

1985-1987 MARYLAND WATER QUALITY INVENTORY

VOLUME II APPENDICES

1988 Report to the U.S. Environmental Protection Agency According to Section 305(b) of the Clean Water Act (P.L. 100-4)

> Maryland Department of the Environment Baltimore, Maryland

> > APRIL 15, 1988

TABLE OF CONTENTS

APPENDIX	TITLE PAGE	S
A .	Ambient water quality monitoring stations	1
В	Methodology for assessing water quality	4
C	Watershed segment evaluation	3
D	Maryland lake water quality assessment	3
Е	Water quality trend analysis	7
F	Waterbody lists	3

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Appendix A

Ambient Water Quality Monitoring Stations

The following table provides information about the location of the State's ambient water quality monitoring stations. Not all of the State's monitoring programs are represented on this list. Only routine water quality-specific programs are listed and include the CORE, Trend, benthic macroinvertebrate, fish tissue, river intensives (Potomac and Patuxent), and the Chesapeake Bay Program mainstem and tributary network stations. A grid is provided with symbols marking the various sampling programs that each station serves. For more detailed information about each monitoring program, the reader should consult the Monitoring Programs section; of this report or contact the Department of the Environment's Water Management Administration.

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CORE	Trend	Fish tissue	Benthic - Multiplate sampler	Chesapeake Bay - Mainstem	Chesapeake Bay - Tributary	Patuxent intensive	Potomac intensive

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Maryland Water Quality Monitoring Stations

Basin

Station Description

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	Ocean/Coa BIH0009	astal Area (02-13-01) Birch Branch at U.S. 113					
	BOB0001	Bottle Branch at Harrison Road					
	BSH0030	Bishopville Prong below Community Pond					
	SBR0022	South Branch at U.S. 113					
	TRC0059	Trappe Creek at MD Route 376					
Ì							
	Pocomoke	River (02-13-02)					
	DIV0013	Dividing Creek at road west of Whitesburg					
	MEE 3.1	Northern Tangier Sound, NW of Haines Pt., 100 yards north of buoy R"16"					
	MEE3.2	Southern Tangier Sound, east of Smith Is., 500 yards NNW buoy R"8"					
	MEE3.3	Pocomoke Sound, midchannel near buoy W"A"					
	MNK0176	Manokin River at MD Route 363					
	NAS0073	Nassawango Creek at MD Route 12 (USGS gage)					
	POK0170	Pocomoke River at Alternate U.S. 13 (Bay Program alias MET10.1)					
	POK0312	Pocomoke River at downstream boundry of Byrd Park (Snow Hill)					
	POK0527	Pocomoke River at U.S. 50 (USGS gage)					
	XBJ3312	Big Annemessex River, NW of Long Pt., 250 yards east of day beacon G"5"					
	XBJ8215	(Bay Program alias MET9.1) Manokin River, buoy R"8" (Bay Program alias MET8.1)					
	Nanticoke/W	/icomico River (02-13-03)					
-	MEE3.0	Fishing Bay at daymark "3", west of Roasting Ear Pt.					
	MET6.2	Lower Nanticoke River, midchannel near Fl G"11"					
	NAN0032	Upper Nanticoke River, near MD Route 313 bridge at Sharpstown					
	WIW0050	(Bay Program alias MET6.1) Lower Wicomico River at Whitehaven off of Ferry Rd. (Bay Program alias MET7.1)					
	WIW0241	Wicomico River at Naylors Mill Road					

CC	CORE
1 n	lirend
	Fish tissue
	Benthic - Surber sampler
	Benthic - Multiplate sampler
Ch	Chesapeake Bay - Mainstem
Ch Ch	Chesapeake Bay - Tributary
Pa	Patuxent intensive
Po	Potomac intensive

Maryland Water Quality Monitoring Stations

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Basin

-	: River (02-13-04)
CHO0429	Upper Choptank River at Ganey Wharf (Bay Program alias MET5.1)
CHO0518	Choptank River at MD Route 404
CHO0626	Choptank River at Red Bridges Road (USGS gage)
MA \$0015	Mason Branch at Mason Branch Road
TUK0133	Tuckahoe Creek at MD Route 404
XEG1617	Little Choptank River, west of Ragged Pt., west of FLG"3"
XEG9652	(Bay Program alias MEE2.2) Choptank embayment between Todds Pt. and Nelson between BWN"63"B and R"1
XEH4766	(Bay Program alias MEE2.1) Choptank River at U.S. 50 drawspan (Bay Program alias MET5.2)
Chester 1	River (02-13-05)
CHE0367	Chester River at MD Route 290 (Bay Program alias MET4.1)
XFF9178	Eastern Bay between Tilghman Pt. and Parsons Island north of buoy R"4"
XGG8251	(Bay Program alias MEE1.1) Kent Island Narrows at U.S. 50
XGG9572	Lower Chester River south of Estern Neck Island at buoy Fl G"9" (Bay Program alias MET4.2)
Elk River	г (02-13-06)
BEL0043	Big Elk Creek at MD Route 281
LEL0024	Little Elk Creek at MD Route 279
MET1.1	Northeast River at buoy Fl R"12" north of Hance Pt.
MET2.1	Back Creek near MD Route 213 bridge at Chesapeake City
MET2.2	Bohemia River off Old Hack Pt. at buoy Fl R"4"
MET2.3	Elk River SE of Oldfield Pt. at buoy B "15", midchannel
MIC0012	Mill Creek below Perryville municipal discharge
MIC0014	Mill Creek above Perryville municipal discharge
NOC0009	Northeast Creek at MD Route 272
XJI1970	Sassafras River near MD Route 213 bridge (Bay Program alias MET3.1)

CORE	
Trend	
	ssue
Benthic Benthic	Benthic - Surber sampler
. Benthic	- Multiplate sampler
Chesape	eake Bay - Mainstem
Chesape	Chesapeake Bay - Tributary
Patuxen	Patuxent intensive

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Maryland Water Quality Monitoring Stations

Basin

Station Description

Conewago Creek (02-05-03) NONE

Lower Sus	squehanna River (02-12-02)
BRD0052	Broad Creek at MD Route 136
DER0015	Deer Creek at Stafford Bridge
DER0124	Deer Creek at U.S. 1
DER0231	Deer Creek at Rocks
DER0399	Deer Creek at Green Road
EBA0001	Ebaughs Creek at Harris Mill Road
OCT0035	Octoraro Creek at Porter Bridge
SUS0109	Susquehanna River at Conowingo Dam

Bush River (02-13-07)

Bush River, east of Gum Pt. at Fl G Lt (Bay Program alias MWT1.1)
Bynum Run at MD Route 7
James Run at MD Route 7
Swan Creek at U.S. 40
Winters Run at MD Route 7

Gunpowder River (02-13-08)

GUN0036	Gunpowder Falls at MD Route 7
GUN0125	Gunpowder Falls at Cromwell Bridge Road
GUN0258	Gunpowder Falls at Lower Glencoe Road
GUN0476	Gunpowder Falls at Gunpowder Road
LGU0024	Little Gunpowder Falls at MD Route 7
WGP0050	Western Run at Western Run Road (USGS gage)
XIF7768	Middle River, east of Wilson Pt. at channel junction daymark (Bay Program alias MWT3.1)

XJF2499 Gunpowder River, 200 yards east of Oliver PL at buoy G"15" (Bay Program alias MWT2.1)

		-hor	SULDEL SAMPICE	IUIIPIa		ce Bay - Iributary	intensive	intensive	Basin	Maryland Water Quality Monitoring Stations
3	p.	tissu	•	Bentnic -	<u>Unesapeake</u>	Chesapeakc		Potomac	Station	Description
CORLE	Ircnd	Fish Bant			j	รื	Pati	Pot		
									Patapsco GWN0015	River (02-13-09) Gywnns Falls at U.S. 1
									GWN0115	Gwynns Falls at Essex Road (USGS gage)
									HRR0015	Herring Run at U.S. 40
									JON0023	Jones Falls at North Avenue
		h							JON0184	Jones Falls at Sorrento (USGS gage)
									MWT4.1	Back River, east of Stansbury Pt. at daybeacon "12"
									NPA0165	North Branch Patapsco River at Cedarhurst (USGS gage)
		Ì							PAT0176	Patapsco River at U.S. 1 bridge
									PAT0195	Patapsco River at Orange Grove
	X								PAT0285	Patapsco River at Hollofield (USGS gage)
									SBP0027	South Branch Patapsco River at Henryton (USGS gage)
									XIE2885	Patapsco River - Fort McHenry Channel east of buoy "5M" off Hawkins Point (Bay Program alias MWT5.1)
			ŀ						West Che	sapeake Area (02-13-10)
									SER0005	Severn Run at MD Route 3
									XGE0597	West River, upstream of daymarker R"6" (Bay Program alias MWT8.3)
									XGE3279	Rhode River, between Flat Island and Big Island (Bay Program alias MWT8.2)
									XGE6187	South River, south of Poplar Pt. at daymarker R"16" (Bay Program alias MWT8.1)
									XHE0497	Severn River, 200 yards upstream of U.S. 50/301 bridge (Bay Program alias MWT7.1)
									XHE4794	Magothy River, north of South Ferry Pt. at buoy Fl R"12" (Bay Program alias
									XHF3638	MWT6.1) Magothy River 400 yards west of Pavilion Peak
					1				Patuxent	River (02-13-11)
									LXT0173	Little Patuxent River at U.S. 1
									LXT0200	Little Patuxent River at MD Route 32
									MXT0021	Middle Patuxent River at Murray Hill Road
									PXT0402	Patuxent River, midchannel at Nottingham
									PXT0456	Patuxent River, west shore at Jackson Landing

CORE
Trend
Fish tissue
Benthic - Surber sampler
Benthic - Multiplate sampler
Chesapeake Bay - Mainstem
Chesapeake Bay - Tributary
Patuxent intensive
Potomac intensive

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Maryland Water Ouality Monitoring Stations

Basin

Station Description

	River (02-13-11) - continued
PXT0494	Patuxent River, midchannel at MD Route 4 bridge near Wayson's Corner
PXT0603	Patuxent River at U.S. 50
PXT0630	Patuxent River at MD Route 3
PXT0808	Patuxent River below 9th Street crossing (Laurel)
PXT0809	Patuxent River at gaging station below Rocky Gorge Dam
PXT0939	Patuxent River at Mink Hollow Road
PXT0972	Patuxent River at MD Route 97
WXT0045	Western Branch Patuxent River, midchannel at Water Street in Upper Marlboro
XCF8747	Patuxent River, midchannel between Drum Pt. and Fishing Pt.
XCF9328	Patuxent River at mouth of Mill Creek (Solomons)
XCF9575	Patuxent River, midchannel between Cedar Pt. and Cove Pt.
XDE2792	Patuxent River, midchannel 1.6 km SW of Petersons Pt.
XDE5339	Patuxent River, midchannel SSW of Jack Bay sandspit, NE of Sandgates
XDE9401	Patuxent River, midchannel 0.5 km ENE of Long Pt.
XDF0407	Patuxent River, midchannel 1200 m north of Point Patience
XED4892	Patuxent River, midchannel 115° transect from Jack's Creek
XED9490	Patuxent River, midchannel of the Wharf at Lower Marlboro
Chasanaal	se Bay (02-13-99)
MCB2.1	Chesapeake Bay, SW of Turkey Pt.
MCB3.3W	Chesapeake Bay, NW of Bay Bridge, western shore
MCB3.3E	Chesapeake Bay, NE of Bay Bridge, eastern shore
MCB4.1W	Chesapeake Bay, SE of Horseshoe Pt., western shore
MCB4.1C	Chesapeake Bay, midchannel, SW of Kent Pt.
MCB4.1E	Chesapeake Bay, south of Kent Pt., eastern shore
MCB4.2W	Chesapeake Bay, NW of Plum Pt., western shore
MCB4.2C	Chesapeake Bay, midchannel, SW of Tilghman Island near buoy CR

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Maryland Water Ouality Monitoring Stations

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Basin

Chesapeal MCB4.3W	ke Bay (02-13-99) - continued Chesapeake Bay, east of Dares Beach, western shore
MCB4.3C	Chesapeake Bay, midchannel, east of Dares Beach near buoy R"64"
MCB4.3E	Chesapeake Bay, mouth of Choptank River, eastern shore
MCB4.5E	Chesapeake Bay, NE of Cove Pt.
MCB4.4 MCB5.1	Chesapeake Bay, east of Cedar PL, east of PR buoy
MCB5.2	Chesapeake Bay, east of Point No Point
MCB5.2 MCB5.3	• •
	Chesapeake Bay, NE of Smith Pt. at VA State Line
XBF0893	Chesapeake Bay, mouth of Potomac River (Bay Brogram alias MLE2.3)
XCG8613	Chesapeake Bay, Buoy RB "CP" off Cedar Point
XHF1373	Chesapeake Bay, midchannel, north of Bay Bridge (Bay Brogram alias MCB3.3C)
XHG9820	Chesapeake Bay, NW of Swan Pt. near buoy R"10" (Bay Brogram alias MCB3.2)
XIG4953 XJG0999	Chesapeake Bay, SE of Gunpowder Neck between buoys "24A" and "24B" (Bay Brogram alias MCB3.1) Chesapeake Bay, west of Still Pond near buoy R"34" (Bay Brogram alias MCB2.3)
XJH6680	Chesapeake Bay, 200 yards NE of buoy RB"A" between Turkey PL and Sandy Pt.
XKH3147	Chesapeake Bay, mouth of Susquehanna River (Bay Brogram alias MCB1.1)
Lower	Potomac River (02-14-01)
CHA0006	Chaptico Creek at MD Route 234
MAT0016	Mattawoman Creek at buoy "5" off Sweden Pt.
MAT0078	Mattawoman Creek at Md Route 225
PTC0006	Port Tobacco Creek at MD Route 6
SCC0023	SL Clement Creek at MD Route 242 (USGS gage)
SMR0120	St. Mary's River at MD Route 471 (USGS gage)
XBE9541	Potomac River off Ragged Pt. at buoy "51B" (Bay Program alias MLE2.2)
XDA1177	Potomac River, midchannel at buoy "19" off Maryland Pt.
XDA4238	Potomac River at buoy "27" SE of Smith Point
ADA4630	
XDB3321	Potomac River at buoy "13" off mouth of Nanjemoy Creek

	Eish tissue	Benthic - Surber sampler	Benthic - Multiplate sampler	Chesapeake Bay · Mainstern	Chesapeake Bay - Tributary	Potomac intensive

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Maryland Water Quality Monitoring Stations

Basin

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Lower	Potomac River (02-14-01) - continued
XEA1840	
XEA6596	Potomac River at buoy "N54" off Indianhead
XFB1433	Potomac River at buoy "67" off mouth of Dogue Creek
XFB2470	Potomac River at buoy FL"77" of mouth of Piscataway Creek
ZEK0054	Zekiah Swamp at MD Route 6
Potomac	River - Washington Metro Area (02-14-02)
ANA0082	Anacostia River at Bladensburg Road
CJB0005	Cabin John Branch at McArthur Boulevard
NEB0016	Northeast Branch Anacostia River at Riverdale Road below USGS gage
PIS0033	Piscataway Creek at MD Route 210
POT1183	Potomac River below Little Falls
POT1184	Potomac River above Little Falls (USGS gage)
POT1471	Potomac River at Whites Ferry (Maryland side)
POT1472	Potomac River at Whites Ferry (Virginia side)
RCM0111	Rock Creek at MD Route 410
SEN0008	Seneca Creek at MD Route 112
XFB1433	Potomac River at buoy "67" off Dogue Creek
XFB1986	Piscataway Creek midchannel 2000 yards above mouth
XFB2470	Potomac River at buoy FL"67" off Piscataway Creek
Middle	Potomac River (02-14-03)
BPC0035	Big Pipe Creek at MD Route 194 (USGS gage)
CAC0031	Catoctin Creek at MD Route 464
CAC0148	Catoctin Creek at MD Route 17 (USGS gage)
DPC0013	Double Pipe Creek at MD Route 77
MON0020	Monocacy River at MD Route 28
MON0155	Monocacy River at Reich's Ford Road (USGS gage)

O CORE	Trend	• • Fish tissue	Benthic - Surber sampler	Benthic - Multiplate sampler	Chesapeake Bay - Mainstern	Chesapeake Bay - Tributary	Patuxent intensive	Potomac intensive

Maryland Water Quality Monitoring Stations

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Basin

MON0269	Monocacy River at Biggs Ford Road
MON0528	Monocacy River at MD Route 140 (USGS gage)
POT1595	Potomac River at Point of Rocks (USGS gage - Maryland side
POT1596	Potomac River at Point of Rocks (Virginia side)
Upper Po	tomac River (02-14-05)
ANT0044	Antietam Creek at Burnside Bridge (USGS gage)
ANT0203	Antietam Creek at Poffenberger Road
ANT0229	Antietam Creek at Alternate U.S. Rte. 40, Funkstown
ANT0366	Antietam Creek at Rocky Forge
CON0005	Conococheague Creek at MD Route 68
CON0180	Conococheague Creek at Fairview Road (USGS gage)
FIF0004	Fifteenmile Creek at Fairview Road (USGS gage)
LCC0001	Little Conococheague Creek at Dam #5 Road
LIC0004	Licking Creek at U.S.40
LTW0001	Mouth of Little Tonoloway Creek
MSH0016	Marsh Run at Spreacher Road (USGS gage)
POT1830	Potomac River at Shepherdstown (USGS gage)
POT2386	Potomac River at Hancock (USGS gage)
POT2766	Potomac River at PawPaw (USGS gage)
SID0015	Sideling Hill Creek at Ziegler Road (USGS gage)
TOC0004	Tonoloway Creek below 1-70
TOW0013	Town Creek at MD Route 51
TOW 0030	Town Creek at Oldtown Road (USGS gage)

CORE	• Trend	Fish tissue	🔵 🔵 📔 Benthic - Surber sampler	Benthic - Multiplate sampler	Chesapeake Bay - Mainstern	Chesapeake Bay - Tributary	Patuxent intensive	Potomac intensive
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Maryland Water Ouality Monitoring Stations

Basin

Station Description

	nch Potomac River (02-14-10)
BDK0000	Mouth of Braddock Run
EV10017	Evitts Creek at Williams Road
GEO0009	Georges Creek at (USGS gage)
NBP0023	North Branch Potomac River at Oldtown
NBP0103	North Branch Potomac River at Blue Spring
NBP0326	North Branch Potomac River at Pinto (USGS gage)
NBP0461	North Branch Potomac River at U.S. 220
NBP0534	North Branch Potomac River at Bloomington
NBP0689	North Branch Potomac River at Kitzmiller
SAV0000	Savage River at MD Route 135
SAV0011	Savage River at Savage River Road
WIL0013	Wills Creek one half mile above USGS gage

Youghiogheny River (05-02-02)

CAS0479	Casselman River at River Road (USGS gage)
CCR 0001	Cherry Creek at Meadow Mountain Run Road
LYO0004	Little Youghiogheny River at foot bridge
NBC0000	Mouth of North Branch Casselman River
SCA0000	Mouth of South Branch Casselman River
YOU0918	Youghiogheny River at Friendsville

YOU0925 Youghiogheny River at Friendsville 0.7 miles upstream from MD Route 42 (USGS gage) YOU1069 Youghiogheny River at Swallow Falls

- YOU1139 Youghiogheny River north of MD Route 20
- YOU1184 Youghiogheny River at MD Route 39

Appendix B

Methodology for assessing water quality

In past water quality inventory reports, assessing water quality conditions in each watershed required an evaluation of historical and current water quality data and related information, and best professional judgement to describe water quality impacts during the past two years. Beginning with the water quality inventory report due in 1988, however, the U.S. Environmental Protection Agency (EPA) has required that each State provide a detailed, quantitative assessment of each waterbody area affected by specific water quality problems by the source of the problem (e.g. 10 stream miles impacted by excess nutrients from urban surface runoff). A separate assessment is required for each waterbody type (e.g. rivers, ocean, lake). In addition, the areas "monitored" by ambient monitoring programs and areas "evaluated" by other programs (e.g. fish kill data, non-ambient data) were to be recorded for each waterbody type.

This data will be entered into a computerized national "Waterbody System" being established by EPA which will permit the agency to assess water quality problems nationwide and track progress toward meeting the goals of the Clean Water Act. The following information documents procedures the State used in trying to fulfill this data requirement.

DATA COLLECTION

The first step was to collect recent State-wide water quality information including ambient and intensive data (1982-1987), benthic macroinvertebrate data (1983-1986), algal bloom information (1983-1987), fish kill data (1984-1987), restricted shellfish harvesting areas (through 1987). NPDES surface and State groundwater discharge permit data (1987), municipal compliance data (1987), land use data (1985), watershed mileage data, local health department water quality questionnaire data, lake inventory data, fish advisory ban information, Cumulative Hydrologic Impact Assessment data (acid mine drainage) (1984-1986), agricultural water pollution complaint data (1983-

1987), septic tank failure information from county Water and Sewer Plans, and any other pertinent water quality data.

This information was entered on worksheets (Appendix Table B-1) and. where appropriate, drawn on watershed maps (Appendix Figure B-1). According to guidelines established by EPA, areas affected by specific water quality problems were to be determined by the source of the problem (e.g. 10 stream miles impacted by excess nutrients from agricultural runoff). A separate assessment was required for each waterbody type which included rivers, ocean. lake. estuary, wetlands and ground water. In addition. the areas "monitored" by ambient monitoring programs and areas "evaluated" by other programs (e.g. fish kill data, non-ambient data) were to be recorded for each waterbody type. "Rules of assessment" were established to permit an unbiased and uniform water quality assessment in all 139 watersheds in the State. These "rules" and their justification are described below:

<u>Waterbody selection</u>: The smallest waterbody to be used in this assessment is a segment from the State's watershed classification scheme established by the Department of Natural Resources in the 1970's. This segmentation is used in a number of reports and is a key variable in many State databases. Its use in this assessment simplifies data collection and provides a measure of continuity with past water quality inventory reports.

<u>Waterbody designated use:</u> Using watershed maps, the State's water use classes (COMAR 10.50.01) were drawn to simplify describing use classes and to assist in comparing ambient data to specific water quality standards.

<u>Waterbody sizes:</u> Stream miles described in previous water quality inventory reports were used as base miles in this assessment. For rivers (including tidal rivers and embayments above the confluence with Chesapeake Bay or the Atlantic Ocean), mileages presented are <u>mainstem</u> miles to the upstream monitoring station. Thus, tributary portions of rivers are not properly accounted for in the "stream mile" figure.

Lake acreages are provided from a list of lakes and ponds compiled for the Lake Assessment portion of this water quality inventory report (see

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Wetland (sc) Honitored: Evaluated: Total:									
Groundwater Honitored: Evaluated: Total:									
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and Life: Inbani: Agricultural: Forest: Wetland: Mines: Menilared Subjective Station wb Type Temp Do pH_Torp Back M P_Chia Station Wb Type Compliance M P_Chia STP wb Type Compliance MB_Pretreat STP wb Type Compliance MB_Pretreat Area WB Type Source Cause Area WB Type Source Cause Area WB Type Source Area WB Type Source Area WB Type Source Lindustry WB Type Lindustry WB Type Lindustry WB Type Lindustry WB Type Lindustry WB Type	Groundwater	Monitored:	Evaluated:	Total:		WB Type	Source	Cause	
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CSO/Stormwater WB Type Compliance MGD Pretreat					Area	WB Type	Source		
:	CSO/Stormy	valer	WB Type Complian	ice MGD Pretrest					
							;		

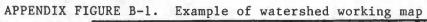
н <u>ј</u>

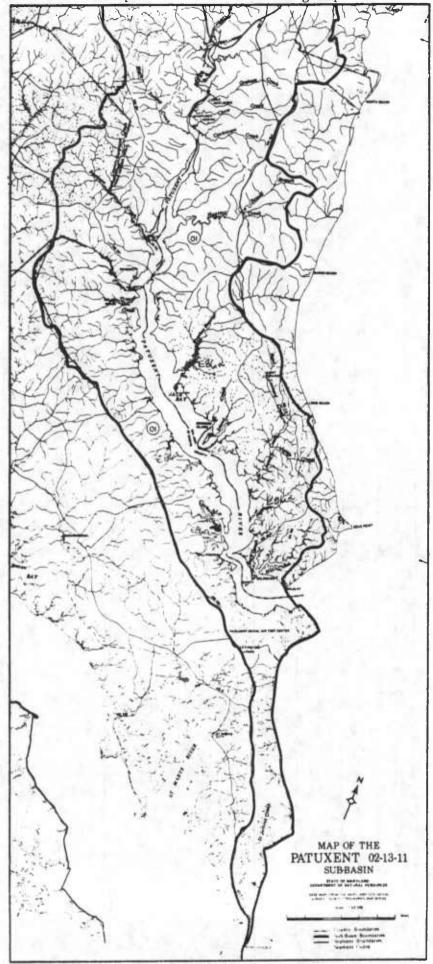
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APPENDIX TABLE B-1. Example of watershed worksheet for water quality assessment.

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Appendix D). These figures are taken from a catalog of ponds and lakes reported by the Department of Natural Resources' (DNR) Power Plant Research Program (Weisberg, et al., 1985) and from a freshwater sportfishing guide (Tidewater Administration, 1987).

Estuary size figures were reported for the mainstem Chesapeake Bay only. As previous water quality inventory reports described the Bay in terms of mainstem miles (linear) rather than square miles (area). an approximation of estuarine areas for each of the three segments was determined as a proportion of the total mainstem length (118 miles) multiplied by the total estuary area (1981 square miles).

Two other waterbody types were included for the first time in a quantitative assessment section; wetlands and ground water. Wetlands areas were determined from 1985 land use figures (Department of State Planning, 1987). These estimates are low, however, the use of watershed delineations required the use of a database which identified wetlands areas by individual watersheds. Ground water was not included in this assessment; it is recommended that EPA provide further guidance on how to report ground water impacts both in terms of units (e.g. acre-feet, square or cubic kilometers) and impact assessment

<u>Ambient data:</u> Historical water quality data (1983-1986) from both ambient and special water quality studies were printed out by watershed and station locations were plotted on watershed maps. Ambient data were compared to appropriate water quality standards (temperature, pH, turbidity, dissolved oxygen, fecal coliform bacteria) and to subjective standards (e.g. nutrients, chlorophyll levels, alkalinity). For each constituent, the severity of water quality impacts were assessed based on the percentage of samples which exceeded an established water quality standard (established in State regulations or by professional judgement). This information is included in Appendix Table B-2.

Support of Designated Use	Chemical Information	Biological Information	Direct Observation/ Professional Judgement
Waters support designated uses	Standard is exceeded in less than 11% of the analysis and the mean measured value does not meet the standard.	Data show that the waterbody is fully supporting the designated aquatic life community.	Direct observation shows that the designated use is or professional judgement indicates that there is no reason for the use not to be supported.
Pollution sev	verity: NONE		not to be supported.
Waters partially support designated uses	Standard is exceeded in 11-25% of the analyses and the mean measured value is less than the standard; or the standard is exceeded in less than 11% of analyses and mean measured value does not meet the standard	There is uncertainty as to whether or not a balanced aquatic community is fully supported.	Direct observation shows that the use exists in the waterbody, but professional judgement suggests that the use is not supported to a maximum level.
Pollution sev	verity: MINOR		
Waters do not support designated uses	Standard is exceeded in more than 25% of the analyses and the mean measured value does not meet the standard: or the the standard is exceeded in 11-24% of the analyses and the mean measured value exceeds the standard.	Data show that the waterbody does not support the designated aquatic community.	Direct observations show that overt signs of obvious use impairment (e.g. frequent fish kills), or provide no evidence that the use exists. Professional judgement suggests that the use cannot be supported due to known or suspected water quality problems.
Pollution sev	verity: MAJOR		proorems.
Unknown	No representative data are available for assessment.	Limited or no data available.	Limited or no observations.

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Appendix Table B-2. Criteria for evaluating designated use support

Pollution severity: UNKNOWN

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<u>Shellfish data:</u> "Restricted" and "conditionally approved" shellfish closures also were mapped out on watershed maps. Acreages provided for Chesapeake Bay closures (estuary) and approximate mainstem mileages for tributary closures (rivers) were recorded. In the Ocean/Coastal basin, open ocean closures were recorded as ocean: embayment and tributary closures were recorded as rivers. Reasons for shellfish area closures were associated with the area/distance and recorded on appropriate forms for each sub-basin segment. In areas where "non-point source pollution" was described as the reason for closure, a percentage runoff source was assigned to major land use percentages in each basin (e.g. urban runoff, agricultural runoff, forest/marsh runoff) using 1985 MAGI data (Department of State Planning, 1987), except where professional judgement was used.

<u>Fish kills</u>: Data from the Water Quality Monitoring Division on locations and approximate sizes of reported fish kills in the State between 1984 and 1987 were mapped out on watershed maps. Fish kills attributed to natural conditions or diseases not necessarily related to water quality (e.g. spawning kills or menhaden virus) or man-induced "non-kills" (e.g. fishery discards, explosions) were not included in this assessment. Unknown reasons for fish kills were also not included unless the investigating biologist suspected some water quality-related cause; all other causes and sources were defined.

Numerous fish kills were recorded in small, private ponds so, unless the size of the lake or pond is known or the size of the fish kill is reported to be very large, these ponds were assigned a minimum size of one (1) acre. The impoundment acreage for small, private ponds with reported fish kills were <u>not</u> added to the basin lake acreage already identified (impoundments greater than 5 acres with public access).

Fish advisories: Information about fish consumption advisories and fishing bans were compiled from the files of the Water Management Administration and summarized on watershed information sheets.

<u>Bathing beach closures</u>: Data on the cause and severity (impact area, time) of bathing beach closures was summarized from the results of questionnaires which had been sent to all local Environmental Health Directors or local Departments

of Environmental Protection. This information was plotted onto watershed maps and entered onto watershed sheets.

<u>Algae blooms</u>: Data from the Water Quality Monitoring Division's monthly phytoplankton reports was used to identify smaller areas where algal blooms were reported. Annual algal blooms in the estuarine areas were located ou maps by a biologist in the Water Quality Monitoring Division. The source of nutrients was identified, if possible, and information was summarized on the watershed sheets.

<u>Mine impacts</u>: Data on acid mine drainage from abandoned mines were summarized from the State's ambient monitoring program and the State Burean of Mines CHIA reports and entered on watershed maps of Western Maryland. The degree of impact (e.g. major, moderate) was determined based on the degree of departure of pH and alkalinity values from "normal" values (pH of 6.0 or more, total alkalinity of 20 mg/l us CaCO₃ or more), and on the degree of trace metal concentrations.

ASSESSMENT CRITERIA AND METHODOLOGY

For each watershed, information collected was subjected to "rules of assessment" which are described below in detail. For each waterbody type (e.g. rivers, estuary, ocean), these results were summarized in terms of major and moderate/minor water quality impacts by both cause and source of pollution (Appendix Table B-3). In addition, the waterbody sizes not supporting designated uses were summarized (Appendix Table B-4) as were waterbody sizes not supporting the goals of the Clean Water Act (Appendix Table B-5). This information was used to generate summary tables in the Surface Water Quality section of the main report as well as the various waterbody lists provided in Appendix F.

Sizes of chronic water quality-related fish kills (rivers and impoundments) were described as not supporting the "fishable" goals of the Clean Water Act and not supporting designated uses. All fish kills are evaluated rather than monitored as they are sporadic in nature. It should be recognized that there are few chronic water quality related fish kills in the

Total Sizes of Waters Not Fully Supporting Uses by Cause and Source

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Name: _

Type of Waterbody: _____

Cause Category	Major Impact	Moderate/Minor Impact
Organic enrichment/DO		
Nutrients		
рН		
Sediments		
Bacteria		
Other inorganics		
Thermal modification		
Flow alteration		
Hebitet modification		
Ammonia		
Chlorine		
Metels		
Priority organics		
Nonpriority organics		
Pesticides		
Radiation		
Oil and grease		1

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Source Category	Major Impact	Moderate/Minor Impact
POINT SOURCES		
Industrial	T	
Municipal		
CSO		
Storm Sewers		
NON-POINT SOURCES		
Agriculture		
Silviculture		
Construction		
Urban Runoff		
Mining		
Land Disposal		
Netural		
Other Runoff		
Hydrologic mod.		
Other		

APPENDIX TABLE B-3. Water quality assessment worksheet.

Designated Use Support

Dasin:	 	
Name	 	

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Type of Waterbody: _____

Degree of Use Support	Evaluated	Monitored	Total Assessed
Size Fully Supporting			
Threatened			
Size Partially Supporting			
Size Not Supporting			

Type of Waterbody: _____

Degree of Use Support	Evaluated	Monitored	Total Assessed
Size Fully Supporting			
Threatened			
Size Partially Supporting			
Size Not Supporting			

APPENDIX TABLE B-4. Example of designated use support worksheet.

Attainment of Clean Water Act (CWA) Goals

Dasin:	
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Name: _

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Type of Waterbody: ____

	Fishable Goal	Swimmable Goal
Size Meeting CWA Goals		
Size Not Meeting CWA Goals		
Size CWA Goals Not Attainable		

Type of Waterbody: _____

	Fishable Goal	Swimmable Goal
Size Meeting CWA Goals		
Size Not Meeting CWA Goals		
Size CWA Goals Not Attainable		

Type of Waterbody: _____

	Fishable Goal	Swimmable Goal
Size Meeting CWA Gools		
Size Not Meeting CWA Goels		
Size CWA Goals Not Attainable		

APPENDIX TABLE B-5. Example of Clean Water Act attainment worksheet.

State. Many fish kills occur due to some combination of meteorological/ hydrological/biological events. While such events may occur seasonally, fish kills may or may not occur with such regularity. Other fish kills occur as a result of a man-induced incident (manure or highway spills, pumping station failures) which occur at unpredictable intervals.

Shellfish closure areas were described as <u>evaluated</u> rather than monitored. In the shellfish monitoring program, only fecal coliform, temperature and weather data are regularly collected. At select stations, salinity is also recorded. No other water quality information is available through this program.

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"Restricted" shellfish closures represent either a chronic bacterial contamination problem or a "safety" zone around point source discharge sites. Although the State's Shellfish Sanitation Program describes acreage closed around most discharges, in some areas no distinction is made between areas closed for point source discharges and areas closed for other reasons. As the water quality status around point source discharges cannot be determined without an extensive analysis, and as such closed areas are relatively small, they are not described as a subset of the "restricted" shellfish closures.

All "restricted" shellfish closures are described as <u>not supporting</u> <u>designated uses</u> and are described as "<u>major impact</u>". While this description is not entirely true (areas closed to shellfish harvesting because of high bacterial levels may still support other commercial/recreational fisheries and water contact activities), past water quality assessments were described in this fashion and this represents an effort to remain consistent with past assessments.

"Conditionally approved" shellfish harvesting areas represent pure nonpoint source pollution impacts. As these areas are closed only after a certain intensity of precipitation, all "conditionally approved" shellfish closures are described as <u>partially supporting designated uses</u>. These areas are described as "<u>moderate impact</u>".

All shellfish closure areas ("restricted", safety zone or "conditionally approved") are considered as <u>not supporting the "fishable" goals</u> of the Clean Water Act.

Chronic algal blooms are described as <u>"partially supporting" designated</u> <u>uses</u>. These areas are described as "<u>major impact</u>". As with shellfish closures, the source of excessive nutrients is divided as a percentage between the known point sources (municipal or industrial discharges) and probable nonpoint sources (runoff from various land use types, upriver sources, internal sources); this division is based on 1985 MAGI data, compliance data and best professional judgement.

Areas affected by acid mine drainage in Western Maryland were drawn on watershed maps and the affected areas determined as major impact (low alkalinity, low pH, high sulphate, elevated metals) and moderate impact (elevated alkalinity, low to moderate pH, low elevated sulphate, low metals). Sources were determined as abandoned surface or underground coal mines. Areas of major acid mine impact were described as <u>not supporting designated uses or</u> <u>"fishable" goals</u> of the Clean Water Act. Unless specific water contact restrictions were established, these areas were designated as <u>supporting the</u> <u>"swimmable" goal</u> of the Clean Water Act. These areas are described as "major <u>impact</u>". Areas impacted by moderate acid mine drainage effects were described as <u>"partially supporting" designated uses</u> and <u>fully supporting the "fishable"</u> <u>and "swimmable" goals</u> of the Clean Water Act. These areas are described as "moderate impact".

Other areas of surface mine impact were identified from MAGI land use data and from prior knowledge of certain areas of the State. Unless definite impacts are identified (e.g. Anacostia River), surface mine impacts were not noted.

Areas closed to bathing by local health departments are drawn on watershed maps and the size of the closed swimming area and the source of excessive bacteria is determined. These areas are described as <u>not supporting</u> <u>designated uses</u> and <u>not supporting the "swimmable" goals</u> of the Clean Water Act. These areas are described as "<u>major impact</u>". As with shellfish and

algal blooms, known point and probable nonpoint sources of excessive bacteria are distributed as a percentage among appropriate land uses in the affected watershed.

Surface industrial and municipal dischargers were identified as major (greater than one million gallons per day - MGD) or minor dischargers (less than one MGD). Compliance problems with municipal dischargers were reviewed (Department of the Environment, Municipal Compliance Section), however, no severe water quality impacts were noted. If the segment experienced no known point source problem, yet surface dischargers were present, the appropriate point source category was noted for possible water quality impacts and described as "moderate impact".

REFERENCES

- COMAR. 1985. Water quality and pollution control. Code of Maryland Regulations (10.50.01). Dept. Environment, Baltimore. 73p.
- Department of State Planning. 1987. Primary land use data: 1985 (Maryland Automated Geographic Information System). Planning Data Office, Baltimore. MD.
- Tidewater Administration. 1987. Maryland freshwater sportfishing guide. Dept. Natl. Resour., Annapolis. 48p. + app.
- Weisberg, Stephen B., Kenneth A. Rose, Brian S. Clevenger, and Jeffrey O. Smith. 1985. Inventory of Maryland dams and assessment of hydropower resources. Power Plant Siting Program, MD Dept. Natl. Resour., Annapolis.

Appendix C

Watershed Segment Evaluation

The following tables provide specific information about water quality impairments in each of the State's 138 watersheds. Procedures used to assess water quality in each watershed are discussed in Appendix B. The reader seeking more descriptive information about each watershed should consult the State's 1986 water quality inventory report. The contents of this Appendix are summarized by watershed as follows:

 APPENDIX TABLE	BASIN CODE	BASIN NAME
C - 1	020503	Conewago Creek
C -2	021202	Lower Susquehanna River
C-3	021301	Ocean/Coastal Area
C-4	021302	Pocomoke River
C-5	021303	Nanticoke/Wicomico River
C-6	021304	Choptank River
C-7	021305	Chester River
C-8	021306	Elk River
C-9	021307	Bush River
C-10	021308	Gunpowder River
C-11	021309	Patapsco River
C-12	021310	West Chesapeake Area
C-13	021311	Patuxent River
C-14	021399	Chesapeake Bay
C-15	021401	Lower Potomac River
C-16	021402	Potomac River - Washington Metro Area
C-17	021403	Middle Potomac River
C-18	021405	Upper Potomac River
C-19	021410	North Branch Potomac River
C-20	050202	Youghiogheny River

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APPENDIX TABLE C-1

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGMENT NOT	BER: -01	S	EGMENT NAME: Con	ewago Creek	
R	(VER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (m1)
		0. 0		0.0	0.0
VALUATED:	3.0	0.0	0.0	0.0	0.0
			0.0		0.0
	W: Class I		0.0 ct recreation and		0.0

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APPENDIX TABLE C-2

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGNENT	NUMBER: -01	S	EGMENT NAME: Low	er Susquehanna R	iver Area	
	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	NETLAND (ac)	OCEAN (mi)	
ION I TORED :	11.0	0.0	0.0	0.0	0.0	
VALUATED:	0.0	0.0	0.0	0.0	0.0	
OTAL:	11.0	0.0	0.0	0.0	0.0	
SE CLASSIFIC	ATION: Class I	- Water conta	ct recreation and	d aquatic life		
AUSE OF IMPA	IRMENT: Low di	issolved oxyge	n, bacteria.			
NURCE OF THE	AIRMENT. Munici	ina) discharge	, hydrologic mod	ification (dam c	neration)	
ATER QUALITY	TREND: SUS010		xygen - no trend			
		•	nded solids - no	trend		
		• •	horus - no trend			
			gen - Increasing orm bacteria - De			
XOMMENTS: Ut		Fecal colif ns Conowingo D	orm bacteria - Do am (Philadelphia	ecreasing trend, Electric Co.) i		ater qual:
	standards and	Fecal colif ns Conowingo D d provide perm	orm bacteria - D am (Philadelphia anent fish passa	ecreasing trend, Electric Co.) i ge facilities fo	not significant ntends to meet State wa	ater qual
	standards and NUMBER: -02	Fecal colif ns Conowingo D d provide perm S	orm bacteria - Di am (Philadelphia anent fish passa EGMENT NAME: Deen	Electric Co.) i ge facilities fo r Creek	not significant ntends to meet State w r anadromous fish	ater qual:
TATE SEGNENT	standards and NUMBER: -02 RIVER (mi)	Fecal colif ns Conowingo D d provide perm S LAKE (ec)	orm bacteria - Di am (Philadelphia anent fish passa EGMENT NAME: Dee ESTUARY (mi ²)	Electric Co.) i ge facilities fo r Creek WETLAND (ac)	not significant ntends to meet State w r anadromous fish. OCEAN (mi)	ater qual
TATE SEGNENT ONITORED:	standards and NUMBER: -02 RIVER (mi) 40.0	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0	orm bacteria - Di am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (m1) 0.0	ater qual:
TATE SEGMENT DNITORED: VALUATED:	standards and NUMBER: -02 RIVER (mi) 40.0 0.0	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 0.0	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deen ESTUARY (mi ²) 0.0 <u>0.0</u>	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0	ater qual
TATE SEGMENT IONITORED: VALUATED:	standards and NUMBER: -02 RIVER (mi) 40.0	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0	orm bacteria - Di am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (m1) 0.0	ater qual
STATE SEGMENT NONITORED: EVALUATED: TOTAL:	standards and NUMBER: -02 RIVER (mi) 40.0 	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 0.0 11 - Natural t	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0 0.0 0.0 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0	ater qual
STATE SEGMENT NONITORED: EVALUATED: TOTAL:	standards and NUMBER: -02 RIVER (mi) 40.0 	Fecal colif ns Conowingo D d provide perm S LAKE (ec) 0.0 0.0	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0 0.0 0.0 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0	ater qual
TATE SEGMENT IONITORED: <u>VALUATED:</u> OTAL: SE CLASSIFIC	standards and NUMBER: -02 RIVER (mi) 40.0 	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 0.0 11 - Natural t	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0 0.0 0.0 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0	ater qual
STATE SEGMENT NONITORED: EVALUATED: IOTAL: USE CLASSIFIC CAUSE OF IMPA	standards and NUMBER: -02 RIVER (mi) 40.0 0.0 40.0 SATION: Class II Class IN	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 0.0 11 - Natural t	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0 0.0 0.0 0.0	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0	ater qual
STATE SEGMENT IONITORED: EVALUATED: IOTAL: USE CLASSIFIC CAUSE OF IMPA SOURCE OF IMP	standards and NUMBER: -02 RIVER (mi) 40.0 40.0 ATION: Class II Class IN NIRMENT: None.	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 11 - Natural t / - Recreation	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Deel ESTUARY (mi ²) 0.0 0.0 rout al trout	Electric Co.) i ge facilities fo r Creek WETLAND (ac) 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (m1) 0.0 0.0 0.0	ater qual
TATE SEGNENT ONITORED: <u>VALUATED:</u> OTAL: SE CLASSIFIC AUSE OF IMPA OURCE OF IMP	standards and NUMBER: -02 RIVER (mi) 40.0 40.0 ATION: Class II Class IN NIRMENT: None.	Fecal colif ns Conowingo D d provide perm S LAKE (ac) 0.0 0.0 11 - Natural t / - Recreation	orm bacteria - Da am (Philadelphia anent fish passa EGMENT NAME: Dee ESTUARY (mi ²) 0.0 0.0 rout al trout	Electric Co.) i ge facilities for r Creek WETLAND (ac) 0.0 0.0 0.0	not significant ntends to meet State w r anadromous fish. OCEAN (mi) 0.0 0.0 0.0 0.0	ater qual

APPENDIX TABLE C-2 - continued

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

LOWER SUSQUEHANNA RIVER (BASIN CODE: 02-12-02) STATE SEGMENT NUMBER: -03 SEGMENT NAME: Octoraro Creek ESTUARY (m1²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (m1) NON I TORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 9.0 0.0 0.0 0.0 0.0 TOTAL: 9.0 0 0 0 0 0.0 0.0 USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 SEGMENT NAME: Conowingo Dam - Susquehanna Run ESTUARY (mi²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (m1) MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 6.0 0.0 0.0 0.0 0.0 TOTAL: 6.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Conowingo Reservoir is not designated as a public lake due to flow characteristics which State

the-river lake and is not included in the lake inventory.

biologists describe as being more riverine in nature. Impoundment is described as a run-of-

APPENDIX TABLE C-2 - continued

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

RIVER (m†) LAKE (ac) ESTUARY (m† ²) NETLAND (a	ac) OCEAN (mi
NITORED: 0.0 0.0 0.0 0.0	0.0
NLUATED: 17.0 0.0 0.0 0.0	0.0
TAL: 17.0 0.0 0.0 0.0	0.0
E CLASSIFICATION: Class I - Water contact recreation and aquatic li USE OF IMPAIRMENT: None.	ife

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APPENDIX TABLE C-3

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

OCEAN/COASTAL AREA (BASIN CODE: 02-13-01) STATE SEGMENT NUMBER: -01 SEGMENT NAME: Atlantic Ocean RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 92.0 EVALUATED: 0.0 32.0 0.0 0.0 0.0 92.0 TOTAL: 32.0 USE CLASSIFICATION: Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER OUALITY TREND: Insufficient data available for trend analysis. STATE SEGNENT NUMBER: -02 SEGMENT NAME: Assawoman Bay ESTUARY (mi²) NETLAND (ac) LAKE (ac) RIVER (mi) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 4.0 0.0 1377.0 0.0 0 0 TOTAL: 4 0 0 0 1377 0 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Water quality degraded in restricted waterways and dredge holes due to poor flushing characteristics.

APPENDIX TABLE C-3 - continued

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

	NUMBER: -03	S	EGMENT NAME: Is](e of Wight Bay	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	0.0	• •	0.0
EVALUATED:	11.0	5.1	0.0	2203.0	0.0
TOTAL:	11.0	5.7	0.0	2203.0	0.0
SOURCE OF IMP		ipal discharge	, agricultural ru		
WATER QUALITY	TREND: Insuff	icient data ava	ailable for trend	d analysis.	
COMMENTS: Wa	Pond (5.7 acr uses due to a discharges ar	res) does not l agricultural ru ad past indust	nave a balanced function in the second se	fish population sources, and po . Shellfish har	ushing characteristics. Bishopville and does not support the fishable int source discharges (municipa) rvesting areas in St. Martin River and

0.0 MONITORED: 0.0 0.0 0.0 0.0 <u>0.0</u> 1652.0 0.0 EVALUATED: 10.0 0.0 0.0 1652.0 TOTAL: 10.0 0.0 0.0

USE CLASSIFICATION: Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

		UCAN/U	COASTAL AREA (BAS		·····	
STATE SEGMENT	T NUMBER: -05	S	EGMENT NAME: New	port Bay		
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	OCEAN (mi)	
NON I TORED:	0.0	0.0	0.0	0.0	0.0	
EVALUATED:	10.0	0.0	0.0	3764.0	0.0	
TOTAL:	10.0	0.0	0.0	3764.0	0.0	
ISE CLASSIFIC		- Water conta [- Shellfish	ct recreation and harvesting	aquatic life		
CAUSE OF IMP/	AIRMENT: Organ	ic enrichment.		•		
SOURCE OF INF	PAIRMENT: Munici	ipal discharge	•			
		laiose daes	ailable for trend	l seslundo		
			机工作机合合体 无合产 工作通信	1 404 (VS1S.		
•	ater quality in			-	upper tidal and fresh	water area:
COMMENTS: Ma	ater quality in	open, tidal w y is degraded.		nt, however, in	upper tidal and fresh	water areas
COMMENTS: Wa	ater quality in water quality NUMBER: -06	open, tidal w y is degraded. 	aters is exceller	nt, however, in incoteague Bay		water areas
COMMENTS: Ma State Segment	ater quality in water quality NUMBER: -06 RIVER (mi)	open, tidal w y is degraded. Si LAKE (ac)	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²)	nt, however, in incoteague Bay		water areas
COMMENTS: Ma State Segment Ionitored:	ater quality in water quality NUMBER: -06 RIVER (mi) 0.0	open, tidal w / is degraded. Si LAKE (ac) 0.0	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0	nt, however, in incoteague Bay WETLAND (ac) 0.0	OCEAN (mi) 0.0	water area:
COMMENTS: Ha State Segment Nonitored: Evaluated:	ater quality in water quality NUMBER: -06 RIVER (mi) 0.0 <u>14.0</u>	open, tidal wa / is degraded. Si LAKE (ac) 0.0 <u>60.2</u>	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²)	nt, however, in incoteague Bay WETLAND (ac) 0.0 11291.0	OCEAN (mi) 0.0 <u>0.0</u>	water areas
COMMENTS: Wa State Segment Nonitored: Evaluated: Total:	ater quality in water quality NUMBER: -06 RIVER (mi) 0.0 14.0 14.0 CATION: Class I	open, tidal w y is degraded. Si LAKE (ac) 0.0 <u>60.2</u> 60.2	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	nt, however, in incoteague Bay WETLAND (ac) 0.0 <u>11291.0</u> 11291.0	OCEAN (mi) 0.0 <u>0.0</u>	water area:
COMMENTS: HE STATE SEGMENT NONITORED: Evaluated: Total: USE classific	ater quality in water quality NUMBER: -06 RIVER (mi) 0.0 14.0 14.0 CATION: Class I	open, tida] w y is degraded. S LAKE (ac) 0.0 <u>60.2</u> - Water conta [- Shellfish [aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	nt, however, in incoteague Bay WETLAND (ac) 0.0 <u>11291.0</u> 11291.0	OCEAN (mi) 0.0 <u>0.0</u>	water area:
COMMENTS: WA STATE SEGMENT NONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA	ater quality in water quality NUMBER: -06 RIVER (mi) 0.0 <u>14.0</u> 14.0 CATION: Class I Class II	open, tidal wa y is degraded. Si LAKE (ac) 0.0 <u>60.2</u> - Water contac I - Shellfish M	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and harvesting	nt, however, in incoteague Bay WETLAND (ac) 0.0 <u>11291.0</u> 11291.0	OCEAN (mi) 0.0 <u>0.0</u>	water area:
COMMENTS: Ma STATE SEGMENT NONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA SOURCE OF IMP	ater quality in water quality water quality NUMBER: -06 RIVER (mi) 0.0 14.0 14.0 CATION: Class I Class II AIRMENT: Bacter PAIRMENT: Agricu	open, tida] way is degraded. Si LAKE (ac) 0.0 <u>60.2</u> - Water contact (- Shellfish and national stural and national	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and harvesting tural runoff.	nt, however, in incoteague Bay WETLAND (ac) 0.0 11291.0 11291.0 1 aquatic life	OCEAN (mi) 0.0 <u>0.0</u>	water area:
CONNENTS: HE STATE SEGMENT NONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA SOURCE OF IMPA	Ater quality in water quality water quality NUMBER: -06 RIVER (mi) 0.0 <u>14.0</u> 14.0 CATION: Class I Class II AIRMENT: Bacter PAIRMENT: Agricu (TREND: Insuffi	open, tida] way y is degraded. Si LAKE (ac) 0.0 <u>60.2</u> - Water contag [- Shellfish f ria. altural and nag icient data ava	aters is exceller EGMENT NAME: Chi ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and harvesting	nt, however, in incoteague Bay WETLAND (ac) 0.0 11291.0 11291.0 1 aquatic life	OCEAN (mi) 0.0 <u>0.0</u> 0.0	water area:

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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			OKE RIVER (BASIN			
BTATE SEGMENT	NUMBER: -01	S	EGMENT NAME: Poc	omoke Sound		
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	OCEAN (mi)	
	7.0			0.0	0.0	
EVALUATED:	0.0	0.0	0.0	10924.0	0.0	
TOTAL:	7.0	0.0	0.0	10924.0	0.0	
USE CLASSIFIC		- Water contac - Shellfish	ct recreation and harvesting	aquatic life		
CAUSE OF IMPA	AIRMENT: Bacter	ia.				•
SOURCE OF THE	PAIRMENT: Agricu	iltural and nat	tural runoff.			
teauae ai Tui						
IATER QUALITY	/ TREND: Insuff	icient data av	vailable for tre	nd analysis.		
COMMENTS: S	hellfish harvest	in <mark>g area</mark> s in _l	portions of segm	ent are restrict	ed or conditionally ap	oprove
C omments: Sł	hellfish harvest	ing areas in p	portions of segm	ent are restrict	ed or conditionally ap	oprove
Comments: St	hellfish harvest	ing areas in p	portions of segm	ent are restrict	ed or conditionally ap	oprove
	hellfish harvest 	-	portions of segm EGNENT NAME: Low			oprove
	T NUMBER: -02	SI	EGMENT NAME: Low	er Pocomoke Rive		oprove
STATE SEGNENT	T NUMBER: -02	SI LAKE (ac)	EGMENT NAME: Low Estuary (mi ²)	er Pocomoke Rive		oprove
STATE SEGNENT	T NUMBER: -02 RIVER (mi) 10.0	Si LAKE (ac) 0.0	EGMENT NAME: Low Estuary (m1 ²) 0.0 0.0	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u>	OCEAN (m1) 0.0	oprove
STATE SEGNENT	T NUMBER: -02 RIVER (mi) 10.0 27.0	Si LAKE (ac) 0.0	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u>	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u>	OCEAN (m1) 0.0))rove
STATE SEGMENT MONITORED: EVALUATED: TOTAL:	RIVER (m1) 10.0 27.0 37.0	SI LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Low Estuary (m ¹²) 0.0 <u>0.0</u> 0.0	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0	OCEAN (m1) 0.0 0.0))
STATE SEGMENT MONITORED: EVALUATED: TOTAL:	T NUMBER: -02 RIVER (m1) 10.0 <u>27.0</u> 37.0 CATION: Class I	SI LAKE (ac) 0.0 0.0 0.0 - Water contac	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0	OCEAN (m1) 0.0 0.0)
STATE SEGMENT MONITORED: EVALUATED: TOTAL:	T NUMBER: -02 RIVER (m1) 10.0 <u>27.0</u> 37.0 CATION: Class I	SI LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0	OCEAN (m1) 0.0 0.0))rove
STATE SEGMENT NONITORED: EVALUATED: TOTAL: USE CLASSIFIC	T NUMBER: -02 RIVER (m1) 10.0 <u>27.0</u> 37.0 CATION: Class I	SI LAKE (ac) 0.0 0.0 0.0 - Water contac	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0	OCEAN (m1) 0.0 0.0))rove
STATE SEGMENT MONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/	T NUMBER: -02 RIVER (mi) 10.0 <u>27.0</u> 37.0 CATION: Class I Class II	SI LAKE (ac) 0.0 0.0 0.0 - Water contac	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0	OCEAN (m1) 0.0 0.0)
STATE SEGMENT MONITORED: <u>EVALUATED:</u> TOTAL: USE CLASSIFIC CAUSE OF IMP/ SOURCE OF IM	T NUMBER: -02 RIVER (m1) 10.0 <u>27.0</u> 37.0 CATION: Class I Class II AIRMENT: None. PAIRMENT: None.	SI LAKE (ac) 0.0 0.0 - Water contac - Shellfish I	EGMENT NAME: Low ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0 d aquatic life	OCEAN (m1) 0.0 0.0	oprov
STATE SEGMENT MONITORED: <u>EVALUATED:</u> TOTAL: USE CLASSIFIC CAUSE OF IMP/ SOURCE OF IM	T NUMBER: -02 RIVER (m1) 10.0 <u>27.0</u> 37.0 CATION: Class I Class II AIRMENT: None. PAIRMENT: None.	SI LAKE (ac) 0.0 0.0 - Water contac - Shellfish I	EGMENT NAME: Low ESTUARY (mi ²) 0.0 0.0 ct recreation and harvesting	er Pocomoke Rive WETLAND (ac) 0.0 <u>1652.0</u> 1652.0 d aquatic life	OCEAN (m1) 0.0 0.0	

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POCOMOKE RIVER (BASIN CODE: 02-13-02) SEGMENT NAME: Upper Pocomoke River STATE SEGMENT NUMBER: -03 LAKE (ac) ESTUARY (mi²) WETLAND (ac) RIVER (m1) OCEAN (m1) 0.0 0.0 0.0 0.0 MON I TORED: 0.0 18.0 0.0 0.0 0.0 0.0 EVALUATED: TOTAL: 18.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Portion of segment is designated as a State Scenic River. SEGMENT NAME: Dividing Creek STATE SEGMENT NUMBER: -04 ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 275.0 0.0 EVALUATED: 19.0 19.0 0.0 0.0 275.0 TOTAL: 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POCOMOKE RIVER (BASIN CODE: 02-13-02) STATE SEGMENT NUMBER: -05 SEGMENT NAME: Nassawango Creek ESTUARY (mi²) NETLAND (ac) LAKE (ac) RIVER (m1) OCEAN (m1) MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 92.0 0.0 EVALUATED: 19.0 TOTAL: 19.0 0.0 0.0 92.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -06 SEGMENT NAME: Tangier Sound ESTUARY (m1²) WETLAND (ac) LAKE (ac) OCEAN (m1) RIVER (m1) MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 13036.0 0<u>.0</u> EVALUATED: 24.0 0.0 0.0 13036.0 0.0 TOTAL: 24.0 0.0 USE CLASSIFICATION: Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Agricultural and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Shellfish harvesting areas in portions of segment are restricted or conditionally approved.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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	· ·	POCOM	OKE RIVER (BASIN	CODE: 02-13-02) 	
TATE SEGMEN	T NUMBER: -07	SE	GMENT NAME: Big	Annemessex Rive	r	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)	
IN ITORED :	16.0	0.0	0.0	0.0	0.0	
VALUATED:	0.0	0.0	0.0	6334.0	0.0	
OTAL:	16.0	0.0	0.0	6334.0	0.0	
SE CLASSIFI		- Water contac I - Shellfish H	ct recreation and	d aquatic life		•
	AIRMENT: Bacter		iai vesc nig	,		
AUGE OF IMPI	AINMENI: DOCLEI	i iwi.				
OURCE OF IM	PAIRMENT: Agricu	ultural and nat	tural runoff.			
		fisione does o	unilable for the	ad analysis		
MATER QUALIT	Y TREND: Insuft	ficient data av	vailable for tre	nd analysis.		
					ed or conditior	ally approved
			vailable for tre portions of segm		ed or conditior	ally approved
					ed or conditior	ally approved
					ed or conditior	ally approved
COMMENTS: S		ting areas in p		ent are restrict	ed or condition	ally approved
COMMENTS: S	hellfish harvest T NUMBER: -08	ting areas in p	portions of segm EGMENT NAME: Ma ESTUARY (mi ²)	ent are restrict 		ally approved
COMMENTS: S	hellfish harvest T NUM8ER: -08 RIVER (mi)	ting areas in p	portions of segm EGMENT NAME: Ma ESTUARY (mi ²)	ent are restrict 		ally approved
COMMENTS: S	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0	ting areas in p Si LAKE (ac) 0.0	EGMENT NAME: Ma ESTUARY (mi ²) 0.0	ent are restrict nokin River WETLAND (ac) 0.0	OCEAN (mi)	ally approved
COMMENTS: S	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0	ting areas in p Si LAKE (ac) 0.0	portions of segm EGMENT NAME: Ma ESTUARY (mi ²) 0.0 <u>0.0</u>	ent are restrict nokin River WETLAND (ac) 0.0	OCEAN (mi) 0.0	ally approved
COMMENTS: S STATE SEGMEN HONITORED: EVALUATED: TOTAL:	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 	ting areas in p Si LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN HONITORED: EVALUATED: TOTAL:	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I	ting areas in p Si LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation an	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN HONITORED: EVALUATED: TOTAL:	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I	ting areas in p Si LAKE (ac) 0.0 0.0 0.0 - Water conta	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation an	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN HONITORED: EVALUATED: TOTAL: USE CLASSIFI	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I	ting areas in p Si LAKE (ac) 0.0 0.0 0.0 - Water conta I - Shellfish	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation an	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN MONITORED: EVALUATED: TOTAL: USE CLASSIFI CAUSE OF IMP	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 19.0 CATION: Class I Class I	ting areas in p Si LAKE (ac) 0.0 0.0 - Water conta I - Shellfish ria.	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation an harvesting	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN MONITORED: EVALUATED: TOTAL: USE CLASSIFI CAUSE OF IMP SOURCE OF IM	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I Class I AIRMENT: Bacte	ting areas in p Si LAKE (ac) 0.0 - Water conta I - Shellfish mia. ultural and na	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation an harvesting	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0 d aquatic life	OCEAN (mi) 0.0 <u>0.0</u>	ally approved
COMMENTS: S STATE SEGMEN NONITORED: EVALUATED: IOTAL: USE CLASSIFI CAUSE OF IMP SOURCE OF IM NATER QUALIT	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I Class I AIRMENT: Bacte PAIRMENT: Agric Y TREND: Insuf	ting areas in p Si LAKE (ac) 0.0 - 0.0 - Water conta I - Shellfish ria. ultural and na ficient data a	EGMENT NAME: Mai EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 ct recreation an harvesting tural runoff. vailable for tre	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0 d aquatic life nd analysis.	OCEAN (mi) 0.0 <u>0.0</u> 0.0	
OMMENTS: S TATE SEGMEN ONITORED: VALUATED: OTAL: SE CLASSIFI AUSE OF IMP SOURCE OF IM IATER QUALIT	hellfish harvest T NUMBER: -08 RIVER (mi) 19.0 0.0 19.0 CATION: Class I Class I AIRMENT: Bacte PAIRMENT: Agric Y TREND: Insuf	ting areas in p Si LAKE (ac) 0.0 - 0.0 - Water conta I - Shellfish ria. ultural and na ficient data a	EGMENT NAME: Mai ESTUARY (mi ²) 0.0 0.0 ct recreation an harvesting tural runoff.	ent are restrict nokin River WETLAND (ac) 0.0 13043.0 13043.0 d aquatic life nd analysis.	OCEAN (mi) 0.0 <u>0.0</u> 0.0	

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

STATE SEGNENT NUMBER: -01 SEGNENT NAME: Lower Wicomico River							
•	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)		
MONITORED:	7.0	0.0	0.0	0.0	0.0		
EVALUATED:	15.0	171.0	0.0	7987.0	0.0		
TOTAL:	22.0	171.0	0.0	7987.0	0.0		
CAUSE OF IMP	AIRMENT: Organi	ic enrichment,	nutrients, bacte	eria.			
	PAIRMENT: Agricu	llture, urban	and natural runol	r t .	.*		
SOURCE OF IN	-		and natural runof vailable for tren				

STATE SEGMENT NUMBER: -02

SEGMENT NAME: Monie Bay

	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	15.0	0.0	0.0	6426.0	0.0
TOTAL:	15.0	0.0	0.0	6426.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: Bacteria.

SOURCE OF IMPAIRMENT: Agriculture, natural runoff.

MATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Portion of this watershed is a National Estuarine Sanctuary area and is administered by the State and U.S. Department of Interior. Shellfish harvesting areas are conditionally approved.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

NANTICOKE/WICOMICO RIVER (BASIN CODE: 02-13-03) SEGMENT NAME: Wicomico Creek STATE SEGMENT NUMBER: -03 ESTUARY (m¹²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 0.0 <u>55</u>1.0 0.0 0.0 35.8 EVALUATED: 13.0 0 0 0.0 13.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. SEGMENT NAME: Wicomico River Headwaters STATE SEGMENT NUMBER: -04 ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 149.9 EVALUATED: 10.0 0.0 0.0 0.0 10.0 149.9 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Urban runoff. WATER QUALITY TREND: Insufficient data available for trend analysis.

COMPMENTS: Bathing area of Johnson Pond closed to swimming (approximately 1.5 acres) due to elevated bacterial levels.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

STATE SEGNENT	NUMBER: -05	S	EGMENT NAME: Nani	ticoke River	
	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (m1)
ION I TORED :	33.0	0.0	0.0	0.0	0.0
VALUATED:	0.0	56.3		20839.0	0.0
TOTAL:	33.0	<u> </u>	0.0	20839.0	0.0
USE OF IMPA	IRMENT: Bacte	r1a.			
	AIRMENT: Bacte PAIRMENT: Agric		l runoff.		
OURCE OF INF	AIRMENT: Agric	ulture, natura] runoff. vailable for tre	nd analysis.	
OURCE OF INF	AIRNENT: Agric TREND: Insuf	ulture, natura ficient data a	vailable for tre	-	ditionally ann
OURCE OF INF	AIRNENT: Agric TREND: Insuf	ulture, natura ficient data a		-	ditionally app
SOURCE OF INF NATER QUALITY COMMENTS: SH	AIRMENT: Agric 7 TREND: Insuf hellfish harves	ulture, natura ficient data a ting areas in	vailable for treation of	segment are cor	ditionally app
SOURCE OF INF NATER QUALITY COMMENTS: SH	PAIRMENT: Agric 7 TREND: Insuf hellfish harves 7 NUMBER: -06	ulture, natura ficient data a ting areas in S	vailable for tree lower portion of EGMENT NAME: Mai	segment are cor rshyhope Creek	
SOURCE OF INF NATER QUALITY COMMENTS: SP STATE SEGMENT	AIRMENT: Agric TREND: Insuf hellfish harves NUMBER: -05 RIVER (mi)	ulture, natura ficient data a ting areas in 	vailable for trea lower portion of EGMENT NAME: Mai ESTUARY (mi ²)	segment are cor rshyhope Creek WETLAND (ac)	OCEAN (m1)
SOURCE OF INF NATER QUALITY COMMENTS: SP STATE SEGMENT NONITORED:	AIRMENT: Agric TREND: Insuf hellfish harves NUMBER: -05 RIVER (mi) 0.0	ulture, natura ficient data a ting areas in S LAKE (ac) 0.0	vailable for tree lower portion of EGMENT NAME: Mai	segment are cor rshyhope Creek WETLAND (ac) 0.0	OCEAN (m1) 0.0

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

NANTICOKE/WICOMICO RIVER (BASIN CODE: 02-13-03) SEGMENT NAME: Fishing Bay STATE SEGMENT NUMBER: -07 ESTUARY (m1²) NETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (m1) 0.0 0.0 0.0 0.0 MONITORED: 11.0 0.0 EVALUATED: 0.0 0.0 0.0 44615.0 TOTAL: 11.0 0.0 0.0 44615.0 0.0 USE CLASSIFICATION: Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. SEGMENT NAME: Transquaking River STATE SEGMENT NUMBER: -08 ESTUARY (m1²) METLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 26.0 0.0 0.0 13586.0 EVALUATED: 0.0 26.0 0.0 13586.0 TOTAL: 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGMENT NUMBER: -01 SEGMENT NAME: Honga River						
	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)	
NONITORED:	0.0	0.0	0.0	0.0	0.0	
EVALUATED:	17.0	0.0	0.0 0	14045.0	0.0	
TOTAL:	17.0	0.0	0.0	14045.0	0.0	
	ATION: Class II		harvesting			
AUSE OF IMPAI	RMENT: Bacter	18.				
SOURCE OF IMP/	AIRMENT: Land o	tisposa).				
	TOCNO. Tooula	ficiant data -	vailable for tre	d analysis		
ATER QUALITY	IKENU: INSUT	ricient data a	vallable tot cret	10 dilg 1 ys 19.		
COMMENTS Shr	ellfish harves	ting areas are	restricted.			
		•				
		•				
		·				
		·				
STATE SEGNENT			EGNENT NAME: Lit			
STATE SEGNENT	NUMBER: -02	S		tle Choptank Riv WETLAND (ac)	ocean (mi)	
	NUMBER: -02 RIVER (mi) 13.0	Si LAKE (ac) 0.0	EGMENT NAME: Lit ESTUARY (mi ²) 0.0	tle Choptank Riv WETLAND (ac) 0.0	ver OCEAN (mi) 0.0	
ION I TORED :	NUMBER: -02 RIVER (mi) 13.0	Si LAKE (ac) 0.0	EGMENT NAME: Lit Estuary (mi ²) 0.0 <u>0.0</u>	tle Choptank Riv WETLAND (ac) 0.0 5141.0	ocean (mi) 0.0 <u>0.0</u>	
STATE SEGNENT Nonitored: Evaluated: Total:	NUMBER: -02 RIVER (mi) 13.0	Si LAKE (ac) 0.0	EGMENT NAME: Lit Estuary (mi ²) 0.0 <u>0.0</u>	tle Choptank Riv WETLAND (ac) 0.0	ocean (mi) 0.0 <u>0.0</u>	
NON I TORED : EVALUATED : TOTAL :	NUMBER: -02 RIVER (m1) 13.0 0.0 13.0	Si LAKE (ac) 0.0 0.0 0.0	EGMENT NAME: Lit ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0	tle Choptank Riv WETLAND (ac) 0.0 <u>5141.0</u> 5141.0	ocean (mi) 0.0 <u>0.0</u>	. <u></u>
NON I TORED : EVALUATED : TOTAL :	NUMBER: -02 RIVER (mi) 13.0 0.0 13.0 ATION: Class I	Si LAKE (ac) 0.0 0.0 0.0	EGMENT NAME: Lit ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	tle Choptank Riv WETLAND (ac) 0.0 <u>5141.0</u> 5141.0	ocean (mi) 0.0 <u>0.0</u>	
NONITORED: E <u>VALUATED:</u> TOTAL: USE CLASSIFIC	NUMBER: -02 RIVER (m1) 13.0 0.0 13.0 ATION: Class I Class I	S LAKE (ac) 0.0 <u>0.0</u> 0.0 - Water conta I - Shellfish	EGMENT NAME: Lit ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	tle Choptank Riv WETLAND (ac) 0.0 <u>5141.0</u> 5141.0	ocean (mi) 0.0 <u>0.0</u>	
NONITORED: E <u>VALUATED:</u> TOTAL: USE CLASSIFIC	NUMBER: -02 RIVER (mi) 13.0 0.0 13.0 ATION: Class I	S LAKE (ac) 0.0 <u>0.0</u> 0.0 - Water conta I - Shellfish	EGMENT NAME: Lit ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	tle Choptank Riv WETLAND (ac) 0.0 <u>5141.0</u> 5141.0	ocean (mi) 0.0 <u>0.0</u>	
NONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA	NUMBER: -02 RIVER (mi) 13.0 0.0 13.0 ATION: Class I Class I IRMENT: Bacte	Si LAKE (ac) 0.0 <u>0.0</u> - Water conta I - Shellfish ria.	EGMENT NAME: Lit ESTUARY (mi ²) 0.0 <u>0.0</u> 0.0 ct recreation and	tle Choptank Riv WETLAND (ac) 0.0 5141.0 5141.0 d aquatic life	ocean (mi) 0.0 <u>0.0</u>	

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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TATE SEGMENT	NUMBER: -03	SE	GNENT NAME: Low	er Choptank Rive	r	
	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)	
IONITORED:	19.0	0.0	0.0	0.0	0.0	
VALUATED:	0.0	0.0	0.0	1561.0	0.0	
OTAL:	19.0	0.0	0.0	1561.0	0.0	
SE CLASSIFIC	CATION: Class I Class II	- Water contac - Shellfish h		i aquatic life		
AUSE OF IMPA	IRMENT: Bacter	ia, nutrients.				
OURCE OF INF	PAIRMENT: Munici	pal disc <mark>harg</mark> e, disposal.	combined sewer	overfl ow, agri c	ulture, natural runc	off, land
					-	
	/ TOFMO. Fetuan	ing trand anal	Vele not availa	המשיז צוחד הן קום	Γτ.	
·	/ TREND: Estuar nellfish harvest river above C	ing areas in n	umerous tributa	ries and in the	rt. upstream portion of s are conditionally	the mainstem approved.
COMMENTS: Sł	nellfish harvest	ing areas in n ambridge are r	umerous tributa	ries and in the r tributary area	upstream portion of s are conditionally	the mainstem approved.
COMMENTS: Sł	nellfish harvest river above C 	ing areas in n ambridge are r 	estricted; othe GMENT NAME: Upp	ries and in the r tributary area er Choptank Rive	upstream portion of s are conditionally 	the mainstem approved.
OMMENTS: SH	nellfish harvest river above C 	ing areas in n ambridge are r SE LAKE (ac)	estricted; other GMENT NAME: Upp ESTUARY (mi ²)	ries and in the r tributary area	upstream portion of s are conditionally	the mainstem approved.
ONNENTS: SH TATE SEGNENT ONITORED:	nellfish harvest river above C NUMBER: -04 RIVER (mi) 41.0	ing areas in n ambridge are r SE LAKE (ac) 0.0	estricted; other GMENT NAME: Upp ESTUARY (mi ²) 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0	upstream portion of s are conditionally r OCEAN (mi) 0.0	the mainstem approved.
COMMENTS: SH State Segment Nonitored: Evaluated:	nellfish harvest river above C NUMBER: -04 RIVER (mi) 41.0	ing areas in n ambridge are r SE LAKE (ac) 0.0	estricted; other GNENT NAME: Upp ESTUARY (mi ²) 0.0 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0	upstream portion of s are conditionally r OCEAN (mi) 0.0	the mainstem approved.
COMMENTS: SP State Segment Nonitored: Evaluated: Total:	nellfish harvest river above C NUMBER: -04 RIVER (mi) 41.0 0.0 41.0 CATION: Class I	ing areas in n ambridge are r SE LAKE (ac) 0.0 0.0 0.0	GMENT NAME: Upp ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0 5416.0 5416.0	upstream portion of s are conditionally r OCEAN (mi) 0.0 0	the mainstem approved.
COMMENTS: SH STATE SEGMENT Ionitored: <u>Evaluated:</u> Iotal: USE classific	nellfish harvest river above C NUMBER: -04 RIVER (mi) 41.0 0.0 41.0 CATION: Class I	ing areas in n ambridge are r SE LAKE (ac) 0.0 0.0 0.0 0.0	GMENT NAME: Upp ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0 5416.0 5416.0	upstream portion of s are conditionally r OCEAN (mi) 0.0 0	the mainstem approved.
COMMENTS: SH STATE SEGMENT NONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/	nellfish harvest river above C NUMBER: -04 RIVER (mi) 41.0 0.0 41.0 CATION: Class I Class II	ing areas in n ambridge are r SE LAKE (ac) 0.0 0.0 0.0 0.0	GMENT NAME: Upp ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0 5416.0 5416.0	upstream portion of s are conditionally r OCEAN (mi) 0.0 0	the mainstem approved.
COMMENTS: SH STATE SEGMENT NONITORED: EVALUATED: TOTAL: JSE CLASSIFIC CAUSE OF INP/ SOURCE OF IN	ne]]fish harvest river above C T NUMBER: -04 RIVER (mi) 41.0 0.0 41.0 CATION: Class I Class II AIRMENT: None.	ing areas in n ambridge are r SE LAKE (ac) 0.0 0.0 - Water contac - Shellfish h	Soment NAME: Upp ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0 0.0	ries and in the r tributary area er Choptank Rive WETLAND (ac) 0.0 5416.0 5416.0	upstream portion of s are conditionally r OCEAN (mi) 0.0 0	the mainstem approved.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

STATE SEGMENT NUMBER: -05 SEGMENT NAME: Tuckahoe Creek					
	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	NETLAND (ac)	OCEAN (mi)
MON I TORED :	0.0	0.0	0.0	0.0	0.0
EVALUATED:	21.0	86.0	0.0	734.0	0.0
	21.0	86.0	0.0	734.0	0.0
	ATION: Class I IRMENT: None.	- Water conta	ct recreation and	d aquatic life	

1985-1987 NARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

CHESTER RIVER (BASIN CODE: 02-13-05) SEGMENT NAME: Eastern Bay STATE SEGNENT NUMBER: -01 LAKE (ac) ESTUARY (m1²) METLAND (ac) RIVER (mi) OCEAN (mi) MONITORED: 12.0 0.0 0.0 0.0 0.0 92.0 0.0 0.0 0.0 0.0 EVALUATED: TOTAL: 12.0 0 0 0.0 92 0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Agricultural, urban and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Shellfish harvesting areas in tributaries are restricted or are conditionally approved. STATE SEGMENT NUMBER: -02 SEGMENT NAME: Miles River ESTUARY (mi²) WETLAND (ac) OCEAN (mi) RIVER (mi) LAKE (ac) MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 16.0 0.0 0.0 0.0 TOTAL: 16.0 0.0 0.0 0.0 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Agricultural and natural runoff, land disposal. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Shellfish harvesting areas in the upper mainstem and tributaries are restricted.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGMENT	NUMBER: -03	S	E GMENT NAME: Wye	River		
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	OCEAN (mi)	
IONITORED:	0.0	0.0	0.0	0.0	0.0	
EVALUATED:	13.0	61.5	0.0	0.0	0.0	
IOTAL:	13.0	61.5	0.0	0.0	0.0	
SE CLASSIFIC		- Water contac I - Shellfish I	ct recreation and harvesting	d aquatic life		
AUSE OF IMPA	IRMENT: Bacter	ria.				
OURCE OF THE	ATRNENT+ Annin	ultural and nat	tural runoff, la	disposal.		
VANAF AL THU	ALIVERIA AYI IV	area a dia 110	sarat tanyity 101	i wieperuit		
ATER QUALITY	TREND: Insuff	ficient data av	vailable for tre	nd analysis.		
	11 ()))					
OMMENTS: Sh					t are conditionally	approved. O
XOMMENTS: Sh			the upper reaches ear County Wharf		t are conditionally	approved. Oi
X OMMENTS: Sh					t are conditionally	approved. O
COMMENTS: Sh					t are conditionally	approved. O
	small area is	s restricted no	ear County Wharf			approved. O
		s restricted no				approved. 04
	small area is NUMBER: -04 RIVER (mi)	s restricted no	ear County Wharf EGMENT NAME: Ken ESTUARY (mi ²)	t Narrows/Prosp WETLAND (ac)	ect Bay OCEAN (mi)	approved. O
STATE SEGNENT	small area is NUMBER: -04 RIVER (mi) 6.0	s restricted no Si LAKE (ac) 0.0	ear County Wharf EGMENT NAME: Ken ESTUARY (mi ²) 0.0	Narrows/Prosp HETLAND (ac) 0.0	ect Bay OCEAN (mi) 0.0	approved. 04
TATE SEGNENT ON ITORED: VALUATED:	small area is NUMBER: -04 RIVER (mi) 6.0 0.0	s restricted no Si LAKE (ac) 0.0 0.0	EGMENT NAME: Ken ESTUARY (mi ²) 0.0 0.0	k Narrows/Prospi WETLAND (ac) 0.0 918.0	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0
STATE SEGNENT NON LTORED: EVALUATED:	small area is NUMBER: -04 RIVER (mi) 6.0	s restricted no Si LAKE (ac) 0.0	ear County Wharf EGMENT NAME: Ken ESTUARY (mi ²) 0.0	Narrows/Prosp HETLAND (ac) 0.0	ect Bay OCEAN (mi) 0.0	approved. O
STATE SEGNENT IONITORED: EVALUATED: FOTAL:	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0	s restricted no Si LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Kent ESTUARY (mi ²) 0.0 0.0 0.0	Narrows/Prosp WETLAND (ac) 0.0 918.0 918.0	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0
STATE SEGMENT Nonitored: Evaluated: Total:	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0 CATION: Class I	s restricted no Si LAKE (ac) 0.0 <u>0.0</u> 0.0	EGMENT NAME: Kent EGMENT NAME: Kent ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	Narrows/Prosp WETLAND (ac) 0.0 918.0 918.0	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0
STATE SEGNENT NON ITORED: EVALUATED: TOTAL: USE CLASSIFIC	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0 CATION: Class I Class I	s restricted no Si LAKE (ac) 0.0 0.0 0.0 - Water contac I - Shellfish I	EGMENT NAME: Kent EGMENT NAME: Kent ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	Narrows/Prosp WETLAND (ac) 0.0 918.0 918.0	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0
STATE SEGNENT NON ITORED: EVALUATED: TOTAL: USE CLASSIFIC	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0 CATION: Class I	s restricted no Si LAKE (ac) 0.0 0.0 0.0 - Water contac I - Shellfish I	EGMENT NAME: Kent EGMENT NAME: Kent ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	Narrows/Prosp WETLAND (ac) 0.0 918.0 918.0	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. O
STATE SEGNENT IONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0 CATION: Class I Class I NIRMENT: Bacter	s restricted no Si LAKE (ac) 0.0 <u>0.0</u> 0.0 - Water contao I - Shellfish I ria.	EGMENT NAME: Kent EGMENT NAME: Kent ESTUARY (mi ²) 0.0 0.0 0.0 0.0 ct recreation and	WETLAND (ac) 0.0 918.0 918.0 d aquatic life	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0
STATE SEGMENT NONITORED: EVALUATED: TOTAL: JSE CLASSIFIC CAUSE OF IMPA SOURCE OF IMP	small area is NUMBER: -04 RIVER (mi) 6.0 0.0 6.0 CATION: Class I Class I NIRMENT: Bacter PAIRMENT: Agrice	s restricted no Si LAKE (ac) 0.0 0.0 - Water conta I - Shellfish f ria. ultural and nat	EGMENT NAME: Ken EGMENT NAME: Ken ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	t Narrows/Prosp WETLAND (ac) 0.0 918.0 918.0 d aquatic life	ест Вау ОСЕАН (mi) 0.0 <u>0.0</u>	approved. 0

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

CHESTER RIVER (BASIN CODE: 02-13-05) SEGMENT NAME: Lower Chester River STATE SEGMENT NUMBER: -05 ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 24.0 MONITORED: 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 3029.0 0.0 TOTAL: 0 0 0 0 3029 0 0.0 24.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Agricultural and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Shellfish harvesting areas in some tributaries and in the upper mainstem portions of the segment are restricted or conditionally approved. SEGMENT NAME: Langford Creek STATE SEGMENT NUMBER: -06 ESTUARY (mi²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 MONITORED: 0.0 0.0 EVALUATED: 0.0 0.0 0.0 10.0 0.0 0.0 TOTAL: 10.0 0.0 0.0 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Agricultural and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Shellfish harvesting areas in the upper reaches of the segment are conditionally approved.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

STATE SEGNEN	T NUMBER: -07	S	EGMENT NAME: Cors	sica River	
	RIVER (mi)	LAKE (ac)	ESTUARY (#1 ²)	WETLAND (ac)	OCEAN (mi)
NON I TORED :	0.0	0.0	0.0	0.0	0.0
EVALUATED:	13.0	0.0	0.0	0.0	<u>0.0</u>
TOTAL:	13.0	0.0	0.0	0.0	0.0
SE CLASSIFI		- Water contac I - Shellfish I	ct recreation and harvesting	d aquatic life	
USE OF IMP	AIRMENT: None.				
URCE OF IN	PAIRMENT: None.				
NATER QUALIT	Y TREND: Insuf	ficient data av	vailable for tre	nd analysis.	
			EGNENT NAME: Sou	uthonst Crock	
		3	EQMENT MARKE: SUA	ILINGSL VICEN	
STATE SEGNEN	I NUMBER: -UO				0054N (
STATE SEGNEN		LAKE (ac)			
ION I TORED:	RIVER (mi) 0.0	0.0	0.0	0.0	0.0
ONITORED:	RIVER (mi)	0.0 0.0	0.0	0.0 <u>367.0</u>	0.0 <u>0.0</u>
DNITORED:	RIVER (mi) 0.0	0.0	0.0		0.0
ION I TORED: IVALUATED: IOTAL :	RIVER (mi) 0.0 <u>14.0</u> 14.0	0.0 <u>0.0</u> 0.0	0.0	0.0 <u>367.0</u> 367.0	0.0 <u>0.0</u>
NON I TORED: EVALUATED: FOTAL :	RIVER (mi) 0.0 <u>14.0</u> 14.0 CATION: Class I	0.0 <u>0.0</u> 0.0	0.0 <u>0.0</u> 0.0 ct recreation and	0.0 <u>367.0</u> 367.0	0.0 <u>0.0</u>
NON I TORED: E <u>VALUATED:</u> Total: USE classifi	RIVER (mi) 0.0 <u>14.0</u> 14.0 CATION: Class I	0.0 <u>0.0</u> - Water contac I - Shellfish	0.0 <u>0.0</u> 0.0 ct recreation and	0.0 <u>367.0</u> 367.0	0.0 <u>0.0</u>
CAUSE OF INP	RIVER (mi) 0.0 <u>14.0</u> 14.0 CATION: Class I Class I	0.0 <u>0.0</u> - Water conta I - Shellfish ria.	0.0 <u>0.0</u> 0.0 ct recreation and harvesting	0.0 <u>367.0</u> 367.0	0.0 <u>0.0</u>

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

CHESTER RIVER (BASIN CODE: 02-13-05) SEGMENT NAME: Middle Chester River STATE SEGMENT NUMBER: -09 ESTUARY (m1²) HETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 35.0 0.0 551.0 0.0 EVALUATED: 13.0 35.0 551.0 0.0 TOTAL: 13.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -10 SEGMENT NAME: Upper Chester River ESTUARY (m1²) WETLAND (ac) LAKE (ac) OCEAN (mi) RIVER (m1) 0.0 MONITORED: 19.0 0.0 0.0 0.0 0.0 275.0 EVALUATED: 0.0 48.0 0.0 TOTAL: 19.0 48.0 0.0 275.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

	CHESTER RIVER (BASIN CODE: 02-13-05)							
STATE SEGMEN	T NUMBER: -11	S	EGMENT NAME: Kent	t Island/Bay Are	8			
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)			
MON ITORED:	0.0	0.0	0.0	0.0	0.0			
EVALUATED:	22.0	0.0	0.0	367.0	0.0			
TOTAL:	22.0	0.0	0.0	367.0	0.0			
USE CLASSIFI	CATION: Class II	[- Shellfish	harvesting					
CAUSE OF IMP	AIRMENT: None.					:		

SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

ELK RIVER (BASIN CODE: 02-13-06) SEGMENT NAME: Lower Elk River Mainstem STATE SEGMENT NUMBER: -01 ESTUARY (mi²) METLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 9.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 734.0 0.0 9.0 0.0 734_0 TOTAL: 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Municipal discharge. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Swimming area closed after a discharge of sewage from a pumping station until the situation was corrected. STATE SEGMENT NUMBER: -02 SEGMENT NAME: Bohemia River ESTUARY (m1²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) MONITORED: 16.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 28.7 0.0 275.0 TOTAL: 16.0 28.7 0.0 275.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

STATE SEGMENT NUMBER: -03 SEGMENT NAME: Upper Elk River	
RIVER (mi) LAKE (ac) ESTUARY (mi ²) HETLAND (ac)	
MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 643.0 0.0 643.0 0.0 0.0 643.0 0.0	0.0
EVALUATED: 10.0 0.0 0.0 643.0	<u> </u>
TOTAL: 10.0 0.0 0.0 643.0	0.0
JSE CLASSIFICATION: Class I - Water contact recreation and aquatic life	
CAUSE OF IMPAIRMENT: None.	
SOURCE OF INPAIRMENT: None.	
SOURCE OF INPAIRMENT: None.	
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac)	OCEAN (mi)
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 SEGMENT NAME: Back Creek RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac)	OCEAN (mi)
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 SEGMENT NAME: Back Creek RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac) MONITORED: 6.0 0.0 0.0 92.0	OCEAN (mi) 0.0 <u>0.0</u>
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 SEGMENT NAME: Back Creek RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac)	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGMENT NUMBER: -04SEGMENT NAME: Back CreekRIVER (mi)LAKE (ac)ESTUARY (mi²)MONITORED:6.00.00.0EVALUATED:0.00.092.0	OCEAN (mi) 0.0 <u>0.0</u>

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

ELK RIVER (BASIN CODE: 02-13-06) SEGMENT NAME: Little Elk Creek STATE SEGNENT NUMBER: -05 LAKE (ac) ESTUARY (m1²) WETLAND (ac) RIVER (mi) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 0.0 13.0 0.0 0.0 0.0 0.0 EVALUATED: 13.0 0 0 0.0 0.0 0 0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. SEGMENT NAME: Big Elk Creek STATE SEGMENT NUMBER: -06 ESTUARY (m1²) WETLAND (ac) OCEAN (mi) RIVER (mi) LAKE (ac) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 EVALUATED: 11.0 0.0 0.0 0.0 11.0 0.0 0 0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

C29

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

EVALUATED: 4.0 0.0				K RIVER (BASIN CO	-	
MONITORED: 0.0	STATE SEGNEN				·	
MONITORED: 0.0		RIVER (mi)	LAKE (ac)	ESTUARY (#1 ²)	NETLAND (ac)	OCEAN (mi)
INTAL: 4.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Mater contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. NATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) MONITORED: 14.0 0.0 0.0 OUD 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Mater contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. NATER QUALITY TREND: Insufficient data available for trend analysis.	MONITORED:	0.0	0.0	0.0	0.0	0.0
NUME: 4.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. NATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: This watershed is actually part of the Delaware River drainage.	EVALUATED:	4.0	0.0	0.0	0.0	0.0
CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac) OCEAN (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	TOTAL:	4.0	0.0	0.0	0.0	0.0
SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) MONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Nater contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	USE CLASSIFI	CATION: Class I	- Water conta	ct recreation and	l aquatic life	
NATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (m1) LAKE (ac) ESTUARY (m1 ²) METLAND (ac) OCEAN (m1) MONITORED: 14.0 0.0 0.0 0.0 0.0 (m1) MONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Mater contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	CAUSE OF IMP	AIRMENT: None.				
COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) METLAND (ac) OCEAN (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	SOURCE OF IM	PAIRMENT: None.				
COMMENTS: This watershed is actually part of the Delaware River drainage. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) METLAND (ac) OCEAN (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	WATER QUALIT	Y TREND: Insuff	icient data a	vailable for tree	d analysis.	
STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) METLAND (ac) OCEAN (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.	4					
STATE SEGMENT NUMBER: -08 SEGMENT NAME: Northeast River RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac) OCEAN (mi) MONITORED: 14.0 0.0 0.0 0.0 0.0 MONITORED: 14.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	COMPENSES I	nis watersned is	actually part	C OT CHE DE IGNORY	r Kiver ordinage	
RIVER (mi) LAKE (ac) ESTUARY (mi ²) NETLAND (ac) OCEAN (mi) NONITORED: 14.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.						
NONITORED: 14.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	JIAIC JEOMER			•		
EVALUATED: 0.0 0.0 0.0 0.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.						
TOTAL: 14.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.						
USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	EVALUATED:					
CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	TOTAL:	14.0	0.0	0.0	0.0	0.0
SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.	USE CLASSIFI	CATION: Class I	- Water contac	ct recreation and	aquatic life	
WATER QUALITY TREND: Insufficient data available for trend analysis.	CAUSE OF IMP	AIRMENT: None.				
	SOURCE OF IM	PAIRMENT: None.				
	WATER QUALIT	Y TREND: Insuff	icient data av	vailable for trem	d analysis.	
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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

ELK RIVER (BASIN CODE: 02-13-06) SEGMENT NAME: Furnace Bay STATE SEGMENT NUMBER: -09 ESTUARY (#1²) NETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 13.0 0 0 0.0 0.0 TOTAL: 13.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting Class III - Natural trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -10 SEGMENT NAME: Sassafras River ESTUARY (mi²) NETLAND (ac) LAKE (ac) OCEAN (mi) RIVER (m1) 19.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 459.0 0.0 EVALUATED: 0.0 TOTAL: 19.0 0.0 0.0 459.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

WATER QUALITY TREND: Insufficient data available for trend analysis.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

BUSH RIVER (BASIN CODE: 02-13-07) SEGMENT NAME: Bush River STATE SEGMENT NUMBER: -01 ESTUARY (m1²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 11.0 0.0 MONITORED: 0.0 826.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 826 0 TOTAL: 11.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Urban runoff, land disposal. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Two miles of the mainstem river are closed to swimming due to elevated bacterial levels. SEGMENT NAME: Lower Winters Run STATE SEGMENT NUMBER: -02 ESTUARY (mi²) WETLAND (ac) LAKE (ac) OCEAN (mi) RIVER (mi) 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 92.0 EVALUATED: 6.0 92.0 0.0 7.2 0.0 TOTAL: 6.0 USE CLASSIFICATION: Class I - Mater contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

TATE SEGMENT NUMBER: -03 SEGMENT NAME: Atkisson Reservoir						
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)	
MONITORED:	0.0	0.0	0.0	0.0	0.0	
VALUATED:	14.0	0.0	0.0	0.0	0.0	
TOTAL:	14.0	0.0	0.0	0.0	0.0	
OURCE OF IN	PAIRMENT: None.					
SOURCE OF IN	PAIRMENT: None.					
		ficient data a	vailable for tre	nd analysis.		

	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	14.0	0.0	0.0	0.0	0.0
TOTAL:	14.0	0.0	0.0	0.0	0.0

USE CLASSIFICATION: Class III - Natural trout

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

MATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

____ BUSH RIVER (BASIN CODE: 02-13-07) STATE SEGMENT NUMBER: -05 SEGMENT NAME: Aberdeen Proving Grounds ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 4498.0 EVALUATED: 13.0 13.0 4498.0 0.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -06 SEGMENT NAME: Swan Creek ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 EVALUATED: 11.0 0.0 0.0 0.0 0.0 TOTAL: 11.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Portion of watershed designated as "critical habitat" by the U.S. Fish and Wildlife Service for endangered Maryland darter.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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		GUNPO	WDER RIVER (8ASI)	N CODE: 02-13-08	3)
STATE SEGMENT	T NUMBER: -01	S	EGHENT NAME: Gunj	powder River	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	OCEAN (m1)
MON I TORED :	8.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	1561.0	0.0
TOTAL:	8.0	0.0 <u>0.0</u> 0.0	0.0	1561.0	0.0
USE CLASSIFI		- Water conta - Shellfish	ct recreation and harvesting	aquatic life	
CAUSE OF IMP/	AIRMENT: None.				
Source of the	PAIRMENT: None.				
				analucic	
WATER QUALITY	Y TREND: Insuff	icient data a	valiable for tre	in alla 13212.	
WATER QUALITY	Y TREND: Insuff	icient data a	valladie for trei	iu alla 19313.	
WATER QUALITY	Y TREND: Insuff	icient data a	valladie for trei		
			EGNENT NAME: Low		
	T NUMBER: -02 RIVER (mi)	S LAKE (ac)	EGNENT NAME: Low Estuary (m1 ²)	er Gunpowder Fal WETLAND (ac)	
STATE SEGNEN	T NUMBER: -02 RIVER (mi)	S LAKE (ac) 0.0	EGNENT NAME: Low Estuary (m1 ²)	er Gunpowder Fal WETLAND (ac)	
STATE SEGNENT	T NUMBER: -02 RIVER (mi)	S LAKE (ac)	EGNENT NAME: Lowe Estuary (m1 ²) 0.0	er Gunpowder Fal METLAND (ac) 0.0	OCEAN (mi)
	T NUMBER: -02 RIVER (mi) 14.0	S LAKE (ac) 0.0	EGNENT NAME: Lowe Estuary (m1 ²) 0.0	er Gunpowder Fal WETLAND (ac)	OCEAN (m1) 0.0
STATE SEGNEN MONITORED: EVALUATED: TOTAL:	T NUMBER: -02 RIVER (mi) 14.0 0.0 14.0 CATION: Class I	S LAKE (ac) 0.0 <u>0.0</u> 0.0	EGNENT NAME: Low ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGNENT NONITORED: EVALUATED: TOTAL: USE CLASSIFI(T NUMBER: -02 RIVER (mi) 14.0 0.0 14.0 CATION: Class I	S LAKE (ac) 0.0 <u>0.0</u> 0.0 - Water conta	EGNENT NAME: Low ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGNENT MONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/	T NUMBER: -02 RIVER (mi) 14.0 0.0 14.0 CATION: Class I Class II	S LAKE (ac) 0.0 <u>0.0</u> 0.0 - Water conta	EGNENT NAME: Low ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGNENT MONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/ SOURCE OF IM	T NUMBER: -02 RIVER (m1) 14.0 0.0 14.0 CATION: Class I Class II AIRMENT: None. PAIRMENT: None.	S LAKE (ac) 0.0 0.0 - Water conta I - Natural t	EGNENT NAME: Low ESTUARY (m1 ²) 0.0 0.0 0.0 ct recreation and rout	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0 d aquatic life	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGNENT MONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/ SOURCE OF IM	T NUMBER: -02 RIVER (m1) 14.0 0.0 14.0 CATION: Class I Class II AIRMENT: None. PAIRMENT: None.	S LAKE (ac) 0.0 0.0 - Water conta I - Natural t	EGNENT NAME: Low ESTUARY (mi ²) 0.0 0.0 ct recreation and rout	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0 d aquatic life	OCEAN (mi) 0.0 <u>0.0</u>
STATE SEGNENT MONITORED: EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMP/ SOURCE OF IM	T NUMBER: -02 RIVER (m1) 14.0 0.0 14.0 CATION: Class I Class II AIRMENT: None. PAIRMENT: None.	S LAKE (ac) 0.0 0.0 - Water conta I - Natural t 25 Total suspe Total phosp	EGNENT NAME: Low ESTUARY (m1 ²) 0.0 0.0 0.0 ct recreation and rout	er Gunpowder Fal WETLAND (ac) 0.0 <u>275.0</u> 275.0 d aquatic life	OCEAN (mi) 0.0 <u>0.0</u>

1985-1987 NARYLAND WATER QUALITY INVENTORY REPORT WATERSHED. SUMMARY.

GUNPOWDER RIVER (BASIN CODE: 02-13-08) STATE SEGMENT NUMBER: -03 SEGMENT NAME: Bird River RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 EVALUATED: 12.0 0.0 184.0 0.0 184.0 12.0 0.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class IV - Recreational trout CAUSE OF INPAIRMENT: None. SOURCE OF INPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -04 SEGMENT NAME: Little Gunpowder Falls ESTUARY (mt²) WETLAND (ac) OCEAN (mt) RIVER (m1) LAKE (ac) 0.0 MONITORED: 0.0 0.0 0.0 0.0 EVALUATED: 25.0 0.0 0.0 275.0 0.0 0.0 TOTAL: 25.0 0.0 0.0. 275.0 . . USE CLASSIFICATION: Class I - Nater contact recreation and aquatic life: Class III - Natural trout CAUSE OF INPAIRMENT: None. SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

TATE SEGMEN	T NUMBER: -05	s	EGNENT NAME: Loci	h Raven Reserved	ir		
		-					
			ESTUARY (m1 ²)	• •	•)	
IONITORED:		0.0	0.0	0.0	0.0		
			0.0				
UTAL:	20.0	2400.0	0.0	0.0	0.0		
SE CLASSIFI	CATION: Class II	[] - Natura] t	rout				
AUSE OF IMP	AIRMENT: Nutrie	nts.					
ounce of im	PAIRMENT: Agricu	ultural. urban	and natural rund	off.			
ATER QUALIT	Y TREND: GUN02	• •	horus - no trend				
			gen - increasing	•			
		Fecal colft	or n becteria m	Ditrend ^a nce a la se	est est	× .	.e.
<i></i>	GUN02!	58 Total ohoso	horus - no trendi	No		and the second	
		na nasan buash					
		Total nitro	den - increasing	trend. signific	ant.	· · · ·	
		Total nitro	gen - increasing. orm bacteria - m	trend, signific	ant or a star	All second	e An An An An An An
	·	Total nitro Fecal colif	gen - increasing orm bacteria - no	.trend,. <u>signific</u> b.trend	ant orași espa Statu	Andrea an	in the second se
CIMENTS: Re	servoir (about (Total nitro Fecal colif 2400 acres) is	gen - increasing orm bacteria - no part of municipi	<u>trend,≓signific</u> ⇒t rend al water supply	systen for	Baltimore area.	Excessive
CNMENTS: Re	servoir (about (Total nitro Fecal colif 2400 acres) is	gen - increasing orm bacteria - no	<u>trend,≓signific</u> ⇒t rend al water supply	systen for	Baltimore area.	Excessive
OMMENTS: Re	servoir (about (Total nitro Fecal colif 2400 acres) is	gen - increasing orm bacteria - no part of municipi	<u>trend,≓signific</u> ⇒t rend al water supply	systen for	Baltimore area.	Excessive
CNINENTS: Re	servoir (about (Total nitro Fecal colif 2400 acres) is	gen - increasing orm bacteria - no part of municipi	<u>trend,≓signific</u> ⇒t rend al water supply	systen for	Baltimore area.	Excessive
	servoir (about a nutrients fro	Total nitro Fecal colifi 2400 acres) is am upstream so	gen - increasing orm bacteria - no part of municipu urces cause alga	<pre>.trend,<u>signific</u> b.trend al water supply l blooms and imp</pre>	system for bact water s	Baltimore area. supplies.	Excessive
	servoir (about a nutrients fro T NUMBER: -06	Total nitro Fecal colif 2400 acres) is 2400 acres) is 2400 acres) s 2400 acres) is 2400 acres) i	gen - increasing orm bacteria - no part of municipi urcos cause alga EGNENT NAME: Pro	<pre>strend, signific trend, signific trend. al water supply blooms and imp ttyboy Reservoi</pre>	system for bact water 1	Baltimore area. supplies.	
	servoir (about (nutrients fro 	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²)	Atrend, <u>signific</u> b trend al water supply b blooms and imp ettyboy Reservoi	system for bact water a	Baltimore area. supplies.	
	servoir (about (nutrients fro 	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²)	Atrend, <u>signific</u> b trend al water supply b blooms and imp ettyboy Reservoi	system for bact water s ir OCEAN (wh 0.0	Baltimore area. upplies.	
TATE SEGNEN ONITORED: VALUATED:	servoir (about a nutrients fro T. NUMBER: -06 RIVER (mi) 13.0 0.0	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (m ²) 0.0	<pre>%trend,~<u>signific</u> > trend,~ al water supply 1 blooms and imp ettyboy Reservoi METLAND^{((ac))} 0.0 0.0</pre>	system for bact water s ir OCEAN (in 0.0 0.0	Baltimore area. supplies.	
TATE SEGNEN ONITORED:	servoir (about (nutrients fro 	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²)	Atrend, <u>signific</u> b trend al water supply b blooms and imp ettyboy Reservoi	system for bact water s ir OCEAN (wh 0.0	Baltimore area. supplies.	
TATE SEGMEN ONITORED: VALUATED: DTAL:	servoir (about (nutrients fro T. NUMBER: -06 RIVER (mi) 13.0 	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²) 0.0 0.0	<pre>%trend,~<u>signific</u> > trend,~ al water supply 1 blooms and imp ettyboy Reservoi METLAND^{((ac))} 0.0 0.0</pre>	system for bact water s ir OCEAN (in 0.0 0.0	Baltimore area. supplies.	
TATE SEGMEN ONITORED: VALUATED: DTAL:	servoir (about a nutrients fro T. NUMBER: -06 RIVER (mi) 13.0 0.0	Total nitro Fecal colif 2400 acres) is 2400 acres)	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²) 0.0 0.0	<pre>%trend,~<u>signific</u> > trend,~ al water supply 1 blooms and imp ettyboy Reservoi METLAND^{((ac))} 0.0 0.0</pre>	system for bact water s ir OCEAN (in 0.0 0.0	Baltimore area. supplies.	
TATE SEGNEN ONITORED: <u>VALUATED:</u> DTAL: SE CLASSIFI	servoir (about (nutrients fro T. NUMBER: -06 RIVER (mi) 13.0 	Total nitro Fecal colif 2400 acres) is 20 upstream so S LAKE (ac) 0.0 1500:0 1500:0 1500.0	gen - increasing orm bacteria - no part of municipi urces cause alga EGNENT NAME: Pro ESTUARY (mt ²) 0.0 0.0	<pre>%trend,~<u>signific</u> > trend,~ al water supply 1 blooms and imp ettyboy Reservoi METLAND^{((ac))} 0.0 0.0</pre>	system for bact water s ir OCEAN (in 0.0 0.0	Baltimore area. supplies.	

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Total nitrogen - increasing trend, significant

COMMENTS: Reservoir (about 3106 acres) is part of municipal water supply system for Baltimore area.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

GUNPOWDER RIVER (BASIN CODE: 02-13-08) STATE SEGNENT NUMBER: -07 SEGMENT NAME: Middle River/Browns Creek ESTUARY (mi²) NETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 4.0 0.0 0.0 0.0 0.0 TOTAL: 4.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09)							
STATE SEGMENT NUMBER: -01 SEGMENT NAME: Back River							
	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (m1)		
MONITORED:	9.0	0.0	0.0	0.0	0.0		
EVALUATED:	0.0	0.0	0.0	551.0	0.0		
TOTAL:	9.0	0.0	0.0	551.0	0.0		
SOURCE OF IN		ipal discharge	pesticides. , urban and natur vailable for trea				
CONNENTS: Ti	fish species	in Back River	have been ident	ified as having	lastewater Treatment F elevated levels of th I in a broad fish cons	e pesticide	

STATE SEGMENT NUMBER: -02

SEGMENT NAME: Bodkin Creek

	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	5.0	0.0	0.0	0.0	0.0
TOTAL:	5.0	0.0	0.0	0.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: Organic enrichment.

SOURCE OF IMPAIRMENT: Urban runoff.

MATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Chronic algal blooms and fish kills occur in Bodkin Creek.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09)

STATE SEGMENT NUMBER: -03

SEGMENT NAME: Baltimore Harbor

	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	11.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	459.0	0.0
TOTAL:	11.0	0.0	0.0	459.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: Organic enrichment, nutrients, bacteria, pesticides.

SOURCE OF IMPAIRMENT: Urban runoff.

WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Certain fish species in Baltimore Harbor have been identified as having elevated levels of the pesticide chlordane in their tissues and the mainstem harbor area is listed in a broad fish consumption advisory. A number of creeks in the southern portion of the Harbor area are closed to swimming due to elevated bacterial levels from urban runoff.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09)								
STATE SEGMENT NUMBER: -04 SEGMENT NAME: Jones Falls								
	RIVER (mi)	LAKE (ac)	ESTUARY (#1 ²)	WETLAND (ac)	OCEAN (mi)			
NON I TORED :	10 0	0 0	0.0	0.0	0.0			
EVALUATED:	0.0	100.0	0.0	0.0	0.0			
TOTAL:	18.0	100.0	0.0	0.0	0.0			
SOURCE OF IN	AIRMENT: Bacteri PAIRMENT: Urban r	unoff.						
WATER QUALIT	Y TREND: JON0023	Total susper Fecal colif	nded solids - de orm bacteria - de	creasing trend, ecreasing trend	not significant , <u>significant</u>			
	JON0034		nded solids - de orm bacteria - d					
	JON0074	Total suspe	nded solids - no	trend				
			orm bacteria - n		•			
	JON0184	Total suspe	nded solids - no	trend				
			horus - no trend					
		Total nitro	gen- increasing	trend, <u>signific</u>	ant			
			orm bacteria - n					

COMMENTS: Certain fish species in Lake Roland have been identified as having elevated levels of the pesticide chlordane in their tissues and the lake is listed in a broad fish consumption advisory (about 100 acres).

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09) STATE SEGNENT NUMBER: -05 SEGMENT NAME: Gwynns Falls ESTUARY (mi²) NETLAND (ac) OCEAN (mi) LAKE (ac) RIVER (mi) 0.0 24.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: n n 0.0 0 0 0.0 24.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Urban runoff. WATER QUALITY TREND: GHN0022 Total suspended solids - decreasing trend, not significant Fecal coliform becteria - decreasing trend, significant GWN0054 Total suspended solids - no trend Fecal coliform bacteria - no trend GWN0075 Total suspended solids - no trend Fecal coliform bacteria - no trend GWN0115 Total suspended solids - no trend Total phosphorus - no trend Total nitrogen- increasing trend, significant Fecal coliform bacteria - no trend

COMMENTS: Baltimore City and citizens group (Save Our Streams) are involved in a restoration effort in the lower portion of the watershed.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09) STATE SEGMENT NUMBER: -06 SEGMENT NAME: Mainstem and Lower North Branch Patapsco River RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) MON I TORED: 29.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 643.0 0.0 29.0 0.0 0.0 643.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: PAT0176 Total suspended solids - no trend Total phosphorus - no trend Total nitrogen- increasing trend, significant Fecal coliform bacteria - increasing trend, not significant PAT0285 Total suspended solids - no trend Total phosphorus - increasing trend, significant Total nitrogen- increasing trend, significant Fecal coliform bacteria - no trend

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATAPSCO RIVER (BASIN CODE: 02-13-09) STATE SEGMENT NUMBER: -07 SEGMENT NAME: Liberty Reservoir ESTUARY (m1²) HETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (m1) MONITORED: 17.0 0.0 0.0 0.0 0.0 0.0 3106.0 0.0 0.0 0.0 EVALUATED: 17.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: NPA0165 Total suspended solids - decreasing trend, not significant Total phosphorus - no trend Total nitrogen- increasing trend, significant Fecal coliform bacteria - decreasing trend, significant COMMENTS: The reservoir is part of the municipal water supply system for the Baltimore area. SEGMENT NAME: South Branch Patapsco River STATE SEGMENT NUMBER: -08 ESTUARY (m1²) NETLAND (ac) LAKE (ac) RIVER (m1) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 19.0 298.0 0.0 0.0 0.0 0.0 0.0 Λ Λ TOTAL: 19.0 298.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: A water quality study is being conducted in the Piney Run Reservoir by the City of Baltimore.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

WEST CHESAPEAKE (BASIN CODE: 02-13-10) STATE SEGMENT NUMBER: -01 SEGNENT NAME: Magothy River ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 11.0 0.0 0.0 MONITORED: 0.0 0.0 EVALUATED: 0.0 12.0 0.0 0.0 0.0 11.0 0.0 TOTAL: 12.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Nutrients, bacteria. SOURCE OF IMPAIRMENT: Urban and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Chronic dinoflagellate bloom during summer ("mahogany tide"). Shellfish harvesting areas in some tributaries and in the upper mainstem river are restricted. STATE SEGMENT NUMBER: -02 SEGMENT NAME: Severn River ESTUARY (m1²) RIVER (mi) LAKE (ac) WETLAND (ac) OCEAN (mi) MONITORED: 22.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 92.0 0.0 EVALUATED: 0.0 0.0 92.0 TOTAL: 22.0 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Nutrients, bacteria. SOURCE OF IMPAIRMENT: Urban and natural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: The river is classified as one of the State's Scenic Rivers. Chronic dinoflagellate bloom during summer ("mahogany tide"). Shellfish harvesting areas in the upper and in the lower mainstem river and tributaries are restricted. River is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

WEST CHESAPEAKE (BASIN CODE: 02-13-10)

STATE SEGNENT NUMBER: -03

SEGMENT NAME: South River

	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	16.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	0.0	0.0
TOTAL:	16.0	0.0	0.0	0.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: Nutrients, bacteria.

SOURCE OF IMPAIRMENT: Agricultural, urban and natural runoff.

MATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Chronic dinoflagellate bloom during summer ("mahogany tide"). Shellfish harvesting areas in the upper mainstem river and some tributaries are restricted. Areas in the middle portion of the segment are conditionally approved.

STATE SEGMENT NUMBER: -04

SEGMENT NAME: West River

	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MON ITORED:	6.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	187.0	0.0
TOTAL:	6.0	0.0	0.0	187.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: Nutrients, bacteria.

SOURCE OF IMPAIRMENT: Agricultural and natural runoff, land disposal.

WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Chronic dinoflagellate bloom during summer ("mahogany tide"). Shellfish harvesting areas in the upper mainstem river and tributaries are restricted. Areas in the open West and Rhode Rivers are conditionally approved.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

WEST CHESAPEAKE (BASIN CODE: 02-13-10) SEGMENT NAME: Other West Chesapeake Bay Drainage STATE SEGMENT NUMBER: -05 ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (m1) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 42.0 0.0 0.0 1928.0 EVALUATED: 0.0 0.0 1928.0 0.0 42.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting

CAUSE OF IMPAIRMENT: Bacteria.

SOURCE OF IMPAIRMENT: Municipal discharge, agricultural and natural runoff.

WATER QUALITY TREND: Insufficient data available for trend analysis.

COMMENTS: Swimming area closed in Herring Bay due to elevated bacterial levels. Shellfish harvesting areas in the restricted tributaries (Tracy and Rockhold Creeks) are restricted.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATUXENT RIVER (BASIN CODE: 02-13-11) STATE SEGMENT NUMBER: -01 SEGMENT NAME: Patuxent River Mainstem - Mouth to Ferry Landing RIVER (mi) LAKE (ac) ESTUARY (m12) WETLAND (ac) OCEAN (m1) MONITORED: 39.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 4774.0 0.0 4774.0 TOTAL: 0.0 39.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class II - Shellfish harvesting CAUSE OF IMPAIRMENT: Organic enrichment, nutrients, bacteria. SOURCE OF IMPAIRMENT: Municipal discharge, agricultural, urban and natural runoff, land disposal. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Chronic algal blooms and low dissolved oxygen areas in upper tidal mainstem area are due to elevated nutrient loads from upstream municipal discharges. Shellfish harvesting areas in several tributaries are restricted or conditionally approved. Areas in the middle portion of the mainstem river are conditionally approved: the upper portion is restricted. Swimming is not advised in several areas near marinas in the Benedict area due to elevated bacterial levels. STATE SEGMENT NUMBER: -02 SEGMENT NAME: Patuxent River Mainstem - Ferry Landing to Route 214 ESTUARY (m1²) RIVER (m1) LAKE (ac) WETLAND (ac) OCEAN (mi) 18.0 0.0 0.0 0.0 0.0 MONITORED: EVALUATED: 0.0 0.0 0.0 2570.0 0.0 18.0 0.0 0.0 2570.0 0.0 TOTAL:

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATUXENT RIVER (BASIN CODE: 02-13-11) SEGMENT NAME: Western Branch STATE SEGMENT NUMBER: -03 ESTUARY (mi²) WETLAND (ac) OCEAN (mi) LAKE (ac) RIVER (mi) 0.0 0.0 0.0 0.0 16.0 MONITORED: 0.0 0.0 275.0 9.5 0.0 EVALUATED: 275.0 0.0 0.0 9.5 TOTAL: 16.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: Nutrients, sediments. SOURCE OF IMPAIRMENT: Municipal discharge, agricultural and urban runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. SEGMENT NAME: Patuxent River Mainstem - Route 214 to Rocky Gorge Dam STATE SEGMENT NUMBER: -04 ESTUARY (m1²) WETLAND (ac) OCEAN (mi) RIVER (m1) LAKE (ac) 0.0 0.0 0.0 MONITORED: 24.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 0.0 TOTAL: 24.0 7 2 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: Nutrients. SOURCE OF IMPAIRMENT: Municipal discharge, agricultural runoff. WATER QUALITY TREND: PXT0603 Total suspended solids - decreasing trend, not significant Fecal coliform bacteria - increasing trend, significant

> PXT0809 Total suspended solids - no trend Fecal coliform bacteria - increasing trend, not significant

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATUXENT RIVER (BASIN CODE: 02-13-11) STATE SEGMENT NUMBER: -05 SEGMENT NAME: Little Patuxent River ESTUARY (mi²) NETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 35.0 50.0 0.0 0.0 0.0 TOTAL: 35 0 50 0 0 0 Õ Õ 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: Nutrients. SOURCE OF IMPAIRMENT: Municipal discharge, agricultural runoff. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Municipal discharges constitute a significant portion of the total streamflow in this segment. STATE SEGMENT NUMBER: -06 SEGMENT NAME: Middle Patuxent River ESTUARY (mi²) WETLAND (ac) LAKE (ac) RIVER (mi) OCEAN (mi) 0.0 0.0 0.0 MON I TORED: 0.0 0.0 24.0 179.0 0.0 0.0 0.0 EVALUATED: 24.0 179.0 0.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis.

C52

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

PATUXENT RIVER (BASIN CODE: 02-13-11) STATE SEGMENT NUMBER: -07 SEGMENT NAME: Rocky Gorge Reservoir ESTUARY (m12) RIVER (mi) LAKE (ac) WETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 EVALUATED: 773.0 0.0 0.0 14.0 0.0 0.0 0.0 TOTAL: 14.0 773.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: The T. Howard Duckett Reservoir in the lower portion of this segment is part of the Washington suburban water supply system. The State is participating in a study of artificial destratification in the reservoir with the Washington Suburban Sanitary Commission. SEGMENT NAME: Patuxent River above Brighton Dam STATE SEGMENT NUMBER: -08 ESTUARY (mi²) RIVER (mi) LAKE (ac) WETLAND (ac) OCEAN (m1) 0.0 0.0 0.0 0.0 MONITORED: 17.0 92.0 0.0 800.0 0.0 EVALUATED: 0.0 92.0 17.0 800.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: PXT0972 Total phosphorus - increasing trend, significant Total nitrogen - increasing trend, significant Fecal coliform bacteria - increasing trend, not significant

COMMENTS: The Tridelphia Reservoir in the lower portion of this segment is part of the Washington suburban water supply system.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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			PEAKE BAY (BASIN	CODE: 02-13-99))	
TATE SEGMENT	NUMBER: -96	SE	GMENT NAME: Upp	er Chesapeake Ba	y	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (m1)	
ONITORED:	0.0	0.0	385.0	0.0	0.0	
VALUATED:	0.0	0.0	0.0	184.0	0.0	
DTAL:	0.0	0.0	385.0	184.0	0.0	
E CLASSIFIC	ATION: Class II	- Shellfish h	arvesting			
	x				0	·
USE OF IMPA	IRMENT: Organi	c enrichment,	nutrients, bacto	eria.		
URCE OF IMP	AIRMENT: Munici	oal discharge	agricultural	urban and natura	l runoff, land dispo	sal.
	rsa Grigeri (* 1941) 1641	er allandige,	-9			
TER QUALITY	'TREND: Estuar	ine trend analy	ysis not availa	ole in this repo	rt.	
						- ab based as ma
UMMENIS: In					ver, the closure is	
OMMENTS: Th	water quality	. This technic	cal harvesting (estriction is b	ased on a lack of a	harvestable
UMMENIS: In	water quality resource whic	. This technic h, as a consequ	cal harvesting mu uence, does not	estriction is b justify a routi		harvestable
UMMENIS: In	water quality resource whic	. This technic h, as a consequ	cal harvesting (estriction is b justify a routi	ased on a lack of a	harvestable
UHHALNIS: IN	water quality resource whic	. This technic h, as a consequ	cal harvesting mu uence, does not	estriction is b justify a routi	ased on a lack of a	harvestable
UNNENIS: IN	water quality resource whic	. This technic h, as a consequ	cal harvesting mu uence, does not	estriction is b justify a routi	ased on a lack of a	harvestable
	water quality resource whic	 This technic as a consequire or approving state 	cal harvesting u uence, does not hellfish harvest	estriction is b justify a routi	ased on a lack of a ne shellfish monitor	harvestable
	water quality resource whic is required f NUMBER: -9?	 This technic ich, as a consequivor approving slop SEC 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Midd	restriction is b justify a routi ting areas. 11e Chesapeake B	ased on a lack of a ne shellfish monitor ay	harvestable
TATE SEGMENT	water quality resource whic is required f NUMBER: -9? RIVER (m1)	. This technic h, as a conseque for approving st SEC LAKE (ac)	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²)	vestriction is b justify a routi ting areas dle Chesapeake B WETLAND (ac)	ased on a lack of a ne shellfish monitor 	harvestable
ATE SEGMENT	water quality resource whic is required f NUMBER: -9? RIVER (mi) 0.0	 This technic this technic as a consequence approving slope SEC LAKE (ac) 0.0 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0	vestriction is b justify a routi ting areas. dle Chesapeake B WETLAND (ac) 0.0	ased on a lack of a ne shellfish monitor ay	harvestable
TATE SEGMENT DNITORED: VALUATED:	water quality resource whic is required f NUMBER: -9? RIVER (m1)	. This technic h, as a conseque for approving st SEC LAKE (ac)	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²)	vestriction is b justify a routi ting areas dle Chesapeake B WETLAND (ac)	ased on a lack of a ne shellfish monitor 	harvestable
TATE SEGMENT DNITORED: VALUATED: DTAL:	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 0.0	 This technic as a consequence approving slope SEC LAKE (ac) 0.0 0.0 0.0 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 <u>403.0</u> 403.0	sestriction is b justify a routing ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0_0	harvestable
TATE SEGMENT DNITORED: VALUATED: JTAL:	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0	 This technic as a consequence approving slope SEC LAKE (ac) 0.0 0.0 0.0 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 <u>403.0</u> 403.0	sestriction is b justify a routing ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0_0	harvestable
TATE SEGMENT ONITORED: /ALUATED:)TAL: SE CLASSIFIC	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 CATION: Class II	 This technic this technic this technic approving signature SEC LAKE (ac) 0.0 0.0 0.0 - Shellfish home 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 403.0 403.0 arvesting	vestriction is b justify a routi ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0_0	harvestable
TATE SEGMENT ONITORED: /ALUATED:)TAL: SE CLASSIFIC	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 CATION: Class II	 This technic this technic this technic approving signature SEC LAKE (ac) 0.0 0.0 0.0 - Shellfish home 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 <u>403.0</u> 403.0	vestriction is b justify a routi ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0_0	harvestable
TATE SEGMENT ONITORED: <u>(ALUATED:</u>) TAL: SE CLASSIFIC NUSE OF IMPA	water quality resource whic is required f NUMBER: -9? RIVER (mi) 0.0 0.0 CATION: Class II NIRMENT: Organi	 This technic This technic the as a consequence of approving size SEC LAKE (ac) 0.0 0.0 Shellfish has c enrichment, and 	cal harvesting u uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 <u>403.0</u> arvesting nutrients, bacto	vestriction is b justify a routi ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0_0	harvestable fing program tha
TATE SEGMENT ONITORED: VALUATED: DTAL: SE CLASSIFIC AUSE OF IMPA DURCE OF IMP	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 CATION: Class II NIRMENT: Organi	 This technic This technic the as a consequence of approving signature SEC LAKE (ac) 0.0 0.0 O.0 Shellfish has a consequence of a consequence of	cal harvesting i uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 <u>403.0</u> arvesting nutrients, bacto agricultural, o	vestriction is b justify a routi ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0.0 0.0	harvestable fing program tha
TATE SEGMENT DNITORED: VALUATED: DTAL: DTAL: DE CLASSIFIC NUSE OF IMPA DURCE OF IMP NTER QUALITY	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 CATION: Class II NIRMENT: Organi VAIRMENT: Munici	 This technic This technic the as a consequence of approving size SEC LAKE (ac) 0.0 0.0 Shellfish has a consent, and the construction of the second sec	cal harvesting i uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 403.0 403.0 arvesting nutrients, bacte agricultural, o ysis not availad	vestriction is b justify a routing ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0 0.0 eria. urban and natura ble in this repo	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0.0 0.0 1 runoff, land dispo	harvestable ing program tha
TATE SEGMENT DNITORED: VALUATED: DTAL: DTAL: DE CLASSIFIC NUSE OF IMPA DURCE OF IMP NTER QUALITY	water quality resource whic is required f NUMBER: -9? RIVER (m1) 0.0 0.0 CATION: Class II NIRMENT: Organi VAIRMENT: Munici TREND: Estuar	 This technic This technic As a consequence approving signature SEC LAKE (ac) 0.0 0.0 Shellfish h c enrichment, is pal discharge, ine trend analy more Harbor (PA 	cal harvesting i uence, does not hellfish harvest GMENT NAME: Mide ESTUARY (mi ²) 0.0 403.0 403.0 arvesting nutrients, bacte agricultural, e ysis not availal atapsco River)	estriction is b justify a routing ting areas. dle Chesapeake B WETLAND (ac) 0.0 0.0 0.0 0.0 eria. urban and natura ble in this repo is restricted to	ased on a lack of a ne shellfish monitor ay OCEAN (mi) 0.0 0.0 0.0	harvestable ing program that osal. ng. Seasonal

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

CHESAPEAKE BAY (BASIN CODE: 02-13-99)

SEGNENT NAME: Lower Chesapeake Bay

	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	1192.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	184.0	0.0
TOTAL:	0.0	0.0	1192.0	184.0	0.0

USE CLASSIFICATION: Class II - Shellfish harvesting

STATE SEGNENT NUMBER: -98

CAUSE OF IMPAIRMENT: Organic enrichment, nutrients, bacteria.

SOURCE OF IMPAIRMENT: Municipal discharge, agricultural, urban and natural runoff, land disposal.

WATER QUALITY TREND: Estuarine trend analysis not available in this report.

COMMENTS: Seasonally low dissolved oxygen conditions occur in deeper portions of the Bay during summer as a result of organic enrichment. Swimming off Herring Bay is restricted due to elevated bacterial levels.

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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TATE SEGNENT						th Point to Mouth	
	RIVER ((mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)	
ONITORED:	66.0)	0.0	0.0	0.0	0.0	
VALUATED:)		0.0	1193.0	0.0	
OTAL:	66.0		0.0	0.0		0.0	•
SE CLASSIFI(- Water conta - Shellfish	ct recreation and harvesting	aquatic life		
AUSE OF IMP	IRMENT:	Bacter	ia.				
OURCE OF IM	PAIRMENT:	Agricu	ltural, urban	and natural rund	off, land dispos	al.	
	TREND.	Cotura	ine trend ana	lysis not availa	ole in this repo	rt.	
MISH YAUBEL		CSLUGI.					
	hellfish ! Swimmir	harvest ng is n	ing areas in	several restrict	ed tributaries d	f this segment are segment due to elev	restricted. ated bacterial
OMMENTS: S	hellfish H Swimmir levels	harvest ng is n -	ing areas in ot advised al	several restricto ong several beach	ed tributaries c h areas in this	of this segment are segment due to elev	ated bacterial
	hellfish H Swimmir levels	harvest ng is n -	ing areas in ot advised al	several restricto ong several beach EGMENT NAME: Poto	ed tributaries o h areas in this omac River - Mar	of this segment are segment due to elev shall Hall to Smith	ated bacterial
DMMENTS: S	hellfish H Swimmir levels. T NUMBER:	harvest ng is n -02	ing areas in ot advised al S	several restricto ong several beach EGMENT NAME: Poto	ed tributaries o h areas in this omac River - Mar	of this segment are segment due to elev shall Hall to Smith	ated bacterial
CHINENTS: S	hellfish H Swimmir levels T NUMBER: RIVER (harvest ng is n - -02 (mi)	ing areas in ot advised al	several restricto ong several beach EGMENT NAME: Poto	ed tributaries c h areas in this	of this segment are segment due to elev shall Hall to Smith	ated bacterial
CHINENTS: S TATE SEGMEN ONITORED:	hellfish H Swimmir levels. T NUMBER: RIVER (24.(harvest ng is n -02 (ei) 0	ing areas in ot advised al 	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²)	ed tributaries o h areas in this omac River - Mar NETLAND (ac)	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0	ated bacterial
OMMENTS: S STATE SEGMEN KONITORED:	hellfish H Swimmir levels T NUMBER: RIVER (harvest ng is n -02 (mi) 0 0	ing areas in ot advised al 	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0	ed tributaries o h areas in this omac River - Mar NETLAND (ac) 0.0	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0	ated bacterial
OWNENTS: S STATE SEGMEN IONITORED: <u>EVALUATED:</u> IOTAL:	hellfish H Swimmir levels. T NUMBER: RIVER (24.(0. 24.(harvest ng is n -02 (mi) 0 0	ing areas in ot advised al S LAKE (ac) 0.0 0.0 0.0	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0 <u>0.0</u>	ed tributaries of h areas in this omac River - Mar NETLAND (ac) 0.0 551.0 551.0	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0 0.0	ated bacterial
OWNENTS: S STATE SEGNEN KONITORED: <u>Evaluated:</u> ISE CLASSIFI	hellfish H Swimmir levels. T NUMBER: RIVER (24.(0. 24.(CATION: C	harvest ng is n -02 (mi) 0 0 lass I	ing areas in ot advised al S LAKE (ac) 0.0 0.0 0.0 0.0 0.0 0.0	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0 0.0	ed tributaries of h areas in this omac River - Mar NETLAND (ac) 0.0 551.0 551.0	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0 0.0	ated bacterial
ONNENTS: S TATE SEGNEN IONITORED: <u>VALUATED:</u> OTAL: ISE CLASSIFI	hellfish H Swimmir levels. T NUMBER: RIVER (24.(0. 24.(CATION: C	harvest ng is n -02 (mi) 0 0 lass I	ing areas in ot advised al S LAKE (ac) 0.0 0.0 0.0 0.0 0.0 0.0	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0 0.0	ed tributaries of h areas in this omac River - Mar NETLAND (ac) 0.0 551.0 551.0	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0 0.0	ated bacterial
CHINENTS: S TATE SEGMEN IONITORED: VALUATED: OTAL: ISE CLASSIFI CAUSE OF IMP	hellfish H Swimmir levels T NUMBER: RIVER (24.(24.(24.(CATION: C AIRMENT:	harvest ng is n -02 (mi) 0 0 1ass I 8acter	ing areas in ot advised al S LAKE (ac) 0.0 0.0 0.0 0.0 - Water conta ia.	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0 0.0	ed tributaries of h areas in this omac River - Mar NETLAND (ac) 0.0 551.0 551.0	of this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0 0.0	ated bacterial
COMMENTS: S STATE SEGMEN KONITORED: VALUATED: OTAL: JSE CLASSIFI CAUSE OF IMP SOURCE OF IMP	hellfish h Swimmir levels. T NUMBER: RIVER 24.(CATION: C AIRMENT: PAIRMENT:	harvest ng is n -02 (mi) 0 lass I Bacter Land d	ing areas in ot advised al S LAKE (ac) 0.0 - 0.0 - 0.0 - Water conta ia. lisposal.	several restricto ong several beach EGMENT NAME: Poto ESTUARY (mi ²) 0.0 0.0	ed tributaries o h areas in this omac River - Mar NETLAND (ac) 0.0 551.0 551.0 d aquatic life	f this segment are segment due to elev shall Hall to Smith OCEAN (mi) 0.0 0.0	ated bacterial

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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			DTOMAC RIVER (BA			
STATE SEGMENT	NUMBER: -03		EGMENT NAME: St.			
	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)	
ONITORED:	0.0	0.0	0.0	0.0	- 0.0	
VALUATED:	18.0	250.0 250.0	0.0	<u>184.0</u> 184.0	0.0	
UTAL:	10.0	230.0	0.0	104.0	0.0	
SE CLASSIFIC		- Water contac [- Shellfish h	ct recreation and marvesting	d aquatic life		
AUSE OF IMPA	IRMENT: Bacter	ia.				
OURCE OF IMP	AIRMENT: Agricu	ultural, urban	and natural rund	off.		
ATED MIALITY	'TOFNA. Incuff	iniont data av	/ailabla fon tem	vri ana lueio		
•••			ailable for treasons tributaries		er mainst em rive	er in this segment are
•••	ellfish harvest conditionally	ing areas in s	come tributaries Amming is not ad	and in the upp		er in this segment are as in this segment due
•••	ellfish harvest conditionally	ing areas in s approved. Sw acterial level	come tributaries Amming is not ad	and in the upp ivised along sev	veral beach area	us in this segment due
OMMENTS: Sh	ellfish harvest conditionally	ing areas in s approved. Sw bacterial level	come tributaries vimming is not ad s.	and in the upp dvised along sev	veral beach area	us in this segment due
OMMENTS: Sh	ellfish harvest conditionally to elevated b 	ing areas in s approved. Sw bacterial level	come tributaries wimming is not ad s. GMENT NAME: Bret	and in the upp dvised along sev	veral beach area	us in this segment due
DMMENTS: Sh Tate Segment DNITORED:	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (mi) 0.0	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0	come tributaries dimming is not ad s. GMENT NAME: Bret ESTUARY (mi ²) 0.0	and in the upp dvised along sev con Bay WETLAND (ac) 0.0	veral beach area OCEAN (mi) 0.0	us in this segment due
OMMENTS: Sh TATE SEGMENT ONITORED: YALUATED:	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (mi) 0.0	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0	come tributaries dimming is not ad is. GMENT NAME: Bret ESTUARY (mi ²)	and in the upp dvised along sev con Bay WETLAND (ac) 0.0	veral beach area OCEAN (mi) 0.0	us in this segment due
TATE SEGMENT CONITORED: VALUATED: OTAL:	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (mi) 0.0 15.0 15.0 ATION: Class :	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0 0.0 0.0	come tributaries dimming is not ad is. COMENT NAME: Bret ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	and in the upper dvised along set con Bay WETLAND (ac) 0.0 0.0 0.0	veral beach area OCEAN (mi) 0.0 <u>0.0</u>	us in this segment due
OWMENTS: Sh TATE SEGMENT ONITORED: <u>VALUATED:</u> OTAL: SE CLASSIFIC	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (mi) 0.0 15.0 15.0 ATION: Class :	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0 0.0 - Water contac - Shellfish h	come tributaries dimming is not ad is. COMENT NAME: Bret ESTUARY (mi ²) 0.0 0.0 0.0 0.0 0.0	and in the upper dvised along set con Bay WETLAND (ac) 0.0 0.0 0.0	veral beach area OCEAN (mi) 0.0 <u>0.0</u>	us in this segment due
OMMENTS: Sh TATE SEGMENT ONITORED: <u>VALUATED:</u> OTAL: SE CLASSIFIC AUSE OF IMPA	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (m1) 0.0 15.0 15.0 ATION: Class I Class II	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0 0.0 - Water contac - Shellfish h	come tributaries wimming is not ad is. COMENT NAME: Bret ESTUARY (mi ²) 0.0 0.0 0.0 c.0 c.0 c.0 c.0	and in the upper dvised along set con Bay WETLAND (ac) 0.0 0.0 0.0	veral beach area OCEAN (mi) 0.0 <u>0.0</u>	us in this segment due
COMMENTS: Sh TATE SEGMENT INTORED: VALUATED: OTAL: ISE CLASSIFIC AUSE OF IMPA OURCE OF IMPA	ellfish harvest conditionally to elevated b NUMBER: -04 RIVER (mi) 0.0 15.0 ATION: Class : Class II IRMENT: Bacter AIRMENT: Agricu	ing areas in s approved. Sw bacterial level SE LAKE (ac) 0.0 0.0 - Water contac - Shellfish h da.	come tributaries wimming is not ad is. COMENT NAME: Bret ESTUARY (mi ²) 0.0 0.0 0.0 c.0 c.0 c.0 c.0	and in the upp dvised along set ton Bay WETLAND (ac) 0.0 0.0 0.0 d aquatic life	veral beach area OCEAN (mi) 0.0 <u>0.0</u>	us in this segment due

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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··· .		LOWER P	DTOMAC RIVER (BA	SIN CODE: 02-14	-01)
STATE SEGNENT	NUMBER: -05	SI	EGMENT NAME: St.	Clements Bay	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	15.0	0.0	0.0	184.0	0.0
TOTAL:	15.0	0.0	0.0	184.0	0.0
USE CLASSIFIC		- Water contac [- Shellfish	ct recreation and narvesting	d aquatic life	
CAUSE OF IMPA	IRMENT: Bacter	ʻia.			
SOURCE OF IMP	AIRMENT: Agricu	ltural and nat	ural runoff.		
MATER QUALITY	TREND: Insuff	icient data av	vailable for tre	nd analysis.	
C onnents: Sh	ellfish harvest approved.	ing areas in s	some tributaries	and in the uppe	er mainstem portion are conditionally
STATE SEGMENT	NUMBER: -06	SI	GMENT NAME: Wid	comico River	
•	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	OCEAN (m1)
		• •			
IN I TORED :	0.0	V_U	0.0	0.0	0.0
	0.0	0.0 0.0	0.0 0.0	0.0 2570.0	0.0 0.0
EVALUATED:					
EVALUATED: TOTAL :	<u>15.0</u> 15.0 ATION: Class I	<u>0.0</u> 0.0	0.0 0.0 ct recreation and	2570.0 2570.0	0.0
EVALUATED: TOTAL: USE CLASSIFIC	<u>15.0</u> 15.0 ATION: Class I	0.0 0.0 - Water contac I - Shellfish H	0.0 0.0 ct recreation and	2570.0 2570.0	0.0
EVALUATED: TOTAL: USE CLASSIFIC CAUSE OF IMPA	15.0 15.0 ATION: Class I Class II	<u>0.0</u> 0.0 - Water contac I - Shellfish H	0.0 0.0 at recreation and marvesting	2570.0 2570.0	0.0
TOTAL: USE CLASSIFIC/ CAUSE OF IMPA SOURCE OF IMP/	<u>15.0</u> 15.0 ATION: Class I Class II IRMENT: Bacter AIRMENT: Agricu	0.0 0.0 - Water contac I - Shellfish k Ma. Jitural and nat	0.0 0.0 at recreation and marvesting	2570.0 2570.0 aquatic life	0.0
EVALUATED: TOTAL: USE CLASSIFIC/ CAUSE OF IMPA GOURCE OF IMP/ MATER QUALITY	<u>15.0</u> 15.0 ATION: Class I Class II IRMENT: Bacter AIRMENT: Agricu TREND: Insuff	<u>0.0</u> 0.0 - Water contac - Shellfish h ria. ultural and nat ficient data av	0.0 0.0 et recreation and marvesting cural runoff. vailable for trem	2570.0 2570.0 aquatic life ad analysis.	0.0

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

LOWER POTOMAC RIVER (BASIN CODE: 02-14-01) STATE SEGMENT NUMBER: -07 SEGMENT NAME: Gilbert Swamp RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) **0**.0 0.0 0.0 0.0 0.0 MONITORED: EVALUATED: 12.0 59.0 0.0 0.0 0.0 0.0 TOTAL: 12.0 59.0 0.0 0 0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Zekiah Swamp ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 MONITORED: 0.0 0.0 0.0 0.0 22.0 EVALUATED: 0.0 92.0 0.0 0.0 TOTAL 22 0 0 0 0.0 92.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. COMMENTS: Watershed is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGNEN	T NUMBER: -09	S	EGNENT NAME: Por	t Tobacco River	
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	NETLAND (ac)	00EAN (-4)
NONITORED:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	13.0	0.0	0.0	367.0	0.0
OTAL:	13.0	0.0	0.0	367.0	0.0
E CLASSIFI		- Water contac I - Shellfish	ct recreation and harvesting	d aquatic life	
WSE OF IMP	AIRMENT: Bacter	ria.			
URCE OF IN	PAIRMENT: Land o	disposal.			
		-			
	Y TREND: Insufi wimming is not a		area due to elev	-	levels near a
XOMMENTS: S		advised in one		vated bacterial	levels near a
COMMENTS: S	wimming is not a 	advised in one	area due to elev	vated bacterial	
WINENTS: S ATE SEGNEN WITORED:	wimming is not a T NUMBER: -10 RIVER (m1) 0.0	advised in one SE LAKE (ac) 0.0	area due to elev EGNENT NAME: Nar ESTUARY (m1 ²) 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0	OCEAN (m1) 0.0
NNENTS: S Ate Segnen Nitored: Aluated:	wimming is not a T NUMBER: -10 RIVER (m1) 0.0 19.0	advised in one SE LAKE (ac) 0.0 <u>0.0</u>	area due to elev EGNENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0	vated bacteria) njemoy Creek WETLAND (ac) 0.0 1928.0	OCEAN (m1) 0.0 <u>0.0</u>
INENTS: S Ite segnen Ittored: Iltored:	wimming is not a T NUMBER: -10 RIVER (m1) 0.0	advised in one SE LAKE (ac) 0.0 0.0	area due to elev EGNENT NAME: Nar ESTUARY (m1 ²) 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0	OCEAN (m1) 0.0
DMINENTS: S TATE SEGNEN DNITORED: <u>(ALUATED:</u> DTAL:	wimming is not a T NUMBER: -10 RIVER (mi) 0.0 19.0 19.0 CATION: Class I	advised in one SE LAKE (ac) 0.0 0.0 0.0	area due to elev EGMENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0 0.0 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0 1928.0 1928.0	OCEAN (m1) 0.0 <u>0.0</u>
INENTS: S ATE SEGNEN NITORED: <u>ALUATED:</u> TAL: E CLASSIFIC	wimming is not a T NUMBER: -10 RIVER (m1) 0.0 <u>19.0</u> 19.0 CATION: Class I Class II	advised in one SE LAKE (ac) 0.0 0.0 0.0 - Mater contac I - Shellfish h	area due to elev EGMENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0 0.0 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0 1928.0 1928.0	OCEAN (m1) 0.0 <u>0.0</u>
NOMENTS: S ATE SEGNEN NITORED: <u>ALUATED:</u> TAL: E CLASSIFIC	wimming is not a T NUMBER: -10 RIVER (mi) 0.0 19.0 19.0 CATION: Class I	advised in one SE LAKE (ac) 0.0 0.0 0.0 - Mater contac I - Shellfish h	area due to elev EGMENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0 0.0 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0 1928.0 1928.0	OCEAN (m1) 0.0 <u>0.0</u>
INTENTS: S ATE SEGNEN NITORED: ALUATED: TAL: E CLASSIFIC USE OF IMP	wimming is not a T NUMBER: -10 RIVER (m1) 0.0 <u>19.0</u> 19.0 CATION: Class I Class II	advised in one SE LAKE (ac) 0.0 0.0 - Water contac I - Shellfish h	area due to elev EGMENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0 0.0 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0 1928.0 1928.0	OCEAN (m1) 0.0 <u>0.0</u>
NENTS: S TE SEGNEN ITORED: <u>LUATED:</u> AL: CLASSIFIC SE OF INP RCE OF INP	wimming is not a T NUMBER: -10 RIVER (mi) 0.0 	advised in one SE LAKE (ac) 0.0 0.0 - Water contac I - Shellfish H	area due to elev EGMENT NAME: Nar ESTUARY (m1 ²) 0.0 0.0 0.0 0.0	vated bacterial njemoy Creek WETLAND (ac) 0.0 1928.0 1928.0 d aquatic life	OCEAN (m1) 0.0 0.0

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

LOWER POTOMAC RIVER (BASIN CODE: 02-14-01)

STATE SEGMEN	T NUMBER: -11	S	EGNENT NAME: Mat	tawoman Creek	
	RIVER (mi)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	30.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	23.0	0.0	643.0	0.0
TOTAL:	30.0	23.0	0.0	643.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: Bacteria.

SOURCE OF IMPAIRMENT: Land disposal.

WATER QUALITY TREND: MAT0078 Total suspended solids - increasing trend, <u>significant</u> Total phosphorus - no trend Total nitrogen- increasing trend, <u>significant</u>

COMMENTS: Swimming not advised in several areas due to elevated bacterial levels near marinas.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POTOMAC RIVER - WASHINGTON METROPOLITAN AREA (BASIN CODE: 02-14-01)

STATE SEGMENT NUMBER: -01

SEGMENT NAME: Potomac River - Marshall Hall to Chain Bridge (not including District of Columbia waters)

· ·	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	10.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	0.0	0.0
TOTAL:	10.0	0.0	0.0	0.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: Nutrients.

SOURCE OF IMPAIRMENT: Municipal discharges, combined sewer overflows, urban runoff (all upstream).

WATER QUALITY TREND: Estuarine trend analysis not available in this report.

COMMENTS: <u>Hydrilla</u> growth in lower portion of segment has improved water clarity and provided aquatic habitat (improved sportfishing). State phosphorus ban has decreased operating costs in treating State sewage at the Blue Plains Wastewater Treatment Plant which discharges more than 300 MGD into the portion of the river under the jurisdiction of the District of Columbia. Most of this segment lies within the District of Columbia and the mileage was changed from 34 to 10 miles to reflect this.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

		POTOMAC RIVER		HINGTON METROPOLI		CODE: 02-14-01)	
TATE SEGMENT	NUMBER:	-02				nocacy River to Chai	
	RIVER (mi) LAKE	(ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)	
ON I TORED :	38.0) (0.0	0.0	0.0	0.0	
VALUATED:	0.0) (0.0	0.0	0.0	0.0	
				0.0			
AUSE OF IMP/ OURCE OF IMP			, urbai	n and natural rund	off.		
ATER QUALITY	TREND:	POT1184 Tota	l suspe	ended solids - dec	creasing trend,	not significant	
		Tota) phos	ohorus - increasir	ng tr <mark>end, <u>signif</u></mark>	icant	
		Tota	l nitro	ogen - increasing	trend, <u>signific</u>	ant	
		POT1471 Tota	i suspe	ended solids - ind	creasing trend,	not significant	
		Tota) phos	ohorus - increasir	ng trend, <u>signif</u>	icant	
		Tota] nite	ogen - increasing	trend eignific	ant	

COMMENTS: Variation in suspended sediment trend results may be due to sample station location. Little Falls station (POT1184) is located at the shore upstream of wing dam. White's Ferry station (POT1471) is located in free-flowing portion of river one-third of the distance across (sample collected from ferry). Portion of this segment is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POTOMAC RIVER - WASHINGTON METROPOLITAN AREA (BASIN CODE: 02-14-01)

STATE SEGNENT NUMBER: -03

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SEGMENT NAME: Piscataway Creek

	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (m1)
MONITORED:	17.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	11.0	0.0	0.0	0.0
TOTAL:	17.0	11.0	0.0	0.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: PIS0033 Total suspended solids - decreasing trend, <u>significant</u> Total phosphorus - no trend Total nitrogen - increasing trend, not significant

STATE SEGMENT NUMBER: -04

SEGMENT NAME: Oxon Run

	RIVER (m1)	LAKE (ac)	ESTUARY (#1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORE0:	0.0	0.0	0.0	0.0	0.0
EVALUATED:	9.0	0.0	0.0	92.0	0.0
TOTAL:	9.0	0.0	0.0	92.0	0.0

USE CLASSIFICATION: Class I - Water contact recreation and aquatic life

CAUSE OF IMPAIRMENT: None.

SOURCE OF IMPAIRMENT: None.

MATER QUALITY TREND: No data available.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POTOMAC RIVER - WASHINGTON METROPOLITAN AREA (BASIN CODE: 02-14-01) SEGMENT NAME: Anacostia River STATE SEGNENT NUMBER: -05 ESTUARY (m²) NETLAND (ac) LAKE (ac) OCEAN (mi) RIVER (m1) 0.0 0.0 0.0 0.0 8.0 HONITORED: 33.1 0.0 184.0 0.0 20.0 EVALUATED: 0.0 184.0 0 0 33.1 28.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Sediments. SOURCE OF IMPAIRMENT: Urban runoff, mining. WATER QUALITY TREND: ANA0082 Total suspended solids - decreasing trend, not significant Fecal coliform bacteria - no trend COMMENTS: Continuing efforts by the District of Columbia and Maryland to curb combined sewer overflow and siltation due to erosion, construction activities and abandoned mining sites. NOTE: * (Partially in District of Columbia) SEGMENT NAME: Rock Creek STATE SEGMENT NUMBER: -06 ESTUARY (m1²) WETLAND (ac) OCEAN (mi) LAKE (ac) RIVER (m1) 0.0 0.0 0.0 17.0 0.0 MONITORED: 0.0 0.0 0.0 130.0 0.0 EVALUATED: 0.0 130.0 0.0 17.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Sediments. SOURCE OF IMPAIRMENT: Urban and natural runoff, land disposal. MATER QUALITY TREND: RCM0111 Total suspended solids - decreasing trend, significant

Fecal coliform bacteria - decreasing trend, significant

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

POTOMAC RIVER - WASHINGTON METROPOLITAN AREA (BASIN CODE: 02-14-01) SEGMENT NAME: Cabin John Creek STATE SEGMENT NUMBER: -07 ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 11.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 <u>n</u> n 0 0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: CJB0005 Total suspended solids - decreasing trend, not significant Fecal coliform bacteria - no trend SEGMENT NAME: Seneca Creek STATE SEGMENT NUMBER: -08 ESTUARY (mi²) WETLAND (ac) LAKE (ac) RIVER (mi) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 0.0 EVALUATED: 11.0 595.0 0.0 0.0 0.0 TOTAL: 11.0 595.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: SEN0008 Total suspended solids - decreasing trend, significant Fecal coliform bacteria - decreasing trend, significant

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

MIDDLE POTOMAC RIVER (BASIN CODE: 02-14-03) SEGMENT NAME: Potomac River - Shenandoah River to Monocacy River STATE SEGNENT NUMBER: -01 ESTUARY (mi²) RIVER (mi) LAKE (ac) NETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 19.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 19.0 0.0 0.0 Ő. O TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER OUALITY TREND: POT1595 Total suspended solids - decreasing trend, significant Total phosphorus - increasing trend, significant Total nitrogen - increasing trend, significant Fecal coliform bacteria - no trend POT1596 Total suspended solids - no trend Total phosphorus - no trend Total nitrogen - no trend Fecal coliform bacteria - no trend CONNENTS: The trend results above show significant differences in water quality on each side of the Potomac River. Station POT1595 is near the Maryland shore of the Potomac River between the Catoctin and Monocacy Rivers. Station POT1596 in near the Virginia shore of the Potomac River and is located significantly downstream of any major river discharges. Portion of river is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

MIDDLE POTOMAC RIVER (BASIN CODE: 02-14-03) STATE SEGMENT NUMBER: -02 SEGMENT NAME: Lower Monocacy River RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) 24.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 24.0 0.0 TOTAL: 0.0 USE CLASSIFICATION: Class I - Hater contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Nutrients, sediments. SOURCE OF IMPAIRMENT: Agricultural runoff. WATER QUALITY TREND: MON0020 Dissolved oxygen - no trend Total suspended solids - no trend Total phosphorus - no trend Total nitrogen - increasing trend, significant Fecal coliform bacteria - no trend MON0155 Dissolved oxygen - no trend Total suspended solids - no trend Total phosphorus - no trend Total nitrogen - no trend Fecal coliform bacteria - no trend

COMMENTS: River is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

_____ MIDDLE POTOMAC RIVER (BASIN CODE: 02-14-03) STATE SEGMENT NUMBER: -03 SEGMENT NAME: Upper Monocacy River ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) MONITORED: 34.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 46.0 0.0 TOTAL: 34.0 46.0 0.0 0.0 0.0 USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: Nutrients, sediments. SOURCE OF IMPAIRMENT: Agricultural and urban runoff. MATER QUALITY TREND: MON0269 Dissolved oxygen - decreasing trend, significant Total suspended solids - decreasing trend, not significant Total phosphorus - no trend Total nitrogen - no trend Fecal coliform bacteria - no trend MON0528 Dissolved oxygen - decreasing trend, not significant Total suspended solids - no trend Total phosphorus - no trend Total nitrogen - no trend Fecal coliform bacteria - no trend

COMMENTS: River is designated as a State Scenic River.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

MIDDLE POTOMAC RIVER (BASIN CODE: 02-14-03)

STATE SEGMENT NUMBER: -04

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SEGMENT NAME: Double Pipe Creek

	RIVER (mi)	LAKE (ac)	ESTUARY (#1 ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:	30.0	0.0	0.0	0.0	0.0
EVALUATED:	0.0	0.0	0.0	0.0	0.0
TOTAL:	30.0	0.0	0.0	0.0	0.0

USE CLASSIFICATION: Class IV - Recreational trout

CAUSE OF IMPAIRMENT: Nutrients, sediments.

SOURCE OF IMPAIRMENT: Agricultural runoff.

WATER QUALITY TREND: BPC0035 Total suspended solids - decreasing trend, significant

Total phosphorus - no trend

Total nitrogen - increasing trend, not significant

Fecal coliform bacteria - no trend

COMMENTS: State is continuing to monitor water quality at selected stations in the watershed before and after implementation of Best Nanagement Practices as part of the Rural Clean Water Program.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

MIDDLE POTOMAC RIVER (BASIN CODE: 02-14-03) SEGMENT NAME: Catoctin Creek STATE SEGMENT NUMBER: -05 ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 29.0 0.0 EVALUATED: 0.0 0.0 0.0 0.0 29.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: CACOO31 Temperature - no trend pH - decreasing trend, not significant Total suspended solids - no trend Total phosphorus - no trend £ ... Total nitrogen - increasing trend, significant Fecal coliform bacteria - no trend CAC0148 Temperature - no trend pH - decreasing trend, not significant Total suspended solids - decreasing trend, significant Total phosphorus - no trend

Total nitrogen - increasing trend, significant

Fecal coliform bacteria - no trend

C71

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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·			OTOMAC RIVER (BA			
	T NUMBER: -01				cock to South Branc	h
	RIVER (m1)	LAKE (ac)	ESTUARY (=1 ²)	METLAND (ac)	OCEAN (m1)	
		0.0	-		0.0	
			0.0			•
TALUATED:		<u>0.</u> 0	0.0	0.0	0.0	
VIAL:	01.0	0.0	0.0	••••		
ISE CLASSIFIC			ct recreation and	d aquatic life		
	Class I	II - Natural t	rout			
AUSE OF IMP	AIRMENT: Bacte	eria.				
JOURCE OF IN	PAIRMENT: Agric	ultural runoff	•			
	Y TREND. DATIS	30 Total nhoen	horus - increasi	na trend, signi	icant	
WIEN WALL	1 INGRV: FV110		gen – increasing			
			gen - increasing orm bacteria - d			
		regai gvill	aim Adorei (a - A)	ARI PARILIR CLEIG	27507772202	
			nning soon Willi	amenant dua ta d	elevated bacterial	avole
AUNTENIS: PO	orcion of river	Closed to swi	matrig ried, with t	amsport due co i	sievalea bastei lai	
					1. Sec. 1.	
STATE SEGMENT	T NUMBER• -02	s	EGNENT NAME: Ant	letam Creek		
			-			
	RIVER (m1)	LAKE (ac)	ESTUARY (m1 ²)	WETLAND (ac)	OCEAN (mi)	
INTORED:	36.0	0.0	0.0	0.0	0.0	
EVALUATED:	0.0	32.2	0.0	0.0	0.0	
	36.0	32.2		0.0	0.0	
USE CLASSIFI	CATION: Class I	[- Water conta	ct recreation an	d aquatic life		
	Class 1					
		V - Recreation				
CAUSE OF IMP.	AIRMENT: None.					
SOURCE OF IN	PAIRMENT: None	•				
WATER QUALIT	Y TREND: ANTO	044 Total phose	horus - increasi	ing trend, <u>sig</u> ni	ficant	
			gen - increasing			
			form bacteria - n			
			ALU PAACEI IA 11			
	ANTO	203 Total phose	ohorus - increasi	ina trend. siani	ficant	
· .			ogen – increasing			
			form bacteria - 1			
		recai colti	UNM DECLEMIE 1	meneasing creata	· STAUTTINGUE	
		AAA		فاستد فممطعا	fignat	
	ANTO	• •	ohorus – increasi			
			ogen – increasing		cant	
		Fecal coli	form bacteria - n	no trend		

APPENDIX TABLE C-18 - continued 1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY UPPER POTOMAC RIVER (BASIN CODE: 02-14-05) SEGMENT NAME: Marsh Run STATE SEGMENT NUMBER: -03 RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 EVALUATED: 10.0 0.0 0.0 0.0 0.0 10.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. SEGMENT NAME: Conococheague Creek STATE SEGMENT NUMBER: -04 LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) RIVER (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 21.0 EVALUATED: 0.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class IV - Recreational trout CAUSE OF IMPAIRMENT: Bacteria.

WATER QUALITY TREND: CON0005 pH - decreasing trend, not significant Total phosphorus - increasing trend, <u>significant</u> Total nitrogen - increasing trend, <u>significant</u>

SOURCE OF IMPAIRMENT: Agricultural runoff.

Fecal coliform bacteria - no trend

CON0180 pH - no trend Total phosphorus - no trend Total nitrogen - increasing trend, <u>significant</u> Fecal coliform bacteria - no trend

COMMENTS: Portion of creek closed to swimming near Williamsport due to elevated bacterial levels.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

UPPER POTOMAC RIVER (BASIN CODE: 02-14-05) STATE SEGMENT NUMBER: -05 SEGMENT NAME: Little Conococheague Creek ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 MONITORED: 0.0 0.0 0.0 0.0 EVALUATED: 11.0 0.0 0.0 0.0 0.0 TOTAL: 11.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. MATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGNENT NUMBER: -06 SEGMENT NAME: Licking Creek ESTUARY (mi²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (m1) MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 10.0 0.0 0.0 0.0 10.0 TOTAL: 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class IV - Recreational trout

CAUSE OF IMPAIRMENT: None.

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SOURCE OF IMPAIRMENT: None.

WATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

UPPER POTOMAC RIVER (BASIN CODE: 02-14-05) SEGNENT NAME: Tonoloway Creek STATE SEGMENT NUMBER: -07 RIVER (mi) LAKE (ac) ESTUARY (mi²) WETLAND (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 0.0 MONITORED: <u>0.0</u> 0.0 0.0 0.0 0.0 EVALUATED: 3.0 0.0 0.0 3.0 0.0 TOTAL: USE CLASSIFICATION: Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -08 SEGMENT NAME: Potomac River - Allegany County Drainage RIVER (m1) LAKE (ac) ESTUARY (m1²) WETLAND (ac) OCEAN (m1) 0.0 0.0 0.0 0.0 47.0 MONITORED: 0.0 0.0 0.0 EVALUATED: 32.2 0.0 TOTAL: 47.0 0 0 0.0 0 0 32.2 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None.

MATER QUALITY TREND: POT2766 Total suspended solids - decreasing trend, not significant Fecal coliform bacteria - no trend

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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RIVER (m1) LAKE (ac) ESTUARY (m1 ²) NETLAND (ac) OCEAN NITORED: 0.0 0.0 0.0 0.0 0 ALUATED: 9.0 0.0 0.0 0.0 0 TAL: 9.0 0.0 0.0 0.0 0 TAL: 9.0 0.0 0.0 0.0 0 TAL: 9.0 0.0 0.0 0.0 0 E CLASSIFICATION: Class I - Water contact recreation and aquatic life USE OF IMPAIRMENT: None. Impairement: None. URCE OF IMPAIRMENT: None. Impairement: Impairement: IFER QUALITY TREND: Insufficient data available for trend analysis.
ALUATED: 9.0 0.0 0.0 0.0 0.0 FAL: 9.0 0.0 0.0 0.0 0.0 0 E CLASSIFICATION: Class I - Water contact recreation and aquatic life USE OF IMPAIRMENT: None. URCE OF IMPAIRMENT: None.
TAL: 9.0 0.0 0.0 0 E CLASSIFICATION: Class I - Water contact recreation and aquatic life JSE OF IMPAIRMENT: None. JRCE OF IMPAIRMENT: None.
TAL: 9.0 0.0 0.0 0 E CLASSIFICATION: Class I - Water contact recreation and aquatic life JSE OF IMPAIRMENT: None. JRCE OF IMPAIRMENT: None.
JSE OF IMPAIRMENT: None. JRCE OF IMPAIRMENT: None.
JRCE OF IMPAIRMENT: None.
· · ·
TER QUALITY TREND: Insufficient data available for trend analysis.
ATE SEGMENT NUMBER: -10 SEGMENT NAME: Sideling Hill Creek
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RIVER (mi) LAKE (ac) ESTUARY (mi ²) WETLAND (ac) OCEAN
NITORED: 0.0 0.0 0.0 0.0 0.0 0
<u>NLUATED: 14.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 </u>
TAL: 14.0 0.0 0.0 0.0 0
E CLASSIFICATION: Class IV - Recreational trout
JSE OF INPAIRMENT: None.

C76

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

_____ UPPER POTOMAC RIVER (BASIN CODE: 02-14-05) _____ SEGMENT NAME: Fifteen Mile Creek STATE SEGMENT NUMBER: -11 ESTUARY (m1²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) 0.0 0.0 MONITORED: 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 14.0 0.0 TOTAL: 14.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGNENT NUMBER: -12 SEGNENT NAME: Town Creek RIVER (mi) LAKE (ac) ESTUARY (mi²) NETLAND (ac) OCEAN (mi) 28.0 0.0 0.0 0.0 0.0 MONITORED: EVALUATED: 0.0 TOTAL: 28.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None.

MATER QUALITY TREND: Insufficient data available for trend analysis.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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TATE SEGMENT	NUMBER: -01	S	EGMENT NAME: Lowe	er North Branch	Potomac River
	RIVER (m1)	LAKE (ac)	ESTUARY (m12)	WETLAND (ac)	OCEAN (m1)
ONITORED:	52.0	0.0	0.0	0.0	0.0
VALUATED:	0.0	0.0	0.0	0.0	0.0
OTAL:	52.0	0.0	0.0	0.0	0.0
JE CLASSIFICA		Water conta - Natural t	ct recreation and rout	d aquatic life	
USE OF IMPAIL	RMENT: pH.				
URCE OF IMPA	IRMENT: Nining a	activities.			
TER QUALITY	TREND: NBP0023	pH - no tre	nd		
		•	horus - no trend		
			orm bacteria - no	trend	
	N8P0103	Total phosp	norus - no trend		
$(x_{i}, x_{i}) \in \mathcal{A}$	NBP0196	pH - increa	sing trend, <u>signi</u>	ficant	
			horus - no trend		
	NBP0217	pH - increas	sing trend, <u>signi</u>	ficant	
			horus - no trend		
	NBP0326	pH - increas	sing trend, <u>signi</u>	ficant	
•		Total phosp	norus - no trend		
		Fecal colif	orm bacteria - no	trend	
	N8P0461	pH - increas	sing trend, <u>signi</u>	ficant	
		Total phosp	norus - no trend		
		Fecal colifo	orm bacteria - in	creasing trend,	significant

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

NORTH BRANCH POTOMAC RIVER (BASIN CODE: 02-14-10) STATE SEGMENT NUMBER: -02 SEGNENT NAME: Evitts Creek ESTUARY (mi²) NETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) MONITORED: 0.0 0.0 0.0 0.0 0.0 208.5 0.0 0.0 0.0 EVALUATED: 12.0 0.0 0.0 0.0 TOTAL: 12.0 208.5 USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: None. SOURCE OF IMPAIRMENT: None. WATER QUALITY TREND: Insufficient data available for trend analysis. STATE SEGMENT NUMBER: -03 SEGMENT NAME: Wills Creek ESTUARY (m1²) WETLAND (ac) RIVER (m1) LAKE (ac) OCEAN (mi) 0.0 0.0 27.0 0.0 0.0 MONITORED: EVALUATED: 0.0 0.0 0.0 0.0 0.0 27.0 0.0 0.0 0.0 0.0 TOTAL: USE CLASSIFICATION: Class III - Natural trout Class IV - Recreational trout CAUSE OF IMPAIRMENT: pH. SOURCE OF IMPAIRMENT: Mining activities. WATER QUALITY TREND: 8DK0000 Fecal coliform bacteria - no trend WIL0013 pH - no trend Total alkalinity- increasing trend, significant Fecal coliform bacteria - decreasing trend, significant

COMMENTS: Water quality severely impacted in Braddock Run watershed due to abandoned coal mine drainage.

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

NORTH BRANCH POTOMAC RIVER (BASIN CODE: 02-14-10) SEGMENT NAME: Georges Creek STATE SEGMENT NUMBER: -04 LAKE (ac) ESTUARY (m1²) WETLAND (ac) RIVER (m1) OCEAN (mi) MONITORED: 0.0 17.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 EVALUATED: 0.0 TOTAL: 17 0 0.0 0.0 0.0 0.0 USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout CAUSE OF IMPAIRMENT: pH, bacteria, streamflow. SOURCE OF IMPAIRMENT: Nining activities. WATER QUALITY TREND: GEO0009 pH - increasing trend, significant Total alkalinity- increasing trend, significant Fecal coliform bacteria - no trend COMMENTS: Water quality impacted in upper portion of watershed due to losses through streambeds to deep. abandoned coal mines. Water quality in lower portion of watershed severely impacted by discharges and springs/seeps polluted by abandoned coal mines. Bacterial levels projected to improve due to recent (1984) connection to central sewerage system throughout much of the watershed.

C80

1985-1987 WARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

NORTH BRANCH POTOMAC RIVER (BASIN CODE: 02-14-10) SEGNENT NAME: Upper North Branch Potomac Rive STATE SEGMENT NUMBER: -05 ESTUARY (m1²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 27.0 0.0 952.0 0.0 0.0 0.0 EVALUATED: 0.0 0.0 27.0 952.0 0.0 TOTAL: USE CLASSIFICATION: Class I - Water contact recreation and aquatic life Class III - Natural trout CAUSE OF INPAIRMENT: pH. SOURCE OF IMPAIRMENT: Mining activities. WATER QUALITY TREND: NBP0514 pH - increasing trend, significant Total alkalinity- increasing trend, significant NBP0534 pH - increasing trend, significant Total alkalinity- increasing trend, significant Fecal coliform bacteria - no trend NBP0597 pH - increasing trend, significant Total alkalinity- increasing trend, significant N8P0689 pH - increasing trend, significant Total alkalinity- increasing trend, significant Total suspended solids- decreasing trend, not significant Fecal coliform bacteria - increasing trend, not significant

COMMENTS: pH and total alkalinity levels are observed to rise throughout the mainstem river both above and below the Bloomington Reservoir.

APPENDIX TABLE C-19 - continued

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGMENT	STATE SEGMENT NUMBER: -06 SEGMENT NAME: Savage River				
	RIVER (mi)	LAKE (ac)	ESTUARY (mi ²)	WETLAND (ac)	OCEAN (mi)
MONITORED:		0.0	0.0	0.0	0.0
EVALUATED:	20.0	373.0	0.0	367.0	0.0
TOTAL:	25.0	373.0	0.0	367.0	0.0
CAUSE OF IMPA	ATION: Class III AIRMENT: pH. AIRMENT: Mining		lout		
WATER QUALITY	TREND: AAR0000	pH - increa	- no trend sing trend, <u>signi</u> inity - decreasin		<u>icant</u>
	SAV0000		nd inity – increasin		
		Fecal colif	orm bacteria - in	creasing trend,	significant

COMMENTS: In spite of its relatively remote and undeveloped location, Savage River below the reservoir will be the site of the 1989 World Whitewater Competition. The State is developing plans to minimize any permanent development and intends to return the area to its former condition.

APPENDIX TABLE C-20

1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

YOUGHIOGHENY RIVER (BASIN CODE: 05-02-02) SEGMENT NAME: Youghiogheny River STATE SEGMENT NUMBER: -01 ESTUARY (mi²) WETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 40.0 **NON I TORED:** 41.5 0.0 92.0 0.0 0.0 EVALUATED: 92.0 0 0 0.0 TOTAL: 40.0 41.5 USE CLASSIFICATION: Class III - Natural trout CAUSE OF IMPAIRMENT: pH, bacteria. SOURCE OF IMPAIRMENT: Mining activities, land disposal. WATER QUALITY TREND: YOU0925 pH - decreasing trend, significant Total suspended solids - no trend Total phosphorus - no trend Fecal coliform bacteria - increasing trend, significant YOU1139 pH - decreasing trend, not significant Total suspended solids - decreasing trend, significant Total phosphorus - no trend Fecal coliform bacteria - decreasing trend, not significant COMMENTS: Elevated bacterial levels due to raw sewage input from Oakland is projected to decrease after a central sewerage system is connected to a new sewage treatment facility. Portion of river is designated as a State Scenic River. Portion is also designated as the State's only Wild River. SEGMENT NAME: Little Youghiogheny River STATE SEGMENT NUMBER: -02 ESTUARY (mi²) NETLAND (ac) RIVER (mi) LAKE (ac) OCEAN (mi) 0.0 0.0 0.0 0.0 MONITORED: 10.0 92.0 0.0 138.0 0.0 EVALUATED: 0.0 92.0 0.0 0.0 10.0 138.0 TOTAL: USE CLASSIFICATION: Class III - Natural trout CAUSE OF IMPAIRMENT: Bacteria. SOURCE OF IMPAIRMENT: Land disposal. WATER QUALITY TREND: LY00004 Total suspended solids - decreasing trend, significant Total phosphorus - decreasing trend, significant Fecal coliform bacteria - decreasing trend, significant

APPENDIX TABLE C-20 - continued

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1985-1987 MARYLAND WATER QUALITY INVENTORY REPORT WATERSHED SUMMARY

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STATE SEGMENT	NUMBER: -03	SE	E gment Name: Deej	o Creek		
			ESTUARY (m1 ²)		00PM (
MONITORED:	6.0	UNIC (80) 0.0	COTOART (MT) 0.0	WEILANU (ac) 0.0	UCEAN (m1 <u>)</u> 0.0	
EVALUATED:	8.0	4500.0	0.0	459.0	0.0	
TOTAL:	14.0	4500.0	0.0	459.0	0.0	
ISE CLASSIFIC	ATION: Class II	[] - Natural tr	rout			
CAUSE OF IMPA	IRNENT: pH.					
	ATOMENT. Mining	artivities				
STRING'S (1)						
SUUKUE UP IMP.	ATWICHT: MINING	,				
MATER QUALITY	TREND: Insuff	ficient data av	•	-	butary of Deep Cr ee	k Lake) impac
NATER QUALITY	TREND: Insuff ter quality pro from abandone	ficient data av oblems limited ed coal mine dr	to portion of Cl mainage.	herry Creek (tri	butary of Deep Cree	k Lake) impac
NATER QUALITY	TREND: Insuff ter quality pro from abandone NUMBER: -04	ficient data av oblems limited ed coal mine dr SE	to portion of Ci vainage. GMENT NAME: Case	nerry Creek (tri selman River		k Lake) impac
NATER QUALITY	TREND: Insuff ter quality pro from abandone NUMBER: -04	ficient data av oblems limited ed coal mine dr SE	to portion of Cl mainage. GMENT NAME: Case ESTUARY (mi ²)	nerry Creek (tri selman River WETLAND (ac)		k Lake) impac
NATER QUALITY COMMENTS: Ha STATE SEGMENT NONITORED:	TREND: Insuff ter quality pro from abandone NUMBER: -04 RIVER (mi)	ficient data av oblems limited ed coal mine dr SE LAKE (ac)	to portion of Cl mainage. GMENT NAME: Case ESTUARY (mi ²)	nerry Creek (tri selman River WETLAND (ac)	OCEAN (mi)	k Lake) impac
COMMENTS: Wa	TREND: Insuff ter quality pro from abandone NUMBER: -04 RIVER (mi) 30.0	ficient data av oblems limited ed coal mine dr SE LAKE (ac) 0.0	to portion of Cl mainage. GMENT NAME: Case ESTUARY (mi ²)	merry Creek (tri selman River WETLAND (ac)	OCEAN (mi) 0.0	k Lake) impac
NATER QUALITY Comments: Ha State Segment Nonitored: Evaluated: Total:	TREND: Insuff ter quality pro from abandone NUMBER: -04 RIVER (mi) 30.0 0.0 30.0 ATION: Class I Class II	ficient data av oblems limited ed coal mine dr SE LAKE (ac) 0.0 0.0 0.0	to portion of Ch mainage. GMENT NAME: Case ESTUARY (mi ²) 0.0 0.0 0.0 ct recreation and out	nerry Creek (tri Belman River WETLAND (ac) 0.0 <u>367.0</u> 367.0	OCEAN (mi) 0.0 0.0	k Lake) impac

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Appendix D

MARYLAND LAKE WATER QUALITY ASSESSMENT

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MARYLAND LAKE WATER QUALITY ASSESSMENT

The following lake identification and classification Survey information was compiled by the Maryland Department of the Environment from information gathered from various available sources. It addresses publically-owned lakes of over five(5) acres that provide some important use to the public.

Much of the information concerning the physical characteristics of the lakes and their watersheds were obtained from a publication entitled "Inventory of Maryland Dams and Assessment of Hydropower Resources" prepared for the Power Plant Siting Program of the Maryland Department of Natural Resources by the Martin Marietta Environmental Systems (1985).

The land use characteristics of the drainage basins were obtained from 1987 information received from the State Department of Planning. Land use characteristics are given at the watershed level. In some cases, these characteristics are not totally representative of the very small drainage areas feeding lakes within a watershed, however, in most cases the information does give a reasonably accurate picture of land use.

The topography and soil types were determined by using the General Soil Map of Maryland produced by the Maryland Agricultural Experiment Station at the University of Maryland and the Soil Conservation Service. Point source and nonpoint source information was generated by Department records and information.

The water quality summary information was made on water quality data collected and recorded in the State's ambient water monitoring system. Additional water quality data was obtained, in some cases, from reports of lake studies conducted by other organizations. It should be noted that in many cases water quality data was not found. In those cases, water quality status was determined by information provided by personnel of the Fisheries Division of the Maryland Department of Natural Resources. In addition to trophic status, they also provided aquatic resource information, as well as providing verification of physical characteristics.

The trophic status of lakes in the State are considered to be a measure of eutrophication or nutrient richness. Oligotrophic lakes have low nutrient levels and are considered to have better water quality than eutrophic lakes which are rich in nutrients and may experience algal blooms and heavy growths of aquatic vegetation. Mesotrophic lakes are intermediate in terms of their nutrient status. It is important to note that trophic status may not have any affect on designated use support. State biologists who helped in this classification survey indicated that many eutrophic lakes served their intended recreational uses and provided aquatic habitat to gamefish such as large-and smallmouth bass.

The data sheets for the 59 lakes surveyed in this report follow and are listed alphabetically by lake name. .

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Name Adkins Pond	Owner Maryland State Highway Administration	
Location		
County: Wicomico	Latitude: 3819.9	Longitude: 7522.4
Basin Number: 02130305	River/Stream: Adkins Race	
Lake Characteristics		<u> </u>
Mean Depth (ft): 4.5	Purpose: Water Supply, Recreation	Surface Area (acres): 17.2
Normal Spillway Depth (ft): 4.5		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 77
Watershed Characteristics		
Land Use: Developed 2% Agriculture 38% Forest 42% Wetland 18% Mining % Barren%	Drainage Area (mi ²): 32 Topography: Coastal Plain Province Major Soil Types: Fallsington-Woods	town-Othello-Pocomoke Association
Point Sources: None	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Nonpoint Sources: Agricultural R	unoff	
Current Water Quality Summary: L aquatic vegetative growth.	imited water quality data exists. Period	ic low dissolved O ₂ levels. Dense
Impaired or Threatened Uses:	lone	

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Comments: Trophic condition and water quality summary based on personal observations and limited water quality assessment of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Location County: Prince George's Latitude: 3856.0 Longitude: 7644.6 Basin Number: 02131103 River/Stream: Collington Branch Tributary Lake Characteristics Mean Depth (ft): 3.7 Purpose: Recreation Surface Area (acres Normal Spillway Depth (ft): 7.4 Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Land Use: Developed20 % Drainage Area (mi ²): 0.21 Agriculture 30 % Topography: Coastal Plain Province Weiland	en Pond	Owner City of Bowie	
Basin Number: 02131103 River/Stream: Collington Branch Tributary Lake Characteristics Mean Depth (ft): 3.7 Purpose: Recreation Surface Area (acres Normal Spillway Depth (ft): 7.4 Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Land Use: Developed _ 20 % Forest _ 50 % Topography: Coastal Plain Province Wetland % Barren % Major Soil Types: Christiana-Sunnyside-Sassafras Association			
Lake Characteristics Mean Depth (ft): 3.7 Purpose: Recreation Surface Area (acres Normal Spillway Depth (ft): 7.4 Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Land Use: Developed 20 % Drainage Area (mi ²): 0.21 Agriculture 30 % Topography: Coastal Plain Province Wetland % Major Soil Types: Christiana-Sunnyside-Sassafras Association	rince George's	Latitude: 3856.0	Longitude: 7644.6
Mean Depth (ft): 3.7 Purpose: Recreation Surface Area (acres Normal Spillway Depth (ft): 7.4 Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Drainage Area (mi ²): 0.21 Agriculture 30 % Drainage Area (mi ²): 0.21 Ketland 50 % Topography: Coastal Plain Province Major Soil Types: Christiana-Sunnyside-Sassafras Association Point Sources: None None Sources: None Surface Area (acres	ber: 02131103	River/Stream: Collington Branch	Tributary
Normal Spillway Depth (ft): 7.4 Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Land Use: Developed	icteristics	·	······
Stratification: No Trophic Condition: Eutrophic Volume (acre-feet): Watershed Characteristics Drainage Area (mi ²): 0.21 Orainage Area (mi ²): 0.21 Land Use: Developed 20 % Agriculture 30 % Forest 50 % Drainage Area (mi ²): 0.21 Wetland % Mining Major Soil Types: Christiana-Sunnyside-Sassafras Association Point Sources: None	n (ft): 3.7	Purpose: Recreation	Surface Area (acres): 9.
Watershed Characteristics Land Use: Developed20 % Agriculture 30 % Drainage Area (mi ²): 0.21 Forest50 % Topography: Coastal Plain Province Wetland% Major Soil Types: Christiana-Sunnyside-Sassafras Association Point Sources: None	illway Depth (ft): 7.4		
Land Use: Developed 20 % Drainage Area (mi ²): 0.21 Agriculture 30 % Topography: Coastal Plain Province Wetland % Mining % Major Soil TypeS: Christiana-Sunnyside-Sassafras Association Barren % Point Sources: None	ition: No	Trophic Condition: Eutrophic	Volume (acre-feet): 35
Agriculture 30 % Forest 50 % Topography: Coastal Plain Province Wetland % Mining % Major Soil Types: Christiana-Sunnyside-Sassafras Association Barren % Point Sources: None	Characteristics		
Forest 50% Topography: Coastal Plain Province Wetland % Mining % Major Soil Types: Christiana-Sunnyside-Sassafras Association Barren % Point Sources: None		ainage Area (mi ²): 0.21	
Wetland% Mining% Major Soil Types: Christiana-Sunnyside-Sassafras Association Barren% Point Sources: None		pography: Coastal Plain Province	5
Barren% Point Sources: None	Wetland%		
	Mining % Ma Barren %	jor Soil Types: Christiana-Sunn	nyside-Sassafras Association
Nacadah Causaa Uuluu laa ta ta ta	Ces: None		
Managar U.L. Last to the			
Nonpoint Sources: Urban and Agricultural runoff.	ources: Urban and Agricultur	al runoff.	
Current Water Quality Summary: No information found.	iter Quality Summary: No inf	ormation found.	

Impaired or Threatened Uses: None

Comments: SAV's abundant

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Has been stocked with Largemouth Bass in the past. Trophic conditions and comments provided by personal observations of Maryland Fisheries staff.

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Md. Dept. of Environment (1/88).

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Name Allen Pond	Owner Wicomico/Somerset Counties	
Location		
County: Wicomico/Somerset	Latitude: 3817.0	Longitude: 7541.3
Basin Number: 02130303	River/Stream: Passerdyke Creek	
Lake Characteristics		
Mean Depth (ft): 2.7	Purpose: Recreation	Surface Area (acres): 35.8
Normal Spillway Depth (ft): 6.7		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet):96
Watershed Characteristics		· · · · · · · · · · · · · · · · · · ·
Land Use: Developed 2%	Drainage Area (mi ²): 12.7	
Agriculture <u>45%</u> Forest <u>50%</u>	Topography: Coastal Plain Province	
Wetland <u>3%</u> Mining% Barren%	Major Soil Types: Lakeland-Galesto	wn-Rumford Association
Delet Courses		

Point Sources: None

Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: No water quality data found. Dense aquatic vegetation.

Impaired or Threatened Uses: None

Md. Dept. of Environment (1/88).

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Comments: Trophic condition and aquatic vegetation status based on personal observation of Maryland Fisheries Administration staff.

		Owner Wicomico County	Name Barren Pond	
			Location	
	Longitude: 7544.1	Latitude: 3827.7	County: Wicomico	
		River/Stream: Barren Creek	Basin Number: 02130305	
			Lake Characteristics	
es): 14.7	Surface Area (acres)	Purpose: Recreation	Mean Depth (ft): 2.2	
			Normal Spillway Depth (ft): 5.5	
): 32	Volume (acre-feet):	Trophic Condition: Eutrophic	Stratification: No	
· · · · · · · · · · · · · · · · · · ·			Watershed Characteristics	
		Drainage Area (mi ²): 19.6	Land Use: Developed 2 %	
Topography: Coastal Plain Province			Agriculture <u>38 %</u> Forest <u>42 %</u>	
Major Soil Types: Lakeland-Galestown-Rumford Association			Wetland <u>18</u> % Mining 18 % Barren 5 %	
	-Rumford Association		Wetland <u>18</u> % Mining %	

Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: Excessive aquatic vegetation

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality status provided by personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Lake Bernard Frank	wher Maryland National Capital Park and Planning Comm.	
Location		
County: Montgomery	Latitude: 3906.2	Longitude: 7707.1
Basin Number: 02140206	River/Stream: North Branch Rock Creek	x Tributary
Lake Characteristics		
Mean Depth (ft): 14.0	Purpose: Flood Control, Recreation	Surface Area (acres): 56
Normal Spillway Depth (ft): 25.5		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet):785
Watershed Characteristics		
Land Use: Developed 65 %	Drainage Area (mi ²): 12.2	
Agriculture <u>14 %</u> Forest <u>20 %</u>	Topography: Piedmont Province	
Wetland % Mining % Barren 1%	Major Soil Types: Manor-Glenelg-Cheste	er Association
	Major Soil Types: Manor-Glenelg-Cheste	er Association

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Nonpoint Sources: Urban runoff

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Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

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Impaired or Threatened Uses: None

Comments: Stocked with Largemouth Bass.

Md. Dept. of Environment (1/88).

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Name Blairs Valley Lake	Owner Maryland Department of Natural Resources		
Location			
County: Washington	Latitude: 3941.7	Longitude: 7756.5	
Basin Number: 02140508	River/Stream: Little Conocoheague	Creek	
Lake Characteristics			
Mean Depth (ft): 15.1	Purpose: Recreation	Surface Area (acres): 32.2	
Normal Spillway Depth (ft): 25			
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 486	
Watershed Characteristics			
Land Use: Developed <u>%</u> Agriculture <u>11 %</u> Forest <u>89 %</u> Wetland <u>%</u> Mining <u>%</u> Barren <u>%</u>	Drainage Area (mi ²): 3.4 Topography: Valley and Ridge Provinc Major Soil Types: Dekalb-Gilpin-E	ce rnest Association	
Point Sources: None	· · · · · · · · · · · · · · · · · · ·		
Nonpoint Sources: Agricultural	Run-off	<u></u>	
Current Water Quality Summary:	No water quality data found. Trophic co personal observations of Maryland Fisher		
Impaired or Threatened Uses:	None		
Comments: Receives significant pub	lic fishing use. Has a moderate abundance		

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MARYLAND LAKE IDENTIFICATION AND CLASSIFICATION SURVEY

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Md. Dept. of Environment (1/88).

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Name Bloomington Lake	Owner U.S. Army Corps of Engin	neers	
Location			
County: Garrett	Latitude: 3924.1 L	ongitude: 7852.5	
Basin Number: 02141005	River/Stream: North Branch of Potomac B	liver	
Lake Characteristics	. <u></u>		
Mean Depth (ft): 99.5	Purpose: Water Quality Low Flow	Surface Area (acres): 952	
Normal Spillway Depth (ft): 282	Augmentation Water Supply and Recreation		
Stratification: Yes	Trophic Condition: Oligotrophic Volume (acre-feet): 94,		
Watershed Characteristics			
Land Use: Developed%	Drainage Area (mi ²): 287		
Agriculture <u>16 %</u> Forest <u>79 %</u>	Topography: Appalachian Plateau Province		
Wetland % Mining 4% Barren %	Major Soil Types: Dekalb-Gilpin-Ernest A	Association	
Point Sources: Multiple active tr	eated mine discharges		

Nonpoint Sources: Multiple abandoned mine drainages

Current Water Quality Summary: Limited water quality data found. Trophic conditions based on personal observations of Maryland Fisheries Administration staff. pH averages between 5.5 and 6.0

Impaired or Threatened Uses: None

Comments: "Stocked with Bass and Walleye".

Name Big Millpond	Owner Worcester County	
Location		
County: Worcester	Latitude: 3800.9	Longitude: 7527.4
Basin Number: 02130106	River/Stream: Little Mill Run	
Lake Characteristics		
Mean Depth (ft): 1.2	Purpose: Recreation	Surface Area (acres): 60.2
Normal Spillway Depth (ft): 3		_
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 72
Watershed Characteristics		
Land Use: Developed%	Drainage Area (mi ²): 8.2	
Agriculture <u>32 %</u> Forest <u>41 %</u>	Topography: Coastal Plain Province	
Wetland <u>26</u> % Mining % Barren <u>1</u> %	Major Soil Types: Fallsington-Wood	istown-Othello-Pocomoke Association
Point Sources: None		

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Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: No water quality data found.

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Impaired or Threatened Uses: None

Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

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Name Bishopville Pond	Owner Worcester County	
Location		
County: Worcester	Latitude: 3826.5	Longitude: 7711.8
Basin Number: 02130103	River/Stream: Bunting Branch	
Lake Characteristics		· · · · · · · · · · · · · · · · · · ·
Mean Depth (ft): 2.6	Purpose: Recreation	Surface Area (acres): 5.7
Normal Spillway Depth (ft): 5	·	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 15
Watershed Characteristics		
Land Use: Developed <u>10</u> %	Drainage Area (mi ²): 13.3	
Agriculture <u>45%</u> Forest <u>38</u> %	Topography: Coastal Plain Province	
Wetland% Mining% Barren%	Major Soil Types: Fallsington-Woodst	own-Othello-Pocomoke Association
Point Sources: Selbyville WWTP (De	laware)	

Nonpoint Sources: Agricultural Runoff, Septic Systems.

Current Water Quality Summary: Low DO, elevated Fecal Coliform. Excessively high Chlorophyll "a" (Mean > 10 ug/1) and phosphorus (Mean > 40 ug/1).

Impaired or Threatened Uses: Sport Fishery threatened by low DO. Bullheads may be only inhabitants.

Comments: Trophic condition assessment made by Maryland Department of the Environment and supported by the Maryland Fisheries Administration. Assessment of impaired or threatened uses provided by Maryland Fisheries Administration.

Name Bohemia Mills	Owner Cecil County	· · · · · · · · · · · · · · · ·
Location		
County: Cecil	Latitude: 3927.9	Longitude: 7546.4
Basin Number: 02130602	River/Stream: Great Bohemia Creek	
Lake Characteristics		
Mean Depth (ft): 1.8	Purpose: Recreation	Surface Area (acres): 28.7
Normal Spillway Depth (ft): 8.5		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 51
Watershed Characteristics		
Land Use: Developed 1 % Agriculture <u>83 %</u> Forest <u>15 %</u> Wetland <u>1 %</u> Mining <u>%</u> Barren <u>%</u>	D r ainage Area (mi ²): 4.6 Topography: _{Coastal} Plain Province Major Soil Types: Matapeake-Mattap	ex-Butlertown Association
Point Sources: None		
Nonpoint Sources: Agricultural r	unof f	
Current Water Quality Summary:	No water quality data found. Light a	lgae infestations.
Impaired or Threatened Uses: N	one	

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Comments: Trophic condition and aquatic vegetation status provided by personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Centennial Park	Owner Howard County Department of Public Works	
Location		
County: Howard	Latitude: 3914.5	Longitude: 7651.2
Basin Number: 02131105	River/Stream: Little Patuxent River Tributary	
Lake Characteristics	· · · · · · · · · · · · · · · · · · ·	
Mean Depth (ft): 10.2	Purpose: Recreation, Flood Control	Surface Area (acres): ₅₀
Normal Spillway Depth (ft): 24		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 510
Watershed Characteristics		
Land Use: Developed <u>36</u> %	Drainage Area (mi ²): 3.47	
Agriculture 18 % Forest 44 %	Topography: Piedmont Province	
Wetland 0% Mining <u>1</u> % Barren <u>1</u> %	Major Soil Types: Manor-Glenelg-Chest	er Association
Point Sources: None		

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Nonpoint Sources: Urban and agricultural runoff

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Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

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Impaired or Threatened Uses: None

Comments: SAV problems (Hydrilla)

Md. Dept. of Environment (1/88).

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Name Chambers Lake	Owner Town of Federalsburg	
Location		
County: Caroline	Latitude: 3841.8	Longitude: 7545.9
Basin Number: 02130306	River/Stream: Tanyard Branch	
Lake Characteristics		
Mean Depth (ft): 2.3	Purpose: Recreation	Surface Area (acres): 9.4
Normal Spillway Depth (ft): 4		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 22
Watershed Characteristics		
Land Use: Developed 2% Agriculture <u>59%</u> Forest <u>35</u> % Wetland <u>4</u> % Mining % Barren %	Drainage Area (mi ²): 5.3 Topography: _{Coastal} Plain Major Soil Types: Lakeland-Galesto	wn-Rumford Association
Point Sources: Md. Plastics		
Nonpoint Sources: Agricultu	ural runoff.	
Current Water Quality Summary:	No water quality data found. Periodic alg	ae infestations.

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality summary based on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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: 3908.6 Longitude: 7715.3 ream: Long Draught Branch Recreation, Flood Control Surface Area (acres): 90
ream: Long Draught Branch
Recreation, Flood Control Surface Area (acres): 90
Recreation, Flood Control Surface Area (acres): 90
Condition: Eutrophic Volume (acre-feet): 1,592
rea (mi ²): 2.86
: Piedmont Province
Types: Manor-Glenelg-Chester Association

Nonpoint Sources: Agricultural and Urban runoff.

Current Water Quality Summary: Limited water quality data exists. Trophic condition and comments based on personal observations and limited water quality data assessment of Maryland Fisheries Administration staff.

Impaired or Threatened Uses: Increasing threat due to stormwater run-off causing excessive turbidity.

Comments: Good fishing for Largemouth Bass.

Md. Dept. of Environment (1/88).

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Location		
County: Prince George's	Latitude: 3844.0	Longitude: 7655.0
Basin Number: 02140203	River/Stream: Butler Branch	
Lake Characteristics		
Mean Depth (ft): 6.9	Purpose: Recreation	Surface Are a (acres):11
Normal Spillway Depth (ft): 14		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet):76
Watershed Characteristics		
Land Use: Developed	Drainage Area (mi ²): _{2.47}	
Agriculture <u>15 %</u> Forest <u>61 %</u>	Topography: Coastal Plain Province	e
Wetland % Mining % Barren 1%	Major Soil Types: Beltsville-Chil	llum-Croom Association
Point Sources: None		

Current Water Quality Summary: No information found.

Impaired or Threatened Uses: None

Comments: Lake stocked with Largemouth Bass and Trout. Trophic conditions and comments provided by personal observations of Maryland Fisheries staff.

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Md. Dept. of Environment (1/88).

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Name Coulbourn Pond	Owner Wicomico County	
Location		
County: Wicomico	Latitude: 3819.8	Longitude: 7535.9
Basin Number: 02130301	River/Stream: Tonytank Creek	
Lake Characteristics		
Mean Depth (ft): 2.4	Purpose: Recreation, Irrigation	Surface Area (acres): 8.6
Normal Spillway Depth (ft): 6.3		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 21
Watershed Characteristics		
Land Use: Developed <u>11 %</u> Agriculture <u>35 %</u> Forest <u>42 %</u> Wetland <u>11 %</u> Mining <u>%</u> Barren <u>1</u> %	Drainage Area (mi ²): 5.5 Topography: Coastal Plain Province Major Soil Types: Lakeland-Galestown	n-Rumford Association
Point Sources: None		
Nonpoint Sources: Agricultural a	nd Urban runoff.	
Current Water Quality Summary:	No data found.	

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Impaired or Threatened Uses: None

Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

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Md. Dept. of Environment (1/88).

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Name Deep Creek Lake	Owner Pennsylvania Electric Company	
Location		
County: Garrett	Latitude: 3930.5	Longitude: 7923.5
Basin Number: 05020203	River/Stream: Deep Creek	-
Lake Characteristics		, <u>, , , , , , , , , , , , , , , , , , </u>
Mean Depth (ft): 20.7	Purpose: Hydropower, Recreation	Surface Area (acres): 4500
Normal Spillway Depth (ft): 50		
Stratification: Yes	Trophic Condition: Mesotrophic	Volume (acre-feet): 93,000
Watershed Characteristics		
Land Use: Developed4%	Drainage Area (mi ²): 64.7	
Agriculture <u>23%</u> Forest <u>71</u> %	Topography: Appalachian Plateau Province	
Wetland <u>1</u> % Mining <u>1</u> % Barren <u>%</u>	Major Soil Types: DeKalb-Gilpin-Err Lehew-Calvin Ass	nest Association sociation
Point Sources: Several active tr	eated mine discharges	
Nonpoint Sources: Several abando	ned Acid Mine Drainages	

Current Water Quality Summary: Mean of Total P = 13 ug/1; Mean of Secchi Depth = 3M; Mean of chlorophyll "a" = 6.2 ug/1

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Impaired or Threatened Uses: None

Comments: Lake was part of EPA's National Eutrophication Survey - 1975.

Md. Dept. of Environment (1/88).

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ewater Village	Owner Harford County	
larford	Latitude: 3926.0	Longitude: 7618.5
er: 02130702	River/Stream: Otter Point Creek Tributary	
cteristics		
(ft): 9.6	Purpose: Recreation	Surface Area (acres):7.2
llway Depth (ft): 14.	5	
tion: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 69
Characteristics		
Developed 23 %	D r ainage Area (mi ²): 0.3	
Forest 50 %	Topography: Coastal Plain Province	2
Wetland 1% Mining 8 Barren 8	Major Soil Types: Sassafras-Matapea	ake-Woodstown Association
	arford er: 02130702 cteristics (ft): 9.6 llway Depth (ft): 14.5 tion: Yes Characteristics Developed 23 % Agriculture 26 % Forest 50 % Wetland 1 % Mining%	arford Latitude: 3926.0 er: 02130702 River/Stream: Otter Point Creek T cteristics (ft): 9.6 (ft): 9.6 Purpose: Recreation llway Depth (ft): 14.5 Trophic Condition: Eutrophic Characteristics Drainage Area (mi ²): 0.3 Agriculture 26 × Forest 50 × Wetland 1 × Mining 20 × Topography: Coastal Plain Province

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Nonpoint Sources: Agricultural and Urban runoff.

Current Water Quality Summary: Sediment problems observed. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

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Impaired or Threatened Uses: None

Comments: Carp and other pollution tolerant species prevalent.

Md. Dept. of Environment (1/88).

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titude: 3911.0 Longitude: 7650.8 ver/Stream: Little Patuxent River Tributary rpose: Recreation, Flood Control Surface Area (acres): 49
ver/Stream: Little Patuxent River Tributary
Process Respective Plant Castal Sunface Area (acros), (a
rpose: Recreation, Flood Control Surface Area (acres): 49
ophic Condition: Eutrophic Volume (acre-feet): 225
nage Area (mi ²): 3.6
graphy: Piedmont Province
r Soil Types: Manor-Glenelg-Chester Association
g

Nonpoint Sources: Urban and Agricultural runoff.

Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

Impaired or Threatened Uses: None

Comments: Clean Lakes Program, Algae & SAV prevalent. Stocked with Largemouth Bass and Rainbow Trout (put and take)

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Md. Dept. of Environment (1/88).

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Location		
County: Charles	Latitude: 3829.2	Longitude: 7651.4
Basin Number: 02140107	River/Stream: Wheatley Run	
Lake Characteristics		
Mean Depth (ft): 9.8	Purpose: Flood Control, Recreation	Surface Area (acres): 59
Normal Spillway Depth (ft): 21		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 579
Watershed Characteristics		
Land Use: Developed <u>4</u> %	Drainage Area (mi ²): 2.7	
Agriculture <u>37</u> Forest <u>59</u>	Topography: Coastal Plain Province	
Wetland% Mining% Barren %	Major Soil Types: Westphalia-Marr-Sass	safras-Evesboro Association

Point Sources: None

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Nonpoint Sources: Agricultural Rumoff

Current Water Quality Summary: Shoreline survey indicates elevated fecal coliform bacteria.

Impaired or Threatened Uses: None

Comments: Largemouth Bass, Bluegills, Sunfish, Catfish and Hybrid Stripped Bass available. Trophic condition and comments provided by personal observations of MD. Fisheries staff.

Name Greenbelt Lake	Owner City of Greenbelt	
Location		
County: Prince George's	Latitude: 3900.2	Longitude: 7653.5
Basin Number: 02140205	River/Stream: Indian Creek Tributary	
Lake Characteristics	·	·····
Mean Depth (ft): 9.6	Purpose: Recreation	Surface Area (acres): 21.5
Normal Spillway Depth (ft): 17		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 206
Watershed Characteristics		
Land Use: Developed <u>57</u> % Agriculture 9%	Drainage Area (mi ²): 0.80	
Forest 31%	Topography: Coastal Plain Province	
Wetland % Mining 2% Barren <u>1</u> %	Major Soil Types: Christiana-Sunnyside	e-Sassafras Association
Deigh Coursees None		

Point Sources: None

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Nonpoint Sources: Urban Runoff

Current Water Quality Summary: No information found.

Impaired or Threatened Uses: None

Comments: Lake stocked with Largemouth Bass and Hybrid Stripped Bass SAV's abundant. Trophic conditions and comments provided by personal observations of Maryland Fisheries staff. Md. Dept. of Environment (1/88).

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Owner Maryland Department of Natural Resources	
Latitude: 3932.3	Longitude: 7737.3
River/Stream: Little Beaver Creek Tributary	
Purpose: Recreation	Surface Area (acres): 27
Trophic Condition: Mesotrophic	Volume (acre-feet):414
Drainage Area (mi ²): 0.8	
Topography: Blue Ridge Province	
Major Soil Types: Braddock-Thurmont A	association
	Latitude: 3932.3 River/Stream: Little Beaver Creek Tr Purpose: Recreation Trophic Condition: Mesotrophic Drainage Area (mi ²): 0.8

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Nonpoint Sources: None

Current Water Quality Summary: Limited water quality data exists. Trophic conditions & comments based on limited water quality of both Fisheries Administration and the Dept. of the Environment.

Impaired or Threatened Uses: None

Comments: Good fishery for Largemouth Bass & Pan Fish. Spring put & take trout fishery. Trending toward Eutrophic. *Watershed characteristics are for Basin area and are generally correct for impoundment identified; however, for this case, the immediate watershed of this impoundment is judged to be approximately 80% forest & 20% agricultural. Md. Dept. of Environment (1/88).

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Name Hagerstown City Park Lake	Owner City of Hagerstown	
Location		
County: Washington	Latitude: 3938.2	Longitude: 7743.8
Basin Number: 02140502	River/Stream: Antietam Creek Tributary	
Lake Characteristics		
Mean Depth (ft): 9.6	Purpose: Recreation	Surface Area (acres): 5.2
Normal Spillway Depth (ft): 3		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 50
Watershed Characteristics *		
Land Use: Developed 9 % Agriculture 64 % Forest 27 % Wetland % Mining % Barren %	Drainage Area (mi ²): 1.6 Topography: Valley and Ridge Province Major Soil Types: Hagerstown-Duffiel	
Point Sources: None		
Nonpoint Sources: Urban run-off	· · · · · · · · · · · · · · · · · · ·	

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Current Water Quality Summary: No recent water quality found. Trophic condition based on personal observations of Maryland Fisheries staff.

Impaired or Threatened Uses: None

Md. Dept. of Environment (1/88).

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Comments: *Although the watershed characteristics are correct for this Basin, the unique setting of this lake in an urban environment causes its encompassing area to be highly developed.

Name Herrington Lake	Owner Maryland Department of Natural Resources	
Location		
County: Garrett	Latitude: 3927.5	Longitude: 7927.2
Basin Number: 05020201	River/Stream: Herrington Run	
Lake Characteristics		
Mean Depth (ft): 5.2	Purpose: Recreation, Wildlife Conservation	Surface Area (acres): 41.5
Normal Spillway Depth (ft): 13.2		
Stratification: No	Trophic Condition: Mesotrophic	Volume (acre-feet): 216
Watershed Characteristics		
Land Use: Developed <u>%</u> Agriculture <u>28 %</u> Forest <u>71 %</u> Wetland <u>%</u> Mining <u>1 %</u> Barren <u>%</u>	Drainage Area (mi ²): 5.8 Topography: Appalachian Plateau Provinc e Major Soil Types: Cookport-Gilpin Association	
Point Sources: None	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Nonpoint Sources: Agricultural ru	moff	
Current Water Quality Summary:	No water quality data found except for comments provided by personal observat	
Impaired or Threatened Uses: No	ne	

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MARYLAND LAKE IDENTIFICATION AND CLASSIFICATION SURVEY

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Comments: Heavy rooted aquatic growth on bottom (Milfoil). Treated yearly.

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Md. Dept. of Environment (1/88).

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Name Hunting Creek Lake (Cunningham Falls Reservoir)Owner Maryland Department of Natural Resources

Latitude: 3937.7	Longitude: 7727.6	
River/Stream: Hunting Creek		
Purpose: Recreation, Water Supply	Surface Area (acres): 46	
Trophic Condition: Mesotrophic	Volume (acre-feet): 771	
Drainage Area (mi ²): 6.8		
Topography: Blue Ridge Province		
Major Soil Types: Edgemont-Chandler-Dekalb Association Braddock-Thurmont Association		
	River/Stream: Hunting Creek Purpose: Recreation, Water Supply Trophic Condition: Mesotrophic Drainage Area (mi ²): 6.8 Topography: Blue Ridge Province Major Soil Types: Edgemont-Chandler-D	

Nonpoint Sources: None

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Current Water Quality Summary: Limited water quality data exists. Trophic condition and comments based on personal observations and limited water quality data assessment of Maryland Fisheries Administration staff.

Impaired or Threatened Uses: None

Comments: Moderate amount of Spiney Naiad) SAV). *Watershed characteristics are for Basin area and are generally correct for impoundment identified; however, for this case, the immediate watershed of this impoundment is judged to be approximately 90% forest. MG. Dept. of Environment (1/88).

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Name Johnson Pond	Owner City of Salisbury			
Location				
County: Wicomico	Latitude: 3822.4	Longitude: 7536.1		
Basin Number: 02130304	River/Stream: North Prong of Wicomico River			
Lake Characteristics				
Mean Depth (ft): 8.6	Purpose: Recreation	Surface Area (acres): 104		
Normal Spillway Depth (ft): 8.6				
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet):900		
Watershed Characteristics				
Land Use: Developed <u>12</u> %	Drainage Area (mi ²): 42			
Agriculture 4 <u>2</u> % Forest <u>45</u> %	Topography: Coastal Plain Province			
Wetland% Major Soil Types: Lakeland-Galestown-Rumford Association Barren% Major Soil Types: Lakeland-Galestown-Rumford Association		-Rumford Association		

Point Sources: Del Mar STP upstream of Lakes.

Nonpoint Sources: Agricultural and urban runoff.

Current Water Quality Summary: The condition of eutrophication exists and is supported by field observation and chemical and biological data. The most recent data indicates: Average algal chlorophyll "a", ug/l = 56.1; Average Secchi Depth, Meters = .37; Average Total Phosphorus concentration, ug/l = 197.5.

Impaired or Threatened Uses: Lake is closed to swimming due to elevated bacterial levels (1.5 Acres).

Comments: Lake was part of EPA's National Eutrophication Survey (1975). This survey concluded lake was eutrophic and that phosphorus was the limiting nutrient.

Md. Dept. of Environment (1/88).

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Name Lake Kittamaqundi	Owner Columbia Association			
Location				
County: Howard	Latitude: 3912.7	Longitude: 7651.4		
Basin Number: 02131106	River/Stream: Little Patuxent River			
Lake Characteristics				
Mean Depth (ft): ^{1.4}	Purpose: Recreation	Surface Area (acres): 107		
Normal Spillway Depth (ft): ⁵				
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 146		
Watershed Characteristics				
Land Use: Developed 18 %	Drainage Area (mi ²): 27.5			
Agriculture 46 % Forest <u>36 %</u>	Topography: Piedmont Province			
Wetland% Mining% Barren%	Major Soil Types: Manor-Glenelg-Chester Association			

Point Sources: None

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Nonpoint Sources: Urban and Agricultural Runoff

Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

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Impaired or Threatened Uses: None

Comments: Clean Lakes Program, Stocked with Largemouth Bass and Rainbow Trout (put and take)

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Name Laurel Lake	Owner City of Laurel	
Location		
County: Prince George's	Latitude: 3905.4	Longitude: 7651.6
Basin Number: 02131104	River/Stream: Bear Branch	
Lake Characteristics	······································	
Mean Depth (ft): 10	Purpose: Recreating (Boating)	Surface Area (acres): 18
Normal Spillway Depth (ft): 12		
Stratification: No	Trophic Condition: Mesotrophic/ Eutrophic	Volume (acre-feet): 180
Watershed Characteristics		
Land Use: Developed <u>23</u> % Agriculture 18%	Drainage Area (mi ²): 2.0	
Forest 56%	Topography: Coastal Plain Province	
Wetland % Mining 2% Barren 1%	Major Soil Types: Beltsville-Chillum-Croom Association	
Point Sources: None		· ·

Point Sources: None

Nonpoint Sources: Urban and Agricultural runoff

Current Water Quality Summary: No water quality data found. Catfish predominent at this time.

Impaired or Threatened Uses: None

Comments: Lake rebuilt in 1986. Includes sediment pond ahead of main lake. Information provided by the City of Laurel.

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Name	Leonard Pond	Owner Wicomico County	
Locati	on		
County	: Wicomico	Latitude: 3825.4	Longitude: 7534.0
Basin	Number: 02130304	River/Stream: Leonard Pond Run	
Lake C	haracteristics		
Mean D	epth (ft): 2.9	Purpose: Recreation	Surface Area (acres): 45.9
Normal	Spillway Depth (ft): 7.3		
Strati	fication: No	Trophic Condition: Eutrophic	Volume (acre-feet):133
Waters	hed Characteristics		
Land U	lse: Developed <u>12</u> %	Drainage Area (mi ²): 13.8	
Agriculture <u>42</u> % Forest <u>45</u> %	Forest <u>45</u> %	Topography: Coastal Plain Province	
Wetland % Mining % Barren%		Major Soil Types: Sassafras-Matapeake-Woodstown Association	
Point	Sources: None		
Nonpoi	int Sources: Agricultural m	unoff	

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Current Water Quality Summary: No water quality data found. Dense aquatic vegetative growth controlled by pesticides.

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality summary based on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Liberty Reservoir	Owner Baltimore City	
Location		· · · · · · · · · · · · · · · · · · ·
County: Baltimore	Latitude: 3922.6	Longitude: 7653.5
Basin Number: 02130907	River/Stream: North Branch of Pataps	co River
Lake Characteristics		
Mean Depth (ft): 42.5	Purpose: Water Supply, Recreation	Surface Area (acres): 3106
Normal Spillway Depth (ft): 133		
Stratification: Yes	Mesotrophic/ Trophic Condition: Eutrophic	Volume (acre-feet): 132,000
Watershed Characteristics		5 · · · · · · · · · · · · · · · · · · ·
Land Use: Developed 13% Agriculture 56% Forest 31% Wetland % Mining % Barren % Point Sources: Municipals - Finks	Drainage Area (mi ²): 164 Topography: Piedmont Province Major Soil Types: Manor-Glenelg-Chest burg A.T.&T, Montrose Girls School, Industr	· · · · · · · · · · · · · · · · · · ·
Congoleum Industri	-	
Nonpoint Sources: Agricultural Ru	noff, septic systems	······································
Current Water Quality Summary: Occasional low DO.	Mean Total P = 13 ug/1. Mean Secchi Depth	3M; Mean Chlorophyll "a" ug/l = 6.15.
Impaired or Threatened Uses:	later for drinking purposes may not be fully	supported in the future because of
Comments: Stratification with respect Eutrophication Survey - 1975. Good Fig	et to dissolved oxygen during the summer. L shery Resource	ake was part of EPA's National

NARYLAND LAKE IDENTIFICATION AND CLASSIFICATION SURVEY

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Md. Dept. of Environment (1/88).

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Name Little Seneca Lake	Owner Washington Suburban	Sanitary Commission
Location		
County: Montgomery	Latitude: 3911.1	Longitude: 7718.0
Basin Number: 02140208	River/Stream: Little Seneca Creek	
Lake Characteristics		
Mean Depth (ft): 25.8	Purpose: Water Supply, Recreation	Surface Area (acres): 505
Normal Spillway Depth (ft): 45		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 13,050
Watershed Characteristics		
Land Use: Developed <u>15</u> %	Drainage Area (mi ²): 20.8	
Agriculture <u>55 %</u> Forest <u>28 %</u>	Topography: Piedmont Province	
Wetland % Mining % Barren 2%	Major Soil Types: Manor-Glenelg-Che	ster Association
Point Sources: None		

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Point Sources: None

Nonpoint Sources: Agricultural and urban runoff

Current Water Quality Summary: Limited water quality data. Trophic Condition and Comments based on personal observations and limited water quality data assessment of Maryland Fisheries Administration staff.

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Impaired or Threatened Uses: Hydrilla may impair recreational use of lake in future.

Comments: Trying to develop a trophy largemouth bass fishery.

Md. Dept. of Environment (1/88).

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Name Little Youghiogheny River Site (Broadford Lake)	#6 Owner Town of Oakland	
Location		
County: Garrett	Latitude: 3925.0	Longitude: 7920.5
Basin Number: 05020202	River/Stream: Broad Ford Run	
Lake Characteristics		
Mean Depth (ft): 10.2	Purpose: Flood Control, Water Supply and Recreation	Surface Area (acres): 138
Normal Spillway Depth (ft): 28.	5	
Stratification: Yes	Trophic Condition: Mesotrophic	Volume (acre-feet): 1,410
Watershed Characteristics	· · · · · · · · · · · · · · · · · · ·	<u></u>
Land Use: Developed <u>8</u> %	Drainage Area (mi ²): 6.8	:
Agriculture <u>50 %</u> Forest <u>42 %</u>	Topography: Appalachian Plateau Province	
Wetland % Mining % Barren %	Major Soil Types: Cookport-Gilpin Asso	ciation
Point Sources: None		
Nonpoint Sources: Agricultural		
Current Water Quality Summary:	Mean Total P = 23 ug/1; Chlorophyll "a" - one	time reading = 8.0 ug/l

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Impaired or Threatened Uses: None

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Comments: System shows trend toward Eutrophication. Excellent sport fishery. (Comments provided by Maryland Fisheries staff).

Name Loch Raven Reservoir	Owner Baltimore City Department of Public Works	
Location		
County: Baltimore	Latitude: 3925.8	Longitude: 7632.6
Basin Number: 02130805	River/Stream: Gunpowder River	
Lake Characteristics		
Mean Depth (ft): 30.3	Purpose: Water Supply, Recreation	Surface Area (acres): 2400
Normal Spillway Depth (ft): 76		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 72,700
Watershed Characteristics		
Land Use: Developed <u>14</u> %	Drainage Area (mi ²): 303	
Agriculture <u>46 %</u> Forest <u>39 %</u>	Topography: Piedmont Province	
Wetland % Mining % Barren <u>1</u> %	Major Soil Types: Manor-Glenelg-Ches Baltimore-Manor As	
Point Sources: Hampstead WWTP; Mi	nor industrial discharges	
Nonpoint Sources: Agricultural Run	off	

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NARYLAND LAKE IDENTIFICATION AND CLASSIFICATION SURVEY

Current Water Quality Summary: Total P at most stations 40 ug/l; Mean Secchi Depth = 1.8M; Mean Chlorophyll"a" = 7.1 ug/l.

Impaired or Threatened Uses: Taste and odor problems in drinking water during warm months

Comments: Lake was part of EPA's National Eutrophication Survey - 1975.

Md. Dept. of Environment (1/88).

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Name Mitchell Pond #1	Owner Maryland State H	lighway Administration
Location		
County: Wicomico	Latitude: 3822.2	Longitude: 7537.0
Basin Number: 02130301	River/Stream: Owens Branch and	unnamed tributary
Lake Characteristics		
Mean Depth (ft): 1.6	Purpose: Recreation	Surface Area (acres): 10.1
Normal Spillway Depth (ft): 4.1		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 16
Watershed Characteristics	· · · · · · · · · · · · · · · · · · ·	
Land Use: Developed <u>11</u> %	Drainage Area (mi ²): 3.2	
Agriculture <u>35 %</u> Forest <u>42 %</u>	Topography: Coastal Plain Province	e
Wetland% Mining% Barren%	Major Soil Types: Lakeland-Galest	town-Rumford Association
Point Sources: None	······································	· · · · · · · · · · · · · · · · · · ·
Nonpoint Sources: Urban and a	gricultural runoff	
Current Water Quality Summary:	No data found	
Impaired or Threatened Uses: No	ne	

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Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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ame Mitchell Pond #2 Owner City of Salisbury		
Location		
County: Wicomico	Latitude: 3822.0	Longitude: 7736.7
Basin Number: 02130301	River/Stream: Owens Branch	
Lake Characteristics		
Mean Depth (ft): 2.6	Purpose: Recreation	Surface Area (acres): 8.6
Normal Spillway Depth (ft):	6.4	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 22
Watershed Characteristics		
Land Use: Developed <u>11 %</u>	Drainage Area (mi ²): 3.3	
Agriculture 35 % Forest 42 %	Topography: Coastal Plain Province	
Wetland <u>11 %</u> Mining % Barren <u>1</u> %	Major Soil Types: Lakeland-Galestow	m-Rumford Association
Point Sources: None		
Nonpoint Sources: Urban and	agricultural runoff	
Current Water Quality Summar	y: No data found.	
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Impaired or Threatened Uses:	None	

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Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Mitchell Pond #3	Owner City of Salisbury	
Location		
County: Wicomico	Latitude: 3821.8	Longitude: 7736.7
Basin Number: 02130301	River/Stream: Owens Branch and Co	ty Cox Branch
Lake Characteristics		· · · · · · · · · · · · · · · · · · ·
Mean Depth (ft): 3.8	Purpose: Recreation	Surface Area (acres): 5.8
Normal Spillway Depth (ft): 7.5		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 22
Watershed Characteristics		· · · · · · · · · · · · · · · · · · ·
Land Use: Developed <u>11 %</u>	Drainage Area (mi ²): 5.9	
Agriculture <u>35 %</u> Forest <u>47 %</u>	Topography: Coastal Plain Province	
Wetland <u>11</u> % Mining % Barren <u>1</u> %	Major Soil Types: Lakeland-Galestow	n-Rumford Association
Point Sources: None	·····	

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Nonpoint Sources: Urban and agricultural runoff

Current Water Quality Summary: No data found.

Impaired or Threatened Uses: None

Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

Name Morris Mill Pond	Owner Wicomico County	
Location	·	
County: Wicomico	Latitude: 3819.5	Longitude: 7536.2
Basin Number: 02130301	River/Stream: Slab Bridge Creek	
Lake Characteristics		
Mean Depth (ft): 3.2	Purpose: Recreation, Water Supply and Irrigation	Surface Area (acres): 6.0
Normal Spillway Depth (ft): 7.8	and IIIIgation	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 19
Watershed Characteristics		
Land Use: Developed <u>11 %</u>	Drainage Area (mi ²): _{5.1}	
Agriculture <u>35 %</u> Forest <u>42 %</u>	Topography: Coastal Plain Province	
Wetland <u>11</u> % Mining % Barren <u>1</u> %	Major Soil Types: Lakeland-Galestow	m-Rumford Association
Point Sources: None		

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Nonpoint Sources: Urban and Agricultural Runoff

Current Water Quality Summary: No data found

Impaired or Threatened Uses: None

Comments: Trophic condition based on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Myrtle Grove Lake	Owner Maryland Department of Natural Resources	
Location		
County: Charles	Latitude: 3833.9	Longitude: 7704.9
Basin Number: 02140111	River/Stream: Mattawoman Creek Tri	ibutary
Lake Characteristics		
Mean Depth (ft): 3.8	Purpose: Recreation, Wildlife Management	Surface Area (acres): 23
Normal Spillway Depth (ft): 8.5		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): ₈₈
Watershed Characteristics		
Land Use: Developed <u>13</u> %	Drainage Area (mi ²): 2.3	
Agriculture <u>12 %</u> Forest <u>74 %</u>	Topography: Coastal Plain Province	
Wetland 1% Mining % Barren%	Major Soil Types: Beltsville-Sassaf	ras Association
Point Sources: None		
Nonpoint Sources: Urban and Agr		
Numperint Sources. Urban and Agr	ricultural runoff	
Current Water Quality Summary:	Shoreline survey indicates elevated feca	Il coliform bacteria.

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Impaired or Threatened Uses: None

Comments: Largemouth Bass and Bluegills are predominant. Trophic condition and comments provided by personal observations of MD. Fisheries staff.

Md. Dept. of Environment (1/88).

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Name Lake Needwood	Owner Maryland National (Capital Park and Planning Comm.
Location		
County: Montgomery	Latitude: 3906.9	Longitude: ^{7707.8}
Basin Number: 02140206	River/Stream: Rock Creek	
Lake Characteristics		
Mean Depth (ft): 8.1	Purpose: Flood Control, Recreation	Surface Area (acres): 74
Normal Spillway Depth (ft): 20.5		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 600
Watershed Characteristics		
Land Use: Developed <u>65</u> %	Drainage Area (mi ²): 12.8	
Agriculture <u>14</u> % Forest <u>20</u> %	Topography: Piedmont Province	
Wetland % Mining % Barren%	Major Soil Types: Manor-Glenelg-Che	ster Association

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Point Sources: None

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Nonpoint Sources: Urban runoff

Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

Impaired or Threatened Uses:

Comments: Good fishery - stocked with Rainbow Trout and Largemouth Bass. Hydrilla present.

Name New Germany Lake	ew Germany Lake Owner Maryland Department of Natural Resources	
Location		
County: Garrett	Latitude: 3938.0	Longitude: 7907.3
Basin Number: 02141006	River/Stream: Poplar Lick Run	
Lake Characteristics		
Mean Depth (ft): 4	Purpose: Recreation	Surface Area (acres): 13
Normal Spillway Depth (ft): 8.5		
Stratification: No	Trophic Condition: Mesotrophic	Volume (acre-feet): 52
Watershed Characteristics	·	
Land Use: Developed <u>%</u> Agriculture <u>12 %</u> Forest <u>87 %</u> Wetland <u>%</u> Mining <u>1</u> % Barren <u>%</u>	Drainage Area (mi ²): 1.8 Topography: _{Appalachian Plateau Pre Major Soil Types: Lehew-Calvin-A}	
Point Sources: None		··· <u>····</u> ·····························
Nonpoint Sources: None		
Current Water Quality Summary:	No water quality data found. Trophic co personal observations of Md. Fisheries a	ondition and comments provided by staff.
Impaired or Threatened Uses: N	one	

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Md. Dept. of Environment (1/88).

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Name Pine Lake	Owner Maryland National Capital Park and Planning Comm.		
Location			
County: Montgomery	Latitude: 3903.3 L	ongitude: 7702.4	
Basin Number: 02140205	River/Stream: Northwest Branch Tributary		
Lake Characteristics			
Mean Depth (ft):7.0	Purpose: Recreation	Surface Area (acres): 5	
Normal Spillway Depth (ft): 4.5		-	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 35	
Natershed Characteristics			
Land Use: Developed 57 % Agriculture 10 % Forest 30 % Wetland % Mining 2 % Barren 1 %	Drainage Area (mi ²): 0.3 Topography: Piedmont Province Major Soil Types: Manor-Glenelg-Cheste	r Association	

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Nonpoint Sources: Urban runoff

Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

Impaired or Threatened Uses: None

Comments: Trout stocked (put and take)

Md. Dept. of Environment (1/88).

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Name	Piney Run Lake Reservoir	Owner Carroll County Commissi	ioners
Locat	ion		
Count	y: Carroll	Latitude: 3923.0	Longitude: 7659.0
Basin	Number: 02130908	River/Stream: Piney Run	
Lake	Characteristics		
Mean	Depth (ft): 20.3	Purpose: Flood Control, Water Supply and Recreation	Surface Area (acres): 298
Norma	l Spillway Depth (ft): 54		
Strat	ification: Yes	Trophic Condition: Mesotrophic	Volume (acre-feet): 6,036
Water	shed Characteristics	****	· · · · · · · · · · · · · · · · · · ·
Land	Use: Developed 11% Agriculture 57% Forest 32% Wetland % Mining % Barren %	Drainage Area (mi ²): 10.4 Topography: Piedmont Province Major Soil Types: Manor-Glenelg-Cheste	er Association
Point	Sources: None		
Nonpo	int Sources: Agricultural r	inoff	*****
Curre	nt Water Quality Summary:	Limited water quality exists. Trophic condit observations and limited water quality data a Administration staff.	ion and comments based on personal assessment of Maryland Fisheries

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Comments: Trending toward Eutrophic. High abundance of spiney naiad (SAV). Good Largemouth Bass, Pan Fish and Channel Catfish fishery.

Md. Dept. of Environment (1/88).

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Name Prettyboy Reservoir	Owner Baltimore City Department of Public Works	
Location		
County: Baltimore	Latitude: 3937.2	Longitude: 7642.5
Basin Number: 02130806	River/Stream: Gunpowder Falls	
Lake Characteristics		
Mean Depth (ft): 40.1	Purpose: Water Supply, Recreat	ion Surface Area (acres): 1500
Normal Spillway Depth (ft): 98.5		
Stratification: Yes	Trophic Condition: Mesotroph Eutrophi	
Watershed Characteristics	· · · · · · · · · · · · · · · · · · ·	*******
Land Use: Developed 7 %	Drainage Area (mi ²):80	
Agriculture 60 X Forest <u>33 X</u>	Topography: Piedmont Province	
Wetland % Mining % Barren %	Major Soil Types: Mt. Airy-Glen	nelg-Linganore Association
Point Sources: Manchester WWTP.		

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Nonpoint Sources: Agricultural runoff.

Current Water Quality Summary: Mean of Total P = 32 ug/1; Mean Secchi Depth 3.1M; Mean Chlorphyll"a" 3.9 ug/1.

Impaired or Threatened Uses: Water for drinking purposes may not be fully supported in the future because of anticipated changes in land use.

Comments:

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Name Rewatico Pond	Owner Wicomico County	
Location		
County: Wicomico	Latitude: 3824.7	Longitude: 7545.2
Basin Number: 02130305	River/Stream: Rewastico Creek	
Lake Characteristics		
Mean Depth (ft): 1.9	Purpose: Recreation	Surface Area (acres): _{24.4}
Normal Spillway Depth (ft): 4.8		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): ₄₇
Watershed Characteristics		
Land Use: Developed <u>2</u> Agriculture <u>38</u> Forest <u>42</u> Wetland <u>18</u> Mining <u></u> Barren <u></u>	Drainage Area (mi ²): 11.0 Topography: Coastal Plain Province Major Soil Types: Fallsington-Woodst	cown-Othello-Pocomoke Association

Point Sources: None

Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: No water quality data found. Dense aquatic vegetative growth.

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality summary based on personal observations of Maryland Fisheries Administration staff.

Name Rocky Gap Reservoir (Lake Habeeb)	o) Owner Maryland Department of Natural Resources		
Location			
County: Allegany	Latitude: 3942.1	Longitude: 7839.7	
Basin Number: 02141002	River/Stream: Rocky Gap Run		
Lake Characteristics			
Mean Depth (ft): 25.8	Purpose: Recreation	Surface Area (acres): 208.5	
Normal Spillway Depth (ft): 82			
Stratification: Yes	Trophic Condition: Mesotrophic	Volume (acre-feet): 5,381	
Watershed Characteristics			
Land Use: Developed <u>10</u> %	Drainage A rea (mi ²): 8.8		
Agriculture <u>18 %</u> Forest <u>72 %</u>	Topography: Valley and Ridge Province		
Wetland % Mining % Barren%	Major Soil Types: Elliber-Corydon-DeKalb Association		
Point Sources: None			

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Nonpoint Sources: Agricultural runoff.

Current Water Quality Summary: Low DO conditions exist in the reservoir during the summer.

Impaired or Threatened Uses: None

Comments: Excellent sport fishery. (Comments provided by Maryland Fisheries staff).

Md. Dept. of Environment (1/88).

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Name Lake Roland	Owner Baltimore City			
Location				
County: Baltimore	Latitude: 3922.7	Longitude: 7638.6		
Basin Number: 02130904	River/Stream: Jones Falls			
Lake Characteristics		***************************************		
Mean Depth (ft): 10	Purpose: Recreation	Surface Area (acres): 100		
Normal Spillway Depth (ft): 25				
Stratificati on: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 1000		
Watershed Characteristics		······		
Land Use: Developed <u>66</u> %	Drainage Area (mi ²): 36.8			
Agriculture <u>11 %</u> Forest <u>23 %</u>	Topography: Piedmont Province			
Wetland % Mining % Barren %	Major Soil Types: Manor-Glenelg-Ch	ester Association		

Point Sources: None

Nonpoint Sources: Urban Runoff

Current Water Quality Summary: Heavy siltation occurs in reservoir. Elevated Fecal Coliform bacteria and Nutrients. Mean Total P exceeds 40 ug/1; Chlorophyll"a" often above 10 ug/1.

Impaired or Threatened Uses: An advisory has been issued notifying individuals to limit consumption of carp and black crappie from Lake Roland. These fish should not be used as a substantial part of the daily diet due to elevated concentrations of Chlordane.

Comments: None

Name St. Mary's River Watershed Site	1 Owner Maryland Department of Natural Resources		
Location		·	
County: St. Mary's	Latitude: 3815.1	Longitude: 7632.1	
Basin Number: 02140103	River/Stream: West Branch St. Mary's	River/Stream: West Branch St. Mary's River	
Lake Characteristics			
Mean Depth (ft): 12.8	Purpose: Flood Control, Recreation,	Surface Area (acres): 250	
Normal Spillway Depth (ft): 21	fi≲h and Wildlife		
Stratification: Yes	Trophic Condition: Eutrophic	Volume (acre-feet): 3,200	
Watershed Characteristics		· · · · · · · · · · · · · · · · · · ·	
Land Use: Developed <u>7</u> %	Drainage Area (mi ²): 8.75		
Agriculture <u>27</u> Forest <u>65</u>	Topography: Coastal Plain Province		
Wetland <u> </u>	ajor Soil Types: Beltville-Sassafras Association		
Point Sources: None			

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Nonpoint Sources: Agricultural runoff

Current Water Quality Summary: pH = 6 due to natural marsh drainage

Impaired or Threatened Uses: None

Comments: Excellent Largemouth Bass population. Trophic conditions and comments provided by personal observations of Maryland Fisheries staff.

Md. Dept. of Environment (1/88).

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Name Smithville Lake	Owner Maryland Department of Natural Resources	
Location		<u></u>
County: Caroline	Latitude: 3846.4 Longitude: 7543.8	
Basin Number: 02130306	River/Stream: Smithville Ditch	
Lake Characteristics	·	
Mean Depth (ft): 3.5	Purpose: Recreation, Crop Irrigation Surface Area (acres):	10
Normal Spillway Depth (ft): 7.5		, 0
Stratification: No	Trophic Condition: Eutrophic Volume (acre-feet): 140	
Watershed Characteristics		<u></u>
Land Use: Developed 2 % Agriculture 59 %	Drainage Area (mi ²): 10	
Forest	Topography: Coastal Plain Province	
Wetland 4% Mining % Barren %	Major Soil Types: Fallsington-Woodstown-Othello-Pocomoke Association	
Point Sources: None		

Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: Extensive rooted and aquatic vegetation and some floating vegetation. Periodic partial fish kills-several species.

Impaired or Threatened Uses: None

Comments:

Trophic condition and water quality summary provided by personal observations of Maryland Fisheries Administration staff.

Name Savage River Reservoir	Owner Upper Potomac River Commission		
Location			
County: Garrett	Latitude: 3930.4 Longitude: 7907.9		
Basin Number: 02141006	River/Stream: Savage River		
Lake Characteristics			
Mean Depth (ft): 55.6	Purpose: Flood Control, Recreation and Surface Area (acres): 360		
Normal Spillway Depth (ft): 151.3	Low Flow Augmentation		
Stratification: Yes	Trophic Condition: Oligotrophic Volume (acre-feet): 20,000		
Watershed Characteristics			
Land Use: Developed% Agriculture 12 % Forest% Wetland% Mining% Barren%	Drainage Area (mi ²): 105 Topography: Appalachian Plateau Province Major Soil Types: Dekalb-Gilpin-Ernest Association		
Point Sources: None	·		
Nonpoint Sources: None			
Current Water Quality Summary:	Trophic condition assessment provided by personal observations of Maryland Fisheries staff.		
Impaired or Threatened Uses:	None		
Comments:			

Md. Dept. of Environment (1/88).

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Owner City of Salish	bury
.atitude: 3821.2	Longitude: 7534.4
River/Stream: Beaver Dam Cre	eek
Purpose: Recreation	Surface Area (acres): 48.6
rophic Condition: Eutroph	tic Volume (acre-feet): ₂₀₀
······································	· · · · · · · · · · · · · · · · · · ·
n inage Area (mi²): 19.5 Dography: Coastal Plain Prov jor Soil Types: Lakeland-Ga	
ban runoff	· · · · · · · · · · · · · · · · · · ·
sive filamentous algae infesta dic partial fish population di	ations. Dense rooted vegetation. ie-off.
-	odic partial fish population di

NARYLAND LAKE IDENTIFICATION AND CLASSIFICATION SURVEY

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Comments: Trophic condition and water quality status provided by personal observations of Maryland Fisheries Administration staff.

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Location		
County: Prince George's	Latitude: 3907.0	Longitude: 7652.6
Basin Number: 02131107	River/Stream: Patuxent River	
Lake Characteristics		· · · · · · · · · · · · · · · · · · ·
Mean Depth (ft): 22	Purpose: Water Supply, Recreation	Surface Area (acres): 773
Normal Spillway Depth (ft): 74		
Stratification: Yes	Mesotrophic/ Trophic Condition: Eutrophic	Volume (acre-feet): 17,000
Watershed Characteristics		
Land Use: Developed <u>15 %</u> Agriculture <u>46 %</u> Forest <u>38 %</u> Wetland <u>%</u> Mining <u>%</u> Barren <u>1</u> %	Drainage Area (mi ²): ₁₃₂ Topography: Piedmont Province Major Soil Types: Manor-Glenelg-Chest	er Association
Point Sources: None		
Nonpoint Sources: Agricultural	runoff	

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Impaired or Threatened Uses: None

Comments: Excellent fishery - Largemouth Bass, Hybrid Stripped Bass, Walleye, Northern Pike, Smallmouth Bass, Catfish and Yellow Perch available.

Md. Dept. of Environment (1/88).

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Name Tonytank Lake	Owner Maryland State Highway Administration	
Location		
County: Wicomico	Latitude: 3820.1	Longitude: 7536.8
Basin Number: 02130301	River/Stream: Tonytank Creek	
Lake Characteristics	· · · · · · · · · · · · · · · · · · ·	
Mean Depth (ft): 2.4	Purpose: Recreation	Surface Area (acres): 42
Normal Spillway Depth (ft): (5.1	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 100
Watershed Characteristics	······	· · · · · · · · · · · · · · · · · · ·
Land Use: Developed 11 % Drainage Area (mi ²): 11.5 Agriculture 35 % Forest 42 % Topography: Coastal Plain Province Wetland 11 % Major Soil Types: Lakeland-Galestown-Rumford Association		m Dumford Approximation
Barren 1% Point Sources: Dresser Indust		
Nonpoint Sources: Agricult	ural and Urban runoff	
Current Water Quality Summary	· Limited water quality data exists. Excess	sive Total P (Mean≯40 ug/1)

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Impaired or Threatened Uses: None

Md. Dept. of Environment (1/88).

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Comments: Trophic condition based on limited water quality data of the Maryland Department of the Environment and on personal observations of Maryland Fisheries Administration staff.

Name Tonytank Pond	Owner Wicomico County	
Location		
County: Wicomico	Latitude: 3820.5	Longitude: 7537.6
Basin Number: 02130301	River/Stream: Tonytank Creek	
Lake Characteristics		
Mean Depth (ft): 2.3	Purpose: Recreation	Surface Area (acres): 41.3
Normal Spillway Depth (ft): 6		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 96
Watershed Characteristics		
Land Use: Developed <u>11</u> % Drainage Area (mi ²): 11.6		
Agriculture <u>35 %</u> Forest <u>42 %</u> Wetland <u>11 %</u>	Topography: Coastal Plain Province	
Mining % Barren 1%	Major Soil Types: Lakeland-Galestown-Rumford Association	
Point Sources: None		·····

Nonpoint Sources: Agricultural and Urban Runoff.

Current Water Quality Summary: Limited water quality data exists. Excessive Total P (Mean > 40 ug/1).

Impaired or Threatened Uses: None

Comments: Trophic condition based on limited water quality data of the Maryland Department of the Environment and on personal observations of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Triadelphia Reservoir	Owner Washington Suburban Sanitary Commission		
Location			
County: Montogmery	Latitude: 3911.6	Longitude: 7700.3	
Basin Number: 02131108	River/Stream: Patuxent River		
Lake Characteristics	· · · · · · · · · · · · · · · · · · ·		
Mean Depth (ft): 23.8	Purpose: Water Supply, Recreation	Surface Area (acres): 800	
Normal Spillway Depth (ft): 52			
Stratification: Yes	Trophic Condition: Mesotrophic	Volume (acre-feet): 19,000	
Watershed Characteristics	· · · · · · · · · · · · · · · · · · ·		
Land Use: Developed <u>6</u> %	Drainage Area (mi ²): 77.3		
Agriculture <u>63 %</u> Forest <u>31 %</u>	Topography: Piedmont Province		
Wetland % Mining % Barren %	Major Soil Types: Manor-Glenelg-Che	ster Association	

Point Sources: None

Nonpoint Sources: Agricultural runoff

Current Water Quality Summary: Limited water quality data found. Trophic Condition and Comments based on personal observations and limited water quality data assessment of Maryland Fisheries Administration staff.

Impaired or Threatened Uses: None

Comments: Good Fishery for variety of warm water fish. A tree farm program is conducted on buffer areas owned by WSSC around reservoir in cooperation with MD. DNR.

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Name Tuckahoe State Park (Recreation Lake No. 1) Owner Maryland Department of Natural Resources

Location		
County: Caroline	Latitude: 3858.0	Longitude: 7556.6
Basin Number: 02130405	River/Stream: Tuckahoe Creek	
Lake Characteristics		
Mean Depth (ft): 0.30	Purpose: Recreation	Surface Area (acres): 86
Normal Spillway Depth (ft): 9		· · · · · · · · · · · · · · · · · · ·
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 26
Watershed Characteristics		
Land Use: Developed <u>1</u> % Agriculture <u>73%</u> Forest <u>25</u> % Wetland <u>1</u> % Mining <u>%</u> Barren <u>%</u>	Drainage Area (mi ²): 99.8 Topography: Coastal Plain Province Major Soil Types: Lakeland-Galestown-Rumford Association	
Point Sources: None		

Nonpoint Sources: Agricultural runoff

Current Water Quality Summary: (1) Limited water quality data exists. (2) Perodic low dissolved O₂ levels. (3) Excessive filamentous algae infestation.

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality summary based on personal observation and limited waster quality data assessment of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Name Unicorn Mill Pond	Owner Maryland Department of Natural Resources	
Location		
County: Queen Anne's	Latitude: 3914.8	Longitude: 7551.6
Basin Number: 02130510	River/Stream: Unicorn Branch	
Lake Characteristics		······································
Mean Depth (ft): 2.4	Purpose: Recreation	Surface Area (acres): 48
Normal Spillway Depth (ft): 7		
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 116
Watershed Characteristics		
Land Use: Developed 1%	Drainage Area (mi ²): 22.3	
Agriculture <u>67 %</u> Forest <u>31 %</u>	Topography: Coastal Plain Province	
Wetland% Mining% Barren%	Major Soil Types: Matapeake-Mattapex-Butlertown Association	

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Point Sources: None

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Nonpoint Sources: Agricultural runoff

Current Water Quality Summary: No water quality data found. Excessive filamentous algae and floating vegetative infestation.

Impaired or Threatened Uses: None

Comments: Trophic condition and aquatic vegetation status based on personal observations of Maryland Fisheries Administration staff.

Name Urieville Community Lake	Owner Maryland Department of Natural Resources	
Location		
County: Kent	Latitude: 3916.5	Longitude: 7601.1
Basin Number: 02130509	River/Stream: Morgan Creek Tributary	
Lake Characteristics		
Mean Depth (ft): 3.8	Purpose: Recreation, Agricultural	Surface Area (acres): 35
lormal Spillway Depth (ft): 9.6	water supply	
Stratification: No	Trophic Condition: Eutrophic	Volume (acre-feet): 134
Natershed Characteristics		•••••••••••••••••••••••••••••••••••••••
Land Use: Developed <u>5</u> % Agriculture <u>85%</u>	Drainage Area (mi ²): 8.5	
Forest8_%	Topography: Coastal Plain Province	
Wetland <u>2</u> % Mining % Barr e n %	Major Soil Types: Matapeake-Mattapex-Butlertown Association	
Point Sources: None		

Nonpoint Sources: Agricultural Runoff

Current Water Quality Summary: Excession filamentous algae and rooted plant communities. Periodic low dissolved oxygen levels. Periodic partial fish population die-off.

Impaired or Threatened Uses: None

Comments: Trophic condition and water quality summary based on personal observations and limited water quality measurements of Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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Owner Anne Arundel County	
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Latitude: 3906.8	Longitude: 7633.3
River/Stream: Magothy River	

Purpose: Recreation	Surface Area (acres): ₁₂
Trophic Condition: Eutrophic	Volume (acre-feet): 66
Drainage Area (mi ²): 5.1	
Topography: Coastal Plain Province Major Soil Types: Lakeland-Galestown-Rumford Association	

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Nonpoint Sources: Urban Runoff

Current Water Quality Summary: No recent data available

Impaired or Threatened Uses: None

Comments: Lake stocked with Trout and Largemouth Bass. SAV and algae abundant. Trophic conditions and comments provided by personal observations of Maryland Fisheries staff.

Name Wilde Lake	Owner Columbia Association	
Location		
County: Howard	Latitude: 3913.4	Longitude: 7651.6
Basin Number: 02131106	River/Stream: Little Patuxent River Tributary	
Lake Characteristics		
Mean Depth (ft): 8.8	Purpose: Recreation	Surface Area (acres): 23
Normal Spillway Depth (ft): 20		
Stratification:	Trophic Condition: Eutrophic	Volume (acre-feet): 202
Watershed Characteristics		
Land Use: Developed 18 %	Drainage Area (mi ²): 3.6	
Agriculture <u>46 %</u> Forest <u> </u>	Topography: Piedmont Province	
Wetland % Mining %	Major Soil Types: Manor-Glenelg-Chester Association	
Barren%		

Nonpoint Sources: Urban and Agricultural runoff

Current Water Quality Summary: No water quality data found. Trophic condition and comments provided by personal observations of Maryland Fisheries staff.

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Impaired or Threatened Uses:

Comments: Stocked with Largemouth Bass and Rainbow Trout (put and take). Clean Lakes Program .

Md. Dept. of Environment (1/B8).

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Name Wye M	fills Community Lake	Owner Maryland Department of Natural Resources	
Location			
County: Qu	ueen Anne's	Latitude: 3856.5	Longitude: 7604.9
Basin Numb	er: 02130503	River/Stream: Wye East River	
Lake Chara	cteristics	·····	
Mean Depth	(ft): 4.9	Purpose: Recreation	Surface Area (acres): 61.5
Normal Spi	llway Depth (ft): 12.3		
Stratifica	tion: No	Trophic Condition: Eutrophic	Volume (acre-feet): 302
Watershed	Characteristics		
Land Use:	Developed 2 %	Drainage Area (mi ²): 10.2	
Agriculture <u>78 %</u> Forest <u>20 %</u> Wetland % Mining % Barren %		Topography: Coastal Plain Province	
		Major Soil Types: Sassafras-Metapeake-Woodstown Association	

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Point Sources: Friel Food Processors (cooling water)

Nonpoint Sources: Agricultural runoff

Current Water Quality Summary: Excessive filamentous algae infestation. Periodic low dissolved oxygen levels. Periodic odors from vegetation.

Impaired or Threatened Uses: None

Comments: Periodic partial fish population die-off - bass and bluegill. Trophic condition, water quality status, and comments provided by Maryland Fisheries Administration staff.

Md. Dept. of Environment (1/88).

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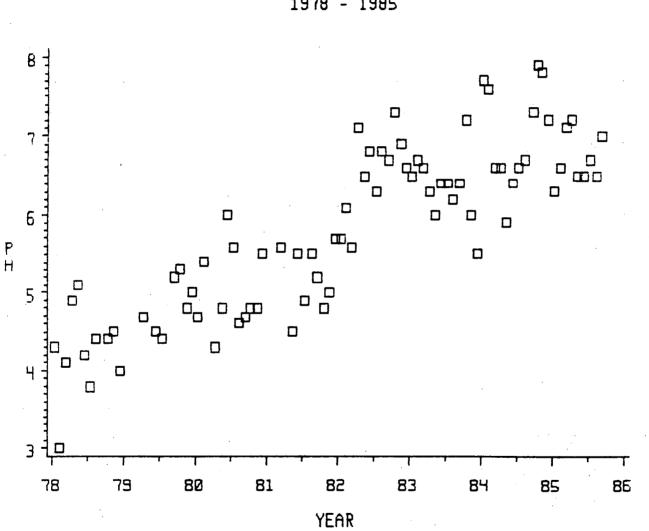
APPENDIX E Water Quality Trend Analysis

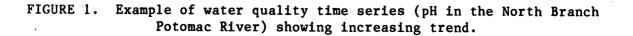
Methods for determining trends in water quality parameters vary from simple qualitative observations of the data to testing for changes in a mathematical index of water quality to highly rigorous and powerful statistical tests on water quality data. Obvious trends in water quality can frequently be observed as a graph of the data plotted as a time series (Appendix Figure E-1).

The ability to detect small, but significant changes in water guality requires some mathematical analysis of the data. Usually, these statistical tests are parametric tests (e.g. linear regression techniques, analysis of variance, multivariate analysis) which assume that the data are sampled from a "normal" distribution of data. Most water quality parameters collected at random, however, do not display a normal frequency distribution. They may exhibit a season or streamflow dependance, be skewed, peaked, or even multimodal. Mathematical transformation of the data may or may not result in a normal distribution. In many instances, parametric statistic tests are executed on selected water quality data sets with no information provided about the underlying distribution of data; normality is assumed. Such an assumption regarding the underlying distribution, however, is a fatal flaw in these studies. In addition, methods of dealing with missing data and data outside of laboratory detection limits are usually not described.

The technique chosen for determination of trends in water quality parameters for the 1985-7 Maryland Water Quality Inventory is a non-parametric test (seasonal Kendall's tau) developed by Hirsch, et al. (1982), which addresses many of the faults that the more commonly used parametric tests ignore. This non-parametric test is a modification of Kendall's test for correlation to test for randomness against trend. Seasonal dependance is removed by comparing similar seasons. Streamflow

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PH STATION NBP0597 1978 - 1985

E2

dependance is removed using a linear regression technique to determine any relationship between the parameter to be tested and measured streamflow. If the relationship is significant, the regression residuals are used as flow corrected concentrations. Missing values may constitute up to 50% of the observations, data values outside of laboratory detection limits can be handled and even "outlying" data may be included without significantly affecting the power of this test procedure. As with other nonparametric tests, the seasonal Kendall's tau test is distribution-free; that is, knowing what the underlying distribution of sampled data is is not necessary.

For each month, data in early years are compared to later years and the sum of higher, lower and tied values determined. Any data below the laboratory detection limit is assigned a value below the lowest measured value. In a data set with random values, the number of higher values in later years would be the same, or close to the same number of lower values. Higher values in later years would indicate an increasing trend while lower values in later years would indicate a decreasing trend. Summarizing these seasonal (monthly) high, low and tied values provides information about the overall trend.

As described in Hirsch, et al. (1982), when the number of data points is as low as 10, the distribution of the differences between the plus and minus values approximates the normal distribution. Therefore, the standard normal distribution (Z) can be used to determine significance of the trend (H_0 - there is no trend in the data; H_1 - there is a trend in the data).

METHODOLOGY

According to Hirsch and Slack (1982), the seasonal Kendall's tau procedure requires only two years of monthly data to determine trend (24 data points, one comparison per month). The 1986 305(b) report guidance from the U.S. Environmental

E3

Protection Agency (1985) requested examination of a six year trend period. For this analysis, however, a 10-year period was selected as the maximum range to analyze for water quality trends. As the State's water quality data base was being transferred to a new system, only data through 1985 could be considered complete. A 10-year trend period would then starting as early as 1976. This 10-year period includes a period of continuous water quality sampling (samples collected for EPA's CORE program in Maryland since 1974) and laboratory protocol. In addition, significant changes in water quality could be expected due to point source control measures enacted under provisions of the federal Clean Water Act.

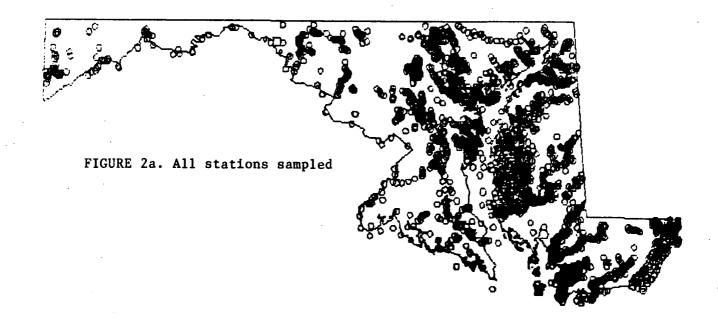
STATION SELECTION

For the 10-year period between 1975 and 1986, water quality samples were collected from more than 2,100 stations located throughout the State (Appendix Figure E-2a). Many of these stations represent intensive sampling efforts and have been sampled infrequently during the past 10-year period. To properly utilize the seasonal Kendall's tau test, however, water quality data should be collected on a routine basis (weekly, monthly, seasonally) for a number of years. After analysis of sampling frequency (at least six years of monthly data, no more than two continuous years of missing data, sampling records of at least 10 months), 95 stations were selected for analysis (Appendix Figure E-2b).

Uncertainty about the suitability of this trend analysis procedure for tidal station data (e.g. multiple depths, stratification, tide direction) resulted in the deletion of 15 stations from consideration of trend analysis. In addition, further examination of the sources and record of data and the relative value of any trend results, permitted deletion of 13 additional stations from consideration of trend analysis Out of

E4

MARYLAND WATER QUALITY MONITORING STATIONS 1976 - 1986



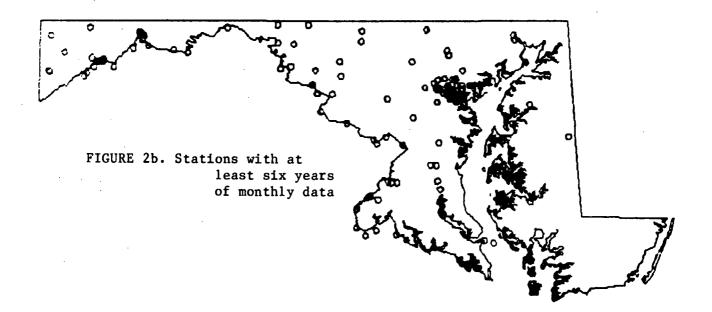


FIGURE 2. Location of surface water quality monitoring stations in Maryland, 1976-1985.

E5

a pool of 95 stations with a sufficient data record, 67 stations were used to determine water quality trends.

PARAMETER SELECTION

The selection of water quality parameters to be analyzed for trends is as important as selecting stations. More than 100 parameters are provided for in the State's Water Quality File with 23 parameters routinely tested in the State's CORE program. Rather than examine the possibilities of analyzing up to 100 parameters for each station, a list of "critical water quality parameters" was created that might directly affect fishing and swimming uses (e.g. nutrients, suspended solids, bacteria, pH, temperature, and dissolved oxygen). Nutrients examined included only total phosphorus and total nitrogen; determining total nutrient levels permits analysis without becoming concerned about seasonal biological processes that might affect certain nutrient species such as orthophosphate and ammonia (Baeck, 1985). Water quality problems in each watershed were identified from past State Water Quality Reports. For the selected trend analysis stations, only "critical water quality parameters" were identified for analysis (Appendix Table E-1).

RESULTS

Results of seasonal Kendall's tau test procedures for "critical" water quality parameters at selected stations in the State are summarized in Appendix Table E-2. The dates provided encompass data collected during a calendar year (January through December). The "flow adjusted" column (Yes or No) indicates whether a significant streamflow-concentration relationship (linear, log-linear, log-log, inverse, hyperbolic, or quadratic) was revealed using linear regression techniques. The "Kendall's t (tau)" column provides the calculated statistic. The "trend" column describes whether an increasing trend (+), no trend (\bullet), or a declining trend (-) is present, and the "significant" column

E6



TABLE 1

1985-7 Maryland Water Quality Inventory Report Trend Stations by Watershed

BASIN	N	0	D	00		<i>m</i>
STATION (segment)	Nutr	Suss	Bact		pH	Temp
<u>Ocean/Coastal (02-13-01)</u> None						
<u>Pocomoke River (02-13-02)</u> None						
<u>Wicomico River (02-13-03)</u> None						
<u>Choptank River (02-13-04)</u> CH00626 (04)	*					
<u>Chester River (02-13-05)</u> None						
<u>Elk River(02-13-06)</u> None						
<u>Susquehanna River (02-12-02)</u>						
SUS0109 (01)	*			*		
DER0015 (02)	*	*	*			
<u>Conewago Creek (02-12-05)</u> None						
<u>Bush River (02–13–07)</u> None						
<u>Gunpowder River (02-13-08)</u>						
GUN0125 (02)	*	*	*			
GUN0237 (05)	*		*			
GUN0258 (05)	*		*			
GUN0476 (06)	*					
Patapsco River (02-13-09)						
JON0023 (04)	*	*	*			
JON0034 (04)	*	*	*			
JON0074 (04)	*	*	*			
JON0184 (04)	*	*	*			
GWN0022 (05)	*	*	*			

LEGEND: N

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Nutr - nutrients Suss - suspended solids Bact - bacteria DO - oxygen pH - pH/alkalinity Temp - temperature

TABLE 1 1985-7 Maryland Water Quality Inventory Report Trend Stations by Watershed - continued -

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BASIN STATION	(segment)	Nutr	Suss	Bact	DO	рH	Temp	
_								
	<u>River (02-13-09)</u> - continue							
GWN0054	(05)	*	*	*				
G WN0075	(05)	*	*	*				
GWN0115	(05)	*	*	*				
PAT0176	(06)	*	*	*				
PAT0285	(06)	*	*	*				
NPA0165	(07)	*	*	*				
West Ches	<u>sapeake (02-13-10)</u>							
None								
Patuxent	River (02-13-11)							
PXT0603	(04)		*	*				
PXT0809	(04)		*	*				
PXT0972	(08)	*		*				
Chesapeal	<u>(02-13-99)</u>							
None								
Lower Pot	tomac River (02-14-01)							
MAT0078	(11)	*	*	*		*		
Potomac -	- Metropolitan Washington (C	02-14-02)						
P0T1184	(02)	*	*	*				
POT1471	(02)	*	*	*				
PIS0033	(03)	*	*	*				
ANA0082	(05)		*	*				
RCM0111	(06)		*	*				
CJB0005	(07)		*	*				
SEN0008	(08)		*	*				
Middle Po	otomac River (02-14-03)							
POT1595	(01)		*	*				
POT1596	(01)		*	*				
MON0020	(02)	*	*	* 1	*			
MON0155	(02)	*	*	*	*			
MON0269	(03)	*	*	*	*		*	
MON0528	(03)	*	*	*	*		*	
BPC 0035	(04)	*	*	*			*	
CAC0031	(05)	*	*	*		*	*	
CAC0148	(05)	*	*	*		*	*	
	• •							
	e a prot	``````````````````````````````````````						
LEGEND:	Nutr ² - nutrients and a	Bact - bad	teria	. nl	i – nH	/alkal	inity	

TABLE 1 1985-7 Maryland Water Quality Inventory Report Trend Stations by Watershed - continued -

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BASIN	· · · · · ·			. .			_	
STATION	(segment)	Nutr	Suss	Bact	DO	рН	Тетр	
Upper Po	tomac River (02-14-05)							
POT1830	(01)	*	•	*				
POT2386	(01)	*		*				
ANT0044	(02)	*		*				
ANT0203	(02)	*		*				
ANT0366	(02)	*		*				
CON0005	(04)	*		*		*		
CON0180	(04)	*		*		*		
P0T2766	(08)		*	*				
North Br	anch Potomac River (02-14-1	0)						
NBP0023	(01)	*		*		*		
NBP0103	(01)	*		*		*		
NBP0196	(01)	*		*		*		
NBP0217	(01)	*		. *		*		
NBP0326	(01)	*		*		*		;
NBP0461	(01)	*		*		*		·
BDK0000	(03)			*		*		
WIL0013	(03)			*		*		
GE00009	(04)			*		*		
NBP0514	(05)		*	*		*		
NBP0534	(05)		*	*		*		
NBP0597	(05)		*	*		*		
NBP0689	(05)		*	*		*		
AAR0000	(06)			*		*	*	
SAV0000	(06)			*		*	*	
SAV0037	(06)			*		*	*	
Youghiog	<u>heny River (05-02-02)</u>							
Y0U0925	(01)	*	*	*		*		
YOU1139	(01)	*	*	*		*		
LY00004	(02)	*	*	*		*		
CCR0001	(03)					*		
CAS0479	(04)			*		* .		
LEGEND:	Nutr – nutrients Suss – suspended solids	Bact – ba DO – oxyg			H - pH emp -			

			JRFACE WATER	QUALITY TRE	ND SUMMARY		
Station Variable			Dates	Flow Adjusted	Kendall's t	Trend	Significant
CHOPTANK	RIVER	(SUB-BASIN 02-13-04	1)				
CH00626	Total	phosphorus nitrogen coliform bacteria	1976-85 1976-85 insuffic	N N cient data	-0.00310 0.05282	:	
SUSQUEHAN	NA RIV	YER AREA (SUB-BASIN	02-12-02)				
SUS0109	Total Total Total	lved oxygen suspended solids phosphorus nitrogen coliform bacteria	1976-85 1976-85 1976-85 1976-85 1976-85 1976-85	N Y N N N	-0.03604 -0.04950 -0.02011 0.35625 -0.17277	• • •	Y N
DER0015	Total Total	suspended solids phosphorus nitrogen coliform bacteria	1976-85 1976-85 1976-85 insuffi (N N N cient data	-0.14973 -0.04878 0.42132	 • +	N Y
GUNPOWDER	RIVER	(SUB-BASIN 02-13-0	8)				
GUN0125	Total Total	suspended solids phosphorus nitrogen coliform bacteria	1976-85 1976-85 1976-83 1976-85	N N Y N	-0.05516 0.05613 0.03896 0.06751	•	1
GUN0237	Total	phosphorus nitrogen coliform bacteria	1976-82 1976-82 1976-82	N N N	0.06748 0.21186 -0.13131	• + •	N
GU N0258	Total	phosphorus nitrogen coliform bacteria	1980-85 1980-85 1980-85	N N N	0.00885 0.25253 -0.14433	• •	Y
GUN0476	Total Total	phosphorus nitrogen	1976-85 1976-85	N N	0.07317 0.20833	• +	Y
PATAPSCO	RIVER	(SUB-BASIN 02-13-09))			•	
JON0023	Total	suspended solids phosphorus nitrogen		N Nient data Sient data	-0.17526	-	N
. •	Fecal	coliform bacteria	1976-84	N	-0.21893	-	Y
J0N0034	Total Total	suspended solids phosphorus nitrogen	insuffic	N vient data vient data	-0.14368		N
	Fecal	coliform bacteria	1976-84	N	-0.30769	. –	Y

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TABLE 2

MARYLAND SURFACE WATER QUALITY TREND SUMMARY

insufficient data insufficient data 76-84 N

JON0074 Total suspended solids 1976-84 Total phosphorus insuf Total nitrogen insuf Fecal coliform bacteria 1976-84

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N

0.01840

0.06509

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Station Variab		riable Dates		Flow Kendall's Adjusted t		Trend	Significant	
PATAPSCO	RIVER	(SUB-BASIN 02-13-09) - continued					
1010104		averaged solids	1088 05			_		
JUNU184		suspended solids	1976-85	N	-0.05250	•		
		phosphorus	1976-85	N	-0.03069	•	_	
	Total	nitrogen	1976-85	Y	0.24571	+	Y	
	Fecal	coliform bacteria	1976-85	N	0.02049	•		
GWN0022	Total	suspended solids	1976-85	N	-0.14085	_	N	
Childo BE		phosphorus	insufficie		0.14000		24	
		nitrogen	insufficie					
		coliform bacteria	1976-85		0.05005			
	recal	colliorm dacterla	19/0-92	N	-0.25095	-	Y	
GWN0054	Total	suspended solids	1976-85	N	0.01408	•		
	Total	phosphorus	insufficie	n t data				
		nitrogen	insufficier					
		coliform bacteria	1976-85	N	0.07224	•		
	m - 4 1		1070 05			· ·		
GWN0075		suspended solids	1976-85	N	0.01172	•		
		phosphorus	insufficie					
		nitrogen	insufficie	nt data				
	Fecal	coliform bacteria	1976-85	N	-0.03802	•		
GWN0115	Total	suspended solids	1976-85	N	-0.05371	•		
0	Total	phosphorus	1976-85	N	0.06500			
		nitrogen	1976-85	Ŷ	0.15733		Y .	
	Potal	nitrogen				+	Ŷ	
	recal	coliform bacteria	1976-85	N	-0.03404	•		
PAT0176	Total	suspended solids	1976-85	N	-0.09339	•		
		phosphorus	1976-85	N	0.08250	•		
		nitrogen	1976-85	Ÿ	0.21925	+	Y	
		coliform bacteria		Ň	-0.12500	_	N	
						,		
PAT0285		suspended solids	1976-85	N	-0.06148	•		
		phosphorus	1976-85	N	0.19679	+	Y	
	Total	nitrogen	1976-85	Y	0.34211	+	Y	
	Fecal	coliform bacteria	1976-85	N	0.07586	•		
NPA0165	Total	suspended solids	1976-85	N	-0.13089		N	
NI AUTOU		phosphorus	1976-85	N		_	N	
					0.01253			
	local	nitrogen	1976-85	Y	0.34969	+	Y	
	Fecal	coliform bacteria	1976-85	N	-0.21990	-	Y	
PATUXENT	RIVER	(SUB-BASIN 02-13-11)					
PXT0603	Total	suspended solids	1976-85	Y	-0.12963	_	N	
	Recal	coliform bacteria	1977-85	Ň	0.25463	· +	Ŷ	
	lecui	controum Ducceriu	1011 00	11	0.20400	,	1	
ρχτηρηα	Total	suspended solids	1977-85	N	-0.02546	•		
FA10009		coliform bacteria				-	N7	
	recal	CULIFOLU DACTELIA	1977-85	N	0.09954	+	N	
DVDAABA	□ ~ + - `		1080 05	N7	0 15550		.,	
PXT0972		phosphorus	1976-85	N	0.15556	+	Y	
	Total	nitrogen	1976-85	N	0.32037	• +	Y	
	Fecal	coliform bacteria	1976-85	N	0.09815	+	N	

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Station	Variable	Dates	Flow Adjusted	Kendall's t	Trend	Significant	•
LOWER POT	OMAC RIVER (SUB-BASIN 02	-14-01)					-
MAT0078	Total suspended solids	1976-85	N	0.14074	+	Y	
	Total phosphorus	1976-85	N	0.22963	•		
	Total nitrogen	1976-85	N	0.08519	+	Y	
POTOMAC R	IVER - WASHINGTON METRO	AREA (SUB-B	ASIN 02-14-02)			
POT1184	Total suspended solids	1976-84	Y	-0.09954	-	N	
	Total phosphorus	1976-85	N	0.20926	+	Y	
	Total nitrogen	1976-84	Y	0.46065	+	Y	
POT1471	Total suspended solids	1977-85	N	0.10880	+ ·	N	
	Total phosphorus	1977-85	N	0.28105	+ .	Y	
	Total nitrogen	1976-85	N	0.32692	+	Y	
PIS0033	Total suspended solids	1977-85	N	-0.26103	-	Y	
• • • • • • • • • •	Total phosphorus	1977-85	N	0.01365	•		
	Total nitrogen	1977-85	N	0.13971	+	N	
ANA0082	Total suspended solids	1977-85	N	-0.15016	-	N	
ANAOUUL	Fecal coliform bacteria		N	0.05285	• •		
RCM0111	Total suspended solids	1977-85	N	-0.18545	-	Y	
	Fecal coliform bacteria	1977-85	N	-0.19651	-	Y	
CJB0005	Total suspended solids	1977-85	N	-0.12230	-	N	
	Fecal coliform bacteria	1977-85	N	-0.08696	•		
SEN0008	Total suspended solids	1977-85	N	-0.21967	-	Y	
	Fecal coliform bacteria	1977-85	N	-0.19831	-	Y	
MIDDLE PO	TOMAC RIVER (SUB-BASIN O	2-14-03)	i				
P0T1595	Total suspended solids	1976-85	N	-0.20743	- -	Y	
	Total phosphorus	1976-85	N	0.23529	+	Ŷ	
	Total nitrogen	1976-85	N	0.38276	+ '	Ý	
	Fecal coliform bacteria	1976-85	N	0.00405	•		
P0T1596	Total suspended solids	1979-85	N	-0.11696	•		
	Total phosphorus	1979-85 1979-85	N N	0.08475 0.08242	•		
	Total nitrogen Fecal coliform bacteria	1979-85	N	-0.05298	•		
MON0020	Dissolved oxygen	1977-85	N	0.03427	٠		
	Total suspended solids	1977-85	N	-0.05611	•		
	Total phosphorus	1977-85	N	0.11254	•		
	Total nitrogen	1977-85	N	0.20415	+	Y	
	Fecal coliform bacteria	1977-85	N	-0.04762	•		

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Station	Variable	Dates	Flow Adjusted	Kendall's t	Trend	Significant
MIDDLE PO	TOMAC RIVER (SUB-BASIN O	2-14-03) - con	tinued			
MON0155	Dissolved oxygen	1979-85	N	-0.11538	•	
	Total suspended solids	1979-85	Ÿ	0.10606		
	Total phosphorus	1979-85	Ň	0.15426	+	N
	Total nitrogen	1979-85	Ň	0.05319	•	••
	Fecal coliform bacteria	1979-85	N	0.23387	+	Y
MON0269		1978-85	N	-0.29167	_	Y
	Total suspended solids	1978-85	N	-0.15789	-	N
	Total phosphorus	1978-85	N	-0.01709	•	
	Total nitrogen	1978-85	N	-0.01449	•	
	Fecal coliform bacteria	1978-85	N	0.03550	٠	
MON0528	Dissolved oxygen	1977-85	N	-0.16498	-	N
	Total suspended solids	1977-85	N	-0.0275 9	•	
	Total phosphorus	1977-85	N	-0.03030	•	
	Total nitrogen	1977-85	Y	0.07179	•	
	Fecal coliform bacteria	1977-85	N	-0.04286	•	
BPC0035	Total suspended solids	1978-85	Y	-0.26667	_	Y
	Total phosphorus	1978-85	N	-0.01395	•	
	Total nitrogen	1978-85	N	0.18033	+	N
	Fecal coliform bacteria	1978-85	N	0.01258	•	
CAC0031	Temperature	1977-85	N	-0.08276	•	
	pH	1977-85	N	-0.17293	_	N
	Total suspended solids	1977-85	N	-0.07971	•	
	Total phosphorus	1977-85	Ň	0.04348		
	Total nitrogen	1977-85	N	0.25703	+	Y
	Fecal coliform bacteria		N	-0.11707	•	•
CAC0148	Temperature	1977-85	N	-0.05654		
	рН	1977-85	N	-0.15326	-	N
	Total suspended solids	1977-85	Ŷ	-0.20648	_	Ŷ
	Total phosphorus	1977-85	Ň	-0.02120	•	-
	Total nitrogen	1977-85	Ŷ	0.28358	+	Y
	Fecal coliform bacteria	1977-85	Ň	0.06667	•	-
UPPER POT	OMAC RIVER (SUB-BASIN 02-	-14-05)				
POT1830	Total phosphorus	1976-85	N	0.17158	+	Y
•	Total nitrogen	1976-85	N	0.30435	+	Ŷ
	Fecal coliform bacteria	1976-85	N	-0.23630	-	Ŷ
P0T2386	Total phosphorus Total nitrogen Fecal coliform bacteria	insufficie insufficie insufficie	ent data			
ANTO044	Total phosphorus	1976-85	Y	0.39576	-	Y
	Total nitrogen	1977-85	N	0.60526	.	Y
	Fecal coliform bacteria	1976-85	N	-0.09160		I .
	TCOMI CONTINUM DECCENTE	7910-00	14	-0.09100	•	

.				Flow	Kendall's		<u>.</u>
Station	Va	ariable	Dates Ad	justed	t	Trend	Significant
UPPER POT	OMAC F	RIVER (SUB-BASIN 02-	-14-05) - contin	ue d			
ANT0203	Total	phosphorus	1976-85	N	0.28972	+	Y
		nitrogen	1977-85	N	0.39516	+	Y
		coliform bacteria		N	0.18367	+	Ŷ
ANT0366	Total	phosphorus	1976-85	Y	0.48352	+	Y
		nitrogen	1977-85	N	0.33937	+	Y
		coliform bacteria		N	-0.03982	•	
CON0005	nН		1977-85	N	-0.18254		N
		phosphorus	1976-85	N	0.16871	+	Ŷ
	Total	nitrogen	1977-85	N	0.42241	+	Ŷ
	Fecal	coliform bacteria		N	-0.00397	•	•
CON0180	nН		1977-85	N	-0.04741	•	
000100		phosphorus	1977-85	Ŷ	0.11111		
	Total	nitrogen	1977-85	Ň	0.47706	+	Y
	Fecal	coliform bacteria		N	0.06931	•	1
DOT2766	Total	suspended solids	1977-85	Y	-0.21212	_	N
F012700	Focal	coliform bacteria		Ŷ	-0.12865	•	14
NBP0023	Total Total	phosphorus nitrogen coliform bacteria	1977-85 1977-85 insufficien 1977-85	N N t data N	0.00625 0.03448 -0.04467	•	
NBP0103	pH Total Total	phosphorus nitrogen coliform bacteria	insufficien 1976-85 insufficien insufficien	t data N t data	0.07246	•	
		oorrorm bucceria					
NBP0196	Total Total	phosphorus nitrogen coliform bacteria	1978-85 1978-85 insufficient insufficient		0.21687 0.00680	+	Y
NERGONE		oollolm buooollu			0.04505		
NBP0217	Total Total	phosphorus nitrogen coliform bacteria	1977-85 1977-85 insufficient insufficient		0.34505 0.05491	+	Y
NBP0326	ъЦ		1976-85	N	0.13864	_	N
10F 0020		phosphorus	1976-85	N	0.00686	–	14
		nitrogen	insufficient		0.0000	•	
		coliform bacteria		N	0.09146	•	
NDDO461	÷ч		1077-96	N	0 10649		V
NBP0461			1977-85	N	0.19643	+	Y
		phosphorus	1977-85	N	-0.01299	•	
	Focal	nitrogen coliform bacteria	insufficient 1977-85		0.21854		Y
	recal	conform Dacter1a	TA11-00	N	0.21004	+	Ĭ

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Station	Variable		Flow justed	Kendall's t	Trend	Significant
NORTH BRA	NNCH POTOMAC RIVER (SUB-BA	ASIN 02-14-10) -	contin	ued		
BDK0000	nff	i nsuff ici en	- data			
BEROOOD	Fecal coliform bacteria		N	-0.06051	•	
WIL0013	рН	1977-85	N	0.05325	•	
	Total alkalinity	1977-85	Ŷ	0.30464	+	Y
	Fecal coliform bacteria	1976-85	N	-0.18627	-	Y
GE00009	рН	1977-85	N	0.39441	+	Y
	Total alkalinity	1977-85	N	0.29730	+	Ŷ
	Fecal coliform bacteria	19 76-8 5	N	0.08257	٠	-
NBP0514	На	1977-85	N	0.54313	+	Y
	Total alkalinity	1977-85	N	0.44880	+	Ŷ
	Total suspended solids	insufficient	data			-
	Fecal coliform bacteria	insufficient	: d ata			
NBP0534	рН	1978-85	N	0.66667	+	Y
	Total alkalinity	1978-85	Ň	0.52174	+	Ŷ
	Total suspended solids	insufficient	data			-
	Fecal coliform bacteria	1978-85	N	0.03409	٠	
NBP0597	На	1978-85	N	0.70161	+	Y a
	Total alkalinity	1978-85	N	0.62835	+	Ŷ
	Total suspended solids	insufficient	data	0.02000		-
	Fecal coliform bacteria	insufficient	: d ata			
NBP0689	рH	1977-85	N	0.57440	+	Y
	Total alkalinity	1977-85	N	0.54085	+	Ŷ
	Total suspended solids	1977-85	N	-0.12741	-	Ň
	Fecal coliform bacteria	1977-85	N	0.13383	+	N
AAR0000	Temperature	1977-85	N	0.06471	•	
	рН	1977-85	N	0.29063	+	Y
	Total alkalinity	1977-85	N	-0.16814	-	Y
	Fecal coliform bacteria	insufficient	d ata			
SAV0000	Temperature	1976-85	N	-0.05109	•	
	рН	1977-85	N	0.04154	•	
	Total alkalinity	1977-85	N	0.27224	+	Y
	Fecal coliform bacteria	1976-85	N	0.20697	+	Y
SAV0037	Temperature	1978-85	N	0.01042	•	
	pH	1978-85	N	0.28731	+	Y
	Total alkalinity	1978-85	N	0.22857	+	Ŷ
	Fecal coliform bacteria	insufficient	data			
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	Station	Variable		Dates	Flow Adjusted	Kendall's t	Trend	Significant .
	YOUGHIOGH	IENY RIVER (S	UB-BASIN 05-0)2-02)				-
	YOU0925	Total suspen Total phosph Total nitrog	norus	1979-85 1978-85 1978-85 insuffi ct 1978-85	N Y N lent data N	-0.35938 0.16854 0.06615 0.11742	- • •	Y Y
2	YOU1139	pH Total susper Total phosph Total nitrog	nded solids norus	1979-85 1978-85 1978-85 1978-85 insuffici 1978-85	N Y N	-0.16031 -0.30233 0.09444 -0.14894	- - •	N Y N
	LY0 0004	Total susper Total phospi Total nitrog	nded solids norus	1976-85 1976-85 insuffici	N N	-0.23625 -0.30892 -0.24164	-	Y Y Y
	CCR0001	рН		insuffici	ent data			
	CAS0479	pH Fecal colifo	orm bacteria	insuffi ci 1976-85	ent data N	0.17747	+	Y

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describes whether the trend is significant (p < 0.05) or not (Yes or No). In this table, increasing and decreasing trends are noted up to a probability level of 0.2; trends identified in this range (0.05 < p < 0.2) are described as in(de)creasing, but not significant.

More detailed information about surface water quality trend analysis methods and results are available in the report, <u>Surface</u> <u>water quality trend analysis in Maryland, 1976-1985</u> (Garrison, 1988).

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- Garrison, J. Shermer. 1988. Surface water quality trends in Maryland, 1976-1985 (DRAFT). Watershed Nonpoint Source Div., MD Dept. Environment, Baltimore. Tech. Rep.
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Appendix F

Waterbody lists

Development of waterbody lists

The 1987 amendments to the federal Clean Water Act require more detailed water quality assessments concerning nonpoint source pollution (Section 319), lake water quality (Section 314) and contamination by toxic substances (Section 304(1)). In response to these new requirements, the U.S. Environmental Protection Agency's (EPA) Office of Water established assessment guidelines and expanded the reporting requirements of the biennial State water quality inventory report required by Section 305(b) of the Clean Water Act. These requirements include waterbody lists under various categories. These lists are presented in this appendix and include:

Table	•	Description
F-1	-	Waterbodies not meeting designated uses due to toxic, conventional and non-conventional pollutants (Section 304(1)(1)(A)(ii),
F-2	-	Waterbodies not meeting goals of the Clean Water Act,
F-3	-	Waterbodies not meeting designated uses due to nonpoint source pollution (Section 319(a)(1)(A)),
F-4	-	Waterbodies with water quality impacts (measured or probable) due to nonpoint source pollution,
F-5	-	Public lakes and their trophic status (Section 314),
F-6	-	Public lakes not meeting designated uses (Section 314), and
F-7	-	Public lakes not meeting designated uses due to high acidity (Section 314),

Originally, these waterbody lists were to have been generated using a computerized database management system developed by EPA to track water quality nationwide. It became apparent in mid-1987, however, that the development of this "Waterbody System" would not be completed in time to permit the State to test the system before the April 1 deadline of this report. As a result, the State's waterbody lists presented in this appendix were established using available water quality assessment information, State water quality standards, professional judgement, and guidelines established by EPA.

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Development of individual waterbody lists for different categories frequently required adjustments and interpretation in the EPA-established guidelines. The methodology for developing each list is provided as documentation along with each waterbody list. None of these waterbody lists are presented in a priority ordering; they are provided only in terms of order by watershed code.

While many of these waterbody lists have not been defined as part of future biennial State water quality inventory reports, the reader is advised to <u>not</u> compare any future lists as a simple "trend" analysis. For example, a watershed featured on a present waterbody list and not on a future list may not indicate an improving trend in water quality. Underlying assumptions used in the development of various lists are subject to change (e.g. State water quality "standards" may be amended, additional water quality data may become available, and procedures to develop waterbody lists may change). In addition, creating a simple watershed list ignores the complexity and variability of the natural environment. The reader interested in water quality in particular watersheds is advised to consult the more descriptive portions of this report as well as past water quality inventory reports.

Appendix Table F-1. Waterbodies not meeting designated uses due to toxic, conventional and non-conventional pollutants.

To generate this list as required under Section 304(1)(1)(A)(ii) of the Clean Water Act of 1987 (Appendix Table F-1), portions of watersheds that do not meet designated uses were identified using the water quality assessment procedures described in Appendix B. Water quality problems were identified by waterbody type (e.g. river, lake, estuary) for each watershed and assessed as to whether they met the State's designated or intended uses. Watershed lengths or areas that do not support designated or intended uses were summarized and used to create a table of waterbody types which do not meet designated uses (Volume I; Table 11). Except for chlordane contamination identified in the Baltimore Harbor area, areas impaired by toxics were identified using compliance and ambient monitoring data, scientific studies, published and unpublished data, personal communication and professional judgement.

The following listing of watersheds that do not meet designated uses was created from this summary process. It is important to note that, in most cases, only <u>portions</u> of watersheds are impaired; the entire watershed may not experience water quality impacts that impair designated use (e.g. shellfish harvesting). An asterik is provided in the appropriate source category (convential and/or toxic pollutant). No non-conventional pollutants were identified in the assessment process and there is no column provided in this table. Conventional pollutants include water quality constituents normally monitored by the ambient monitoring programs (Volume I: Table 6). These include dissolved oxygen, nutrients, total suspended solids, coliform bacteria, pH and temperature.

F3

The toxics column includes defined use impairment (aquatic or human risk) documented in the <u>draft</u> Section 304(1)(1)(a)(ii) list. This column encompasses 126 priority pollutants identified in the Clean Water Act. The lists which describe toxics impairment due to point sources with their identification (304(1)(1)(A)(i), 304(1)(1)(B), and 304(1)(1)(C)), are due to EPA in February, 1989. For information about the waterbodies listed in the 304(1) lists. the reader is requested to contact the Department of the Environment's Water Management Administration.

As with all other waterbody lists presented in this appendix section, this list is not presented by priority; watersheds are "ranked" only in terms of their basin code.

Maryland watersheds with portions not meeting designated uses due to conventional and toxic pollutants, 1985-1987

BASIN	WATERSHED NAME	CONVENTIONAL	TOXIC	

OCEAN

None

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RIVER/STREAM

02120101	Lower Susquehanna River	*	
02130103	Isle of Wight Bay Area	*	
02130105	Newport Bay Area	*	
02130106	Chincoteague Bay	*	
02130201	Pocomoke Sound	*	
02130206	Tangier Sound	*	
02130207	Big Annamessex River	*	
02130208	Manokin River	*	
02130301	Lower Wicomico River	*	
02130302	Monie Bay	*	
02130305	Nanticoke River	*	*
02130401	Honga River	*	
02130402	Little Choptank River	*	
02130403	Lower Choptank River	*	
02130404	Upper Choptank River		*
02130501	Eastern Bay	*	
02130502	Miles River	*	
02130503	Wye River	*	
02130504	Kent Narrows/Prospect Bay	*	
02130505	Lower Chester River	*	
02130506	Langford Creek	*	
02130508	Southeast Creek	*	
02130509	Middle Chester River	*	
02130601	Lower Elk River	*	
02130604	Back Creek		*
02130605	Little Elk Creek		*

Maryland watersheds with portions not meeting designated uses due to conventional and toxic pollutants, 1985-1987 - continued -

WATERSHED NAME

BASIN

CONVENTIONAL

TOXIC

00100701	Bush River	*	*
02130701			*
02130705	Aberdeen Proving Ground		
02130807	Middle River/Browns Creek		*
02130901	Back River	*	*
02130902	Bodkin Creek	*	
02130903	Baltimore Harbor	*	*
02130904	Jones Falls	*	*
02130907	Liberty Reservoir		*
02130905	Gwynns Falls	*	

Gwynns Falls		
Magothy River		
Severn River	*	*
South River	*	•
West River	*	
Other West Chesapeake Area	*	
Patuxent - Mouth to Ferry Ldg.	*	*
Patuxent - Ferry Ldg. to Rt. 214	*	
Western Branch	*	
Patuxent - Rt 214 to Rocky Gorge Dam	*	
Little Patuxent River	*	
Potomac - Mouth to Smith Pt.	*	
Potomac - Smith Pt.to Marshall Hall	*	*
St. Mary's River	*	
Breton Bay	*	·
St. Clements Bay	*	•
Wicomico River	*	
Zekiah Swamp		*
Port Tobacco River	*	
Nanjemoy Creek	*	
	Magothy River Severn River South River West River Other West Chesapeake Area Patuxent - Mouth to Ferry Ldg. Patuxent - Ferry Ldg. to Rt. 214 Western Branch Patuxent - Rt 214 to Rocky Gorge Dam Little Patuxent River Potomac - Mouth to Smith Pt. Potomac - Smith Pt.to Marshall Hall St. Mary's River Breton Bay St. Clements Bay Wicomico River Zekiah Swamp Port Tobacco River	Magothy River*Severn River*South River*West River*West River*Other West Chesapeake Area*Patuxent - Mouth to Ferry Ldg.*Patuxent - Ferry Ldg. to Rt. 214*Western Branch*Patuxent - Rt 214 to Rocky Gorge Dam*Little Patuxent River*Potomac - Mouth to Smith Pt.*Potomac - Smith Pt.to Marshall Hall*St. Mary's River*Breton Bay*St. Clements Bay*Wicomico River*Zekiah Swamp*Port Tobacco River*

Maryland watersheds with portions not meeting designated uses due to conventional and toxic pollutants, 1985-1987 - continued -

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BASIN	WATERSHED NAME	CONVENTIONAL	TOXIC

<u>RIVER/STREAM</u> - continued

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02140111	Mattawoman Creek	*	· · · · · · · · · · · · · · · · · · ·
02140201	Potomac - Marshall Hall to Chain Br.	*	
02140202	Potomac - Chain Br. to Monocacy River	*	<u></u>
02140205	Anacostia River	*	*
02140206	Rock Creek	*	· <u>····································</u>
02140301	Potomac River - Shenandoah to Monocacy		*
02140302	Lower Monocacy River	*	
02140303	Upper Monocacy River	*	
02140304	Double Pipe Creek	* .	
02140501	Potomac - Washington County	*	
02140504	Conococheague Creek	*	- <u> </u>
02141001	Lower North Branch Potomac River	*	*
02141003	Wills Creek	*	*
02141004	Georges Creek	*	
02141005	Upper North Branch Potomac River	*	*
02141006	Savage River	*	*
05020201	Youghiogheny River	*	
05020202	Little Youghiogheny River	*	*
05020203	Deep Creek	*	
05020204	Casselman River	*	*

PUBLIC LAKES/PONDS

02130103	Isle of Wight Bay		
	(Bishopville Pond)	*	
02130304	Wicomico River Headwaters		<u></u>
	(Johnson Pond)	*	
02130804	Loch Raven Reservoir	*	
02130904	Jones Falls (Lake Roland)	*	*

Maryland watersheds with portions not meeting designated uses due to conventional and toxic pollutants, 1985-1987 - continued -

BASIN	WATERSHED NAME	CONVENTIONAL	TOXIC
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<u>ESTUARY</u> - Chesapeake Bay proper

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02139996	Upper Chesapeake Bay	*
02139997	Middle Chesapeake Bay	*
02139998	Lower Chesapeake Bay	*

Appendix Table F-2. Waterbodies which do not meet goals of the Clean Water Act

To generate this waterbody list (Appendix Table F-2), watersheds that do not meet goals of the Clean Water Act (CWA) were identified using the water quality assessment procedures described in Appendix B. Water quality problems were identified by waterbody type (e.g. river, lake, wetland) for each watershed and assessed as to whether they supported the "Fishable" and "Swimmable" CWA goals. Watershed lengths or areas that do not meet the CWA goals were summarized and used to create a table of waterbody types which do not meet the CWA goals (Volume I; Table 12). The following listing of watersheds and the lengths or areas of impact was created from this summary process.

As with all other waterbody lists presented in this appendix section, this list is not presented by priority; watersheds are "ranked" only in terms of their basin code.

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F10

Maryland waters not meeting goals of the Clean Water Act, 1985-1987

		NOT MEETING	NOT MEETING
BASIN	WATERSHED NAME	FISHABLE GOALS	SWIMMABLE GOALS
		فالتصاريب ويتلاذ المسور بالمتخذ البويين ومراجع والمسور والمتحد المتحد المتحد والمتحد والمتح	

OCEAN (shoreline miles)

None

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<u>RIVER/STREAM</u> - (mainstem miles)

02120101	Lower Susquehanna River 1
02130103	Isle of Wight Bay Area 6
02130105	Newport Bay Area 2
02130106	Chincoteague Bay 2
02130201	Pocomoke Sound
02130206	Tangier Sound
02130207	Big Annamessex River 6
02130208	Manokin River
02130301	Lower Wicomico River
02130302	Monie Bay 5
02130305	Nanticoke River 4
02130401	Honga River 1
02130402	Little Choptank River 6
02130403	Lower Choptank River 13 13
02130501	Eastern Bay 9
02130502	Miles River 6
02130503	Wye River 10
02130504	Kent Narrows/Prospect Bay 4
02130505	Lower Chester River 12
02130506	Langford Creek6
02130508	Southeast Creek 4
02130509	Middle Chester River 5
02130601	Lower Elk River1
02130701	Bush River
02130901	Back River 6
02130902	Bodkin Creek 4
02130903	Baltimore Harbor
02130904	Jones Falls
02130905	Gwynns Falls 12
02131001	Magothy River
02131002	Severn River 1
02131003	South River 16 1
02131004	West River
02131005	Other West Chesapeake Area 1

NOTE: ¹ - includes restricted shellfish harvesting areas, fish consumption advisories areas as well as areas which do not support a balanced fish population partially due to pollution

Maryland waters not meeting goals of the Clean Water Act, 1985-1987 - continued -

BASIN	WATERSHED NAME	NOT MEETING FISHABLE GOALS ¹	NOT MEETING SWIMMABLE GOALS
<u>RIVER/S</u>	<u>TREAM</u> (mainstem miles)		
02131101	Patuxent - Mouth to Ferry Landin	g 11	2
02131103	Western Branch		
02131104	Patuxent - Route 214 to Rocky Go		
02131105	Little Patuxent River		
02140101	Potomac - Mouth to Smith Point		5
02140102	Potomac - Smith Pointto Marshall	Hall	1
02140103	St. Mary's River	8	
02140104	Breton Bay		2
02140105	St. Clements Bay	6	
02140106	Wicomico River	7	
02140109	Port Tobacco River		1
02140110	Nanjemoy Creek		1
02140111	Mattawoman Creek		1
02140201	Potomac - Marshall Hall to Chain	Bridge 10	
02140202	Potomac - Chain Bridge to Monoca	cy River 38	
02140205	Anacostia River		
02140206	Rock Creek		
02140302	Lower Monocacy River		
02140303	Upper Monocacy River		
02140304	Double Pipe Creek		
02140501	Potomac - Washington County Drai	nage	1
02140504	Conococheague Creek		
02141001	Lower North Branch Potomac River		
02141003	Wills Creek		
02141004	Georges Creek		
02141005	Upper North Branch Potomac River		
02141006	Savage River		
05020201	Youghiogheny River		1
05020202	Little Youghiogheny River		
05020203	Deep Creek		
05020204	Casselman River	19	1

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NOTE: 1 - includes restricted shellfish harvesting areas, fish consumption advisories areas as well as areas which do not support a balanced fish population partially due to pollution •

Maryland waters not meeting goals of the Clean Water Act, 1985-1987 - continued -

BASIN	WATERSHED NAME	NOT MEETING FISHABLE GOALS ¹	NOT MEETING Swimmable Goals
PUBLIC I	LAKE (acres)		
02130103	Isle of Wight Bay		
	(Bishopville Pond)		1
02130304	Wicomico River Headwaters		
	(Johnson Pond)		1.5
ESTUARY	- Chesapeake Bay proper (squar	e miles)	
02139996	Upper Chesapeake Bay		1
02139997	Middle Chesapeake Bay		
			4

NOTE: ¹ - includes restricted shellfish harvesting areas, fish consumption advisories areas as well as areas which do not support a balanced fish population partially due to pollution ¢.

24

Appendix Table F-3. Waterbodies which experience water quality impacts due to nonpoint source pollution.

The U.S. Environmental Protection Agency's (EPA) guidance for this State water quality inventory report as well as the Section 319(a)(1) (nonpoint source) guidance required only a single listing of waterbodies which do not meet designated uses due to nonpoint source pollution. The State's monitoring programs offer little direct information about nonpoint source water quality impacts in the State; most of this information is circumstantial and frequently related to adjacent land use. Considerable subjective judgement is required to assess nonpoint source pollution Statewide. In addition, after this waterbody list was created, it became evident that a more comprehensive list should be included to indicate probable and unknown nonpoint source impacts on the State's waters.

To generate the required list, watersheds (or portions thereof) that do not meet designated uses were identified using the water quality assessment procedures described in Appendix B. Water quality problems were identified by waterbody type (e.g. river, lake, wetland) and the level of use impairment or designated use for each State watershed (partially support or not support designated use). The listing of watersheds (or portions thereof) that do not meet designated uses due to <u>nonpoint</u> sources of pollution was created (Appendix Table F-3) with the cause and source of use impairment. Note that the water quality impairment causes and sources in this table are listed independently; they do not necessarily represent a one-to-one relationship with each other.

As with all other waterbody lists presented in this appendix section. this list is not presented by priority; watersheds are "ranked" only in terms of their basin code.

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APPENDIX TABLE F-3 Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987

BASIN	WATERSHED NAME	CAUSE	SOURCE
OCEAN			
None			
RIVER/S	TREAM		
02120101	Lower Susquehanna River	Dissolved oxygen	Dam operations
02130103	Isle of Wight Bay Area	Bacteria Nutrients	Agricultural runoff
02130106	Chincoteague Bay	Bacteria	Agricultural runoff
02130201	Pocomoke Sound	Bacteria	Agricultural runoff Natural runoff
02130206	Tangier Sound	Bacteria	Agricultural runoff Natural runoff
02130207	Big Annamessex River	Bacteria	Agricultural runoff Natural runoff
02130208	Manokin River	Bacteria	Agricultural runoff Natural runoff
02130301	Lower Wicomico River	Bacteria Nutrients Organic enrichme	Agricultural runoff Urban runoff Natural runoff nt
02130302	Monie Bay	Bacteria	Agricultural runoff Natural runoff
02130305	Nanticoke River	Bacteria	Agricultural runoff Natural runoff
02130401	Honga River	Bacteria	Waste disposal
02130402	Little Choptank River	Bacteria	Agricultural runoff Natural runoff Waste disposal

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APPENDIX TABLE F-3 Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987 - continued -

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BASIN	WATERSHED NAME	CAUSE	SOURCE
02130403	Lower Choptank River	Bacteria Nutrients	Agricultural runoff Natural runoff Waste disposal Extra-basin source
02130501	Eastern Bay	Bacteria	Agricultural runoff Urban runoff Natural runoff
02130502	Miles River	Bacteria	Agricultural runoff Natural runoff Waste disposal
02130503	Wye River	Bacteria	Agricultural runoff Natural runoff Waste disposal
02130504	Kent Narrows/Prospect Bay	Bacteria	Agricultural runoff Natural runoff Waste disposal
02130505	Lower Chester River	Bacteria	Agricultural runoff Natural runoff Waste disposal Extra-basin source
02130506	Langford Creek	Bacteria	Agricultural runoff Natural runoff
02130508	Southeast Creek	Bacteria	Agricultural runoff Natural runoff
02130701	Bush River	Bacteria	Urban runoff Waste disposal
02130901	Back River	Pesticides Organic enr	
02130902	Bodkin Creek	Organic enrichme	Urban runoff nt
02130903	Baltimore Harbor	Bacteria Pesticides Organic enr	Urban runoff ichment

APPENDIX TABLE F-3 Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987 - continued -

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BASIN	WATERSHED NAME	CAUSE	SOURCE
02130904	Jones Falls	Bacteria	Urban runoff
02130905	Gwynns Falls	Bacteria	Urban runoff
02131001	Magothy River	Bacteria Nutrients	Urban runoff Natural runoff
02131002	Severn River	Bacteria Nutrie n ts	Urban runoff Natural runoff
02131003	South River	Bacteria Nutrients	Agricultural runoff Urban runoff Natural runoff Waste disposal
02131004	West River	Bacteria Nutrients	Agricultural runoff Natural runoff Waste disposal
02131005	Other West Chesapeake Area	Bacteria	Agricultural runoff Natural runoff
02131101	Patuxent - Mouth to Ferry Ldg.	Bacteria Nutrients Organic enrichme	Agricultural runoff Natural runoff Waste disposalE ntExtra-basin sources
02131102	Patuxent - Ferry Ldg. to Rt 214	Nutrients Organic enrichme	Agricultural runoff Extra-basin sources nt
02131103	Western Branch	Nutrients Sediments	Agricultural runoff Urban runoff
02131104	Patuxent - Rt 214 to Rocky Gorge	Nutrients	Agricultural runoff Urban runoff
02131105	Little Patuxent River	Nutrients	Agricultural runoff Urban runoff
02140101	Potomac - Mouth to Smith Pt.	Bacteria	Agricultural runoff Urban runoff Natural runoff Waste disposal

APPENDIX TABLE F-3 Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987 - continued -

BASIN	WATERSHED NAME	CAUSE	SOURCE
02140102	Potomac - Smith Pt.to Marshall Hall	Bacteria	Waste disposal
02140103	St. Mary's River	Bacteria	Agricultural runoff Natural runoff
02140104	Breton Bay	Bacteria	Agricultural runoff Natural runoff
02140105	St. Clements Bay	Bacteria	Agricultural runoff Natural runoff
02140106	Wicomico River	Bacteria	Agricultural runoff Natural runoff
02140109	Port Tobacco River	Bacteria	Waste disposal
02140110	Nanjemoy Creek	Bacteria	Waste disposal
02140111	Mattawoman Creek	Bacteria	Waste disposal
02140201	Potomac - Marshall Hall to Chain Br.	Nutrients	Urban runoff Extra-basin source
02140202	Potomac - Chain Br. to Monocacy	Nutrients Sediment	Agricultural runoff Urban runoff Extra-basin sources
02140205	Anacostia River	Sediments	Urban runoff Mine activities
02140206	Rock Creek	Sediments	Urban runoff
02140302	Lower Monocacy River	Nutrients Sediment	Agricultural runoff Extra-basin sources
02140303	Upper Monocacy River	Nutrients Sediment	Agricultural runoff Urban runoff Extra-basin sources
02140304	Double Pipe Creek	Nutrients Sediment	Agricultural runoff
02141001	Lower North Branch Potomac	Acid/metals	Mine activities

Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987 - continued -

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BASIN	WATERSHED NAME	CAUSE	SOURCE
02141003	Wills Creek	Acid/metals	Mine activities
02141004	Georges Creek	Bacteria Acid/metals Flow alterat	Urban runoff Mine activities ion
02141005	Upper North Branch Potomac	Acid/metals	Mine activities
02141006	Savage River	Acid/metals	Mine activities
05020201	Youghiogheny River	Bacteria Acid/metals	Sewage inflow Mine activities
05020202	Little Youghiogheny River	Bacteria	Sewage inflow
05020203	Deep Creek	Acid/metals	Mine activities
05020204	Casselman River	Acid/metals Bacteria	Mine activities Sewage inflow
PUBLIC	LAKES/PONDS		
02130103	Isle of Wight Bay (Bishopville Pond)	Nutrients	Agricultural runoff Natural runoff Extra-basin sources
02130304	Wicomico River Headwaters (Johmson Pond)	Bacteria Nutrients	Urban runoff
02130804	Loch Raven Reservoir	Nutrients	Agricultural runoff Urban runoff Natural runoff
02130904	Jones Falls (Lake Roland)	Sediments Pesticides	Urban runoff

Maryland waters not meeting designated uses due to nonpoint source pollution, 1985-1987 - continued -

BASIN	WATERSHED NAME	CAUSE	SOURCE
ESTUARY	- Chesapeake Bay proper		
02139996	Upper Ch esapeake Ba y	Nutrients	Agricultural runoff Extra-basin sources
02139997	Middle Chesapeake Bay		Agricultural runoff ntExtra-basin
		Nutrients Bacteria	sources Bottom releases
02139998	Lower Chesapeake Bay	Organic enrichme	Agricultural runoff ntExtra-basin
		Nutrients	sources Bottom releases

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Appendix Table F-4. Watersheds which experience water quality impacts due to nonpoint source pollution.

Examination of the nonpoint source impact list provided above (Appendix Table F-3) revealed that numerous watersheds with suspected or probable nonpoint source water quality impacts were not included. To include these other watersheds in this list would require additional Statewide monitoring or changing criteria used to define "meeting/not meeting designated uses". It was concluded that a "long list" of watersheds that might experience water quality problems due to nonpoint source pollution should also be included. This list (Appendix Table F-4) was generated by reviewing the land use data of each watershed using summary tables described in Appendix B. In this list, asteriks (*) were used to indicate impact (known or probable). Blank spaces should not be interpreted as "No Impact"; rather, they should be considered as "Unknown Impact". As might be expected, every watershed in the State is subject to some form of nonpoint source pollution.

It is important to note that wetland and ground water impacts by nonpoint source pollution are not included in this report. Wetland assessments are not documented as to use impairment. In addition, the extent of non-tidal wetlands in the State are only now being identified. Ground water investigations are complaint-oriented which skews the available data to appear impacted. In addition, ground water quality impacts are difficult to trace to any particular point or nonpoint source.

As with all other waterbody lists presented in this appendix section, this list is not presented by priority; watersheds are "ranked" only in terms of their basin code.

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Watersheds with water quality impacts due to nonpoint source pollution in Maryland

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Desin code	Segment name	Agri-		2000- 201	Runoff	Mining Disposal		
Basin code	Segment name	*			<u>Nuivii</u>	Chilling Distribution	*	TA BIAN
2050301	Conewago Creek				*	*	*	*
	Lower Susquehanna River Deer Creek	*				*	*	
					*	*	*	
	Octoraro Creek				•		*	*
	Conowingo Dam-Susquehanna Run	-				-		•
2120205	Broad Creek	•						
2130101	Atlantic Ocean	-			•	•	-	
2130102	Assawoman Bay	-			-	-	-	
	Isle of Wight Bay	-	•	•		-		
2130104	Sinepuxent Bay	-			.	•		
	Newport Bay	-	•	6	•	•	-	
	Chincoteague Bay					.	-	
	Pocomoke Sound				-			
	Lower Pocomoke River				*	-	-	
	Upper Pocomoke River							
	Dividing Creek	-						
	Nassawango Creek	*						
2130206	Tangier Sound	*						
2130207	Big Annemessex River	*						
2130208	Manokin River	*						
2130301	Lower Wicomico River	*		k .	*	*		
2130302	Monie Bay	*					*	
2130303	Wicomico River	*				*	*	
2130304	Wicomico River Headwaters	*			*	*	*	
2130305	Nanticoke River	*				*	*	
2130306	Marshyhope Creek	*			*	*	*	
	Fishing Bay						*	
2130308	Transquaking River	*					*	
	Honga River	*				*	*	
	Little Choptank River	*				*	*	
	Lower Choptank River	*			*	*	*	
	Upper Choptank River	*				*	*	
	Tuckahoe Creek	*				*	*	
	Eastern Bay	*			*	*	*	
	Miles River	*			*	*	*	
	Wye River	*			*	*	*	
2130504	Kent Narrows-Prospect Bay		1	¢.	*	*	*	
2130505	Lower Chester River		1	k.	*	*	*	
2130506	Langford Creek	*				*	*	
2130507	Corsica River	*	1	k.	*		*	
2130508	Southeast Creek	*					*	
2130509		*			*	*	*	
2130510	Upper Chester River	*					*	
2130510	Kent Island	*	1	*	*	+	*	
2130501	Lower Elk River	*					*	
2130601	Bohemia River	*				*	*	
	Upper Elk River	*	1	*	*		*	
2130003	Back Creek	*				*	*	*
2130604		*	1	*	*	*	*	
		. *	1	•	*	* *	*	
2130606	Big Elk Creek Christina River	*	1	•	*		*	
2130607		*			*	*	*	
2130608	Northeast River	*						

Watersheds with water quality impacts due to nonpoint source pollution in Maryland - continued -

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Agri Construct Urban Waste Natural Hydro- Basin code Segment name culture Forestry tion Runoff Mining Disposal Sources. logical 2130609 Furnace Bay 2130610 Sassafras River 2130701 Bush River 2130701 Bush River 2130703 Aktisson Reservoir 2130703 Aktisson Reservoir 2130705 Aberdeen Proving Ground 2130705 Aberdeen Proving Ground 2130705 Aberdeen Proving Ground 2130705 Swan Creek 2130806 Lourgo Waster River 2130808 Lourgo Waster River 2130809 Back River 2130809 Back River 2130900 Back River 2130900 Back River 2130900 Patagesco Lower North Branch 2130900 Even North Branch 2130900 Even North Branch 2130900 Even North Branch 2130900 Even River 2131000 West River 2131000 Koter River 2131000 West River 2131000 South Branch Patagesco 2131000 Mode Patagesco 2131000 Mode Patagesco 2131000 West River 2131000 Mode River 2131000 Mode River 2131000 Mode River 2131000 Kover 2131000 South Branch River 2131000 Kover River 2131000			Agri-	C	Construc-	Urban		Waste	Natural	Hydro-
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2140106 Wicomico River * * *					.	*			•	
			*		-	*		*	₽	
2140107 Gilbert Swamp * * * * *									•	
			*		Ŧ	*		•		
2140108 Zekiah Swamp			•		₽	*		*	#	
2140109 Port Tobacco River			*		#	₹		*	#	
2140110 Nanjemoy Creek			*		-	₹		≠	#	
2140111 Mattawoman Creek * * * * * *	2140111	Mattawoman Creek	•		-	-		-	-	

Watersheds with water quality impacts due to nonpoint source pollution in Maryland - continued -

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ACTIVITY

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		Agri-	(Construc-	Urban		Waste	Natural	Hydro-
Basin code			Forestry	tion	Runoff	Mining	Disposal	Sources	logical
2140201	Potomac-ChainBridge to Marshall	Hall *	-	*			*	*	
2140202	Potomac-Monocacy to Chain Bridg	e *		*			*	+	
2140203	Piscataway Creek	*		*	+			+	
2140204	Oxon Run								
	Anacostia River			*	+	*	+	*	
2140206	Rock Creek	*			*			۰.	
2140207	Cabin John Creek			*	*				
2140208	Seneca Creek	*		*	*			*	
2140301	Potomac-Shenandoah to Monocacy	*					+	+	
	Lower Monocacy			+	*	*	*		
	Upper Monocacy	*					*	*	
2140304	Double Pipe Creek			*		٠	+		
	Catoctin Creek	*						*	
2140501	Potomac-Hancock to South Branch	*		*	*	*	*	*	
	Antietam Creek	*		*	*	+	*	*	
	Marsh Run	*		*	*		*	*	
2140504		*	*	*	*			*	
	Little Conococheague Creek	*					+	*	
2140506	Licking Creek	*	*				+	٠	
2140507	Tonoloway Creek	*					•	٠	
2140508	Allegany County Drainage	*							
2140509	Little Tonoloway Creek	*			+		*	٠	
2140510	Sideling Hill Creek	*						*	
2140511	Fifteen Mile Creek	*	*					+	
2140512	Town Creek	*	*						
	Lower North Branch Potomac	. 🗰			*			*	
	Evitts Creek		*	*	+		+		
2141003	Wills Creek	*		*	*	•		+	
2141004	Georges Creek	+			*	*	, *		
	Upper North Branch Potomac	*	*		*			*	
2141006	Savage River	*	*			*			
5020201	Youghiogheny River	*	*			*	+		
	Little Youghiogheny River	*	•	*	*			*	
5020203	Deep Creek Lake	*	*	*		*		*	
5020204	Casselman River	•	٠			+	*	*	

Appendix Table F-5. Public lakes and their trophic status.

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As described in Appendix D, a list of the larger lakes and ponds in the State which have public access were generated from available documents and reports and the trophic status of each was determined through available water quality data and through professional judgement of State fisheries biologists. Information about the trophic status of these lakes and ponds which is provided in Appendix Table D is summarized in the following table (Appendix Table F-5).

As with all other waterbody lists presented in this appendix section, this list is not presented by priority; watersheds are "ranked" only in terms of their basin code.

APPENDIX TABLE F-5 Trophic status of public lakes in Maryland, 1985-1987

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BASIN	LAKE NAME	<u>SIZE (ac)</u>	TROPHIC STATUS
02130103	Bishopville Pond	5.7	Eutrophic
02130106	Big Mill Pond	60.2	Eutrophic
02130301	Coulbourn Pond	8.6	Eutrophic
	Mitchell Pond #1	10.1	Eutrophic
	Mitchell Pond #2	8.6	Eutrophic
	Mitchell Pond #3	5.8	Eutrophic
	Morris Mill Pond	6.0	Eutrophic
	Shumaker Pond	48.6	Eutrophic
	TonyTank Lake	42.0	Eutrophic
	TonyTank Pond	41.3	Eutrophic
02130303	Allen Pond	35.8	Eutrophic
02130304	Johnson Pond	104.0 45.9	Eutrophic Eutrophic
00100005	Leonard Pond	45.9	Eutrophic
02130305	Adkins Pond Barren Pond	14.7	Eutrophic
	Rewastico Pond	24.4	Eutrophic
02130306	Chambers Lake	9.4	Eutrophic
02130300	Smithville Pond	40.0	Eutrophic
02130405	Tuckahoe State Park #1	86.0	Eutrophic
02130503	Wye Mills Community Lake	61.5	Eutrophic
02130509	Urieville Community Lake	35.0	Eutrophic
02130510	Unicorn Mill Pond	48.0	Eutrophic
02130602	Bohemia Mills	28.7	Eutrophic
02130702	Edgewater Village	7.2	Eutrophic
02130805	Loch Raven Reservoir	2400.0	Eutrophic
02130806	Prettyboy Reservoir	1500.0	Mesotrophic/Eutrophic
02130904	Lake Roland	100.0	Eutrophic
02130907	Liberty Reservoir	3106.0	Mesotrophic/Eutrophic
02130908	Piney Run Reservoir	298.0	Mesotrophic
02131001	Lake Waterford	12.0	Eutrophic
02131103	Allen Pond	9.5	Eutrophic Magazina (Eutrophic
02131104	Laurel Lake	7.2	Mesotrophic/Eutrophic
02131105	Centennial Park	50.0 49.0	Eutrophic Eutrophic
02131106	Lake Elkhorn Lake Kittamagundi	107.0	Eutrophic
	Wilde Lake	23.0	Eutrophic
02131107	Duckett Reservoir	773.0	Mesotrophic/Eutrophic
02131107	Tridelphia Reservoir	800.0	Mesotrophic
02140103	St. Mary's #1	250.0	Eutrophic
02140107	Gilbert Run #2	59.0	Eutrophic
02140111	Myrtle Grove Lake	23.0	Eutrophic
02140203	Cosca Lake	11.0	Eutrophic
02140205	Greenbelt Lake	21.5	Eutrophic
	Pine Lake	5.0	Eutrophic
02140206	Lake Frank	56.0	Eutrophic
	Lake Needwood	74.0	Eutrophic
02140208	Seneca Lake	505.0	Eutrophic
	Clopper Lake	90.0	Eutrophic
02140303	Cunningham Falls Reservoir	46.0	Mesotrophic Eutrophic
02140502	City Park Lake	5.2 27.0	Eutrophic Mesotrophic
00140500	Greenbrier Lake	32.2	Eutrophic
02140508	Blairs Valley Lake Lake Habeeb	208.5	Mesotrophic
02141002 02141005	William Randolph Reservoir	952.0	Oligotrophic
02141005	Savage River Reservoir	360.0	Oligotrophic
05141000	New Germany Lake	13.0	Mesotrophic
05020201	Herrington Lake	41.5	Mesotrophic
05020202	Little Youghiogheny #6	138.0	Mesotrophic
05020203	Deep Creek Lake	4500.0	Mesotrophic
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TOTAL	SIZE (acres)	17447.3	

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Appendix Table F-6. Public lakes not meeting their designated uses.

As described in Appendix D, a list of the larger lakes and ponds in the State which have public access were generated from available documents and reports and the water quality condition of each was determined through available water quality data and through professional judgement of State fisheries biologists.

As described in Appendix Table D, only two lakes do not support their designated uses. Bishopville Pond (Isle of Wight segment in the Ocean/Coastal basin; 02-13-01-03) with a surface area of 5.7 acres has no resident sportfish population due to organic enrichment from an upstream municipal discharge (Selbyville, DE), past industrial discharge and agricultural runoff. In addition, a portion of Johnson Pond (Wicomico River Headwaters segment in the Nanticoke/Wicomico basin; 02-13-03-04) has high bacterial levels due to urban runoff which causes a 1.5 acre bathing area to be closed.

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Appendix Table F-7. Public lakes not meeting their designated uses due to high acidity.

As described above, a list of the larger lakes and ponds in the State which have public access were generated from available documents and reports and the water quality condition of each was determined through available water quality data and through professional judgement of State fisheries biologists.

The U.S. Environmental Protection Agency's guidance for completing the requirements of Section 314 of the 1987 Water Quality Act (Clean Water Act amendments) defines high acidity as pH less than 4.5. <u>No</u> significant public lake or pond in the State experiences acidity levels this high.

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