STATE OF MARYLAND

WATER QUALITY STANDARDS SUMMARY

U.S. ENVIRONMENTAL PROTECTION AGENCY

MD. DEPARTMENT OF NATURAL RESOURCES

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WATER QUALITY STANDARDS SUMMARY
FOR
INTERSTATE WATERS
IN THE
STATE OF MARYLAND

(Maryland Water Resources Regulation 4.8, "General Water Quality Criteria and Specific Water Quality Standards for all Maryland waters," lists uses and criteria for both interstate and intrastate waters of the State)

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Maryland Water Resources Commission
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Annapolis, Maryland 21401

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Water Quality Standards Summary
for
Interstate Waters
in the
State of Maryland

Introduction

In the Water Quality Act of 1965 Congress authorized the establishment of Water Quality Standards for interstate (including coastal) waters. The purpose of these standards is to protect and enhance the quality and productivity of the Nation's interstate waters to serve a variety of beneficial uses, such as public water supply, recreation, protection of aquatic life, and industrial and agricultural uses. This publication summarizes the standards for the general information of the public and Federal, State, and local officials as to the uses and associated requirements for interstate waterways.

The Act, which amended the Federal Water Pollution Control Act, provided for the States to have the first opportunity to establish standards for their interstate waters, which were then subject to review and approval by the Secretary of the Interior. On December 2, 1970, the responsibility for administering the Water Quality Act of 1965 was transferred to the Administrator, Environmental Protection Agency. All of the States, the District of Columbia, and the territories of Guam, Puerto Rico, and the Virgin Islands participated in this landmark effort to set standards. In the course of establishing the standards, public hearings were held by the States and other jurisdictions noted above to give the public an opportunity to participate in setting water quality objectives and standards.

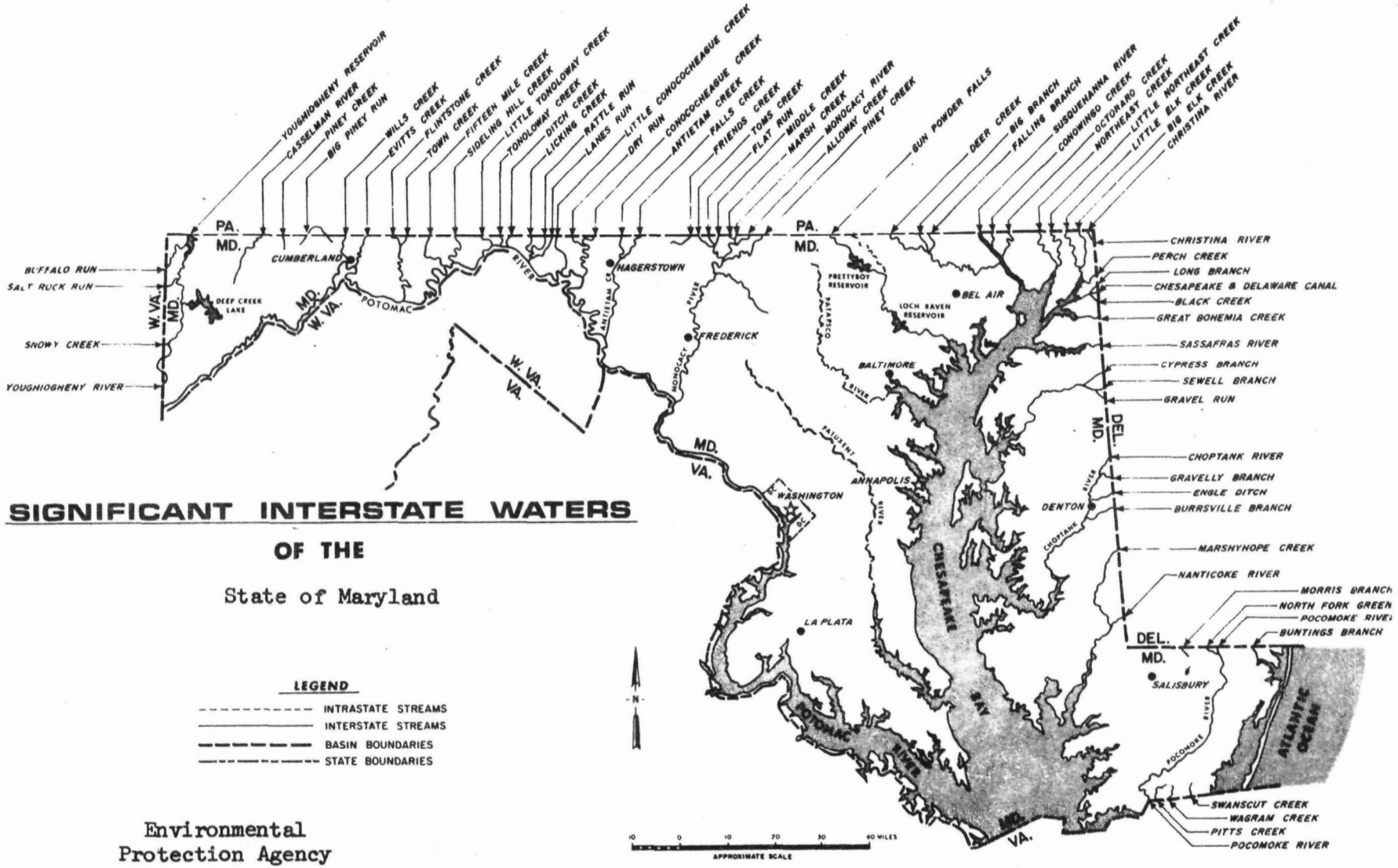
The standards for interstate waters which the State of Maryland adopted on May 22, 1967, were then submitted to the Department of the Interior.

The standards were fully approved by the Secretary of the Interior on August 7, 1967, and became enforceable under Maryland's water pollution control statutes and the Federal Water Pollution Control Act, as amended (Section 10). The waters for which standards were adopted are shown on the map in Figure 1.

The Water Quality Standards contained herein have been excerpted from Maryland Water Resources Regulation 4.8, "General Water Quality Criteria and Specific Water Quality Standards for All Maryland Waters."

The standards are now being implemented. However, there will be continuing research on water quality requirements for various beneficial uses and improved collection and evaluation of water quality data. As more information becomes available and experience with implementing the standards is gained, the standards will be refined and improved to reflect the new knowledge.

Should more detailed information be required on any aspect of the standards, it may be obtained from the State of Maryland Department of Water Resources, State Office Building, Annapolis, Maryland 21401; or the Environmental Protection Agency, Region III, 6th and Walnut Streets, Curtis Building, Philadelphia, Pennsylvania 19106.



SIGNIFICANT INTERSTATE WATERS

OF THE

State of Maryland

LEGEND

- INTRASTATE STREAMS
- INTERSTATE STREAMS
- BASIN BOUNDARIES
- STATE BOUNDARIES

Environmental
Protection Agency

Water Quality Standards Summary

Water Quality Standards Summary

General Scope

It is recognized that certain waters of Maryland possess an existing quality which is better than the water quality standards established therefor.

It is the public policy of the State of Maryland that the quality of these waters will be maintained unless and until it has been demonstrated to the satisfaction of the Department of Water Resources that a change is justifiable as a result of necessary economic or social development and will not preclude uses made of or presently possible in such waters. To accomplish this objective, all proposed new or increased sources of pollution will be required to provide the best practical degree of waste treatment to maintain these waters at this higher quality.

In addition, there will be furnished to the Environmental Protection Agency such information as is needed to enable the Administrator of the Environmental Protection Agency to fulfill his responsibilities under the Federal law.

Water which does not meet the standards established therefor, will be improved to meet the standards.

Article 1.

General Water Quality Criteria

In order to provide for the enhancement of water quality where such quality has deteriorated or is deteriorating, for the conservation of water quality where such quality is good and satisfactory, and for the protection of lawful and reasonable water uses, there are hereby established water quality standards--both general and specific--for all of the waters of the State.

Section

1.10 General water quality criteria are established to control nuisance conditions and general well being of fish and other aquatic life during periods of migration and passage.

1.20 These general criteria establish basic water quality requirements for all Maryland waters to be implemented and enforced:

a. for all waters for which no specific water quality standards are established;

b. wherever and whenever specific water quality standards are not applicable for reasons of stream flows lower than that of the standards-related design stream flow; and

c. to supplement specific water quality standards in any waters where such specific standards do not establish water quality required by these general criteria.

1.30 The waters of the State shall at all times be free from:

1.31 Substances attributable to sewage, industrial waste, or other waste that will settle to form sludge deposits that are unsightly, putrescent, or odorous to such degree as to create a nuisance, or that interfere directly or indirectly with water uses;

1.32 Floating debris, oil, grease, scum, and other floating materials attributable to sewage, industrial waste, or other waste in amounts sufficient to be unsightly to such a degree as to create a nuisance, or that interfere directly or indirectly with water uses;

1.33 Materials attributable to sewage, industrial waste, or other waste which produce taste, odor, or change the existing color or other physical and chemical conditions in the receiving streams to such degree as to create a nuisance, or that interfere directly or indirectly with water uses; and

1.34 High temperature, toxic, corrosive, or other deleterious substances attributable to sewage, industrial waste, or other waste in concentrations or combinations which interfere directly or indirectly with water uses, or which are harmful to human, animal, plant, or aquatic life.

1.40 In addition, in the waters of the State:

1.41 Dissolved oxygen concentrations shall not be less than 4.0 mg/liter as a daily average, nor less than 3.0 mg/liter as an absolute minimum at any time, except where lower values occur naturally;

1.42 pH values shall not be less than 4.0 nor greater than 9.0 except where values outside of this range occur naturally, and

1.43 Thermal effects shall be limited and controlled so that there occurs:

(a) No sudden temperature change that adversely affects aquatic life;

(b) No temperature change that adversely affects spawning success.

(c) No temperature exceeding 100° F beyond 50 feet from any point of discharge; and

(d) No thermal barrier to the passage of fish.

1.50 Existing regulations on water pollution control which are continued in effect, either in the existing or in an amended form, will be implemented and enforced as part of this general standards program. In addition, such water pollution control regulations as may be promulgated in the future for this purpose will also be implemented and enforced as part of the same program.

Article 2.

Water Use

2.10 Specific water quality standards have been formulated so as to protect present and probable future water uses.

2.20 For the purpose of these water quality standards, water uses which influence standard setting are selected or modified only after review of comments received at public hearings.

2.30 The actual use of water in each water zone is not limited to the categories of use listed in the tabulation that follows (Article 8): Any lawful and reasonable use is permitted provided the water quality standards are not deleteriously affected thereby. The classification of water uses herein shall not be construed as authorizing or establishing any such use, nor permitting any such use, where otherwise restricted by law or by any person having control over the use of such waters.

Article 3.

Standards-Related Design Stream Flow

The water quality standards established for specified water zones shall be maintained during periods of low stream flow, which is defined as the mean seven (7) consecutive day low flow having a frequency of recurrence of once in ten (10) years. For the duration of lower stream flows, the Department may apply the general water quality criteria or such other standards as it may deem necessary and feasible.

Article 4.

Standards for Tributary Waters

Except for tributaries to waters used for SHELLFISH HARVESTING OR PUBLIC OR MUNICIPAL WATER SUPPLY, any stream or body of water not specifically identified, or having no specific water quality standards assigned to it, shall carry the same water quality standards as those established for the stream or body of water to which it is tributary.

Article 5.

Standards and Natural Water Quality

Notwithstanding the specific water quality standards established for any particular water zone, it is not intended that the water quality to be achieved and maintained exceed the natural water quality existing in these waters.

Article 6.

Review and Revision

The specific water quality standards as established are subject to periodic review and may be revised in accordance with applicable provisions of the Maryland Water Resources Law (Article 96A, Maryland Code).

Article 7.

Water Quality Specifications

These specifications constitute the basic information from which specific water quality standards for specific water zones have been derived (see Article 8). Section 7.10 identifies the code used for Water Use Categories. Sections 7.20-7.23, inclusive, identify the three "Group Water Uses" which represent the combinations of water uses which occur most frequently in the waters of the State. Sections 7.30-7.60, inclusive, provide statements on several standards each for bacteriological values, dissolved oxygen, pH and temperature. From these statements, specific standards are selected to protect combinations of water uses as they exist, or are anticipated, in specific water zones. Sections 7.70-7.73, inclusive, identify the water quality standards selected to protect previously mentioned "Group Water Uses." Section 7.80 provides in tabular form the water quality standards necessary to protect any particular use. This table makes possible the derivation of water quality standards to protect the previously mentioned "Group Water Uses," or to protect any combination of two or more water uses.

Section

7.10

WATER USE CATEGORIES
I - SHELLFISH HARVESTING
II - PUBLIC OR MUNICIPAL WATER SUPPLY
III - WATER CONTACT RECREATION
IV - PROPAGATION OF FISH, OTHER AQUATIC LIFE, & WILDLIFE
V - AGRICULTURAL WATER SUPPLY
VI - INDUSTRIAL WATER SUPPLY

7.20 A major portion of the waters of the State have present or probable future uses which can be protected by one of three sets of water quality standards, identified as Standards for Group A, Group B, or Group C water uses.

7.21 Group A Water Uses

The following combinations of water uses are protected by one set of water quality standards which is identified in Section 7.71:

I, IV	I, IV, V, VI	I, III, IV, VI
I, IV, V	I, III, IV	I, III, IV, V, VI
I, IV, VI	I, III, IV, V	

7.22 Group B Water Uses

The following combinations of water uses are protected by one set of water quality standards which is identified in Section 7.72:

II, IV	II, IV, V, VI	II, III, IV, VI
II, IV, V	II, III, IV	II, III, IV, V, VI
II, IV, VI	II, III, IV, V	

7.23 Group C Water Uses

The following combinations of water uses are protected by one set of water quality standards which is identified in Section 7.73:

IV	IV, V, VI	III, IV, VI
IV, V	III, IV	III, IV, V, VI
IV, VI	III, IV, V	

7.30 Bacteriological Standards (Bact.)

Bact. 1 [FOR GROUP A WATER USES] Most Probable Number (MPN) of coliform organisms to be less than 70 per 100 ml. of sample. Must comply with sanitary and bacteriological standards as listed in the latest edition of MANUAL OF RECOMMENDED PRACTICES FOR SANITARY CONTROL OF THE SHELLFISH INDUSTRY.

Bact. 2 [FOR GROUP B WATER USES] Group B waters must meet two separate bacteriological standards: one to protect potable water supply uses (Water Use Category II) and the other to protect water contact recreational uses (Water Use Category III; also related to Water Use Category IV).

Public or Municipal Water Supply Uses--Monthly average value (either MPN or MF count) of coliform organisms not to exceed 5,000 per 100 ml. of sample; nor to exceed this number in more than 20 percent of the samples examined during any month; nor exceed 20,000 per 100 ml. in more than 5 percent of such samples. There must be no discharges of sewage, industrial waste, or other waste that deleteriously affect the safety of the water supply and which could, in this manner, contravene the latest edition of the PUBLIC HEALTH SERVICE DRINKING STANDARDS (published by the U.S. Public Health Service).

Water Contact Recreation Uses--The bacterial quality of water is acceptable for these uses when a sanitary survey reveals no source of dangerous pollution and when the fecal coliform organism density does not exceed 240 MPN per 100 ml. When the fecal coliform organism density exceeds 240 MPN per 100 ml., the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

Bact. 3 [FOR GROUP C WATER USES] The bacterial quality of water is acceptable for these uses when a sanitary survey reveals no source of dangerous pollution and when the fecal coliform organism density does not exceed 240 MPN per 100 ml. When the fecal coliform organism density exceeds 240 MPN per 100 ml., the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

7.40 Dissolved Oxygen Standards (DO)

DO 1 For all water use categories other than IV, dissolved oxygen concentrations must not be less than 4.0 mg. per liter at any time, except where--and to the extent that--lower values occur naturally.

DO 2 [FOR GROUPS A, B, & C WATER USES] For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, the dissolved oxygen concentration must not be less than 5.0 mg/l at any time, with a minimum monthly average of not less than 6.0 mg/l. For the propagation of fish and other aquatic life (Water Use Category IV) in all other waters, the dissolved oxygen concentration must not be

less than 5.0 mg/l at any time, with a minimum monthly average of not less than 6.0 mg/l. For the propagation of fish and other aquatic life (Water Use Category IV) in all other waters, the dissolved oxygen concentration must not be less than 4.0 mg/l at any time, with a minimum monthly average of not less than 5.0 mg/l, except where--and to the extent that--lower values occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

7.50 pH Standards

pH 1 For all water use categories other than IV, pH values must not be less than 5.0 nor greater than 9.0, except where--and to the extent that--pH values outside this range occur naturally.

pH 2 FOR GROUP A, B, & C WATER USES Normal pH values for the waters of the zone must not be less than 6.0 nor greater than 8.5 except where--and to the extent that--pH values outside this range occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

7.60 Temperature Standards (Temp.)

Temp. 1 For all water use categories other than IV, there must be no temperature change that adversely affects fish, other aquatic life, or spawning success. There must be no thermal barriers to the passage of fish or other aquatic life. Maximum temperature must not exceed 100° F beyond 50 feet from any point of discharge.

Temp. 2 [FOR GROUPS A, B, & C WATER USES] For Nontidal Waters: For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, the temperature must not exceed 72° F at any time. For the propagation of fish and other aquatic life (Water Use Category IV) in all other nontidal waters, the temperature must not exceed 93° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all nontidal waters other than "trout waters" maximum temperature elevation is to be limited as follows:

> For natural water temperature of 50° F or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperature greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 93° F.

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters and will be permitted or denied by the Department of Water Resources after consultation with such agency.

For Tidal Waters: Used for the propagation of fish and other aquatic life (Water Use Category IV), temperature must not exceed 90° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all tidal waters maximum temperature elevation is to be limited as follows:

> For natural water temperature of 50° F or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperature greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 90° F.

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Chesapeake Bay Affairs and will be permitted or denied by the Department of Water Resources after consultation with that agency.

7.70 Water Quality Standards for Selected Group Water Uses

7.71

STANDARDS FOR GROUP A WATER USES	
Bact.	1
DO	2
pH	2
Temp.	2

7.72

STANDARDS FOR GROUP B WATER USES	
Bact.	2 & 3
DO	2
pH	2
Temp.	2

7.73

STANDARDS FOR GROUP C WATER USES	
Bact.	3
DO	2
pH	2
Temp.	2

7.80 For any combinations of two or more water uses, water quality standards needed to protect such uses are to be derived from the following reference table:

WATER USE CATEGORIES	WATER QUALITY STANDARDS							
	BACTERIOLOGICAL STANDARDS		DISSOLVED OXYGEN STANDARDS		pH STANDARDS		TEMPERATURE STANDARDS	
I	Bact.	1	DO	1	pH	1	Temp.	1
II		2		1		1		1
III		3		1		1		1
IV		3		2		2		2
V		-		1		1		1
VI		-		1		1		1

For any water zone having two or more uses, the water quality standards applicable shall be the highest or most restrictive of the standards applicable to such uses.

ARTICLE 8

LISTING OF SPECIFIC WATER QUALITY STANDARDS

FOR SPECIFIED INTERSTATE WATERS OR WATER ZONES

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED (See Article 7)	WATER USES TO BE PROTECTED
		Section 8.01 -- GARRETT COUNTY		
I-1	Youghiogheny River and all interstate tribs.	All portions in Maryland	Group C	III,IV(trout),V
I-2	Youghiogheny/ Herrington Creek	State Line to Herrington Manor Road (County Route #21)	B	II,III IV(trout),V
I-3	Casselman River and interstate tribs.	Old U.S. #40 Bridge to State Line and all interstate tribs. except as follows	C	III,IV,V
I-4	Casselman River and interstate tribs.	Headwaters to Old U.S. #40 Bridge and Maryland portions of Shade Run, Puzzley Run, and Piney Creek	B	II,III,IV,V
		Section 8.02 -- GARRETT & ALLEGANY COUNTIES		
I-5	North Branch Potomac	From Headwaters to West Virginia Pulp & Paper Water Supply Dam	Group B	II,III, IV(trout),V,VI
		Section 8.03 -- ALLEGANY COUNTY		
I-6	North Branch Potomac	West Virginia Pulp & Paper Water Supply Dam to Dam at Cumberland	Bact. Std.-No standard established D.O. - 1 pH - 1 Temp. - 1	V,VI
I-7	Wills Creek & interstate tribs.	State Line to Braddock Run	Group B	II,III, IV(trout),V,VI
I-8	North Branch Potomac	Dam at Cumberland to Wiley Ford Bridge	C	II,IV,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-9	Evitts Creek and interstate tribs.	State Line to mouth	Group B	II,III, IV(trout),V
I-10	North Branch Potomac	Wiley Ford Bridge to confluence with South Branch	C	III,IV,V,VI
I-11	Potomac River	Confluence of North & South Branches to Allegany-Washington County Line	C	III,IV,V,VI
I-12	Town Creek & interstate tribs.	State Line to mouth	C	III,IV(trout),V
I-13	Fifteen Mile Creek	Fifteen Mile Creek & Bear Camp Branch	C	III,IV(trout),V
I-14	Sideling Hill Creek	State Line to Pearre Road	C	III,IV(trout),V
	Section 8.04-WASHINGTON COUNTY			
I-15	Potomac River	Allegany-Washington County Line to Washington-Frederick County Line	Group B	II,III,IV, V,VI
I-16	Little Tonoloway Creek & interstate tribs.	Headwaters to mouth	B	II,III, IV(trout),V,VI
I-17	Tonoloway Creek	Mouth to State Line & interstate tribs.	B	II,III, IV(trout),V,VI
I-18	Ditch Run	State Line to mouth	C	III,IV(trout), V
I-19	Licking Creek	Licking Creek & interstate tribs.	C	III,IV(trout),V
I-20	Little Conococheague Creek	State Line to U.S. #40	B	II,III, IV(trout),V,VI
I-21	Antietam Creek & interstate tribs. except Marsh Run Watershed	Headwaters to State Line and/or State Line to mouth	C	III,IV,V,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-22	Marsh Run	Marsh Run & tribs. below State Line	Group C	III,IV(trout) V,VI
I-23	Conococheague	Conococheague & interstate tribs. from State Line to mouth	B	II,III, IV(trout),V,VI
		Section 8.05--FREDERICK COUNTY		
I-24	Marsh Creek	Pennsylvania State Line to confluence with Monocacy River	Group C	III,IV(trout),V
I-25	Cattail Branch	Headwaters to confluence with Monocacy River	C	III,IV(trout),V
I-26	Toms Creek	Pennsylvania State Line to confluence with Monocacy River	B	II,III,IV(trout), V,VI
I-27	Flat Run	Pennsylvania State Line to confluence with Toms Creek	B	II,III,IV,V
I-28	Middle Creek	Pennsylvania State Line to confluence with Toms Creek	B	II,III,IV(trout), V
I-29	Friends Creek	Friends Creek and tribs.	B	II,III, IV(trout),V,VI
I-30	Monocacy River	Pennsylvania State Line to Ft. Detrick intake station	B	II,III, IV(trout),V,VI
I-31	Monocacy River	Downstream of Ft. Detrick intake stations	B	II,III,IV, V,VI
I-32	Potomac River	Main Stem in Frederick County	B	II,III,IV, V,VI
		Section 8.06 -- MONTGOMERY AND PRINCE GEORGES COUNTIES		
I-33	Potomac River	Main Stem in Montgomery County	Group B	II,III,IV, V,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-34	Rock Creek & tribs.	Headwaters downstream to Detention Dam #5	Group C	III,IV,V
I-35	Rock Creek & tribs.	From Norbeck Road (Rt. #28) upstream to Detention Reservoir #5 at Dam	C	III,IV(trout),V
I-36	Rock Creek & tribs.	Upstream of Dam #1	C	III,IV(trout),V
I-37	Rock Creek & tribs.	Downstream from Norbeck Road (Rt. #28) to D.C. Line	C	III,IV
I-38	Anacostia River	From confluence of Northeast & Northwest Branch to D.C. Line	C	III,IV,VI
I-39	Oxon Run & tribs.	Maryland sections to mouth	C	III,IV
I-40	Potomac River - Main Stem & tidal portions of all unlisted tribs.	D.C. Line to Upper Cedar Point	C	III,IV,VI
I-41	Broad Creek	From Rt. #224 to mouth	C	III,IV
I-42	Swan Creek - trib. of Potomac River	From Md. #224 to mouth	C	III,IV
I-43	Piscataway Creek - trib. of Potomac River	From Rt. #224 to mouth	C	III,IV
I-44	Patuxent River & tidal portions of all tribs.	Queen Anne Bridge to mouth of Western Branch	C	III,IV,V
I-45	Western Branch	From boundary of tidal and non-tidal waters to mouth	C	III,IV,V
I-46	Patuxent River - Main Stem and unlisted tribs.	Western Branch to Deep Landing	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-47	Kings Creek	From boundary of tidal and non-tidal waters to mouth	Group C	III,IV,V
I-48	Hotchkins Branch	From boundary of tidal and non-tidal waters to mouth	C	III,IV,V
I-49	Black Swamp Creek	From boundary of tidal and non-tidal waters to mouth	C	III,IV,V
I-50	Patuxent River - Main Stem & tidal portions of all unlisted tribs.	Deep Landing to mouth of Swanson Creek	A	I,III,IV,VI
	Section 8.07 -- CHARLES AND ST. MARY'S COUNTIES			
I-51	Potomac River - Main Stem & tidal portions of all unlisted tribs.	Upper Cedar Point to Pt. Lookout	Group A	I,III,IV,VI
I-52	Pomonkey Creek	Md. Rt. #226 to mouth	C	III,IV
I-53	Mattawoman Creek	Md. Rt. #225 to mouth	C	III,IV,V
I-54	Chicamuxin Creek	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-55	Nanjemoy Creek & tribs.	From Md. Rt. #6 to mouth	A	I,III,IV
I-56	Port Tobacco River	From Md. Rt. #6 to mouth	A	I,III,IV
I-57	Popes Creek	From boundary of tidal and non-tidal waters to mouth	A	I(in front of mouth),IV
I-58	Cliffton Creek	From boundary of tidal and non-tidal waters to mouth	A	I(in front of mouth),IV,V
I-59	Pasquahanza Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-60	Piccowaxen Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-61	Cuckold Creek	From boundary of tidal and non-tidal waters to mouth	Group A	I,III,IV
I-62	Weir Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-63	Wicomico River & tidal portions of tribs.	From Md. Rt. #234 to Budds Creek	C	III,IV
I-64	Wicomico River & tidal portions of tribs.	From Budds Creek to mouth	A	I,III,IV
I-65	St. Catherine Sound & tribs.	Headwaters to mouth	A	I,III,IV
I-66	Dukeharts Creek	Headwaters to mouth	A	I,III,IV
I-67	St. Clement Bay & tribs.	Md. Rt. #237 to mouth	A	I,III,IV
I-68	Breton Bay	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-69	Medley Creek	From boundary of tidal and non-tidal waters to mouth	A	I(at mouth),IV
I-70	Flood Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I(near mouth), IV
I-71	Belvedere Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I(near mouth), III,IV
I-72	Blake Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-73	Lane Pond & Lane Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-74	Herring Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-75	Piney Point Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-88	Chesapeake Bay - Western Shore & tidal portions of all unlisted tribs.	Hog Point to Point Lookout	Group A	I,III,IV
	Section 8.08 -- ANNE ARUNDEL AND CALVERT COUNTIES			
I-89	Marley Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	Group C	III,IV
I-90	Furnace Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-91	Curtis Creek & tribs.	From boundary of tidal and non-tidal waters to County Line	C	IV,VI
I-92	Cabin Branch & tribs.	From boundary of tidal and non-tidal waters to Baltimore City Line	C	III,IV
I-93	Patapsco River	Mouth of Deep Run to Anne Arundel-Baltimore County and City Line	C	III,IV,VI
I-94	Patapsco River	Hawkins Point to Rock Point	Bact.Std. - 3 D.O. - 1 pH - 1 Temp. - 1	III,VI
I-95	Stoney Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-96	Rock Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-97	Chesapeake Bay & tribs. - Western Shore	Rock Point to Bodkin Point	A	I,III,IV
I-98	Bodkin Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-99	Chesapeake Bay - Western Shore & tidal portions of all unlisted tribs.	Bodkin Point to Persimmon Point	A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-76	St. Mary's River & tribs.	Md. Rt. #5 to mouth	Group A	I,III,IV
I-77	Smith Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-78	Calvert Bay & Calvert Cr.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-79	Harry James Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-80	Biscoe Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-81	Potter Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-82	Point Lookout Cr. & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-83	Patuxent River & tidal portions of all tribs.	Swanson Creek to mouth of River	A	I,III,IV,VI
I-84	Pine Hill Run	From boundary of tidal and non-tidal waters to mouth	C	IV
I-85	St. Jerome Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-86	Deep Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-87	Tanners Creek	From boundary of tidal and non-tidal waters to mouth	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-100	Magothy River	From boundary of tidal and non-tidal waters to Henderson Pt.	Group C	III,IV
I-101	Magothy River & tribs.	Henderson Point to mouth	A	I,III,IV
I-102	Little Magothy River	From boundary of tidal and non-tidal waters to mouth	A	I(front of mouth),III,IV
I-103	Chesapeake Bay - Western Shore & tidal portions of all unlisted tribs.	Persimmon Point to Hackett Point	A	I,III,IV
I-104	Whitehall Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-105	Mill Creek	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-106	Severn River & tidal portions of tribs.	Headwaters of River to mouth of Forked Creek	C	III,IV
I-107	Severn River & tidal portions of tribs.	Mouth of Forked Creek to Bridge at Md. Rt. #450	A	I,III,IV
I-108	Severn River & tidal portions of tribs.	Bridge at Md. Rt. #450 to mouth	A	I,III,IV,VI
I-109	Chesapeake Bay & tidal portions of all unlisted tribs. - Western Shore	Hackett Point to Thomas Point	A	I,III,IV
I-110	North River & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-111	Bacon Ridge Branch & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-112	South River & tribs.	From boundary of tidal and non-tidal waters to Porter Point	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-113	Broad Creek & tidal portions of tribs.	Md. Rt. #450 to mouth	Group C	III,IV
I-114	South River & tidal portions of tribs.	Porter Point to mouth	A	I,III,IV
I-115	Rhodes River & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-116	West River & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-117	Chesapeake Bay & tidal portions of all unlisted tribs. - Western Shore	Thomas Point to Curtis Point	A	I,III,IV
I-118	Chesapeake Bay & tidal portions of all unlisted tribs. - Western Shore	Curtis Point to Owings Beach	A	I,III,IV
I-119	Rockhold Creek & tribs.	From boundary of tidal and non-tidal waters to Masons Beach Road Bridge	C	III,IV
I-120	Rockhold Creek & tribs.	Masons Beach Road Bridge to mouth	A	I,III,IV
I-121	Tracy Creek & tribs.	From boundary of tidal and non-tidal waters to Md. #256	C	III,IV,V
I-122	Tracy Creek	Md. #256 to mouth	A	I,III,IV
I-123	Trotts Branch	From boundary of tidal and non-tidal waters to mouth	C	IV,V
I-124	Chesapeake Bay & tidal portions of all unlisted tribs. to Western Shore	Owings Beach to Fishing Creek	A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-125	Chesapeake Bay - Western Shore & tidal portions of all tribs.	Fishing Creek to Drum Point	Group A	I,III,IV,VI
I-126	Lyons Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-127	Spice Creek	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-128	Hall Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	C	III,IV
I-129	St. Leonard Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-130	Hellen Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-131	Mill Creek & tribs.	From boundary of tidal and non-tidal waters to mouth	A	I,III,IV
I-132	Patuxent River & all tidal portions of tribs.	Ferry Landing to mouth	A	I,III,IV,VI
		Section 8.09 --CARROLL COUNTY		
I-133	Alloway Creek	Pennsylvania State Line to confluence with Monocacy River	Group C	III,IV,V
I-134	Piney Creek Watershed	Pennsylvania State Line to Monocacy River	C	III,IV,V
I-135	Monocacy River	Main Stem & all unlisted tribs. from Pennsylvania State Line to confluence with Monocacy River	B	II,III, IV(trout),V
I-136	Gunpowder Falls Watershed	Trib. to Pretty Boy Reservoir	B	II,III IV(trout),V
		Section 8.10---BALTIMORE COUNTY		
I-137	Patapsco River & tidal tribs.	From boundary of tidal and non-tidal waters to Inner Harbor Zone	Group C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-138	Patapsco River & tidal tribs.	Outer Harbor; from straight line between Hawkins Pt. & Sollers Pt. to straight line between Rock Pt. & North Point	Bact.Std.-3 D.O. - 1 pH - 1 Temp. - 1	III,VI
I-139	Shallow Creek	Headwaters to Chesapeake Bay	Group C	III,IV,VI
I-140	Back River & tidal tribs.	Headwaters to Chesapeake Bay	C	III,IV,VI
I-141	Middle River & tidal tribs.	Headwaters to Chesapeake Bay	C	III,IV,VI
I-142	Gunpowder Falls & interstate tribs.	Carroll County Line to Loch Raven Dam, except Pretty Boy Reservoir and Loch Raven Reservoir	B	II,III, IV(trout),V,VI
I-143	Gunpowder Falls & interstate tribs.	Pretty Boy Reservoir & Loch Raven Reservoir	B	II,III,IV
I-144	Gunpowder Falls	Loch Raven Dam to Gunpowder River	C	III,IV(trout), V,VI
I-145	Chesapeake Bay	Area within ½ mile from Baltimore County shore	C	III,IV,VI
I-146	Chesapeake Bay	Area bounded by Harford Co., Kent Co., A.A. Co., & a line extending ½ mile from Baltimore Co. shore	A	I,III,IV
	Section 8.11 —	BALTIMORE COUNTY AND BALTIMORE CITY		
I-147	Patapsco River & tidal tribs.	Inner Harbor; from Headwaters to straight line between Hawkins Pt. & Sollers Pt.	Bact.Std.-No standard established D.O. - 1 pH - 1 Temp. - 1	VI
I-148	Herring Run & tidal tribs.	From boundary of tidal and non-tidal waters to Back River	Group C	III,IV,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
	Section 8.12 -- BALTIMORE AND HARFORD COUNTIES			
I-149	Gunpowder River & tidal tribs.	Headwaters to straight line between Lower Island Pt. and Rickett Pt.	Group C	III,IV,VI
	Section 8.13 -- HARFORD COUNTY			
I-150	Bush River & all tidal tribs.		Group C	III,IV,VI
I-151	Romney Creek	Headwaters to Chesapeake Bay	Bact.Std.-No standard established D.O. - 1 pH - 1 Temp. - 1	VI
I-152	Swan Creek & tidal tribs.	U.S. #40 (Pulaski Highway) to Chesapeake Bay	Group C	III,IV,VI
I-153	Spesutie Narrows	From headwaters to Chesapeake Bay	Bact.Std.-No standard established D.O. - 1 pH - 1 Temp. - 1	VI
I-154	Chesapeake Bay	Area bounded by Baltimore Co., Kent Co., Cecil Co., and Harford Co. shore	Group C	III,IV,VI
I-155	Deer Creek and interstate tribs.	From headwaters to Susquehanna River	B	II,III, IV(trout),V,VI
I-156	Broad Creek & interstate tribs.	Headwaters to Susquehanna River	B	II,III,IV,V,VI
I-157	All Harford Co. tidal tribs. of the Susquehanna River	From boundary of tidal and non-tidal waters to Susquehanna River	C	III,IV,V,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
	Section 8.14 --HARFORD AND CECIL COUNTIES			
I-158	Susquehanna River	From Pennsylvania State Line to boundary of tidal and non-tidal waters	Group B	II,III,IV,V,VI
I-159	Susquehanna River	From boundary of tidal and non-tidal waters to Chesapeake Bay	C	III,IV,V,VI
	Section 8.15 -- CECIL COUNTY			
I-160	Conowingo Creek & interstate tribs.	From Pennsylvania State Line to Susquehanna River	Group B	II,III,IV,V,VI
I-161	Octoraro Creek & interstate tribs.	Pennsylvania State Line to Susquehanna River	B	II,III, IV(trout),V,VI
I-162	All tidal tribs. of Susquehanna River in Cecil Co.	From boundary of tidal and non-tidal waters to Susquehanna River	C	III,IV,V,VI
	Section 8.16--BALTIMORE, HARFORD AND CECIL COUNTIES			
I-163	All swamp waters of the tidal tribs. to the Chesapeake Bay and the Susquehanna River		Group C	III,IV
	Section 8.17 -- CECIL, KENT AND QUEEN ANNES COUNTIES			
I-164	Chesapeake Bay-including estuarine portions of creeks, coves, and tribs. other than those listed	All that portion of Chesapeake Bay in Queen Annes County & Kent County below a line drawn due west of Handy's Point	Group A	I,III,IV
I-165	Chesapeake Bay-including estuarine portions of creeks, coves & tribs. other than those listed	All that portion of Chesapeake Bay in Cecil Co. & Kent Co. above a line drawn due west of Handy's Point	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-166	Tidal, non-estuarine portions of creeks, coves, & tribs. of Chesapeake Bay other than those listed	All that portion of Chesapeake Bay in Cecil, Kent & Queen Annes Counties	Group C	III,IV
I-167	Non-estuarine portions of Furnace Bay & tribs. including Mill Creek & not including Principio Creek	From estuarine boundaries to boundary of tidal and non-tidal waters	B	II,III,IV,VI
I-168	Northeast River & interstate tribs.	Mouth at Chesapeake Bay to Pennsylvania State Line	B	II,III,IV, V,VI
I-169	Elk River & estuarine portions of creeks, coves, & tribs. including C&D Canal & Back Creek	Mouth at Chesapeake Bay to non-estuarine boundaries and/or Delaware State Line	C	III,IV,V
I-170	Tidal, non-estuarine portions of creeks, coves, & tribs. of Elk River	From estuarine boundaries to Delaware State Line	B	II,III,IV
I-171	Sassafras River & interstate tribs.	Mouth at Chesapeake Bay to Delaware State Line	B	II,III,IV,V
I-172	Still Pond, Churn Creek, Still Pond including Codjus Cove	Mouth at Chesapeake Bay to boundary of tidal and non-tidal waters	C	III,IV
I-173	Worton Creek including Tims Creek & Mill Creek	Mouth at Chesapeake Bay to boundary of tidal and non-tidal waters	C	III,IV
I-174	Fairlee Creek	Mouth at Chesapeake Bay to boundary of tidal and non-tidal waters	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-175	Rock Hall Harbor	Jetties to shore line	Group C	III,IV
I-176	Chester River & estuarine portions of creeks, coves, & tribs. other than Piney Creek, Winchester Creek & Corsica River	Mouth at Chesapeake Bay to U.S. Rt. #213 Bridge	A	I,III,IV
I-177	Chester River & tidal creeks, coves & tribs.	U.S. Rt. #213 Bridge to Md. Rt. #313 Bridge	C	III,IV
I-178	Chester River & interstate tribs. upstream from Md. Rt. #313 Bridge	From Md. Rt. #313 Bridge to Delaware State Line	B	II,III,IV
I-179	Piney Creek & estuarine portions of coves & tribs.	Mouth at Chester River to U.S. 50-301 crossing	A	I,III,IV
I-180	Piney Creek & tidal tribs.	U.S. Rt. 50-301 crossing to boundary of tidal and non-tidal waters	C	III,IV
I-181	Winchester Creek & tidal tribs.	Mouth at Chester River to boundary of tidal and non-tidal waters	C	III,VI
I-182	Corsica River & estuarine portions of tribs.	Mouth at Chester River to Earle Cove	A	I,III,IV
I-183	Corsica River & tidal tribs.	From Earle Cove & from estuarine portions to boundary of tidal and non-tidal waters	C	III,IV
Section 8.18 -- QUEEN ANNES, TALBOT, CAROLINE, DORCHESTER AND WICOMICO COUNTIES				
I-184	Chesapeake Bay-including estuarine portions of creeks, coves, & tribs. other than those listed in this summary	All that portion of Chesapeake Bay in Talbot, Dorchester and certain areas of Queen Anne's and Wicomico Counties.	Group A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-185	Tidal, non-estuarine portions of creeks, coves, & tribs. of Chesapeake Bay other than those listed in this summary	All that portion of Chesapeake Bay in Talbot, Dorchester & certain areas of Queen Anne's & Wicomico Counties	Group C	III,IV
I-186	Eastern Bay & estuarine portions of tribs., coves & creeks other than St. Michaels Harbor & Wye East River	Mouth at Chesapeake Bay to non-estuarine boundaries	A	I,III,IV
I-187	Tidal, non-estuarine portions of tribs. of Eastern Bay	Estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-188	St. Michaels Harbor	Mouth at Miles River to boundary of tidal and non-tidal waters	C	III,IV
I-189	Wye East River	Mouth to a point 2½ miles above Wye Landing	A	I,III,IV
I-190	Wye East River	From a point 2½ miles above Wye Landing to boundary of tidal and non-tidal waters	C	III,IV
I-191	Choptank River & estuarine portions of tribs. in Talbot Co. & other than Black Walnut Cove, San Domingo Creek & Tred Avon River	Mouth at Chesapeake Bay to line extending from Bow Knee Point to Wright Wharf	A	I,III,IV
I-192	Tidal, non-estuarine portions of Choptank River tribs. in Talbot County	Mouth at Chesapeake Bay to line extending from Bow Knee Point to Wright Wharf	C	III,IV
I-193	Black Walnut Cove	Mouth at Choptank River to line drawn from Battery Point to Bar Neck Point	A	I,III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-194	Black Walnut Cove	From line drawn between Battery Point & Bar Neck Point to boundary of tidal and non-tidal waters	Group C	III,IV
I-195	San Domingo Creek & estuarine portions of its tribs.	Mouth at Broad Creek to mouth of cove to St. Michaels and to non-estuarine boundaries	A	I,III,IV
I-196	Cove of San Domingo Creek leading to St. Michaels	From mouth to boundary of tidal and non-tidal waters	C	III,IV
I-197	Tred Avon River & estuarine portions of tribs. other than Town Creek	Mouth at Choptank River to Easton Point & to non-estuarine boundaries of tribs.	A	I,III,IV
I-198	Tred Avon River & portions of tribs. above Easton Point	From Easton Point to boundary of tidal and non-tidal waters	C	III,IV
I-199	Town Creek & tribs.	From mouth at Tred Avon River to boundary of tidal and non-tidal waters	C	III,IV
I-200	Choptank River, Lecompte Bay & all coves in Dorchester Co. portion	Mouth to line drawn between Bow Knee Point & Wrights Wharf Road	A	I,III,IV
I-201	Choptank River - interstate tribs. in Dorchester Co.	All creeks & tribs. to boundary of tidal and non-tidal waters	C	III,IV,V
I-202	Choptank River & interstate tribs.	From line extending between Bow Knee Point & Wright Wharf to Delaware State Line or to boundary of tidal and non-tidal waters	C	III,IV,V,VI

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-203	Little Choptank River including estuarine portions of creeks, coves, & tribs.	From mouth (line drawn between Hills Point & northern top of Oyster Cove) to headwaters of all estuarine portions	Group A	I,III,IV-
I-204	Little Choptank River, interstate tribs.	Estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-205	Honga River including estuarine portions of creeks, coves, & tribs.	From mouth (line drawn between Nancys Point & Bishops Head Point) to headwaters of all estuarine portions	A	I,III,IV
I-206	Honga River & tidal tribs.	Estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-207	Tangier Sound including estuarine portions of creeks, coves, & tribs. other than those listed in this summary separately	All that portion of Tangier Sound in Dorchester & Wicomico Counties	A	I,III,IV
I-208	Tangier Sound tidal tribs.	Tribs., other than those listed separately, from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-209	Fishing Bay, including estuarine portions of creeks, coves, & tribs.	From mouth (line drawn between Clay Island & Bishops Head Point) to Groggs Point	A	I,III,IV
I-210	Fishing Bay tribs. including the Transquaking River, Black Water River, Little Black Water River, Chicamacomico River, and all tidal tribs.	Tribs. from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV,V

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-211	Nanticoke River including estuarine portions of creeks, coves, & tribs. except Nanticoke Harbor	From mouth (line drawn between Frog Pt. & Stump Pt.) to a line between mouth of Jacks Creek & Runaway Point	Group A	I,III,IV
I-212	Nanticoke River trib.: Nanticoke Harbor	Mouth of Harbor to headwaters of Harbor	C	III,IV
I-213	Nanticoke River - tidal tribs.	All tribs. from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-214	Nanticoke River Main Stem including tidal portions of creeks, coves, & tribs.	From line between mouth of Jacks Creek & Runaway Point to Delaware State Line or to boundary of tidal and non-tidal waters	C	III,IV,V
Section 8.19--DORCHESTER, SOMERSET, WICOMICO AND WORCESTER COUNTIES				
I-215	Chesapeake Bay, including estuarine portions of creeks, coves, & tribs. except those listed separately in this summary	All estuarine portions in Dorchester, Wicomico & Somerset Counties	Group A	I,III,IV
I-216	Tangier Sound including estuarine portions of creeks, coves, & tribs. except those listed separately in this summary	Tangier Sound in Maryland	A	I,III,IV
I-217	Wicomico River including estuarine portions of creeks, coves, & tribs.	From mouth (line between Mollies Pt. & Wingate Pt.) to point one mile above Mt. Vernon Wharf	A	I,III,IV
I-218	Wicomico River tidal tribs.	Tribs. from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-219	Wicomico River Main Stem and all tidal tribs. in Maryland	From point 1 mile above Mt. Vernon Wharf to boundary of tidal and non-tidal waters and/or Delaware State Line	Group C	III,IV,V
I-220	Monie Bay, including estuarine portions of creeks, coves, & tribs.	From mouth (line between Wingate Pt. & Long Pt.) to headwaters of Bay ½ mile above Nail Pt.	A	I,III,IV
I-221	Monie Bay tribs.	Tribs. from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-222	Manokin River - including estuarine portions of creeks, coves, & tribs.	Mouth (line between Pin Point & Hazard Point) to Sharps Pt.	A	I,III,IV
I-223	Manokin River, tribs.	Tribs from mouth of river to Sharps Pt.	C	III,IV
I-224	Manokin River - Main Stem & all tidal tribs.	Sharps Pt. to boundary of tidal and non-tidal waters	C	III,IV,V
I-225	Big Annemessex River including estuarine portions of creeks, coves, & tribs.	Mouth (line between Pat Island & Flatcap Pt.) to bridge on River Road	A	I,III,IV
I-226	Big Annemessex River & tidal tribs.	Tribs. from estuarine boundaries (mouth of River) to boundary of tidal and non-tidal waters	C	III,IV
I-227	Little Annemessex River	From mouth (line between Island Pt. & Great Pt.) to a line drawn through channel markers #11 & N-10	A	I,III,IV
I-228	Little Annemessex River, Broad Creek, Daugherty Creek, & all estuarine portions of creeks, coves, & tribs. except Jenkins Creek	From the line drawn between channel markers #11 & N-10 to all estuarine boundaries	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-229	Little Annemessex River-Jenkins Creek including estuarine portions, coves, & tribs.	From mouth to bridge on road to Birdtown	Group A	I,III,IV
I-230	Little Annemessex River tribs.-Jenkins Creek	From bridge on road to Birdtown to boundary of tidal and non-tidal waters	C	III,IV
I-231	Waters of Cedar Island Wildlife Management Area	All waters within State property line	A	I,III,IV
I-232	Pocomoke Sound, Maryland portion, including estuarine portions of creeks, coves, & tribs. except Fair Island Canal	From Watkins Point to line across the mouth of Pocomoke River through Light #15 & Day Beacon #16 following the Md.-Va, border	A	I,III,IV
I-233	Pocomoke Sound tidal tribs. Maryland portion	Tidal tribs. & marsh waters from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-234	Pocomoke River Main Stem & tidal tribs. in Maryland	Mouth (line through Light Beacon #15 & Day Beacon #16) to boundary of tidal and non-tidal waters in Maryland	C	III,IV,V,VI
I-235	Assawoman Bay - Isle of Wight Bay, including estuarine portions of creeks, coves, & tribs. except Bishopville Prong & Herring Creek	From Delaware State Line to bridge on U.S. Rt. #50	A	I,III,IV,V
I-236	Assawoman Bay - Isle of Wight Bay tidal tribs.	Tidal tribs. from estuarine boundaries to boundary of tidal and non-tidal waters in Maryland	C	III,IV

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-237	Isle of Wight Bay trib. - Herring Creek	From mouth to bridge on U.S. Rt. #50	Group A	I,III,IV
I-238	Isle of Wight Bay trib. - Herring Creek	From Rt. #50 bridge to boundary of tidal and non-tidal waters	C	III,IV
I-239	Assawoman Bay - Isle of Wight Bay tidal tribs., Bishopville Prong & tidal tribs.	Mouth to boundary of tidal and non-tidal waters in Maryland	C	III,IV,V
I-240	Sinepuxent Bay including estuarine portions of creeks, coves, & tribs. except Ocean City Harbor	Ocean City Inlet to line between South Point & Great Egging Beach	A	I,III,IV
I-241	Sinepuxent Bay trib. Ocean City Harbor	Mouth of Harbor to headwaters of Harbor	C	III,IV
I-242	Newport Bay including the mouth of all estuarine portions & all coves	From line between South Point & Out Point up the Bay to line between mouth of Gibbs Pond & mouth of Newport Creek	A	I,III,IV
I-243	Newport Bay tidal tribs.	All tidal portions of creeks, coves, & tribs.	C	III,IV
I-244	Chincoteague Bay, including all coves and mouth of all tribs.	From Newport Bay zone boundary to Virginia State Line	A	I,III,IV
I-245	Chincoteague Bay tidal tribs.	Estuarine portions & tribs. from estuarine boundaries to boundary of tidal and non-tidal waters	C	III,IV
I-246	Powell Creek - Maryland portion	Virginia State Line to boundary of tidal and non-tidal waters	C	III,IV,V

ITEM NO.	INTERSTATE WATERS	ZONE	STANDARDS FOR WATER USES INDICATED	WATER USES TO BE PROTECTED
I-247	Swanscut Creek & tidal tribs.	Virginia State Line to boundary of tidal and non-tidal waters	Group C	III,IV,V
I-248	Atlantic Ocean including estuarine portions of creeks, coves, & tribs. except those listed separately in this summary	All that portion within Maryland borders	A	I,III,IV

IMPLEMENTATION PLAN

Implementation Plan

The "action" plan of the standards is the plan of implementation and enforcement. This plan sets forth the requirements for treatment and/or control of all conventional municipal and industrial waste discharges in the State of Maryland which affect interstate waters, specifies the time within which this is to be accomplished, and contains programs for dealing with other water pollution control problems. In general, the standards call for installation of secondary or higher treatment for all municipal and industrial wastes by 1974. Information on the requirements for any particular discharge may be obtained from the Maryland Water Resources Commission and Department of Water Resources, State Office, Annapolis, Maryland 21401.

Combined Sewer Overflows

Only a limited number of communities in Maryland have combined sewers. Where combined sewers exist, studies will be conducted to determine the best method, in each instance, or modifying them so as to eliminate overflows of sewage and industrial wastes to the waters of the State.

Agricultural Wastewaters

Wherever farm wastes or farm animal wastes do or may constitute a water pollution problem, such wastes must be treated or disposed of in an approved manner. Where farm wastes or farm animal wastes are to be treated in waste stabilization ponds, construction of such treatment facilities is not permitted until the project has been reviewed and approved by the Agricultural Engineering Department of the University of Maryland, the State Department of Health, and the Department of Water Resources.

Approval by the agencies concerned depends on whether or not the proposed treatment facilities constitute sound engineering concepts, utilize proper design criteria, and satisfy the requirements of the Maryland Water Resources Law and the applicable regulations of the Department of Water Resources.

Assistance is provided to the farmer in the form of general recommendations for the construction of waste stabilization ponds, including suggestions for location, basin design, and pond construction details.

For the last year the State Department of Health has been carrying out a cooperative study of organic pesticide residues in water supplies. Under an interagency agreement, the Department of Agriculture has supplied a gas chromatograph and auxiliary equipment and is carrying out a sampling program of farmstead water supplies. The State Health Department is supplying laboratory personnel to operate the analytical equipment. The Health Department has the option of using the analytical equipment to carry out investigations of water supplies other than those on farms. The Department plans to conduct a sampling program of surface streams and public water supplies during the next two years as part of this cooperative program.

To an extent, this has already been done: the State Department of Health has directed approximately 200 letters to municipal and county governing bodies making them aware of the Health Department's best judgment of the major sanitary sewage control measures required to conform with the quality standards. Similarly, the Department of Water Resources has alerted a list of approximately 4,000 industries, agencies, organizations, and other persons to the water quality standards that will be enforced. This effort in information dissemination and public education will be continued.

Wastes from Vessels and Marinas

There was a total of 62,000 boats registered in Maryland as of December 1966. Of this total, approximately 20 percent are over 26 feet in length. Thus, approximately 12,500 vessels registered in Maryland are equipped with one or more toilet facilities. This figure does not include the numerous documented vessels and the many out-of-State vessels visiting during the summer months. In other words, there are a minimum number of 12,000 to 13,000 discharges from bathroom and kitchen or galley facilities.

Due to the nature of the sources the discharges, unfortunately, are concentrated in certain areas in Maryland's rivers and coves where tidal flushing is less than in the open Bay.

Since 1961 and continuing to the present, Maryland agencies have made several studies toward control of discharges from marine sources. The Department of Chesapeake Bay Affairs has installed various types of sewage treatment units on their patrol vessels and has conducted studies of their operation and the effects of the treated discharges. The State Department of Health and the Department of Water Resources have conducted water quality studies of areas where considerable number

of vessels are moored. To date, results of all these studies are inconclusive. Most of the treatment units on the vessels failed to operate properly, and, in fact, one unit proved to be a definite safety hazard to the personnel on the vessel. Although the data from the water quality studies showed a deterioration in the sanitary quality in the waters, they could not identify the specific sources of the pollution--whether land or marine.

The number of vessels on Maryland's waters increase yearly and the concern for the effects of the resulting increase in pollution is reflected in the numbers of legislative bills introduced in the Maryland General Assembly for the control of discharges from boats. These have been referred to the Maryland Legislative Council and are now being studied by that group.

On January 9, 1967, the Maryland Board of Natural Resources adopted a resolution requesting the Secretaries of the Department of the Interior and Department of Health, Education, and Welfare to formulate and recommend model rules and regulations specifying acceptable marine toilets, holding tanks, and other arrangements for controlling sewage discharged from vessels and boats operating on navigable waters. This resolution reflects once again Maryland's concern for a solution to this problem which will also be satisfactory to its neighboring states.*

Land Erosion and Sediment Deposition

Maryland's concern over the damage caused by sediment in the waters of the State dates back to April 1961 when the predecessor agency to the Department of Water Resources, the Water Pollution Control Commission, initiated a study of the water pollution problem caused by soil erosion. The problem was then established as being one of great significance, and a more elaborate study was made thereafter under contract by Dr. M. Gordon Wolman of the Johns Hopkins University.

In this manner, the State was able to define the extent of the problem posed by sediment derived from construction activities in Maryland. Since then, the Maryland State Roads Commission has upgraded its road building specifications to provide more effective control over soil erosion from embankments, cuts, and borrow areas during the construction period.

* When an acceptable method is developed for the treatment and disposal of wastes from vessels and marinas, Maryland will act promptly to require that such method be applied in Maryland waters.

In addition, the present program of sediment control in Maryland includes efforts to:

1. Encourage counties and municipalities controlling urban development to include in their subdivision regulations provision for review by their appropriate engineering officials of plans for control of erosion and sedimentation during and after construction, where such controls are deemed necessary.

2. Cooperate with the office of the State Conservationist in the immediate preparation of a manual of sediment control procedures applicable to construction activity for use by local and State officials.

3. Urge the Maryland Game and Inland Fish Commission and the State Roads Commission, in accord with their cooperative agreement for review of highway projects under the Federal highway program, to consider the full range of effects of highway development on the physical and biological character of stream channels in accord with the memorandum of understanding which recognizes, "that road construction, maintenance, and recreational opportunity for Maryland citizens are problems of mutual concern."

4. Initiate jointly with appropriate State and Federal agencies development of a comprehensive program of sediment observations and analytical studies related to immediate and long range interests of the State. Data are needed on the movement and deposition of sediment, on the long term effects of sediment on the biota in streams, reservoirs, and estuaries, and on the relation of sediment to recreational and industrial activity.

5. Continue to observe and report instances of sediment pollution resulting from construction activity in accord with procedures developed during this study.

6. Treat contractors and builders who persist in polluting the water courses of the State in accord with procedures applicable to all other commercial and industrial operations.

An opinion of the Attorney General's Office has declared sediment a pollutant in the waters of the State. The Department of Water Resources is continuing its efforts to subject sediment pollution to effective control. One part of this continuing effort is a regulation on sediment control which the State is preparing to establish and promulgate.

Mine Drainage

The existing water pollution caused by mine drainage in Western Maryland has been described in detail in a comprehensive report consisting of three volumes, entitled "Western Maryland Mine Drainage Survey." This report identified 563 mines (deep and strip or combination); described the area affected by strip mines as totaling 7,502 acres; stated that 274 mines are presently draining, and that 211 of these have a detrimental effect on water quality. More than 150 miles of streams in Maryland have been degraded by mine drainage.

In Maryland, the State Bureau of Mines has control over reclamation of strip mines and safety practices in both strip and deep mines. The Department of Water Resources has the power to require a mine owner or operator to correct or bring within the Department's limits, the quality of a discharge from a mine.

In an effort to abate the pollution resulting from mine drainage, the following program is planned:

1. The Maryland Bureau of Mines and the Maryland Department of Water Resources will make more and more frequent inspections of active operations to determine if standards are being met. If they are not being met, additional improvement and early action to correct offending conditions will be required.

2. A regulation on mine drainage control will be prepared, subsequent to conferences with the Land Reclamation Advisory Committee. It is acknowledged that such regulation can only require corrective measures which are economically feasible and practicable of attainment, and may not correct all mine drainage pollution, especially that caused by abandoned deep mines.

3. When methods of controlling or minimizing mine drainage from abandoned mines are developed by existing experimental work, the State will enter into a program of correcting existing drainage. Such a program is not likely to become a reality within the next five years.

Liquid Waste Management: A New Approach

In addition to water pollution control actions that have already been taken or scheduled, Maryland will initiate a study during 1967 of a new approach to liquid waste management. It has become apparent that the time-honored methods of disposing of liquid wastes by the individual home, business, community, or even county--often with disastrous future consequences or at the immediate expense of other areas--will no longer suffice.

A study commission appointed last year by the Governor at the request of the General Assembly has recommended the creation of a State Controlled Waste Acceptance Service. This Service would receive all municipal and industrial liquid waste in the State and would process and dispose of this waste, making most effective use of new techniques and improved systems at the lowest cost. For far-reaching and maximum future benefits, the proposed Waste Acceptance Service would coordinate municipal discharge and would have complete control over the sewage (that is, community wastewater) treatment effluents discharged into Maryland waters.

It is intended that this Service would protect and enhance the local autonomy and would operate within all social and economic objectives of the State in providing Statewide sewage service to industries and communities. The responsibility for water quality and quantity would remain in the Department of Water Resources.

A detailed study of this concept will be completed in time for consideration at the 1968 session of the Maryland General Assembly.

Water Quality Standards Summary

Appendix

Glossary of Terms

Advanced Waste Treatment: Refers to methods and processes that will remove more contaminants from wastewater than are usually removed in present day conventional treatment plants. The processes may be physical, chemical, or biological. Examples of advanced waste treatment are carbon columns, electrolytic coagulation, reverse osmosis, electrodialysis, and ion exchange.

Bacteria: For many years the best indicator of the sanitary quality of water has been an estimate of the density of coliform bacteria. More recently, tests have been developed for the determination of fecal coliform and fecal streptococci, which give a better indication of the concentration of bacteria in waters which may be harmful to human health. Bacterial concentrations originate primarily from municipal waste treatment plants, sanitary sewers, storm drains, vessels, and agricultural wastes.

Biochemical Oxygen Demand (BOD): The quantity of oxygen utilized in the biochemical oxidation of organic matter in a specified time and at a specified temperature. Waste discharges containing high levels of BOD will deplete oxygen supplies in receiving waters.

Department: Shall mean the Department of Water Resources of Maryland and/or its duly authorized agents.

Disinfection: The killing of the larger portion (but not necessarily all) of the harmful and objectionable micro-organisms in or on a medium by means of chemicals, heat, ultraviolet light, etc. Chlorination is the method commonly employed in sewage treatment processes.

Dissolved Oxygen (DO): The oxygen dissolved as a gas in sewage, water, or other liquid usually expressed in milligrams per liter (mg/l), parts per million (ppm), or percent saturation. Adequate dissolved oxygen levels are necessary in waters to protect fish and other aquatic life and to prevent offensive odors. Low dissolved oxygen concentrations are generally due to excessive organic solids discharged as a result of inadequately treated waste (having high BOD); excessive algal growths may cause vastly fluctuating dissolved oxygen levels and other factors, such as temperature and water movement have an impact on dissolved oxygen levels.

Estuary: Shall mean a semi-enclosed coastal body of water having a free connection with the open sea and within which the seawater is measurably diluted with fresh water deriving from land drainage.

Fish: Shall mean lower aquatic vertebrates which have bony skeletons, are covered by dermal scales, usually have spindle-shaped bodies, and swim by fins and breathe by gills, except for those species designated as undesirable by the Department of Game and Inland Fish and/or the Department of Chesapeake Bay Affairs.

Industrial Waste: Shall mean any liquid, gaseous, solid, or other waste substance or combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development of any natural resource.

Interstate Waters: Under the Federal Water Pollution Control Act, interstate waters are defined as:

1. Rivers, lakes, and other waters which flow across or form a part of State or international boundaries.

2. Waters of the Great Lakes.

3. Coastal Waters - scope has been defined to include ocean waters seaward to the territorial limits and waters along the coastline (including inland streams) that are influenced by the rise and fall of the tide.

Natural: Shall mean for all of the waters of the State:

(a) Those water quality values which exist unaffected by—or unaffected as a consequence of--any water use by any person; or

(b) Those water quality values which exist unaffected by the discharge or direct or indirect deposit of any solid, liquid, or gaseous substance by any person; or

(c) any other water quality values which represent conditions which the Commission by its rules and regulations defines as natural. For the purposes of this definition, the following conditions shall be considered as natural: infestations of water milfoil, Myriophyllum spicatum; infestations of water chestnut, Trapa natans; the presence of sea lettuce, Ulva lactuca; and the presence of sea nettles, Aurelia sp.

Other Aquatic Life: Shall mean all organisms--other than fish--which grow in, live in, or frequent water, except for those species designated as undesirable by the Department of Game and Inland Fish and/or the Department of Chesapeake Bay Affairs.

Other Waste: Shall mean garbage, refuse, wood, sawdust, shavings, bark, sand, lime, cinders, ashes, offal, oil, tar, dyestuffs, acids, chemical.

pH: The index of hydrogen ion activity used as an indication of acidity or alkalinity in waters. The pH of most waters ranges from 6.5 to 8.5 and most uses of water, such as aquatic life propagation, prosper at these levels. In most cases, a pH outside this range is due to discharge of industrial waste or decaying organic vegetation.

Point of Discharge: Shall mean that location in or adjacent to a body of water at which any liquid, solid, or gaseous substances are discharged or deposited.

Pollution: The addition of sewage, industrial waste, or other harmful or objectionable material to water at a concentration or in sufficient quantity to result in measurable degradation of water quality.

Primary and Secondary Contact Recreation: Also called Whole-body Contact Recreation, Primary Contact Recreation includes use of water such as swimming, water skiing, and skin diving. Secondary Contact Recreation, also called Partial-body Contact Recreation, includes such recreational uses as boating and fishing.

Primary Treatment: May be defined as that process or group of processes capable of remaining a high percentage of floating and settleable solids. This is the first major treatment in a sewage treatment works and generally removes from 30 to 65 percent of the suspended solids and 30 to 40 percent of the 5-day biochemical oxygen demand.

Propagation: Shall mean the continuance of species by generation or successive production in the natural environment, as opposed to the maintenance of species by artificial culture and stocking.

Secondary Treatment: May be defined as that process or group of processes capable of removing virtually all floating and settleable solids, generally from 90 to 95 percent of the 5-day biochemical oxygen demand, and a similar level of removal of suspended solids in untreated waste. The equivalent treatment may generally be defined as that process or group of processes achieving maximum practicable removal of solids, oils, grease, acids, alkalis, toxic materials, bacteria, taste, and odor-causing materials, color, and any other objectionable constituents contained in untreated waste to produce an effluent equivalent to that obtained from secondary treatment facilities in current use for any specific category of industrial waste.

Sewage: (1) The water supply of a community after it has been used and discharged into a sewer; (2) wastewater from the sanitary conveniences of dwellings, business buildings, factories, and other institutions.

Sewage, Combined: A sewage containing both sanitary sewage and surface or storm water with or without industrial wastes.

Sewer, Combined: A sewer which carries both sanitary sewage and storm drainage. Where combined sewers are used, the capacity is usually exceeded at times of heavy rainfall and the sewers overflow, discharging combined sewage directly into streams without treatment of any kind.

Solids, Settleable: Suspended solids which will subside in quiscent water, sewage, or other liquid in a reasonable period.

Solids, Suspended: Solids that either float on the surface of or are in suspension in water, sewage, or other liquids and which are largely removable by laboratory filtering.

Stream Flow: Shall mean the nontidal water movement that occurs in a natural channel.

Temperature: A measure of the heat content of water. While stream temperature is affected naturally, man significantly affects it through the construction and operation of dams and the discharge of cooling waters from industrial processes, particularly power generation.

Thermal Barrier: Shall mean a pattern of artificially created temperature elevation and distribution which prevents or adversely affects the passage and/or migration of fish and other aquatic life.

Toxic Materials: Materials which are harmful to human, plant, animal, and aquatic life. These may include hundreds of compounds present in various waters, such as industrial waste discharges or runoff from where pesticides have been applied.

Trout Waters: Shall mean those streams which are annually stocked with trout by the Department of Game and Inland Fish; as well as other waters--whether or not stocked with trout--which have an inherent capability for supporting trout; and all other waters designated to the Department as "trout waters" by the Department of Game and Inland Fish.

Warm and Cold-Water Fish: Warm-water fish include black bass, sunfish, catfish, gar, and others; cold-water fish include salmon and trout, white fish, miller's thumb, and blackfish. The temperature factor determining distribution is set by adaptation of the eggs to warm or cold water.

Water Quality Standards By Group

Water Quality Standards

for

Group A Water Uses

Bacteriological Standards (Bact.):

Most Probable Number (MPN) of coliform organisms to be less than 70 per 100 ml. of sample. Must comply with sanitary and bacteriological standards as listed in the latest edition of MANUAL OF RECOMMENDED PRACTICES FOR SANITARY CONTROL OF THE SHELLFISH INDUSTRY.

WATER USE CATEGORIES
I - SHELLFISH HARVESTING
II - PUBLIC OR MUNICIPAL WATER SUPPLY
III - WATER CONTACT RECREATION
IV - PROPAGATION OF FISH, OTHER AQUATIC LIFE, & WILDLIFE
V - AGRICULTURAL WATER SUPPLY
VI - INDUSTRIAL WATER SUPPLY

GROUP A WATER USES
The following combinations of water uses are protected by this set of water quality standards:
I, IV
I, IV, V
I, IV, VI
I, IV, V, VI
I, III, IV
I, III, IV, V
I, III, IV, VI
I, III, IV, V, VI

Dissolved Oxygen Standards (DO):

For the propagation of fish and other aquatic life (Water Use Category IV) in all other waters (that is, other than "trout waters"), the dissolved oxygen concentration must not be less than 4.0 mg per liter at any time, with a minimum monthly average of not less than 5.0 mg per liter, except where--and to the extent that--lower values occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

(Group A continued)

pH Standards:

Normal pH values for the waters of the zone must not be less than 6.0 nor greater than 8.5, except where--and to the extent that--pH values outside this range occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

Temperature Standards (Temp.):

For Tidal Waters used for the propagation of fish and other aquatic life (Water Use Category IV), temperature must not exceed 90° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all tidal waters, maximum temperature elevation is to be limited as follows:

> For natural water temperatures of 50° F, or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperatures greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 90° F.

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with such agency.

Water Quality Standards

for

Group B Water Uses

Bacteriological Standards (Bact.):

Group B waters must meet two separate bacteriological standards: one to protect potable water supply uses (Water Use Category II) and the other to protect water contact recreational uses (Water Use Category II) and the other to protect water contact recreational use (Water Use Category III; also related to Water Use Category IV).

Public or Municipal Water Supply Uses--Monthly average value (either MPN or MF count) of coliform organisms not to exceed 5,000 per 100 ml of sample; nor to exceed this number in more than 20 percent of the samples examined during any month; nor exceed 20,000 per 100 ml in more than 5 percent of such samples. There must be no discharges of sewage, industrial waste, or other waste that deleteriously affect the safety of the water supply and which could, in this manner, contravene the latest edition of the PUBLIC HEALTH SERVICE DRINKING STANDARDS (published by the U.S. Public Health Service).

WATER USE CATEGORIES
I - SHELLFISH HARVESTING
II - PUBLIC OR MUNICIPAL WATER SUPPLY
III - WATER CONTACT RECREATION
IV - PROPAGATION OF FISH, OTHER AQUATIC LIFE, & WILDLIFE
V - AGRICULTURAL WATER SUPPLY
VI - INDUSTRIAL WATER SUPPLY

GROUP B WATER USES
The following combinations of water uses are protected by this set of water quality standards:
II, IV
II, IV, V
II, IV, VI
II, IV, V, VI
II, III, IV
II, III, IV, V
II, III, IV, VI
II, III, IV, V , VI

(Group B continued)

Water Contact Recreation Uses--The bacterial quality of water is acceptable for these uses when a sanitary survey reveals no source of dangerous pollution and when the fecal coliform organism density does not exceed 240 MPN per 100 ml. When the fecal coliform organism density exceeds 240 MPN per 100 ml., the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

Dissolved Oxygen Standards (DO):

For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, the dissolved oxygen concentration must not be less than 5.0 mg. per liter at any time, with a minimum monthly average of not less than 6.0 per liter. For the propagation of fish and other aquatic life (Water Use Category IV) in all other waters, the dissolved oxygen concentration must not be less than 4.0 mg. per liter at any time, with a minimum monthly average of not less than 5.0 mg. per liter, except where--and to the extent that--lower values occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

pH Standards:

Normal ph values for the waters of the zone must not be less than 6.0 nor greater than 8.5, except where--and to the extent that--pH values outside this range occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

(Group B continued)

Temperature Standards (Temp.):

For Nontidal Waters: For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, temperature must not exceed 72° F at any time. For the propagation of fish and other aquatic life (Water Use Category IV) in all other nontidal waters, temperature must not exceed 93° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all nontidal waters other than "trout waters," maximum temperature elevation is to be limited as follows:

> For natural water temperatures of 50° F, or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperatures greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 93° F.

Any deviation, other than natural from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish, and will be permitted or denied by the Department of Water Resources after consultation with that agency.

For Tidal Waters: Used for the propagation of fish and other aquatic life (Water Use Category IV), temperature must not exceed 90° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all tidal waters, maximum temperature elevation is to be limited as follows:

> For natural water temperatures of 50° F, or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperatures greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 90° F.

(Group B continued)

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with such agency.

Water Quality Standards
for
Group C Water Uses

Bacteriological Standards (Bact.):

The bacterial quality of water is acceptable for these uses when a sanitary survey reveals no source of dangerous pollution and when the fecal coliform organism density does not exceed 240 MPN per 100 ml. When the fecal coliform organism density exceeds 240 MPN per 100 ml., the bacterial water quality shall be considered acceptable only if a second detailed sanitary survey and evaluation discloses no significant public health risk in the use of the waters.

WATER USE CATEGORIES
I - SHELLFISH HARVESTING
II - PUBLIC OR MUNICIPAL WATER SUPPLY
III - WATER CONTACT RECREATION
IV - PROPAGATION OF FISH, OTHER AQUATIC LIFE, & WILDLIFE
V - AGRICULTURAL WATER SUPPLY
VI - INDUSTRIAL WATER SUPPLY

GROUP C WATER USES
The following combinations of water uses are protected by this set of water quality standards:
IV
IV, V
IV, VI
IV, V, VI
III, IV
III, IV, V
III, IV, VI
III, IV, V, VI

Dissolved Oxygen Standards (DO):

For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, the dissolved oxygen concentration must not be less than 5.0 mg per liter at any time, with a minimum

(Group C continued)

monthly average of not less than 6.0 mg per liter. For the propagation of fish and other aquatic life (Water Use Category IV) in all other waters, the dissolved oxygen concentration must not be less than 4.0 mg per liter at any time, with a minimum monthly average of not less than 5.0 mg per liter, except where--and to the extent that--lower values occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

pH Standards

Normal pH values for the waters of the zone must not be less than 6.0 nor greater than 8.5, except where--and to the extent that--pH values outside this range occur naturally. Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish for nontidal waters, by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with the aforementioned agencies.

Temperature Standards (Temp.):

For Nontidal Waters: For "trout waters," waters so designated to the Department by the Department of Game and Inland Fish, temperature must not exceed 72° F at any time. For the propagation of fish and other aquatic life (Water Use Category IV) in all other nontidal waters, temperature must not exceed 93° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all nontidal waters other than "trout waters," maximum temperature elevation is to be limited as follows:

> For natural water temperatures of 50° F, or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.

(Group C continued)

> For natural water temperatures greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 93° F.

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Department of Game and Inland Fish, and will be permitted or denied by the Department of Water Resources after consultation with that agency.

For Tidal Waters: Used for the propagation of fish and other aquatic life (Water Use Category IV), temperature must not exceed 90° F beyond such distance from any point of discharge as specified by the Department as necessary for the protection of the water use. In addition, for all tidal waters, maximum temperature elevation is to be limited as follows:

> For natural water temperatures of 50° F, or less, the temperature elevation must not exceed 20° F above the natural water temperature, with a maximum temperature of 60° F.
>
> For natural water temperatures greater than 50° F, the temperature elevation must not exceed 10° F above the natural water temperature, with a maximum temperature of 90° F.

Any deviation, other than natural, from the above requirements is to be evaluated for risk to the propagation of fish and other aquatic life by the Potomac River Fisheries Commission in those waters of the Potomac River and its tributaries under the jurisdiction of the Fisheries Commission, and by the Department of Chesapeake Bay Affairs with respect to all other tidal waters, and will be permitted or denied by the Department of Water Resources after consultation with such agency.

EXHIBITS

A State of Maryland (showing sub-plate locations)

A-1 through A-7 (Enlargements of areas delineated on Exhibit A)

County	Exhibit No. Location
Allegany	A-1; A-2
Anne Arundel	A-5; A-3; A-6; A-7
Baltimore (City)	A-3; A-5
Baltimore (County)	A-3; A-5
Calvert	A-7; A-5; A-6
Caroline	A-6; A-8
Carroll	A-3; A-2
Cecil	A-4; A-3
Charles	A-7; A-5
Dorchester	A-8; A-6; A-7
Frederick	A-2; A-3; A-5
Garrett	A-1
Harford	A-3; A-4
Howard	A-5; A-3; A-2
Kent	A-6; A-3; A-4; A-5
Montgomery	A-5; A-2; A-3; A-7
Prince Georges	A-7; A-5
Queen Anne's	A-6; A-3; A-4; A-5
Somerset	A-8
St. Mary's	A-7' A-8
Talbot	A-6; A-5; A-8
Washington	A-3
Wicomico	A-8; A-6
Worcester	A-8

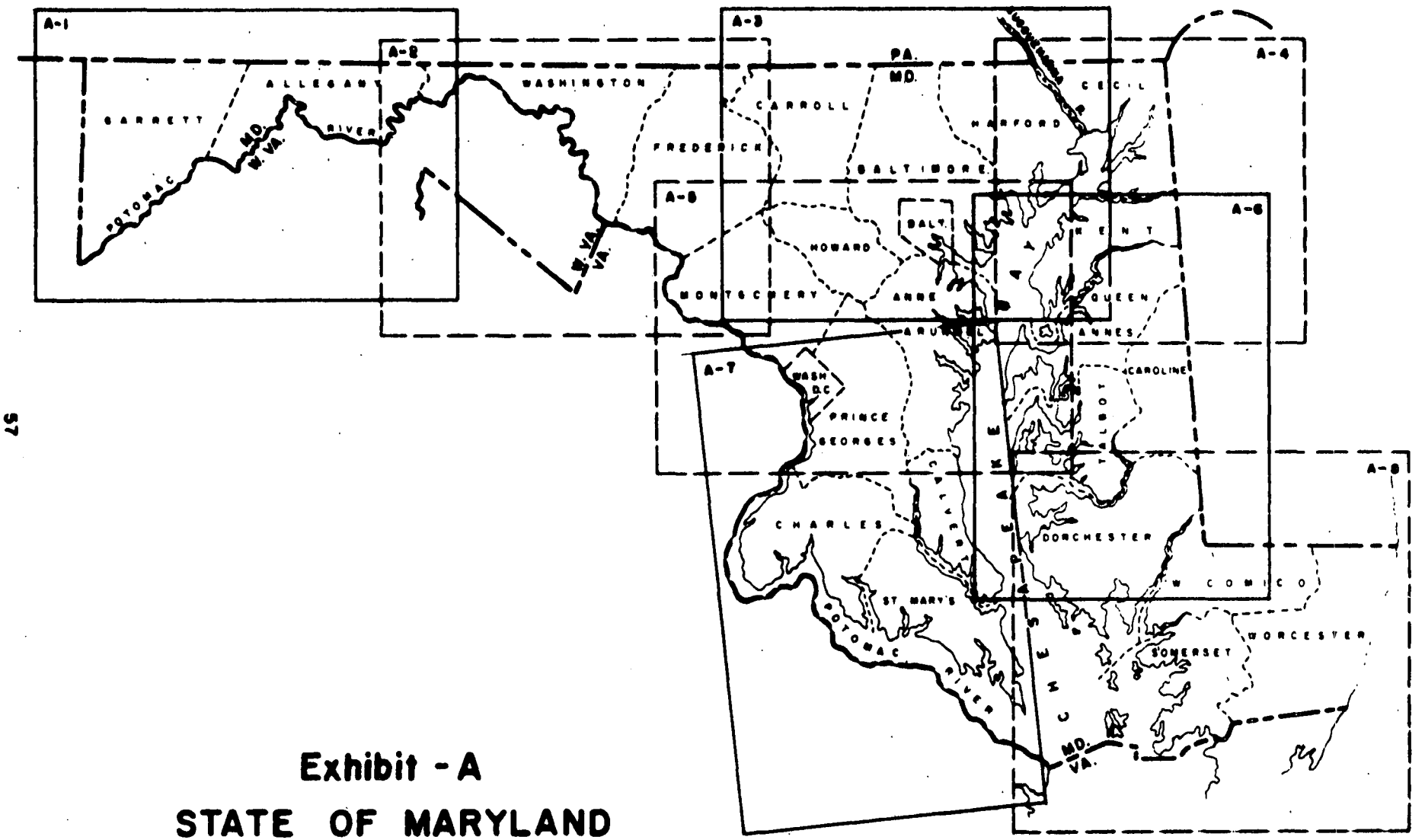
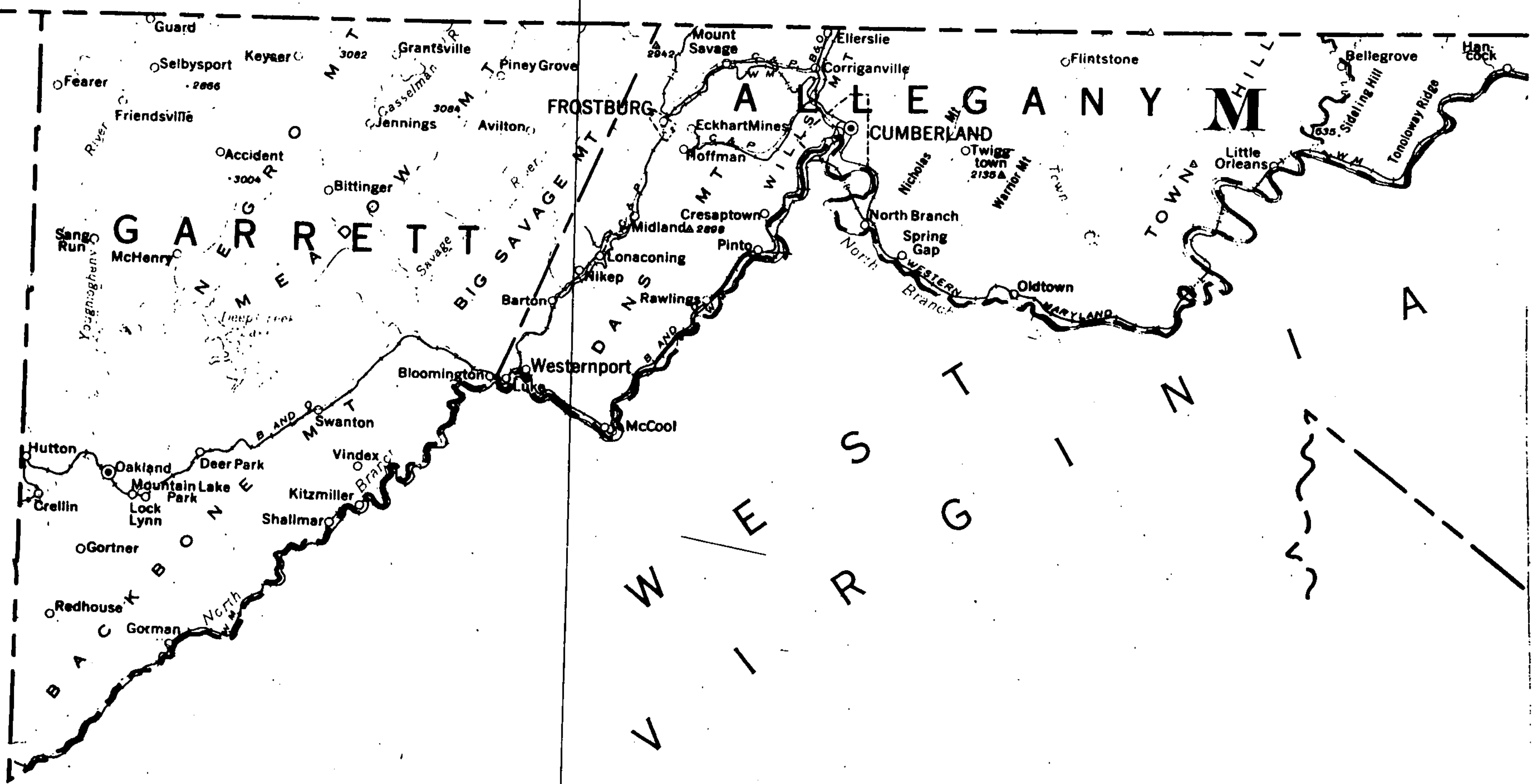


Exhibit - A

STATE OF MARYLAND

Exhibit A-1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WEST VIRGINIA
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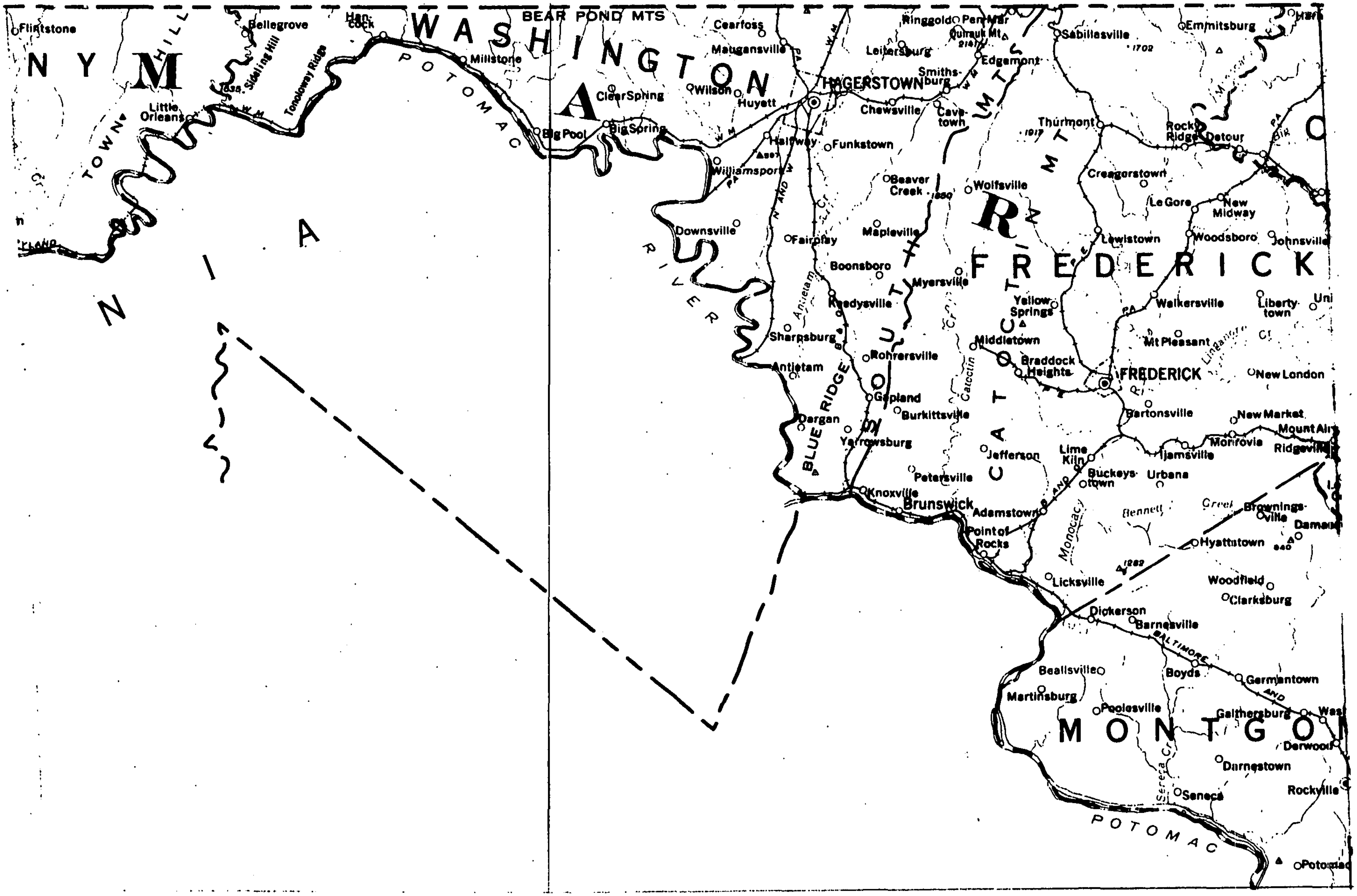
NEGRO MT
MEADOW MT
BIG SAVAGE MT
DANS MT
WILLS MT
TOWN HILL
Sideling Hill
Tonoloway Ridge
Nicholas Mt
Warrior Mt
Guard
Fearer
Selbysport
Friendsville
Keyser
Grantsville
Piney Grove
Jennings
Avilton
Accident
Bittinger
Sang Run
McHenry
Hutton
Oakland
Crellin
Mountain Lake Park
Lock Lynn
Deer Park
Swanton
Vindex
Kitzmiller
Shallmar
Gortner
Redhouse
Gorman
Bloomington
Luke
Westernport
McCool
Barton
Nikep
Lonaconing
Midland
Rawlings
Pinto
Cresaptown
FROSTBURG
Mount Savage
Eckhart Mines
Hoffman
Ellerslie
Corriganville
CUMBERLAND
Twiggtown
North Branch
Spring Gap
Oldtown
Flintstone
Little Orleans
Bellegrove
Hancock
North Branch
WESTERN MARYLAND

Exhibit A-2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POTOMAC
RIVER
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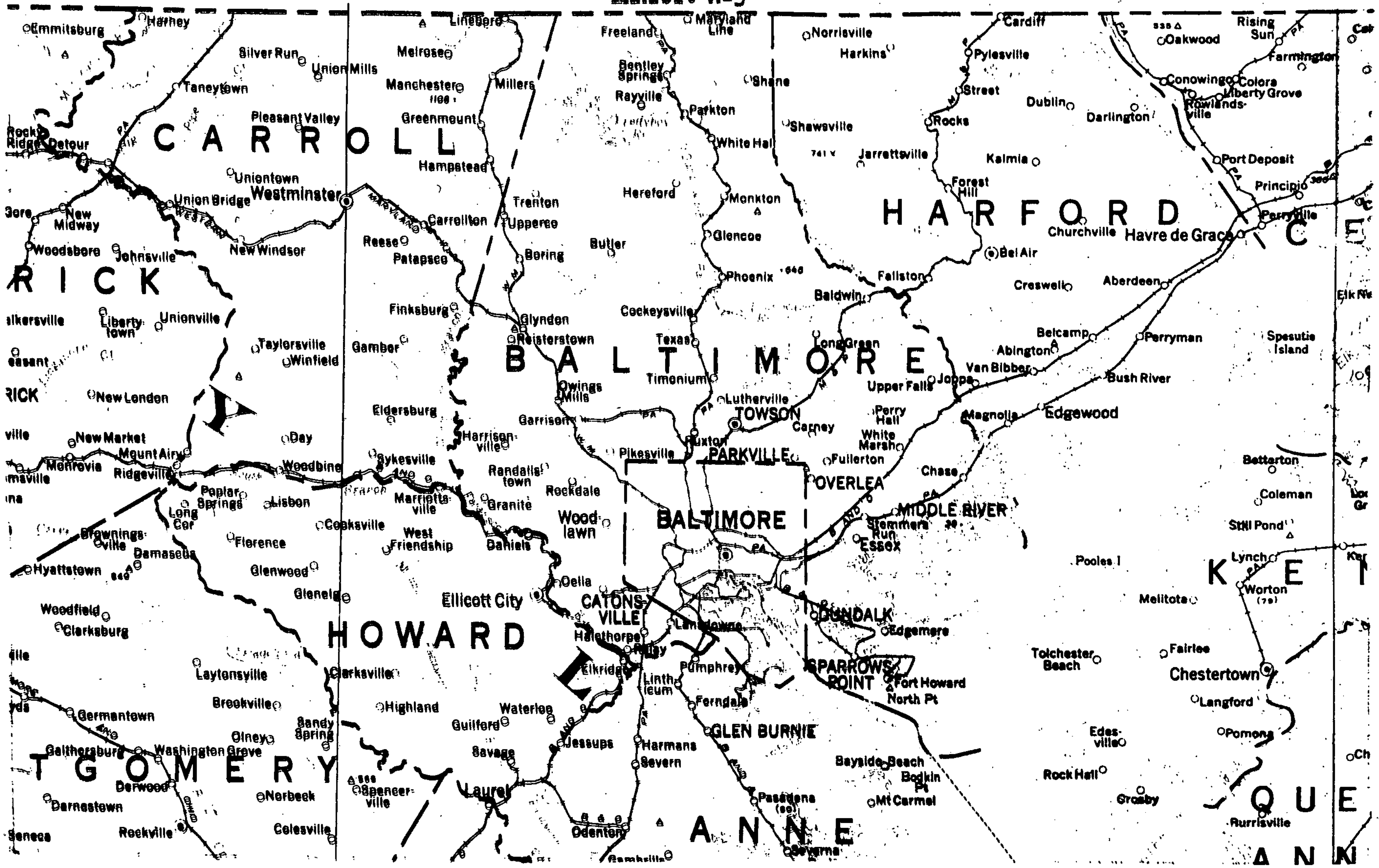
CATOCTIN MT
Flintstone
Bellegrove
Hancock
Millstone
Little Orleans
Sideling Hill
Tonoloway Ridge
Big Pool
Big Spring
Clear Spring
Cearfoss
Maugansville
Wilson
Huyett
HAGERSTOWN
Ringgold
Pen-Mar
Quirauk Mt
Leitersburg
Smithsburg
Edgemont
Chewsville
Cavetown
Halfway
Funkstown
Williamsport
Beaver Creek
Wolfsville
Downsville
Fairplay
Mapleville
Boonsboro
Myersville
Keedysville
Sharpsburg
Antietam
Rohrersville
Gapland
Burkittsville
Dargan
Yarrowsburg
Jefferson
Petersville
Knoxville
Brunswick
Adamstown
Point of Rocks
Sabillasville
Emmitsburg
Thurmont
Rocky Ridge
Detour
Creagerstown
Le Gore
New Midway
Lewistown
Woodsboro
Johnsville
Walkersville
Libertytown
Yellow Springs
Middletown
Braddock Heights
Mt Pleasant
FREDERICK
New London
Bartonsville
New Market
Monrovia
Mount Airy
Ridgeville
Ijamsville
Lime Kiln
Buckeystown
Urbana
Browningsville
Damascus
Hyattstown
Licksville
Woodfield
Clarksburg
Dickerson
Barnesville
Beallsville
Boyds
Germantown
Martinsburg
Poolesville
Gaithersburg
Derwood
Darnestown
Seneca
Rockville
Potomac
Monocacy
Bennett Creek
Linganore Cr
Catoctin
Seneca Cr
Antietam
BALTIMORE AND

Exhibit A-3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HARFORD
HOWARD
TGOMERY
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Harney
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Union Mills
Melrose
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Lineboro
Millers
Freeland
Maryland Line
Norrisville
Harkins
Cardiff
Pylesville
Oakwood
Rising Sun
Farmington
Conowingo
Colora
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Rowlands-ville
Street
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Darlington
Rocks
Shane
Parkton
Bentley Springs
Rayville
Pleasant Valley
Greenmount
Hampstead
Detour
Uniontown
Union Bridge
Westminster
New Windsor
New Midway
Woodsboro
Johnsville
Shawsville
Jarrettsville
Kalmia
Port Deposit
Forest Hill
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Perryville
White Hall
Monkton
Hereford
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Upperco
Carrollton
Reese
Patapsco
Boring
Butler
Glencoe
Phoenix
Churchville
Havre de Grace
Bel Air
Fallston
Baldwin
Creswell
Aberdeen
Finksburg
Glynden
Reisterstown
Cockeysville
Texas
Long Green
Belcamp
Perryman
Abingdon
Spesutie Island
Liberty town
Unionville
Taylorsville
Winfield
Gamber
Owings Mills
Timonium
Lutherville
Towson
Upper Falls
Joppa
Van Bibber
Bush River
New London
Eldersburg
Garrison
Carney
Perry Hall
White Marsh
Magnolia
Edgewood
New Market
Mount Airy
Day
Sykesville
Harrisonville
Pikesville
Ruxton
Parkville
Fullerton
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Chase
Betterton
Monrovia
Ridgeville
Woodbine
Randallstown
Rockdale
Poplar Springs
Lisbon
Marriottsville
Granite
Baltimore
Middle River
Coleman
Long Cor
Cooksville
West Friendship
Woodlawn
Stemmers Run
Essex
Still Pond
Browningsville
Damascus
Florence
Daniels
Pooles I
Lynch
Hyattstown
Glenwood
Oella
Ellicott City
Glenelg
Catonsville
Worton
Melitota
Woodfield
Clarksburg
Dundalk
Edgemere
Halethorpe
Lansdowne
Relay
Elkridge
Laytonsville
Clarksville
Pumphrey
Sparrows Point
Fort Howard
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Chestertown
Linthicum
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Langford
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Brookville
Highland
Waterloo
Guilford
Glen Burnie
Sandy Spring
Olney
Gaithersburg
Washington Grove
Jessups
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Savage
Edesville
Pomona
Bayside Beach
Bodkin Pt
Rock Hall
Darnestown
Derwood
Norbeck
Spencerville
Laurel
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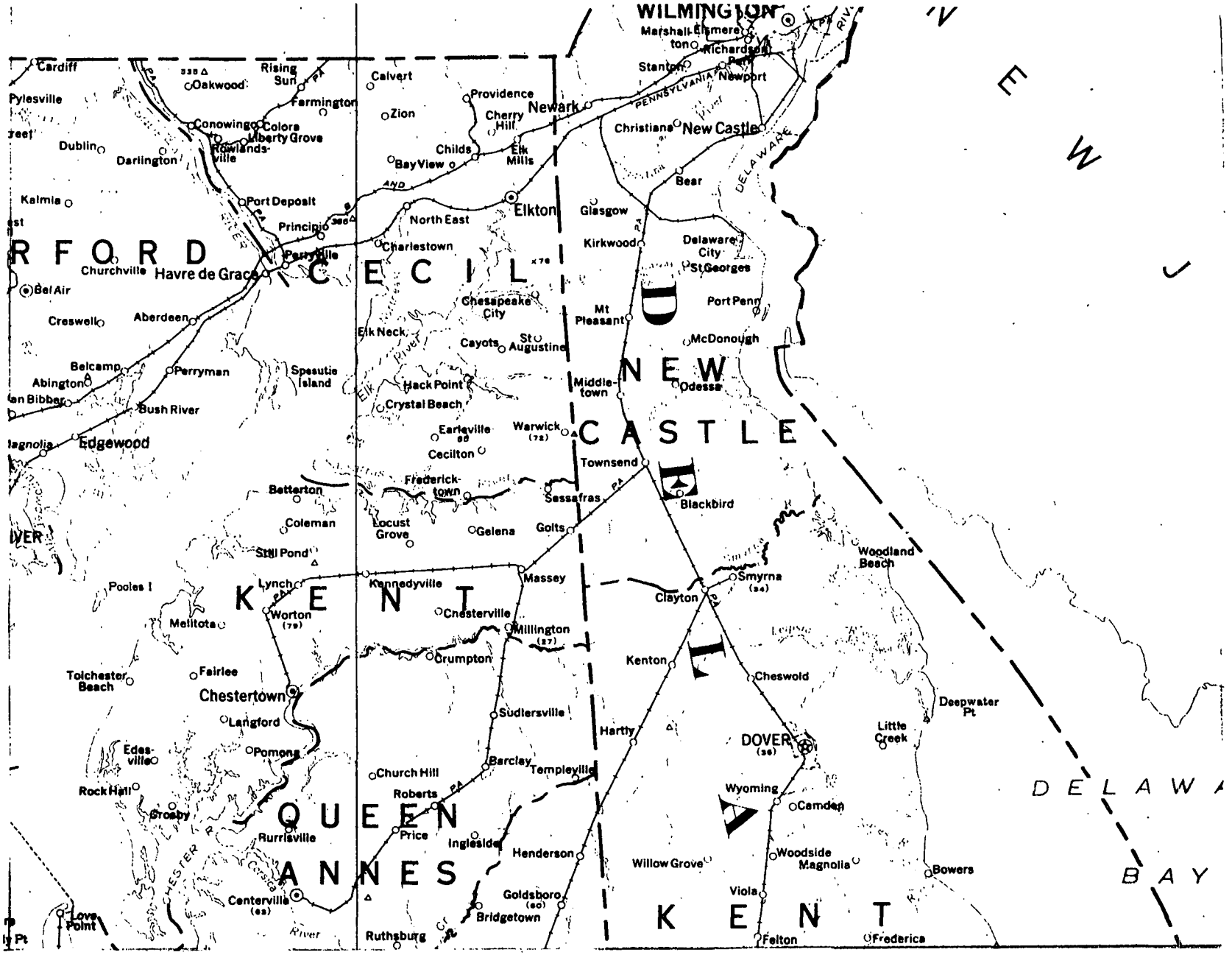
Crosby
Rockville
Colesville
Odenton
Seneca
Gambrills
Severna
Rurrisville

Exhibit A-4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Newark
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Pylesville
Farmington
Conowingo
Colora
Liberty Grove
Rowlandsville
Dublin
Darlington
Childs
Elk Mills
Bay View
Christiana
New Castle
PENNSYLVANIA
Delaware River
DELAWARE
Bear
Kalmia
Port Deposit
Principio
North East
Elkton
Glasgow
Kirkwood
Delaware City
St Georges
Susquehanna River
Havre de Grace
Churchville
Bel Air
Charlestown
Perryville
Chesapeake City
Mt Pleasant
Port Penn
Creswell
Aberdeen
Elk Neck
Cayots
St Augustine
McDonough
Belcamp
Perryman
Spesutie Island
Abington
Hack Point
Middletown
Odessa
Bush River
Crystal Beach
Earleville
Warwick
Cecilton
Edgewood
Townsend
Frederick-town
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Blackbird
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Coleman
Locust Grove
Gelena
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Still Pond
Woodland Beach
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Worton
Chesterville
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Crumpton
Kenton
Cheswold
Tolchester Beach
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Chestertown
Sudlersville
Deepwater Pt
Langford
Hartly
Little Creek
DOVER
Edesville
Pomona
Barclay
Templeville
Church Hill
Rock Hall
Roberts
Wyoming
Camden
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Price
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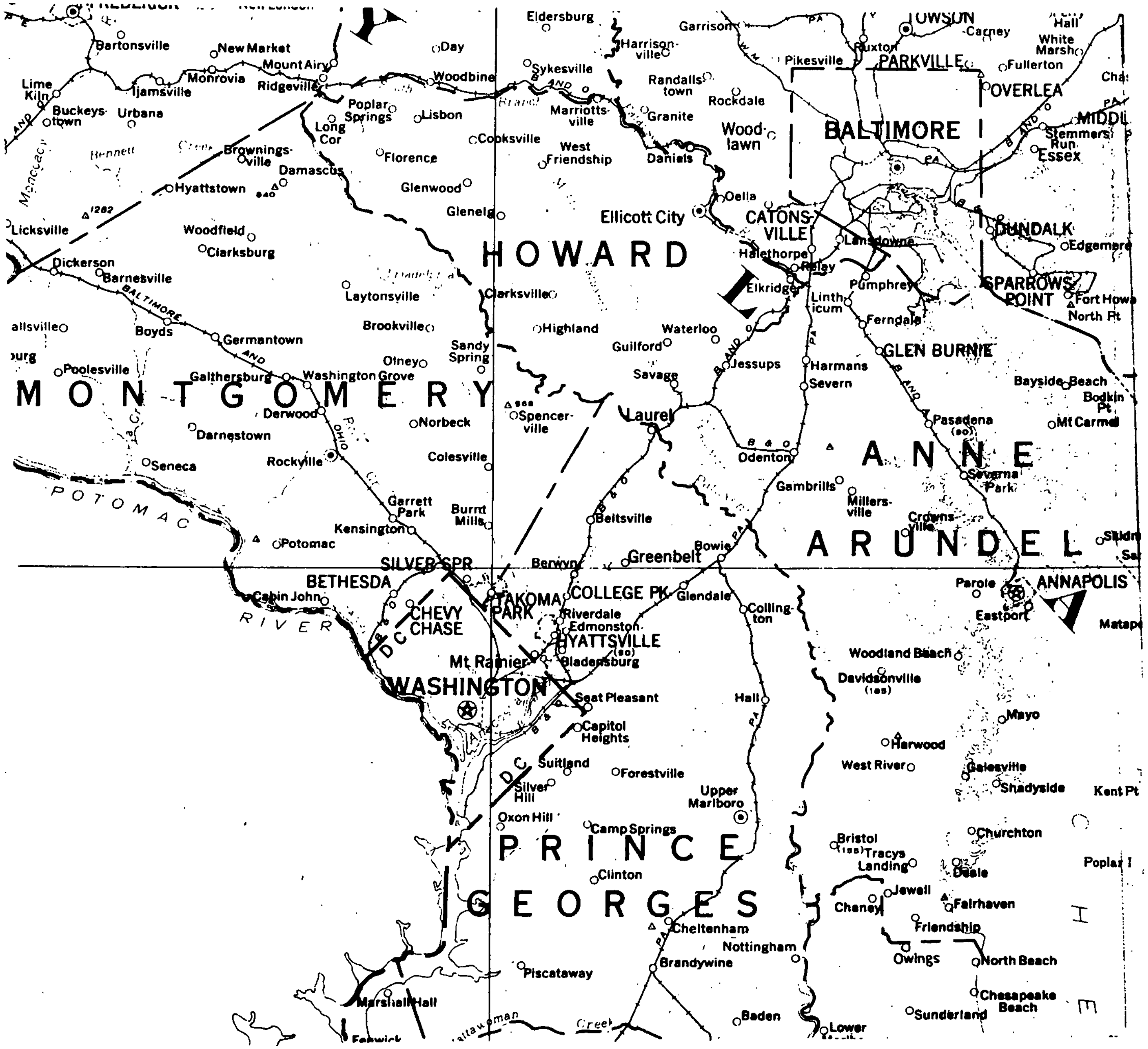
KENT

Exhibit A-5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Ridgeville
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Sykesville
Harrison-ville
Pikesville
Ruxton
PARKVILLE
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Lime Kiln
Monrovia
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Randallstown
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Lisbon
Marriottsville
Granite
Woodlawn
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Brownings-ville
Damascus
Florence
Cooksville
West Friendship
Daniels
Hyattstown
Glenwood
Oella
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Woodfield
Glenelg
Ellicott City
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Lansdowne
Edgemere
Dickerson
Barnesville
Laytonsville
Halethorpe
Relay
Elkridge
Pumphrey
SPARROWS POINT
Fort Howard
North Pt
Clarksville
Linthicum
Ferndale
Boyds
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Waterloo
Sandy Spring
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Poolesville
Olney
Jessups
Harmans
Gaithersburg
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Savage
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Bodkin Pt
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Colesville
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Gambrills
Millersville
Garrett Park
Burnt Mills
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Crownsville
Kensington
Potomac
Bowie
Greenbelt
SILVER SPR
Berwyn
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TAKOMA PARK
COLLEGE PK
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Collington
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Edmonston
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Hall
Mayo
Capitol Heights
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Suitland
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Galesville
Shadyside
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Silver Hill
Upper Marlboro
Oxon Hill
Camp Springs
Churchton
Bristol
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Deale
Clinton
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Cheltenham
Friendship
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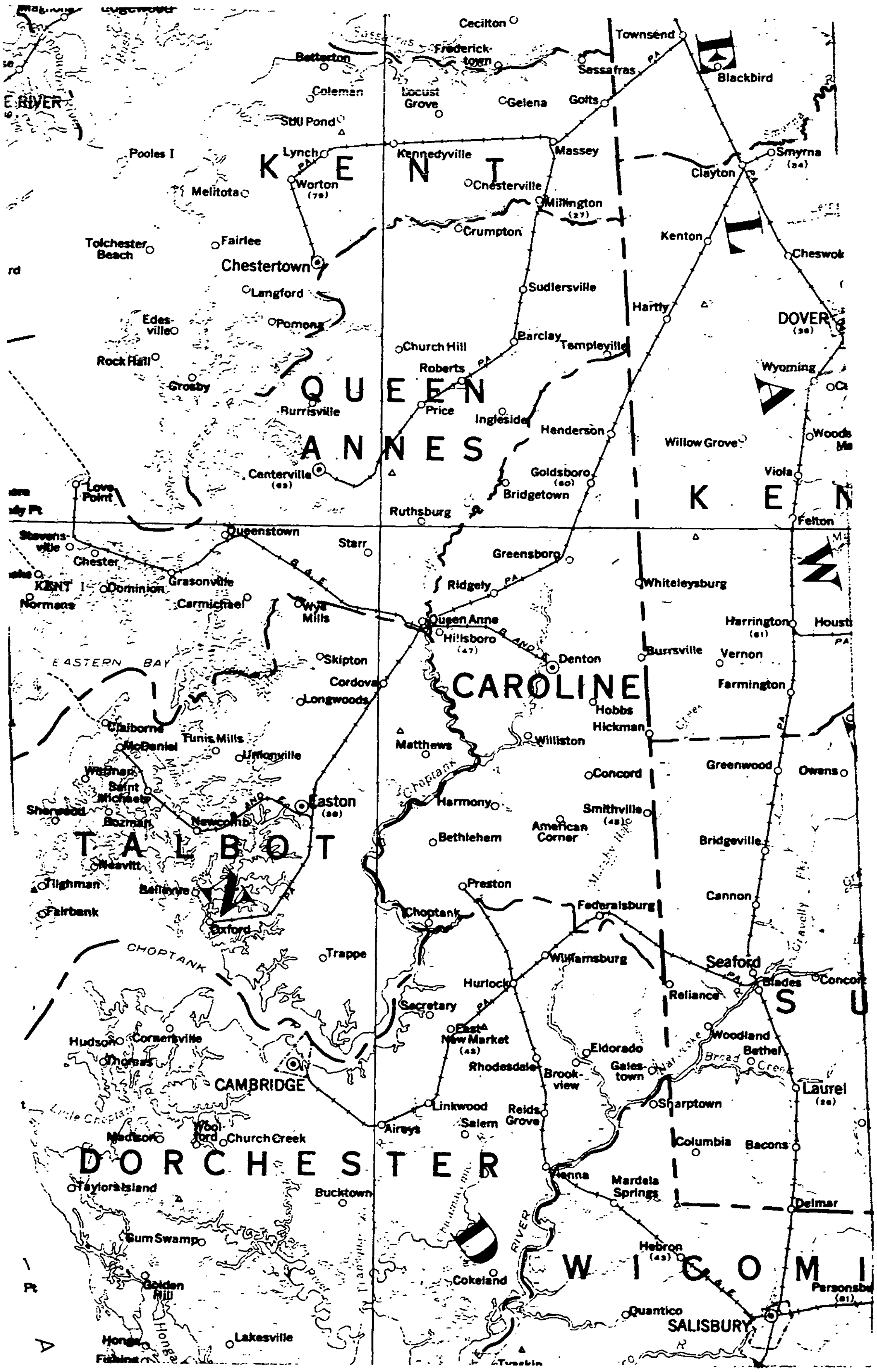
Lower
BALTIMORE AND OHIO

Exhibit A-6



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Betterton
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Galena
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Still Pond
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Smyrna
Clayton
Pooles I
Worton
Chesterville
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Price
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Centerville
Goldsboro
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Bridgetown
Love Point
Ruthsburg
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Queenstown
Stevensville
Starr
Chester
Greensboro
Grasonville
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Dominion
Ridgely
Whiteleysburg
Normans
Carmichael
Wye Mills
Queen Anne
Harrington
Hillsboro
Denton
Burrsville
Vernon
Eastern Bay
Skipton
Cordova
Farmington
Longwoods
Hobbs
Hickman
Claiborne
Tunis Mills
Matthews
Williston
McDaniel
Unionville
Greenwood
Owens
Wittman
Concord
Saint Michaels
Choptank
Easton
Harmony
Smithville
Sherwood
Bozman
Newcomb
American Corner
Bethlehem
Bridgeville
Neavitt
Tilghman
Bellevue
Preston
Cannon
Fairbank
Oxford
Federalsburg
Trappe
Williamsburg
Seaford
Hurlock
Reliance
Blades
Secretary
East New Market
Woodland
Hudson
Cornersville
Eldorado
Bethel
Thomas
Rhodesdale
Brookview
Galestown
Laurel
CAMBRIDGE
Linkwood
Reids Grove
Sharptown
Aireys
Salem
Madison
Woolford
Church Creek
Columbia
Bacons
Taylors Island
Vienna
Mardela Springs
Bucktown
Delmar
Gum Swamp
Hebron
Cokeland
Golden Hill
Parsonsburg
Quantico
SALISBURY
Hongа
Lakesville
Fishing Cr
Nanticoke River
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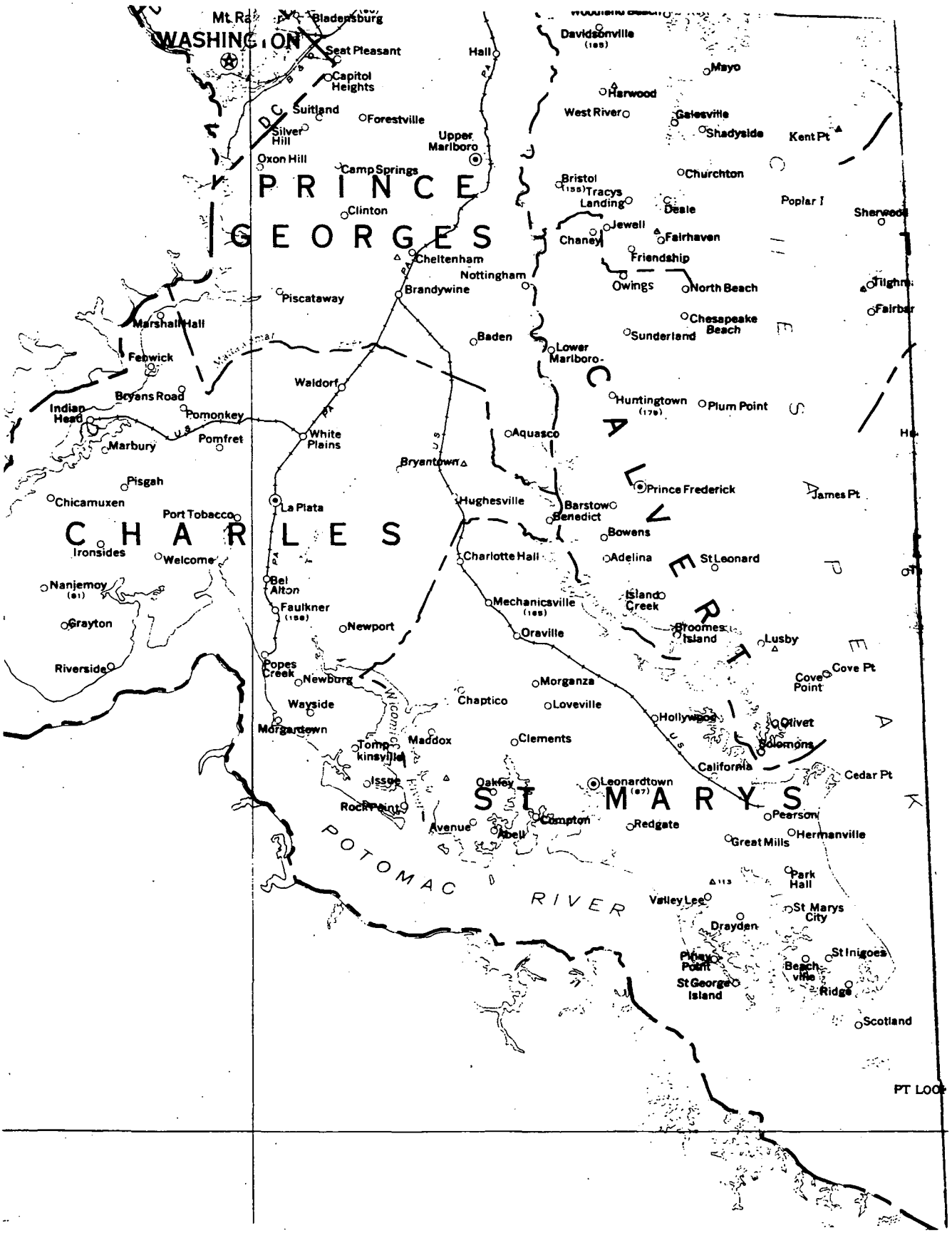
Exhibit A-7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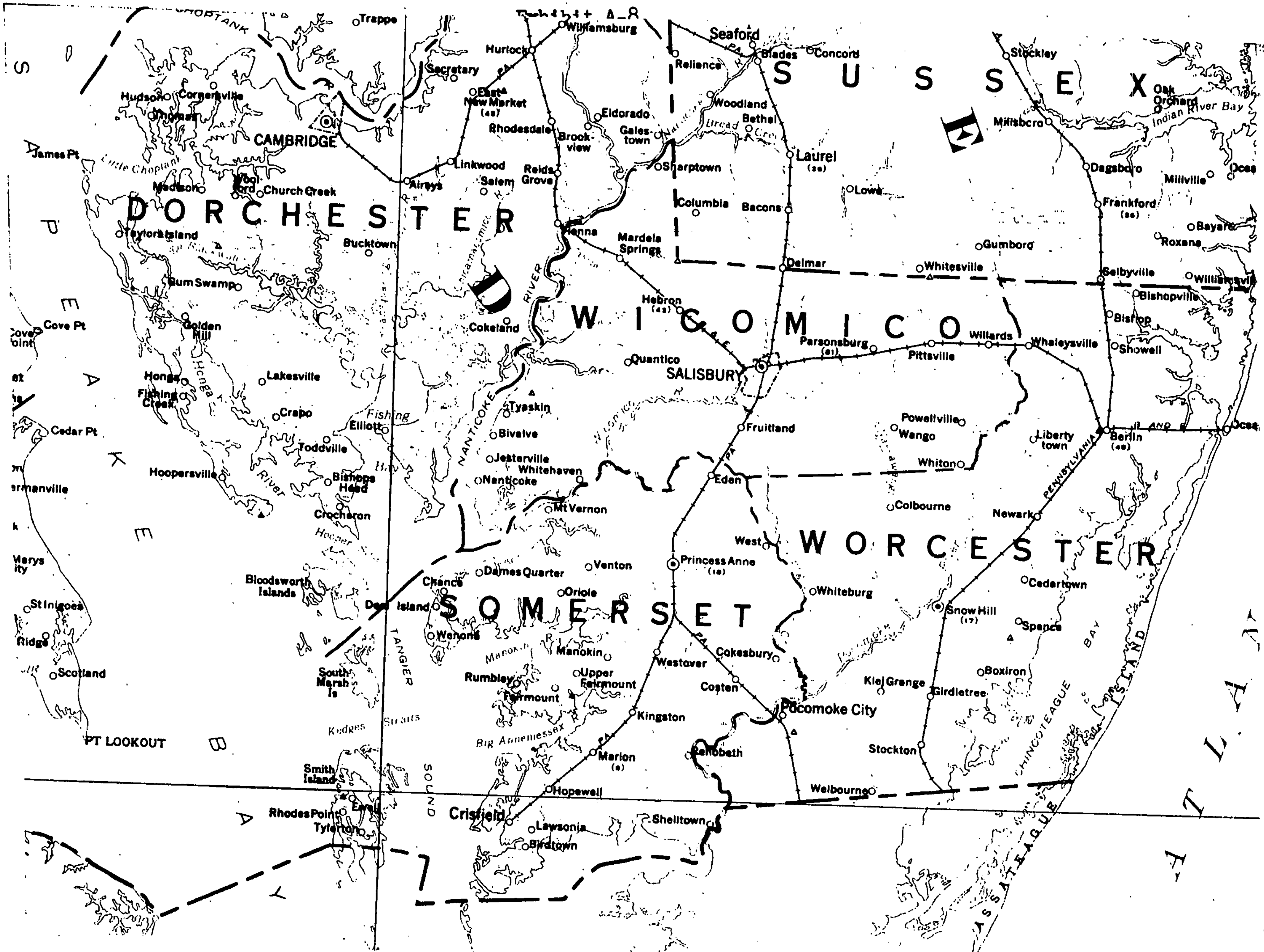
Forestville
Silver Hill
Oxon Hill
Camp Springs
Upper Marlboro
Hall
Davidsonville
Mayo
Harwood
West River
Galesville
Shadyside
Kent Pt
Churchton
Bristol
Tracys Landing
Deale
Poplar I
Sherwood
Jewell
Chaney
Fairhaven
Friendship
Owings
North Beach
Chesapeake Beach
Sunderland
Lower Marlboro
Huntingtown
Plum Point
Prince Frederick
James Pt
Aquasco
Hughesville
Barstow
Benedict
Bowens
Adelina
St Leonard
Charlotte Hall
Island Creek
Mechanicsville
Oraville
Broomes Island
Lusby
Cove Pt
Cove Point
Morganza
Loveville
Chaptico
Hollywood
Olivet
Solomons
California
Leonardtown
Cedar Pt
Pearson
Hermanville
Great Mills
Park Hall
Valley Lee
St Marys City
Drayden
St Inigoes
Piney Point
Beachville
St George Island
Ridge
Scotland
Redgate
Compton
Abell
Avenue
Oakley
Issue
Rock Point
Tompkinsville
Maddox
Clements
Wayside
Morgantown
Newburg
Popes Creek
Newport
Faulkner
Bel Alton
La Plata
Port Tobacco
Ironsides
Welcome
Chicamuxen
Pisgah
Nanjemoy
Grayton
Riverside
Marbury
Pomfret
Pomonkey
Indian Head
Bryans Road
Marshall Hall
Fenwick
Waldorf
White Plains
Piscataway
Brandywine
Cheltenham
Nottingham
Baden
Tilghm
Fairbar
PRINCE GEORGES
CHARLES
CALVERT
ST MARYS
POTOMAC RIVER
PT LOO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WICOMICO
SOMERSET
WORCESTER
SUSSEX
CAMBRIDGE
SALISBURY
Trappe
Williamsburg
Hurlock
Secretary
East New Market
Rhodesdale
Brookview
Eldorado
Galestown
Reliance
Seaford
Blades
Concord
Woodland
Bethel
Laurel
Sharptown
Columbia
Bacons
Lowe
Delmar
Stockley
Millsboro
Oak Orchard
Indian River Bay
Dagsboro
Millville
Frankford
Bayard
Roxana
Gumboro
Whitesville
Selbyville
Bishopville
Bishop
Showell
Hudson
Cornersville
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Little Choptank
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Woolford
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Vienna
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Hebron
Gum Swamp
Golden Hill
Cove Pt
Cokeland
Quantico
Parsonsburg
Pittsville
Willards
Whaleysville
Hongа
Fishing Creek
Lakesville
Crapo
Fishing Bay
Elliott
Tyaskin
Bivalve
Jesterville
Whitehaven
Nanticoke
NANTICOKE RIVER
Fruitland
Powellville
Wango
Whiton
Liberty town
Berlin
Ocean
Cedar Pt
Hoopersville
Toddville
Bishops Head
Crocheron
Mt Vernon
Eden
Colbourne
Newark
PENNSYLVANIA
West
Princess Anne
Venton
Dames Quarter
Chance
Oriole
Bloodsworth Islands
Deal Island
Wenona
Whiteburg
Snow Hill
Cedartown
Spence
St Inigoes
Ridge
Scotland
Manokin
Westover
Cokesbury
Upper Fairmount
Rumbley
Fairmount
Costen
South Marsh Is
Kingston
Pocomoke City
Kiej Grange
Girdletree
Boxiron
Kedges Straits
Big Annemessex
Marion
Rehobeth
Stockton
PT LOOKOUT
Smith Island
Hopewell
Welbourne
Rhodes Point
Ewell
Tylerton
Crisfield
Lawsonia
Shelltown
Birdtown
TANGIER SOUND
CHINCOTEAGUE BAY
ASSATEAGUE ISLAND
CHESAPEAKE BAY
ATLANTIC

Stream Index

Stream Index

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DISTRICT OF COLUMBIA

WATER QUALITY STANDARDS SUMMARY

U.S. ENVIRONMENTAL PROTECTION AGENCY

DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH

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