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Gloucester County Tidal Marsh Inventory

Kenneth A. Moore
Virginia Institute of Marine Science

Gene M. Silberhorn
Virginia Institute of Marine Science

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Recommended Citation

Moore, K. A., & Silberhorn, G. M. (1976) Gloucester County Tidal Marsh Inventory. Special Report in Applied Marine Science and Ocean Engineering No. 64. Virginia Institute of Marine Science, College of William and Mary. <https://doi.org/10.21220/V5972B>

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GLOUCESTER COUNTY TIDAL MARSH INVENTORY

Special Report No. 64 in Applied Marine Science and Ocean Engineering

Kenneth A. Moore



VIRGINIA INSTITUTE OF MARINE SCIENCE

Gloucester Point, Virginia 23062

AUGUST 1976

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Gene M. Silberhorn, Project Leader

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Gloucester Point, Virginia 23062

Dr. William J. Hargis, Jr., Director

AUGUST 1976

ACKNOWLEDGEMENTS

Funds for the publication and distribution of this report have been provided by the Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management, Grant Number 04-6-158-44037.

I would like to express my sincere thanks to Dr. Gene Silberhorn, Mr. James Mercer, Mr. David Shea and Mr. Arthur Harris for their invaluable field assistance. I wish also to thank Dr. William J. Hargis, Mr. John Pleasants, Col. George Dawes, Mr. Thomas Barnard, Dr. Gene Silberhorn, and Mr. James Mercer for their constructive criticism, suggestions and review of this manuscript.

For assistance in the preparation of this report I am indebted to Mr. Joseph Gilley for the cover design and map illustrations and Mr. William Jenkins for photographic work. I would like to sincerely thank Mrs. Beth Marshall, Mrs. Carol Knox, and Miss Christine Plummer for the typing of the various drafts and the final manuscript.

GLOUCESTER COUNTY
TIDAL MARSH INVENTORY

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INTRODUCTION

This publication is the tenth in a series of marsh inventory reports compiled by the Wetlands Research Section, Virginia Institute of Marine Science. The nine previous reports that have been published are:

Lancaster County
Northumberland County
Mathews County
York County and
the Town of Poquoson

Stafford County
Prince William County
King George County
City of Hampton
Fairfax County

This report is presented in much the same format as the preceding reports.

Under Section 62.1-13.4 of the Virginia Wetlands Act, the Virginia Institute of Marine Science is obligated to inventory the tidal wetlands of the Commonwealth. The inventory program is designed to assist wetlands boards, cities, counties, planning districts and other local, state and federal agencies as well as the general public and private industry.

A recently published study, Guidelines for Activities Affecting Virginia Wetlands, Silberhorn, Dawes and Barnard, 1974, VIMS SRAMSOE No. 46, will be helpful in the utilization of this report. Excerpts from the above document are included in the following text, explaining marsh vegetation types and their evaluation.

Gloucester County is blessed with miles of beautiful shoreline and relatively unpolluted waterways, as well as an abundance of fish, shellfish, crabs and waterfowl. However, this abundance is due in no small part to Gloucester's still largely undisturbed but irreplaceable resource, its tidal marshes. These marshes reduce pollutants, serve as natural habitats for wildlife and fish and support through their interactions with the tidal waters much of what makes Gloucester's waterways clean and productive.

Unfortunately, rapid and unplanned growth as well as shortsighted waterfront property owners and developers are a constant threat to the continued vitality of this resource. Only through careful planning and strict controls can needless destruction of these marshlands be avoided. It is our desire that this inventory will be useful to those concerned with conserving this valuable resource.

This report is organized into six sections, each of which attempts to describe the marshes along a significant length of Gloucester County shoreline. Of the over 6,300 acres of tidal marshes found in Gloucester County, the vast majority (6,080 acres or 96 percent) may be classed as either brackish or saltwater marshes. Only in the most upstream reaches of the Poropotank River (Section I) and the Piankatank River (Section VI) are tidal freshwater marshes found to any great extent and these are only a portion of the 489 and 355 acres of marsh found respectively along the Gloucester County sections of these two rivers. Along Gloucester's York River shoreline (Sections I, II, III) and within the numerous creeks which drain into the York are found over 2439 acres of tidal marsh. Gloucester County's other three river shorelines, the Severn, Ware, and North contain 848, 605, and 152 acres respectively, while 1448 acres of tidal marsh are found bordering on Mobjack Bay or along small creeks draining directly into the bay.

METHODS

Aerial photographs and topographic maps (U.S.G.S.) were utilized to obtain wetland locations, wetland boundaries and patterns of marsh vegetation. Acreages and wetland boundaries were substantiated by observations on foot, by boat and by low level overflights. Individual plant species percentages are quantitative estimates of coverage based on visual field inspections of every marsh. In some instances, especially in tidal freshwater areas, these percentages are subject to seasonal bias.

Marshes one quarter of an acre or larger are designated by number. Many marshes smaller than one quarter acre (usually narrow fringing marshes) are designated by the same symbol (shaded) as the larger marshes on the section maps but assigned no number. Small marshes (less than one acre) are exaggerated and are not indicated to scale. Information such as individual marsh acreage, plant species percentage and acreage, marsh type, and other observations are recorded in tabular form. Plant species percentages are recorded to the nearest percent, and acreages to the nearest tenth of an acre. In marshes of less than one acre, the species are recorded to the nearest hundredth of an acre. In those instances where an individual plant species is estimated to amount to less than 0.5 percent, the symbol (-) is used to indicate a trace amount. In unusual situations where an individual marsh is estimated to contain 50 percent or more of a species that is not listed as a marsh type, the closest applicable marsh type is used. For example, a marsh which is judged to contain 60 percent wild rice would be listed as Type XI (Freshwater Mixed).

MARSH TYPES AND EVALUATION

For a better understanding of what is meant by marsh types, some background information is required. The personnel of the Wetlands Research Section have classified twelve different common marsh types in Virginia, based on vegetational composition. These marsh types have been evaluated according to certain values and are recorded in the Guidelines report. The following is a brief outline of the wetland types and their evaluation as found in that publication:

"It is recognized that most wetlands areas, with the exception of the relatively monospecific cordgrass marshes of the Eastern Shore, are not homogenously vegetated. Most marshes are, however, dominated by a major plant. By providing the manager with the primary values of each community type and the means of identification he then has a useful and convenient tool for weighing the relative importance of each marsh parcel. In Virginia, many wetlands management problems involve only a few acres or a fraction of an acre. The identification of plant communities permits the manager to evaluate both complete marshes and subareas within a marsh.

"Each marsh type may be evaluated in accordance with five general values. These are:

"1. Production and detritus availability. Previous VIMS reports have discussed the details of marsh production and the role of detritus which results when the plant material is washed into the water column. The term "detritus" refers to plant material which decays in the aquatic system and forms the basis of a major marine food web. The term "production" refers to the amount of plant material which is produced by the various types of marsh plants. Vegetative production of the major species has been measured and marshes have been rated in accordance with their average levels of productivity. If the production is readily available to the marine food web as detritus, a wetlands system is even more important than one of equal productivity where little detritus results.

Availability of detritus is generally a function of marsh elevation and total flushing, with detritus more available to the aquatic environment in the lower, well-flushed marshes.

"2. Waterfowl and wildlife utilization. Long before marshes were discovered to be detritus producers, they were known as habitats for various mammals and marsh birds and as food sources for migratory waterfowl. Some marsh types, especially mixed freshwater marshes, are more valuable because of diversity of the vegetation found there.

"3. Erosion buffer. Erosion is a common coastal problem. Marshes can be eroded, but some, particularly the more saline types, are eroded much more slowly than adjacent shores which are unprotected by marsh. This buffering quality is derived from the ability of the vegetation to absorb or dissipate wave energy by establishing a dense root system which stabilizes the substrate. Generally, freshwater species are less effective than saltwater plants in this regard.

"4. Water quality control. The dense growth of some marshes acts as a filter, trapping upland sediment before it reaches waterways and thus protecting shellfish beds and navigation channels from siltation. Marshes can also filter out sediments that are already in the water column. The ability of marshes to filter sediments and maintain water clarity is of particular importance to the maintenance of clam and oyster production. Excessive sedimentation can reduce the basic food supply of shellfish through reduction of the photic zone where algae grows. It can also kill and degrade pollutants through complex chemical processes, a discussion of which is beyond the scope of this paper....."

"5. Flood buffer. The peat substratum of some marshes acts as a giant sponge in receiving and releasing water. This characteristic is an effective buffer against coastal flooding, the effectiveness of which is a function of marsh type and size.

"Research and marsh inventory work accomplished by VIMS personnel indicate that 10 species of marsh vegetation tend to dominate many marshes, the dominant plant depending on water salinity, marsh elevation, soil type and other factors. The term "dominant" is construed to mean that at least 50% of the vegetated surface of a marsh is covered by a single species. Brackish and freshwater marshes often have no clearly dominant species of vegetation. These marshes are considered to be highly valuable in environmental terms."

Marsh Types and Their Environmental Contributions

(Edited from Guidelines for Activities Affecting Virginia Wetlands)

Type I Saltmarsh Cordgrass Community

- a. Average yield 4 tons per acre per annum. (Optimum growth up to 10 tons per acre.)
- b. Optimum availability of detritus to the marine environment.
- c. Roots and rhizomes eaten by waterfowl and stems used in muskrat lodge construction. Also serves as nesting material for various birds.
- d. Deterrent to shoreline erosion.
- e. Serves as sediment trap and assimilates flood waters.

Type II Saltmeadow Community

- a. 1-3 tons per acre per annum
- b. Food (seeds) and nesting areas for birds.
- c. Effective erosion deterrent.
- d. Assimilates flood waters.
- e. Filters sediments and waste material.

Type III Black Needlerush Community

- a. 3-5 tons per acre per annum.
- b. highly resistant to erosion.
- c. Traps suspended sediments but not as effective as Type II.
- d. Somewhat effective in absorbing flood waters.

Type IV Saltbush Community

- a. 2 tons per acre per annum or less
- b. Nesting area for small birds and habitat for a variety of wildlife.
- c. Effective trap for flotsam.

Type V. Big Cordgrass Community

- a. 3-6 tons per acre per annum.
- b. Detritus less available than from Type I.
- c. Habitat for small animals and used for muskrat lodges.
- d. Effective erosion buffer.
- e. Flood water assimilation.

Type VI Cattail Community

- a. 2-4 tons per acre per annum
- b. Habitat for birds and utilized by muskrats.
- c. Traps upland sediments

Type VII Arrow Arum-Pickerel Weed Community

- a. 2-4 tons per acre per annum
- b. Detritus readily available to marine environment.
- c. Seeds eaten by wood ducks.
- d. Susceptible to erosion from wave action and boat wakes, particularly in winter months.

Type VIII Reed Grass Community

- a. 4-6 tons per acre per annum.
- b. Little value to wildlife except for cover.
- c. Invades marshes and competes with more desirable species.
- d. Deters erosion on disturbed sites.

Type IX Yellow Pond Lily Community

- a. Less than 1 ton per acre per annum.
- b. Cover and attachment site for aquatic animals and algae.
- c. Feeding territory for fish.

Type X Saltwort Community

- a. Less than 0.5 tons per acre per annum.
- b. Little value to aquatic or marsh animals.

Type XI Freshwater Mixed Community

- a. 3-5 tons per acre per annum.
- b. High diversity of wildlife.
- c. High diversity of wildlife foods.
- d. Often associated with fish spawning and nursery grounds.
- e. Ranks high as a sediment trap and nursery grounds.

Type XII Brackish Water Mixed Community

- a. 3-4 tons per acre per annum.
- b. Wide variety of wildlife foods and habitat
- c. Deterrent to shoreline erosion.
- d. Serves as sediment trap and assimilates flood waters.
- e. Known spawning and nursery grounds for fish.

EVALUATION OF WETLAND TYPES

(From Guidelines for Activities Affecting Virginia Wetlands)

For management purposes, the twelve types of wetlands identified above are grouped into five classifications based on the estimated total environmental value of an acre of each type.

Group One: Saltmarsh Cordgrass (Type I)
 Arrow Arum-Pickerel Weed (Type VII)
 Freshwater Mixed (Type XI)
 Brackish Water Mixed (Type XII)

Group One marshes have the highest values in productivity and wildfowl and wildlife utility and are closely associated with fish spawning and nursery areas. They also have high value as erosion inhibitors, are important to the shellfish industry and valued as natural shoreline stabilizers. Group One marshes should be preserved.

Group Two: Big Cordgrass (Type V)
 Saltmeadow (Type II)
 Cattail (Type VI)

Group Two marshes are of only slightly lesser value than Group One marshes. The major difference is that detritus produced in these marshes is less readily available to the marine environment due to higher elevations and consequently less tidal action to flush the detritus into adjacent waterways. Group Two marshes have very high values in protecting water quality and acting as buffers against coastal flooding. These marshes should also be preserved, but if development in wetlands is considered to be justified it would be better to alter Group Two marshes than Group One marshes.

Group Three:

Yellow Pond Lily (Type IX)
Black Needlerush (Type III)

The two marshes in the Group Three category are quite dissimilar in properties. The yellow pond lily marsh is not a significant contributor to the food web but it does have high values to wildlife and waterfowl. Black needlerush has little wildlife value but it ranks high as an erosion flood buffer. Group Three marshes are important though their total values are less than Group One and Two marshes. If development in wetlands is considered necessary, it would be better to alter Group Three marshes than Groups One or Two.

Group Four:

Saltbush (Type IV)

The saltbush community is valued primarily for the diversity and bird nesting area it adds to the marsh ecosystem. To a lesser extent it acts as an erosion buffer. Group Four marshes should not be unnecessarily disturbed but it would be better to concentrate necessary development in these marshes rather than disturb any of the marshes in the preceding groups.

Group Five:

Saltwort (Type X)
Reedgrass (Type VIII)

Based on present information Group Five marshes have few values of any significance. While Group Five marshes should not be unreasonably disturbed, it is preferable to develop in these marshes than in any other types.

For a better understanding of Virginia's Wetlands in general, the Wetlands Act of 1972 and marsh types and their evaluation, the following publications are recommended:

Coastal Wetlands of Virginia
Interim Report No. 3
Guidelines for Activities
Affecting Virginia's Wetlands
Special Report in Applied Marine
Science and Ocean Engineering No. 46
Gene M. Silberhorn, George M. Dawes,
Thomas A. Barnard, Jr., June 1974
Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

Local Management of Wetlands
Environmental Considerations
Special Report in Applied Marine
Science and Ocean Engineering No. 35
Kenneth Marcellus, George M. Dawes,
Gene Silberhorn, June 1973
Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

Coastal Wetlands of Virginia Interim Report No. 2
Special Report in Applied Marine
Science and Ocean Engineering No. 27
Kenneth Marcellus, July 1972
Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

Coastal Wetlands of Virginia Interim Report
Special Report in Applied Marine Science
And Ocean Engineering No. 10.
Marvin Wass and Thomas Wright, December 1969
Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

Laws of Virginia Relating to Wetlands
and Subaqueous Waters
Virginia Marine Resources Commission
2401 West Avenue
Newport News, Virginia 23607

Wetlands Guidelines
Virginia Marine Resources Commission
2401 West Avenue
Newport News, Virginia 23607

Tidal Wetland Plants of Virginia
Educational Series No. 19
Gene M. Silberhorn, illustrated by
Mary Warinner. August 1976
Virginia Institute of Marine Science
Gloucester Point, Virginia 23062

MARSH PLANTS

Common Names and Scientific Names as Found in the Data Tables

| | |
|--------------------|---|
| Arrow Arum | <u>Peltandra virginica</u> (L.) Kunth |
| Arrowhead | <u>Sagittaria</u> spp. |
| Beggar Ticks | <u>Bidens</u> spp. |
| Big Cordgrass | <u>Spartina cynosuroides</u> (L.) Roth. |
| Black Needlerush | <u>Juncus roemerianus</u> Scheele |
| Cattails | |
| Common | <u>Typha latifolia</u> L. |
| Narrow-leaved | <u>Typha angustifolia</u> L. |
| Common Threesquare | <u>Scirpus americanus</u> Pensoon |
| Jewel-weed* | <u>Impatiens capensis</u> Meerb. |
| Marsh-fleabane | <u>Pluchea purpurascens</u> (Swartz) DC. |
| Marsh Hibiscus | <u>Hibiscus moscheutos</u> L. |
| Marsh Mallow* | <u>Kosteletzkya virginica</u> (L.) Presl. |
| Olney Threesquare | <u>Scirpus olneyi</u> Gray |
| Orach* | <u>Atriplex patula</u> L. |
| Pickerelweed | <u>Pontederia cordata</u> L. |
| Rice Cut Grass | <u>Leersia oryzoides</u> (L.) Swartz |

* Marsh species not included in Virginia's Wetlands Act of 1972

MARSH PLANTS (cont.)

| | |
|-------------------------|--|
| Royal Fern | <u>Osmunda regalis</u> (Willd.) |
| Saltbushes | |
| Groundsel Tree | <u>Baccharis halimifolia</u> L. |
| Marsh Elder | <u>Iva frutescens</u> L. |
| Saltgrass | <u>Distichlis spicata</u> (L.) Greene |
| Saltmarsh Aster* | <u>Aster tenuifolius</u> L. |
| Saltmarsh Bulrush | <u>Scirpus robustus</u> Pursh. |
| Saltmarsh Cordgrass | <u>Spartina alterniflora</u> Loisel. |
| Saltmarsh Fimbristylis* | <u>Fimbristylis spadicea</u> (L.) Vahl. |
| Saltmeadow Hay | <u>Spartina patens</u> (Aiton.) Muhl |
| Saltwort | <u>Salicornia</u> spp. |
| Sea Lavender | <u>Limonium carolinianum</u> (Walter) Britton. |
| Sea Oxeye | <u>Borrichia frutescens</u> (L.) DC. |
| Smartweeds | <u>Polygonum</u> spp. |
| Softstem Bulrush | <u>Scirpus validus</u> Vahl. |
| Spike-rush | <u>Eleocharis obtusa</u> (Willd.) Schultes |
| Switch Grass | <u>Panicum virgatum</u> L. |
| Tearthumb | <u>Polygonum arifolium</u> L. |
| Water Dock | <u>Rumex verticillatus</u> L. |

* Marsh species not included in Virginia's Wetlands Act of 1972.

MARSH PLANTS (cont.)

Water-hemp

Amaranthus cannabina (L.) J.D. Sauer

Wild Rice

Zizania aquatica L.

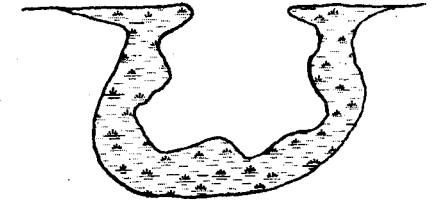
Yellow Pond-Lily

Nuphar luteum (L.) Sibthrop and Smith

Glossary of Descriptive Terms

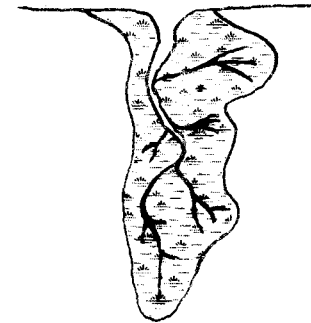
cove marsh

a marsh contained within a concavity or recessed area on a shoreline; the marsh vegetation is usually found surrounding a central, open-water pond, and tidal flushing is permitted through an inlet.



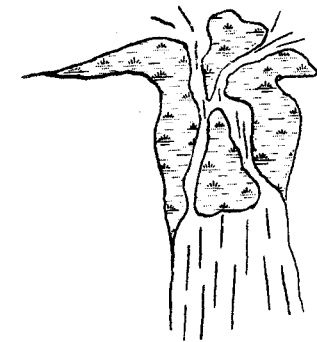
creek or
embayed marsh

a marsh occupying a drowned creek valley; in many large creek marshes the salinity decreases headward; this type of marsh may be divided for inventory purposes into sections if significant changes in the plant community occur along its length.



delta marsh

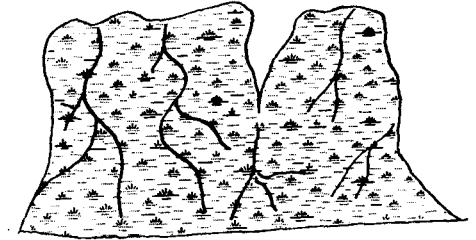
a marsh found growing on sediment deposited at the mouth of a tidal creek; tidal exchange through the creek mouth is usually restricted to narrow channels by the marsh.



Glossary of Descriptive Terms

extensive marsh

a large marsh where the length and depth or width are roughly comparable; most extensive marshes are drained by many tidal channels and creeks which have little freshwater input.



fringe marsh

a marsh which borders along a section of shoreline and generally has a much greater length than width or depth.



high marsh

the marsh surface is at an elevation of mean high water or above; it is usually inundated less than twice daily by tidal action.

low marsh

the marsh surface is at an elevation below mean high water; it is usually inundated twice daily by tidal action.

Glossary of Descriptive Terms

marsh island

an isolated marsh surrounded on all sides by open water; interior portions of the marsh may contain trees scattered at highest elevations



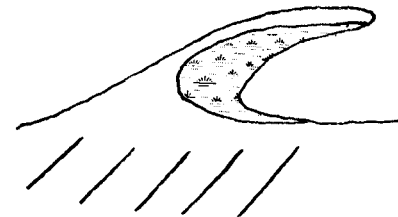
pocket marsh

a marsh contained within a small, essentially semi-circular area on a shoreline.

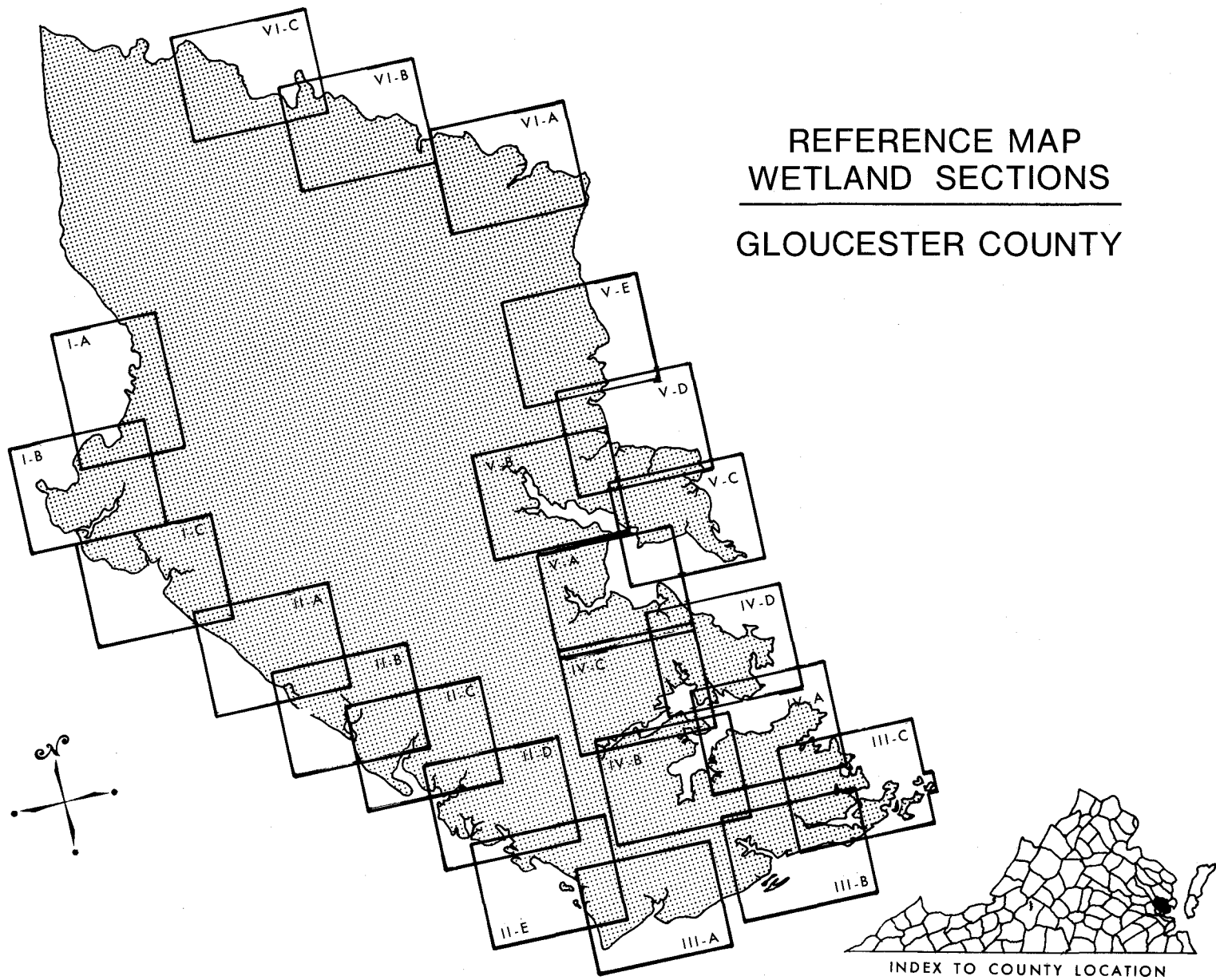


point or spit marsh

a marsh which extends from the uplands in the form of a point or spit; its development is usually influenced by tidal currents that form a sand berm behind which the marsh forms.



REFERENCE MAP
WETLAND SECTIONS
GLOUCESTER COUNTY



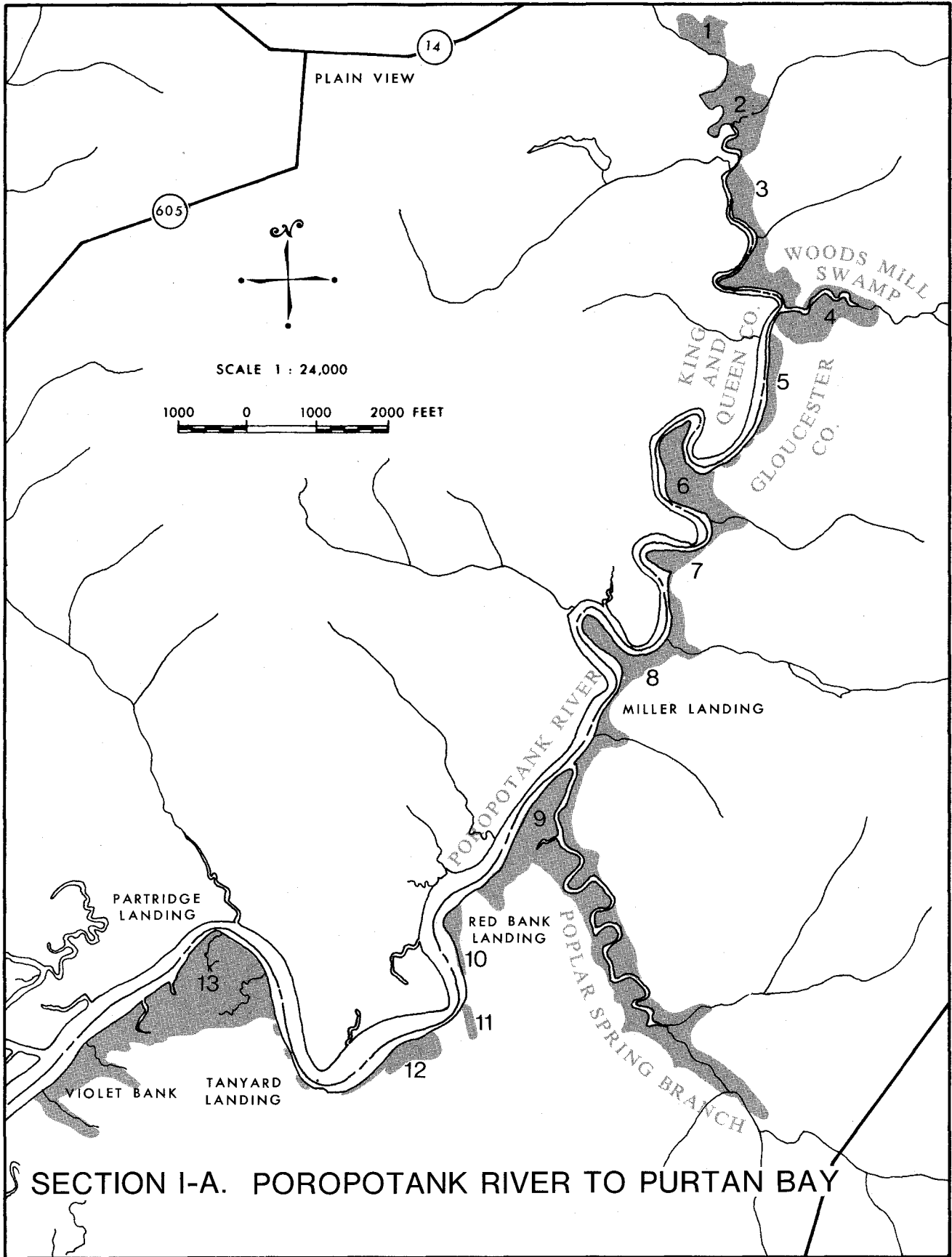
SECTION I

Poropotank River to Purtan Bay

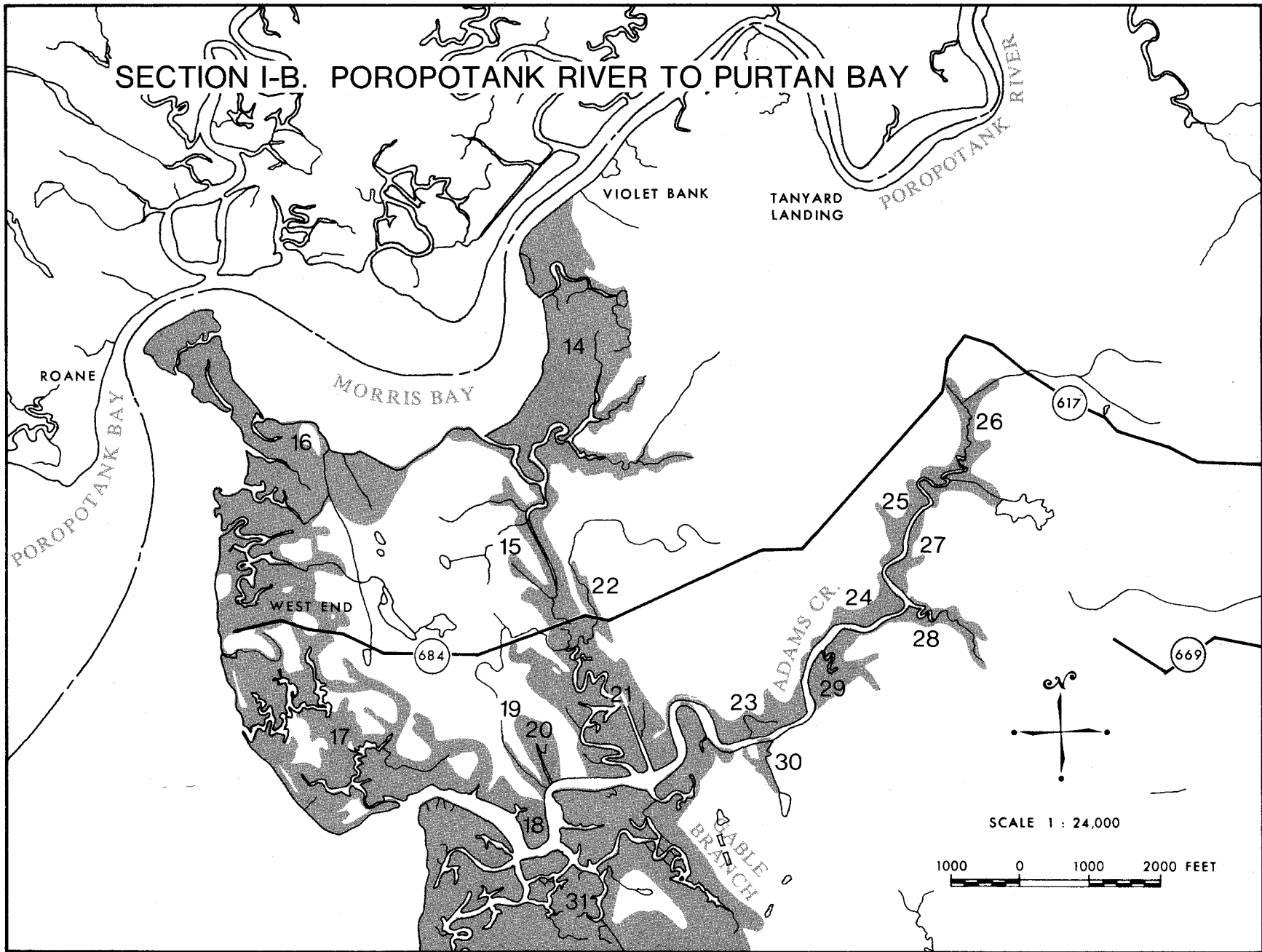
This section of shoreline marks a portion of the northwest boundary of Gloucester County and is illustrated with three map plates (A,B,C). Since the county line is located down the middle of the Poropotank River only the marshes located along the eastern shoreline of this river are described here. Map plate IA delineates the Gloucester County marshes located along the upper reaches of the Poropotank River, while plates IB and IC illustrate the tidal marshes found near the mouth of the Poropotank River as well as the extensive marshes of the Purtan Island area. Several creek marshes which drain into Purtan Bay are also included here.

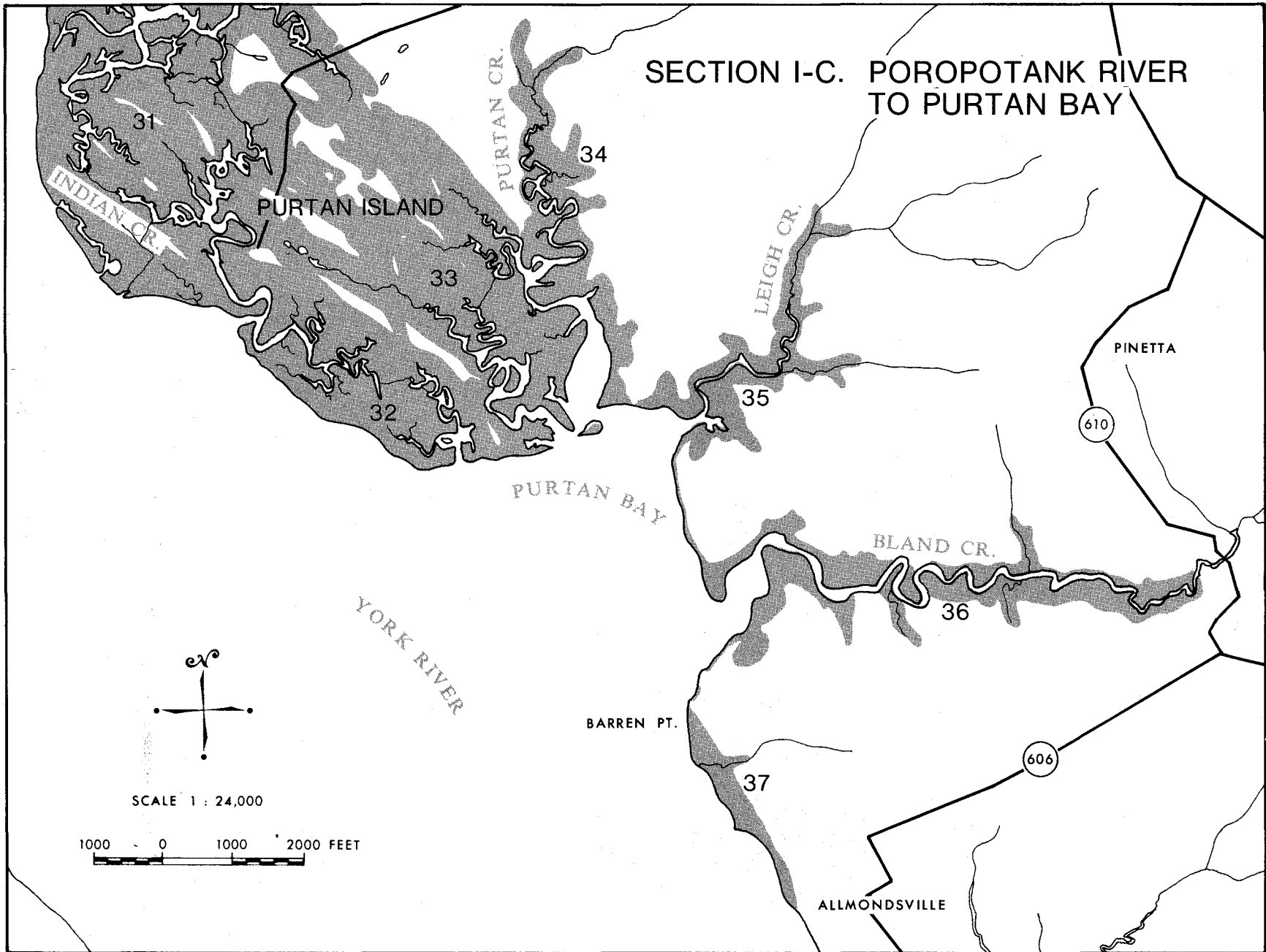
The tidal marshes in Section I of Gloucester County range from tidal freshwater to broad saltmeadow and saltmarsh cordgrass areas. The tidal freshwater marshes (Type XI) are only found in the upper third of the Poropotank River and are dominated by such plant species as wild rice and pickerel weed. These marshes serve as a valuable habitat and feeding area for waterfowl as well as an important nursery area for fishes. Saltmarsh cordgrass is also found in this upstream portion of the Poropotank, but it does not dominate the plant community as it does further downstream in the regions of higher salinity.

Brackish water marshes (Types I, II, III, XII) dominate the lower two thirds of the Poropotank River as well as the Purtan Island and Purtan Bay areas and are characteristic of most of the tidal marsh that is found in Gloucester County. Saltmarsh cordgrass, sea lavender and saltmarsh aster are found growing along creek banks and in low areas that receive daily inundation by the tides. Just above this zone occur saltgrass and black needlerush, as well as saltmeadow hay and saltmarsh bulrush. Big cordgrass may also be found if the salinity is very low. At highest elevations are found the saltbushes and other species such as sea oxeye, saltmarsh fimbriatilis and switchgrass.



SECTION I-A. POROPOTANK RIVER TO PURTAN BAY





Section I. Poropotank River to Purtan Bay

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|---|-----------------------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|--------------|---|------------|
| 1 | Poropotank River | 4 | % | 10 | | | | | | | - | 5 | | | - | | | | | | 3 | 15 | | 30 | 30 | 5 | c, 2 f, - | The most upstream portion of Poropotank River marshes; dominated by freshwater species. | XI |
| | | | acres | 0.4 | | | | | | | | - | 0.2 | | | | - | | | | | | 0.1 | 0.6 | | 1.2 | 1.2 | | |
| 2 | Poropotank River | 16 | % | 20 | | | | | | | - | 5 | | | | | | | | | 5 | 5 | | 10 | 45 | 10 | k, - | Freshwater creek marsh; large stand of wild rice; trace of silver plume grass. | XI |
| | | | acres | 3.2 | | | | | | | | - | 0.8 | | | | | | | | | | 0.8 | 0.8 | | 1.6 | 7.2 | | |
| 3 | Poropotank River | 12 | % | 75 | | | | | | | - | - | | | | | | | | | | 10 | | - | 15 | | d, - | Large stand of cordgrass mixed with freshwater species. | I |
| | | | acres | 9.0 | | | | | | | | - | - | | | | | | | | | | | 1.2 | | - | 1.8 | | |
| 4 | Poropotank River Woods Mill Swamp | 14 | % | 40 | | | | | | | 3 | 5 | | | | | | | | | 2 | 10 | | 7 | 30 | 3 | d, - | Creek marsh; grades into woody swamp. | XI |
| | | | acres | 5.6 | | | | | | | | 0.4 | 0.7 | | | | | | | | | | 0.3 | 1.4 | | 1.0 | 4.2 | | |
| 5 | Poropotank River | 1 | % | 90 | | | | | | | | | | | | | | | | | | 5 | | | 5 | | | Long, fringing, creek marsh; dominated by saltmarsh cordgrass. | I |
| | | | acres | 0.90 | | | | | | | | | | | | | | | | | | | | 0.05 | | 0.05 | | | |
| 6 | Poropotank River | 14 | % | 60 | | | | | 10 | | - | | | | | | | | | | - | 20 | | - | 10 | | c, - d, - | Cordgrass dominated creek marsh; mixed with freshwater species. | I |
| | | | acres | 8.4 | | | | | 1.4 | | - | | | | | | | | | | | - | 2.8 | | - | 1.4 | | | |
| 7 | Poropotank River | 4 | % | 65 | - | | | | 15 | - | 5 | | | | | | | | | | | 10 | | | | | | Cordgrass dominated creek marsh; some pickereelweed fringe. | I |
| | | | acres | 2.6 | - | | | 0.6 | - | 0.2 | | | | | | | | | | | | | | 0.4 | | | | | |
| 8 | Poropotank River | 10 | % | 75 | - | | | | 20 | - | 5 | | | | | | | | | | | | | | | | | Cordgrass dominated creek marsh. | I |
| | | | acres | 7.5 | - | | | 2.0 | - | 0.5 | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section I. Poropotank River to Purtan Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type | |
|----|-------------------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|---------------|----------------------|----------|------------|-------------------|--------------|--------------------|-----------|-----------------|---------------------------|----------|--------------|------------|-----------------------------|----------------------|-----------------|-----------|------------|--|---|--|-----|
| 9 | Poplar Spring Branch | 77 | % | 30 | 5 | - | | | 45 | - | 5 | 2 | - | - | 1 | | | | | - | 2 | 5 | | | | 2 | c.1 d.2 f.1 g.1 h.1 i.1 j.1 k.1 | Creek marsh; grades upstream from brackish to freshwater species. | XII | |
| | | | acres | 23.1 | 3.8 | - | | | | 34.6 | - | 3.8 | 1.5 | - | - | 0.8 | | | | | - | 1.5 | 3.8 | | | | 1.5 | | | |
| 10 | Poropotank River | 3 | % | 60 | - | - | - | | 35 | | 5 | | | | | | | | | | | | | | | | | | Fringe marsh; dominated by cordgrass. | I |
| | | | acres | 1.8 | - | - | - | | | 1.0 | | 0.2 | | | | | | | | | | | | | | | | | | |
| 11 | Poropotank River | 2 | % | 85 | - | - | - | | 5 | 5 | 5 | | | | - | | | | | | | | | | | | | | Pocket marsh; big cordgrass and bulrush across front; interior of saltmarsh cordgrass. | I |
| | | | acres | 1.7 | - | - | - | | | 0.1 | 0.1 | 0.1 | | | | - | | | | | | | | | | | | | | |
| 12 | Poropotank River | 5 | % | 50 | 10 | - | 10 | 10 | 20 | | | | | | | - | | | | | | | | | | | | | Pocket marsh, saltbush growing on spoil from dredge & channels. | I |
| | | | acres | 2.5 | 0.5 | - | 0.5 | 0.5 | 1.0 | | | | | | | | - | | | | | | | | | | | | | |
| 13 | Poropotank River | 61 | % | 60 | 5 | 5 | | 5 | 20 | 5 | | | | | - | - | - | - | | | | | | | | | | | Creek marsh; dominated by cordgrasses. | I |
| | | | acres | 36.6 | 3.0 | 3.0 | | 3.0 | 12.2 | 3.0 | | | | | | - | - | - | - | | | | | | | | | | | |
| 14 | Poropotank River | 110 | % | 40 | 20 | 15 | 3 | 15 | 2 | 5 | - | | | | - | - | - | - | | | | | | | | | | | Creek marsh with broad areas of meadow; several pockets extend into uplands. | XII |
| | | | acres | 44.0 | 22.0 | 16.5 | 3.3 | 16.5 | 2.2 | 5.5 | - | | | | | - | - | - | - | | | | | | | | | | | |
| 15 | Poropotank River | 18 | % | 25 | 30 | 20 | 5 | 15 | - | 5 | | | | | - | - | - | - | | | | | | | | | | | Upper portion of creek marsh; drainage into Poropotank; dominated by high marsh. | II |
| | | | acres | 4.5 | 5.4 | 3.6 | 0.9 | 2.7 | - | 0.9 | | | | | | - | - | - | - | | | | | | | | | | | |
| 16 | Poropotank River | 136 | % | 45 | 5 | 10 | - | 35 | - | 5 | | | | | - | - | - | - | | | | | | | | | | | Meadow and needlerush predomi- nate near uplands; isolated hummocks of cedar and pine throughout. | XII |
| | | | acres | 61.2 | 6.8 | 13.6 | - | 47.6 | - | 6.8 | | | | | | - | - | - | - | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section I. Poropotank River to Purtan Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickeralweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|----------------------------|----------------------|-----------------|--------------|---------------|---|---|---------------|
| 17 | York River | 105 | % | 35 | 15 | 15 | - | 25 | 5 | 5 | | | | - | - | - | - | - | | | | | | | | | | High marsh surrounds areas of cedar, pine, myrtle, holly; low marsh of cordgrass near channels. | XII |
| | | | acres | 36.8 | 15.8 | 15.8 | - | 26.2 | 5.2 | 5.2 | | | | | | - | - | - | - | - | | | | | | | | | |
| 18 | Adams Creek | 9 | % | 45 | 5 | 15 | - | 30 | - | 5 | | | | | | | | | | | | | | | | | Small creek marsh section needlerush and meadow predominate in northern half of marsh. | XII | |
| | | | acres | 4.0 | 0.4 | 1.4 | - | 2.7 | - | 0.4 | | | | | | | | | | | | | | | | | | | |
| 19 | Adams Creek | 2 | % | 40 | 10 | 10 | 15 | 25 | - | - | - | | | | | - | - | | | | | | | | | | Long, narrow pocket marsh; interior grades to meadow and saltbushes. | XII | |
| | | | acres | 0.8 | 0.2 | 0.2 | 0.3 | 0.5 | - | - | - | | | | | | - | - | | | | | | | | | | | |
| 20 | Adams Creek | 10 | % | 45 | 10 | 5 | 5 | 30 | - | 5 | - | | | | | - | - | - | - | | | | | | | | Pocket marsh; dominated by cordgrass and needlerush; meadow fringes along sections of upland. | XII | |
| | | | acres | 4.5 | 1.0 | 0.5 | 3.0 | 3.0 | - | 0.5 | - | | | | | | - | - | - | - | | | | | | | | | |
| 21 | Adams Creek | 59 | % | 45 | 10 | 10 | 5 | 25 | - | 5 | | | | | | - | - | - | - | | | | | | | | Creek marsh; grades from low to high marsh with upper portion crossed by road. | XII | |
| | | | acres | 26.6 | 5.9 | 5.9 | 3.0 | 14.8 | - | 3.0 | | | | | | | - | - | - | - | | | | | | | | | |
| 22 | Adams Creek | 3 | % | 5 | 35 | 20 | 40 | - | | | | | | - | - | - | - | - | | | | | | | | | Upper portion of creek marsh dominated by high marsh species; drains toward Adams Creek via culvert under road. | II | |
| | | | acres | 0.2 | 1.0 | 0.5 | 1.2 | - | | | | | | | | - | - | - | - | - | | | | | | | | | |
| 23 | Adams Creek | 12 | % | 75 | 5 | 5 | - | 15 | | - | | | | | | - | - | - | - | | | | | | | | Fringing marsh; dominated by saltmarsh cordgrass, with scattered patches of meadow and needlerush. | I | |
| | | | acres | 9.0 | 0.6 | 0.6 | - | 1.8 | | - | | | | | | | - | - | - | - | | | | | | | | | |
| 24 | Adams Creek | 8 | % | 40 | 20 | 20 | - | 15 | - | 5 | | | | | | - | - | - | - | | | | | | | | Fringing marsh; several large areas of meadow and scattered patches of needlerush. | XII | |
| | | | acres | 3.2 | 1.6 | 1.6 | - | 1.2 | - | 0.4 | | | | | | | - | - | - | - | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section I. Poropotank River to Purtan Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh | Saltmeadow | Saltgrass | Saltbushes | Black | Big Cordgrass | Saltmarsh | Cattails | Water-hemp | Marsh | Switch Grass | Saltmarsh | Sea Oxeeye | Sea | Saltmarsh | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed | Olney | Beggar | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|----|----------------|-------------|-------|-----------|------------|-----------|------------|---------|---------------|-----------|----------|------------|-------|--------------|-----------|------------|--------------|-----------|----------|--------------|------------|---------------|-------|-------------|-----------|------------|--|---|------------|
| | | | | Cordgrass | Hay | | Needlerush | Bulrush | | Hibiscus | | | Aster | | Lavender | | Fimbristylis | | | | | Arrow Arum | | Threesquare | | | | | |
| 25 | Adams Creek | 7 | % | 65 | 10 | 5 | 5 | 10 | 2 | 3 | - | | | | | | | | | | | | | | | | | Creek marsh with pocket area extending into uplands. | I |
| | | | acres | 4.6 | 0.7 | 0.4 | 0.4 | 0.7 | 0.1 | 0.2 | - | | | | | | | | | | | | | | | | | | |
| 26 | Adams Creek | 14 | % | 55 | 5 | 5 | 10 | | 25 | - | - | | | | | | | | | | | | | | | | | The most upstream section of Adams Creek; small area disturbed by spoil deposition. | I |
| | | | acres | 7.7 | 0.7 | 0.7 | 1.4 | | 3.5 | - | - | | | | | | | | | | | | | | | | | | |
| 27 | Adams Creek | 5 | % | 90 | 5 | 5 | - | - | - | - | - | | | | | | | | | | | | | | | | Fringing marsh section; dominated by saltmarsh cordgrass. | I | |
| | | | acres | 4.5 | 0.2 | 0.2 | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | |
| 28 | Adams Creek | 7 | % | 80 | 5 | 5 | 5 | - | - | - | 5 | | | | | | | | | | | | | | | | Pocket marsh; scattered patches of high marsh throughout. | I | |
| | | | acres | 5.6 | 0.4 | 0.4 | 0.4 | - | - | - | 0.4 | | | | | | | | | | | | | | | | | | |
| 29 | Adams Creek | 10 | % | 65 | 15 | 10 | - | 5 | | 5 | - | | | | | | | | | | | | | | | | Creek marsh; cattails in several pockets which extend back into uplands. | I | |
| | | | acres | 6.5 | 1.5 | 1.0 | - | 0.5 | | 0.5 | - | - | - | | | | | | | | | | | | | | | | |
| 30 | Adams Creek | 3 | % | 70 | 5 | 5 | - | 15 | | 5 | - | | | | | | | | | | | | | | | | Pocket marsh; impounded stream above marsh. | I | |
| | | | acres | 2.1 | 0.2 | 0.2 | - | 0.4 | | 0.2 | - | - | - | | | | | | | | | | | | | | | | |
| 31 | Purtan Island | 334 | % | 50 | 15 | 10 | - | 25 | - | - | - | | | | | | | | | | | | | | | | Extensive marsh; includes several ridges of uplands; road built on fill across marsh restricts drainage in some areas. | I | |
| | | | acres | 167.0 | 50.1 | 33.4 | - | 83.5 | - | - | - | - | - | | | | | | | | | | | | | | | | |
| 32 | Purtan Island | 122 | % | 50 | 10 | 10 | - | 30 | - | - | - | | | | | | | | | | | | | | | | Extensive marsh; large needle-rush and meadow areas; isolated by ridge pine from adjacent extensive marsh. | I | |
| | | | acres | 61.0 | 12.2 | 12.2 | - | 36.6 | - | - | - | - | - | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section I. Poropotank River to Purtan Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type | |
|----|-----------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|------------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|------------|---|----------------|------------|
| 33 | Purtan Island | 234 | % | 15 | 15 | 20 | - | 50 | - | - | | | | - | - | - | - | - | - | | | | - | | | | | Upper portion includes large area of poorly drained meadow caused by road construction. | III | |
| | | | acres | 35.1 | 35.1 | 46.8 | - | 117.0 | - | - | | | | | | - | - | - | - | - | - | | | | - | | | | | |
| 34 | Purtan Creek | 62 | % | 25 | 15 | 30 | 20 | 5 | - | 5 | - | | | | - | - | - | - | - | | | | - | | | | | Cordgrass and needlerush dominate lower section; saltbushes and meadow more evident in upper section. | XII | |
| | | | acres | 15.5 | 9.3 | 18.6 | 12.4 | 3.1 | - | 3.1 | - | | | | | | | | | | | | | | | | | | | |
| 35 | Leigh Creek | 42 | % | 65 | 15 | 20 | - | - | - | - | - | | | | - | - | - | - | - | | | | - | | | | | Creek marsh; saltmarsh cordgrass mixed with areas of saltmeadow. | I | |
| | | | acres | 27.3 | 6.3 | 8.4 | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | |
| 36 | Bland Creek | 95 | % | 65 | 5 | 10 | 3 | 5 | 5 | 2 | 5 | - | | | | - | - | - | - | | | | - | | | | | Creek marsh; dominated by saltmarsh cordgrass throughout. | I | |
| | | | acres | 61.8 | 4.8 | 9.5 | 2.8 | 4.8 | 4.8 | 1.9 | 4.8 | - | | | | | | | | | | | | | | | | | | |
| 37 | Barren Point | 11 | % | 85 | 5 | - | 5 | 5 | | | | | | | | - | - | - | - | | | | | | | | | Fringe marsh; high marsh species along upland edge; cordgrass along river | I | |
| | | | acres | 9.4 | 0.6 | - | 0.6 | 0.6 | | | | | | | | | | | | | | | | | | | | | | |
| | Total Section I | 1641. | % | 43 | 12 | 12 | 2 | 22 | 4 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | 1 | - | - | 1 | - | c,- d,- | f,- k,- | | |
| | | | acres | 706.2 | 190.0 | 195.0 | 30.2 | 367.7 | 68.7 | 31.7 | 10.4 | 3.2 | - | - | 0.8 | - | - | - | - | - | - | - | 2.7 | 11.0 | - | 3.8 | 17.4 | 2.2 | c,0.9 d,1.5 | f,- k,- |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

SECTION II

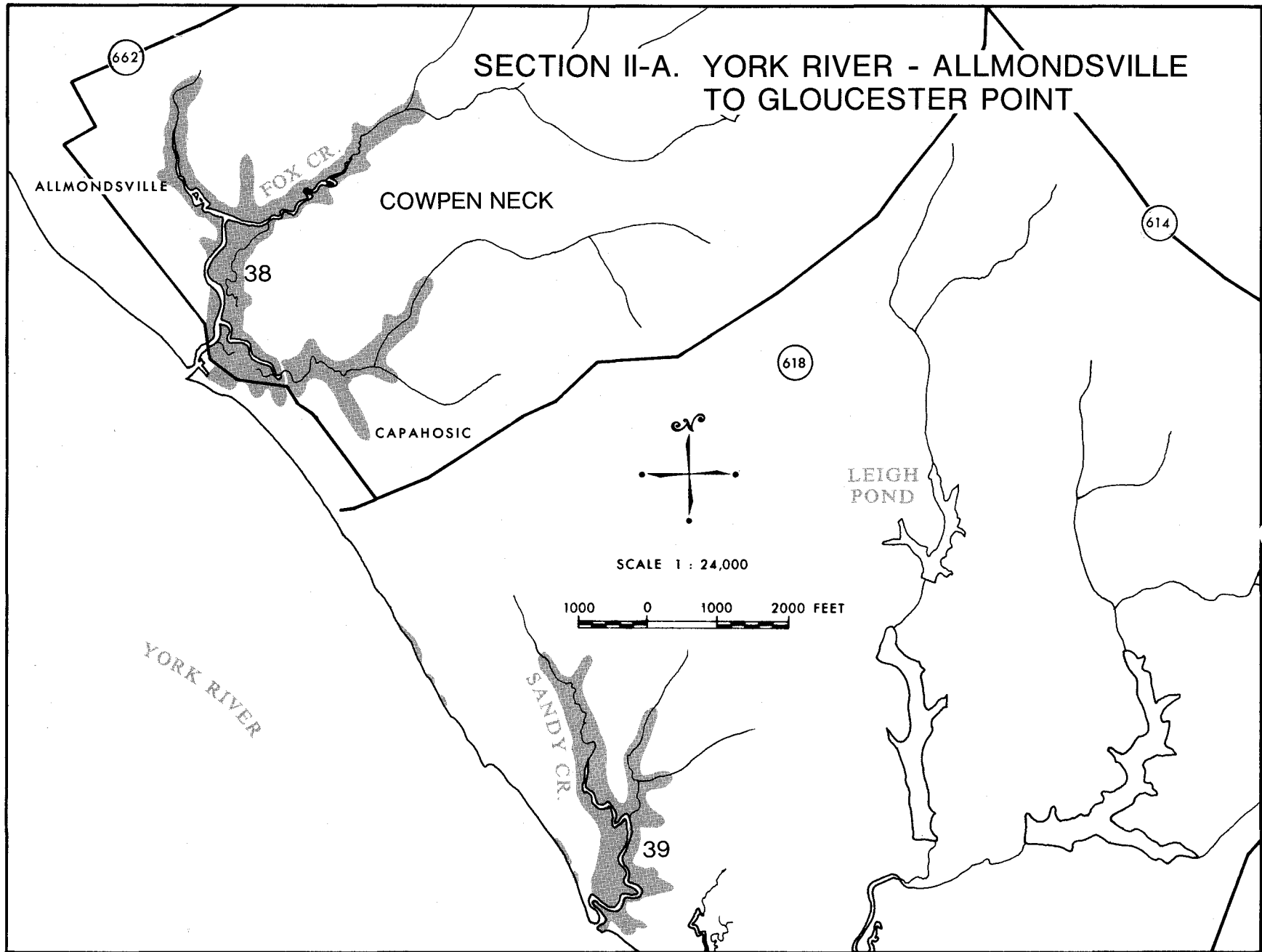
York River - Allmondsville to Gloucester Point

This section of Gloucester County Shoreline includes most of that which borders the York River west of Gloucester Point. It is characterized by numerous creek-marsh systems which drain into the York River. These creek systems are separated by sections of shoreline with little marsh. Approaching Gloucester Point, however, there are several broad areas of brackish water marsh. These include the Catlett, Carmines and Mumfort Islands.

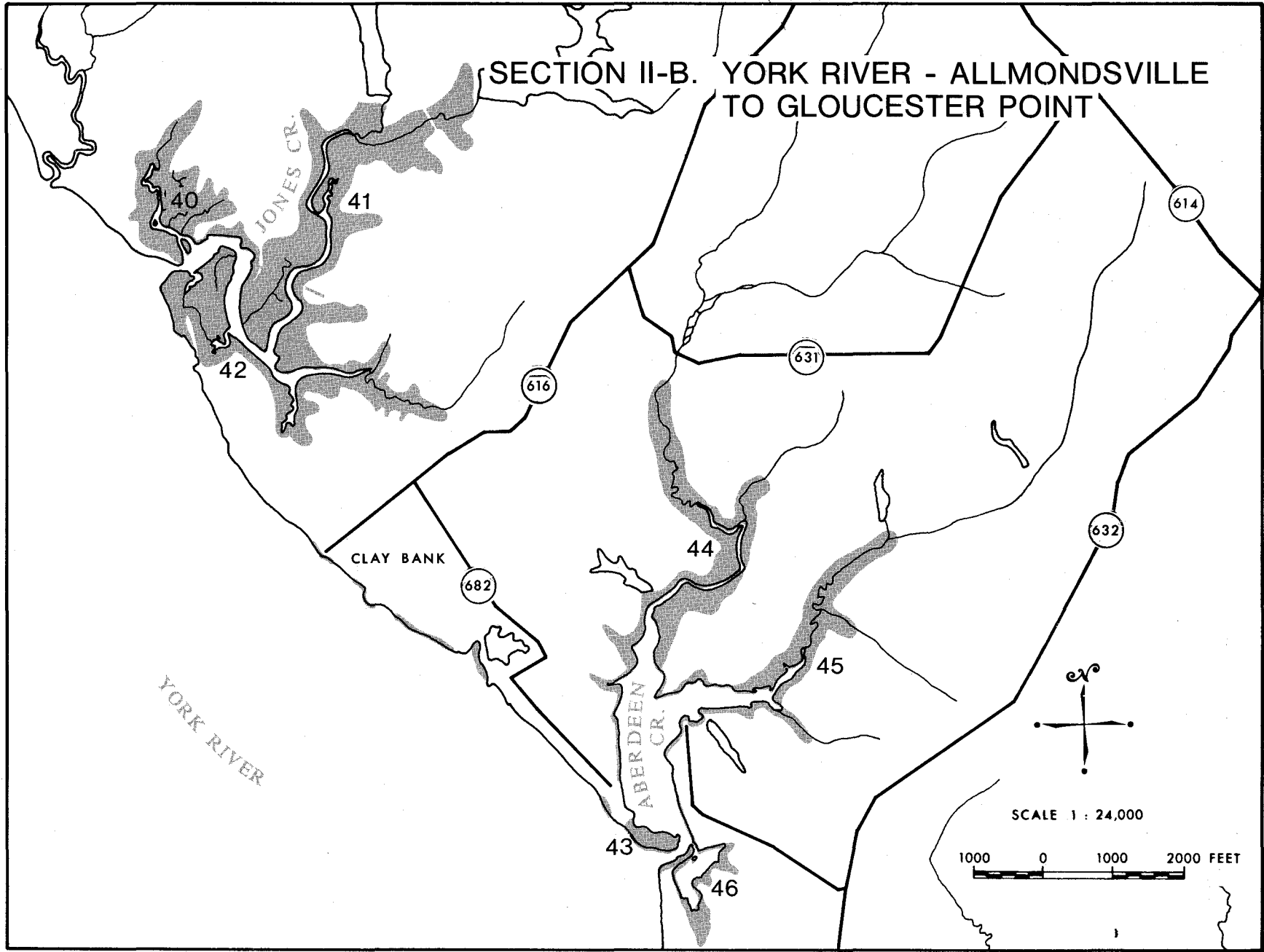
The vegetation within each creek-marsh system changes gradually as one proceeds upstream. Generally the lower portions of these creeks are dominated by saltmarsh cordgrass and black needlerush while the most upstream sections are dominated by the high marsh species of saltgrass, saltmeadow hay and saltbushes. The upstream portions of certain creek marshes such as Carters Creek may also contain areas of big cordgrass, cattails, saltmarsh bulrush and marsh hemp. These species are generally associated with areas of reduced salinity.

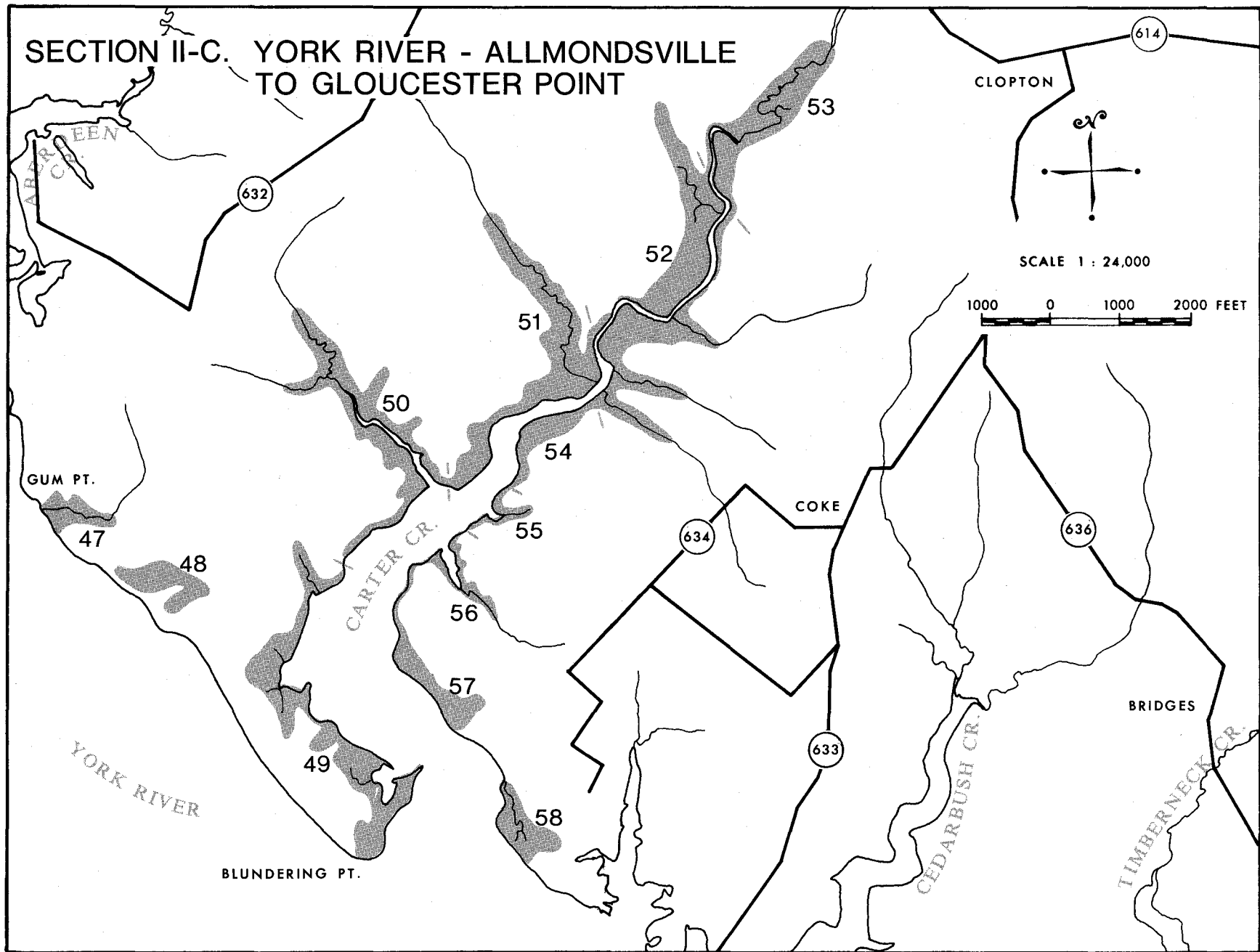
The marshes of the Catlett Islands are dominated by saltmarsh cordgrass and black needlerush as well as large areas of saltmeadow hay and saltgrass. These marshes have an interesting configuration as they are characterized by a series of upland ridges of pine and cedar separating areas of high marsh. In contrast, the Carmines Islands are mostly low marsh, dominated by saltmarsh cordgrass. The Mumfort Islands are characterized by a zone of saltmarsh cordgrass surrounding an interior of high marsh with some pine and cedar at highest elevations.

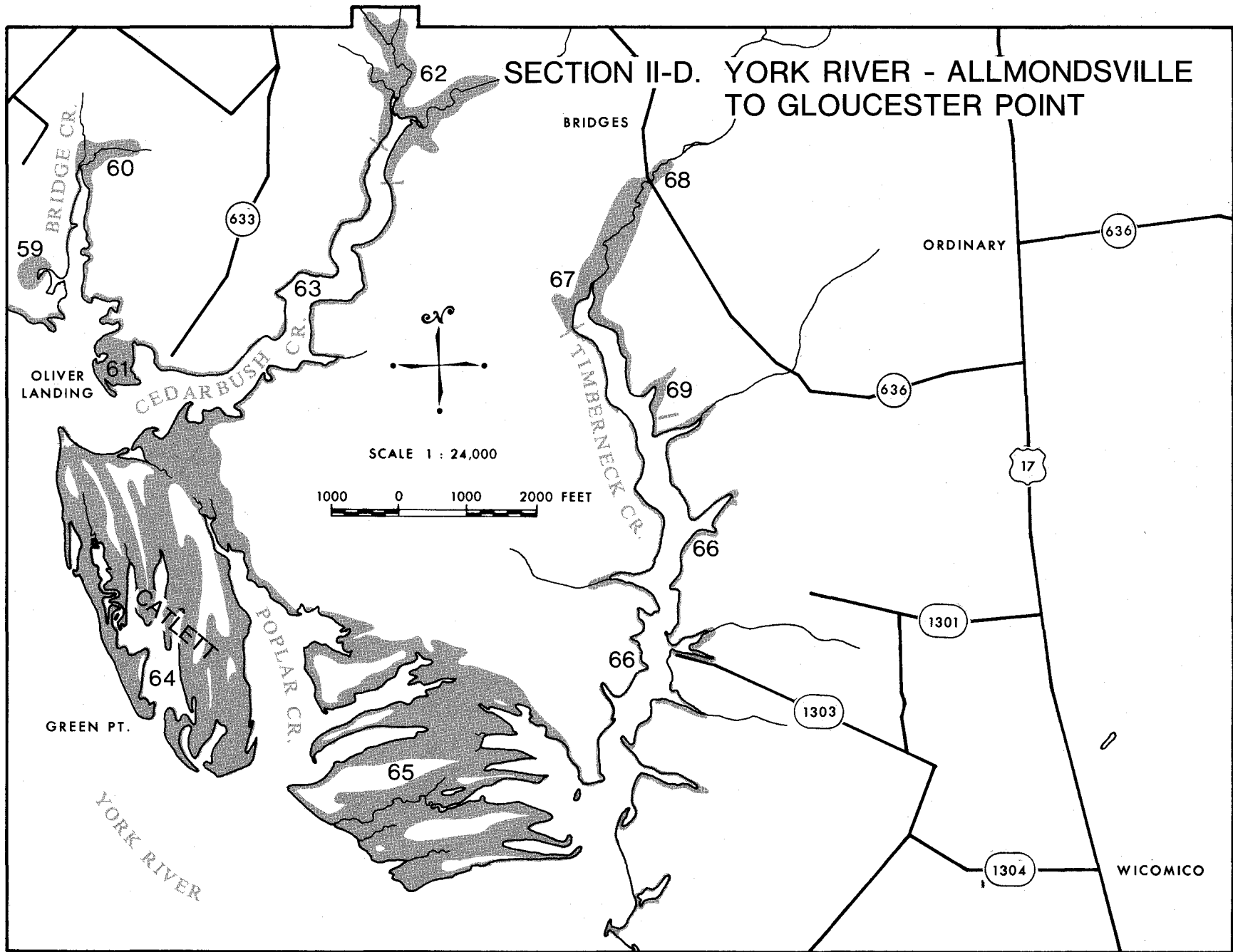
All of these marsh systems serve as an important habitat for both waterfowl and shellfish as well as an important area for both juvenile and adults of finfish such as spot, menhaden, alewife, croaker, stripped bass and grey trout.

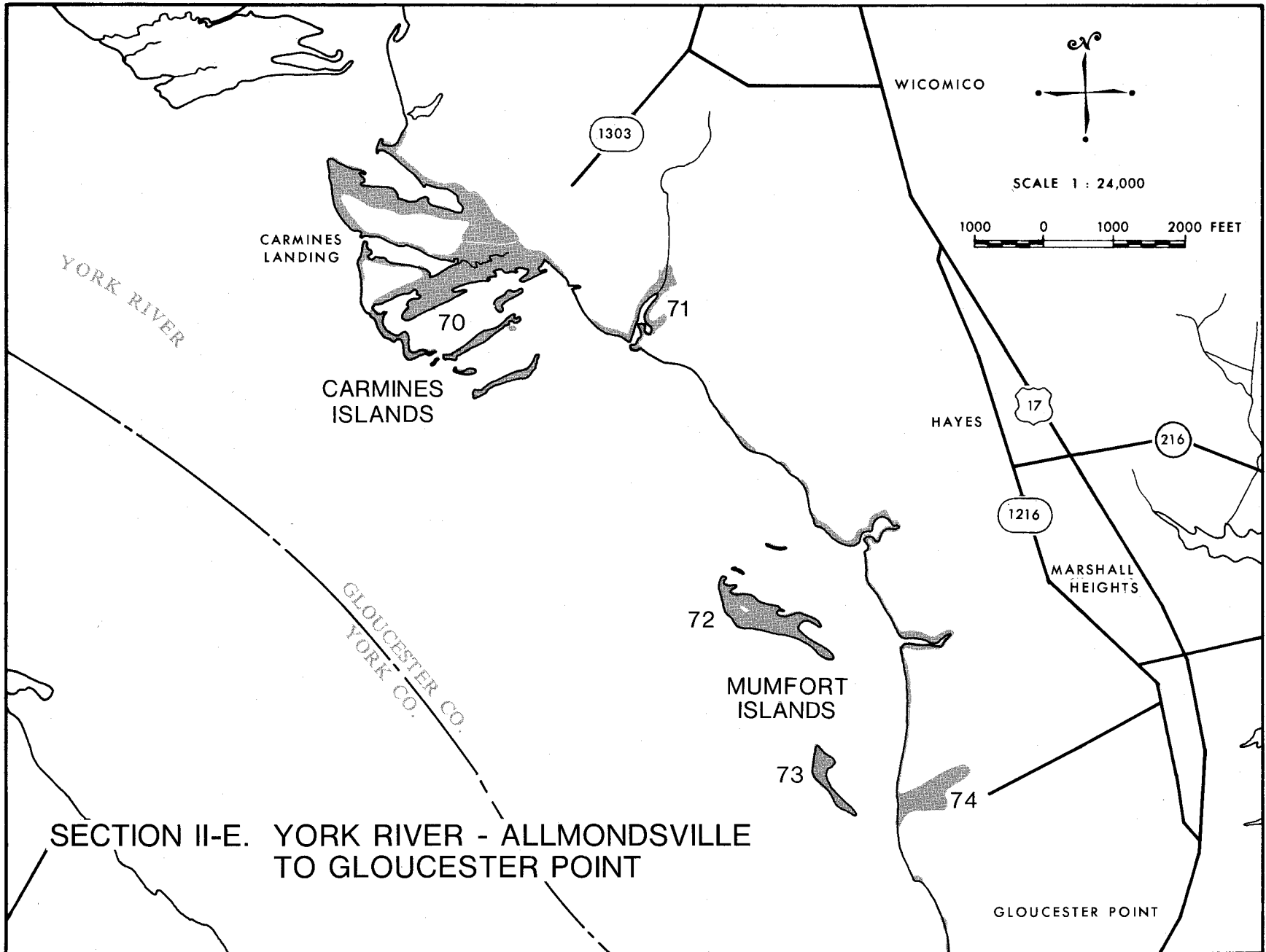


SECTION II-B. YORK RIVER - ALLMONDSVILLE
TO GLOUCESTER POINT









Section II. York River-Allmondsville to Gloucester Point

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type | |
|----|----------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|-------|--------------|--|-----|
| 38 | Fox Creek | 80 | % | 75 | 5 | 5 | 10 | - | | 3 | 2 | | - | | - | - | - | - | | - | | | | | | | | | Creek marsh; mouth of creek bulkheaded for use as small harbor; right branch crossed by dirt road. | I |
| | | | acres | 60.0 | 4.0 | 4.0 | 8.0 | - | | | 2.4 | 1.6 | | - | | - | - | - | - | | - | | | | | | | | | |
| 39 | Sandy Creek | 42 | % | 80 | 5 | 5 | - | 2 | - | 5 | 2 | | | | 1 | - | | | | | | | | | | | | | Creek marsh; shallow sandbar across mouth; marsh dominated by cordgrass. | I |
| | | | acres | 33.6 | 2.1 | 2.1 | - | 0.8 | - | | 2.1 | 0.8 | | | | 0.4 | - | | | | | | | | | | | | | |
| 40 | Jones Creek | 34 | % | 75 | 5 | 10 | - | 2 | | 2 | 5 | - | | | 1 | - | - | - | | | | | | | | | | | Creek marsh; left branch of creek; dominated by cordgrass. | I |
| | | | acres | 25.5 | 1.7 | 3.4 | - | 0.7 | | | 0.7 | 1.7 | - | | | 0.3 | - | - | - | | | | | | | | | | | |
| 41 | Jones Creek | 61 | % | 45 | 15 | 15 | 15 | - | | 5 | 3 | 2 | | | - | - | - | - | | | | | | | | | | | Creek marsh; middle branch; upper portion grades to high marsh; crossed by road. | XII |
| | | | acres | 27.4 | 9.2 | 9.2 | 9.2 | - | | | 3.0 | 1.8 | 1.2 | | | - | - | - | - | | | | | | | | | | | |
| 42 | Jones Creek | 69 | % | 75 | 5 | 10 | - | 2 | | 2 | 5 | - | | | 1 | - | - | - | | | | | | | | | | | Creek marsh; right branch; mostly low marsh. | I |
| | | | acres | 51.8 | 3.4 | 6.9 | - | 1.4 | | | 1.4 | 3.4 | - | | | 0.7 | - | - | - | | | | | | | | | | | |
| 43 | Aberdeen Creek | 4 | % | 55 | 15 | 10 | 10 | 10 | | | | | | | - | - | - | - | | | | | | | | | | | Spit marsh; interior section with some trees and high marsh; cordgrass along creek. | I |
| | | | acres | 2.2 | 0.6 | 0.4 | 0.4 | 0.4 | | | | | | | | - | - | - | - | | | | | | | | | | | |
| 44 | Aberdeen Creek | 35 | % | 65 | 10 | 10 | - | | | 5 | 8 | | | | 2 | | | | | | | | - | | | | | | Creek marsh; left branch of creek; cattails and high marsh species dominate upstream portion. | I |
| | | | acres | 22.8 | 3.5 | 3.5 | - | | | | 1.8 | 2.8 | | | | 0.7 | | | | | | | | - | | | | | | |
| 45 | Aberdeen Creek | 28 | % | 75 | 5 | 5 | - | | | 5 | 8 | | | | 2 | | | | | | | | - | | | | | | Creek marsh; right branch of creek; cattails in most upstream portion. | I |
| | | | acres | 21.0 | 1.4 | 1.4 | - | | | | 1.4 | 2.2 | | | | 0.6 | | | | | | | | - | | | | | | |

- a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section II. York River-Allmondsville to Gloucester Point
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh | Saltmeadow | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickerelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|----|-----------------|-------------|-------|-----------|------------|-----------|------------|---------------------|---------------|----------------------|----------|------------|-------------------|--------------|--------------------|--------------|-----------------|---------------------------|----------|--------------|------------|----------------------------|----------------------|-----------------|-----------|------------|-------|---|------------|
| | | | | Cordgrass | Hay | | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | Rosewell Harbor | 5 | % | 85 | 5 | 5 | 3 | | | | 2 | | | | - | | | | | | | | | | | | | Cove fringed by cordgrass; several pocket marshes; spit partially separates cove from creek. | I |
| | | | acres | 4.2 | 0.2 | 0.2 | 0.2 | | | | | 0.1 | | | | | - | | | | | | | | | | | | |
| 47 | Gum Point | 7 | % | 70 | 10 | 10 | 5 | | | | 5 | | | | - | | | | | | | | | | | | | Pocket marsh; dominated by low marsh. | I |
| | | | acres | 4.9 | 0.7 | 0.7 | 0.4 | | | | | 0.4 | | | | | - | | | | | | | | | | | | |
| 48 | York River | 10 | % | 40 | 10 | 30 | 10 | 5 | | | - | | | | - | - | - | 5 | - | | | | | | | | | Connection to river partially blocked by sand berm; sections of marsh are irregularly flooded. | XII |
| | | | acres | 4.0 | 1.0 | 3.0 | 1.0 | 0.5 | | | | - | | | | - | - | - | 0.5 | - | | | | | | | | | |
| 49 | Carter Creek | 42 | % | 55 | 10 | 5 | 5 | 10 | 3 | 5 | 5 | | | | 2 | | - | | | | | | | | | | | Wide fringing marsh formed on creek side of large spit; includes several pocket marshes. | I |
| | | | acres | 23.1 | 4.2 | 2.1 | 2.1 | 4.2 | 1.3 | 2.1 | 2.1 | | | | | 0.8 | | - | | | | | | | | | | | |
| 50 | Carter Creek | 23 | % | 70 | 10 | 10 | - | - | - | 5 | 5 | | | | - | - | - | | | | | | | | | | | Creek marsh; cattails in pockets along uplands; meadow increases in upstream portion. | I |
| | | | acres | 16.1 | 2.3 | 2.3 | - | - | - | 1.2 | 1.2 | | | | | - | - | - | | | | | | | | | | | |
| 51 | Carter Creek | 31 | % | 35 | 20 | 20 | 10 | - | 5 | 5 | 5 | | | | - | - | - | | | | | | | | | | | Creek marsh; interior of marsh extends back in pocket; broad acres of meadow. | XII |
| | | | acres | 10.8 | 6.2 | 6.2 | 3.1 | - | 1.6 | 1.6 | 1.6 | | | | | - | - | - | | | | | | | | | | | |
| 52 | Carter Creek | 42 | % | 35 | 20 | 10 | 10 | | 10 | 5 | 10 | - | - | | | - | - | | | | | | | | | | | Creek marsh on both sides of channel; large areas of meadow; includes several pocket marsh areas. | XII |
| | | | acres | 14.7 | 8.4 | 4.2 | 4.2 | | 4.2 | 2.1 | 4.2 | - | - | | | - | - | - | | | | | | | | | | | |
| 53 | Carter Creek | 25 | % | 25 | 10 | 5 | 10 | | 30 | 5 | 10 | 5 | - | | - | - | - | | | | | | | | | | | The most upstream portion of Carter Creek; significant increase in big cordgrass over downstream areas. | XII |
| | | | acres | 6.2 | 2.5 | 1.2 | 2.5 | | 7.5 | 1.2 | 2.5 | 1.2 | - | | | - | - | - | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section II. York River-Allmondsville to Gloucester Point
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh | Saltmeadow | Saltgrass | Saltbushes | Black | Big | Saltmarsh | Cattails | Water-hemp | Marsh | Switch | Saltmarsh | Sea | Sea | Saltmarsh | | Marsh | Smartweeds | Pickrelweed | Olney | Beggar | Wild | Jewel | Other | Observations | Marsh Type |
|----|----------------|-------------|-------|-----------|------------|-----------|------------|-----------|---------|-----------|----------|------------|-------|--------|-----------|--------------|----------|-----------|-----|------------|-------------|-------------|-------|--------|------|-------|-------|---|------------|
| | | | | Cordgrass | Hay | | Needlerush | Cordgrass | Bulrush | | Hibiscus | Grass | Aster | Oxeye | Lavender | Fimbristylis | Saltwort | Mallow | | Arrow Arum | Threesquare | Ticks | Rice | Weed | | | | | |
| 54 | Carter Creek | 15 | % | 65 | 15 | 5 | - | 5 | - | 5 | 5 | | | | | | | | | | | | | | | | | Fringing marsh; patches of needlerush and meadow but dominated by cordgrass. | I |
| | | | acres | 9.8 | 2.2 | 0.8 | - | 0.8 | - | 0.8 | 0.8 | | | | | | | | | | | | | | | | | | |
| 55 | Carter Creek | 2 | % | 80 | 5 | 5 | - | - | - | - | 10 | | | | | | | | | | | | | | | | | Small pocket marsh including some marsh fringe along creek. | I |
| | | | acres | 1.6 | 0.1 | 0.1 | - | - | - | - | 0.2 | | | | | | | | | | | | | | | | | | |
| 56 | Carter Creek | 2 | % | 75 | 5 | 5 | - | - | 5 | - | 10 | | | | | | | | | | | | | | | | | Pocket marsh with fringe of cordgrass along main branch of creek. | I |
| | | | acres | 1.5 | 0.1 | 0.1 | - | - | 0.1 | - | 0.2 | | | | | | | | | | | | | | | | | | |
| 57 | Carter Creek | 9 | % | 40 | 5 | 5 | 20 | 20 | 10 | - | - | | | | | | | | | | | | | | | | | Fringing marsh; marsh formed behind sandy ridge; needlerush and saltbushes prominent. | XII |
| | | | acres | 3.6 | 0.4 | 0.4 | 1.8 | 1.8 | 0.9 | - | - | | | | | | | | | | | | | | | | | | |
| 58 | Carter Creek | 10 | % | 80 | 5 | 5 | 10 | - | - | - | - | | | | | | | | | | | | | | | | | Fringing marsh; formed behind narrow berm of saltbushes; saltbushes also along uplands. | I |
| | | | acres | 8.0 | 0.5 | 0.5 | 1.0 | - | - | - | - | | | | | | | | | | | | | | | | | | |
| 59 | Bridge's Creek | 4 | % | 50 | 30 | 10 | 10 | | - | - | - | | | | | | | | | | | | | | | | | Pocket marsh; small entrance opens to broad area of meadow. | I |
| | | | acres | 2.0 | 1.2 | 0.4 | 0.4 | | - | - | - | | | | | | | | | | | | | | | | | | |
| 60 | Bridge's Creek | 6 | % | 80 | 5 | 5 | - | - | - | - | 10 | | | | | | | | | | | | | | | | | Pocket marsh at head of Bridges Creek; cattails in upper portion. | I |
| | | | acres | 4.8 | 0.3 | 0.3 | - | - | - | - | 0.6 | | | | | | | | | | | | | | | | | | |
| 61 | Oliver Landing | 8 | % | 65 | 10 | 10 | 5 | - | | 5 | | | | | | | | 5 | | | | | | | | | | Spit marsh; small berm of salt bushes along western edge. | I |
| | | | acres | 5.2 | 0.8 | 0.8 | 0.4 | - | | 0.4 | | | | | | | | | 0.4 | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section II. York River-Allmondsville to Gloucester Point
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|----|------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|--------------|--|------------|
| 62 | Cedarbush Creek | 22 | % | 45 | 20 | 20 | 10 | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Two pocket marshes at head of Cedarbush Creek; upper portions of each dominated by meadow. | XII |
| | | | acres | 9.9 | 4.4 | 4.4 | 2.2 | - | - | - | 1.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 63 | Cedarbush Creek | 1.4 | % | 90 | 5 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Intermittent marsh fringe along both sides of Cedarbush Creek. | I |
| | | | acres | 1.3 | 0.1 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 64 | Catlett Islands | 150 | % | 40 | 10 | 20 | 8 | 20 | - | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | Extensive marsh; divided by parallel ridges of pine, myrtle and cedar. | XII |
| | | | acres | 60.0 | 15.0 | 30.0 | 12.0 | 30.0 | - | - | - | - | - | - | - | - | - | - | - | 3.0 | - | - | - | - | - | - | - | - | - |
| 65 | Catlett Islands | 43 | % | 35 | 15 | 15 | 8 | 20 | - | 5 | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | Extensive marsh divided by parallel ridges of pine, myrtle and cedar. | XII |
| | | | acres | 15.0 | 6.4 | 6.4 | 3.4 | 8.6 | - | 2.2 | - | - | - | - | - | - | - | - | 0.4 | 0.4 | - | - | - | - | - | - | - | - | - |
| 66 | Timberneck Creek | 3 | % | 90 | 5 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Marsh fringe along both sides of Timberneck Creek; cattails found in small pocket areas along shoreline. | I |
| | | | acres | 2.7 | 0.2 | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 67 | Timberneck Creek | 20 | % | 35 | 20 | 25 | 10 | 3 | - | 2 | 2 | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | Marsh flora grades from cordgrasses in downstream section to saltbushes and switchgrass near head. | XII |
| | | | acres | 7.0 | 4.0 | 5.0 | 2.0 | 0.6 | - | 0.4 | 0.4 | - | - | - | 0.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 68 | Timberneck Creek | 1 | % | 5 | 5 | - | - | - | - | - | 15 | - | 40 | - | - | - | - | - | - | - | 15 | - | - | - | - | - | f,15 j,5 | Section of marsh above Route 636; tidal flushing is permitted through culvert under road. | XII |
| | | | acres | - | - | - | - | - | - | - | - | 0.2 | - | 0.4 | - | - | - | - | - | - | - | 0.2 | - | - | - | - | f,0.2 j,- | - | |
| 69 | Timberneck Creek | 0.50 | % | 85 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Small pocket marsh dominated by saltmarsh cordgrass. | I |
| | | | acres | 0.43 | 0.03 | 0.03 | 0.03 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section II. York River-Allmondsville to Gloucester Point
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickrelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|----|------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|------------|--------------|------------------------|----------|--------------|------------|------------------------|-------------------|--------------|-----------|------------|--|---|------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | Carmines Islands | 62 | % | 80 | 5 | 5 | 10 | - | | | | | - | - | - | - | - | - | | | | | | | | | | Extensive marsh dominated by saltmarsh cordgrass; other species generally fringe upland areas. | I |
| | | | acres | 49.6 | 3.1 | 3.1 | 6.2 | - | | | | | | | - | - | - | - | - | - | | | | | | | | | |
| 71 | York River | 5 | % | 80 | 10 | 3 | 5 | - | | | 2 | | - | - | - | - | - | - | | | | | | | | | | Cove marsh; including several pockets of marsh dominated by cordgrass as well as broad cordgrass area near mouth. | I |
| | | | acres | 4.0 | 0.5 | 0.2 | 0.2 | - | | | 0.1 | | | | - | - | - | - | - | - | | | | | | | | | |
| 72 | Mumfort Islands | 12 | % | 70 | 5 | - | 15 | 5 | 5 | | | | | - | - | - | - | - | | | | | | | | | Marsh island fringed by cordgrass; saltbushes and needlerush dominate interior; some trees growing at highest elevations. | I | |
| | | | acres | 8.4 | 0.6 | - | 1.8 | 0.6 | 0.6 | | | | | | | - | - | - | - | - | | | | | | | | | |
| 73 | Mumfort Islands | 4 | % | 50 | 10 | 5 | 30 | 5 | - | | | | | - | - | - | - | - | | | | | | | | | Saltmarsh cordgrass island; patches of saltbushes and a number of pine trees | I | |
| | | | acres | 2.0 | 0.4 | 0.2 | 1.2 | 0.2 | - | | | | | | | - | - | - | - | - | | | | | | | | | |
| 74 | Gloucester Point | 8 | % | 90 | - | 5 | 5 | - | | | - | | - | - | - | - | - | - | | | | | | | | | Cordgrass fringe along shoreline of river and around several small coves; includes large pocket marsh of 7 acres that is dominated by cordgrass. | I | |
| | | | acres | 7.2 | - | 0.4 | 0.4 | - | | | - | | | | - | - | - | - | - | - | | | | | | | | | |
| | Total Section II | 925.9 | % | 57 | 10 | 11 | 7 | 6 | 2 | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | b,- f,- | j,- | |
| | | | acres | 532.3 | 91.7 | 103.9 | 64.4 | 50.6 | 16.2 | 24.8 | 30.0 | 2.4 | 0.4 | 0.6 | 3.3 | - | - | 1.3 | 3.4 | 0.2 | - | - | - | - | - | - | - | b,- f,0.2 | j,- |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

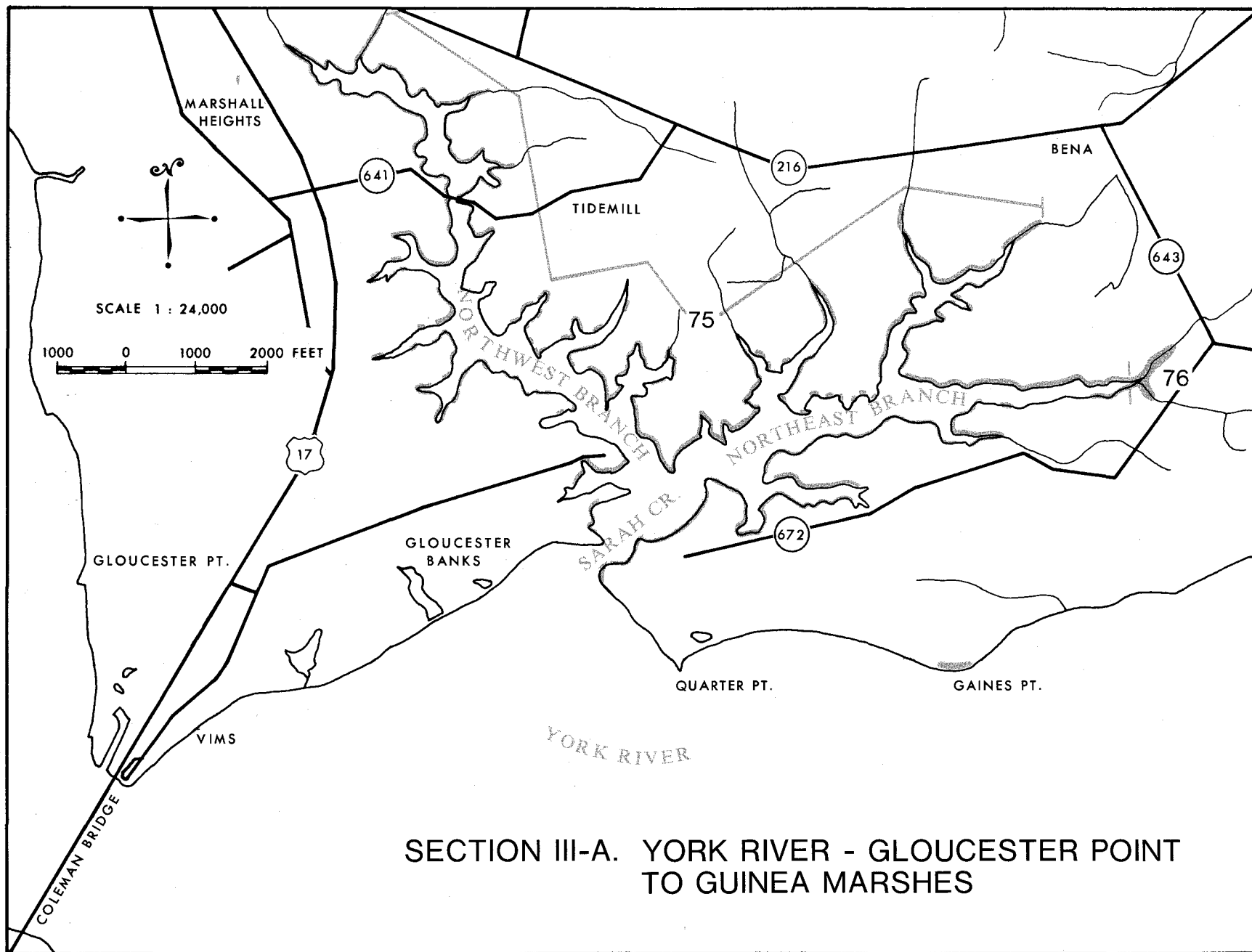
SECTION III

York River - Gloucester Point to Guinea Marshes

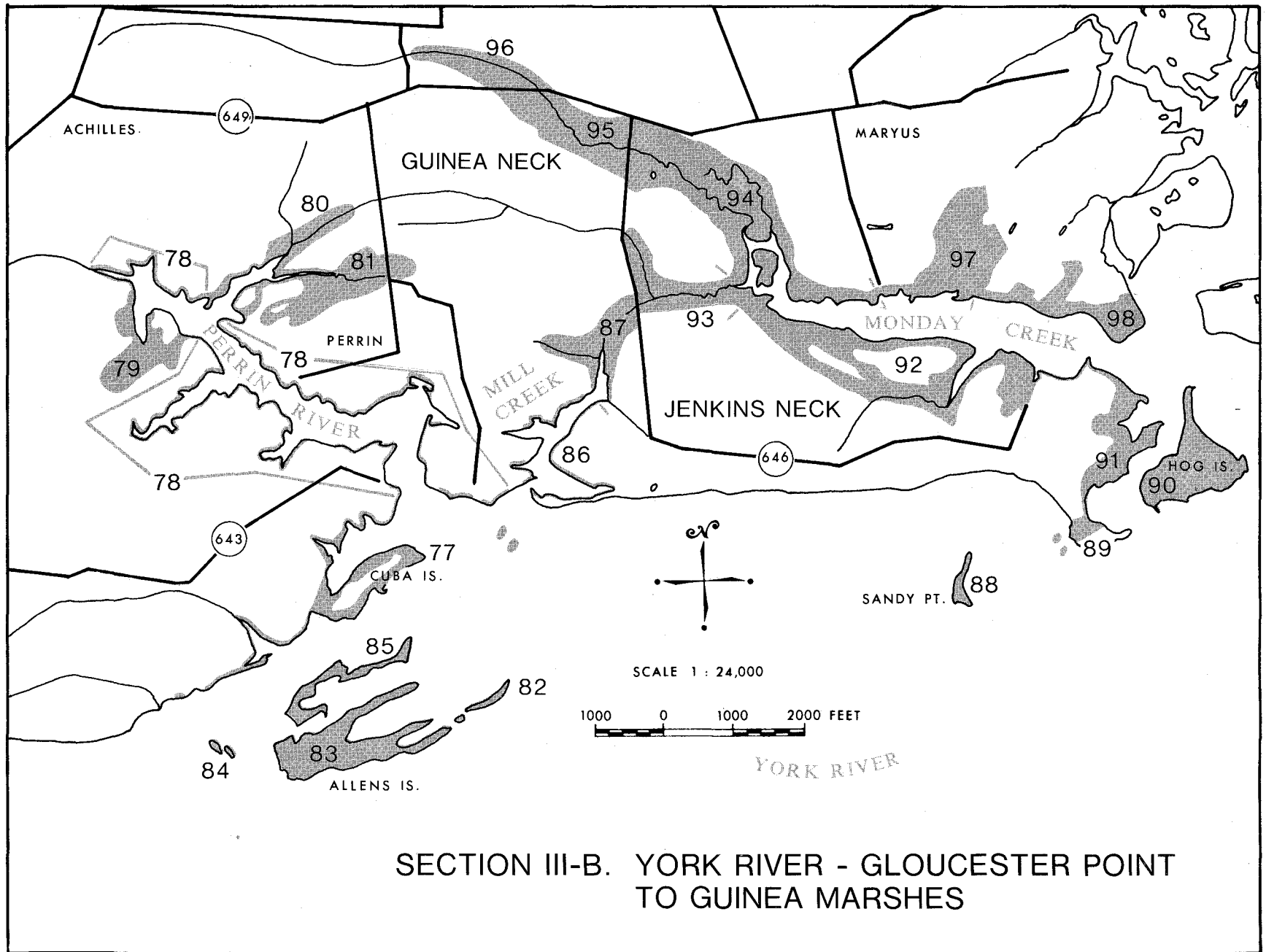
The marshes in this section of Gloucester County lie to the east of an ancient shoreline terrace which runs from north to south and is generally paralleled by the highway, Route 17. This terrace appears to have been formed when sea level remained for an extended period of time at a much higher level, relative to the land, than is found today. To the west of this line there was upland, while to the east the area was submerged. The terrace was most probably formed by the erosive action of waves acting against this ancient shoreline. Thus, today the abundant sand deposits to the west of Route 17 are the relics of the sand dunes that were once formed there. In contrast to this high land the elevation quickly drops 5 to 10 feet in height east of Route 17, to some of the lowest land in Gloucester. This previously submerged area is flat, and is characterized by a high water table with an abundance of swampy woods and broad saltmarsh areas.

The Guinea Marshes (IIIc) are the dominant wetlands system in this low section of Gloucester County. This broad band of marshes and creeks extends from Mobjack Bay on the east to lowland farms and pine woods on the west. These marshes are generally characterized by a dominance of saltmarsh cordgrass, but grade into broad high marsh areas with abundant saltgrass, saltmeadow hay, and black needlerush. The upland-marsh boundary is defined in many areas by numerous dikes built of earth. It is evident, however, that many of these areas which had been reclaimed for agricultural use are now reverting to marsh. In many forested areas which border the saltmarshes the pine trees are dying, while there appears an abundant understory of high marsh species such as saltbushes. In other areas which were previously farmed the dominant vegetation is now saltgrass.

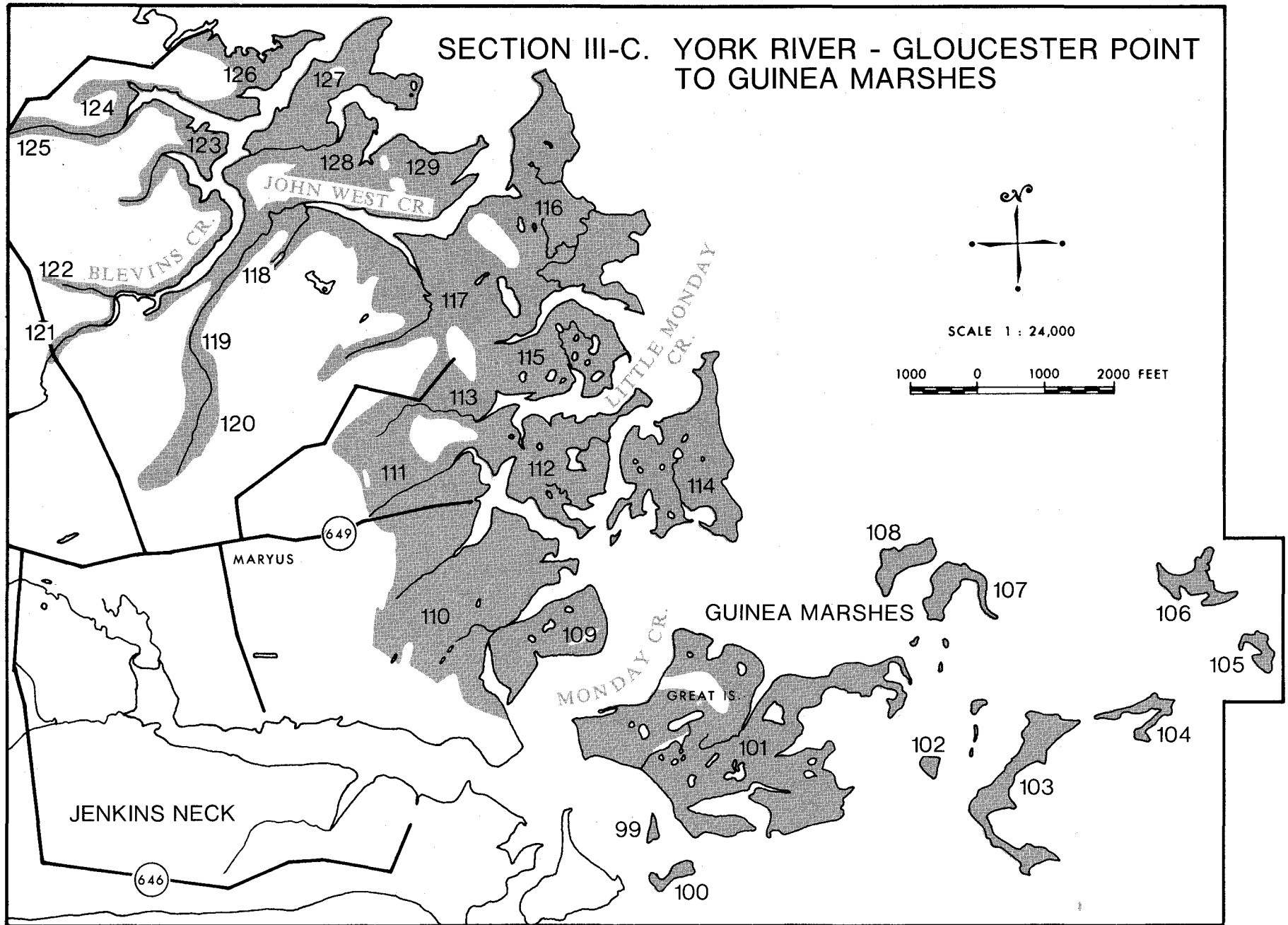
In several of the creeks along the York River the shoreline is bordered only by a narrow saltmarsh cordgrass fringe. In Sarah's Creek, a highly developed creek system, this marsh fringe unfortunately has been replaced in many sections by bulkheads. This type of marsh serves as a habitat for numerous waterfowl as well as many crabs and fish. In the Perrin River, a much less developed area, the marsh fringe is still nearly continuous.



SECTION III-A. YORK RIVER - GLOUCESTER POINT TO GUINEA MARSHES



SECTION III-C. YORK RIVER - GLOUCESTER POINT
TO GUINEA MARSHES



Section III. York River-Gloucester Point to Guinea Marshes

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | |
|----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|--------------|------------|-----------------------------|----------------------|-----------------|--|---|-------|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | | | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 75 | Sarah Creek | 8 | % | 90 | 5 | - | | 5 | | | | | | | | | | | | | | | | | | | | Intermittent saltmarsh cordgrass fringe 2-15 ft. wide; replaced by bulkheads in many areas. | I |
| | | | acres | 7.2 | 0.4 | - | | 0.4 | | | | | | | | | | | | | | | | | | | | | |
| 76 | Sarah Creek | 3 | % | 70 | 5 | 5 | 20 | - | | | | | | | | | | | | | | | | | | | Pocket marsh; grades from cordgrass to saltbushes. | I | |
| | | | acres | 2.1 | 0.2 | 0.2 | 0.6 | - | | | | | | | | | | | | | | | | | | | | | |
| 77 | Cuba Island | 11 | % | 45 | 5 | 10 | 15 | 25 | | | | | | | | | | | | | | | | | | | Wide fringe of cordgrass and needlerush surrounds interior of pine, cedar and myrtle. | XII | |
| | | | acres | 5.0 | 0.6 | 1.1 | 1.6 | 2.8 | | | | | | | | | | | | | | | | | | | | | |
| 78 | Perrin River | 2 | % | 80 | 5 | 5 | 5 | 5 | | | | | | | | | | | | | | | | | | | Marsh fringe 2-10 ft. wide; extends almost completely around Perrin River shoreline. | I | |
| | | | acres | 1.6 | 0.1 | 0.1 | 0.1 | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| 79 | Perrin River | 15 | % | 55 | 10 | 10 | - | 15 | | | | | | | | | | | | | | | | | | | Pocket marsh encircles small area of pine, cedar, and holly which border river. | I | |
| | | | acres | 8.2 | 1.5 | 1.5 | - | 2.2 | | | | | | | 0.3 | 0.3 | 0.2 | 0.3 | 0.4 | | | | | | | | | | |
| 80 | Perrin River | 8 | % | 45 | 5 | 10 | 2 | 30 | | | | | | | | | | | | | | | | | | | Pocket marsh; grades from cordgrass along channels to meadow and needlerush areas along uplands. | XII | |
| | | | acres | 3.6 | 0.4 | 0.8 | 0.2 | 2.4 | | | | | | | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | - | | | | | | | | | |
| 81 | Perrin River | 20 | % | 20 | 20 | 20 | 5 | 30 | | | | | | | | | | | | | | | | | | | Pocket marsh; upper portion crossed by road; grades from low marsh along channels to high marsh along uplands. | XII | |
| | | | acres | 4.0 | 4.0 | 4.0 | 1.0 | 6.0 | | | | | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | - | | | | | | | | | |
| 82 | Allens Island | 2 | % | 50 | 10 | 5 | 30 | - | | | | | | | | | | | | | | | | | | | Marsh island; saltbushes along ridge; cordgrass at lower elevations along water. | I | |
| | | | acres | 1.00 | 0.20 | 0.10 | 0.60 | - | | | | | | | | 0.04 | 0.02 | 0.04 | - | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucester Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|----|----------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|-----------------------|-------------------|--------------|-----------|--|---|-----|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 83 | Allens Island | 26 | % | 40 | 10 | 5 | 20 | 20 | | | | | | | | | | | | | | | | | | | | Large island marsh; higher elevations dominated by saltbushes and needlerush; erosion along channel side. | XII |
| | | | acres | 10.4 | 2.6 | 1.3 | 5.2 | 5.2 | | | | | | | | | | | | | | | | | | | | | |
| 84 | Allens Island | 1 | % | 50 | 10 | 10 | 30 | | | | | | | | | | | | | | | | | | | | Two small marsh islands; saltbushes along ridge of highest elevation. | I | |
| | | | acres | 0.50 | 0.10 | 0.10 | 0.30 | | | | | | | | | | | | | | | | | | | | | | |
| 85 | Allens Island | 7 | % | 80 | - | - | 15 | | | | | | | | | | | | | | | | | | | | Marsh island dominated by saltmarsh cordgrass. | I | |
| | | | acres | 5.6 | - | - | 1.0 | | | | | | | | | | | | | | | | | | | | | | |
| 86 | Mill Creek | 1 | % | 95 | - | - | 5 | - | | | | | | | | | | | | | | | | | | | Saltmarsh cordgrass fringe along both sides of creek. | I | |
| | | | acres | 0.95 | - | - | 0.05 | - | | | | | | | | | | | | | | | | | | | | | |
| 87 | Mill Creek | 14 | % | 40 | 10 | 10 | 5 | 30 | | | | | | | | | | | | | | | | | | | Pocket marsh; upper portion connects via culvert with Monday Creek drainage. | XII | |
| | | | acres | 5.6 | 1.4 | 1.4 | 0.7 | 4.2 | | | | | | | | | | | | | | | | | | | | | |
| 88 | Sandy Point | 2 | % | 45 | 10 | 5 | 40 | - | | | | | | | | | | | | | | | | | | | Marsh island; interior section of highest elevation and dominated by saltbushes. | XII | |
| | | | acres | 0.9 | 0.2 | 0.1 | 0.8 | - | | | | | | | | | | | | | | | | | | | | | |
| 89 | Sandy Point | 2 | % | 40 | 5 | 5 | 50 | | | | | | | | | | | | | | | | | | | | Spitmarsh; rapidly eroding. | IV | |
| | | | acres | 0.8 | 0.1 | 0.1 | 1.0 | | | | | | | | | | | | | | | | | | | | | | |
| 90 | Hog Island | 19 | % | 45 | 10 | 20 | 10 | 10 | | | | | | | | | | | | | | | | | | | Marsh island; saltbushes fringe along York River side. | XII | |
| | | | acres | 8.6 | 1.9 | 3.8 | 1.9 | 1.9 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucester Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | | |
|----|----------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|------------|--------------|------------------------|----------|--------------|------------|--------------|------------|--------------------------|-------------------|--------------|-----------|--|---|---|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 91 | Jenkins Neck | 15 | % | 55 | 5 | 10 | - | 25 | | | | | | | | | | | | | | | | | | | | | Broad fringing marsh; large areas of needlerush throughout. | I |
| | | | acres | 8.2 | 0.8 | 1.5 | - | 3.8 | | | | | | | | | | | | | | | | | | | | | | |
| 92 | Monday Creek | 35 | % | 25 | 10 | 25 | 10 | 20 | | | | | | | | | | | | | | | | | | | | Broad fringing marsh; large interior area diked and not flooded except during storms; meadow extends between diked area and uplands. | XII | |
| | | | acres | 8.8 | 3.5 | 8.8 | 3.5 | 7.0 | | | | | | | | | | | | | | | | | | | | | | |
| 93 | Monday Creek | 18 | % | 45 | 10 | 15 | 3 | 20 | | | | | | | | | | | | | | | | | | | | Creek marsh; grades upstream from cordgrass and needlerush to meadow and saltbush communities. | XII | |
| | | | acres | 18.0 | 4.0 | 6.0 | 1.2 | 8.0 | | | | | | | | | | | | | | | | | | | | | | |
| 94 | Monday Creek | 60 | % | 50 | 10 | 15 | - | 20 | | | | | | | | | | | | | | | | | | | | Most downstream section of creek marsh; cordgrass dominates near mouth; grades upstream to meadow and needlerush areas. | I | |
| | | | acres | 30.0 | 6.0 | 9.0 | - | 12.0 | | | | | | | | | | | | | | | | | | | | | | |
| 95 | Monday Creek | 23 | % | 10 | 30 | 30 | 5 | 15 | | | | | | | | | | | | | | | | | | | | Middle section of creek marsh; crossed by roads at upper and lower boundaries; dominated by meadow and needlerush areas. | XII | |
| | | | acres | 2.3 | 6.9 | 6.9 | 1.2 | 3.4 | | | | | | | | | | | | | | | | | | | | | | |
| 96 | Monday Creek | 20 | % | 10 | 30 | 35 | 20 | - | | | | | | | | | | | | | | | | | | | | Upper section of creek marsh; dominated by meadow with cordgrass fringe along channels; grades upstream to saltbush. | II | |
| | | | acres | 2.0 | 6.0 | 7.0 | 4.0 | - | | | | | | | | | | | | | | | | | | | | | | |
| 97 | Maryus | 30 | % | 10 | - | 50 | 5 | 10 | | | | | | | | | | | | | | | | | | | | Large meadow area dominated by saltgrass extends behind zone of cordgrass; saltbush and needlerush found bordering creek. | II | |
| | | | acres | 3.0 | - | 15.0 | 1.5 | 3.0 | | | | | | | | | | | | | | | | | | | | | | |
| 98 | Monday Creek | 13 | % | 45 | 10 | 20 | 5 | 15 | | | | | | | | | | | | | | | | | | | | Marsh fringe along diked saltmeadow areas; region beyond dikes flooded only during storm tides. | XII | |
| | | | acres | 5.8 | 1.3 | 2.6 | 0.6 | 2.0 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucester Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney | Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|-------|-------------|-----------------|--------------|---------------|--|--|------------|
| 99 | Guinea Marshes | 1 | % | 95 | | | | | | | | | | | 3 | - | 2 | - | | | | | | | | | | | Marsh island at low elevation; dominated by cordgrass. | I |
| | | | acres | 0.95 | | | | | | | | | | | | | 0.03 | - | 0.02 | - | | | | | | | | | | |
| 100 | Guinea Marshes | 3 | % | 40 | 10 | 5 | 30 | 2 | | | | | | | 5 | 2 | 1 | 1 | 2 | | | | | | | | | | Marsh island; erosion along York River side. | XII |
| | | | acres | 1.2 | 0.3 | 0.2 | 0.9 | 0.1 | | | | | | | | | 0.2 | 0.1 | - | - | 0.1 | | | | | | | | | |
| 101 | Big Island | 160 | % | 70 | 5 | 5 | 5 | 5 | | | | | | | 2 | 1 | 3 | 1 | 3 | | | | | | | | | | Large marsh island dominated by low marsh; small area of island is upland with several houses and numerous pine trees. | I |
| | | | acres | 112.0 | 8.0 | 8.0 | 8.0 | 8.0 | | | | | | | | | 3.2 | 1.6 | 4.8 | 1.6 | 4.8 | | | | | | | | | |
| 102 | Guinea Marshes | 3 | % | 85 | 5 | 5 | 2 | | | | | | | | - | - | - | | 3 | | | | | | | | | | Several small patches of marsh grass scattered along mudflat. | I |
| | | | acres | 2.6 | 0.2 | 0.2 | 0.1 | | | | | | | | | | - | - | - | | 0.1 | | | | | | | | | |
| 103 | Guinea Marshes | 21 | % | 55 | 15 | 20 | 5 | - | - | | | | | | 3 | - | - | | 2 | | | | | | | | 1,- | Marsh island; mostly low marsh with areas of meadow and saltbushes. | I | |
| | | | acres | 11.6 | 3.2 | 4.2 | 1.0 | - | - | | | | | | | | 0.6 | - | - | | 0.4 | | | | | | | 1,- | | |
| 104 | Guinea Marshes | 5 | % | 70 | 5 | 10 | 5 | | 1 | | | | | | 2 | - | - | | 2 | | | | | | | | 1,5 | Marsh island surrounded by tidal mudflat; orach sprawling around saltbushes. | I | |
| | | | acres | 3.5 | 0.2 | 0.5 | 0.2 | | - | | | | | | | | 0.1 | - | - | | 0.1 | | | | | | | 1,0.2 | | |
| 105 | Guinea Marshes | 3 | % | 70 | 2 | 2 | 15 | | | | | | | | 5 | - | - | | 1 | | | | | | | | 1,5 | Marsh island; erosion along exposed, eastern edge; saltbushes along this side. | I | |
| | | | acres | 2.1 | 0.1 | 0.1 | 0.4 | | | | | | | | | | 0.2 | - | - | | - | | | | | | | 1,0.2 | | |
| 106 | Guinea Marshes | 8 | % | 80 | 1 | 1 | 10 | | | | | | | | 3 | - | | | 2 | | | | | | | | 1,3 | Marsh island; erosion along exposed, eastern edge. | I | |
| | | | acres | 6.4 | 0.1 | 0.1 | 0.8 | | | | | | | | | | 0.2 | - | | | 0.2 | | | | | | | 1,0.2 | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucestter Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickeralweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|----------------------------|----------------------|-----------------|--------------|---------------|--|---|------------|
| 107 | Guinea Marshes | 10 | % | 45 | 20 | 10 | 20 | | | | | | | | 2 | - | 1 | | 2 | | | | | | | | | Marsh island; interior dominated by meadow and short-form cordgrass; ridge of saltbush. | XII |
| | | | acres | 4.5 | 2.0 | 1.0 | 2.0 | | | | | | | | | | 0.2 | - | 0.1 | | 0.2 | | | | | | | | |
| 108 | Guinea Marshes | 8 | % | 60 | 10 | 10 | 15 | | | | | | | | 2 | - | 1 | | 2 | | | | | | | | | Marsh island; interior dominated by high marsh; cordgrass borders along water. | I |
| | | | acres | 4.8 | 0.8 | 0.8 | 1.2 | | | | | | | | | | 0.2 | - | 0.1 | | 0.2 | | | | | | | | |
| 109 | Guinea Marshes | 33 | % | 55 | 10 | 10 | 5 | 15 | - | | | | | | - | 2 | - | 2 | - | 1 | | | | | | i,- | Extensive marsh; small upland ridge in eastern section with pine, myrtle, cedar. | I | |
| | | | acres | 18.2 | 3.3 | 3.3 | 1.6 | 5.0 | - | | | | | | | | - | 0.7 | - | 0.7 | - | 0.3 | | | | | i,- | | |
| 110 | Guinea Marshes | 69 | % | 40 | 5 | 20 | 5 | 25 | - | | | | | | 2 | - | 2 | - | 1 | | | | | | | | Extensive marsh; western portion is dominated by saltgrass and borders along diked areas and pine woods. | XII | |
| | | | acres | 27.6 | 3.4 | 13.8 | 3.4 | 7.2 | - | | | | | | | | 1.4 | - | 1.4 | - | 0.7 | | | | | | | | |
| 111 | Guinea Marshes | 84 | % | 35 | 10 | 10 | 10 | 30 | - | | | | | | - | - | 1 | 1 | 2 | 1 | | | | | | | Extensive marsh; western edge borders diked or filled areas; crossed by road. | XII | |
| | | | acres | 29.4 | 8.4 | 8.4 | 8.4 | 25.2 | - | | | | | | | | - | - | 0.8 | 0.8 | 1.7 | 0.8 | | | | | | | |
| 112 | Guinea Marshes | 56 | % | 75 | 10 | 5 | 2 | 3 | - | | | | | | 2 | - | 1 | - | 2 | | | | | | | | Extensive marsh; extends westward to small upland area of pine, cedar, etc. | I | |
| | | | acres | 42.0 | 5.6 | 2.8 | 1.1 | 1.7 | - | | | | | | | | 1.1 | - | 0.6 | - | 1.1 | | | | | | | | |
| 113 | Guinea Marshes | 12 | % | 30 | 10 | 15 | 5 | 30 | - | | | | | | - | 5 | - | - | 5 | | | | | | | | Extensive marsh surrounded by pine woods, diked areas, and roads built on fill. | XII | |
| | | | acres | 3.6 | 1.2 | 1.8 | 0.6 | 3.6 | - | | | | | | | | - | 0.6 | - | - | 0.6 | | | | | | | | |
| 114 | Guinea Marshes | 58 | % | 70 | 5 | 15 | 5 | 2 | - | | | | | | 1 | - | 1 | - | 1 | | | | | | | | Extensive marsh island; ridge of saltbushes and meadow along eastern edge. | I | |
| | | | acres | 40.6 | 2.9 | 8.7 | 2.9 | 1.2 | - | | | | | | | | 0.6 | - | 0.6 | - | 0.6 | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucesterc Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | | |
|-----|-----------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|--------------|------------|----------|--------------|------------|------------------------|-------------------|--------------|---|---|-------|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | | | Saltwort | Marsh Mallow | Smartweeds | Pickrelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 115 | Guinea Marshes | 50 | % | 55 | 10 | 10 | 5 | 15 | | | | | - | 1 | - | 1 | - | 3 | | | | | | | | | | Extensive marsh; erosion along eastern edge; western border partially diked; some diked areas reclaimed by marsh. | I |
| | | | acres | 27.5 | 5.0 | 5.0 | 2.5 | 7.5 | | | | | | | - | 0.5 | - | 0.5 | - | 1.5 | | | | | | | | | |
| 116 | Guinea Marshes | 88 | % | 60 | 5 | 20 | 10 | 1 | | | | | | 2 | - | 1 | - | 1 | | | | | | | | | Extensive marsh; ridge of saltbush and meadow along eastern edge. | I | |
| | | | acres | 52.8 | 4.4 | 17.6 | 8.8 | 0.9 | | | | | | | | 1.8 | - | 0.9 | - | 0.9 | | | | | | | | | |
| 117 | John West Creek | 78 | % | 35 | 10 | 15 | 3 | 30 | | | | | | - | 2 | 1 | 2 | - | 2 | | | | | | | | Extensive marsh; western edge borders diked or filled areas of pine and switch grass. | XII | |
| | | | acres | 27.3 | 7.8 | 11.7 | 2.3 | 23.4 | | | | | | | | - | 1.6 | 0.8 | 1.6 | - | 1.6 | | | | | | | | |
| 118 | Blevins Creek | 25 | % | 30 | 15 | 10 | 10 | 30 | | | | | | 1 | - | 2 | 1 | 1 | - | | | | | | | | Lower section of creek marsh; two channels are separated by high marsh and areas of switch grass and pine. | XII | |
| | | | acres | 7.5 | 3.8 | 2.5 | 2.5 | 7.5 | | | | | | | | 0.2 | - | 0.5 | 0.2 | 0.2 | - | | | | | | | | |
| 119 | Blevins Creek | 7 | % | 20 | 25 | 20 | 10 | 15 | | | | | | 2 | 2 | 1 | 1 | 2 | 2 | | | | | | | | Middle section of creek marsh; cordgrass along channel; high marsh along uplands. | XII | |
| | | | acres | 1.4 | 1.8 | 1.4 | 0.7 | 1.0 | | | | | | | | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | | | | | | | |
| 120 | Blevins Creek | 11 | % | 20 | 30 | 20 | 5 | 5 | | | | | | 5 | 2 | 3 | 5 | 5 | - | | | | | | | | Upper portion of creek marsh; tidal flushing somewhat restricted by road; marsh surrounded by large amount of switch grass. | II | |
| | | | acres | 2.2 | 3.3 | 2.2 | 0.6 | 0.6 | | | | | | | | 0.6 | 0.2 | 0.3 | 0.6 | 0.6 | - | | | | | | | | |
| 121 | Blevins Creek | 4 | % | 15 | 10 | 10 | 60 | - | | | | | | - | 5 | - | - | - | | | | | | | | | Pocket marsh dominated by saltbushes; extends to above Route 652. | IV | |
| | | | acres | 0.6 | 0.4 | 0.4 | 2.4 | - | | | | | | | | - | 0.2 | - | - | - | | | | | | | | | |
| 122 | Blevins Creek | 3 | % | 10 | 10 | 10 | 60 | | | | | | | - | 5 | - | 1 | 1 | 3 | | | | | | | | Pocket marsh dominated by saltbushes. | IV | |
| | | | acres | 0.3 | 0.3 | 0.3 | 1.8 | | | | | | | | | - | 0.2 | - | - | - | 0.1 | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section III. York River-Gloucester Point to Guinea Marshes
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-------------------|-----------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|------------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|-------|---|------------|
| 123 | Blevins Creek | 14 | % | 30 | 15 | 15 | 10 | 25 | | - | | | | 2 | - | 1 | 1 | 1 | - | | | | | | | | | Creek marsh; upstream section extends along diked area and crossed by road. | XII |
| | | | acres | 4.2 | 2.1 | 2.1 | 1.4 | 3.5 | | - | | | | | | 0.3 | - | 0.1 | 0.1 | 0.1 | - | | | | | | | | |
| 124 | Blevins Creek | 5 | % | 15 | 15 | 20 | 10 | 20 | | - | | | | 10 | - | 1 | 2 | 2 | 5 | | | | | | | | | Creek marsh; surrounded by diked or filled areas. | XII |
| | | | acres | 0.8 | 0.8 | 1.0 | 0.5 | 1.0 | | - | | | | | | 0.5 | - | - | 0.1 | 0.1 | 0.2 | | | | | | | | |
| 125 | Blevins Creek | 5 | % | 10 | 10 | 5 | 70 | - | | | | | | 2 | - | 1 | - | 2 | | | | | | | | | | Upper portion of creek marsh; dominated by saltbush. | IV |
| | | | acres | 0.5 | 0.5 | 0.2 | 3.5 | - | | | | | | | | 0.1 | - | - | - | 0.1 | | | | | | | | | |
| 126 | Blevins Creek | 22 | % | 35 | 10 | 10 | 15 | 25 | | | | | | - | 1 | - | 2 | - | 2 | | | | | | | | | Western border of marsh extends along diked area containing meadow, sea oxeeye, saltwort. | XII |
| | | | acres | 7.7 | 2.2 | 2.2 | 3.3 | 5.5 | | | | | | | | - | 0.2 | - | 0.4 | - | 0.4 | | | | | | | | |
| 127 | Blevins Creek | 41 | % | 40 | 10 | 10 | 10 | 25 | | - | | | | - | 1 | 1 | 1 | 2 | - | | | | | | | | | Extensive marsh; contains several upland areas of pine, switch grass, etc. | XII |
| | | | acres | 16.4 | 4.1 | 4.1 | 4.1 | 10.2 | | - | | | | | | - | 0.4 | 0.4 | 0.4 | 0.8 | - | | | | | | | | |
| 128 | John West Creek | 33 | % | 25 | 5 | 15 | 10 | 40 | | | | | | - | - | 1 | 1 | 2 | 1 | | | | | | | | | Extends between two upland areas of pine, holly, cedar and saltbushes. | XII |
| | | | acres | 8.2 | 1.6 | 5.0 | 3.3 | 13.2 | | | | | | | | - | - | 0.3 | 0.3 | 0.7 | 0.3 | | | | | | | | |
| 129 | John West Creek | 22 | % | 25 | 15 | 20 | 15 | 20 | | - | | | | - | - | 1 | 1 | 2 | 1 | | | | | | | | | Extensive marsh with large areas of needlerush and meadow. | XII |
| | | | acres | 5.5 | 3.3 | 4.4 | 3.3 | 4.4 | | - | | | | | | - | - | 0.2 | 0.2 | 0.4 | 0.2 | | | | | | | | |
| Total Section III | 1297. | % | 48 | 10 | 14 | 8 | 15 | - | - | - | - | - | - | - | 1 | 1 | 1 | 1 | 2 | - | | | | | | | i,- | | |
| | | acres | 18.1 | 123.3 | 185.4 | 99.6 | 196.1 | - | - | - | - | - | - | - | 6.2 | 17.7 | 8.3 | 17.5 | 12.1 | 24.4 | - | | | | | | | i,0.6 | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

SECTION IV

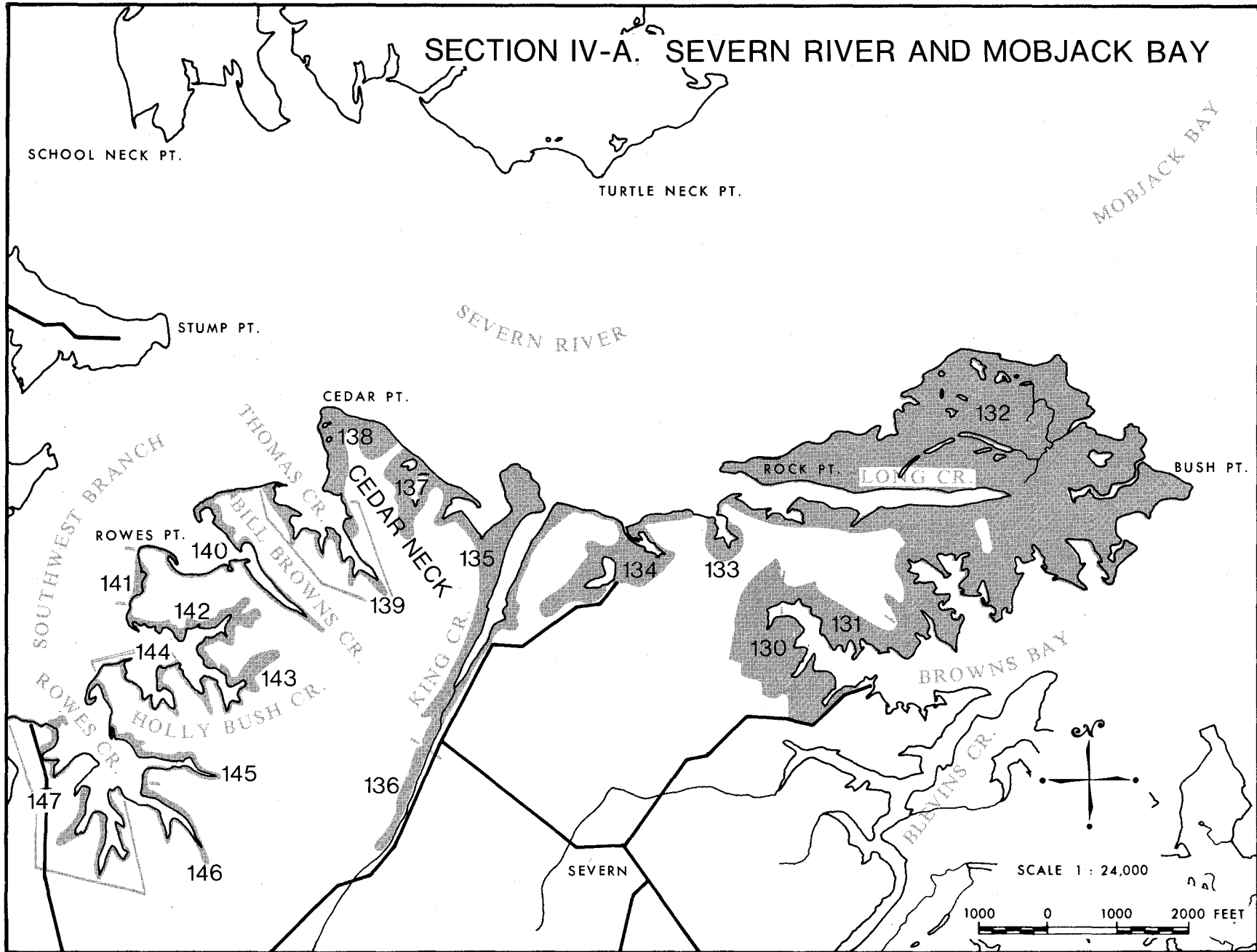
Severn River and Mobjack Bay

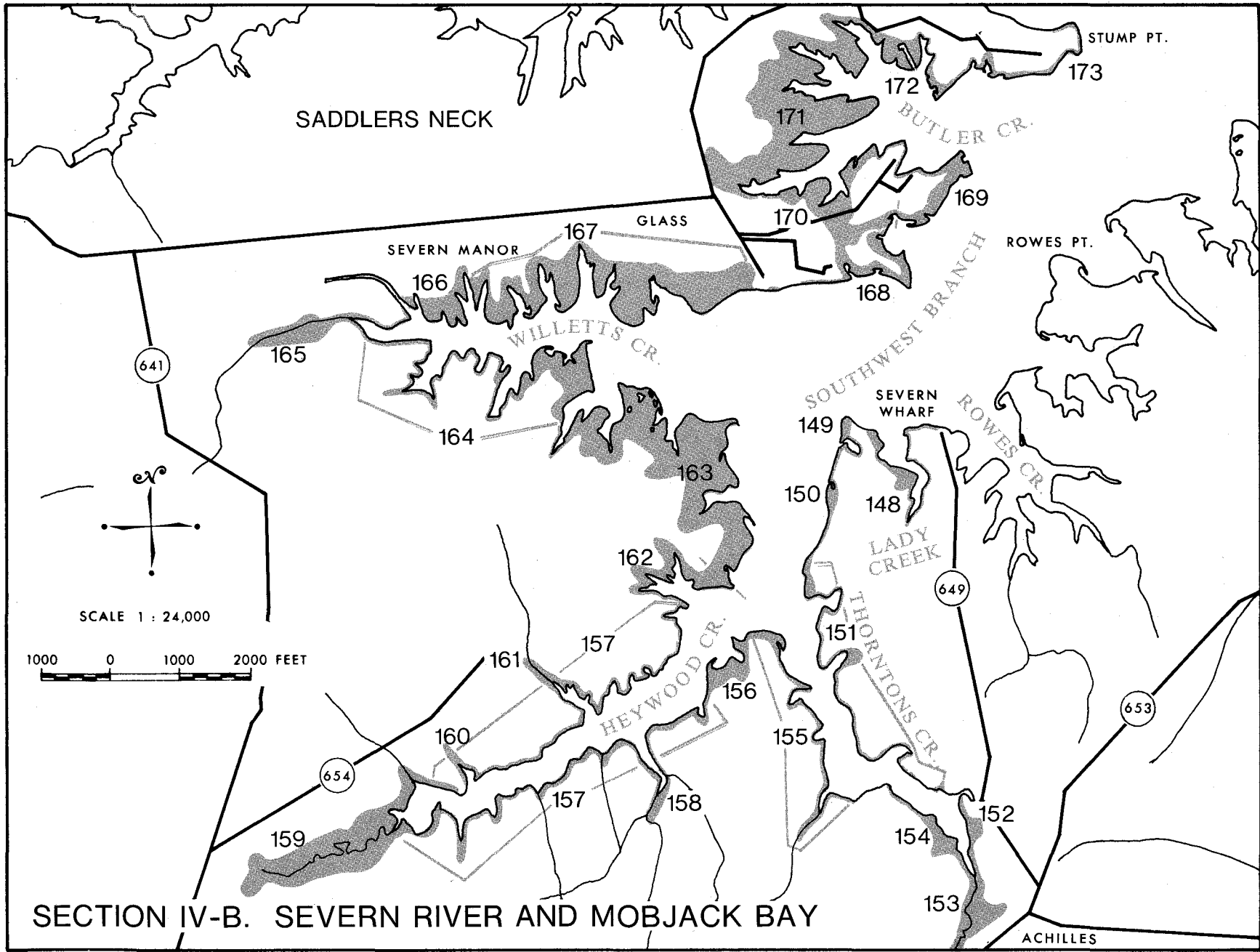
This section of Gloucester County shoreline is presented in four map plates (A,B,C,D) and includes numerous fringing and pocket marshes contained within the Severn River and its numerous branches and connecting creeks. It includes, as well, several areas of broad, extensive marsh which border on Mobjack Bay immediately north and south of the mouth of the Severn River.

Many of the marshes in this section are dominated by saltmarsh cordgrass (Type I) but there are also significant areas of saltmeadow hay, saltgrass, black needlerush, big cordgrass and saltbush (Types II, IV, V, XII). Almost always present are associated species such as sea oxeye, saltmarsh aster and sea lavender. Because of the broad nature of the many creeks in this section combined with limited fresh-water runoff, these brackish water plants are found throughout the length of the Severn River and its tributaries.

The fringing marshes found along much of the Severn River shoreline have many valuable attributes. They help protect the fastlands from erosion, especially where boat traffic is high. They help trap sediment from the uplands and serve as habitat for numerous waterfowl, shellfish, crabs, snails, and small fish. The broad marsh areas found near the mouth of the Severn, as well as the numerous embayed marsh areas, are also excellent wildlife habitats and in addition their significant annual production of organic matter help maintain high productivity in this river system.

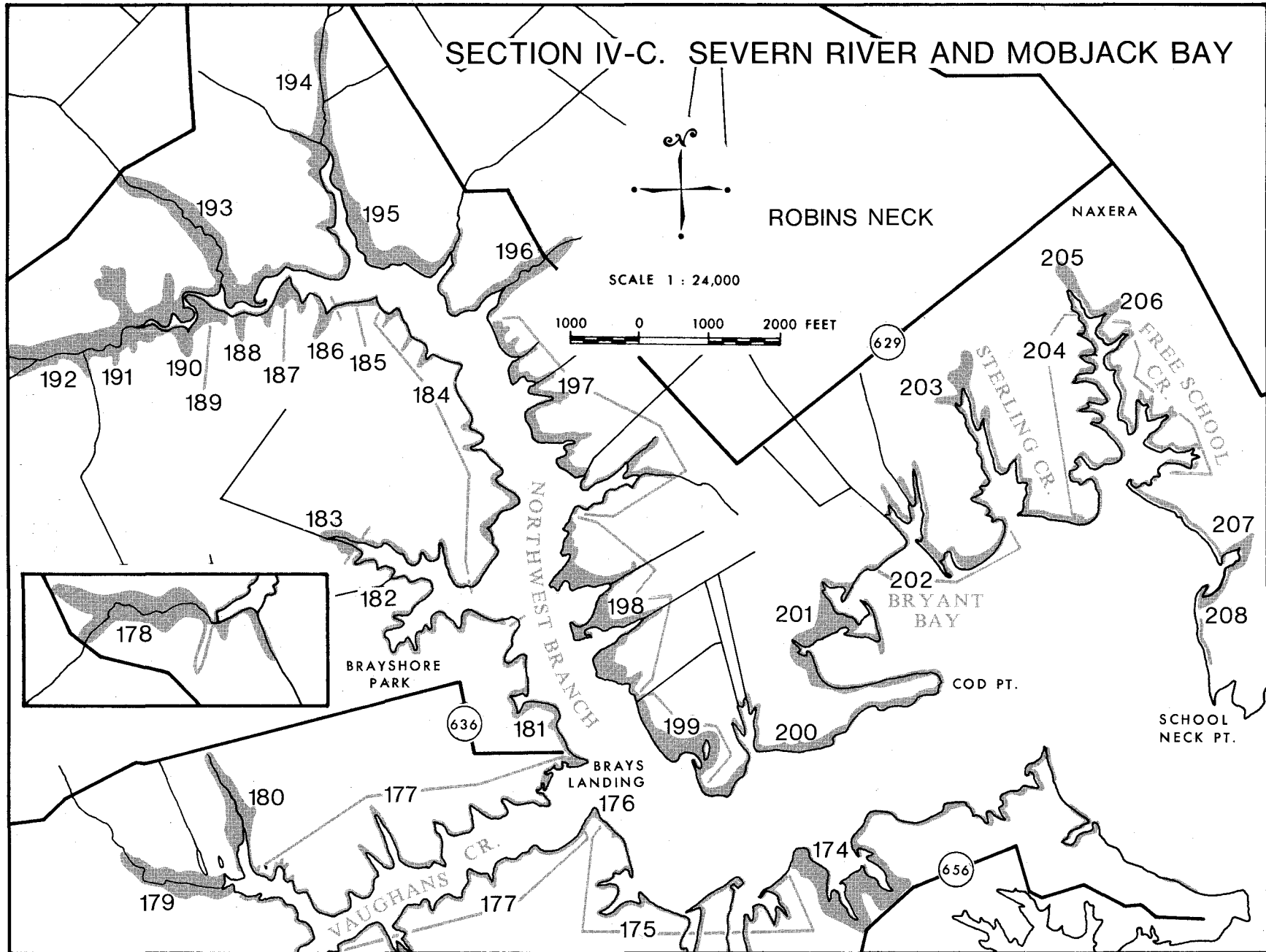
SECTION IV-A. SEVERN RIVER AND MOBJACK BAY



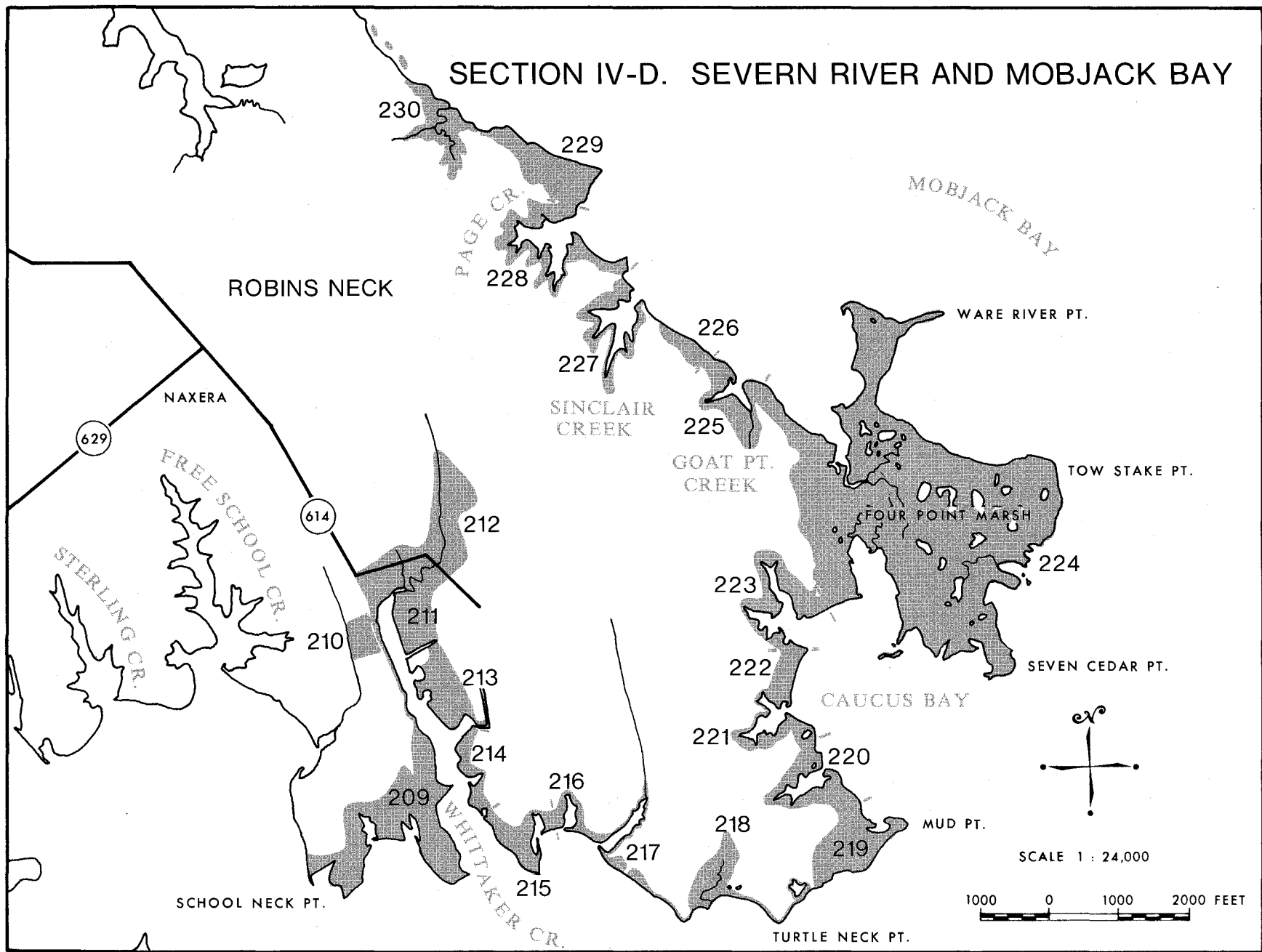


SECTION IV-B. SEVERN RIVER AND MOBJACK BAY

SECTION IV-C. SEVERN RIVER AND MOBJACK BAY



SECTION IV-D. SEVERN RIVER AND MOBJACK BAY



Section IV. Severn River and Mobjack Bay

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | | |
|-----|----------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|-------------------------|-------------------|--------------|-----------|------------|--|-----|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickeralweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 130 | Browns Bay | 33 | % | 30 | 10 | 15 | 5 | 30 | | | | | | | | | | | | | | | | | | | | Creek marsh; marsh is encroaching on pine woods to the west and diked areas to the north. | XII |
| | | | acres | 9.9 | 3.3 | 5.0 | 1.6 | 9.9 | | | | | | 1 | - | 3 | 2 | 1 | 3 | | | | | | | | | | |
| 131 | Browns Bay | 20 | % | 40 | 10 | 15 | 5 | 20 | | | | | | | | | | | | | | | | | | | | Creek marsh; borders along pine woods and also diked areas that are overgrown with switch grass. | XII |
| | | | acres | 8.0 | 2.0 | 3.0 | 1.0 | 4.0 | | | | | | 1 | 1 | 4 | 1 | 1 | 2 | | | | | | | | | | |
| 132 | Long Creek | 267 | % | 40 | 10 | 20 | 5 | 20 | | | | | | | | | | | | | | | | | | | | Extensive marsh; ridge of salt bush and sea oxeye along eastern shoreline; interior dominated by low marsh & meadow areas. | XII |
| | | | acres | 106.8 | 26.7 | 53.4 | 13.4 | 53.4 | | | | | | 2 | - | - | 1 | 2 | | | | | | | | | | | |
| 133 | Severn River | 3 | % | 40 | 10 | 5 | 10 | 30 | | | | | | | | | | | | | | | | | | | | Small cove and marsh fringe along diked and filled areas. | XII |
| | | | acres | 1.2 | 0.3 | 0.2 | 0.3 | 0.9 | | | | | | - | - | 2 | 1 | 2 | - | | | | | | | | | | |
| 134 | Severn River | 20 | % | 45 | 10 | 10 | 10 | 20 | | | | | | | | | | | | | | | | | | | | Creek marsh; road borders along south side; meadow dominated, upper portion surrounds large pond area. | XII |
| | | | acres | 9.0 | 2.0 | 2.0 | 2.0 | 4.0 | | | | | | - | - | 1 | 1 | 2 | 1 | | | | | | | | | | |
| 135 | King Creek | 33 | % | 40 | 10 | 15 | 5 | 20 | | | | | | | | | | | | | | | | | | | | Long, narrow creek marsh; extends upstream to road; peninsula of marsh in lower portion has isolated area of pine trees. | XII |
| | | | acres | 13.2 | 3.3 | 5.0 | 1.6 | 6.6 | | | | | | - | - | - | - | 1 | 2 | 2 | 5 | | | | | | | | |
| 136 | King Creek | 3 | % | 50 | 15 | 20 | 15 | - | | | | | | | | | | | | | | | | | | | | Upper portion of creek marsh; connected to lower portion via culvert under road. | I |
| | | | acres | 1.5 | 0.4 | 0.6 | 0.4 | - | | | | | | - | - | - | - | - | - | - | | | | | | | | | |
| 137 | Cedar Neck | 7 | % | 30 | 10 | 20 | 20 | 20 | | | | | | | | | | | | | | | | | | | | Cove marsh; cordgrass and needlerush zones along water; grades to high marsh of meadow and saltbush. | XII |
| | | | acres | 2.1 | 0.7 | 1.4 | 1.4 | 1.4 | | | | | | - | - | - | - | - | - | - | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|-------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|--------------------------|-------------------|--------------|---|--|-------|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 138 | Cedar Neck | 16 | % | 15 | 20 | 20 | 20 | 20 | | | | | | | 3 | 1 | 1 | - | | | | | | | | | | Broad marsh fringe; cordgrass in several isolated areas surrounded by high marsh; sand berm with saltbushes along eastern shoreline. | XII |
| | | | acres | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | | | | | | | | 0.5 | 0.2 | 0.2 | - | | | | | | | | | | |
| 139 | Thomas Creek | 4 | % | 45 | 15 | 10 | 15 | 15 | | | | | | | | | | | | | | | | | | | Pocket marsh at head of creek; lower portion of creek has fringe of cordgrass with high marsh behind. | XII | |
| | | | acres | 1.8 | 0.6 | 0.4 | 0.6 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 140 | Bill Browns Creek | 6 | % | 55 | 10 | 10 | 5 | 20 | | | | | | | | | | | | | | | | | | | Creek has pocket marsh of cordgrass at head; lower portion has fringe of cordgrass in front of high marsh. | I | |
| | | | acres | 3.3 | 0.6 | 0.6 | 0.3 | 1.2 | | | | | | | | | | | | | | | | | | | | | |
| 141 | Rowes Point | 2 | % | 50 | 5 | 10 | 5 | 30 | | | | | | | | | | | | | | | | | | | Fringe and pocket marsh; sand berm with saltbushes almost completely across front of marsh. | I | |
| | | | acres | 1.0 | 0.1 | 0.2 | 0.1 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 142 | Holly Bush Creek | 2 | % | 60 | 10 | 10 | 5 | 15 | | | | | | | | | | | | | | | | | | | Several small pockets of cordgrass with narrow fringe along northeast branch of creek. | I | |
| | | | acres | 1.2 | 0.2 | 0.2 | 0.1 | 0.3 | | | | | | | | | | | | | | | | | | | | | |
| 143 | Holly Bush Creek | 4 | % | 40 | 10 | 20 | 5 | 25 | | | | | | | | | | | | | | | | | | | Several pockets of marsh and marsh fringe along central branch of creek; largest pocket grades upstream to meadow area. | XII | |
| | | | acres | 1.6 | 0.4 | 0.8 | 0.2 | 1.0 | | | | | | | | | | | | | | | | | | | | | |
| 144 | Holly Bush Creek | 2 | % | 40 | 10 | 10 | 15 | 25 | | | | | | | | | | | | | | | | | | | Marsh fringe along both sides of lower creek shoreline; two small marsh spits at mouth. | XII | |
| | | | acres | 0.8 | 0.2 | 0.2 | 0.3 | 0.5 | | | | | | | | | | | | | | | | | | | | | |
| 145 | Rowes Creek | 3 | % | 60 | 5 | 5 | 10 | 20 | | | | | | | | | | | | | | | | | | | Pocket marsh and marsh fringe along left branch of creek. | I | |
| | | | acres | 1.8 | 0.2 | 0.2 | 0.3 | 0.6 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|-------------------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|-----------------------|-------------------|--------------|-----------|---|--|---|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 146 | Rowes Creek | 2 | % | 80 | 5 | - | 10 | 5 | | | | | | | | | | | | | | | | | | | | Two pocket marshes and marsh fringe along central branch of creek. | I |
| | | | acres | 1.6 | 0.1 | - | 0.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| 147 | Rowes Creek | 2 | % | 80 | 10 | - | 10 | - | | | | | | | | | | | | | | | | | | | Pocket marshes and marsh fringe along right branch of creek. | I | |
| | | | acres | 1.6 | 0.2 | - | 0.2 | - | | | | | | | | | | | | | | | | | | | | | |
| 148 | Lady Creek | 2 | % | 80 | 5 | 5 | 5 | 5 | | | | | | | | | | | | | | | | | | | Several pocket marshes and marsh fringe along shoreline; area along eastern shore of creek has been filled. | I | |
| | | | acres | 1.6 | 0.1 | 0.1 | 0.1 | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| 149 | Southwest Branch Severn | 1 | % | 80 | 5 | 5 | 5 | 5 | | | | | | | | | | | | | | | | | | | Marsh fringe at point and around cove shoreline; erosion evident east of point. | I | |
| | | | acres | 0.80 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | | | | | | | | |
| 150 | Southwest Branch Severn | 1 | % | 60 | 5 | 10 | 5 | 20 | | | | | | | | | | | | | | | | | | | Fringe marsh; extends around pond; grades from cordgrass to high marsh. | I | |
| | | | acres | 0.60 | 0.05 | 0.10 | 0.05 | 0.20 | | | | | | | | | | | | | | | | | | | | | |
| 151 | Thorntons Creek | 4 | % | 70 | 5 | 5 | 5 | 15 | | | | | | | | | | | | | | | | | | | Marsh fringe along eastern shoreline of creek; several pocket marsh areas. | I | |
| | | | acres | 2.8 | 0.2 | 0.2 | 0.2 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 152 | Thorntons Creek | 2 | % | 15 | 30 | 10 | 5 | 40 | | | | | | | | | | | | | | | | | | | Small pocket marsh dominated by high marsh species. | XII | |
| | | | acres | 0.3 | 0.6 | 0.2 | 0.1 | 0.8 | | | | | | | | | | | | | | | | | | | | | |
| 153 | Thorntons Creek | 7 | % | 30 | 25 | 20 | 15 | 5 | | | | | | | | | | | | | | | | | | | Pocket marsh at head of creek; dominated by high marsh. | XII | |
| | | | acres | 2.1 | 1.8 | 1.4 | 1.0 | 0.4 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type | |
|-----|--------------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|--------------------------|----------------------|-----------------|--------------|---------------|-------|---|--|-----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | % |
| 154 | Thorntons Creek | 5 | % | 20 | 20 | 10 | 10 | 35 | | | | | | - | 1 | 1 | 1 | 2 | - | | | | | | | | | | Fringe marsh; high marsh species dominate. | XII |
| | | | acres | 1.0 | 1.0 | 0.5 | 0.5 | 1.8 | | | | | | | | - | - | - | - | 0.1 | - | | | | | | | | | |
| 155 | Thorntons Creek | 2 | % | 40 | 20 | 5 | 20 | 10 | | | - | | | 1 | 1 | 1 | 1 | 1 | - | - | | | | | | | | | Long marsh fringe along western side of creek; includes several marsh pockets and marsh spits. | XII |
| | | | acres | 0.8 | 0.4 | 0.1 | 0.4 | 0.2 | | | | | | | | - | - | - | - | - | - | | | | | | | | | |
| 156 | Heywood Creek | 6 | % | 35 | 15 | 15 | 20 | 10 | | | | | | | - | - | 3 | 1 | 1 | | | | | | | | | Broad, fringing marsh; salt-bushes and meadow along uplands; cordgrass along water. | XII | |
| | | | acres | 2.1 | 0.9 | 0.9 | 1.2 | 0.6 | | | | | | | | | | | 0.2 | 0.1 | 0.1 | | | | | | | | | |
| 157 | Heywood Creek | 2 | % | 85 | 5 | - | 10 | - | | | - | | | | | - | - | - | - | | | | | | | | | Narrow marsh fringe 2-10 ft. wide along Heywood Creek shoreline. | I | |
| | | | acres | 1.7 | 0.1 | - | 0.2 | - | | | | | | | | | | | | | | | | | | | | | | |
| 158 | Heywood Creek | 1 | % | 85 | 5 | 5 | 5 | | | | - | | | | - | - | - | - | - | | | | | | | | | Small pocket marsh at head of creek branch. | I | |
| | | | acres | 0.85 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | | | | | | | | | | |
| 159 | Heywood Creek | 21 | % | 15 | 25 | 35 | 10 | 10 | | | 3 | | | | - | - | 1 | 1 | - | | | | | | | | | Large pocket marsh; dominated by high marsh with cordgrass fringe along creek channels. | II | |
| | | | acres | 3.2 | 5.2 | 7.4 | 2.1 | 2.1 | | | | | 0.6 | | | | | | 0.2 | 0.2 | | | | | | | | | | |
| 160 | Heywood Creek | 1 | % | 60 | 10 | 5 | 25 | | | | - | | | | - | - | - | - | - | | | | | | | | | Small pocket marsh; dominated by cordgrass. | I | |
| | | | acres | 0.60 | 0.10 | 0.05 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | |
| 161 | Heywood Creek | 2 | % | 70 | 10 | 5 | 10 | 5 | | | - | | | | - | - | - | - | - | | | | | | | | | Pocket marsh; dominated by cordgrass. | I | |
| | | | acres | 1.4 | 0.2 | 0.1 | 0.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | |
|-----|--------------------|-------------|------------------------|-------------------|-----------|------------|---------------------|---------------|----------------------|----------|------------|-------------------|--------------|--------------------|------------|-----------------|---------------------------|----------|--------------|--------------|------------|------------|-----------------------------|----------------------|-----------------|---|--|-------|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 162 | Heywood Creek | 7 | % | 40 | 5 | 5 | 10 | 40 | | | | | | | | | | | | | | | | | | | Cove marsh with several pockets dominated by needlerush. | XII |
| | | | acres | 2.8 | 0.4 | 0.4 | 0.7 | 2.8 | | | | | | | | | | | | | | | | | | | | |
| 163 | Heywood Creek | 50 | % | 50 | 10 | 10 | 3 | 25 | | | | | | | | | | | | | | | | | | | Broad marsh fringe extending between several shallow coves; interior dominated by needlerush and meadow. | I |
| | | | acres | 25.0 | 5.0 | 5.0 | 1.5 | 12.5 | | | | | | | | 0.5 | 0.5 | | | | | | | | | | | |
| 164 | Willettts Creek | 11 | % | 45 | 5 | 5 | 5 | 40 | | | | | | | | | | | | | | | | | | Fringe marsh; one section has been dredged with spoil placed on adjacent marsh area. | XII | |
| | | | acres | 5.0 | 0.6 | 0.6 | 0.6 | 4.4 | | | | | | | | | | | | | | | | | | | | |
| 165 | Willettts Creek | 9 | % | 20 | 35 | 30 | 15 | - | | | | | | | | | | | | | | | | | | Pocket marsh; cordgrass along channels; broad areas of meadow; pockets of cattails and bulrush. | II | |
| | | | acres | 1.8 | 3.2 | 2.7 | 1.4 | - | | | | | | | | | | | | | | | | | | | | |
| 166 | Willettts Creek | 7 | % | 20 | 5 | 5 | 5 | 20 | | | | | | | | | | | | | | | | | | Fringe marsh along indented shoreline; needlerush and cordgrass along water, switch grass dominates interior. | XII | |
| | | | acres | 1.4 | 0.4 | 0.4 | 0.4 | 1.4 | | | | | 45 | - | - | - | - | | | | | | | | | | | |
| 167 | Willettts Creek | 45 | % | 30 | 10 | 10 | 10 | 35 | | | | | | | | | | | | | | | | | | Fringe marsh; needlerush along creek; meadow areas along upland. | XII | |
| | | | acres | 13.5 | 4.5 | 4.5 | 4.5 | 15.8 | | | | | 5 | - | - | - | - | | | | | | | | | | | |
| 168 | Bar Neck | 12 | % | 25 | 15 | 15 | 10 | 35 | | | | | | | | | | | | | | | | | | Fringe marsh; grades to pocket of high marsh behind area of pine woods; needlerush dominant along water. | XII | |
| | | | acres | 3.0 | 1.8 | 1.8 | 1.2 | 4.2 | | | | | | | | | | | | | | | | | | | | |
| 169 | Bar Neck | 5 | % | 50 | 5 | - | 10 | 35 | | | | | | | | | | | | | | | | | | Fringe marsh; dominated by needlerush and saltmarsh cordgrass. | I | |
| | | | acres | 2.5 | 0.2 | - | 0.5 | 1.8 | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | | | |
|-----|-------------------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|-----------------------|-------------------|--------------|-----------|---|--|---|-----|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | | |
| 170 | Butler Creek | 9 | % | 40 | 10 | 5 | 10 | 35 | | | | | | | | | | | | | | | | | | | | | Fringe marsh; surrounds several shallow coves; separated from marsh #168 by road. | XII |
| | | | acres | 3.6 | 0.9 | 0.4 | 0.9 | 3.2 | | | | | | | | | | | | | | | | | | | | | | |
| 171 | Butler Creek | 53 | % | 25 | 10 | 10 | 10 | 40 | | | 5 | - | - | - | - | | | | | | | | | | | | | Extensive marsh fringe; borders along pine woods that are mixed with high marsh species. | XII | |
| | | | acres | 13.2 | 5.3 | 5.3 | 5.3 | 21.2 | | | | | 2.6 | - | - | - | - | | | | | | | | | | | | | |
| 172 | Butler Creek | 5 | % | 45 | 5 | 5 | - | 40 | | | 5 | - | - | - | - | | | | | | | | | | | | Fringe marsh; channel has been dredged through marsh with spoil deposited on adjacent marsh area. | XII | | |
| | | | acres | 2.2 | 0.2 | 0.2 | - | 2.0 | | | | | 0.2 | - | - | - | - | | | | | | | | | | | | | |
| 173 | Stump Point | 1 | % | 55 | - | - | - | 45 | | | | | | | | | | | | | | | | | | | Spit marsh; interior of spit has been highly disturbed through dredge and fill leaving only fringe; some erosion evident. | I | | |
| | | | acres | 0.6 | - | - | - | 0.4 | | | | | | | | | | | | | | | | | | | | | | |
| 174 | Northwest Branch Severn | 16 | % | 40 | 5 | 5 | 5 | 45 | | | - | - | - | - | - | | | | | | | | | | | | Broad marsh fringe; surrounds several small creeks and extends back to road. | XII | | |
| | | | acres | 6.4 | 0.8 | 0.8 | 0.8 | 7.2 | | | | | - | - | - | - | - | | | | | | | | | | | | | |
| 175 | Northwest Branch Severn | 2 | % | 40 | 10 | - | 10 | 40 | | | - | - | - | - | - | | | | | | | | | | | | Marsh fringe along several small coves; includes several small pocket marshes. | XII | | |
| | | | acres | 0.8 | 0.2 | - | 0.2 | 0.8 | | | | | - | - | - | - | - | | | | | | | | | | | | | |
| 176 | Northwest Branch Severn | 0.50 | % | 80 | 10 | - | - | 10 | | | - | - | - | - | - | | | | | | | | | | | | Spit marsh; dominated by cordgrass. | I | | |
| | | | acres | 0.40 | 0.05 | - | - | 0.05 | | | | | - | - | - | - | - | | | | | | | | | | | | | |
| 177 | Vaughans Creek | 7 | % | 50 | 5 | - | 15 | 30 | | | - | - | - | - | - | | | | | | | | | | | | Marsh fringe along both sides of creek. | I | | |
| | | | acres | 3.0 | 0.4 | - | 1.0 | 2.1 | | | | | - | - | - | - | - | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|-------------------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|--------------------------|-------------------|--------------|-----------|--|--|---|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 178 | Vaughans Creek | 11 | % | 50 | - | 10 | 40 | - | | | | | | | | | | | | | | | | | | | | Pocket marsh; lower section dominated by cordgrass; grades upstream to zone of saltbushes. | I |
| | | | acres | 5.5 | - | 1.1 | 4.4 | - | | | | | | | | | | | | | | | | | | | | | |
| 179 | Vaughans Creek | 10 | % | 40 | 5 | 20 | 30 | 5 | | | | | | | | | | | | | | | | | | | Pocket marsh; lower section mostly cordgrass and black needlerush; grades upstream to saltbush and saltgrass. | XII | |
| | | | acres | 4.0 | 0.5 | 2.0 | 3.0 | 0.5 | | | | | | | | | | | | | | | | | | | | | |
| 180 | Vaughans Creek | 8 | % | 60 | - | 10 | 30 | - | - | | | | | | | | | | | | | | | | | | Pocket marsh; lower section dominated by cordgrass; upstream section mostly saltbushes. | I | |
| | | | acres | 4.8 | - | 0.8 | 2.4 | - | - | | | | | | | | | | | | | | | | | | | | |
| 181 | Brays Point | 2 | % | 60 | 5 | - | 5 | 30 | | | | | | | | | | | | | | | | | | | Marsh fringe along shoreline dominated by cordgrass and needlerush, includes several small pocket marsh areas. | I | |
| | | | acres | 1.2 | 0.1 | - | 0.1 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 182 | Northwest Branch Severn | 1 | % | 40 | 10 | 5 | 20 | 25 | - | | | | | | | | | | | | | | | | | | Marsh fringe of cordgrass and needlerush along cove shoreline; small pockets with cordgrass, big cordgrass and saltbush. | XII | |
| | | | acres | 0.40 | 0.10 | 0.05 | 0.20 | 0.25 | - | | | | | | | | | | | | | | | | | | | | |
| 183 | Northwest Branch Severn | 3 | % | 55 | 15 | 20 | 10 | | | | | | | | | | | | | | | | | | | | Pocket marsh at head of cove branch; lower section of cordgrass, grades upstream to meadow and then saltbush zones. | I | |
| | | | acres | 1.6 | 0.4 | 0.6 | 0.3 | | | | | | | | | | | | | | | | | | | | | | |
| 184 | Northwest Branch Severn | 1 | % | 45 | 5 | - | 30 | 20 | - | | | | | | | | | | | | | | | | | | Marsh fringe along shoreline; includes several spit and pocket marsh areas. | XII | |
| | | | acres | 0.45 | 0.05 | - | 0.30 | 0.20 | - | | | | | | | | | | | | | | | | | | | | |
| 185 | Northwest Branch Severn | 0.25 | % | 20 | 10 | 5 | 30 | 30 | 5 | | | | | | | | | | | | | | | | | | Spit marsh; cordgrass along water; interior dominated by high marsh. | XII | |
| | | | acres | 0.05 | 0.02 | 0.01 | 0.08 | 0.08 | 0.01 | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|-------------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|-------|---|------------|
| 186 | Northwest Branch Severn | 0.50 | % | 45 | 5 | 5 | 20 | 5 | 20 | - | - | | | | | | | | | | | | | | | | | Small pocket marsh; interior of marsh is largely big cordgrass and saltbushes. | XII |
| | | | acres | 0.23 | 0.02 | 0.02 | 0.10 | 0.02 | 0.10 | - | - | | | | | | | | | | | | | | | | | | |
| 187 | Northwest Branch Severn | 2 | % | 25 | 30 | 30 | 10 | 5 | - | - | | | | | | | | | | | | | | | | | | Section of creek marsh; interior of marsh dominated by meadow. | II |
| | | | acres | 0.5 | 0.6 | 0.6 | 0.2 | 0.1 | - | - | | | | | | | | | | | | | | | | | | | |
| 188 | Northwest Branch Severn | 0.50 | % | 50 | 10 | 5 | 20 | 5 | 10 | | - | | | | | | | | | | | | | | | | | Small pocket marsh; dominated by cordgrass. | I |
| | | | acres | 0.25 | 0.05 | 0.02 | 0.10 | 0.02 | 0.05 | | | | | | | | | | | | | | | | | | | | |
| 189 | Northwest Branch Severn | 3 | % | 40 | 20 | 20 | 5 | 10 | 5 | - | | | | | | | | | | | | | | | | | | Creek marsh section; interior areas dominated by meadow; cordgrasses along channel. | XII |
| | | | acres | 1.2 | 0.6 | 0.6 | 0.2 | 0.3 | 0.2 | - | | | | | | | | | | | | | | | | | | | |
| 190 | Northwest Branch Severn | 1 | % | 15 | 25 | 10 | 30 | 5 | 15 | | - | | | | | | | | | | | | | | | | | Pocket marsh; grades from cordgrasses near mouth to saltbushes near head. | XII |
| | | | acres | 0.15 | 0.25 | 0.10 | 0.30 | 0.05 | 0.15 | | | | | | | | | | | | | | | | | | | | |
| 191 | Northwest Branch Severn | 25 | % | 15 | 25 | 25 | 20 | - | 15 | | - | | | | | | | | | | | | | | | | | Creek marsh; cordgrasses along channels; several large pocket areas grade to saltbush; large meadow areas throughout. | II |
| | | | acres | 3.8 | 6.2 | 6.2 | 5.0 | - | 3.8 | | | | | | | | | | | | | | | | | | | | |
| 192 | Northwest Branch Severn | 5 | % | 10 | - | 5 | 10 | | 75 | | - | | | | | | | | | | | | | | | | | Portion of creek marsh above road; dominated by big cordgrass with saltmarsh cordgrass along channel. | V |
| | | | acres | 0.5 | - | 0.2 | 0.5 | | 3.8 | | | | | | | | | | | | | | | | | | | | |
| 193 | Northwest Branch Severn | 17 | % | 20 | 20 | 20 | 25 | 5 | 10 | | - | | | | | | | | | | | | | | | | | Long pocket marsh; meadow areas with several salt pannes dominate lower portion; upper portion dominated by saltbushes and big cordgrass. | XII |
| | | | acres | 3.4 | 3.4 | 3.4 | 4.2 | 0.8 | 1.7 | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | |
|-----|-------------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|------------------------|-------------------|--------------|-----------|--------------|------------|--|---|-----|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Rimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickrelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | | | Jewel Weed | Other | |
| 194 | Northwest Branch Severn | 12 | % | 15 | 5 | 15 | 50 | - | 15 | | | | | | | | | | | | | | | | | | | | Long pocket marsh; grades to saltbushes in upper section. | IV |
| | | | acres | 1.8 | 0.6 | 1.8 | 6.0 | - | 1.8 | | | | | | | | | | | | | | | | | | | | | |
| 195 | Northwest Branch Severn | 6 | % | 30 | 15 | 25 | 20 | 5 | - | | | | 5 | - | - | - | - | | | | | | | | | | | | 10-15 ft. wide marsh fringes; switch grass and saltbushes in zone along upland. | XII |
| | | | acres | 1.8 | 0.9 | 1.5 | 1.2 | 0.3 | - | | | | | 0.3 | - | - | - | - | | | | | | | | | | | | |
| 196 | Northwest Branch Severn | 4 | % | 35 | 10 | 15 | 25 | 5 | 5 | | | | 5 | - | - | - | - | | | | | | | | | | | Pocket marsh; upper section of marsh crossed by road; this upper section is dominated by saltgrass and saltbushes. | XII | |
| | | | acres | 1.4 | 0.4 | 0.6 | 1.0 | 0.2 | 0.2 | | | | | 0.2 | - | - | - | - | | | | | | | | | | | | |
| 197 | Northwest Branch Severn | 5 | % | 45 | 5 | 10 | 10 | 30 | - | - | | | | | | | | | | | | | | | | | | 10-50 ft. wide marsh fringe including several pocket marsh areas. | XII | |
| | | | acres | 2.2 | 0.2 | 0.5 | 0.5 | 1.5 | - | - | | | | | | | | | | | | | | | | | | | | |
| 198 | Northwest Branch Severn | 15 | % | 30 | 20 | 10 | 10 | 30 | - | | | | | | | | | | | | | | | | | | | Three broad marshes extending out from uplands and surrounding several shallow coves. | XII | |
| | | | acres | 4.5 | 3.0 | 1.5 | 1.5 | 4.5 | - | | | | | | | | | | | | | | | | | | | | | |
| 199 | Northwest Branch Severn | 5 | % | 20 | 15 | 25 | 15 | 20 | - | | | | 5 | | | | | | | | | | | | | | | Cove marsh; grades from cordgrass and needlerush near water to meadow and saltbushes along upland. | XII | |
| | | | acres | 1.0 | 0.8 | 1.2 | 0.8 | 1.0 | - | | | | | 0.2 | | | | | | | | | | | | | | | | |
| 200 | Cod Point | 4 | % | 45 | 5 | 5 | 15 | 30 | | | | | | | | | | | | | | | | | | | | 10-30 ft. wide marsh fringe around cove and in front of a dike which extends around point. | XII | |
| | | | acres | 1.8 | 0.2 | 0.2 | 0.6 | 1.2 | | | | | | | | | | | | | | | | | | | | | | |
| 201 | Bryant Bay | 10 | % | 50 | 10 | 15 | 10 | 15 | | | | | | | | | | | | | | | | | | | | Broad marsh fringe; extends out to isolated island of pine. | I | |
| | | | acres | 5.0 | 1.0 | 1.5 | 1.0 | 1.5 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|-------------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|-------|---|------------|
| 202 | Bryant Bay | 7 | % | 20 | 20 | 25 | 15 | 15 | | | | | | 5 | - | - | - | - | | | | | | | | | | Broad marsh fringe; interior of marsh dominated by meadow. | XII |
| | | | acres | 1.4 | 1.4 | 1.8 | 1.0 | 1.0 | | | | | | | | 0.4 | - | - | - | - | | | | | | | | | |
| 203 | Sterling Creek | 3 | % | 80 | 5 | - | 15 | - | - | | | | | - | - | - | - | - | | | | | | | | | | 3-10 ft. wide fringe of cordgrass and saltbushes along both sides of creek; 2 acre pocket marsh at head. | I |
| | | | acres | 2.4 | 0.2 | - | 0.4 | - | - | | | | | | | - | - | - | - | - | | | | | | | | | |
| 204 | Free School Creek | 1 | % | 95 | - | - | 5 | - | | | | | | - | - | - | - | - | | | | | | | | | | 2-10 ft. wide cordgrass fringe along both sides of creek; cattails in several small pockets along shoreline. | I |
| | | | acres | 0.95 | - | - | 0.05 | - | - | | | | | | | - | - | - | - | - | | | | | | | | | |
| 205 | Free School Creek | 2 | % | 70 | 5 | - | 10 | 5 | | | | | | 10 | - | - | - | - | | | | | | | | | | Pocket marsh at head of creek; dominated by cordgrass. | I |
| | | | acres | 1.4 | 0.1 | - | 0.2 | 0.1 | | | | | | | | 0.2 | - | - | - | - | | | | | | | | | |
| 206 | Free School Creek | 0.25 | % | 80 | 5 | - | 15 | | | | | | | - | - | - | - | - | | | | | | | | | | Small pocket marsh; dominated by cordgrass. | I |
| | | | acres | 0.20 | 0.01 | - | 0.04 | | | | | | | | | - | - | - | - | - | | | | | | | | | |
| 207 | Northwest Branch Severn | 2 | % | 15 | 15 | 15 | 30 | 5 | | | | | | 20 | - | - | - | - | | | | | | | | | | High marsh fringe around small cove; grades to myrtle and pine woods. | XII |
| | | | acres | 0.3 | 0.3 | 0.3 | 0.6 | 0.1 | | | | | | | | 0.4 | - | - | - | - | | | | | | | | | |
| 208 | Northwest Branch Severn | 2 | % | 30 | 15 | 10 | 5 | 30 | | | | | | 10 | - | - | - | - | | | | | | | | | | Spit marsh; cordgrass fringe with interior of high marsh. | XII |
| | | | acres | 0.6 | 0.3 | 0.2 | 0.1 | 0.6 | | | | | | | | 0.2 | - | - | - | - | | | | | | | | | |
| 209 | School Neck Point | 48 | % | 40 | 15 | 20 | 5 | 15 | | | | | | - | - | 3 | 1 | 1 | - | - | | | | | | | | Extensive marsh; grades from cordgrass zone near water, through meadow area, to upland of switchgrass, myrtle and pine. | XII |
| | | | acres | 19.2 | 7.2 | 9.6 | 2.4 | 1.2 | | | | | | | | - | - | 1.4 | 0.5 | 0.5 | - | - | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | |
|-----|-----------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|------------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|------------|--------------|-----------|---|--|----|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | | | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 210 | Whittaker Creek | 5 | % | 5 | - | 95 | | | | | | | | | | | | | | | | | | | | | | High marsh area separated from creek by dirt road; tidal flushing through culvert under road; this marsh is regularly mowed. | II |
| | | | acres | 0.2 | - | 4.8 | | | | | | | | | | | | | | | | | | | | | | | |
| 211 | Whittaker Creek | 23 | % | 25 | 30 | 20 | 10 | 10 | | | | | | | | | | | | | | | | | | | Creek marsh dominated by meadow areas; bounded on three sides by roads and diked uplands. | II | |
| | | | acres | 5.8 | 6.9 | 4.6 | 2.3 | 2.3 | | | | | | | | | | | | | | | | | | | | | |
| 212 | Whittaker Creek | 20 | % | - | 10 | 40 | 40 | - | | | | | | | | | | | | | | | | | | | Extensive high marsh area above Rt. 614; dominated by zones of saltbushes and saltgrass; old dikes evident. | II | |
| | | | acres | - | 2.0 | 8.0 | 8.0 | - | | | | | | | | | | | | | | | | | | | | | |
| 213 | Whittaker Creek | 13 | % | 35 | 20 | 20 | 15 | 5 | | | | | | | | | | | | | | | | | | | Broad fringing marsh; bounded on the north by dredged canal and spoiled area; earthen dike on east. | XII | |
| | | | acres | 4.6 | 2.6 | 2.6 | 2.0 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 214 | Whittaker Creek | 5 | % | 30 | 10 | 10 | 20 | 30 | | | | | | | | | | | | | | | | | | | Fringing marsh; several dead-end, dredged canals and adjacent spoiled areas. | XII | |
| | | | acres | 1.5 | 0.5 | 0.5 | 1.0 | 1.5 | | | | | | | | | | | | | | | | | | | | | |
| 215 | Whittaker Creek | 10 | % | 60 | 5 | 15 | 5 | 15 | | | | | | | | | | | | | | | | | | | Large marsh spit at mouth of creek; dominated by cordgrass and needlerush. | I | |
| | | | acres | 6.0 | 0.5 | 1.5 | 0.5 | 1.5 | | | | | | | | | | | | | | | | | | | | | |
| 216 | Severn River | 4 | % | 25 | 10 | 20 | 15 | 30 | | | | | | | | | | | | | | | | | | | Cove marsh; large areas of needlerush and meadow behind cordgrass fringe. | XII | |
| | | | acres | 1.0 | 0.4 | 0.8 | 0.6 | 1.2 | | | | | | | | | | | | | | | | | | | | | |
| 217 | Severn River | 2 | % | 40 | 20 | 20 | 10 | 10 | | | | | | | | | | | | | | | | | | | Marsh fringe disturbed by dredged canal and adjacent spoiled areas. | XII | |
| | | | acres | 0.8 | 0.4 | 0.4 | 0.2 | 0.2 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section IV. Severn River and Mobjack Bay
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | | |
|-----|-------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|--------------------------|-------------------|--------------|-----------|--|--|-----|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 218 | Turtle Neck Creek | 7 | % | 40 | 10 | 15 | 5 | 30 | | | | | | | | | | | | | | | | | | | | | Pocket marsh; interior of cordgrass; needlerush and meadow along upland; saltbush berm near mouth. | XII |
| | | | acres | 2.8 | 0.7 | 1.0 | 0.4 | 2.1 | | | | | | | | | | | | | | | | | | | | | | |
| 219 | Mud Point | 14 | % | 30 | 10 | 25 | 5 | 30 | | | | | | | | | | | | | | | | | | | | | Extensive marsh; berm of saltbushes and saltmeadow hay along eastern edge. | XII |
| | | | acres | 4.2 | 1.4 | 3.5 | 0.7 | 4.2 | | | | | | | | | | | | | | | | | | | | | | |
| 220 | Caucas Bay | 7 | % | 20 | 10 | 35 | 5 | 30 | | | | | | | | | | | | | | | | | | | | Cove marsh; berm of saltbushes near mouth; interior of meadow and needlerush; cordgrass along water | XII | |
| | | | acres | 1.4 | 0.7 | 2.4 | 0.4 | 2.1 | | | | | | | | | | | | | | | | | | | | | | |
| 221 | Caucas Bay | 3 | % | 20 | 10 | 30 | 5 | 35 | | | | | | | | | | | | | | | | | | | | Cove marsh; berm with saltbushes along eastern edge is located on both sides of creek mouth. | XII | |
| | | | acres | 0.6 | 0.3 | 0.9 | 0.2 | 1.0 | | | | | | | | | | | | | | | | | | | | | | |
| 222 | Caucas Bay | 7 | % | - | 15 | 25 | 15 | 40 | | | | | | | | | | | | | | | | | | | | Marsh fringe between two coves; berm of saltbushes along eastern edge; meadow and needlerush behind. | XII | |
| | | | acres | - | 1.0 | 1.8 | 1.0 | 2.8 | | | | | | | | | | | | | | | | | | | | | | |
| 223 | Caucas Bay | 12 | % | 15 | 10 | 30 | - | 45 | | | | | | | | | | | | | | | | | | | | Cove marsh with two branches; cordgrass fringe along water; needlerush and meadow grade to upland. | XII | |
| | | | acres | 1.8 | 1.2 | 3.6 | - | 5.4 | | | | | | | | | | | | | | | | | | | | | | |
| 224 | Four Point Marsh | 197 | % | 40 | 10 | 40 | 5 | 5 | | | | | | | | | | | | | | | | | | | | Large extensive marsh; berm of saltbushes along eastern edge with meadow behind; interior dominated by cordgrass with zone of high marsh along upland. | II | |
| | | | acres | 78.8 | 19.7 | 78.8 | 9.8 | 9.8 | | | | | | | | | | | | | | | | | | | | | | |
| 225 | Goat Point Creek | 10 | % | 20 | 10 | 30 | 5 | 35 | | | | | | | | | | | | | | | | | | | | Cove marsh; fringe of cordgrass along water with areas of needlerush and meadow behind; saltbushes near mouth. | XII | |
| | | | acres | 2.0 | 1.0 | 3.0 | 0.5 | 3.5 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

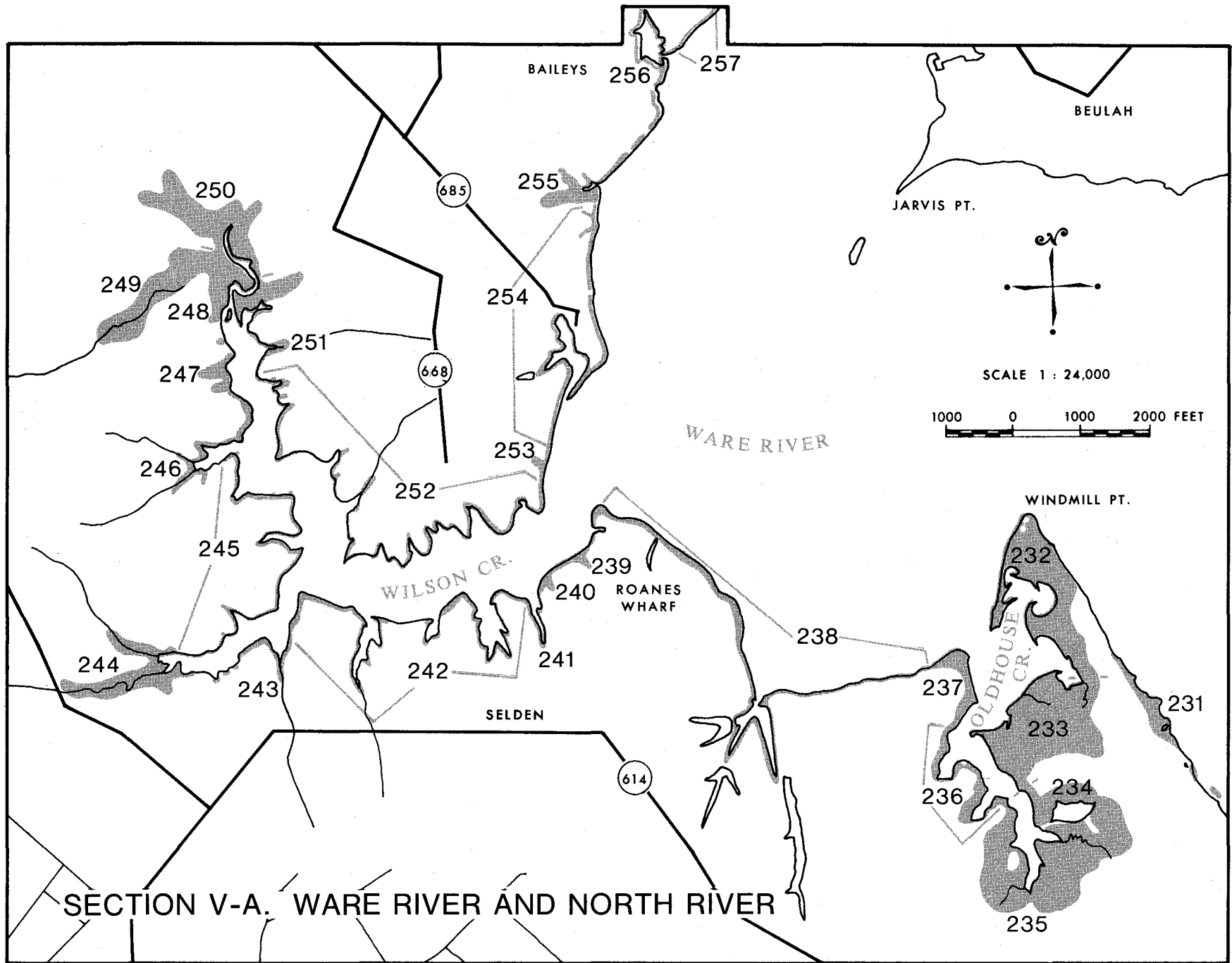
SECTION V

Ware River and North River

The marshes along this section of Gloucester County shoreline are similar in species composition and importance to those marshes found along the Severn River. They are dominated by a variety of plant community types (I, II, III, IV, V, VI, XII) including such species as saltmarsh cordgrass, black needlerush, cattails, big cordgrass, saltmeadow hay, saltgrass and saltbushes.

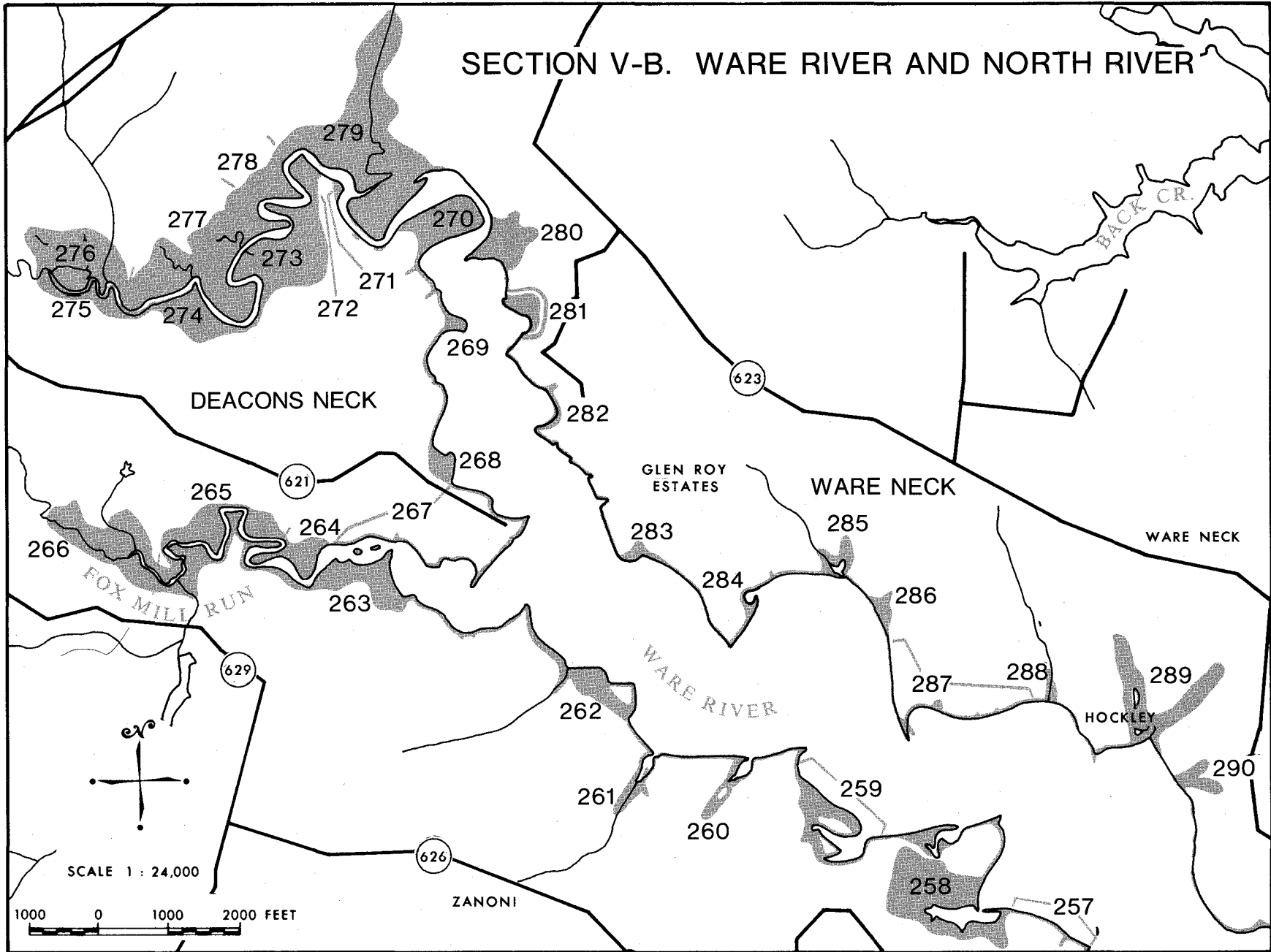
Many of the wetland areas along both the Ware and North Rivers are either small pocket marshes or narrow marsh fringes. The pocket marshes are characteristically dominated by saltmarsh cordgrass, but the interior sections are usually of slightly higher elevation and therefore saltmeadow grass as well as saltbushes are found. In areas where freshwater springs or streams enter, cattails may occur. The narrow, marsh fringe found along much of the shoreline is mostly saltmarsh cordgrass and black needlerush. At higher elevations landward of the cordgrass, saltbushes predominate.

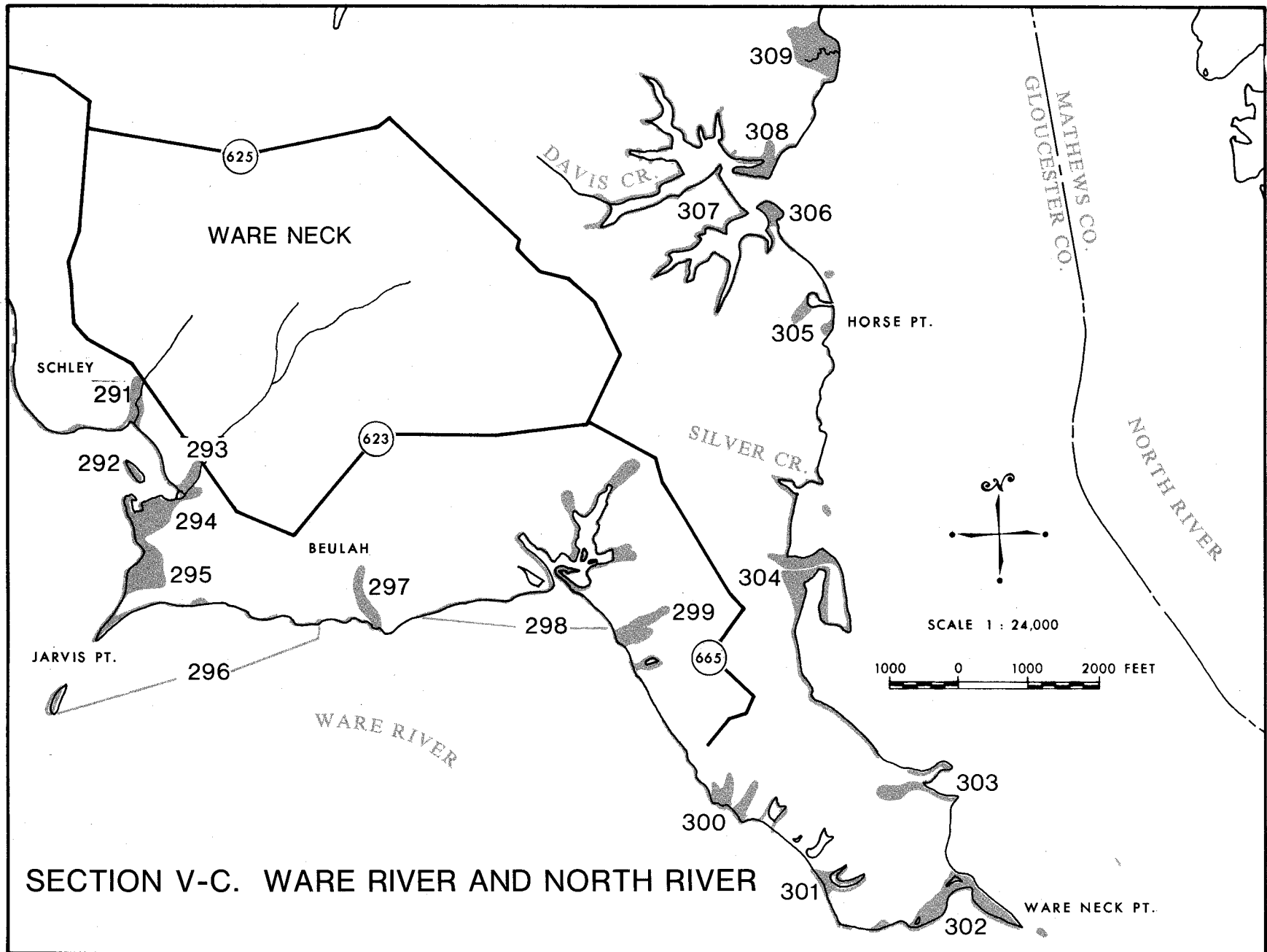
The upper portions of both the Ware and North Rivers contain extensive creek marsh areas. The downstream portions of these systems are generally dominated by saltmarsh cordgrass (Type I) marshes while the more upstream sections of these marshes are so reduced in salinity that the big cordgrass community (Type V) occurs. In one upstream marsh section in the Ware River (#266) this big cordgrass community is replaced by the freshwater species of cattail and pickerel weed. (Type VI).



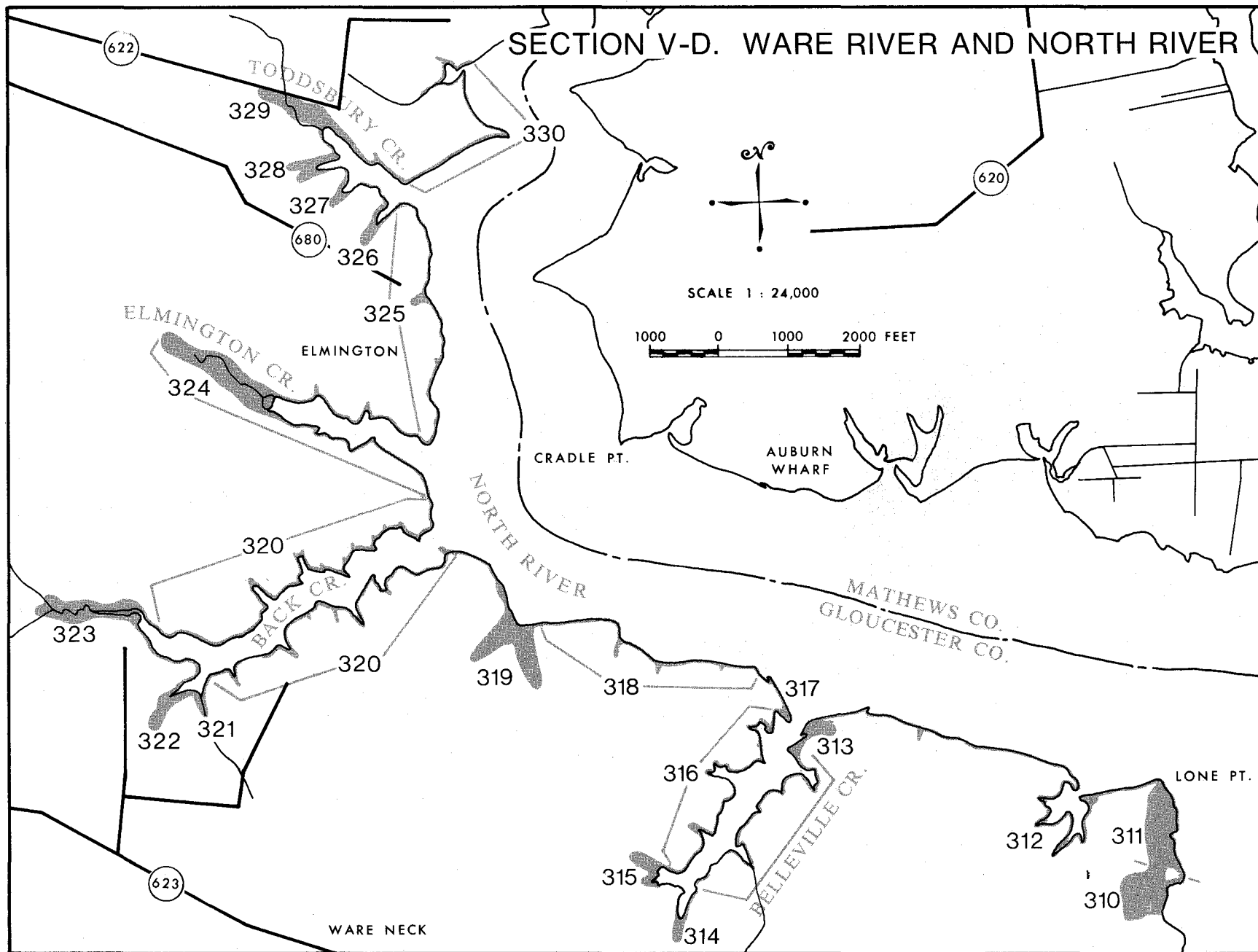
SECTION V-A. WARE RIVER AND NORTH RIVER

SECTION V-B. WARE RIVER AND NORTH RIVER

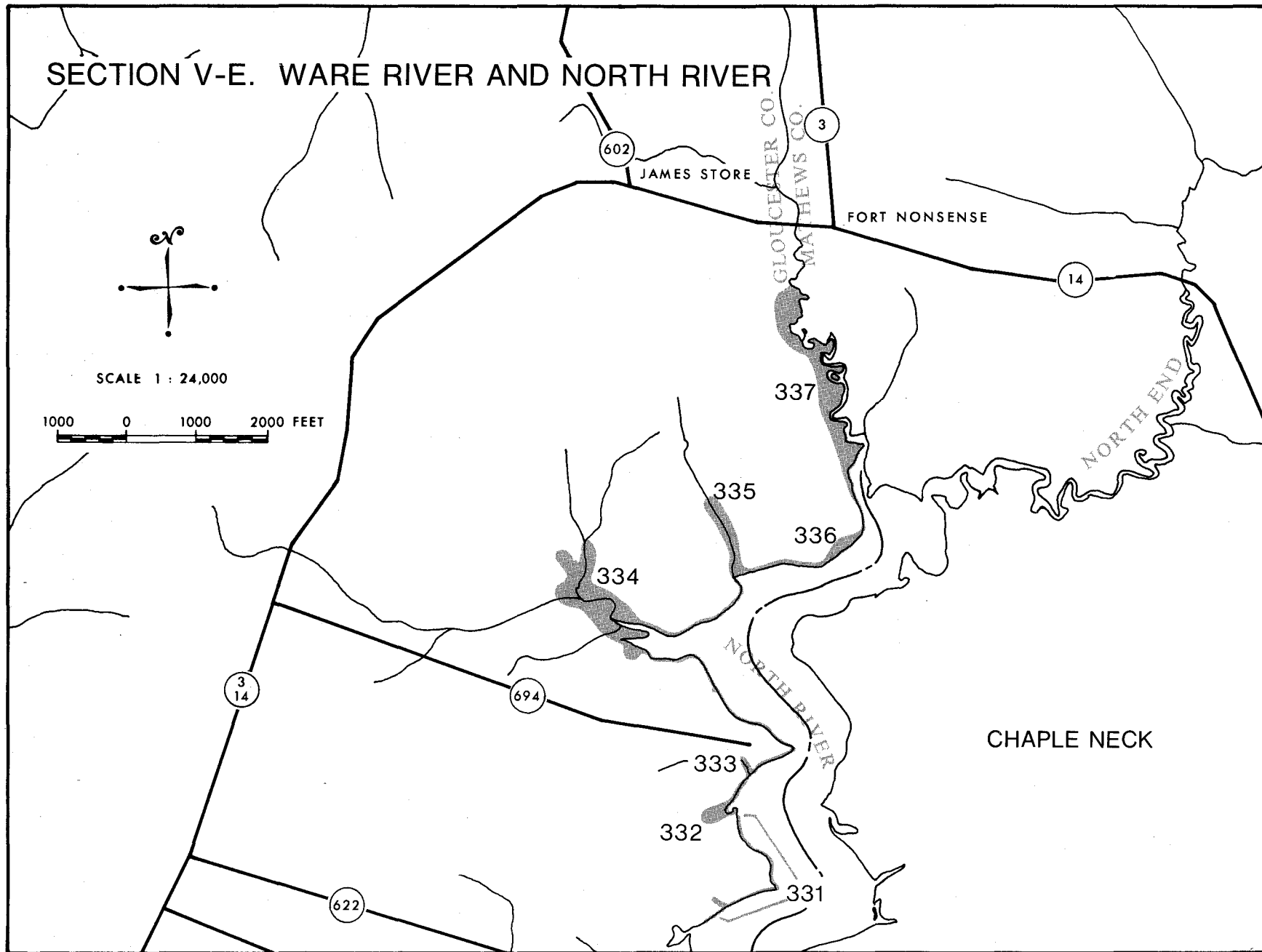




SECTION V-C. WARE RIVER AND NORTH RIVER



SECTION V-E. WARE RIVER AND NORTH RIVER



Section V. Ware River and North River

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | |
|-----|----------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|------------------------|-------------------|--------------|-----------|--|-------|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickrelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 231 | Ware River | 4 | % | 10 | 30 | 20 | 40 | - | | | | | | | | | | | | | | | | | | | Narrow fringe of cordgrass along river and in front of berm with saltbushes; zone of meadow behind saltbushes. | II |
| | | | acres | 0.4 | 1.2 | 0.8 | 1.6 | - | | | | | | | | | | | | | | | | | | | | |
| 232 | Windmill Point | 32 | % | 10 | 25 | 25 | 40 | - | | | | | | | | | | | | | | | | | | | Large spit marsh; interior of marsh is of saltbushes and meadow with cordgrass fringe along water. | II |
| | | | acres | 3.2 | 8.0 | 8.0 | 12.8 | - | | | | | | | | | | | | | | | | | | | | |
| 233 | Oldhouse Creek | 42 | % | 15 | 35 | 50 | - | - | | | | | | | | | | | | | | | | | | | Extensive high marsh of saltmeadow hay and saltgrass; cordgrass fringe along small drainage creeks. | II |
| | | | acres | 6.3 | 14.7 | 21.0 | - | - | | | | | | | | | | | | | | | | | | | | |
| 234 | Oldhouse Creek | 6 | % | - | 25 | 75 | - | | | | | | | | | | | | | | | | | | | | Saltmarsh meadow extending around brackish pond; old dike evident. | II |
| | | | acres | - | 1.5 | 4.5 | - | | | | | | | | | | | | | | | | | | | | | |
| 235 | Oldhouse Creek | 44 | % | 10 | 45 | 30 | 15 | | | | | | | | | | | | | | | | | | | | Broad saltmarsh meadow; scattered hummocks of pine, cedar; several dredged canals extend into uplands. | II |
| | | | acres | 4.4 | 19.8 | 13.2 | 6.6 | | | | | | | | | | | | | | | | | | | | | |
| 236 | Oldhouse Creek | 6 | % | 40 | 20 | 25 | 15 | | | | | | | | | | | | | | | | | | | | Wide (20-100 ft.) saltmarsh fringe; cordgrass along creek grades to meadow and then to upland. | XII |
| | | | acres | 2.4 | 1.2 | 1.5 | 0.9 | | | | | | | | | | | | | | | | | | | | | |
| 237 | Oldhouse Creek | 7 | % | 60 | 10 | 15 | 15 | | | | | | | | | | | | | | | | | | | | Spit marsh at entrance to creek; dominated by cordgrass. | I |
| | | | acres | 4.2 | 0.7 | 1.0 | 1.0 | | | | | | | | | | | | | | | | | | | | | |
| 238 | Ware River | 4 | % | 50 | 15 | 10 | 25 | - | - | | | | | | | | | | | | | | | | | | Marsh fringe; average width 30 ft.; cordgrass along water with meadow and saltbushes bordering uplands. | I |
| | | | acres | 2.0 | 0.6 | 0.4 | 1.0 | - | - | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|----------------------|-----------------|--------------|---------------|--|--|---------------|
| 239 | Wilson Creek | 0.50 | % | 85 | 5 | - | 10 | | | | - | | | | - | | - | - | | | | | | | | | | Small cordgrass fringe and pocket marsh. | I |
| | | | acres | 0.43 | 0.03 | - | 0.05 | | | | | | | | | | | | | | | | | | | | | | |
| 240 | Wilson Creek | 0.25 | % | 90 | 5 | - | 5 | | | | - | | | | - | | | | | | | | | | | | | Small cordgrass pocket marsh. | I |
| | | | acres | 0.22 | 0.01 | | 0.01 | | | | | | | | | | | | | | | | | | | | | | |
| 241 | Wilson Creek | 0.75 | % | 80 | 5 | - | 15 | | | | - | | | | | | | | | | | | | | | | Small branch of creek with marsh fringe along lower section and pocket marsh at head. | I | |
| | | | acres | 0.60 | 0.04 | - | 0.11 | | | | | | | | | | | | | | | | | | | | | | |
| 242 | Wilson Creek | 2 | % | 95 | - | | 5 | | | | - | | | | - | - | - | | | | | | | | | | Intermittent marsh fringe along highly indented shoreline; includes several shallow coves. | I | |
| | | | acres | 1.9 | - | | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 243 | Wilson Creek | 0.25 | % | 85 | 5 | - | 10 | - | | | - | | | | | | | | | | | | | | | | Small pocket marsh; dominated by cordgrass. | I | |
| | | | acres | 0.21 | 0.01 | - | 0.02 | - | | | | | | | | | | | | | | | | | | | | | |
| 244 | Wilson Creek | 12 | % | 65 | 10 | 5 | 20 | - | | | - | | | | - | - | - | | | | | | | | | | Two pocket marshes at head of creek branch; upper portions dominated by meadow and saltbushes. | I | |
| | | | acres | 7.8 | 1.2 | 0.6 | 2.4 | - | | | | | | | | | | | | | | | | | | | | | |
| 245 | Wilson Creek | 2 | % | 95 | - | | 5 | - | - | | - | | | | - | - | - | | | | | | | | | | Marsh fringe along length of shoreline; average width 5-15 ft.; includes several small pocket marshes. | I | |
| | | | acres | 1.9 | - | | 0.1 | - | - | | | | | | | | | | | | | | | | | | | | |
| 246 | Wilson Creek | 2 | % | 85 | 5 | - | 10 | | | | - | | | | | | | | | | | | | | | | Small tidal cove; lower portion with narrow marsh fringe; several pockets at head. | I | |
| | | | acres | 1.7 | 0.1 | - | 0.2 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|-----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|--------------|------------|-----------------|------------|-----------------------------|----------------------|-----------------|--|---|--------------|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 263 | Fox Mill Run | 15 | % | 30 | 5 | 25 | 5 | 30 | 5 | | | | | | | | | | | | | | | | | | | Creek marsh with several small cordgrass islands; cordgrass zone along creek; high marsh dominated interior. | XII |
| | | | acres | 4.5 | 0.8 | 3.8 | 0.8 | 4.5 | 0.8 | | | | | | | | | | | | | | | | | | | | |
| 264 | Fox Mill Run | 6 | % | 15 | 15 | 30 | 5 | 25 | 10 | - | | | | | | | | | | | | | | | | | Creek marsh; interior of marsh is needlerush and meadow; cord- grasses fringe along water. | XII | |
| | | | acres | 0.9 | 0.9 | 1.8 | 0.3 | 1.5 | 0.6 | - | | | | | | | | | | | | | | | | | | | |
| 265 | Fox Mill Run | 23 | % | 5 | 5 | 15 | 20 | 5 | 50 | - | - | | | | | | | | | | | | | | | | Creek marsh section; lower portion has some meadow areas; upper portion largely big cordgrass and saltbushes. | V | |
| | | | acres | 1.2 | 1.2 | 3.4 | 4.6 | 1.2 | 11.5 | - | - | | | | | | | | | | | | | | | | | | |
| 266 | Fox Mill Run | 21 | % | | | | | | | | 65 | - | 5 | | | | | | | | | | | | | c,5 d,- | Creek marsh section; grades upstream to woody swamp; freshwater marsh | VI | |
| | | | acres | | | | | | | | | 13.6 | - | 1.0 | | | | | | | | | | | | | | | c,1.0 d,- |
| 267 | Deacons Neck | 1 | % | 90 | - | - | 5 | 5 | - | | | | | | | | | | | | | | | | | | Narrow cordgrass fringe along shoreline; 5-20 ft. wide. | I | |
| | | | acres | 0.90 | - | - | 0.05 | 0.05 | - | | | | | | | | | | | | | | | | | | | | |
| 268 | Ware River | 4 | % | 15 | 5 | 10 | 10 | 55 | 5 | | | | | | | | | | | | | | | | | | Fringe marsh; interior largely needlerush with some meadow areas. | III | |
| | | | acres | 0.6 | 0.2 | 0.4 | 0.4 | 2.2 | 0.2 | | | | | | | | | | | | | | | | | | | | |
| 269 | Ware River | 2 | % | 10 | 20 | 35 | 20 | 15 | - | | | | | | | | | | | | | | | | | | Spit marsh; dominated by high marsh species; cordgrass and saltbush fringe along water. | II | |
| | | | acres | 0.2 | 0.4 | 0.7 | 0.4 | 0.3 | - | | | | | | | | | | | | | | | | | | | | |
| 270 | Ware River | 12 | % | 10 | 10 | 25 | 5 | 40 | 10 | - | | | | | | | | | | | | | | | | | Creek marsh; cordgrasses fringe along river; interior of marsh is of meadow and needlerush. | XII | |
| | | | acres | 1.2 | 1.2 | 3.0 | 0.6 | 4.8 | 1.2 | - | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|----------------------|-----------------|--------------|---------------|---|---|------------|
| 271 | Ware River | 1 | % | 50 | 5 | 10 | 5 | 15 | 15 | - | | | | | - | - | - | - | | | | | | | | | | Small marsh spit along creek channel. | I |
| | | | acres | 0.50 | 0.05 | 0.10 | 0.05 | 0.15 | 0.15 | - | | | | | | | - | - | - | - | | | | | | | | | |
| 272 | Ware River | 3 | % | 50 | 5 | 5 | 5 | 15 | 20 | - | | | | | - | - | - | - | | | | | | | | | | Creek marsh; small areas of meadow but dominated by cordgrasses. | I |
| | | | acres | 1.5 | 0.2 | 0.2 | 0.2 | 0.4 | 0.6 | - | | | | | | | - | - | - | - | | | | | | | | | |
| 273 | Ware River | 21 | % | 5 | 10 | 15 | 10 | 15 | 40 | 5 | - | - | - | - | - | - | - | - | - | - | | | | | | | | Creek marsh; cordgrasses along creek; high marsh zone along upland and extending behind area of pine. | XII |
| | | | acres | 1.0 | 2.0 | 3.2 | 2.1 | 3.2 | 8.4 | 1.0 | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | |
| 274 | Ware River | 10 | % | - | - | - | 10 | | 55 | 15 | 10 | - | 5 | | | | | | | - | | | | | | c, 5 d, 5 | Creek marsh section; dominated by big cordgrass; patches of cattails and bulrush. | V | |
| | | | acres | - | - | - | 1.0 | | 5.5 | 1.5 | 1.0 | - | 0.5 | | | | | | | | - | | | | | | c, - d, 0.5 | | |
| 275 | Ware River | 5 | % | | | | - | | 40 | - | 20 | - | 10 | | | | | | | 4 | | 10 | | | | 10 | b, - c, 3 d, 3 | Creek marsh; marsh area south of channel; big cordgrass mixed with freshwater species. | XII |
| | | | acres | | | | - | | 2.0 | - | 1.0 | - | 0.5 | | | | | | | | 0.2 | | 0.5 | | | | 0.5 | b, - c, 0.2 d, 0.2 | |
| 276 | Ware River | 20 | % | | | - | 10 | | 60 | - | 15 | - | 10 | | | | | | | - | | - | | | | | c, 5 | Creek marsh; marsh area north of channel; big cordgrass dominates with stands of cattails near uplands. | V |
| | | | acres | | | - | 2.0 | | 12.0 | - | 3.0 | - | 2.0 | | | | | | | | - | | - | | | | | c, 10 | |
| 277 | Ware River | 42 | % | - | | 5 | 10 | - | 60 | 10 | - | | 10 | | | | | | | - | | | | | | | c, 5 | Creek marsh section; dominated by big cordgrass. | V |
| | | | acres | - | | 2.1 | 4.2 | - | 25.2 | 4.2 | - | | | 4.2 | | | | | | | - | | | | | | | c, 2.1 | |
| 278 | Ware River | 9 | % | - | 5 | 15 | 25 | | 50 | | - | | 5 | | | | | | | | | | | | | | | Creek marsh section; dominated by big cordgrass with areas of meadow and saltbushes. | V |
| | | | acres | - | 0.4 | 1.4 | 2.2 | | 4.5 | | - | | | 0.4 | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|----------------------|-----------------|--------------|---------------|--|---|------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 279 | Cow Creek | 56 | % | 10 | 15 | 25 | 5 | 35 | 10 | - | | | | | | - | - | - | - | | | | | | | | | Creek marsh; lower portion dominated by meadow and needlerush; grades upstream to saltbushes. | XII |
| | | | acres | 5.6 | 8.4 | 14.0 | 2.8 | 19.6 | 5.6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 280 | Ware River | 6 | % | 10 | 20 | 25 | 5 | 35 | 5 | - | - | | | | | - | - | - | - | | | | | | | | | Pocketmarsh with spit extending out into channel; dominated by needlerush and meadow areas. | XII |
| | | | acres | 0.6 | 1.2 | 1.5 | 0.3 | 2.1 | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 281 | Ware River | 3 | % | 5 | 15 | 30 | 10 | 35 | 5 | - | - | | | | | - | - | - | - | | | | | | | | Pocket marsh; dredged channel extends around marsh-upland border; interior of marsh is of needlerush and meadow. | XII | |
| | | | acres | 0.2 | 0.4 | 0.9 | 0.4 | 1.0 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |
| 282 | Ware River | 2 | % | 10 | 15 | 30 | 15 | 25 | 5 | - | - | | | | | - | - | - | - | | | | | | | | Fringe marsh dominated by high marsh species; channel dredged across marsh to upland. | XII | |
| | | | acres | 0.2 | 0.3 | 0.6 | 0.3 | 0.5 | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |
| 283 | Ware River | 2 | % | 25 | 10 | 20 | 20 | 25 | - | - | - | | | | | - | - | - | - | | | | | | | | Marsh fringe extending to small pocket area; dominated by high marsh. | XII | |
| | | | acres | 0.5 | 0.2 | 0.4 | 0.4 | 0.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |
| 284 | Ware River | 1 | % | 40 | 15 | 10 | 15 | 20 | - | - | - | | | | | - | - | - | - | | | | | | | | Marsh fringe with spit enclosing small cove; grades from cordgrass along water to meadow along upland. | XII | |
| | | | acres | 0.40 | 0.15 | 0.10 | 0.15 | 0.20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |
| 285 | Ware River | 3 | % | 75 | 5 | 5 | 5 | 10 | - | - | - | | | | | - | - | - | - | | | | | | | | Pocket marsh with two branches extending into upland; cordgrass dominates with scattered needlerush. | I | |
| | | | acres | 2.2 | 0.2 | 0.2 | 0.2 | 0.3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |
| 286 | Ware River | 2 | % | 45 | 10 | 20 | 5 | 20 | - | - | - | | | | | - | - | - | - | | | | | | | | Marsh fringe; extends back into small pocket. | XII | |
| | | | acres | 0.9 | 0.2 | 0.4 | 0.1 | 0.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | - |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|----------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|----------------------|-----------------|--------------|---------------|---|--|------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 287 | Ware River | 1 | % | 50 | 15 | 15 | 5 | 15 | | | | | | | | | | | | | | | | | | | | Marsh fringe extending along shoreline to form spit and small pocket area. | I |
| | | | acres | 0.5 | 0.15 | 0.15 | 0.05 | 0.15 | | | | | | | | | | | | | | | | | | | | | |
| 288 | Ware River | 1 | % | 60 | 10 | 10 | 10 | 10 | - | | | | | | | | | | | | | | | | | | | Small pocket marsh; berm of salt bushes partly across mouth. | I |
| | | | acres | 0.6 | 0.1 | 0.1 | 0.1 | 0.1 | - | | | | | | | | | | | | | | | | | | | | |
| 289 | Ware River | 12 | % | 75 | 5 | 15 | 5 | - | - | | | | | | | | | | | | | | | | | | | Pocket marsh; forms two branches extending back into uplands. | I |
| | | | acres | 9.0 | 0.6 | 1.8 | 0.6 | - | - | | | | | | | | | | | | | | | | | | | | |
| 290 | Ware River | 3 | % | 25 | 25 | 20 | 15 | 10 | - | | | | | | | 3 | - | 2 | | | | | | | | | | Small pocket marsh; sand berm with saltbushes and sea oxeye partly across mouth. | XII |
| | | | acres | 0.8 | 0.8 | 0.6 | 0.4 | 0.4 | - | - | | | | | | | 0.1 | - | 0.1 | | | | | | | | | | |
| 291 | Ware River | 2 | % | 60 | 10 | 5 | 15 | 10 | - | | | | | | | | | | | | | | | | | | | Pocket marsh; lower section dominated by cordgrass; meadow predominates near head. | I |
| | | | acres | 1.2 | 0.2 | 0.1 | 0.3 | 0.2 | - | - | | | | | | | | | | | | | | | | | | | |
| 292 | Ware River | 1 | % | 20 | 5 | 5 | | 70 | | | | | | | | | | | | | | | | | | | Marsh island; cordgrass fringe around island; interior dominated by needlerush. | III | |
| | | | acres | 0.20 | 0.05 | 0.05 | | 0.70 | | | | | | | | | | | | | | | | | | | | | |
| 293 | Ware River | 2 | % | 60 | 10 | 15 | 10 | 5 | | | | | | | | | | | | | | | | | | | Pocket marsh with two branches; dominated by cordgrass with meadow along uplands. | I | |
| | | | acres | 1.2 | 0.2 | 0.6 | 0.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| 294 | Ware River | 6 | % | 25 | 15 | 25 | 10 | 25 | | | | | | | | | | | | | | | | | | | Broad marsh fringe; dredged channel with adjacent spoiled area crosses marsh to upland. | XII | |
| | | | acres | 1.5 | 0.9 | 1.5 | 0.6 | 1.5 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | |
|-----|--------------------|-------------|------------------------|-------------------|-----------|------------|---------------------|---------------|----------------------|----------|------------|-------------------|--------------|--------------------|------------|-----------------|---------------------------|----------|--------------|------------|-----------------------------|----------------------|--------------|------------|-----------------|-----------|---|-------|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | | | Beggar Ticks | Wild Rice | Jewel Weed | Other |
| 295 | Ware River | 7 | % | 10 | 30 | 40 | 5 | 10 | - | | | | | | | | | | | | | | | | | | Extensive high marsh area; small channel with adjacent berm of saltbush and cedar ex- tends around back of marsh. | II |
| | | | acres | 0.7 | 2.1 | 2.8 | 0.4 | 0.7 | - | | | | | | | | | | | | | | | | | | | |
| 296 | Ware River | 2 | % | 80 | 5 | 5 | 10 | - | | | | | | | | | | | | | | | | | | | Intermittent cordgrass fringe with meadow and saltbushes at higher elevations landward; small island with cordgrass fringe. | I |
| | | | acres | 1.6 | 0.1 | 0.1 | 0.2 | - | | | | | | | | | | | | | | | | | | | | |
| 297 | Ware River | 3 | % | 50 | 15 | 20 | 10 | 5 | | | | | | | | | | | | | | | | | | | Long, narrow pocket marsh; sand berm with saltbushes and saltmeadow hay partially across mouth. | I |
| | | | acres | 1.5 | 0.4 | 0.6 | 0.3 | 0.2 | | | | | | | | | | | | | | | | | | | | |
| 298 | Ware River | 6 | % | 70 | 10 | 10 | - | 10 | | | | | | | | | | | | | | | | | | | Cove with cordgrass fringe; several cordgrass islands inside mouth of cove and several pocket marsh areas | I |
| | | | acres | 4.2 | 0.6 | 0.6 | - | 0.6 | | | | | | | | | | | | | | | | | | | | |
| 299 | Ware River | 5 | % | 40 | 25 | 25 | 5 | 5 | | | | | | | | | | | | | | | | | | | Pocket marsh; sand berm with saltbushes partially across mouth; interior of marsh grades from cordgrass to meadow. | II |
| | | | acres | 2.0 | 1.2 | 1.2 | 0.2 | 0.2 | | | | | | | | | | | | | | | | | | | | |
| 300 | Ware River | 4 | % | 85 | - | - | 10 | 5 | | | | | | | | | | | | | | | | | | | Several pocket marsh areas dominated by cordgrass behind berm of saltbushes; these are pond areas reclaimed by tidal marsh. | I |
| | | | acres | 3.4 | - | - | 0.4 | 0.2 | | | | | | | | | | | | | | | | | | | | |
| 301 | Ware River | 1 | % | 80 | 5 | 5 | 5 | 5 | | | | | | | | | | | | | | | | | | | Several shallow tidal coves with fringe of cordgrass; previously non-tidal ponds which have been breached and are reverting to marsh. | I |
| | | | acres | 0.80 | 0.05 | 0.05 | 0.05 | 0.05 | | | | | | | | | | | | | | | | | | | | |
| 302 | Ware Neck Point | 7 | % | 5 | 20 | 25 | 40 | - | | | | | | | | | | | | | | | | | | | Broad high marsh area behind ridge of saltbush; spit has fringe of cordgrass with interior of saltbushes. | XII |
| | | | acres | 0.4 | 1.4 | 1.8 | 2.8 | - | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | |
|-----|------------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|------------|--------------|-----------|--|---|----|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereitweed Arrow Arum | Olney Threesquare | | | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 311 | North River | 12 | % | 15 | 30 | 40 | 10 | 5 | | | | | | | | | | | | | | | | | | | | Extensive marsh; cordgrass zone around channel; grades to broad meadow area, then zone of saltbushes. | II |
| | | | acres | 1.8 | 3.6 | 4.8 | 1.2 | 0.6 | | | | | | | | | | | | | | | | | | | | | |
| 312 | North River | 2 | % | 80 | 10 | - | 10 | - | | | | | | | | | | | | | | | | | | | Cordgrass fringe along shoreline and around tidal cove; natural mouth of cove is blocked but new channel has been dredged. | I | |
| | | | acres | 1.6 | 0.2 | - | 0.2 | - | | | | | | | | | | | | | | | | | | | | | |
| 313 | Belleville Creek | 3 | % | 65 | 10 | 10 | 5 | 10 | | | | | | | | | | | | | | | | | | | Fringe marsh dominated by cordgrass; part of marsh is behind sand spit of saltbushes. | I | |
| | | | acres | 2.0 | 0.3 | 0.3 | 0.2 | 0.3 | | | | | | | | | | | | | | | | | | | | | |
| 314 | Belleville Creek | 1 | % | 65 | 10 | 15 | 5 | 5 | | | | | | | | | | | | | | | | | | | Small pocket marsh at head of creek. | I | |
| | | | acres | 0.60 | 0.10 | 0.15 | 0.05 | 0.05 | | | | | | | | | | | | | | | | | | | | | |
| 315 | Belleville Creek | 2 | % | 65 | 10 | 15 | 5 | 5 | | | | | | | | | | | | | | | | | | | Small pocket marsh with two branches. | I | |
| | | | acres | 1.3 | 0.2 | 0.3 | 0.1 | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| 316 | Belleville Creek | 2 | % | 90 | 5 | - | 5 | - | | | | | | | | | | | | | | | | | | | Narrow cordgrass fringe along both sides of creek; several small pocket areas with some cattails. | I | |
| | | | acres | 1.8 | 0.1 | - | 0.1 | - | | | | | | | | | | | | | | | | | | | | | |
| 317 | Belleville Creek | 0.50 | % | 80 | 10 | - | 5 | 5 | | | | | | | | | | | | | | | | | | | Spit marsh at mouth of creek; cordgrass fringe along water with interior section of high marsh. | I | |
| | | | acres | 0.40 | 0.05 | - | 0.02 | 0.02 | | | | | | | | | | | | | | | | | | | | | |
| 318 | North River | 2 | % | 40 | 5 | 5 | 10 | 40 | | | | | | | | | | | | | | | | | | | Cordgrass and needlerush marsh fringe; several pocket areas of high marsh. | XII | |
| | | | acres | 0.8 | 0.1 | 0.1 | 0.2 | 0.8 | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | |
|-----|-----------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|--------------------------|-------------------|--------------|-----------|--|--|---|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | | | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 319 | North River | 8 | % | 80 | 10 | 10 | - | - | | | | | | | | | | | | | | | | | | | | Pocket marsh dominated by cordgrass; meadow areas more abundant in left branch of marsh. | I |
| | | | acres | 6.4 | 0.8 | 0.8 | - | - | | | | | | | | | | | | | | | | | | | | | |
| 320 | Back Creek | 4 | % | 85 | 5 | 5 | 5 | - | | | | | | | | | | | | | | | | | | | Narrow cordgrass fringe along both sides of creek; numerous small pocket marsh areas with some meadow and cattail. | I | |
| | | | acres | 3.4 | 0.2 | 0.2 | 0.2 | - | | | | | | | | | | | | | | | | | | | | | |
| 321 | Back Creek | 1 | % | 40 | 20 | 10 | 30 | - | | | | | | | | | | | | | | | | | | | Small pocket marsh; upper portion grades from cordgrass to high marsh. | XII | |
| | | | acres | 0.4 | 0.2 | 0.1 | 0.3 | - | | | | | | | | | | | | | | | | | | | | | |
| 322 | Back Creek | 3 | % | 30 | 20 | 10 | 40 | - | | | | | | | | | | | | | | | | | | | Pocket marsh; upper portion dominated by saltbushes. | XII | |
| | | | acres | 0.9 | 0.6 | 0.3 | 1.2 | - | | | | | | | | | | | | | | | | | | | | | |
| 323 | Back Creek | 7 | % | 20 | 30 | 20 | 30 | - | | | | | | | | | | | | | | | | | | | Pocket marsh; lower portion dominated by meadow; upper portion is largely saltbush. | II | |
| | | | acres | 1.4 | 2.1 | 1.4 | 2.1 | - | | | | | | | | | | | | | | | | | | | | | |
| 324 | Elmington Creek | 10 | % | 30 | 20 | 20 | 30 | - | | | | | | | | | | | | | | | | | | | Lower section of creek fringed by cordgrass; pocket marsh grades from cordgrass to meadow, then saltbushes at head of creek. | XII | |
| | | | acres | 3.0 | 2.0 | 2.0 | 3.0 | - | | | | | | | | | | | | | | | | | | | | | |
| 325 | North River | 2 | % | 55 | 5 | 10 | 5 | 25 | | | | | | | | | | | | | | | | | | | 10-20 foot wide marsh fringe along river; several pocket areas of high marsh. | I | |
| | | | acres | 1.1 | 0.1 | 0.2 | 0.1 | 0.5 | | | | | | | | | | | | | | | | | | | | | |
| 326 | Toddsbury Creek | 1 | % | 50 | 15 | 5 | 15 | | | | | | | | | | | | | | | | | | | | Small pocket marsh; cattails in upper portion. | I | |
| | | | acres | 0.50 | 0.15 | 0.05 | 0.15 | | | | | | | | | | | | | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily

f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|--------------------|-------------|-------|------------------------|-------------------|-----------|------------|---------------------|------------------|----------------------|----------|------------|-------------------|-----------------|--------------------|--------------|-----------------|---------------------------|----------|-----------------|------------|-----------------------------|----------------------|-----------------|--------------|---------------|-------|--|---------------|
| 327 | Toddsbury Creek | 0.50 | % | 55 | 15 | 5 | 15 | | | | 10 | | - | | - | | - | | | | | | | | | | | Small pocket marsh; cattails in upper portion. | I |
| | | | acres | 0.28 | 0.08 | 0.02 | 0.08 | | | | | 0.05 | | - | | - | | - | | | | | | | | | | | |
| 328 | Toddsbury Creek | 2 | % | 60 | 15 | 5 | 15 | | | | 5 | | - | | - | | - | | | | | | | | | | | Pocket marsh; upper portion is meadow with some cattails | I |
| | | | acres | 1.2 | 0.3 | 0.1 | 0.3 | | | | | 0.1 | | - | | - | | - | | | | | | | | | | | |
| 329 | Toddsbury Creek | 6 | % | 45 | 25 | 20 | 10 | | | | - | | | | - | - | - | - | | | | | | | | | | Pocket marsh; lower portion is cordgrass; upper portion is meadow and saltbushes. | XII |
| | | | acres | 2.7 | 1.5 | 1.2 | 0.6 | | | | | - | | | | - | - | - | - | | | | | | | | | | |
| 330 | North River | 1 | % | 60 | 15 | 5 | 20 | - | | | - | | | | - | - | - | - | | | | | | | | | | Cordgrass fringe along river; extends around small cove and forms several pockets in cove. | I |
| | | | acres | 0.60 | 0.15 | 0.05 | 0.20 | - | | | | - | | | | - | - | - | - | | | | | | | | | | |
| 331 | North River | 0.50 | % | 75 | 5 | 5 | 10 | 5 | | | | | | | - | - | - | - | | | | | | | | | | Small pocket marsh; cordgrass fringe along this section of river with meadow and saltbushes behind. | I |
| | | | acres | 0.38 | 0.02 | 0.02 | 0.05 | 0.02 | | | | | | | | - | - | - | - | | | | | | | | | | |
| 332 | North River | 2 | % | 75 | 10 | 5 | 10 | - | | | | | | | - | - | - | - | | | | | | | | | | Pocket marsh; dominated by cordgrass with meadow and saltbushes at head. | I |
| | | | acres | 1.5 | 0.2 | 0.1 | 0.2 | - | | | | | | | | - | - | - | - | | | | | | | | | | |
| 333 | North River | 0.25 | % | 20 | 30 | 30 | 20 | - | - | | | | | | - | - | - | - | | | | | | | | | | Small pocket of high marsh with saltbushes at head; cordgrass and meadow fringe river. | II |
| | | | acres | 0.05 | 0.08 | 0.08 | 0.05 | - | - | | | | | | | - | - | - | - | | | | | | | | | | |
| 334 | North River | 16 | % | 40 | 20 | 20 | 20 | - | - | | | | | | - | - | - | - | | | | | | | | | | Pocketmarsh; cordgrass dominates lower portion; upper portion is of meadow and saltbushes. | XII |
| | | | acres | 6.4 | 3.2 | 3.2 | 3.2 | - | - | | | | | | | - | - | - | - | | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section V. Ware River and North River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | |
|-----|-------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------|------------|--------------------------|-----------------------|-------------------|--|------------|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | | | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed |
| 335 | North River | 5 | % | 25 | 45 | 20 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Pocket marsh dominated by high marsh areas of meadow and saltbush. | II |
| | | | acres | 1.2 | 2.2 | 1.0 | 0.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 336 | North River | 2 | % | 5 | 35 | 45 | 5 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Fringe marsh dominated by meadow with patches of needlerush. | II |
| | | | acres | 0.1 | 0.7 | 0.9 | 0.1 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 337 | Burke Mill Stream | 17 | % | 10 | 20 | 20 | 20 | 10 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | Creek marsh; Gloucester County side only; lower portion meadow and needlerush; upper portion big cordgrass, then saltbushes. | XII |
| | | | acres | 1.7 | 3.4 | 3.4 | 3.4 | 1.7 | 3.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | Total Section V | 761.0 | % | 25 | 16 | 20 | 12 | 10 | 11 | 1 | 2 | - | 1 | - | - | - | - | - | - | - | 1 | - | - | - | - | b,- c,1 d,- | | |
| | | | acres | 187.4 | 120.1 | 148.7 | 95.7 | 78.2 | 84.0 | 6.7 | 13.9 | - | 8.6 | - | - | 0.6 | 0.1 | 0.6 | 0.1 | 0.2 | - | 5.7 | - | 0.5 | b,- c,4.3 d,0.7 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

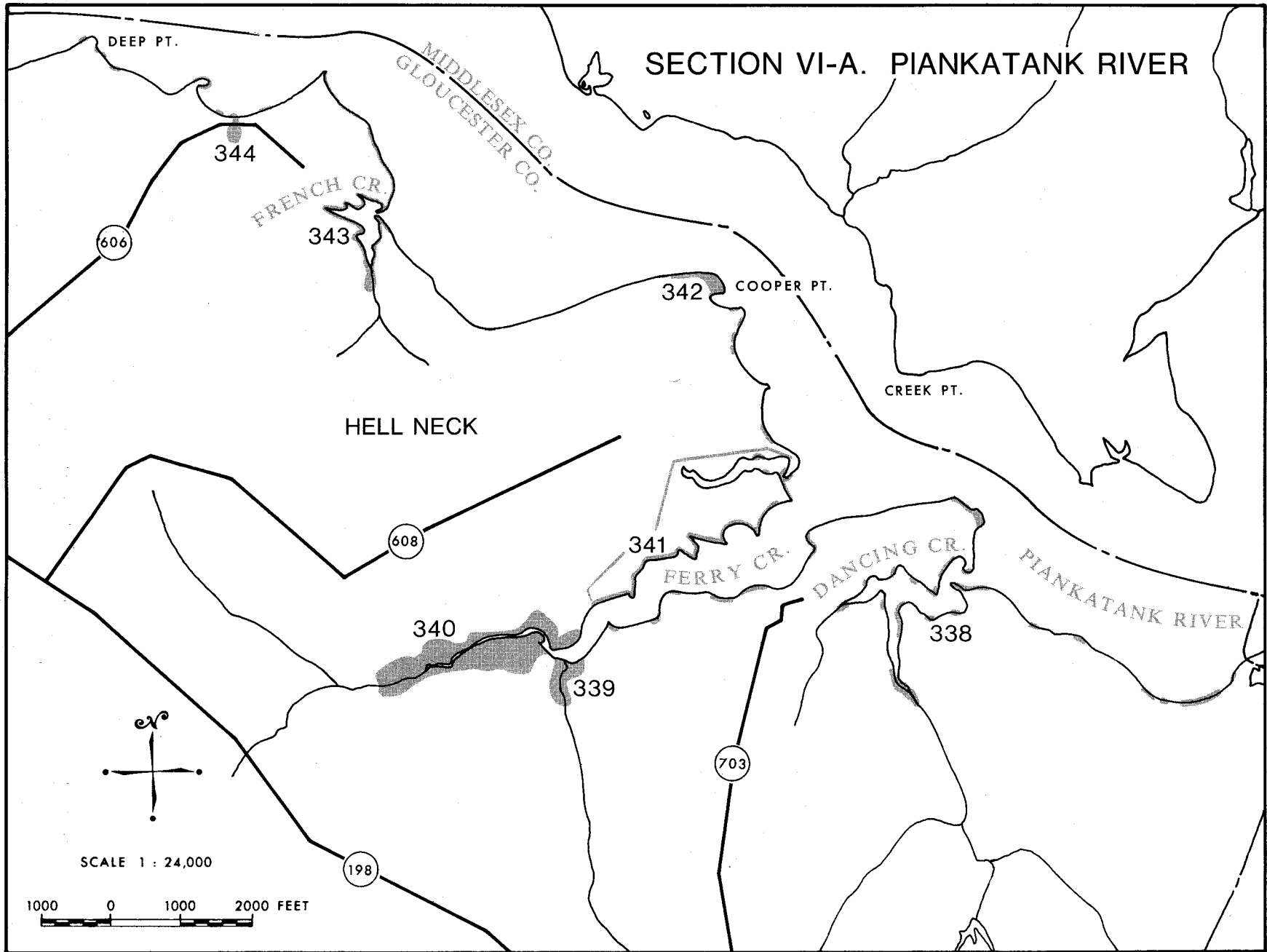
a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

SECTION VI

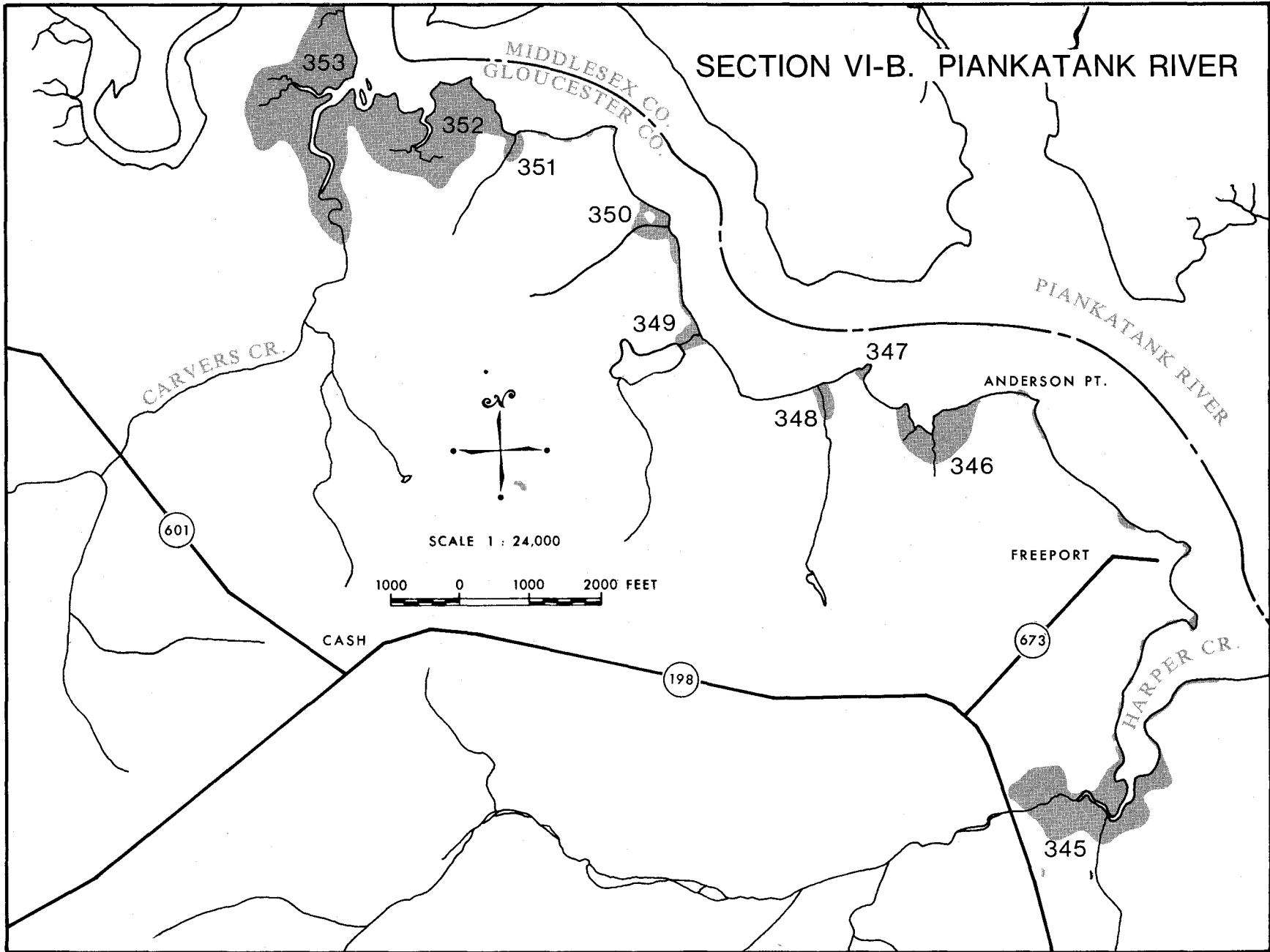
Piankatank River

The Piankatank River marks the northern border of Gloucester County and this section is illustrated using three map plates (A, B, C). The marsh species found within the wetlands of this section vary with distance upstream. The more downstream marshes are dominated by brackish water plants such as those found along the York, Severn, Ware and North Rivers. These include such species as saltmarsh cordgrass, big cordgrass, black needlerush, saltmeadow hay and saltbush. The most upstream areas, however, are so reduced in salinity that the marshes are dominated by freshwater plants. These marshes include a great diversity of species such as wild rice, pickerelweed, softstem bulrush and smartweeds. The only other area in Gloucester County with such an abundance of freshwater tidal marsh is the upper section of the Poropotank River (Section I).

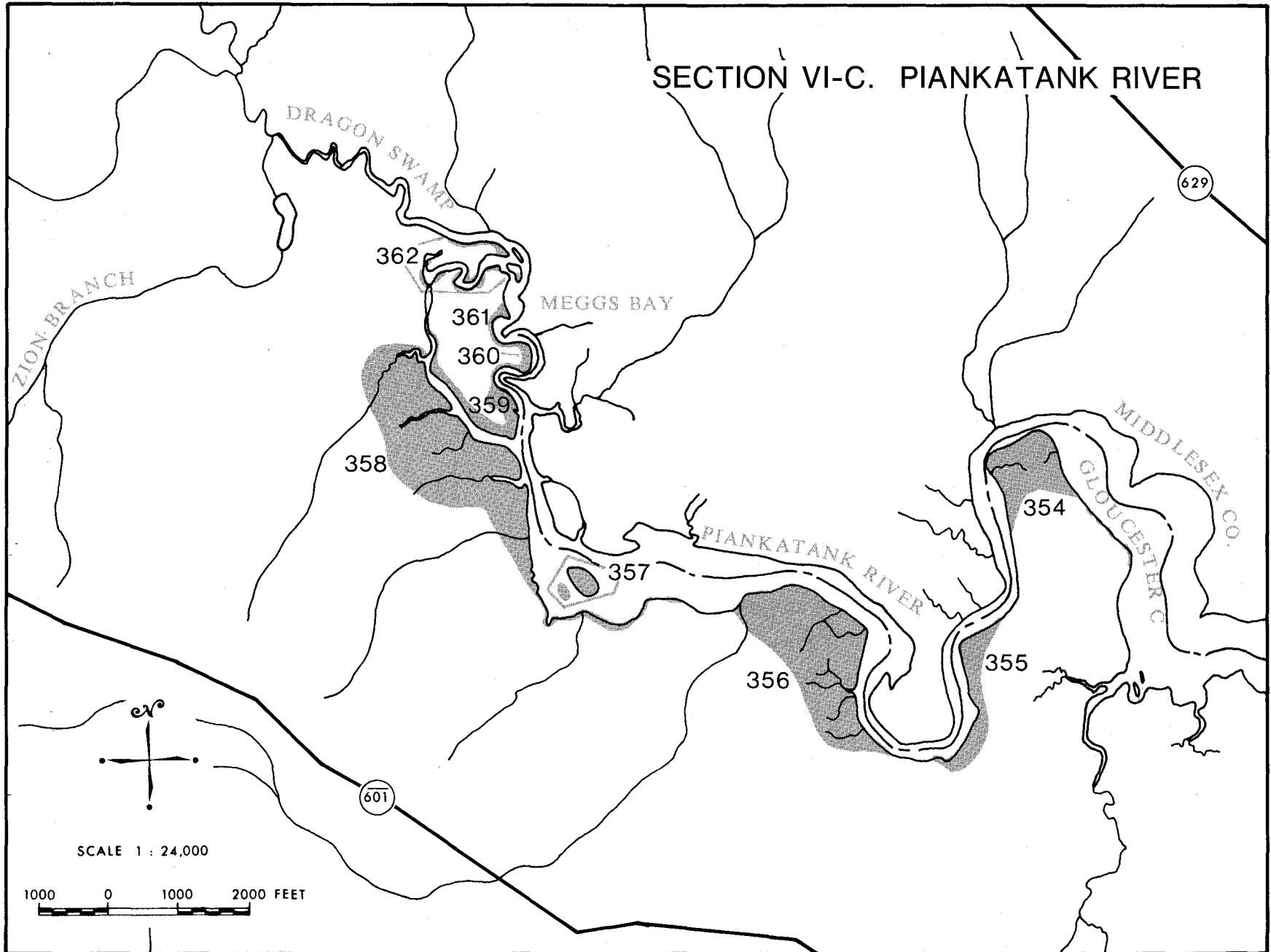
The upper portion of the Piankatank River eventually grades into woody swamp known as "Dragon Run". Tidal influence is evident upstream past the upper limits of open, freshwater marsh, but the extent of this tidal effect varies both with season and with the local weather conditions. For example, during a very high tide which might happen to coincide with a period of heavy rain, a "backing up" of the rainwater runoff would produce a tidal effect far upstream of that found in normal situations. Since the woody swamp found here includes the tree bald cypress, Taxodium distichum, as well as an occasional understory of other species which are listed in the Virginia Wetlands Act, those areas of swamp which are contiguous to the tidal marshes and meet the elevational requirements of the Act are to be considered "wetlands". To determine these areas, an accurate elevational and tidal datum survey would be required. Therefore, those areas with only marsh-type vegetation are included in this inventory.



SECTION VI-B. PIANKATANK RIVER



SECTION VI-C. PIANKATANK RIVER



Section VI. Piankatank River

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|--------------------------|-------------------|--------------|--|---|---|---|
| | | | % | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | |
| 338 | Dancing Creek | 0.25 | % | 65 | 5 | 5 | 10 | 10 | | | 5 | | | | | | | | | | | | | | | | | | Cove with intermittent cordgrass fringe and several small pocket marshes. | I |
| | | | acres | 0.16 | 0.01 | 0.01 | 0.02 | 0.02 | | | 0.01 | | | | | | | | | | | | | | | | | | | |
| 339 | Ferry Creek | 3 | % | 30 | 5 | - | 40 | | 10 | 5 | 5 | - | | 5 | | | | | | | | | | | | | | Small pocket marsh; saltbushes and saltmeadow hay dominate upstream section of marsh. | XII | |
| | | | acres | 0.9 | 0.2 | - | 1.2 | | 0.3 | | 0.2 | 0.2 | - | | 0.2 | | | | | | | | | | | | | | | |
| 340 | Ferry Creek | 25 | % | 65 | 5 | 3 | 5 | | 2 | 5 | 10 | 5 | - | | | | | | | | | | | | | | | Large creek marsh at head of Ferry Creek; grades upstream from brackish marsh to swamp. | I | |
| | | | acres | 16.2 | 1.2 | 0.8 | 1.2 | | 0.5 | 1.2 | 2.5 | 1.2 | - | | | | | | | | | | | | | | | | | |
| 341 | Ferry Creek | 0.50 | % | 80 | 10 | - | 10 | - | - | - | | | | - | | - | | | | | | | | | | | | Intermittent fringing marsh along both sides of creek; average width 3 ft. | I | |
| | | | acres | 0.40 | 0.05 | - | 0.05 | - | - | - | - | | | | - | | - | | | | | | | | | | | | | |
| 342 | Cooper Point | 1 | % | 30 | 10 | - | 40 | 10 | 5 | | | | | 5 | | - | | | | | | | | | | | | Point marsh; saltmarsh cordgrass fringe with saltbushes behind. | XII | |
| | | | acres | 0.30 | 0.10 | - | 0.40 | 0.10 | 0.05 | | | | | | 0.05 | | - | | | | | | | | | | | | | |
| 343 | French Creek | 1 | % | 50 | 5 | - | 25 | 5 | 5 | | 5 | | | | | | | | | | | | | | | | | Cove marsh; fringed with saltmarsh cordgrass; two small pocket marshes are included | I | |
| | | | acres | 0.50 | 0.05 | - | 0.25 | 0.05 | 0.05 | | 0.05 | | | | | 0.05 | | | | | | | | | | | | | | |
| 344 | Piankatank River | 1 | % | 5 | - | - | 50 | | 5 | | 20 | | 10 | | | | | | | 10 | | | | | | | Small pocket marsh; tidal flow restricted somewhat by road | IV | | |
| | | | acres | 0.05 | - | - | 0.50 | | 0.05 | | 0.20 | | 0.10 | | | | | | | | 0.1 | | | | | | | | | |
| 345 | Harper Creek | 33 | % | 15 | 8 | 2 | 15 | 2 | 40 | - | 3 | 10 | 3 | | 2 | - | | | | | - | | | | | | | Pocket marsh; grades to woody swamp near Rt. 198. | XII | |
| | | | acres | 5.0 | 2.6 | 0.7 | 5.0 | 0.7 | 13.2 | - | 1.0 | 3.3 | 1.0 | | 0.7 | - | | | | | - | | | | | | | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
 f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section VI. Piankatank River
(continued)

| # | Marsh Location | Total Acres | | | | | | | | | | | | | | | | | | Observations | Marsh Type | | | | | | | | |
|-----|------------------|-------------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|--------------|------------|------------|--------------------------|-------------------|--------------|--|---|--|----------------|
| | | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | | | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Mild Rice | Jewel Weed | Other | |
| 346 | Piankatank River | 12 | % | 10 | 20 | 20 | 10 | 20 | 10 | 10 | | | | | | | | | | | | | | | | | | Pocket marsh; part of marsh has been filled for the construction of power line towers. | XII |
| | | | acres | 1.2 | 2.4 | 2.4 | 1.2 | 2.4 | 1.2 | 1.2 | | | | | | | | | | | | | | | | | | | |
| 347 | Piankatank River | 0.50 | % | 20 | 15 | 5 | 10 | 20 | 25 | | | | | | | | | | | | | | | | F,5 g,- | Small spit marsh; some fringing spikerush evident. | XII | | |
| | | | acres | 0.10 | 0.08 | 0.02 | 0.05 | 0.10 | 0.12 | | | | | | | | | | | | | | | | | | | F,.02 g,- | |
| 348 | Piankatank River | 2 | % | 10 | 5 | - | 5 | 2 | 60 | | 5 | 3 | 5 | 5 | | | | | | | | | | | | | Pocket marsh berm of pine and saltbush across front. | V | |
| | | | acres | 0.2 | 0.1 | - | 0.1 | - | 1.2 | | 0.1 | 0.1 | 0.1 | 0.1 | | | | | | | | | | | | | | | |
| 349 | Piankatank River | 2 | % | 10 | 5 | - | 20 | 5 | 30 | 5 | 15 | | 5 | 5 | | | | | | | | | | | | | Pocket marsh; backside of marsh dammed to form pond. | XII | |
| | | | acres | 0.2 | 0.1 | - | 0.4 | 0.1 | 0.6 | 0.1 | 0.3 | | 0.1 | 0.1 | | | | | | | | | | | | | | | |
| 350 | Piankatank River | 3 | % | 5 | 10 | 5 | 5 | 5 | 65 | | - | 2 | 3 | - | | | | | | | | | | | | | Pocket marsh; cordgrass fringe along river; big cordgrass dominates interior. | V | |
| | | | acres | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 2.0 | | - | 0.1 | 0.1 | - | | | | | | | | | | | | | | | |
| 351 | Piankatank River | 2 | % | 20 | - | - | 5 | | 40 | 10 | 20 | | 5 | | | | | | | | | | | | | | Pocket marsh; dominated by brackish water species; cattails along uplands. | XII | |
| | | | acres | 0.4 | - | - | 0.1 | | 0.8 | 0.2 | 0.4 | | 0.1 | | | | | | | | | | | | | | | | |
| 352 | Carvers Creek | 42 | % | 10 | 5 | 5 | 10 | 1 | 30 | 20 | - | 2 | 5 | 1 | 5 | | | | | 3 | 2 | | | | | h,1 | Large fringing marsh; first evidence of low elevation, freshwater species. | XII | |
| | | | acres | 4.2 | 2.1 | 2.1 | 4.2 | 0.4 | 12.6 | 8.4 | - | 0.8 | 2.1 | 0.4 | 2.1 | | | | | | 1.3 | 0.8 | | | | | | | h,0.4 |
| 353 | Carvers Creek | 54 | % | 10 | - | | 5 | | 60 | 3 | 3 | - | 2 | | | | | | 2 | 3 | 5 | | | | | d,1 b,1 | Creek marsh; interior dominated by big cordgrass; grades upstream to woody swamp. | V | |
| | | | acres | 5.4 | - | | 2.7 | | 32.4 | 1.6 | 1.6 | - | 1.1 | | | | | | | 1.1 | 1.6 | 2.7 | | | | | | | d,0.5 b,0.5 |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

Section VI. Piankatank River
(continued)

| # | Marsh Location | Total Acres | | Saltmarsh Cordgrass | Saltmeadow Hay | Saltgrass | Saltbushes | Black Needlerush | Big Cordgrass | Saltmarsh Bulrush | Cattails | Water-hemp | Marsh Hibiscus | Switch Grass | Saltmarsh Aster | Sea Oxeye | Sea Lavender | Saltmarsh Fimbristylis | Saltwort | Marsh Mallow | Smartweeds | Pickereelweed Arrow Arum | Olney Threesquare | Beggar Ticks | Wild Rice | Jewel Weed | Other | Observations | Marsh Type |
|-----|------------------|-------------|-------|---------------------|----------------|-----------|------------|------------------|---------------|-------------------|----------|------------|----------------|--------------|-----------------|-----------|--------------|------------------------|----------|--------------|------------|--------------------------|-------------------|--------------|-----------|------------|----------------------------------|---|------------|
| 354 | Piankatank River | 18 | % | 10 | 10 | 5 | 5 | 5 | 45 | 10 | 3 | | - | 2 | 5 | | | | | | | | | | | | | Extensive marsh; dominated by cordgrass with areas of high marsh. | XII |
| | | | acres | 1.8 | 1.8 | 0.9 | 0.9 | 0.9 | 8.1 | 1.8 | 0.5 | | | | - | 0.4 | 0.9 | | | | | | | | | | | | |
| 355 | Piankatank River | 11 | % | 10 | 5 | | | | 40 | | 30 | | 5 | 2 | | | | | | | | 5 | | | | | h,3 | Fringing marsh; large stand of cattails. | XII |
| | | | acres | 1.1 | 0.6 | | | | 4.4 | | 3.3 | | 0.6 | 0.2 | | | | | | | | | 0.6 | | | | | | |
| 356 | Piankatank River | 59 | % | 5 | - | | | | 10 | | 15 | 4 | 5 | 1 | | | | | | | 15 | 15 | | 5 | 15 | | a,5 d,5 h,- | Extensive marsh; small fringe of saltmarsh cordgrass; freshwater species dominate the interior section. | XI |
| | | | acres | 3.0 | - | | | | 5.9 | | 8.8 | 2.4 | 3.0 | 0.6 | | | | | | | | 8.8 | 8.8 | | 3.0 | 8.8 | | | |
| 357 | Piankatank River | 4 | % | 5 | | | | | | | 20 | 3 | 5 | 2 | | | | | | | 10 | 25 | | 5 | 25 | | | Two marsh islands; some shrubs at highest elevations. | XI |
| | | | acres | 0.2 | | | | | | | | 0.8 | 0.1 | 0.2 | 0.1 | | | | | | | 0.4 | 1.0 | | 0.2 | 1.0 | | | |
| 358 | Piankatank River | 70 | % | | | | | | | | 40 | 2 | 10 | | 2 | | | | | | 10 | 5 | | 2 | 15 | | a,5 b,5 d,2 h,2 | Freshwater creek marsh; interior section grades back to woody swamp. | XI |
| | | | acres | | | | | | | | | 28. | 1.4 | 7.0 | | 1.4 | | | | | | 7.0 | 3.5 | | 1.4 | 10.5 | | | |
| 359 | Piankatank River | 7 | % | | | | | | | | 15 | 5 | 5 | 2 | | | | | | | 10 | 15 | | 3 | 20 | | a,10 b,5 c,5 d,- g,5 | Large marsh fringe that borders channel; extensive woody swamp behind. | XI |
| | | | acres | | | | | | | | | 1.0 | 0.4 | 0.4 | 0.1 | | | | | | | 0.7 | 1.0 | | 0.2 | 1.4 | | | |
| 360 | Piankatank River | 2 | % | | | | | | | | 15 | 5 | 5 | 2 | | | | | | | 10 | 15 | | 3 | 20 | | a,10 b,5 c,5 d,- g,5 | Fringe marsh; grades back to extensive woody swamp. | XI |
| | | | acres | | | | | | | | | 0.3 | 0.1 | 0.1 | .04 | | | | | | | 0.2 | 0.3 | | 0.1 | 0.4 | | | |
| 361 | Piankatank River | 1 | % | | | | | | | | 25 | 5 | 5 | 2 | | | | | | | 15 | 10 | | 5 | 15 | | a,10 b,3 c,5 d,- g,5 | Small spit and fringe marsh; grades into woody swamp. | XI |
| | | | acres | | | | | | | | | 0.25 | 0.05 | 0.05 | 0.02 | | | | | | | 0.15 | 0.10 | | 0.05 | 0.15 | | | |

a- Tearthumb b- Rice Cut Grass c- Water Dock d- Softstem Bulrush e- Yellow Pond-Lily
f- Spike Rush g- Marsh-fleabane h- Arrowhead i- Orach j- Common Threesquare k- Royal Fern

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