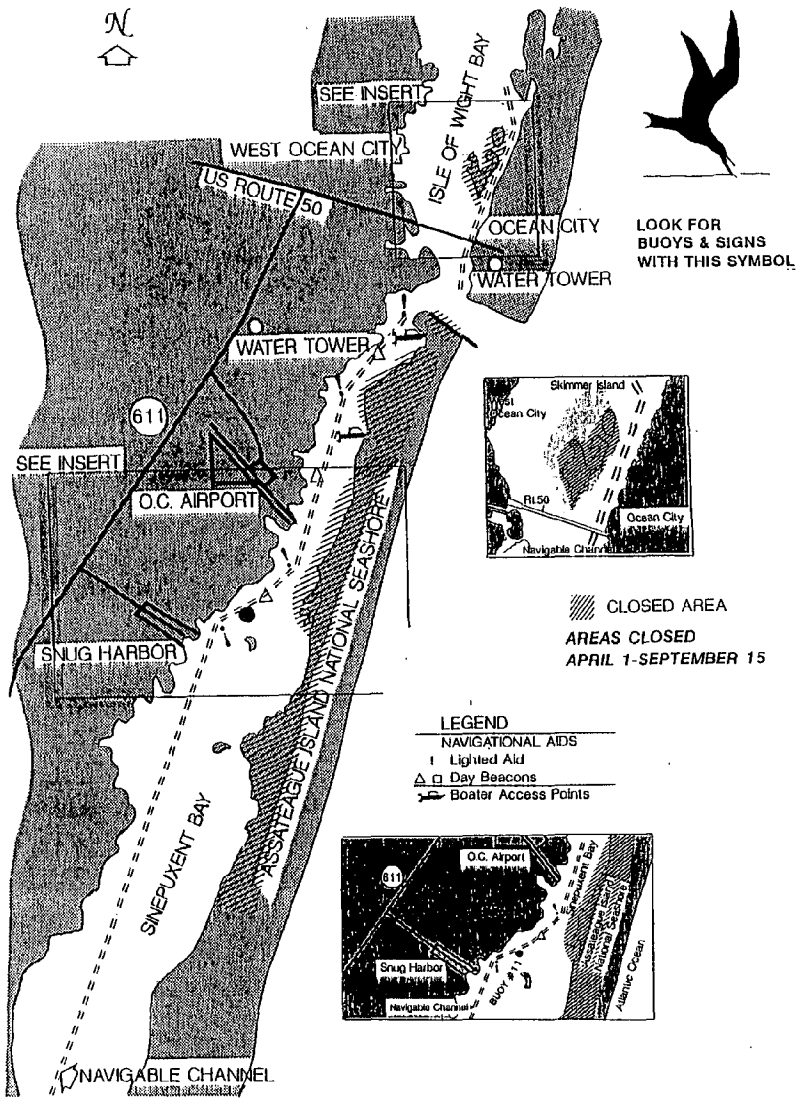


LOOK FOR BUOYS & SIGNS WITH THIS SYMBOL

To protect threatened and endangered bird species, limited areas of Sinepuxent and Isle of Wight Bays are closed to boating by the Maryland Department of Natural Resources.

The boating closures serve as narrow buffers to important nesting and feeding areas. Closed areas correspond to posted areas on land. Please refer to the chart for the location of these areas.

Closures are in effect only during those critical times of the year when birds nest and feed (April through September). Boaters should look for regulatory buoys and signs designating area off-limits to boats. These signs and buoys are colored black, white and international orange.

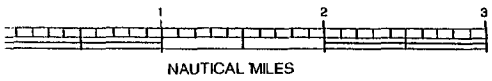
Boaters should also exercise caution when operating in close proximity to any other bird nesting or feeding sites in the Coastal Bays. These sites are posted, **"Bird Nesting Area-Keep Out."** Enjoy the birds at a distance. Binoculars are the best to observe these birds and other wildlife.

The Guide for Cruising Maryland Waters depicts these sites throughout the Coastal Bays. Please **do not** release pets where flocks of birds are located.

ENTERING CLOSED AREAS IS A VIOLATION OF STATE LAW!

RESTRICTED AREAS MAY CHANGE YEAR-TO-YEAR

Watch for Buoys/Signs that Designate these Areas



FOR MORE INFORMATION, PLEASE CONTACT:

Maryland Department of Natural Resources
580 Taylor Avenue, Tawes State Office Building, Annapolis, MD 21401

Boating Administration
(410) 974-2918

Non-Game & Urban Wildlife Program
(410) 827-8612

Natural Heritage Program
(410) 974-2870

The facilities and services of the Department of Natural Resources are available to all without regard to race, color, religion, sex, age, national origin, physical or mental disability.

PROPOSAL & SCOPE OF WORK

RECREATIONAL BOATING AND SUBMERGED AQUATIC VEGETATION IN THE SOUTH RIVER & THE ELK RIVER, MARYLAND

TO:

PROFESSOR COURT STEVENSON
HORN POINT ENVIRONMENTAL LABORATORY
CENTER FOR ENVIRONMENTAL AND ESTUARINE STUDIES
UNIVERSITY OF MARYLAND
P.O. BOX 775
CAMBRIDGE, MD 21613

November 11, 1992

PROPOSAL

The Maryland Department of Natural Resources' (DNR) Boating Administration seeks to investigate the impacts of high-speed recreational boating activity on submerged aquatic vegetation (SAV) and water quality in the South River, Anne Arundel County and the Elk River, Cecil County.

Introduction

Public concern and awareness about natural resources and human-related effects on the environment has increased in recent years. In the last few years, the Boating Administration has received dozens of complaints from citizens about recreational boating and its impacts on the environment. These complaints ranged from questions about shoreline erosion caused by boat wakes to concerns about the overboard discharge of human waste. Most of these complaints, however, addressed the potential harmful effects of boating on SAV. Specifically, citizens claimed that boating activity is damaging SAV in two ways: 1) by resuspension of bottom sediments which increase turbidity through the water column, and 2) by physical damage to the plants caused by boat propellers, i.e. "prop-scarring."

Research into this issue has revealed that scientific opinion is, at best, inconclusive and limited, and that most of the available academic literature is dated and does not address the direct effects of boating on SAV. In 1991, the Boating Administration commissioned Dr. William C. Dennison of the University of Maryland to investigate the impact of water skiing on SAV in Maynadier Creek, Severn River. He concluded that poor water quality - the result of nutrient and sediment loading - was the primary reason for the low productivity and the absence of SAV in Maynadier Creek, and that it was very difficult to establish a direct correlation between boating and SAV decline.

Elk River

The Elk River located in Cecil County is utilized by both recreational and commercial vessels. The Chesapeake and Delaware Canal, which joins the Elk River at Welch Point, connects the Chesapeake Bay to the Delaware River and provides access to commercial ships traveling to and from Baltimore and other Chesapeake Bay ports-of-call. Private and commercial marinas on the river and its tributaries, as well as surrounding river systems, contribute to the sizable number of recreational vessels that cruise, water ski and sail its waters.

Of concern on the Elk River is Cabin John Creek, located just south of the entrance to the Bohemia River (Chart 3). The creek is popular for a variety of recreational activities including: water skiing, anchoring, cruising and bird watching. In 1991, a petition was submitted to the Boating Administration for a minimum wake zone on the upper half of Cabin John Creek (Chart 4). The petitioners stated that water skiing and other boating activities were impeding SAV growth and disturbing wildlife in the creek. Specifically, they reported, slalom course water skiing practiced along the northern shoreline of the creek was doing great harm to SAV by agitating bottom sediments and increasing turbidity levels (Chart 4). Myriophyllum spicatum (Eurasian watermifoil) was reported on Cabin John Creek in 1987, and the petitioners claimed that there were various unknown SAV species in the creek.[3]

As part of the petition process, the Boating Administration surveyed boat traffic on Cabin John Creek during the 1991 boating season to record traffic levels and recreational use patterns. The petition was introduced before the Maryland Boat Act Advisory Committee (a 21 member citizen committee that advises the Secretary of Natural Resources on boating matters) in October 1991. The Committee recommended that a minimum wake zone be imposed along the northern shoreline near the slalom water ski course and in the upper section of the creek where water depths were limited to 3 feet and under (Chart 4).

Shortly thereafter, the petitioners requested that a public hearing be held to formally record their concerns that the proposed minimum wake zone did not offer sufficient protection to the creek. After reviewing the public hearing record, the hearing officer concluded that the proposed minimum wake zone was adequate, but also that the Boating Administration should undertake a water quality and submerged aquatic vegetation study in Cabin John Creek to investigate potential impacts.

[3] Orth, R.J. and J.F. Nowak, 1987. "Distribution of SAV in the Chesapeake Bay and Tributaries and Chincoteague Bay"

South River Study Sites

Three study sites will be selected for water quality sampling and one for SAV sampling. Water quality stations will be established in: a) Beards Creek - in the portion of the creek where water skiing and other boating activities are permitted and where water depths are limited to 8 feet or less, and b) Glebe Creek - a control site located in the South River where high-speed boating activity is regulated at 6 knots at all times from April 15 to October 15 (Chart 5), and c) South River near the Chesapeake Bay water quality monitoring station (south of Poplar Point near daybeacon #16). The SAV sampling station/s in Beards Creek will be selected by the investigator.

Elk River Study Sites

Three study sites will be selected for water quality sampling and one for SAV sampling. Water quality stations will be established in: a) Cabin John Creek - in the portion of the creek where water skiing and other boating activities are permitted and where water depths are limited to 8 feet or less, and b) *Churn Creek - a control site located just south of the entrance to the Sassafras River on the Chesapeake Bay (Chart 6), and c) the Elk River near a Chesapeake Bay water quality monitoring station (south of Turkey Point near the mouth of the Elk River). The SAV station/s in Cabin John Creek will be selected by the investigators.

Light Attenuation Experiment Study Site

The study site for the light attenuation experiment is undetermined at this time. Consultations with the investigator/s will be made to determine a site that possesses suitable conditions. A Choptank River site near Cambridge, MD, may suffice given its close proximity to the scientists and technology of Horn Point Environmental Laboratory.

* Although boating activity on Churn Creek is not regulated with a 6 knot speed limit, little or no high-speed recreational boating activity occurs.

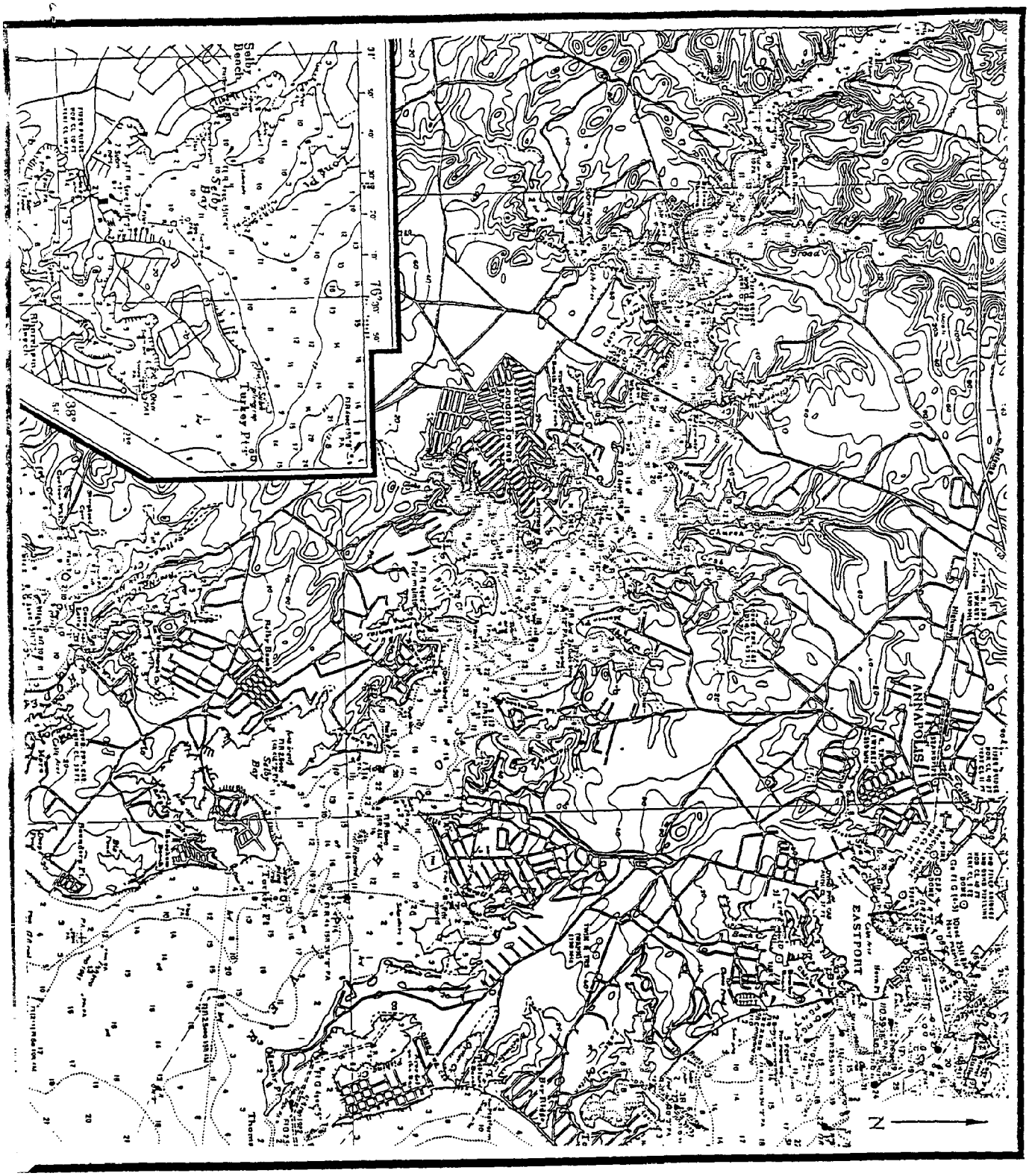


CHART 1 - SOUTH RIVER

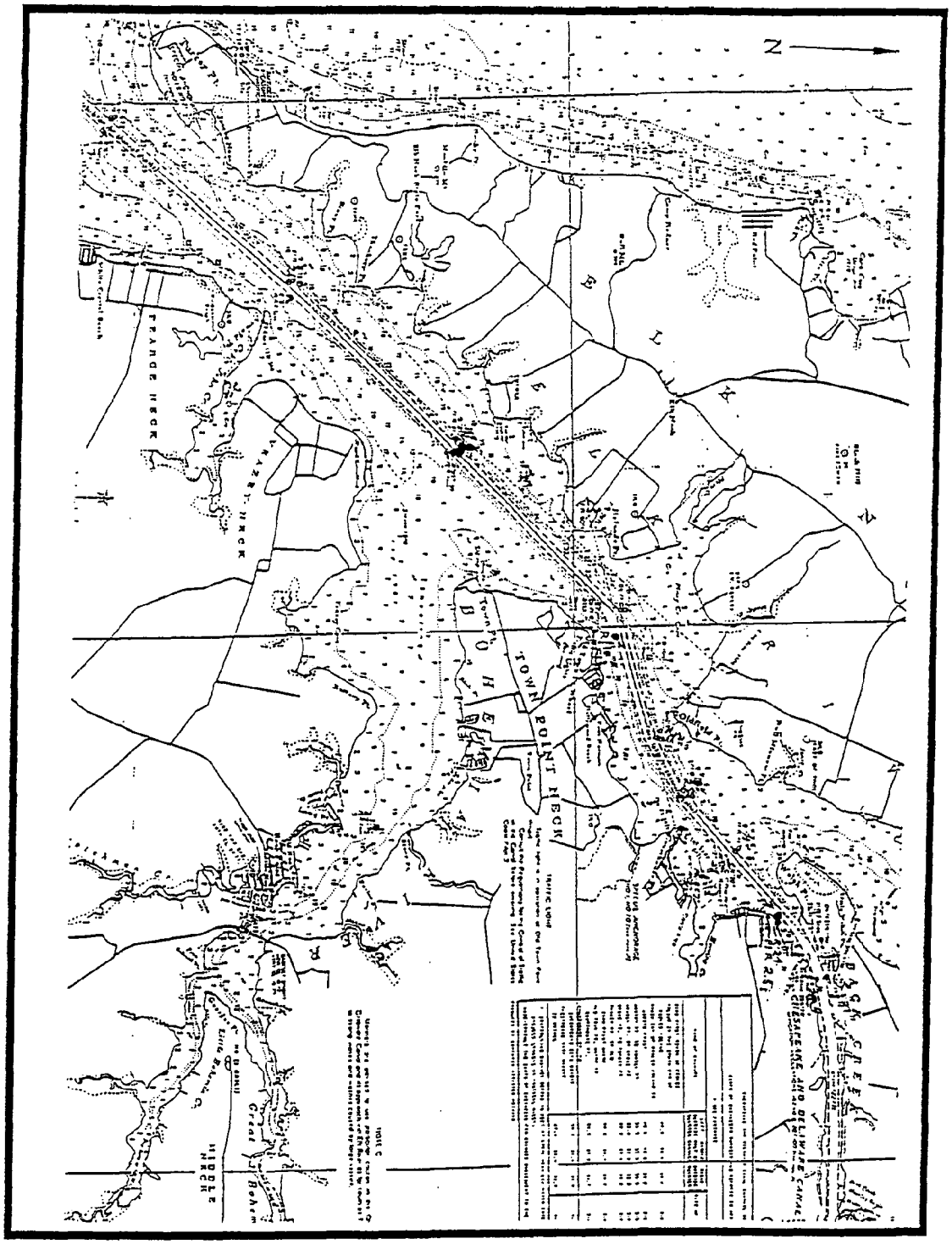


CHART 3 - ELK RIVER

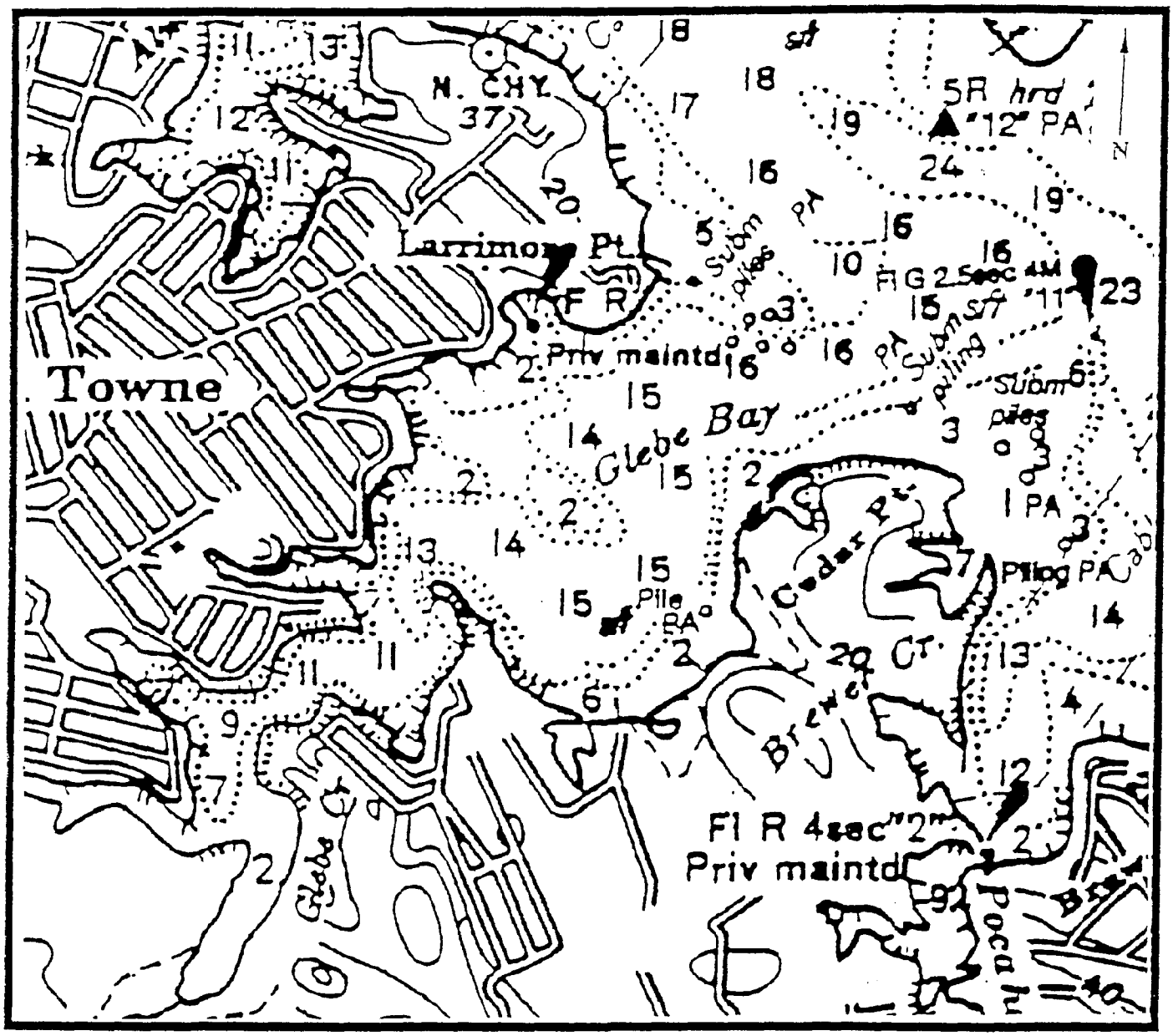


CHART 5 - GLEBE CREEK

SOUTH RIVER COMPREHENSIVE VESSEL MANAGEMENT PLAN

CITIZEN REVIEW PANEL

As part of the implementation and monitoring program of the South River Comprehensive Vessel Plan, a Citizens Review Panel was established to evaluate the effectiveness of the newly adopted speed limit regulations and area designations on the South River.

The panel consists of seven members, all of whom are knowledgeable about boating issues and represent a sector of the South River's boating and recreational communities. Included on the panel are representatives from the South River Ski Club, marine businesses, community associations, the Coast Guard Auxiliary, the Maryland Boat Act Advisory Committee, sailing and power boat communities, and boaters-at-large.

Specifically, the panel will collect data regarding boat traffic and use patterns, identify regulations that are not working or achieving their intended objective, and pinpoint the successes of the regulations. The panel will also review information regarding boat use on the South River, including a user survey and incident reports from the Natural Resources Police.

Upon examining all information, the panel may provide recommendations for speed limit changes to the Boating Administration and the Maryland Boat Act Advisory Committee.

It is anticipated that the panel will meet three to four times during 1992-1993. This time period will allow panel members to review data from two boating seasons. During this time, Boating Administration staff will provide administrative support to the panel, i.e. mailings, data processing, etc.

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SOUTH RIVER COMPREHENSIVE VESSEL MANAGEMENT PLAN

CITIZEN REVIEW PANEL

Member	Representing
Mr. Skip Bennett	Marine Businesses/High Performance Power Boating
Mr. John Flood	Community Associations/Passive Recreational Activities
Mr. Fritz Hasler	Water Skiing
Captain Richards T. Miller	Sailing/Boaters-at-large
Ms. Joyce Myers	Marine Businesses
Mr. Sal Picard	Boaters-at-large
Ms. Anne Riel	Coast Guard Auxiliary/Boat Act Advisory Committee