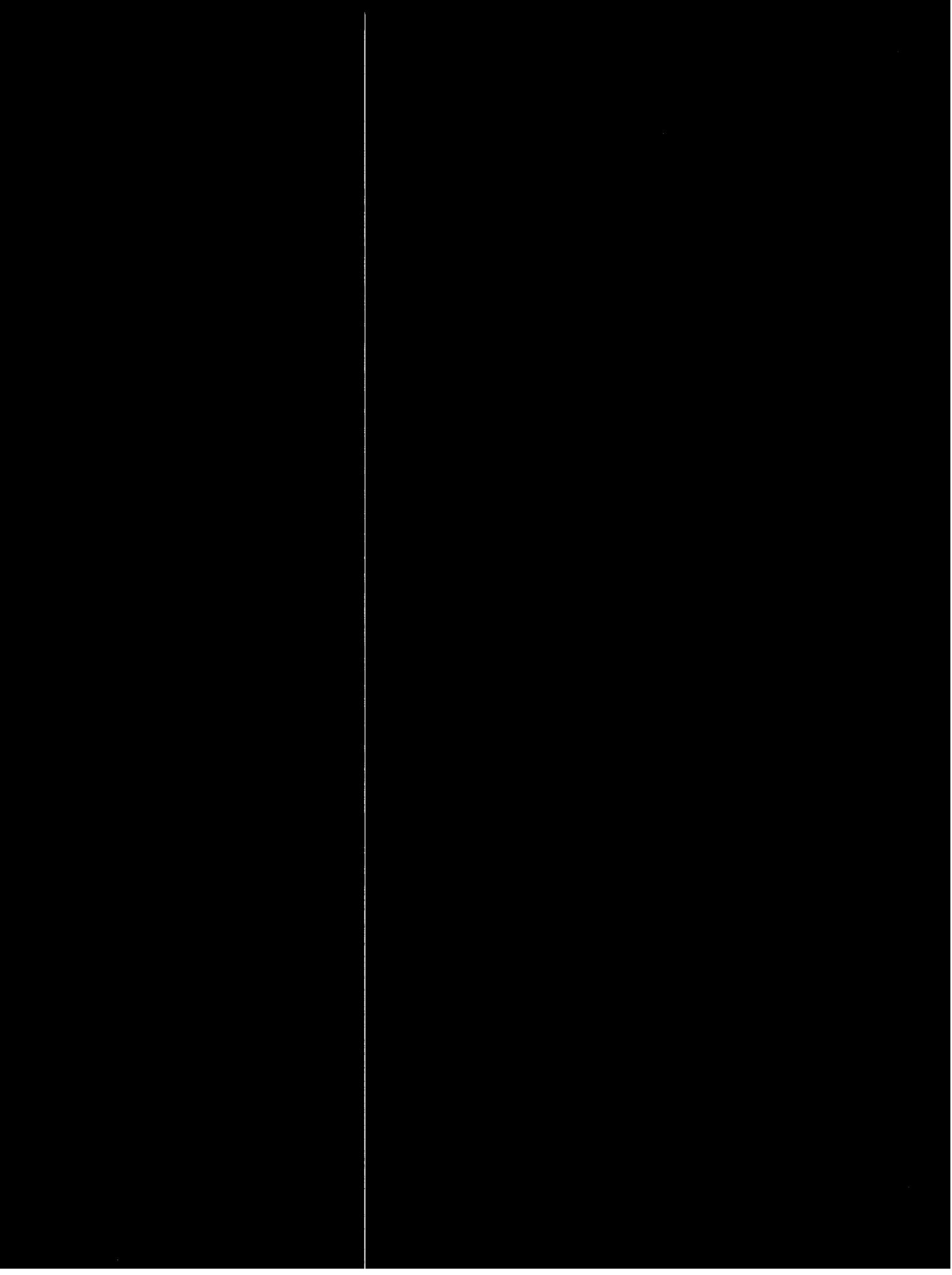


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The 1997 Atlas of Chesapeake Bay Basin
Biological and Living Resources
Long Term Monitoring Programs

December 1997

Prepared for

United States Environmental Protection Agency
Chesapeake Bay Program
410 Severn Avenue
Annapolis, Maryland 21403

by

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Printed by the U.S. Environmental Protection Agency
for the Chesapeake Bay Program
EPA 903-R-97-033
CBP/TRS 192/97

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Development of *The 1997 Atlas of Chesapeake Bay Basin Biological and Living Resources Monitoring Programs* was supported by the U.S. Environmental Protection Agency and the Interstate Commission on the Potomac River Basin, an interstate river basin commission whose signatories are the U.S. government; the states of Maryland, Virginia, Pennsylvania, West Virginia; and the District of Columbia.

Forward

An Atlas of long-term monitoring programs in the Chesapeake Bay Basin was first compiled and published in 1989 by the U.S. Environmental Protection Agency Chesapeake Bay Program Office. Entitled *Chesapeake Bay Basin Monitoring Program Atlas Volume II*, it included for each monitoring program:

- a text description of the program, its objectives, date initiated, coordinating agency, funding agencies, participating agencies, investigators, parameters, stations, sample collections, and program integration;
- a list of stations, including name, latitude, longitude, location descriptors; and
- a map of the stations.

The 1989 version of the Atlas was updated in 1996. Long-term monitoring program principal investigators, program managers or staff were contacted by telephone to reconfirm the details of all the monitoring programs listed in the 1989 Atlas. In many instances, changes had been made in station locations, methodology, coordinating agency, funding agencies, and scope. An effort was made to determine if the program contacts knew of any new monitoring programs. If the monitoring program was still in existence, the current principal investigator and/or the program manager received a copy of their monitoring program description, station listings, and maps of station locations as they appeared in the 1989 edition of the Atlas. Investigators were asked to confirm program details by phone, mail, or fax.

All text descriptions were edited and updated with information provided by the monitoring program contacts in 1996 and early 1997. New stations have been incorporated into the station list and discontinued stations removed. Although every effort was made to ensure accurate and timely station information, annual changes are inherent in some monitoring programs (i.e. random stratified sampling design) and actual station locations should be obtained directly from the monitoring programs.

Station maps included with most monitoring programs were generated using a variety of tools. Due to the limited accuracy of some latitude and longitude station information, map station locations may be shifted from their true locations. Program descriptions include only current objectives, methods, principal investigators, program managers, etc. In some cases, these have changed repeatedly over time and users of this Atlas should contact individual programs for details of these changes.

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MARYLAND SHELLFISH SANITATION MONITORING PROGRAM

PROGRAM DESCRIPTION: The Maryland Shellfish Sanitation Monitoring Program, comprised of a network of 800 sampling stations within the Chesapeake Bay basin, monitors the bacteriological quality of all of Maryland's shellfish harvesting waters on a monthly basis. Stations are selected to provide representative data in each shellfish harvesting area and to reflect the effects of potential pollution sources.

PROGRAM OBJECTIVES: To monitor the bacteriological quality of Maryland's shellfish harvesting waters to assure adequate public health protection from shellstock unsafe for human consumption. To assist in the identification and elimination of pollution sources in the Chesapeake Bay and its tributaries.

DATE INITIATED: Early 1930's

COORDINATING AGENCY: Maryland Department of the Environment
Technical & Regulatory Services Administration
Environmental Risk Assessment
Shellfish Certification
2500 Broening Highway
Baltimore, Maryland 21224

FUNDING AGENCIES: Maryland Department of the Environment
U.S. EPA Region III

PARTICIPATING AGENCIES: Maryland Department of the Environment (MDE)

INVESTIGATORS:

Principal Investigator Kathy Brohawn MDE

PARAMETERS: *Water Column:*
Water Temperature
Dissolved Oxygen
Specific Conductivity
Salinity
Fecal Coliform Bacteria
Shellstock:
Fecal Coliform Bacteria
Heavy Metals & Pesticides (only at some stations)

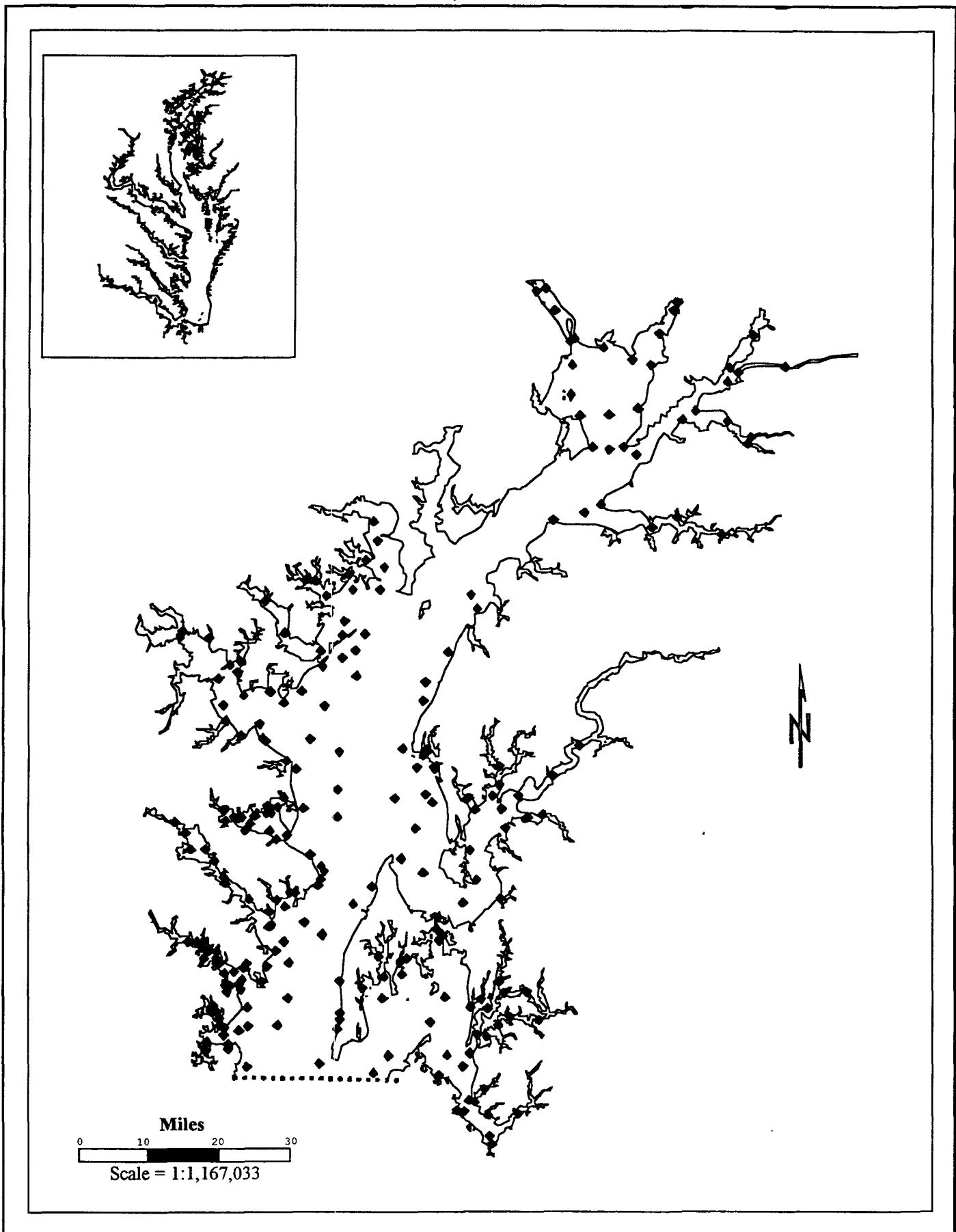
STATIONS: There are 800 stations located throughout the Chesapeake Bay and its tributaries.

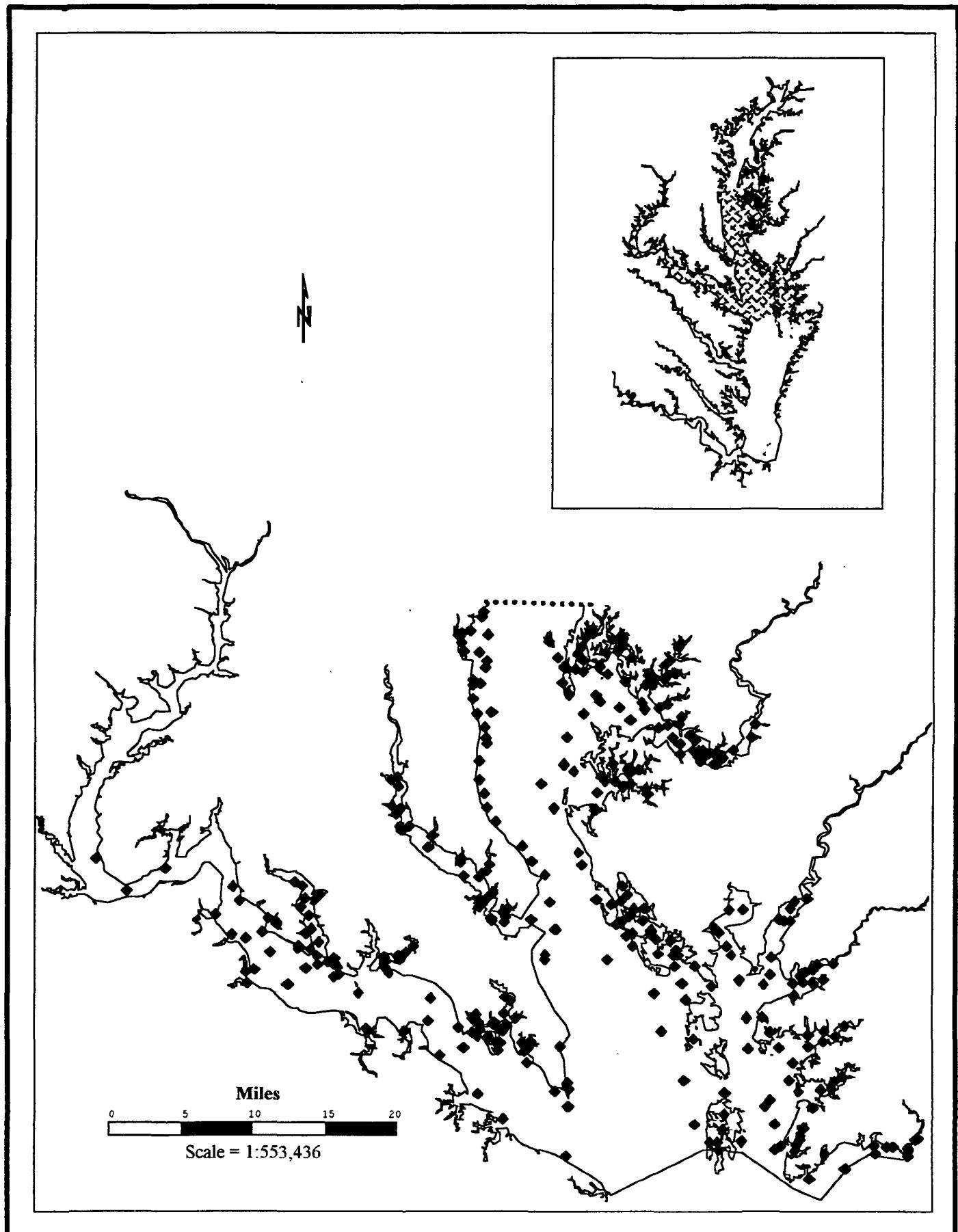
SAMPLE COLLECTION: Water samples are collected monthly from each station and tested for fecal coliform bacteria. Areas restricted to shellfish harvesting are sampled twice a month. Selected stations only are sampled monthly for temperature, salinity and dissolved oxygen.

Shellstock are collected from selected sites and fecal coliform bacteria are enumerated from the tissue.
Shellstock are collected at some sites for analysis of heavy metals and pesticides.

PROGRAM INTEGRATION: N/A

Maryland Shellfish Sanitation Monitoring Program





Maryland Shellfish Sanitation Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
0101002	39 13 03	76 21 09	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	2 3/4 MI N BY E CRAIGHILL (BW N#20B")
0101003	39 11 16	76 23 31	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS E OF CRAIGHILL LIGHT
0101004	39 13 36	76 23 41	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	ON RED DAY MARKER #2 - OFF BLACK MARSH
0101004B	39 14 36	76 21 16	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 3/4 MI E OF CENTER OF HART ISLAND
0101005	39 12 06	76 25 14	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	ON SHALLOW CR PT - WILL BE 1 1/4 NW OF CRAIGHIL
0101006	39 11 25	76 26 33	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS FROM SOUTHERN TIP OF N PT
0101007	39 12 04	76 27 35	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	OLD ROUND BAY 1000 YDS OFF DAY MARKER "2"
0101011	39 12 46	76 31 34	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	WEST END OF HAWKINS PT BRIDGE
0101011A	39 13 36	76 30 41	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	EAST END OF HAWKINS PT BRIDGE
0101012	39 10 19	76 30 54	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MID-CHANNEL-MOUTH OF STONEY CR
0101013	39 09 28	76 29 48	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MID-CHANNEL-MOUTH OF ROCK CR
0101015	39 15 18	76 34 29	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MIDSTREAM OF SHIP CHANNEL
0101018	39 13 50	76 29 55	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	AT END OF PIER ON COFFIN PT
0101019	39 15 11	76 32 20	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	FRONT OF DUNDALK MARINE TERM-MOUTH OF COLGATE C
0101020	39 10 10	76 28 21	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	100 YDS SE OF ROCK PT (OFF FT. SMALLWOOD BEACH)
0101025	39 11 51	76 29 37	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	ON CHANNEL MARKER "#10-B"
0101027	39 13 13	76 30 06	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	FRONT OF SPARROWS PT SHIPYD-PIER ON RIGHT
0101028	39 15 12	76 34 29	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	S.SHORE FRONT OF 4 STORY RED BRICK BUILDING
0101029	39 15 33	76 34 19	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	LAZARETTO PT - 100' FROM SHORE
0101032	39 11 16	76 31 11	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NUN 6
0101201HM	39 15 33	76 20 32	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	275 YDS N OF NE CORNER OF DIKE
0101207HM	39 14 07	76 22 13	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS E OF SE CORNER OF DIKE
0102001	39 19 04	76 21 50	WT-3	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SENECA CREEK-40 YDS OFFSHORE FROM POWER STATION
0102002	39 18 09	76 21 28	WT-3	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SENECA CREEK-RED DAY MARK "2"
0102003	39 18 11	76 19 23	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUTH OF GUNPOWER RIVER
0102005	39 19 33	76 19 06	WT-2	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MID-CHANNEL BETWEEN DAYS PT AND WHITE OAK PT
0102006	39 19 55	76 20 32	WT-2	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MOUTH OF DUNDEE CREEK 300 YDS FROM BENGIES PT
0102010	39 22 16	76 19 59	WT-2	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	1000 YDS S OF OLIVER PT-100 YDS OFF SWIM. BEACH
0102011	39 21 05	76 19 43	WT-2	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GUNPOWER R ABOVE BATTERY PT AND BELOW MAXWELL P
0102012	39 17 46	76 23 28	WT-3	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MIDDLE RIVER MID-CHANNEL BETWEEN BOWLEY PT & TU
0102013	39 18 37	76 24 17	WT-3	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MIDDLE RIVER, FROG MORTAR-100 YDS OFFSHORE
0102014	39 18 41	76 25 04	WT-3	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MIDDLE ABOVE ABOVE WILSON PT-DAYMARK "5"
0102015	39 16 18	76 22 07	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED NUN "2"-1500 YDS SE OF WELLS PT
0102016	39 14 30	76 23 52	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BACK RIVER MIDWAY BETWEEN ROCKY PT AND CUCKHOLD
0102017	39 15 31	76 26 36	WT-4	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BACK RIVER 200 YDS OFF WITCHCOAT PT AT NUN "10"
0102018	39 17 24	76 28 02	WT-4	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BACK RIVER STP
0102203H	39 15 29	76 22 15	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS N OF HOWELL TOWER
0103001	39 22 31	76 06 17	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS W OF GROVE PT
0103001A	39 23 28	76 02 40	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS W OF TURKEY PT
0103002	39 26 58	76 01 01	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	E SIDE FIRST RAILROAD BRIDGE ON SUSQUEHANNA
0103002A	39 26 47	76 02 05	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	W SIDE FIRST RAILROAD BRIDGE ON SUSQUEHANNA
0103002B	39 26 53	76 03 20	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	LOCUST PT (PESUTIE ISLAND) FL 4 SEC "3"
0103003	39 28 45	76 04 20	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS S OF CARPENTER PT
0103004	39 32 06	76 00 24	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060002	100' OFF TOWN PT (ROHEMIA RIVER)
0103005	39 29 09	75 55 35	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	COURTHOUSE PT - END OF PIER
0103006	39 30 53	75 53 13	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF BACK CR OR C & D CANAL
0103006A	39 31 26	75 52 23	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	ELK RIVER NUN "2"
0103006C	39 31 41	75 53 01	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	UNDER 213 OVERHEAD BRIDGE
0103006F	39 31 47	75 48 56	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MIDCHANNEL PLUM PT TOWER
0103007	39 33 39	75 51 17	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	BOHEMIA RIVER, NORTHSHORE OF FORD
0103008	39 28 35	75 56 34	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FL R 4 SEC R "2"
0103009	39 28 34	75 53 11	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF GREAT BOHEMIA CR, GREENBRIAR PT
0103010	39 27 39	75 51 24	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF LITTLE BOHEMIA CR, GEORGES PT
0103011	39 27 14	75 51 38	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	100' OFF END OF ORDINARY PT FLASHING G 4 SEC "5"
0103012	39 26 32	76 00 00	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF ELK RIVER, FL R 4 SEC "6"
0103013	39 22 58	76 03 54	ET-3	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MIDCHANNEL-MOUTH OF SASSAFRAS RIVER
0103014	39 22 09	75 58 47	ET-3	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	100' OFF END OF DAY MARKER # 16)
0103015	39 22 47	75 56 54	ET-3	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF FORMAN CR SASSAFRAS RIVER
0103016	39 21 46	75 53 30	ET-3	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	SASSAFRAS RIVER NUN "14"
0103017	39 29 15	75 59 56	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NE RIVER 500 YDS OFF ROCKY PT
0103018	39 31 50	75 59 00	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NE RIVER 500 YDS OFF RED PR AT R "6"
0103018A	39 33 41	75 58 22	ET-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NE RIVER FL 4 SEC R "10"
0103019	39 35 03	75 57 19	ET-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NE RIVER (50 YDS N OF DAY MARKER # 17)
0103019A	39 35 29	75 57 02	ET-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NE RIVER (50 YDS N OF DAY MARKER # 17)
0103021	39 32 49	76 02 35	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	50 YDS FROM STUMP PT
0103022	39 33 13	76 05 03	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	CENTER OF FIRST RAILROAD BRIDGE ON SUSQUEHANNA
0103022A	39 33 19	76 04 49	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	EAST SIDE FIRST RAILROAD BRIDGE ON SUSQUEHANNA
0103022B	39 33 09	76 05 11	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	WEST SIDE FIRST RAILROAD BRIDGE ON SUSQUEHANNA
0103024	39 34 57	76 06 22	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	MID-CHANNEL-NORTH OF FOURTH BRIDGE (PORT DEPOS)
0103024A	39 36 13	76 07 05	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	PORT DEPOSIT OR EAST SIDE
0103024B	39 36 04	76 07 49	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	WEST SHORE - OPPOSITE PORT DEPOSIT
0103027	39 30 00	76 05 02	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC "11"
0103028	39 31 44	76 04 58	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS EAST OF HAVRE DEGRACE STP OUTFALL
0103030	39 28 50	76 02 07	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTHEAST RIVER (MIDWAY BETWEEN ROCKY PY AND LO
0201001	39 17 07	76 11 58	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS W OF TOWER, N MOUTH OF FAIRLEE CR
0201002	39 14 34	76 14 08	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING GREEN 4 SEC LIGHT "21"
0201007	39 12 47	76 15 49	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK AND WHITE NIN BOUY "26B"
0201010	39 08 51	76 17 31	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1500 YDS W OF SWAN PT TOWER "A"
0201800	39 17 58	76 12 27	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK AND WHITE NUN BOUY "42B"
0201801	39 11 40	76 15 57	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING RED 6 SEC. LIGHT "16"
0202005	39 08 48	76 15 40	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MID STEAM 50' OFF DEEP LANDING PT
0202006	39 08 27	76 15 52	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MID STREAM 100' OFF GRATITUDE RD
0202010	39 07 43	76 15 09	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUTH OF ROCK HALL HARBOR
0202010A	39 07 39	76 15 02	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS OUT - SW OF ROCK HALL HARBOR LIGHTS
0202014	39 06 04	76 15 38	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN 3
0202014A	39 05 48	76 18 02	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	OK FL RED "4"
0202018	39 04 00	76 16 23	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	ON RED BELL "2" NE OF LOVE PT LIGHT
0202701	39 05 35	76 15 10	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BELL BUOY 1
0202702	39 07 42	76 16 20	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	OK FL APPROACH LIGHT TO ROCK HALL HARBOR
0301001	39 04 54	76 30 58	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "13" OFF HENDERSON PT
0301001A	39 04 19	76 30 48	WT-6	WEST CHESAPEAKE	SEVERN	2060004	2000 YDS W OF DAYMARK "1"
0301001C	39 04 32	76 30 10	WT-6	WEST CHESAPEAKE	SEVERN	2060004	FL R 10 SEC. "12" OFF N FERRY PT
0301003	39 04 10	76 28 55	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "9" OFF ULMSTEAD PT
0301003C	39 04 31	76 29 32	WT-6	WEST CHESAPEAKE	SEVERN	2060004	1000 YDS S OF CHESTNECK PT

Maryland Shellfish Sanitation Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
0301004	39 04 37	76 28 36	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "2" OFF PARK PT
0301005A	39 03 44	76 27 27	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "7" OFF SHORE ACRES
0301005B	39 04 49	76 27 43	WT-6	WEST CHESAPEAKE	SEVERN	2060004	SILLERY BAY-1/2 BETWEEN DOBBINS ISLAND & LIT. I
0301005C	39 05 15	76 27 39	WT-6	WEST CHESAPEAKE	SEVERN	2060004	1/2 BETWEEN DAYMARK "2" AND SYLVAN VIEW COMM. B
0301006B	39 05 46	76 26 28	WT-6	WEST CHESAPEAKE	SEVERN	2060004	50 YDS N OF LONG PT CORNFIELD CR
0301007	39 04 49	76 27 22	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "1" OFF DOBBINS ISLAND
0301009	39 03 28	76 26 11	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "5" AT THE MOUTH OF MAGOTHY R
0301009A	39 03 15	76 26 56	WT-6	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "1" AT ENTRANCE TO DEEP CR
0301011	39 03 44	76 29 19	WT-6	WEST CHESAPEAKE	SEVERN	2060004	FL GREEN 4 SEC AT MOUTH OF FORKED CR
0301800	39 04 30	76 29 50	WT-6	WEST CHESAPEAKE	SEVERN	2060004	MIDWAY BETWEEN CHEST NECK PT AND S FERRY PT
0301801	39 05 04	76 27 29	WT-6	WEST CHESAPEAKE	SEVERN	2060004	500 YDS EAST OF LITTLE ISLAND OF SILLERY BAY
0301802	39 05 12	76 26 56	WT-6	WEST CHESAPEAKE	SEVERN	2060004	MIDWAY BETWEEN STATION 601 AND A PT OF LAND ON
0302005	39 07 59	76 26 19	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MOUHT OF BODKIN CR
0302006A	39 09 11	76 27 54	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	100 FT OFF PASADENA BEACH
0302006B	39 09 20	76 28 06	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	100 FT OFF KURTZ'S BEACH
0302007	39 07 30	76 25 35	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN TWIN TOWERS ON BODKIN NECK
0302008	39 05 06	76 24 58	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS NE OF TOWER; 1500 YDS FROM SHORE
0302009	39 09 20	76 24 33	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SEVEN FOOT KNOLL LIGHT
0302009A	39 04 37	76 22 24	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK AND WHITE NUN "12B" NE OF BALTIMORE LIGHT
0302009B	39 06 17	76 22 27	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	2 1/2 MI E OF GABLE AT MT CARMEL
0302009C	39 08 35	76 22 21	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SIX FOOT KNOLL
0302010	39 02 20	76 24 22	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/4 MI NW OF OLD TOWER ON
0302011A	39 00 52	76 23 38	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SANDY PT ST PARK E BEACH-MIDDLE OF BUOY LINE
0302011B	39 01 21	76 23 22	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DNR RESTRICTED AREA BUOY AA
0302011C	39 01 39	76 23 33	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DNR RESTRICTED AREA BUOY BB
0303001A	39 00 29	76 23 48	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SWIM LINE AT SANDY PT ST PARK
0303002A	38 58 16	76 24 45	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN "1"
0303004	38 59 12	76 26 15	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC "2 WHITEHALL BAY
0303005	39 00 02	76 25 54	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED DAYMARK "6" AT MOUTH OF WHITEHALL CREEK
0303005A	39 00 02	76 25 31	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUHT OF MEREDITH CR
0303006	38 59 35	76 26 52	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED DAYMARK "10" AT MOUTH OF MILL CR
0303010	38 55 42	76 27 30	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	OFF MOUTH OF UNNAMED CR BELOW BAY BRIDGE
0303103	38 54 48	76 27 51	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN 1-L G 4 SEC "5" AND "3"
0303200	38 58 06	76 27 14	WT-7	WEST CHESAPEAKE	SEVERN	2060004	GREENBURY LIGHT
0303202	38 57 09	76 26 17	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED NUN "4"
0303204	38 56 37	76 26 52	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS NE OF TOLLY PT
0303205	38 55 54	76 25 53	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	F 1 4 SEC BELL "77"
0304002A	39 02 32	76 33 26	WT-7	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "2" OFF LONG PT
0304005	39 02 34	76 32 18	WT-7	WEST CHESAPEAKE	SEVERN	2060004	MOUHT OF ROUND BAY N SIDE, 50 YDS FROM SHORE
0304008	39 01 54	76 31 37	WT-7	WEST CHESAPEAKE	SEVERN	2060004	ACROSS RIVER FROM BREWER PT 100 YDS FROM SHORE
0304011	39 00 55	76 30 56	WT-7	WEST CHESAPEAKE	SEVERN	2060004	100 FT IN FRONT OF PINES ON THE SEVERN
0304013	39 00 33	76 30 47	WT-7	WEST CHESAPEAKE	SEVERN	2060004	100 FT IN FRONT OF STP ON S SHORE
0304020	38 59 36	76 28 57	WT-7	WEST CHESAPEAKE	SEVERN	2060004	JONAS GREEN ST PARK
0304028	38 58 52	76 27 24	WT-7	WEST CHESAPEAKE	SEVERN	2060004	MOUTH OF CARR CREEK (BACK OF RADIO TOWERS)
0304029	38 57 58	76 27 23	WT-7	WEST CHESAPEAKE	SEVERN	2060004	100 YDS IF SE OF CHINKS PT
0304150	39 03 31	76 33 47	WT-7	WEST CHESAPEAKE	SEVERN	2060004	1000 YDS SOUTH OF CEDAR PT HEAD OF ROUND BAY
0304152	39 04 09	76 34 35	WT-7	WEST CHESAPEAKE	SEVERN	2060004	2000 YDS SOUTH OF CEDAR PT HEAD OF ROUND BAY
0305004	39 52 48	76 27 42	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	2000 YDS E OF 10' HIGH QUICK FLASHING LIGHT
0305005	38 52 15	76 26 38	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL G 4 SEE "73"
0305006	38 53 51	76 25 55	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	THOMAS PT LIGHT
0305201	38 52 11	76 28 52	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DAYMARK 1
0305204	38 53 15	76 28 57	WT-8	WEST CHESAPEAKE	SEVERN	2060004	2000 YDS E OF SAUNDERS PT
0306002	38 57 05	76 32 20	WT-8	WEST CHESAPEAKE	SEVERN	2060004	250 YDS OFF END OF PT BETWEEN CRAB CR & CHURCH
0306006	38 56 08	76 31 23	WT-8	WEST CHESAPEAKE	SEVERN	2060004	500 YDS N CEDAR PT
0306011	38 55 16	76 30 44	WT-8	WEST CHESAPEAKE	SEVERN	2060004	NORTH END OF MAY PT (DAYMARK 9)
0306012	38 55 23	76 30 00	WT-8	WEST CHESAPEAKE	SEVERN	2060004	500 YDS S OF HILL PT
0306013A	38 55 37	76 29 18	WT-8	WEST CHESAPEAKE	SEVERN	2060004	1/2 WAY BETWEEN DAYMARK "1" AND "3" (DUVALL CR)
0306015	38 54 33	76 30 15	WT-8	WEST CHESAPEAKE	SEVERN	2060004	FLASHING RED 2.5 SEC LIGHT "2" AT THE MOUTH OF
0306016	38 54 38	76 29 38	WT-8	WEST CHESAPEAKE	SEVERN	2060004	WEST SIDE TIP OF TURKEY PT
0306016	38 54 38	76 29 38	WT-8	WEST CHESAPEAKE	SEVERN	2060004	W SIDE TIP OF TURKEY PT
0306017	38 54 54	76 29 22	WT-8	WEST CHESAPEAKE	SEVERN	2060004	100 YDS N OF FLASHING RED 4 SEC LIGHT "6"
0306104	38 55 50	76 29 02	WT-8	WEST CHESAPEAKE	SEVERN	2060004	700 YDS N OF DAYMARK "3" IN DUVALL CR
0306106	38 56 32	76 31 19	WT-8	WEST CHESAPEAKE	SEVERN	2060004	MOUTH OF ABERDEEN CR
0306110	38 57 03	76 33 28	WT-8	WEST CHESAPEAKE	SEVERN	2060004	W OF S RIVER BRIDGE, S SIDE OF RIVER
0306111	38 56 05	76 32 16	WT-8	WEST CHESAPEAKE	SEVERN	2060004	2000 YDS INSIDE MOUTH OF GLEBE CR
0306115	38 54 10	76 30 30	WT-8	WEST CHESAPEAKE	SEVERN	2060004	100 FT S OF DAYMARK "1"
0306115A	38 54 04	76 29 59	BFL	WEST CHESAPEAKE	SEVERN	2060004	MIDWAY INSIDE RAMSEY LAKE
0306203	38 55 54	76 31 03	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "10"
0306204	38 55 48	76 31 18	WT-8	WEST CHESAPEAKE	SEVERN	2060004	1/2 WAY BETWEEN BAYMARK "10" & MOUTH OF BREWER
0306205	38 56 44	76 32 27	WT-8	WEST CHESAPEAKE	SEVERN	2060004	NEAR FLASHING GREEN 4 SEC LIGHT "15"
0306206	38 54 20	76 29 29	WT-8	WEST CHESAPEAKE	SEVERN	2060004	25 YDS OFF THE MOUTH OF RAMSEY LAKE
0306208	38 56 40	76 31 56	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "14"
0306211	38 57 00	76 32 48	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "16"
0306212	38 56 30	76 31 59	WT-8	WEST CHESAPEAKE	SEVERN	2060004	1/2 WAY BETWEEN STATION 0306208 & LARRIMORE PT
0306801	38 54 33	76 30 39	WT-8	WEST CHESAPEAKE	SEVERN	2060004	500 YDS WEST OF FLASHING RED 2.5 SEC LIGHT "4"
0307011	38 50 50	76 30 20	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARKER "3"
0307011B	38 51 06	76 30 21	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARKER "1", ENTRANCE TO PARISH CR
0307012A	38 51 55	76 29 34	WT-8	WEST CHESAPEAKE	SEVERN	2060004	LIGHT "2"
0307019	38 52 50	76 30 53	BFL	WEST CHESAPEAKE	SEVERN	2060004	MIDWAY BETW DAYMARKER "1" & "2" MOUTH OF CADLE
0307108	38 51 39	76 30 43	WT-8	WEST CHESAPEAKE	SEVERN	2060004	MIDSTREAM OF W RIVER, S OF DUTCHMAN PT
0307117	38 52 39	76 31 06	WT-8	WEST CHESAPEAKE	SEVERN	2060004	W SIDE DAYMARKER "6"
0307120	38 53 00	76 31 17	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARKER "7"
0307120A	38 53 21	76 31 30	WT-8	WEST CHESAPEAKE	SEVERN	2060004	CARR WHARF DAYMARK "1"
0307122	38 53 02	76 31 44	WT-8	WEST CHESAPEAKE	SEVERN	2060004	E SIDE OF HIGH ISLAND
0307122A	38 53 13	76 31 44	WT-8	WEST CHESAPEAKE	SEVERN	2060004	OFF BEACH AT CAMP LETTS
0307204	38 51 11	76 31 59	WT-8	WEST CHESAPEAKE	SEVERN	2060004	FL 4 SEC "4" WEST RIVER
0307205	38 50 40	76 32 03	WT-8	WEST CHESAPEAKE	SEVERN	2060004	FL 4 SEC "6" OFF COUNCILLORS PT
0307206	38 52 12	76 31 02	WT-8	WEST CHESAPEAKE	SEVERN	2060004	DAYMARK "3"
0307900	38 52 07	76 30 47	WT-8	WEST CHESAPEAKE	SEVERN	2060004	30 FT OFF WWTP TIDAL WETLAND BULKHEAD BETW 1 &
0307901	38 52 05	76 30 40	WT-8	WEST CHESAPEAKE	SEVERN	2060004	30 FT OFF WWTP TIDAL WETLAND BULKHEAD BETW 4 &
0401002	39 09 09	76 04 04	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MIDSTREAM OF CHESTER R OPPOSITE MOUTH OF BROAD
0402006	39 07 21	76 06 07	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R OFF MOUTH OF CR ON E SIDE
0402013A	39 06 04	76 08 36	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CAN "19" SE OF CLIFFS PT IN CHESTER R

Maryland Shellfish Sanitation Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
0402018	39 04 47	76 07 54	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	500 YDS UPSTREAM OF RED NUN "2"
0402022	39 04 55	76 06 46	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RED NUN "4" OFF MOUTH OF EMORY CR IN CORSICA R
0403001A	39 04 07	76 09 34	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R 300 YDS OUT FROM MOUTH OF REED AND GR
0403004A	39 05 15	76 09 56	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R AT RED NUN "16"
0403006A	39 02 44	76 12 20	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R 200 YDS W OF NUN "14"
0403011	39 00 58	76 11 47	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R SIDE OF EASTERN NECK ISLAND
0403018A	39 05 10	76 11 55	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESTER R 750 YDS S OF NAPOLY GREEN ROAD
0403019A	39 05 51	76 12 33	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CENTER OF GRAYS INN CR ON THE RESTRICTION LINE
0403023	39 06 03	76 10 35	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	LANFORD CR 250 YDS W OF CAN "1"
0403027	39 06 43	76 10 07	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	LANFORD CR E OF DRUM PT NEAR CAN "39"
0403028	39 07 50	76 10 10	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CNTR OF LANFORD CR 640 YDS W OF ORCHARD PT LOOK
0404003	38 59 51	76 09 55	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING LIGHT "5" AT MOUTH OF QUEENSTOWN CR
0404007A	38 59 34	76 12 46	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING LIGHT "9"
0404019A	39 01 19	76 15 47	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	1200 YDS SOUTH OF CAN "3"
0404020	39 02 11	76 17 28	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	700 YDS SOUTHEAST OF LOVE PT
0501001	38 49 48	76 28 56	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS EAST OF CEDAR HURST
0501001B	39 49 01	76 28 31	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	2000 YDS EAST OF FRANKLIN PT
0501001F	38 47 45	76 30 32	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS SOUTHEAST OF FRANKLIN MANOR
0501003	38 46 28	76 31 59	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	50 YDS EAST OF MOUTH OF PARKER CR
0501003A	38 46 12	76 32 59	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	50 YDS EAST OF OWINGS BEACH
0501004	38 46 01	76 33 23	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED DAYMARK "4" ENTRANCE TO ROCKHOLD CR
0501004A	38 45 54	76 33 10	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING RED LIGHT "2" CHANNEL ENTRANCE TO ROCK
0501005	38 45 21	76 32 57	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DAYMARK "3" EAST OF FAIRHAVEN
0501006A	38 44 31	76 32 42	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	PARKER'S SHOAL LIGHT "2"
0501006B	38 44 04	76 32 20	BFL	WEST CHESAPEAKE	SEVERN	2060004	ENTRANCE LIGHT "1"
0501007A	38 44 25	76 30 51	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	PARKER'S SHOAL LIGHT "1"
0501201	38 46 03	76 29 43	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK/WHITE N "9B"
0501202	38 48 12	76 30 25	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DNR RESTRICTED AREA BUOY
0501203	38 48 02	76 30 31	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DNR RESTRICTED AREA BUOY
0502001	38 42 57	76 30 01	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	100 YDS E OF W OR A-FISHING REEF
0502003	38 41 29	76 30 39	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN FL 4 SEC 15 FT "1" AND BW N "7B"
0502004	38 41 47	76 31 30	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	800 YDS E NE OF W BEACH & 500 YDS NW OF FL 4 SE
0502005	38 41 21	76 31 32	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	800 YDS E OF WEST BEACH
0502007A	38 37 15	76 29 59	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN "1" NE OF PLUM PT
0502201	38 38 32	76 31 02	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	100 FT E OF PIER AT CAMP ROOSEVELT
0502202	38 43 37	76 29 54	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN "69"
0502203	38 39 59	76 31 27	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS E OF RANDLE CLIFF BEACH
0502204	38 38 41	76 29 15	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BWN "6B"
0601002	39 56 53	76 22 25	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	1800 YDS SW OF MATAPEAKE HARBOR ENTRANCE
0601005	38 50 01	76 23 31	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLOODY PT BAR LIGHT
0601006	38 52 04	76 22 13	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	100 YDS IN FRONT OF ENTRANCE TO CHEWS CR
0601007	38 52 39	76 22 01	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	80 YDS IN FRONT OF ENTRANCE TO CARTER CR
0601008	38 53 01	76 21 59	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	80 YDS IN FRONT OF ENTRANCE TO TOLSON CR
0601011	38 54 53	76 22 03	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	ENTRANCE TO KENTMORR MARINA
0601016	39 00 27	76 19 44	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 1/2 MI NE OF BAY BRIDGE 300 YDS FROM SHORE
0601202	38 57 34	76 23 24	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED "78" FLASHING 4 SEC BELL
0601204	38 59 24	76 21 07	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CLOSED SAFETY ZONE BUOY C
0701001	38 36 17	76 29 56	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN PLUM PT & BW N "5B"
0701004	38 29 43	76 29 34	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS E OF KENWOOD BEACH
0701005	38 26 04	76 25 13	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1800 YDS E OF CALVERT CLIFFS NUCLEAR POWER PLAN
0701005A	38 24 41	76 24 10	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS E OF ROCKY PT
0701008	38 34 06	76 30 33	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	600 YDS E OF SHORE N OF DARES BEACH-USE TANK AS
0701009	38 32 19	76 30 37	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	800 YDS E OF PARKER CR
0701201	38 31 01	76 29 55	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN SHORE AND BW N "3B"
0701202	38 35 48	76 29 45	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY BETWEEN BW N "5B" AND SHORE
0701203	38 28 25	76 28 30	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS OFF CALVERT BEACH
0701204	38 23 20	76 22 28	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS E OF COVE PT
0801006	38 50 35	76 13 48	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RED NUN "8" W OF BENNETT PT
0801011	38 49 26	76 14 26	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	OFF MOUTH OF PORTER CR
0801013A	38 49 58	76 12 37	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	WEST OF WEEDLAND CR AT CAN "1"
0801019A	38 47 55	76 12 09	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	150 YDS OFF SHORE IN LINE W/ WHITE CHIMNEY
0801021	38 47 51	76 11 41	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF LEEDS CR (INSET)
0801022	38 48 39	76 10 56	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	LEEDS CR 1.5. MI FROM MOUTH
0801028	38 45 50	76 10 31	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING 4 SEC LIGHT "7" SW OF LONG PT
0801030	38 45 20	76 10 22	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	OAK CR ENTRANCE DAYMARK "2" (OAK CR CLOSURE LIN
0801033	38 47 11	76 08 20	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RED NUN "10"
0801060	38 47 02	76 10 37	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	HUNTING CR 1500 YDS N OF MOUTH
0801207	38 47 21	76 12 58	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING RED 4 SEC LIGHT "2" MOUTH OF ST. MICHA
0801209	38 47 18	76 12 28	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RESTRICTED AREA BUOY B TALBOT COUNTY SANITARY D
0802001	38 50 45	76 12 06	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RED NUN "4" MOUTH OF WYE RIVER
0802004	38 51 52	76 11 33	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAYMARKER 1 N OF BRUFFS ISLAND
0802010	38 53 24	76 10 47	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	700 YDS NE OF DRUM PT
0802013A	38 54 59	76 09 56	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	RED "5" N OF GRAPEVINE PT
0802014	38 54 20	76 09 34	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	WYE NARROWS OPPOS BRK BLDING AT MOUTH OF DECOUR
0802017	38 51 46	76 10 49	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	SHAW BAY - R "2"
0802019	38 52 25	76 09 57	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	WYE EAST 1000 YDS N OF LLOYD CR
0802023	38 52 56	76 09 05	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	WYE EAST 500 YDS SW OF GRANARY CR
0802026	38 52 47	76 06 51	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	COVE-1400 YDS W OF WYE HEIGHTS BOATHOUSE
0802304	38 54 25	76 07 51	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	25 FT E OF WYE NARROWS BRIDGE
0803005	38 53 28	76 12 07	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUH OF GREENWOOD CR
0803005B	38 53 56	76 11 16	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	GREENWOOD CR 1000 YDS UPSTREAM OF MOUTH LEFT BR
0803007	38 54 02	76 14 00	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	LIGHTED BEACON "1" IN E BAY SE OF PARSON'S ISLA
0803012	38 57 22	76 14 31	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	500 YDS E OF HOG ISLAND
0803013	38 57 36	76 14 16	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MARSHY CR PRIVATE DAY BEACON "1"
0803014B	38 57 59	76 14 44	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAY BEACON "9"
0803020	38 57 52	76 14 36	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAY BEACON R "8"
0803203	38 58 42	76 14 39	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAY BEACON "21" N ENTRANCE TO KENT IS NARROWS
0804002	38 52 33	76 15 06	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING RED LIGHT "4" OFF TILGHMAN PT
0804014	38 50 32	76 16 13	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING LIGHT AND BELL "2A"-1 MI N OF WADES PT
0804019	38 53 54	76 18 48	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING LIGHT "2" SW IF TURKEY PT
0804024	38 54 31	76 20 19	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF WEST BRANCH OF SHIPPING CR
0804028	38 55 11	76 18 42	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	1400 YDS S OF FLASHING LIGHT "4" IN COX CR

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STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
0804031	38 56 23	76 19 05	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF WAREHOUSE CR
0804035	38 56 09	76 17 21	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CRAB ALLEY CR OFF CRAB ALLEY MARINA PIER
0804035C	38 55 21	76 17 18	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAYMARK "4" CRAB ALLEY BAY
0804801	38 56 16	76 16 57	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	DAYMARK "8" IN LITTLE CR
0805001	38 49 29	76 19 24	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	1 MI W OF WADES PT
0805003T	38 43 14	76 20 27	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING R 4 SEC "4" (CHESAPEAKE BAY)
0805005	38 44 01	76 21 25	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	FLASHING 4 SEC LIGHT 1 POPLAR ISLAND NARROWS
0805008T	38 41 41	76 20 51	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS OFFSHORE PAWPAW COVE
0805019T	38 43 07	76 19 56	EE-2	EASTERN SHORE	CHOPTANK	2060005	KNAPPS NARROWS CNTR OF CHANNEL OFF BRIDGE RESTA
0805104	38 45 35	76 22 27	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	POPLAR HARBOR
0805800	38 43 15	76 20 38	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	BUOY "A" OF CLOSED SAFETY ZONE FOR THE TILGHMAN
0805801	38 43 04	76 20 34	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	BUOY "C" OF CLOSED SAFETY ZONE FOR THE TILGHMAN
0806004	38 45 14	76 07 03	EE-2	EASTERN SHORE	CHOPTANK	2060005	700 YDS NE OF WATERMELON PT RED DAYMARK "20"
0806006A	38 44 00	76 08 00	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "15"
0806009	38 43 36	76 08 36	EE-2	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK "12 S OF DOUBLE MILLS PT"
0806012	38 42 29	76 08 22	EE-2	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF TRIPPE CR GREEN DAYMARK "1"
0806014	38 42 45	76 07 22	EE-2	EASTERN SHORE	CHOPTANK	2060005	TRIPPE CR 500 YDS NE OF DEEPWATER PT
0806016	38 42 12	76 08 42	EE-2	EASTERN SHORE	CHOPTANK	2060005	QUICK FLASHING RED LIGHT "6" E OF PECKS PT
0806018	38 42 06	76 09 51	EE-2	EASTERN SHORE	CHOPTANK	2060005	QUICK FLASHING RED LIGHT "4" S OF PECKS PT
0806019A	38 42 32	76 10 09	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "1" MOUTH OF PLAINEALING CR
0806022	38 41 48	76 10 01	EE-2	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF TOWN CR AT FLASHING R 4 SEC LIGHT
0806025	38 41 34	76 10 53	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING 4 SEC LIGHT "2"
0806028	38 39 52	76 11 19	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING GREEN 2.5 SEC "1" SE OF BENONI PT
0806120	38 42 33	76 10 38	EE-2	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF TAR CR
0806801	38 45 38	76 06 43	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "21" SW OF JACKS CR
0807004	38 45 21	76 13 39	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "11" SAN DOMINGO CR
0807005	38 45 44	76 13 49	EE-2	EASTERN SHORE	CHOPTANK	2060005	SAN DOMINGO CR-RED DAYMARK "14"
0807006C	38 46 17	76 13 52	EE-2	EASTERN SHORE	CHOPTANK	2060005	SAN DOMINGO CR-1000 YDS N OF RED DAYMARK "14"
0807010	38 44 10	76 12 36	EE-2	EASTERN SHORE	CHOPTANK	2060005	EDGE CR OPPOSITE BARRETT COVE
0807011	38 44 42	76 14 16	EE-2	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK
0807014	38 44 34	76 15 42	EE-2	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF LEADENHAM CR DAYMARK "1"
0807020	38 43 20	76 16 27	EE-2	EASTERN SHORE	CHOPTANK	2060005	BALL CR RED DAYMARK "2"
0807023	38 42 36	76 15 31	EE-2	EASTERN SHORE	CHOPTANK	2060005	1050 YDS E OF NELSON ISLAND RED NUN "2"
0807026	38 41 50	76 13 23	EE-2	EASTERN SHORE	CHOPTANK	2060005	IRISH CR 350 YDS W OF EDWARDS PT
0807103	38 46 17	76 13 16	EE-2	EASTERN SHORE	CHOPTANK	2060005	SAN DOMINGO CR 700 YDS NE OF RED DAYMARK "14"
0807700	38 45 53	76 14 55	EE-2	EASTERN SHORE	CHOPTANK	2060005	BROAD CREEK 800 YDS SE OF EDGARD COVE
0808001T	38 43 01	76 19 14	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 4 SEC LIGHT "6"
0808012T	38 40 34	76 20 03	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING 4 SEC LIGHT "1"
0808027	38 40 34	76 16 47	EE-2	EASTERN SHORE	CHOPTANK	2060005	W OR S "B" (SPECIAL PURPOSE BUOY)
0808038	38 42 47	76 18 20	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 2.5 SEC LIGHT "2" W OF CHANGE PT
0808039	38 43 51	76 18 17	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING 4 SEC LIGHT "5" E OF BALD EAGLE PT
0808042A	38 44 29	76 19 00	EE-2	EASTERN SHORE	CHOPTANK	2060005	INSIDE MOUTH OF DUN COVE
0808044	38 45 12	76 18 28	EE-2	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK "10" W OF INDIAN PT
0808046	38 45 56	76 18 01	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "13" OPPOSIT BRIARY COVE
0808048	38 46 18	76 17 12	EE-2	EASTERN SHORE	CHOPTANK	2060005	150 YDS S OF RABBIT PT
0808048B	38 46 42	76 17 23	EE-2	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF CUMMINGS CR
0901001	38 32 27	76 40 25	RET-1	PATUXENT	PATUXENT	2060006	MIDRIVER ON LINE BETW GODS GRACE PT & UNNAMED P
0901002	38 32 12	76 41 08	RET-1	PATUXENT	PATUXENT	2060006	MIDPT OF MOUTH SWANSON CR 350 YDS SW OF CHALK P
0901005	38 31 34	76 40 12	RET-1	PATUXENT	PATUXENT	2060006	300 YDS DUE E OF TEAGUE PT
0901013	38 29 43	76 41 02	RET-1	PATUXENT	PATUXENT	2060006	MIDPT OF MOUTH OF INDIAN CR OFF A LONG PT TO NW
0901014	38 29 29	76 40 05	RET-1	PATUXENT	PATUXENT	2060006	AT G "23" ABOUT 200 YDS E OF LONG PT
0901018	38 27 49	76 39 59	LE-1	PATUXENT	PATUXENT	2060006	200 YDS INSIDE MOUTH OF WASHINGTON CR
0901019	38 27 27	76 39 47	LE-1	PATUXENT	PATUXENT	2060006	150 YDS INSIDE MOUTH OF PERSIMMON CR
0901021	38 27 50	76 38 59	LE-1	PATUXENT	PATUXENT	2060006	AT FL F "21" 550 YDS SW OF SHERIDAN PT
09010101A	38 28 57	76 40 31	RET-1	PATUXENT	PATUXENT	2060006	MOUTH OF TREH HALL CR 250 YDS S SE OF UNNAMED P
0902007A	38 25 48	76 36 32	LE-1	PATUXENT	PATUXENT	2060006	AT FL 6 SEC "18"
0902019	38 23 10	76 32 12	LE-1	PATUXENT	PATUXENT	2060006	750 YDS NW OF GREEN DAYMARK "15"
0902020A	38 24 29	76 32 40	LE-1	PATUXENT	PATUXENT	2060006	AT FL R 4 SEC "2" OFF ISLAND CR
0902105D	38 26 50	76 36 13	LE-1	PATUXENT	PATUXENT	2060006	MIDPT OF MOUTH OF BATTLE CR
0902107A	38 27 02	76 36 00	LE-1	PATUXENT	PATUXENT	2060006	AT FL 6 SEC "18"
0902109	38 24 48	76 32 36	LE-1	PATUXENT	PATUXENT	2060006	MIDCHANNEL OF ISLAND CR 650 YDS N NE OF FL R 4
0903006	38 23 24	76 30 00	LE-1	PATUXENT	PATUXENT	2060006	INSIDE MOUTH OF ST LEONARD CR, 700 YDS E OF PET
0903100	38 20 09	76 30 18	LE-1	PATUXENT	PATUXENT	2060006	700 YDS SE OF MOUTH OF MILL CR
0903101	38 20 52	76 30 20	LE-1	PATUXENT	PATUXENT	2060006	IN CUCKHOLD CR, 850 YDS NW OF DAYMARK "4"
0903103	38 21 34	76 28 41	LE-1	PATUXENT	PATUXENT	2060006	200 YDS INSIDE MOUTH OF HELLEN CR
0903106	38 23 38	76 29 24	LE-1	PATUXENT	PATUXENT	2060006	1500 YDS INSIDE OF ST LEONARD IN NE DIRECTION
0903107	38 24 17	76 29 06	LE-1	PATUXENT	PATUXENT	2060006	CENTER OF ST LEONARD CR OFF ROLLINS COVE
0903201	38 23 01	76 30 25	LE-1	PATUXENT	PATUXENT	2060006	AT FL R 6 SEC "14" OUTSIDE OF ST LEONARD CR
0903203	38 20 32	76 29 55	LE-1	PATUXENT	PATUXENT	2060006	DAYMARK #4 AT MOUTH OF CUCKHOLD CR
0903204	38 21 10	76 29 15	LE-1	PATUXENT	PATUXENT	2060006	20 YDS S OF F 1 R 4 SEC "12"
0904005B	38 18 45	76 27 18	LE-1	PATUXENT	PATUXENT	2060006	AT OK FL R 3M "6"
0904007	38 18 54	76 28 46	LE-1	PATUXENT	PATUXENT	2060006	MOUTH OF TOWN CR AT LIGHT "2"
0904015A	38 19 18	76 27 05	LE-1	PATUXENT	PATUXENT	2060006	100 YDS DUE W OF DAYMARK "4" OFF NE PT OF SOLOM
0904104	38 19 47	76 27 27	LE-1	PATUXENT	PATUXENT	2060006	AT FLASHING GREEN LIGHT "7" AT BACK CR
0904109A	38 20 03	76 26 55	LE-1	PATUXENT	PATUXENT	2060006	CONFLUENCE OF ST JOHN CR AND MILL CR AT LIGHT "
0904300	38 19 08	76 28 53	LE-1	PATUXENT	PATUXENT	2060006	CENTER OF TOWN CR 500 YDS N NW OF LIGHT "2"
0905007	38 19 02	76 24 04	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING GREEN 2 SEC 4M LIGHT "1"
0905007A	38 18 12	76 21 12	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING 4 SEC BELL "57"
0905210	38 20 48	76 21 51	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	AT BLACK AND WHITE NUN BUOY "31B"
1001010	38 56 59	75 58 51	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MIDSTREAM OF THE CHOPTANK R
1001017	38 35 46	76 59 46	ET-5	EASTERN SHORE	CHOPTANK	2060005	CAN "33" 3000 YDS S OF JAMAICA PT
1001701	38 38 36	76 58 02	BFL	POTOMAC	LOWER POTOMAC	2070011	CAN "39" NW IF CABIN CR
1001702	38 35 26	76 00 24	ET-5	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 2.5 SEC LIGHT "32"
1001800	38 38 01	75 57 49	ET-5	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF CABIN CR
1001801	38 36 43	75 58 13	ET-5	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK "2" WARWICK R
1001802	38 35 51	75 58 16	BFL	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF GOOSE CR
1001803	38 35 11	75 58 37	BFL	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF INDIAN CR
1002004A	38 34 44	76 01 32	ET-5	EASTERN SHORE	CHOPTANK	2060005	400 YDS SOUTHWEST OF CHANCELLOR PT
1002005	38 34 27	76 02 01	ET-5	EASTERN SHORE	CHOPTANK	2060005	CAN "29" 900 YDS SW OF CHANCELLOR PT
1002005D	38 35 11	76 02 19	ET-5	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF BOLINGBROKE CR
1002005F	38 35 07	76 02 35	ET-5	EASTERN SHORE	CHOPTANK	2060005	BOLINGBROKE CR MOUTH OF LEFT BRANCH
1002008	38 35 04	76 03 18	ET-5	EASTERN SHORE	CHOPTANK	2060005	150 YDS DOWNSTREAM RT 50 BRIDGE

Maryland Shellfish Sanitation Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1002011	38 35 29	76 03 55	ET-5	EASTERN SHORE	CHOPTANK	2060005	880 YDS OFFSHORE FROM END OF BELVEDERE RD
1002013	38 34 51	76 04 39	ET-5	EASTERN SHORE	CHOPTANK	2060005	50 YDS OFFSHORE FROM END OF BELVEDERE RD
1002015	38 34 25	76 04 16	ET-5	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF CAMBRIDGE CR
1002020	38 35 24	76 05 11	ET-5	EASTERN SHORE	CHOPTANK	2060005	150 YDS OFFSHORE IN HAMBROOK BAR HOLLOW
1002021	38 34 48	76 03 45	ET-5	EASTERN SHORE	CHOPTANK	2060005	FLASHING 4 SEC LIGHT "1"
1002022	38 35 28	76 04 32	ET-5	EASTERN SHORE	CHOPTANK	2060005	NUN "24"
1002703	38 34 19	76 02 31	ET-5	EASTERN SHORE	CHOPTANK	2060005	CAN "27"
1002804	38 00 55	76 00 55	BFL	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUTH OF WHITEHALL CR
1003005	38 35 04	76 06 43	ET-5	EASTERN SHORE	CHOPTANK	2060005	MOUTH OF JENKINS CR
1003008B	38 36 36	76 07 41	ET-5	EASTERN SHORE	CHOPTANK	2060005	FLASHING GREEN 2.5 SEC LIGHT "19"
1003011	38 37 49	76 08 18	ET-5	EASTERN SHORE	CHOPTANK	2060005	FLASHING GREEN 2.5 SEC LIGHT "18"
1003014	38 37 57	76 06 56	ET-5	EASTERN SHORE	CHOPTANK	2060005	LATRAPPE CR 700 YDS UPSTREAM
1003015	38 38 34	76 06 35	ET-5	EASTERN SHORE	CHOPTANK	2060005	LATRAPPE CR OPPOSITE SAWMILL COVE
1003016E	38 35 58	76 06 48	ET-5	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 4 SEC LIGHT "20"
1003016H	38 36 53	76 05 42	ET-5	EASTERN SHORE	CHOPTANK	2060005	350 YDS S OF ISLAND IN DICKENSON BAY
1003704	38 36 21	76 05 06	ET-5	EASTERN SHORE	CHOPTANK	2060005	CAN "23"
1003705	38 36 23	76 05 00	ET-5	EASTERN SHORE	CHOPTANK	2060005	MIDSTREAM OF CHOPTANK R 1 MI N OF HAMBROOKS BAR
1003706	38 37 30	76 09 20	ET-5	EASTERN SHORE	CHOPTANK	2060005	RED NUN "2" MOUTH OF LECOMPTÉ BAY AND E CASTLE
1004003	38 38 46	76 18 18	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 2.5 SEC LIGHT "10"
1004005	38 39 56	76 16 23	EE-2	EASTERN SHORE	CHOPTANK	2060005	BLACK AND WHITE NUN "62B"
1004006	38 39 25	76 14 01	EE-2	EASTERN SHORE	CHOPTANK	2060005	QUICK FLASHING RED LIGHT "12A"
1004009	38 38 13	76 12 46	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING RED 2.5 SEC LIGHT "12B"
1004010	38 39 14	76 10 59	EE-2	EASTERN SHORE	CHOPTANK	2060005	CHOPTANK R LIGHT
1004013	38 39 28	76 09 26	EE-2	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK "2" MOUTH OF ISLAND CR
1004015	38 39 50	76 08 18	EE-2	EASTERN SHORE	CHOPTANK	2060005	ISLAND CR 1 MI UPSTREAM
1005007	38 33 54	76 20 26	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK AND WHITE NUN "32B2"
1005009	38 32 04	76 23 12	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1600 YDS NE OF RN "2"
1005706	38 36 27	76 20 17	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BLACK AND WHITE NUN "40" 3 MI SW OF COOK PT
1006007	38 32 43	76 15 52	EE-2	EASTERN SHORE	CHOPTANK	2060005	GREEN DAYMARK "5"
1006010C	38 29 40	76 16 40	EE-2	EASTERN SHORE	CHOPTANK	2060005	SLAUGHTER CR RED "6" BEACON
1006701	38 31 17	76 16 27	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING GREEN 4 SEC LIGHT "5" 6 MI S OF RAGGED
1006702	38 33 15	76 19 18	EE-2	EASTERN SHORE	CHOPTANK	2060005	FLASHING GREEN 25 SEC LIGHT "1" 1.5 MI SW OF HI
1006703	38 32 19	76 15 40	EE-2	EASTERN SHORE	CHOPTANK	2060005	RED DAYMARK "2" MOUTH OF BROOKS CR
1007002A	38 31 51	76 13 32	EE-2	EASTERN SHORE	CHOPTANK	2060005	"2" FLASHING LIGHT MOUTH OF MADISON BAY
1007003	38 32 24	76 14 27	EE-2	EASTERN SHORE	CHOPTANK	2060005	DAYMARK "1" MOUTH OF HUDSON CR
1007006F	38 34 00	76 14 45	EE-2	EASTERN SHORE	CHOPTANK	2060005	HUDSON CR 1200 YDS N OF BEACON "3"
1007009	38 32 08	76 12 38	EE-2	EASTERN SHORE	CHOPTANK	2060005	FISHING CR DAYMARK "3"
1007012	38 31 42	76 10 45	EE-2	EASTERN SHORE	CHOPTANK	2060005	FISHING CR 1 MI UPSTREAM FROM WINDMILL PT
1007015	38 33 09	76 12 45	EE-2	EASTERN SHORE	CHOPTANK	2060005	500 YDS N NE OF TOWN PT
1007016	38 33 30	76 11 31	EE-2	EASTERN SHORE	CHOPTANK	2060005	CENTER OF BECKWITH CR 400 YDS SW OF CHERRY ISLA
1007704	38 31 13	76 10 32	EE-2	EASTERN SHORE	CHOPTANK	2060005	CHURCH CR
1007705	38 33 33	76 12 56	EE-2	EASTERN SHORE	CHOPTANK	2060005	S OF SOLOMONS COVE OPPOSIT BOAT HOUSE
1103003	38 10 58	76 32 40	BFL	POTOMAC	LOWER POTOMAC	2070011	MCKAY COVE 200 YDS N OF FLASHING RED 4 SEC LIGH
1103004	38 10 31	76 32 20	BFL	POTOMAC	LOWER POTOMAC	2070011	MOUHT OF TALL TIMBERS COVE IN HERRING CR
1103004B	38 10 51	76 32 08	BFL	POTOMAC	LOWER POTOMAC	2070011	700 YDS E NW OF FLASING RED 4 SEC LIGHT "6"
1103004C	38 10 18	76 32 02	BFL	POTOMAC	LOWER POTOMAC	2070011	TALL TIMBERS COVE 50 FT FROM E SHORE
1103005	38 10 50	76 31 46	BFL	POTOMAC	LOWER POTOMAC	2070011	200 YDS SE OF BIG DICK CR AND 250 YDS W OF SPRI
1103008	38 13 48	76 40 57	LE-2	POTOMAC	LOWER POTOMAC	2070011	500 YDS E SE OF HUGGINS PT AND 550 YDS OFFSHORE
1103011	38 08 44	76 32 28	LE-2	POTOMAC	LOWER POTOMAC	2070011	1800 YDS NW OF PINEY PT AND 400 YDS OUT MOUTH O
1103015	38 08 52	76 32 01	BFL	POTOMAC	LOWER POTOMAC	2070011	450 YDS INSIDE PINEY PT CR
1103072	38 11 26	76 35 49	LE-2	POTOMAC	LOWER POTOMAC	2070011	25 YDS OF BWN "55B"
1103201	38 10 43	76 32 38	BFL	POTOMAC	LOWER POTOMAC	2070011	FLASHING RED 4 SEC LIGHT "6"
1104001	38 09 39	76 30 53	LE-2	POTOMAC	LOWER POTOMAC	2070011	200 YDS W BY S OF SHEEHAN PT
1104001B	38 09 57	76 30 26	LE-2	POTOMAC	LOWER POTOMAC	2070011	INSIDE MOUTH OF NORTHERN PRONG
1104003	38 09 09	76 30 17	LE-2	POTOMAC	LOWER POTOMAC	2070011	200 YDS S OF YELLOW BANK
1104003A	38 09 16	76 30 05	LE-2	POTOMAC	LOWER POTOMAC	2070011	APPROX 400 YDS INSIDE MOUTH OF SCHOOLHOUSE BRAN
1104004	38 08 58	76 30 01	LE-2	POTOMAC	LOWER POTOMAC	2070011	50 YDS NE OF G "9" AND 250 YDS SW OF CEDAR PT
1104012	38 07 21	76 27 58	LE-2	POTOMAC	LOWER POTOMAC	2070011	5 YDS E OF FL R 4 SEC "2"
1104013	38 06 41	76 27 49	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL G 4 SEC "1"
1104017	38 09 05	76 28 16	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL R "4" MOUTH OF CATHEGENA CK
1104017A	38 09 17	76 28 13	LE-2	POTOMAC	LOWER POTOMAC	2070011	G "5"
1104022A	38 11 17	76 26 20	LE-2	POTOMAC	LOWER POTOMAC	2070011	NORTHWEST OF CHURCH PT
1104041	38 06 36	76 24 37	LE-2	POTOMAC	LOWER POTOMAC	2070011	CENTER OF CREEK WEST F R "6"
1104041A	38 07 00	76 24 10	LE-2	POTOMAC	LOWER POTOMAC	2070011	600 YDS NE OF FL R "6"
1104041B	38 07 02	76 24 33	LE-2	POTOMAC	LOWER POTOMAC	2070011	CENTER FO CREEK 600 YDS NW OF FL R "6"
1104042	38 07 24	76 24 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	CNTR OF CREEK OPPOSITE MOUTH OF UNNAMED COVE
1104044B	38 07 33	76 23 55	LE-2	POTOMAC	LOWER POTOMAC	2070011	CNTR OF CRK 800YDS UPSTM OF MOUTH OF FOX HRBR
1104202	38 08 17	76 30 51	LE-2	POTOMAC	LOWER POTOMAC	2070011	100 YDS S OF DOLPHINS
1104203	38 07 56	76 30 18	LE-2	POTOMAC	LOWER POTOMAC	2070011	100 YDS S OF FL G 4 SEC "1"
1104205	38 08 30	76 29 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL R 4 SEC "8"
1104701	38 07 25	76 27 30	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL R 15 FT 4 M "A" OFF CHERRYFIELD PT
1104701A	38 07 54	76 28 55	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING GREEN 4 SEC LIGHT "3"
1104702	38 08 28	76 27 18	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL G 2.5 SEC 3 M "1" OFF OF GRAVEYARD PT
1104703	38 09 00	76 26 45	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL R 4 SEC 16 FT 3 M "2" OFF OF PRIESTS PT
1104704	38 09 03	76 26 50	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL G 4 SEC 15 FT 4 M "3" OFF OF WINDMILL PT
1104705	38 08 44	76 27 40	LE-2	POTOMAC	LOWER POTOMAC	2070011	DAYMARK G "1" OFF GRAVEYARD PT
1104706	38 09 40	76 25 43	LE-2	POTOMAC	LOWER POTOMAC	2070011	ST. INDIGOES CREEK
1104707	38 10 05	76 27 04	LE-2	POTOMAC	LOWER POTOMAC	2070011	MIDSTREAM OFF CHANCELLORS PT
1104708	38 11 40	76 26 58	LE-2	POTOMAC	LOWER POTOMAC	2070011	DAYMARK "4" OFF HORSESHOE PT
1105018	38 07 07	76 20 27	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DAYMARK 3 AT MOUTH OF ST JEROME CR
1105205	38 01 25	76 19 20	LE-2	POTOMAC	LOWER POTOMAC	2070011	100 YDS W OF PT NO PT LIGHTHOUSE
1105206	38 01 25	76 19 24	LE-2	POTOMAC	LOWER POTOMAC	2070011	NUN "2" OFF PT LOOKOUT
1105207	38 03 07	76 19 18	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	B W NUN "57B"
1105208	38 03 52	76 19 47	BFL	POTOMAC	LOWER POTOMAC	2070011	100 YDS INSIDE MOUT OF TANNER CR
1105210	38 15 47	76 22 20	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CLOSED SAFETY ZONE PINE HILL RUN WWTP NE BUOY A
1105211	38 15 15	76 22 20	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CLOSED SAFETY ZONE PINE HILL RUN WWTP SE BUOY D
1105701	38 07 19	76 20 46	BFL	PATUXENT	PATUXENT	2060006	FLASHING LIGHT 4 SEC G "9" OFF SPLIT PT
1105702	38 18 10	76 21 03	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FLASHING 4 SEC BELL "57" OFF CEDAR PT
1105703	38 03 43	76 19 32	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CLOSED SAFETY ZONE FO PT LOOKOUT ST PARK WWTP
1201001	38 29 44	76 21 38	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 MI SW LOWER TIP OF JAMES ISLAND
1201002	38 25 36	76 18 35	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 MI NW MOUTH OF PUNCH ISLAND CR
1201002A	38 24 19	76 18 08	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 MI SW MOUTH OF PUNCH ISLAND CR

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STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1301001B	38 21 57	76 51 29	LE-2	POTOMAC	LOWER POTOMAC	2070011	CAN "19W"
1301001C	38 22 14	76 52 23	LE-2	POTOMAC	LOWER POTOMAC	2070011	500 YDS N OF BARBER PT
1301003A	38 21 09	76 49 21	LE-2	POTOMAC	LOWER POTOMAC	2070011	200 YDS N NE OF HAYDEN PT
1301004A	38 20 38	76 49 55	LE-2	POTOMAC	LOWER POTOMAC	2070011	DNR AREA BUOY B
1301006	38 20 45	76 51 06	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED NUN BUOY "16W"
1301008	38 19 55	76 51 33	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED NUN BUOY "14W"
1301014	38 19 01	76 50 42	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING GREEN 6 SEC LIGHT "9W"
1301017	38 17 49	76 50 17	LE-2	POTOMAC	LOWER POTOMAC	2070011	GREEN DAYMARK "7W"
1301018A	38 17 22	76 51 00	LE-2	POTOMAC	LOWER POTOMAC	2070011	500 YDS S BY W INSIDE MOUTH OF CHARLESTON CR
1301024	38 16 36	76 49 27	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING GREEN 4 SEC LIGHT "5W"
1301024A	38 15 55	76 50 21	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING RED 4 SEC LIGHT "2" AT ENTER. NEALE SN
1301027A	38 16 13	76 51 48	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING RED 4 SEC LIGHT "7" AT W ENTER. NEALE
1301028	38 14 27	76 49 30	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING 4 SEC LIGHT "1W" AT MOUTH OF WICOMICO
1301029	38 15 14	76 49 33	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED DAYMARK "2W"
1301033	38 15 01	76 47 29	LE-2	POTOMAC	LOWER POTOMAC	2070011	SPEED LIMIT DAYMARK (78) ENTER. TO WHITES NECK
1301034	38 14 25	76 47 11	LE-2	POTOMAC	LOWER POTOMAC	2070011	GREEN DAYMARK "9L"
1301037	38 13 33	76 46 53	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING 4 SEC LIGHT "11"
1301045A	38 15 55	76 51 50	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING 4 SEC LIGHT "2"
1301202	38 14 44	76 48 18	LE-2	POTOMAC	LOWER POTOMAC	2070011	GREEN DAYMARK "7U"
1302023A	38 15 02	76 39 41	LE-2	POTOMAC	LOWER POTOMAC	2070011	1000 YDS S SE OF PAWPAW PT
1302024	38 15 24	76 39 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING GREEN 2 1/2 SEC LIGHT "7" OFF PAWPAW P
1302025	38 15 49	76 38 58	LE-2	POTOMAC	LOWER POTOMAC	2070011	IN CHANNEL AT FLASHING RED 4 SEC LIGHT "8"
1302029A	38 16 24	76 38 02	LE-2	POTOMAC	LOWER POTOMAC	2070011	900 YDS S OF BUZZARD PT IN CENTER OF WATERWAY
1302202	38 15 17	76 41 36	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING GREEN 6 SEC LIGHT "5"
1302203	38 14 22	76 41 28	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED DAYMARK "4"
1302701	38 14 55	76 41 21	LE-2	POTOMAC	LOWER POTOMAC	2070011	100 YDS W OF PROTESTANT PT
1303800	38 21 42	76 59 42	RET-2	POTOMAC	LOWER POTOMAC	2070011	MIDCHANNEL AT MORGANTOWN BRIDGE
1303801	38 23 17	77 07 51	RET-2	POTOMAC	LOWER POTOMAC	2070011	MIDCHANNEL OFF NANJEMOY CR AT DAYMARK "13"
1303802	38 21 04	77 12 16	RET-2	POTOMAC	LOWER POTOMAC	2070011	MIDCHANNEL OFF MD PT AT DAYMARK "19"
1303803	38 24 05	77 16 08	RET-2	POTOMAC	LOWER POTOMAC	2070011	MIDCHANNEL OFF SMITH PT AT DAYMARK "27" & "28"
1304035	38 13 15	76 47 29	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED BUOY N 14A IN APPROACH TO ST CATHERINE SOUN
1304041	38 20 23	76 58 48	LE-2	POTOMAC	LOWER POTOMAC	2070011	1/2 WAY BETWEEN CAN "1" AND QK FL RED "4"
1304041A	38 17 28	76 56 04	LE-2	POTOMAC	LOWER POTOMAC	2070011	SWAN PT BUOY
1304045	38 14 07	76 50 55	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL 4 SEC "17" RA REF
1304058	38 12 30	76 57 43	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL RED 4 SEC 1.5 FT "4"
1304060A	38 13 54	76 56 53	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL 4 SEC 5 M "2"
1304061	38 17 09	76 59 40	LE-2	POTOMAC	LOWER POTOMAC	2070011	MARKER BUOY W OR N "S"
1304062	38 13 39	76 57 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	300 YDS NE OF QK FL RED "4"
1304063	38 18 57	77 01 41	LE-2	POTOMAC	LOWER POTOMAC	2070011	DAYMARK "8" AT MOUTH OF UPPER MACHODOC CR
1304065	38 16 47	76 57 58	LE-2	POTOMAC	LOWER POTOMAC	2070011	B W MO (A) "H" BELL
1304066	38 15 32	76 55 05	LE-2	POTOMAC	LOWER POTOMAC	2070011	N "28"
1304068	38 12 30	76 52 56	LE-2	POTOMAC	LOWER POTOMAC	2070011	W OR C "J"
1304070	38 18 48	76 55 22	LE-2	POTOMAC	LOWER POTOMAC	2070011	MOUTH OF CUCKOLD CR
1304072	38 18 22	76 54 23	LE-2	POTOMAC	LOWER POTOMAC	2070011	CUCKOLD CR AT MOUTH OF MIDDLETOWN BRANCH
1304073	38 18 13	76 54 20	LE-2	POTOMAC	LOWER POTOMAC	2070011	CUCKOLD CR OFF MATTHEWS COVE
1305041	38 09 15	76 36 06	LE-2	POTOMAC	LOWER POTOMAC	2070011	FLASHING 6 SEC LIGHT OFF RAGGED PT
1305047	38 08 21	76 39 02	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL 4 SEC LIGHT "1" AT MOUTH OF LOWER MACHODOC C
1305051	38 08 29	76 43 28	LE-2	POTOMAC	LOWER POTOMAC	2070011	RED DAYMARK "2" IN NOMINI BAY
1305069	38 11 47	76 44 31	LE-2	POTOMAC	LOWER POTOMAC	2070011	BW "F" MO (A) BELL
1305081	38 06 04	76 34 40	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL RED 2.5 SEC LIGHT "2" AT BONUM CR
1306048	38 02 53	76 20 56	LE-2	POTOMAC	LOWER POTOMAC	2070011	1000 YDS SE OF CORNFIELD PT 2450 YDS W NW PT LO
1306073	38 05 34	76 24 20	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL RED 5 SEC LIGHT "2" OFF MOUTH
1306075	38 02 27	76 30 06	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL 5 SEC "2" OFF MOUTH OF YEOCOMICO RIVER
1306076	38 00 06	76 27 06	LE-2	POTOMAC	LOWER POTOMAC	2070011	FL GREEN 4 SEC LIGHT "5" OFF MOUTH OF COAN RIVE
1306077A	37 56 47	76 19 30	LE-2	POTOMAC	LOWER POTOMAC	2070011	1200 YDS DIRECTLY OFFSHORE FR MOUTH OF CUBETT C
1306082	38 06 51	76 31 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	BW "B" MO (A) BELL BETW PINEY PT AND SANDY PT
1401001	38 17 27	76 09 21	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER "5" OFF BENTLEY PT
1401002	38 18 13	76 09 51	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN "7" N OF BENTLEY PT
1401004	38 19 29	76 12 33	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	600 YDS E SE OF LONG PT
1401006	38 18 54	76 13 28	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER "3" IN MOUTH OF BACK CR
1401009	38 20 15	76 10 37	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY ACROSS MOUTH OF CHARLES CR
1401014	38 21 32	76 12 46	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1200 YDS NE OF MARKER "17"
1401015	38 21 00	76 13 27	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	IN CHANNEL 1/2 WAY BETW FISHING CR BR & MARKER
1401020	38 20 13	76 11 53	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	IN CHANNEL NEAR FL 4 SEC LIGHT "15"
1401023	38 19 05	76 10 51	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1000 YDS SW OF GUT BETW WROTTEN ISLAND AND PARKS
1401024	38 17 55	76 12 03	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	100 YDS S OF MARKER "3" OFF HOOPERS ISLAND BR
1401030	38 22 21	76 13 21	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS SE OF HOUSE PT
1402004	38 14 51	76 06 60	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NEXT TO BELL "1A"
1402008	38 17 19	76 07 28	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	500 YDS E OF WINGATE PT
1402009	38 17 19	76 07 28	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	700 YDS W OF FOX PT
1402011	38 16 27	76 06 50	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER 1 OFF PINEY PT ANE PAUL PT
1402021	38 13 00	76 02 39	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1200 YDS W OF BISHOP HEAD HUNTING LODGE
1402031	38 15 55	76 06 39	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC LIGHT "1"
1402033	38 14 53	76 04 39	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1/2 WAY ACROSS MOUTH OF NORMAN COVE
1402036	38 11 42	76 05 37	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER N OF OKAHANIKAN COVE
1402201	38 16 01	76 09 03	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC LIGHT "2"
1402202	38 13 13	76 06 10	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	RED NUN "2"
1402204	38 15 56	76 07 10	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC LIGHT "2"
1403001	38 12 15	76 09 22	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BELL "1" S OF HOOPERS ISLAND
1403002	38 16 43	76 12 05	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	900 YDS W SW OF PLUFF PT HOOPERS ISLAND
1403003A	38 17 42	76 12 47	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC 15 FT "1" N OF PLUFF PT
1403004	38 18 44	76 14 02	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	600 YDS E OF SAND PT PARREN ISLAND
1403005	38 20 34	76 14 35	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	700 YDS S SW OF MARKER "6" MOUTH OF FISHING CR
1403007A	38 21 07	76 16 21	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL G 4 SEC 14 FT "1" ENTRANCE TO FISHING CR
1403008	38 15 22	76 15 01	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	HOOPER ISLAND LIGHT HOUSE - EAST SIDE
1404007	38 18 08	76 01 45	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	IN CHANNEL ON LINE FR FISHING PT TO LITTLE CR
1404008	38 18 35	76 02 23	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER NO "1" IN FARM CR CHANNEL
1404016A	38 20 15	75 58 57	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 MI SW OF ISLAND CR
1404031	38 13 34	75 59 19	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER NO "2" MOUTH OF RIVER
1404036	38 15 57	76 00 19	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	2750 YDS SE OF RUBEN PT
1404038	38 16 51	76 00 53	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MARKER NO "3" OFF ROASTING EAR PT
1404106	38 20 17	76 00 34	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 MI S OF BLACKWATER PT AND 700 YDS OFFSHORE

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STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1405022	38 19 50	75 52 35	BFL	EASTERN SHORE	NANTICOKE	2060008	INSIDE MOUTH OF WETEPQUIN CR
1405024	38 21 10	75 52 51	ET-6	EASTERN SHORE	NANTICOKE	2060008	MOUTH OF JACKS CR
1405025	38 21 24	75 51 21	ET-6	EASTERN SHORE	NANTICOKE	2060008	FL R 4 SEC LIGHT "14" - 50 YDS N
1405144	38 19 17	75 53 22	ET-6	EASTERN SHORE	NANTICOKE	2060008	400 YDS OFF WICOMICO SHORE
1405144A	38 19 17	75 54 12	ET-6	EASTERN SHORE	NANTICOKE	2060008	ON THE MID PT OF A LINE FR STATIONS 144B TO 144
1405144B	38 19 25	75 54 40	ET-6	EASTERN SHORE	NANTICOKE	2060008	150 YDS W OF DAYMARKER "9A"
1405202	38 15 49	75 55 34	ET-6	EASTERN SHORE	NANTICOKE	2060008	700 YDS FROM DAYMARKER "6" RUNNING 280 MAGNETIC
1405208	38 14 05	75 55 38	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	200 R N "4"
1405701	38 20 30	75 53 25	ET-6	EASTERN SHORE	NANTICOKE	2060008	FL G 4 SEC LIGHT "11" DAYMARKER "13"
1405702	38 01 41	75 56 08	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC LIGHT "7"
1406004	38 14 40	75 50 34	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	800 YDS DOWN RIVER OF WEBSTERS COVE HARBOR
1406007	38 15 14	75 48 10	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	FL R 2.5 SEC LIGHT "26"
1406201	38 14 00	75 52 10	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	FL R 4 SEC "14"
1406208	38 14 21	75 51 32	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	NEXT TO CAN "15"
1406211	38 15 08	75 50 06	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	NEXT TO DAYMARK "1"
1601005	38 08 40	76 08 29	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	4350 YDS W OF ADAM ISLAND (OLD NUN "AZ")
1601007	38 07 59	76 04 38	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CNTR PT BETW S ADAM ISL, N SPRING ISL & E PT
1601008A	38 04 06	76 05 45	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	HOLLAND ISLAND BAR LIGHT AND HORN
1601202	37 59 54	76 04 23	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	B W CAN OFF MOUTH OF SMITH ISLAND HARBOR
1601203	37 56 44	76 04 32	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	ST MAINTAINED MARKER "H"
1601205	37 59 28	76 01 03	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	LIGHT "31" IN BIG THOROFARE
1601207	37 58 16	76 01 41	BFL	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DAY BEACON "13" AT THE S MOUTH OF TYLER DITCH
1601208	37 57 36	76 01 30	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	DAY BEACON "9" IN TYLER CR
1601801	37 58 18	76 02 35	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	200 YDS W OF GR DAYMARK "5"
1801010	38 13 45	75 49 20	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	MIDDLE OF MOUTH OF MONIE CR
1801013	38 12 11	75 52 52	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	RED DAYMARK "2" OFF DAMES QUARTER CR
1801019	38 13 25	75 51 43	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	700 YDS S OF WINGATE PT
1801108A	38 13 21	75 50 35	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	MIDWAY BETWEEN BAY PT AND MONIE PT
1801202	38 13 13	75 56 32	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL G 2.5 SEC "1" OFF CLAY ISLAND SHOAL
1801203	38 13 18	75 53 02	ET-7	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	100 YDS S OF WATCH HOUSE RUINS OFF MOLIES PT
1802005	38 10 00	75 58 24	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NUN "18" 1 MI SW OF ENTRANCE TO UPPER THOROFARE
1802009	38 07 04	75 58 08	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NUN "2" SW OF ENTRANCE TO LOWER THOROFARE
1802020	38 04 09	75 53 22	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	300 YDS SW OF FL R "2" OFF RUMBLY
1802025	38 02 14	75 55 28	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	1 QK FL RED BELL (NW OF FLATCAP PT)
1802029	37 57 36	75 54 50	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	CAN "1" AT ENTRANCE TO LITTLE ANNEMISSEX
1802101	38 10 02	75 56 35	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	200 YDS INSIDE DEALE ISLAND BR
1802201	38 02 52	76 00 55	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SOLOMONS LUMPS LIGHTHOUSE
1802202	38 00 01	75 54 58	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	QK FL BLACK BELL "9"
1802204	37 58 22	75 58 47	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	QK FL "1" AT ENTRANCE TO BIG THOROFARE
1803007	38 07 22	75 51 02	ET-8	EASTERN SHORE	POCOMOKE	2060009	FL GREEN 4 SEC LIGHT "5"
1803010	38 07 13	75 54 32	ET-8	EASTERN SHORE	POCOMOKE	2060009	1500 YDS S SE OF STATION 11
1803015	38 07 55	75 49 18	ET-8	EASTERN SHORE	POCOMOKE	2060009	400 YDS FROM DAY MARKER "8" AT 240 DEG. READING
1803017	38 05 53	75 52 54	ET-8	EASTERN SHORE	POCOMOKE	2060009	S SIDE OF QUICK FL "4"
1803110	38 08 51	75 49 08	ET-8	EASTERN SHORE	POCOMOKE	2060009	JUST S OF GREEN DAYMARK "5" ST PETERS CR
1803112	38 09 22	75 46 44	ET-8	EASTERN SHORE	POCOMOKE	2060009	IN THE CHANNEL OFF A CLIFTON PT
1803202	38 08 30	75 51 04	ET-8	EASTERN SHORE	POCOMOKE	2060009	MOUTH OF BROAD CR
1803203	38 04 09	75 53 22	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL R 1 1/2 SEC LIGHT "2" OFF HAZARD PT
1803204	38 08 20	75 47 48	ET-8	EASTERN SHORE	POCOMOKE	2060009	25 FT UPSTREAM FR GREEN DAYMARK "9"
1803205	38 08 42	75 55 34	ET-8	EASTERN SHORE	POCOMOKE	2060009	HEADWATERS OF LAWS THOROUGHFARE
1804001	38 04 33	75 47 02	ET-9	EASTERN SHORE	POCOMOKE	2060009	NE OF CHARLES PT AND DUE W OF PERSIMMON PT
1804002	38 04 04	75 47 54	ET-9	EASTERN SHORE	POCOMOKE	2060009	MIDWAY BETW SANDY PT AND MUD PT
1804007	38 03 09	75 52 12	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL GR 2.5 SEC "1" AT ENTR. TO BIG ANNEM. RIVER
1804008	38 03 23	75 48 16	ET-9	EASTERN SHORE	POCOMOKE	2060009	FL 4 SEC "6"
1804200	38 03 18	75 49 35	ET-9	EASTERN SHORE	POCOMOKE	2060009	DAYMARK "4"
1804201	38 05 08	75 45 23	BFL	EASTERN SHORE	POCOMOKE	2060009	MOUTH OF HALL CR
1805004	37 58 35	75 51 54	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUTH OF SOMERS COVE HARBOR NR END COUNTY DOCK
1805006	37 58 05	75 52 24	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MIDWAY BETWEEN HAMMOCK PT AND LONG PT
1805202	37 58 59	75 51 51	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	QK FL AT CONFLUENCE OF CHANNEL & HARBOR OFF HOP
1805203	37 59 39	75 51 27	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL R 4 SEC LIGHT "16"
1805204	37 57 35	75 52 34	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MIDWAY BETW GREAT PT AND HOMMOCK PT
1805206	38 00 34	75 50 57	BFL	EASTERN SHORE	POCOMOKE	2060009	CENTER OF CHANNEL AT S END OF DOCK AT JAMES ISL
1805207	38 01 33	75 50 25	ET-9	EASTERN SHORE	POCOMOKE	2060009	FLASHING LIGHT "5"
1805701	37 58 02	75 54 09	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL R LIGHT "2" MOUTH OF LITTLE ANNEMESSEX R
1806008	37 57 15	75 48 57	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	200 YDS NW MIDPT OF LINE FR LONG PT TO GAP PT
1806011	37 55 52	75 46 32	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	W "F" (PRIVATELY MAINTAINED)
1806113	37 57 24	75 42 50	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL 4 SEC LIGHT "1"
1806201	37 57 56	75 41 30	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL R 4 SECOND LIGHT "6"
1806700	37 58 00	75 40 42	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL GREEN 2.5 SECOND LIGHT "9"
1806701	37 56 45	75 44 17	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	W "F"
1806702	37 54 58	75 50 46	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL RED 2.5 SEC LIGHT 4 M "2"
1806703	37 58 01	75 43 02	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MIDWAY BETW TULLS PT AND C "5"
1806704	37 56 15	75 43 42	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL RED 4 SEC LIGHT "12"
1806705	37 55 22	75 44 12	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	FL RED SEC LIGHT "1"
1806706	37 56 29	75 42 19	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	800 YDS NE OF N END PT
1806707	37 56 50	75 40 40	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	600 YDS N OF PIG PT
1807010	37 58 45	75 37 51	ET-10	EASTERN SHORE	POCOMOKE	2060009	100 YDS OFF OF PITTS CR
1807012	37 58 39	75 38 04	ET-10	EASTERN SHORE	POCOMOKE	2060009	100 YDS UPRIVER FROM COUNTY RAMP SHELLTOWN
1807014	37 57 51	75 38 59	ET-10	EASTERN SHORE	POCOMOKE	2060009	100 YDS S OF MARKER "15"
1807015	37 57 09	75 38 59	ET-10	EASTERN SHORE	POCOMOKE	2060009	600 YDS E OF WILLIAMS PT

ANNE ARUNDEL COUNTY SUMMER SWIM PROGRAM

PROGRAM DESCRIPTION: The Anne Arundel County Summer Swim Program is designed to monitor the bacteriological water quality at 78 stations from Memorial Day to Labor Day each year.

PROGRAM OBJECTIVES: To determine if the County's public waters are safe for swimming and to utilize the results as a basis for closing unsafe waters.

DATE INITIATED: 1962

COORDINATING AGENCY: Anne Arundel County Health Department
Harry S. Truman Parkway
Annapolis, Maryland 21401

FUNDING AGENCIES: Anne Arundel County Health Department
Maryland Department of the Environment

PARTICIPATING AGENCIES: Anne Arundel County Health Department (AACoHD)
Maryland Department of the Environment (MDE)

INVESTIGATORS:

Principal Investigator Sally Levine-Snader AACoHD

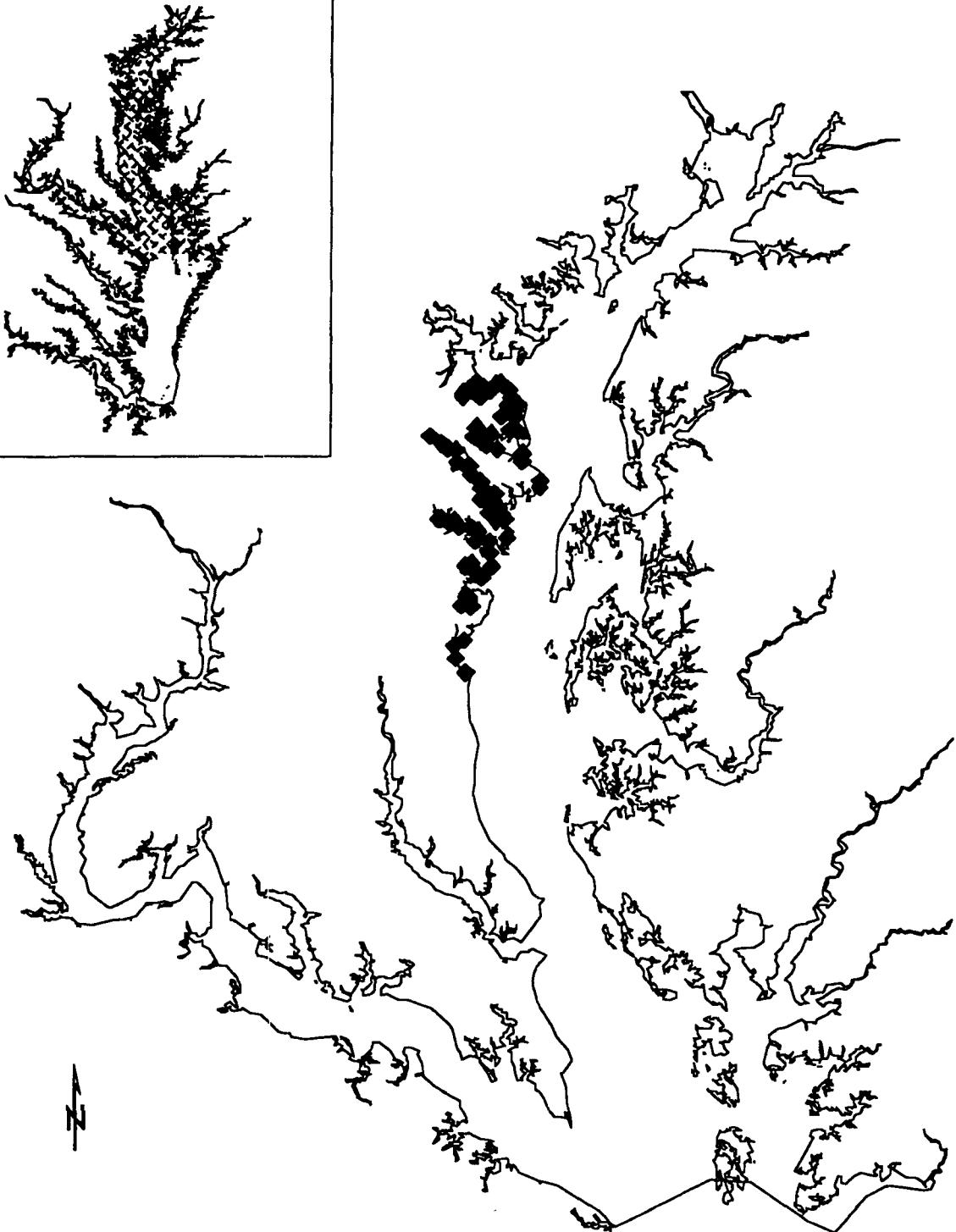
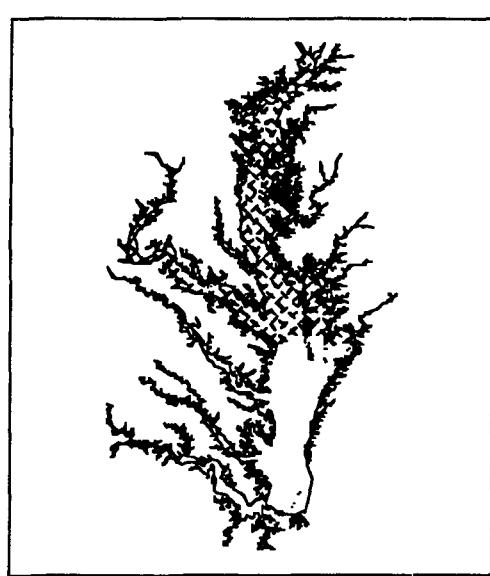
PARAMETERS: Fecal Coliform

STATIONS: There are 78 stations located throughout Anne Arundel County.

SAMPLE COLLECTION: Samples are collected once a week between Memorial Day and Labor Day. Some additional sampling is usually conducted prior to Memorial Day in an effort to ensure the swimmability of waters before they open to the public. Grab samples are taken at each station location approximately two feet below the surface except where taken from the shoreline. They are analyzed for the Most Probable Number (MPN) of fecal coliform up to 2,400. At the discretion of the Principal Investigator they may be further tested up to 2.4 million.

PROGRAM INTEGRATION: This program is conducted in coordination with the Anne Arundel County Recreational Waters Program.

Anne Arundel County Summer Swim Program



Miles
0 10 20 30

Scale = 1:1,056,127

Anne Arundel County Summer Swim Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	39 10 01	76 31 35	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	ORCHARD BEACH
10	39 09 48	76 29 18	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	FT. SMALLWOOD PIER BEACH
11	39 08 42	76 27 33	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	KURTZ'S PLEASURE BEACH
12	39 07 58	76 27 55	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PASADENA BEACH
13	39 08 00	76 26 47	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BAHAMA BEACH
14	39 07 31	76 27 10	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BAYSIDE BEACH
15	39 06 53	76 28 39	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	VENTNOR MARINA
16	39 06 53	76 27 03	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BODKING YACHT CLUB
17	39 03 38	76 26 04	WT-6	WEST CHESAPEAKE	SEVERN	2060004	WHARF CREEK
18	39 05 36	76 26 40	WT-6	WEST CHESAPEAKE	SEVERN	2060004	MOUNTAIN POINT
19	39 05 42	76 27 37	BFL	WEST CHESAPEAKE	SEVERN	2060004	LONG POINT
2	39 09 22	76 27 58	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MICKEY'S ALTOONA BEACH
20	39 05 20	76 29 51	BFL	WEST CHESAPEAKE	SEVERN	2060004	TAR COVE
21	39 04 54	76 30 36	WT-6	WEST CHESAPEAKE	SEVERN	2060004	HICKORY POINT
22	39 05 01	76 31 39	BFL	WEST CHESAPEAKE	SEVERN	2060004	CHEST NECK POINT
23	39 05 53	76 31 31	BFL	WEST CHESAPEAKE	SEVERN	2060004	NORTH PERRY POINT
24	39 05 05	76 31 39	WT-6	WEST CHESAPEAKE	SEVERN	2060004	CHELSEA
25	39 04 17	76 30 21	BFL	WEST CHESAPEAKE	SEVERN	2060004	WHITEHURST
26	39 03 57	76 29 01	WT-6	WEST CHESAPEAKE	SEVERN	2060004	FERRY POINT YACHT BASIN
27	39 02 52	76 26 07	BFL	WEST CHESAPEAKE	SEVERN	2060004	ULMSTEAD POINT COMM. BEACH
28	39 02 52	76 26 07	BFL	WEST CHESAPEAKE	SEVERN	2060004	SHORE ACRES
29	39 01 08	76 24 02	BFL	WEST CHESAPEAKE	SEVERN	2060004	PERSIMMON POINT
3	39 09 02	76 33 07	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	OLD GLORY BEACH
30	39 00 37	76 24 05	BFL	WEST CHESAPEAKE	SEVERN	2060004	SANDY POINT STATE PARK, EAST
31	38 59 52	76 29 15	WT-7	WEST CHESAPEAKE	SEVERN	2060004	SANDY POINT STATE PARK, SOUTH
32	39 00 57	76 30 54	WT-7	WEST CHESAPEAKE	SEVERN	2060004	JONAS GREEN STATE PARK
33	39 02 23	76 32 14	WT-7	WEST CHESAPEAKE	SEVERN	2060004	WINCHESTER ON THE SEVERN
34	39 03 49	76 33 50	BFL	WEST CHESAPEAKE	SEVERN	2060004	RUGBY HALL
35	39 04 24	76 35 29	WT-7	WEST CHESAPEAKE	SEVERN	2060004	ULMSTEAD ON THE SEVERN
36	39 05 01	76 36 46	BFL	WEST CHESAPEAKE	SEVERN	2060004	WHITNEYS LANDING
37	39 04 01	76 34 49	BFL	WEST CHESAPEAKE	SEVERN	2060004	BEN OAKS
38	39 02 44	76 33 38	WT-7	WEST CHESAPEAKE	SEVERN	2060004	ARDEN ON THE SEVERN
39	39 01 38	76 32 06	BFL	WEST CHESAPEAKE	SEVERN	2060004	HERALD HARBOR
4	39 08 39	76 33 16	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	COUNTY DOCK
40	39 00 23	76 30 51	BFL	WEST CHESAPEAKE	SEVERN	2060004	SHERWOOD FOREST
41	38 59 49	76 30 05	BFL	WEST CHESAPEAKE	SEVERN	2060004	DREAMS LANDING
42	38 55 56	76 27 45	BFL	WEST CHESAPEAKE	SEVERN	2060004	WARDOUR
43	38 55 33	76 29 50	BFL	WEST CHESAPEAKE	SEVERN	2060004	BAY RIDGE BEACH
44	38 56 25	76 31 08	WT-8	WEST CHESAPEAKE	SEVERN	2060004	HILLSMERE SHORES
45	38 56 49	76 31 56	BFL	WEST CHESAPEAKE	SEVERN	2060004	PERSIMMON POINT
46	38 57 26	76 33 53	BFL	WEST CHESAPEAKE	SEVERN	2060004	FERRY POINT
47	38 57 34	76 35 40	BFL	WEST CHESAPEAKE	SEVERN	2060004	CAPE ST. JOHN
48	38 57 36	76 35 25	BFL	WEST CHESAPEAKE	SEVERN	2060004	BON HAVEN
49	38 57 13	76 34 30	BFL	WEST CHESAPEAKE	SEVERN	2060004	GLEN ISLE
5	39 09 31	76 31 46	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SUNSET BEACH
50	38 56 50	76 33 20	BFL	WEST CHESAPEAKE	SEVERN	2060004	RIVA BRIDGE, MIKE'S BAR
51	38 55 32	76 31 21	BFL	WEST CHESAPEAKE	SEVERN	2060004	SOUTH RIVER YACHT CLUB
52	38 54 31	76 29 44	BFL	WEST CHESAPEAKE	SEVERN	2060004	CAPE LOCK HAVEN
53	38 53 16	76 29 26	BFL	WEST CHESAPEAKE	SEVERN	2060004	TURKEY POINT
54	38 52 38	76 31 04	WT-8	WEST CHESAPEAKE	SEVERN	2060004	MAYO BEACH
55	38 53 33	76 31 48	BFL	WEST CHESAPEAKE	SEVERN	2060004	CLOVERLEA
56	38 53 17	76 32 28	BFL	WEST CHESAPEAKE	SEVERN	2060004	CAMP LETTS
57	38 52 16	76 30 38	BFL	WEST CHESAPEAKE	SEVERN	2060004	CONTEES WHARF
58	38 50 36	76 32 23	BFL	WEST CHESAPEAKE	SEVERN	2060004	CAMP WABANNA
59	38 49 46	76 33 01	BFL	WEST CHESAPEAKE	SEVERN	2060004	GALESVILLE COMM. PIER
6	39 08 36	76 31 11	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PASADENA BOAT YARD
60	38 50 30	76 32 02	WT-8	WEST CHESAPEAKE	SEVERN	2060004	SHADY OAK BOAT YARD
61	38 49 36	76 31 46	BFL	WEST CHESAPEAKE	SEVERN	2060004	CHESAPEAKE YACHT CLUB
62	38 46 31	76 32 35	BFL	WEST CHESAPEAKE	SEVERN	2060004	BACK BAY AND CHERRY POINT
63	38 46 02	76 33 40	BFL	WEST CHESAPEAKE	SEVERN	2060004	MASON'S BEACH
64	38 44 55	76 33 28	BFL	WEST CHESAPEAKE	SEVERN	2060004	TOWN POINT
65	38 43 36	76 32 14	BFL	WEST CHESAPEAKE	SEVERN	2060004	FAIRHAVEN
7	39 09 19	76 30 38	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BAR HARBOR MARINA
8	39 09 12	76 30 10	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	WHITE ROCKS MARINA
9	39 09 58	76 28 48	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	FT. SMALLWOOD CABANA
66	38 43 36	76 32 14	BFL	WEST CHESAPEAKE	SEVERN	2060004	ROSE HAVEN
67	38 58 06	76 29 55	BFL	WEST CHESAPEAKE	SEVERN	2060004	TRUXTUN PK
68	38 57 25	76 29 04	BFL	WEST CHESAPEAKE	SEVERN	2060004	GEORGETOWN
69	38 57 32	76 28 04	BFL	WEST CHESAPEAKE	SEVERN	2060004	SPRINGDALE
70	38 58 06	76 28 28	BFL	WEST CHESAPEAKE	SEVERN	2060004	MCNASBY'S
71	38 58 32	76 28 44	BFL	WEST CHESAPEAKE	SEVERN	2060004	SEVERN SAILING
72	38 58 35	76 28 56	BFL	WEST CHESAPEAKE	SEVERN	2060004	CITY DOCK
73	38 58 25	76 29 23	BFL	WEST CHESAPEAKE	SEVERN	2060004	SHIPWRIGHT ST
74	38 58 49	76 29 37	BFL	WEST CHESAPEAKE	SEVERN	2060004	CHESTON AVE
75	38 59 05	76 29 43	BFL	WEST CHESAPEAKE	SEVERN	2060004	ST. JOHN'S COLLEGE
76	38 59 29	76 30 17	BFL	WEST CHESAPEAKE	SEVERN	2060004	TUCKER ST
77	38 59 22	76 30 36	BFL	WEST CHESAPEAKE	SEVERN	2060004	DEWEY DR
78	38 59 22	76 30 55	BFL	WEST CHESAPEAKE	SEVERN	2060004	WILLIAMS DR

ANNE ARUNDEL COUNTY RECREATIONAL WATERS PROGRAM

PROGRAM DESCRIPTION: The Anne Arundel County Shellfish Waters Program consists of approximately 30 stations in closed waters in the county. These waters are routinely sampled throughout the year.

PROGRAM OBJECTIVES: To track the status of the fecal coliform count in waters closed to shellfish harvesting.

DATE INITIATED: 1965

COORDINATING AGENCY: Anne Arundel County Health Department
Harry S. Truman Parkway
Annapolis, Maryland 21401

FUNDING AGENCIES: Anne Arundel County Health Department
Maryland Department of the Environment

PARTICIPATING AGENCIES: Anne Arundel County Health Department (AACoHD)
Maryland Department of the Environment (MDE)

INVESTIGATORS:

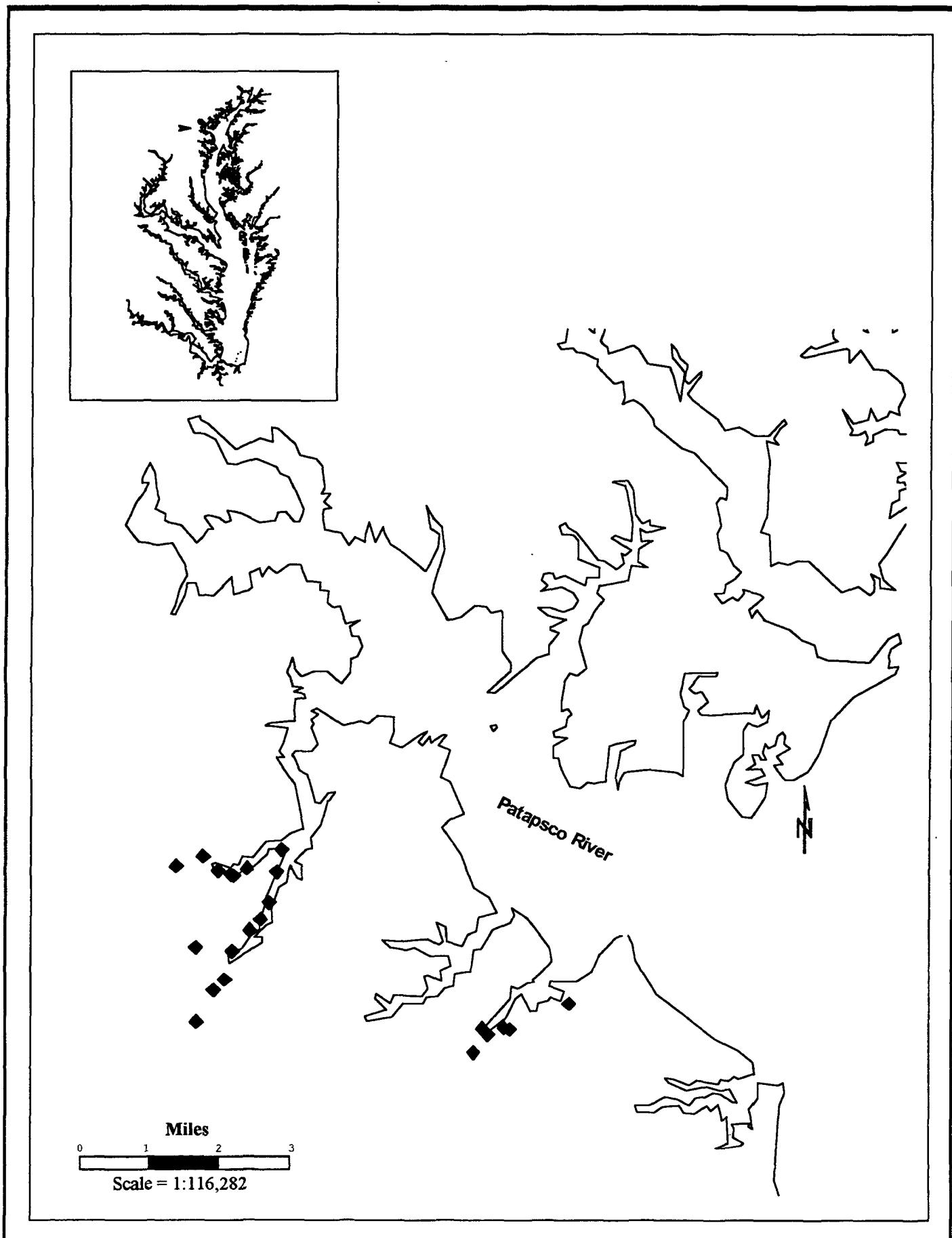
Principal Investigator Sally Levine-Snader AACoHD

PARAMETERS: Fecal Coliform

STATIONS: There are presently 30 stations located throughout Anne Arundel County. This number is subject to change as waters are closed or re-opened to shellfish harvesting.

SAMPLE COLLECTION: Samples are collected once a month from Labor Day through Memorial Day and weekly from Memorial Day through Labor Day. Grab samples are taken at each station location approximately two feet below the surface except where taken from the shoreline. Samples are analyzed for the Most Probable Number (MPN) of fecal coliform up to 2,400. At the discretion of the Principal Investigator, they may be further tested up to 2.4 million.

PROGRAM INTEGRATION: This program is conducted in coordination with the Anne Arundel County Summer Swim Program.



Anne Arundel County Recreational Waters Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
3	39 10 50	76 36 49	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SAWMILL CREEK
13	39 10 06	76 35 17	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GATEWATER LANDING
14	39 09 56	76 35 29	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MARGATE
15	39 09 38	76 35 47	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	COUNTRY CLUB ESTATES
16	39 09 14	76 35 55	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MARLEY BRIDGE
18	39 09 05	76 36 07	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	MARLEY PUMPING STATION
2	39 09 41	76 36 26	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NORTH BRANCH STREAM
1	39 08 38	76 36 24	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SOUTH BRANCH STREAM
20	39 08 17	76 31 26	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BRIDGE ON PEKIN ROAD
19	39 08 37	76 31 17	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	VALLEY ROAD
22	39 08 32	76 31 11	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	ISLE DRIVE
4	39 10 59	76 36 21	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	ROUTE 10
24	39 08 38	76 30 54	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	EDNA AND BERTHA ROADS
26	39 08 37	76 30 47	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	SMITH PROPERTY
28	39 08 59	76 29 44	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	WALL DRIVE
6	39 10 47	76 36 04	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	HAMMARFEE APTS.
7	39 10 44	76 35 50	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BUTZ PROPERTY
8	39 10 43	76 35 47	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BELL COVE
9	39 10 49	76 35 33	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	7TH AVENUE
10	39 11 06	76 34 56	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	POINT PLEASANT BEACH
11	39 10 47	76 35 01	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	HIGDONS INN/CAPTAINS COVE
12	39 10 20	76 35 09	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	END OF MARLEE CREEK DRIVE
5	39 10 47	76 36 04	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PMP STATION RD
21	39 08 17	76 31 26	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PEKIN RD P.S.
17	39 09 14	76 35 55	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	WENDOVER RD
23	39 08 32	76 31 11	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	TURNER PROP
25	39 08 38	76 30 54	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	EDNA RD
27	39 08 37	76 30 47	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	OAK HARBOR MARINA
29	39 08 59	76 29 44	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	RODGERS PROP
30	39 08 59	76 29 44	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	LUTZ PROP

VIRGINIA SHELLFISH BACTERIOLOGICAL MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Shellfish Bacteriological Monitoring Program involves the monthly surveillance of water for bacteriological contamination of all shellfish growing areas. Information from 2350 stations (excluding the oceanside of the Eastern Shore) is collected and evaluated semiannually to determine the proper classification of all shellfish growing areas as to acceptability for direct marketing of shellfish.

PROGRAM OBJECTIVES: To protect the health of consumers and to facilitate the interstate sale of products by the Virginia shellfish and crab meat industry.

DATE INITIATED: 1926

COORDINATING

AGENCY: Virginia Department of Health
Division of Shellfish Sanitation
1500 E. Main St. Suite 109
Richmond, Virginia 23219

FUNDING

AGENCY: Virginia Department of Health, Division of Shellfish Sanitation

PARTICIPATING

AGENCY: Virginia Department of Health, Division of Shellfish Sanitation (DSS)

INVESTIGATORS:

Director	Robert E. Croonenberghs	DSS
Program Coordinator	Mary P. Wright	DSS

PARAMETERS:	<i>Water Column:</i> Fecal Coliform Salinity* Tidal Stage Rain Occurrence	<i>Meteorological:</i> Wind Velocity* Temperature* Wind Direction*
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* Measured at select stations

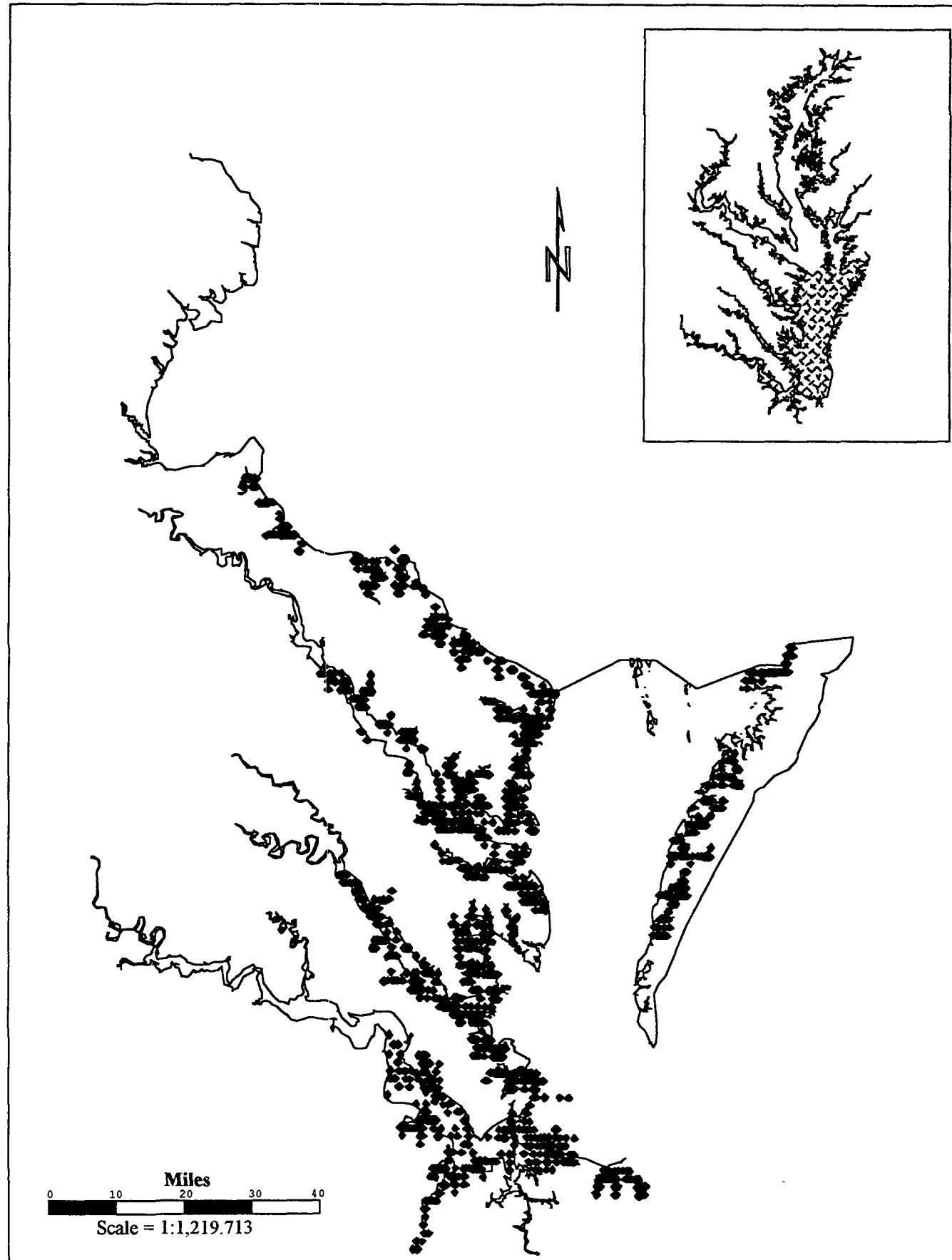
STATIONS: There are approximately 2700 stations located throughout Virginia waters.

SAMPLE COLLECTION: Each station is visited once per month and a grab water sample (approximately 12 inches below the surface) is taken. Fecal coliform counts are made from this sample to the most probable number.

PROGRAM INTEGRATION: N/A

Virginia Shellfish Bacteriological Monitoring Program

Miles
0 10 20 30 40
Scale = 1:1,219.713



Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
00101	38.275691	76.986078	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00102	38.277185	76.990212	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00103	38.278657	76.994267	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00104	38.280388	76.999086	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00105	38.276686	76.998068	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00106	38.275443	76.994579	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107	38.275773	77.001668	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107A	38.273776	76.998591	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107B	38.272682	76.997076	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107C	38.272017	76.996345	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107D	38.271063	76.997164	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00107E	38.268835	76.997389	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00108	38.277545	77.006315	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00109	38.276054	77.008031	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00110	38.273070	77.010068	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00111	38.273070	77.010068	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00112	38.269712	77.018855	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
00113	38.268801	77.023290	LE-2	POTOMAC	LOWER POTOMAC	2070011	ROSIER CREEK
001A01	38.314423	77.027794	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A01A	38.318449	77.025631	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A01B	38.328056	77.019144	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A02	38.315127	77.032351	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A02A	38.318352	77.029155	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A02Z	38.311491	77.033533	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A03	38.314827	77.036518	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A03A	38.317806	77.035658	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A04	38.314445	77.042290	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A05	38.317191	77.045981	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A05A	38.321380	77.044392	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A06	38.318354	77.051062	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A06A	38.320783	77.048836	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A07	38.322500	77.053283	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A08	38.326473	77.054953	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A09	38.330382	77.057576	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A10	38.318637	77.056536	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A11	38.319821	77.061478	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A12	38.316509	77.062401	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A13	38.312523	77.062491	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A14	38.309720	77.066770	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A15	38.305623	77.067083	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A16	38.302056	77.063562	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001A17	38.299931	77.057732	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AA	38.311778	77.027126	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AB	38.307129	77.026762	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AC	38.305004	77.022307	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AD	38.309733	77.022620	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AE	38.313543	77.022869	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AF	38.318980	77.023247	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AG	38.321734	77.018463	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AH	38.317167	77.018154	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AI	38.312814	77.017798	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AJ	38.309500	77.017582	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AK	38.304939	77.017258	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AL	38.302346	77.017001	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AM	38.296135	77.011843	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AN	38.300367	77.012262	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AO	38.307647	77.012869	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AP	38.311947	77.013264	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AQ	38.315933	77.013650	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AR	38.320298	77.014039	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AS	38.324689	77.014507	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
001AT	38.329400	77.014991	LE-2	POTOMAC	LOWER POTOMAC	2070011	UPPER MACHODOC CREEK
00201	38.210105	76.957777	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00202	38.208098	76.963179	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00203	38.208991	76.969083	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00204	38.212017	76.972136	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00205	38.214156	76.976073	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00206	38.211527	76.981073	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00207	38.208329	76.983909	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00208	38.204769	76.985325	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00209	38.203207	76.990475	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00210	38.206132	76.993585	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00211	38.205290	76.997137	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00212	38.204136	77.002355	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00213	38.214729	76.958062	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00214	38.218904	76.958204	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00214X	38.219475	76.955401	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00215	38.223326	76.961047	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00216	38.226514	76.964620	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00217	38.230044	76.965534	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00218	38.233607	76.966054	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00219	38.237117	76.966164	LE-2	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00220	38.240110	76.966000	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00221	38.243291	76.969039	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
00222	38.249298	76.968992	BFL	POTOMAC	LOWER POTOMAC	2070011	MONROE AND MATTOX CREEKS
002A	38.229571	76.955822	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002B	38.231545	76.947260	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002C	38.232290	76.939624	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002D	38.227782	76.959998	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002E	38.224283	76.958128	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002F	38.216444	76.953873	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002G	38.212372	76.951368	BFL	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002H	38.225884	76.953807	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
002I	38.222268	76.951759	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002J	38.217759	76.949215	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002K	38.214424	76.947293	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002L	38.210432	76.944919	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002M	38.207161	76.943093	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002N	38.231836	76.952036	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002O	38.227275	76.949782	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002P	38.223579	76.947323	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002Q	38.219991	76.945254	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002R	38.215798	76.942885	BFL	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002S	38.212112	76.940719	BFL	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002T	38.208733	76.938737	BFL	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002U	38.205540	76.937086	BFL	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002V	38.204101	76.931120	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
002W	38.210663	76.927059	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER
00301	38.192750	76.905029	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00302	38.189528	76.909415	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00303	38.185509	76.910817	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00304	38.182892	76.912695	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00305	38.181212	76.914576	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00306	38.178543	76.916649	BFL	POTOMAC	LOWER POTOMAC	2070011	POPE'S CREEK
00401	38.159049	76.709686	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00402	38.159100	76.724641	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00403	38.159025	76.739942	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00404	38.147219	76.732858	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00405	38.146549	76.713396	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00406	38.139623	76.724474	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00407	38.134744	76.733179	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00408	38.137389	76.741431	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00409	38.146037	76.744629	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00410	38.152312	76.752202	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00411	38.148050	76.761627	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00412	38.156530	76.755748	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00413	38.160147	76.763064	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00414	38.158080	76.771706	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00415	38.165184	76.766859	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00416	38.134763	76.723111	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00417	38.131727	76.719891	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00418	38.127137	76.719201	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00419	38.122815	76.717865	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00420	38.120170	76.713456	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00421	38.115917	76.710992	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00422	38.113157	76.713763	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00423	38.112733	76.719529	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00424	38.108633	76.715543	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00425	38.103893	76.717506	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00426	38.104364	76.723346	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00427	38.104816	76.730123	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00428	38.101590	76.734496	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00429	38.102060	76.739651	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00429.5	38.102384	76.747690	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00430	38.098278	76.733496	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00430.2	38.093463	76.735057	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00430.4	38.089427	76.732297	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00430.6	38.086376	76.728811	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00431	38.136145	76.717104	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00432	38.135922	76.709826	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00433	38.130697	76.709300	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00434	38.130518	76.703465	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00435	38.128926	76.696902	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00436	38.129382	76.692593	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00437	38.140873	76.711729	BFL	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00438	38.142998	76.706409	LE-2	POTOMAC	LOWER POTOMAC	2070011	NOMINI AND CURRIOMAN BAYS
00501	38.153535	76.636879	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00501.8Z	38.150625	76.644318	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00502	38.154954	76.649069	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00503	38.156936	76.666217	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00504	38.159046	76.683286	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00505	38.146406	76.658520	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00506	38.146471	76.647253	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00506.5	38.143126	76.648302	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00506.5Z	38.142895	76.644472	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00507	38.139694	76.650350	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00507.3	38.139698	76.646692	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00507.7	38.139928	76.642352	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00508	38.140927	76.637952	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00508.4	38.137979	76.638828	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00508.4A	38.137101	76.642648	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00508Z	38.142293	76.634313	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00509	38.133851	76.642640	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00510	38.129689	76.637251	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00511	38.129425	76.646709	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00512	38.132475	76.653622	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00513	38.127425	76.652157	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00514	38.123951	76.638878	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00515	38.121755	76.636096	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00516	38.117706	76.638333	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00517	38.113760	76.638303	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00518	38.109232	76.640690	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00519	38.106798	76.646150	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00520	38.103888	76.649488	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00521	38.100071	76.651966	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00522	38.098025	76.649619	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
00523	38.099548	76.657324	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00524	38.100792	76.664251	BFL	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00525	38.141024	76.659810	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00601	38.112670	76.602697	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00602	38.113951	76.607598	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00603	38.112276	76.615799	LE-2	POTOMAC	LOWER POTOMAC	2070011	LOWER MACHODOC CREEK
00604	38.105593	76.597837	LE-2	POTOMAC	LOWER POTOMAC	2070011	JACKSON CREEK
00605	38.104648	76.601421	LE-2	POTOMAC	LOWER POTOMAC	2070011	JACKSON CREEK
00606	38.102307	76.606862	LE-2	POTOMAC	LOWER POTOMAC	2070011	JACKSON CREEK
00607	38.095701	76.582474	LE-2	POTOMAC	LOWER POTOMAC	2070011	BONUM CREEK
00608	38.088551	76.584730	LE-2	POTOMAC	LOWER POTOMAC	2070011	BONUM CREEK
00609	38.084976	76.592627	LE-2	POTOMAC	LOWER POTOMAC	2070011	BONUM CREEK
00701	38.041142	76.520523	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00702	38.032005	76.518248	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00703	38.029991	76.537400	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00704	38.035249	76.538115	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00705	38.034008	76.545393	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00706	38.037986	76.549404	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00707	38.042471	76.550277	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00708	38.045449	76.553552	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00709	38.049608	76.555455	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00710	38.053053	76.554086	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00711	38.055199	76.556780	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00712	38.042945	76.556274	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00713	38.044297	76.561747	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00714	38.045795	76.565832	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00715	38.027231	76.543027	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00716	38.026395	76.548687	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00717	38.027318	76.554757	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00718	38.027521	76.561687	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00719	38.030118	76.566917	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00720	38.026174	76.566908	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00721	38.027437	76.571464	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00722	38.029776	76.575007	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00723	38.033098	76.577986	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00724	38.024710	76.574367	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00725	38.021678	76.572540	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00726	38.018186	76.573293	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00727	38.016752	76.577146	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00728	38.013886	76.580623	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00728.2	38.010933	76.583665	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00728.4	38.008814	76.584552	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00728.6	38.007402	76.585883	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00728.8	38.006342	76.588101	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00729	38.022960	76.552353	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00730	38.020317	76.554165	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00731	38.018465	76.556931	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00732	38.021188	76.540051	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00733	38.016843	76.540535	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00734	38.013338	76.540683	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00735	38.009776	76.539429	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00736	38.009908	76.544733	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00737	38.009648	76.548870	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00738	38.012146	76.551652	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00739	38.008134	76.553429	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00740	38.006650	76.557010	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00741	38.004355	76.560419	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00742	38.006260	76.539720	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00743	38.003608	76.542332	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00744	38.001064	76.544459	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00745	37.997110	76.543731	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00746	37.994115	76.546441	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00747	37.993441	76.540306	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00748	37.990403	76.539826	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00749	37.987255	76.537707	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00750	38.002906	76.537157	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00751	38.002213	76.531924	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00752	38.010380	76.533337	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00753	38.022934	76.534651	BFL	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00754	38.020501	76.530282	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
00801	37.993500	76.454134	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00802	37.991619	76.463999	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00803	37.995030	76.468164	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00804	37.998516	76.470450	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00805	37.998659	76.475682	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00806	38.000538	76.479414	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00807	38.004509	76.478680	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00808	37.991727	76.472213	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00809	37.991361	76.476767	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00810	37.990403	76.481624	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00811	37.993838	76.485301	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00812	37.989471	76.486607	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00813	37.989465	76.492026	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00814	37.989712	76.496995	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00815	37.991805	76.501937	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00816	37.995491	76.500607	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00817	37.992635	76.505836	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00818	37.986739	76.498745	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00819	37.983863	76.499114	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00820	37.981206	76.502178	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00821	37.980944	76.507463	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00822	37.986477	76.486101	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00823	37.987588	76.472933	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
00824	37.984554	76.474404	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00825	37.983809	76.477708	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00826	37.983789	76.466537	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00827	37.981312	76.470800	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00828	37.981004	76.461653	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00829	37.977571	76.460133	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00830	37.973163	76.461858	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00831	37.968639	76.465691	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00831.5Y	37.964351	76.468799	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00832	37.969510	76.470579	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00833	37.971056	76.476219	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00834	37.970050	76.481317	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00835	37.967978	76.475937	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00836	37.965121	76.479381	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00837	37.961745	76.480808	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00837.5Z	37.958725	76.478601	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00838	37.957850	76.481914	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00839	37.956297	76.485671	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00840	37.957687	76.490498	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00841	37.953297	76.486503	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00842	37.949760	76.485238	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00843	37.946690	76.483319	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00844	37.943325	76.483017	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00845	37.938803	76.483951	BFL	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
00901	37.982036	76.435986	LE-2	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00902	37.977844	76.441276	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00903	37.973102	76.445616	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00904	37.976097	76.433971	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00905	37.970594	76.434959	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00906	37.962099	76.416174	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00907	37.956841	76.417050	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00908	37.952646	76.419416	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00909	37.955820	76.381245	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00909.1Y	37.950378	76.379098	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00910	37.952349	76.391835	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00911	37.950599	76.386239	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00912	37.945693	76.389683	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00913	37.943557	76.395981	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00914	37.940092	76.387709	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00915	37.933009	76.384785	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00916	37.927270	76.385987	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00917	37.923127	76.389804	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00918	37.920618	76.384752	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00919	37.945732	76.350436	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00920	37.941898	76.353297	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00920A	37.942952	76.358302	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00921	37.937539	76.353722	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00922	37.933425	76.355104	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00923	37.929357	76.316928	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00924	37.928246	76.321421	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
00925	37.927151	76.328515	BFL	POTOMAC	LOWER POTOMAC	2070011	COD, PRESLEY, HULL, CUBITT AND HACK CREEK
01001	37.889936	76.235748	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01002	37.888039	76.241123	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01003	37.889120	76.248135	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01004	37.889311	76.251056	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01005	37.889893	76.253049	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01006	37.889699	76.260127	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01007	37.889537	76.265617	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01007.2	37.889401	76.269478	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01007.4	37.904942	76.273678	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01008	37.889079	76.267542	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01009	37.886210	76.275129	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01009W	37.875649	76.280643	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01009X	37.876702	76.273073	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01009Y	37.879576	76.276115	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01009Z	37.882620	76.276531	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01010	37.885811	76.252313	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01010.5	37.881798	76.252521	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01011	37.884463	76.243893	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01012	37.889270	76.282869	BFL	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01013	37.888997	76.288647	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01013.5Y	37.884116	76.296113	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01013.5Z	37.887219	76.294657	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01014	37.891058	76.296310	BFL	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01015	37.894738	76.297439	BFL	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01016	37.898266	76.304541	BFL	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01017	37.904213	76.307274	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01018	37.907248	76.310781	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01019	37.909895	76.318330	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01020	37.911655	76.312687	LE-2	POTOMAC	LOWER POTOMAC	2070011	LITTLE WICOMICO RIVER
01021	37.827198	76.261118	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01021A	37.820871	76.264072	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01022	37.834035	76.255374	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01023	37.842921	76.250580	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01024	37.847552	76.252737	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01105	37.852083	76.254479	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01201	37.807175	76.279225	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01202	37.808361	76.290090	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01202.5	37.812347	76.287538	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01203	37.817445	76.285895	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01204	37.821994	76.281333	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01205	37.823271	76.275627	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01206	37.827237	76.281216	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
01207	37.832818	76.283299	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01208	37.836389	76.278721	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01209	37.840093	76.274655	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	COCKRELL CREEK
01210	37.838039	76.270403	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	COCKRELL CREEK
01211	37.838469	76.284583	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01212	37.840892	76.287762	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01213	37.840532	76.281665	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01214	37.845296	76.282193	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01215	37.849554	76.284490	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01216	37.853158	76.287198	CB-5	CHESBAY	GREAT WICOMICO	2080102	COCKRELL CREEK
01217	37.817886	76.295355	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
01218	37.808009	76.298969	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
01219	37.817750	76.291757	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
01220	37.815362	76.285388	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
01221	37.809730	76.281514	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
01301	37.823608	76.300908	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01301A	37.833405	76.296842	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01302	37.826611	76.309593	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01303	37.831644	76.319477	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01304	37.839748	76.323398	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01305	37.845411	76.318713	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01306	37.849076	76.319945	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01307	37.852296	76.320282	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01308	37.848720	76.329761	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01309	37.847689	76.339969	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080102	GREAT WICOMICO RIVER
01310	37.846838	76.350187	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01311	37.843038	76.351674	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01312	37.841503	76.347736	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01313	37.839097	76.344848	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01314	37.845908	76.359225	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01315	37.841524	76.360342	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01316	37.839001	76.363316	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01317	37.850105	76.359488	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	GREAT WICOMICO RIVER
01318	37.846792	76.367385	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01319	37.847667	76.375297	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01320	37.847515	76.381711	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01321	37.844955	76.387775	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01322	37.854851	76.370262	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	GREAT WICOMICO RIVER
01323	37.861857	76.374361	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01324	37.863068	76.382704	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01325	37.864959	76.390587	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01326	37.869867	76.395373	CB-5	CHESBAY	GREAT WICOMICO *	2080102	GREAT WICOMICO RIVER
01327	37.868044	76.404132	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	GREAT WICOMICO RIVER
01328	37.870510	76.411982	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01329	37.870696	76.421420	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01330	37.815614	76.307339	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01331	37.812024	76.312851	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01332	37.814878	76.319570	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01333	37.834721	76.311304	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01334	37.838343	76.311134	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
01335	37.842582	76.309834	CB-5	CHESBAY	GREAT WICOMICO	2080102	GREAT WICOMICO RIVER
014A01	37.797005	76.292201	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM BAY
014A02	37.793865	76.302906	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A02.6A	37.794982	76.310948	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A02.6B	37.798867	76.315548	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A02.6C	37.801948	76.320282	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A03	37.788698	76.310269	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A03.12	37.783046	76.313859	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A04	37.793076	76.315310	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A05	37.792898	76.324307	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A06	37.792568	76.333000	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A07	37.795012	76.340472	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014A07.5	37.800494	76.344560	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILL CREEK
014B08	37.774789	76.307884	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM COVE
014B08.5	37.775456	76.314075	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM COVE
014B09	37.760187	76.308481	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM COVE
014B10	37.762704	76.316692	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM COVE
014B10.5	37.764232	76.320632	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INGRAM COVE
01501	37.719143	76.300938	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01502	37.723533	76.306707	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01503	37.720185	76.317654	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01503A	37.722378	76.320775	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01504	37.716847	76.318793	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01505	37.729039	76.316046	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01506	37.729148	76.322590	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01507	37.729453	76.328157	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01507A	37.727748	76.328332	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01508	37.728574	76.334049	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01508A	37.729718	76.336883	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01508B	37.726693	76.336779	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01509	37.735176	76.321963	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01510	37.739114	76.328077	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01510A	37.737955	76.331010	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01511	37.742254	76.334153	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01512	37.741554	76.339101	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01513	37.738027	76.341579	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01513A	37.736492	76.345028	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01513B	37.735185	76.346688	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01514	37.747257	76.337406	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01515	37.747977	76.342337	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01516	37.751584	76.336434	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2060101	DIVIDING CREEK
01516A	37.752893	76.340639	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01517	37.756030	76.334977	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
01518	37.760208	76.336176	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01519	37.764419	76.338487	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DIVIDING CREEK
01609	37.654193	76.334304	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01610	37.654840	76.341242	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01611	37.652421	76.346931	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01612	37.652395	76.353730	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01613	37.653137	76.359488	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01613.5	37.652471	76.364069	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	TABBS CREEK
01614	37.664622	76.331620	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01615	37.668144	76.337203	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01616	37.662953	76.344470	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01617	37.669459	76.342184	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01618	37.674415	76.344317	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01619	37.670214	76.349456	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01619.1	37.675209	76.351104	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01619A	37.665643	76.351323	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01619B	37.663290	76.352980	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01619C	37.666237	76.353207	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01620	37.673135	76.355559	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01621	37.677836	76.361021	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01621A	37.679657	76.365506	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01621B	37.681807	76.367308	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01621C	37.684597	76.366380	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	DYMER CREEK
01622	37.678656	76.314978	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01623	37.680976	76.322470	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01624	37.687089	76.322659	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01625	37.690744	76.325035	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01626	37.683607	76.330988	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01627	37.687011	76.335979	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01628	37.689785	76.341480	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01629	37.693408	76.346655	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01629A	37.692936	76.351512	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01629B	37.691391	76.355225	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01630	37.697533	76.349957	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01630A	37.700061	76.350510	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01630B	37.698778	76.353010	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01630C	37.699385	76.356638	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01631	37.702668	76.353467	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01632	37.701878	76.348867	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01633	37.705813	76.346953	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01634	37.709494	76.346603	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01635	37.704193	76.355061	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01636	37.705568	76.357246	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01637	37.706612	76.359129	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	INDIAN CREEK
01701	37.654914	76.318311	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01702	37.642552	76.322916	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01703	37.635588	76.323316	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01704	37.630941	76.332631	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01705	37.631675	76.341510	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01706	37.630540	76.349374	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01707	37.633589	76.353508	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01708	37.633907	76.359348	CB-5	CHESBAY	LOWER CHESAPEAKE BAY	2080101	FLEETS BAY
01801	37.610614	76.357095	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01802	37.614890	76.356676	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01803	37.618686	76.356186	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01804	37.619449	76.361019	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01805	37.622389	76.364019	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01806	37.621095	76.350932	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01807	37.621328	76.345707	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01808	37.620058	76.341083	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01809	37.616118	76.340253	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080101	RAPPAHANNOCK
01810	37.623301	76.307200	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LITTLE OYSTER CREEK
01811	37.624493	76.298202	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LITTLE OYSTER CREEK
01812	37.627065	76.305636	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LITTLE OYSTER CREEK
01813	37.630066	76.302071	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LITTLE OYSTER CREEK
01814	37.633252	76.303224	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LITTLE OYSTER CREEK
01815	37.616271	76.299982	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01816	37.613825	76.294805	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01817	37.613365	76.290643	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01818	37.612289	76.285950	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01819	37.610899	76.292264	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01901	37.639556	76.441725	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01902	37.631274	76.419361	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01903	37.623029	76.396996	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01904	37.614443	76.380760	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
01905	37.601757	76.369559	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02001	37.649567	76.441657	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02001.5	37.652134	76.442172	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02002	37.653677	76.440345	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02003	37.654502	76.437791	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02004	37.651110	76.434984	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02005	37.649373	76.430406	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02006	37.653026	76.431107	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02007	37.653274	76.427548	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02007A	37.655525	76.426028	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02008	37.653727	76.423279	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02009	37.652404	76.418356	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02010	37.652057	76.413718	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02011	37.654328	76.410826	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02012	37.656862	76.440655	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02012.5	37.658608	76.442607	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02013	37.659479	76.444028	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02013.5	37.659720	76.447127	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
02014	37.658373	76.436386	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02015	37.661379	76.434705	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02016	37.664352	76.435477	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02017	37.667250	76.436156	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02018	37.666007	76.432736	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02019	37.668764	76.430929	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02020	37.670229	76.426707	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02021	37.672221	76.425061	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02022	37.668986	76.437265	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02023	37.670865	76.437226	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02024	37.668481	76.425680	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02025	37.663305	76.434091	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CARTER CREEK
02101	37.647200	76.460656	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02102	37.645069	76.476986	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02103	37.642789	76.494668	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02104	37.658083	76.468592	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02105	37.656131	76.484466	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02106	37.657341	76.493912	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02107	37.655177	76.501176	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02108	37.660343	76.501562	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02109	37.661244	76.505354	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02110	37.653024	76.507698	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02111	37.652793	76.512024	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02112	37.666444	76.483795	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02113	37.673546	76.485465	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02114	37.673953	76.474075	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02115	37.683535	76.458444	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02115A	37.685914	76.453942	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02115B	37.683764	76.448151	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02116	37.683955	76.471553	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02117	37.686014	76.484157	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02117X	37.690945	76.493181	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02117Y	37.694420	76.490783	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02117Z	37.690849	76.486903	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02118	37.691993	76.474042	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02119	37.693782	76.461472	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02120	37.701177	76.466910	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02121	37.709448	76.459870	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02122	37.709934	76.465420	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02123	37.714341	76.468561	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02124	37.716864	76.460533	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02125	37.713888	76.454870	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02126	37.716318	76.446856	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02127	37.717484	76.440496	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02128	37.718650	76.433798	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02129	37.722482	76.431701	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02130	37.725577	76.426299	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02130A	37.723267	76.422970	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02131	37.728132	76.430921	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02132	37.732945	76.433990	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02133	37.730562	76.423183	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02134	37.732884	76.417121	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02135	37.732752	76.411004	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02135A	37.732510	76.408518	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02136	37.700048	76.481098	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02137	37.707691	76.483253	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02138	37.711685	76.490626	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02139	37.715852	76.497918	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02140	37.719204	76.504133	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02141	37.722780	76.509563	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02142	37.726880	76.515039	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02143	37.726860	76.519006	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02144	37.727865	76.510935	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02145	37.733121	76.512824	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02146	37.738512	76.516044	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02147	37.742796	76.513727	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02148	37.746829	76.515411	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02149	37.749143	76.521063	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02150	37.743872	76.506373	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02151	37.747466	76.499443	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02152	37.751236	76.496040	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02153	37.755208	76.491965	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTONAN RIVER
02201	37.651940	76.523220	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02202	37.653792	76.522229	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02203	37.661819	76.532924	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02204	37.667367	76.534783	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02205	37.669185	76.536001	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02206	37.698858	76.537677	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02206.5	37.701630	76.533400	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02207	37.698697	76.531442	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02208	37.703046	76.533581	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02209	37.708846	76.544758	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02210	37.713018	76.544265	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02211	37.717786	76.545417	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02212	37.722146	76.545236	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	GREENVALE CREEK
02301	37.770610	76.584708	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02302	37.773046	76.580820	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02303	37.773991	76.576595	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02304	37.777304	76.5759062	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02305	37.782641	76.625467	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02306	37.786512	76.627526	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02307	37.786416	76.621031	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02308	37.786079	76.617327	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
02309	37.783932	76.610506	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02310	37.783756	76.604148	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02311	37.793380	76.642328	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02312	37.798456	76.640364	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02313	37.804062	76.637659	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02314	37.809171	76.635915	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02315	37.813436	76.637781	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02316	37.794430	76.633629	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02317	37.800162	76.628826	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02318	37.806097	76.625341	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02319	37.804761	76.618726	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02320	37.807620	76.612133	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
02321	37.806078	76.606114	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LANCASTER, DEEP, AND MULBERRY CREEKS
024-01	37.936342	76.860109	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-02	37.946165	76.871669	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-03	37.959040	76.878736	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-04	37.972458	76.874314	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-05	37.974480	76.905738	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-06	37.985677	76.921537	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
024-07	38.005023	76.915075	TF-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
02401	37.818047	76.684997	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02401A	37.814654	76.674508	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02401Z	37.820749	76.696043	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02402	37.825241	76.679116	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02402.8Z	37.830260	76.678319	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02403	37.827624	76.673708	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02404	37.830132	76.669385	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02405	37.833681	76.665768	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02406	37.836504	76.663619	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	FARNHAM CREEK
02501	37.873592	76.748479	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02502	37.877318	76.743769	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02503	37.884498	76.741374	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02504	37.885587	76.737633	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02505	37.884982	76.732705	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02506	37.887738	76.725567	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02507	37.889903	76.721378	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02508	37.893896	76.719069	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02509	37.897884	76.717229	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02510	37.901592	76.720137	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02511	37.906394	76.722128	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02512	37.910205	76.721079	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02513	37.914982	76.722914	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02514	37.919249	76.722065	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02515	37.923186	76.721068	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	TOTUSKEY CREEK
02516	37.868873	76.736976	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RICHARDSON CREEK
02517	37.864872	76.736100	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RICHARDSON CREEK
02518	37.865157	76.731845	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RICHARDSON CREEK
02519	37.860038	76.745965	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02520	37.866131	76.752066	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02521	37.870106	76.757892	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02522	37.875055	76.762295	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02523	37.874028	76.755833	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02524	37.870870	76.750833	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
02525	37.865684	76.743213	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER AND TOTUSKEY CREEK
025A01	37.877763	76.770851	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A02	37.895491	76.775542	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A03	37.908956	76.780725	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A04	37.912095	76.784550	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A05	37.915817	76.789374	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A06	37.910362	76.796233	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A07	37.922553	76.798557	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A08	37.928018	76.818841	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025A09	37.935507	76.842361	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U01	37.945549	76.850682	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U02	37.960102	76.852768	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U03	37.970748	76.855019	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U04	37.983664	76.875039	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U05	37.984097	76.901634	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
025U06	38.005077	76.901415	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02601	37.811426	76.743394	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02601A	37.813025	76.740484	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02602	37.793728	76.726887	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A01	37.876483	76.781639	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A02	37.885394	76.786245	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A03	37.894877	76.790365	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A04	37.898405	76.801553	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A05	37.903445	76.823093	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A06	37.905003	76.831126	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A07	37.892991	76.832778	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A08	37.906710	76.815270	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A09	37.911505	76.822784	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
026A10	37.917735	76.828279	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A11	37.916841	76.842079	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A12	37.921876	76.841068	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A13	37.924316	76.846038	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A14	37.931261	76.852921	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A15	37.921845	76.853682	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A16	37.921787	76.856872	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
026A17	37.919041	76.856856	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK R, HOSKINS AND PISCATAWAY CR
02701	37.701486	76.597276	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02702	37.696056	76.598284	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
02703	37.715487	76.597298	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02704	37.735122	76.614876	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
02704.7A	37.739104	76.619147	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02705	37.731018	76.617839	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02706	37.726984	76.618055	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02707	37.727902	76.622671	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02708	37.725516	76.626841	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROTS CREEK
02801	37.649554	76.570733	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANA CREEK
02802	37.648550	76.575440	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANA CREEK
02803	37.652619	76.578290	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02804	37.654567	76.581097	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02805	37.656725	76.583216	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02806	37.656409	76.589207	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02807	37.663558	76.576593	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02808	37.663477	76.580730	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02809	37.666984	76.587950	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02810	37.669583	76.591923	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02811	37.670706	76.596320	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02812	37.672100	76.600838	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02813	37.672728	76.606897	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02814	37.676748	76.612231	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02815	37.679631	76.613348	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02816	37.681810	76.617228	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LAGRANGE AND ROBINSON CREEKS
02901	37.641755	76.561591	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02902	37.640727	76.567012	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02903	37.639519	76.569498	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02904	37.637071	76.570167	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02905	37.634918	76.570492	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02906	37.634924	76.571993	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02907	37.633036	76.571366	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02908	37.631610	76.571842	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02909	37.629282	76.573994	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02910	37.625617	76.576730	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02911	37.624534	76.579950	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02912	37.622178	76.580505	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02913	37.619640	76.579462	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02914	37.623506	76.584240	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02915	37.621661	76.589735	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02916	37.624421	76.590664	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02917	37.626808	76.593927	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02918	37.631862	76.573373	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02919	37.631067	76.569885	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02920	37.632074	76.570339	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02921	37.633385	76.570375	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02922	37.636061	76.568891	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
02923	37.637613	76.568669	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	URBANNA CREEK
03001	37.610923	76.560653	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
03002	37.607628	76.564098	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
03003	37.609723	76.560598	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
03004	37.613328	76.443529	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK
03005	37.609290	76.445909	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MILL CREEK
03006	37.611769	76.454312	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MILL CREEK
03007	37.608298	76.454558	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MILL CREEK
03008	37.609061	76.459317	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MILL CREEK
03009	37.604791	76.460700	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MILL CREEK
030L01	37.640758	76.561501	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L01A	37.638987	76.565693	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L01B	37.643181	76.558782	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L01C	37.648999	76.549864	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L01D	37.651783	76.544618	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L02	37.636527	76.557503	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L02B	37.639155	76.554067	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L02C	37.645589	76.545166	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L02D	37.648631	76.540448	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L03	37.633796	76.553533	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L03B	37.636749	76.548632	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L03C	37.642454	76.541228	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L03D	37.645450	76.536705	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L04	37.630726	76.549932	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L04A	37.628254	76.553404	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L04B	37.634007	76.545491	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L04C	37.639059	76.538088	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L04D	37.642223	76.533094	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L05	37.626337	76.546362	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L05A	37.624843	76.549604	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L05B	37.629288	76.540801	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L05C	37.633992	76.533474	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L05D	37.637504	76.528874	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L06	37.621242	76.543183	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L06A	37.619782	76.545201	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L06B	37.625305	76.537787	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L06C	37.631612	76.528858	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L06D	37.635279	76.525022	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L07	37.618068	76.537592	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L07A	37.616482	76.539739	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L07B	37.621984	76.534969	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L07C	37.629645	76.525213	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L07D	37.633415	76.520682	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L08	37.615687	76.532699	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L08A	37.613245	76.534323	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L08B	37.620222	76.529326	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L09	37.614735	76.526815	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L09A	37.612553	76.528324	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L09B	37.618828	76.524849	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L09C	37.627505	76.519685	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
030L09D	37.631459	76.515986	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L10	37.614975	76.519039	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L10A	37.612533	76.519414	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L10B	37.618998	76.518910	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L10C	37.625928	76.514584	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L10D	37.630000	76.511186	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L11	37.615042	76.514371	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L11A	37.612409	76.515636	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L11B	37.618682	76.513237	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L11C	37.625747	76.510748	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L11D	37.629349	76.507222	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L12	37.615948	76.501929	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L12A	37.613056	76.502778	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L12B	37.620287	76.500820	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L12C	37.625793	76.500790	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L13	37.616815	76.491927	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L13A	37.614125	76.493271	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L13B	37.621768	76.492089	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L13C	37.626760	76.492206	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L14	37.615757	76.482516	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L14B	37.622101	76.482292	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L14C	37.627028	76.482571	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L15	37.613860	76.472980	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L15B	37.621744	76.471279	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L15C	37.629900	76.471937	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L16	37.613888	76.463402	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L16B	37.621468	76.462542	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L16C	37.630436	76.462381	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L18	37.617146	76.518976	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L19	37.617079	76.513766	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L20	37.615667	76.507893	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L21	37.617223	76.507780	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L22	37.618843	76.507449	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030L23	37.618813	76.502400	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LA	37.645458	76.564471	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LB	37.646623	76.559830	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LC	37.651694	76.552022	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LD	37.655528	76.547408	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LE	37.648284	76.566062	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LF	37.649530	76.561353	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LG	37.654498	76.554754	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LH	37.658149	76.549900	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LI	37.651308	76.569028	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LJ	37.653431	76.564343	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LK	37.657184	76.557317	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
030LL	37.660530	76.552345	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
03101	37.604175	76.423774	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03102	37.600537	76.425798	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03103	37.596092	76.426641	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03104	37.593905	76.428958	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03105	37.595829	76.433946	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03106	37.592946	76.434097	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03107	37.591730	76.437632	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03108	37.592990	76.421907	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03109	37.587847	76.419563	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03110	37.587174	76.424040	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03111	37.586091	76.428446	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03112	37.585564	76.433470	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03113	37.582794	76.416787	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03114	37.586228	76.411152	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03115	37.588606	76.407951	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES AND MILL CREEKS
03201	37.573755	76.387931	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
03202	37.567275	76.388588	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	RAPPAHANNOCK RIVER
03203	37.564498	76.391594	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
03204	37.568688	76.335927	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
03205	37.564522	76.337044	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
03206	37.562521	76.340765	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
03207	37.559082	76.343914	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
03208	37.559383	76.349932	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B01	37.566560	76.311660	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B02	37.562107	76.314513	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B02.5	37.560950	76.314609	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B02A	37.561063	76.312243	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B02B	37.561815	76.307931	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B03	37.559202	76.313818	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B03.5	37.559712	76.316178	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B04	37.5556983	76.316435	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B05	37.558639	76.317730	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033B06	37.558234	76.321555	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DELTAVILLE
033J07	37.538501	76.317826	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J08	37.545906	76.322232	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J09	37.546545	76.327346	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J10	37.548077	76.330024	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J11	37.549815	76.330319	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J12	37.545945	76.330771	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J13	37.544909	76.334383	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J14	37.545699	76.337617	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J15	37.548363	76.340743	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J16	37.547663	76.322560	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J17	37.550331	76.334005	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
033J18	37.551683	76.334345	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03401	37.514520	76.336817	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03402	37.523049	76.346408	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
03403	37.538368	76.336379	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03403A	37.539936	76.339752	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03403B	37.541316	76.340056	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03403C	37.541912	76.335289	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03403D	37.539672	76.333077	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03404	37.528061	76.361019	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03405	37.532845	76.374432	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03405.5	37.534904	76.383446	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03406	37.538796	76.392512	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03407	37.542186	76.394412	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03408	37.545989	76.390025	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03409	37.530468	76.389420	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWER PIANKATANK RIVER
03410	37.527234	76.402478	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03411	37.522561	76.399247	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03412	37.532690	76.398982	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03413	37.531077	76.407486	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03414	37.522000	76.411086	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03415	37.521346	76.416601	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03416	37.528713	76.416951	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03417	37.514622	76.412516	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03418	37.510253	76.419383	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	LOWER PIANKATANK RIVER
03519	37.512550	76.427871	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03520	37.520153	76.433749	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03521	37.528342	76.434861	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03522	37.518971	76.438826	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03523	37.516291	76.447552	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03524	37.520731	76.454309	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03525	37.516199	76.462165	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03526	37.525852	76.460812	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03527	37.529007	76.467997	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03528	37.532357	76.475578	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03529	37.536807	76.482155	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03530	37.536391	76.490347	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03531	37.537392	76.498394	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03532	37.535643	76.504549	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03533	37.541567	76.502753	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03534	37.546595	76.505023	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03535	37.549002	76.512936	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03536	37.547940	76.524742	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03537	37.553244	76.527290	LE-3	RAPPAHANNOCK	PIANKATANK	2080104	UPPER PIANKATANK RIVER
03601	37.508665	76.315937	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03602	37.499848	76.317541	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03603	37.489504	76.320142	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03603Y	37.488276	76.312804	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03603Z	37.488987	76.317823	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03608	37.488793	76.309270	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03609	37.490899	76.307430	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03610	37.492624	76.303955	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03610A	37.493537	76.305137	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03611	37.491481	76.299676	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03612	37.496316	76.292636	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03613	37.489103	76.297619	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03613A	37.489418	76.293129	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03614	37.484968	76.301463	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03614A	37.4846092	76.301480	CB-6	CHESBAY	PIANKATANK	2080101	MILFORD HAVEN
03615	37.481449	76.303525	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03616	37.486840	76.293298	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03617	37.483757	76.290057	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03618	37.489040	76.283622	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03619	37.481830	76.282845	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03620	37.478690	76.276183	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03621	37.473259	76.274141	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MILFORD HAVEN
03704	37.487366	76.328222	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03705	37.486589	76.334079	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03706	37.486044	76.339210	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03707	37.484706	76.343202	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03707A	37.486644	76.345026	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03707B	37.486613	76.350406	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03707C	37.488197	76.354275	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03707D	37.488806	76.357629	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03722	37.468955	76.280660	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03723	37.467624	76.285670	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03723.1	37.461776	76.285621	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03723.2	37.455837	76.283915	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03723.3	37.452242	76.279589	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03723.4	37.448164	76.284794	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03724	37.463012	76.289903	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03725	37.462366	76.297187	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03726	37.462224	76.304267	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03726.1	37.457961	76.305981	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03726.2	37.453811	76.308330	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03726.3	37.451434	76.309497	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03727	37.463202	76.311663	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03728	37.461506	76.315203	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03729	37.465290	76.315701	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03730	37.467768	76.319567	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STUTTS CREEK
03731	37.467021	76.271947	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03732	37.462647	76.266879	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03733	37.456354	76.264045	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03734	37.453349	76.269705	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03735	37.447158	76.270929	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03736	37.452751	76.259949	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS
03737	37.446714	76.258126	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	STOAKES AND WHITES CREEKS

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
03801	37.370270	76.254027	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03802	37.376107	76.256516	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03803	37.377130	76.261540	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03804	37.378836	76.265280	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03805	37.382695	76.268941	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03806	37.378723	76.270715	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03807	37.379796	76.276178	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03808	37.381965	76.253030	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03809	37.387721	76.256209	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03810	37.389892	76.258252	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03811	37.395022	76.252781	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03812	37.401943	76.251757	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	WINTER HARBOR
03901	37.351067	76.267873	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03902	37.357041	76.268615	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03903	37.359915	76.274256	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03904	37.360984	76.282054	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03905	37.362512	76.288072	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03906	37.362534	76.293126	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03907	37.363253	76.298044	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03908	37.366957	76.300645	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03909	37.368826	76.303246	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03910	37.369012	76.309012	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
03911	37.333075	76.269253	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	NEW POINT
03912	37.332161	76.276788	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	NEW POINT
03913	37.335792	76.280890	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	NEW POINT
03913Y	37.338359	76.282051	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	NEW POINT
039A	37.351773	76.275603	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
039B	37.350586	76.277459	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
039C	37.350188	76.279660	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HORN HARBOR
04001	37.320141	76.284523	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04002	37.320545	76.299889	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04003	37.323296	76.300201	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04004	37.325898	76.299511	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04005	37.328299	76.298504	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04006	37.332408	76.300344	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04007	37.341783	76.318483	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04008	37.344067	76.312271	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04009	37.348361	76.307200	WE-4	YORK	MOBJACK BAY	2080102	MOBJACK BAY
04010	37.352357	76.326229	WE-4	YORK	MOBJACK BAY	2080102	SLOOR CREEK
04101	37.370375	76.343197	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04102	37.380969	76.340114	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04103	37.390578	76.338739	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04104	37.398131	76.344807	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04105	37.403413	76.348801	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04106	37.410850	76.345338	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04107	37.415251	76.338843	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04108	37.418296	76.333835	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04109	37.421821	76.331672	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04109.5	37.424815	76.330865	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04110	37.417285	76.349535	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04111	37.420486	76.359477	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04112	37.424753	76.362656	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04113	37.429811	76.365506	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04114	37.435781	76.362043	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04115	37.441169	76.358004	WE-4	YORK	MOBJACK BAY	2080102	EAST RIVER
04201	37.372917	76.401380	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04202	37.380320	76.392372	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04203	37.384880	76.411437	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04204	37.389184	76.399107	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04205	37.398607	76.412595	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04205Z	37.397200	76.419038	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04206	37.400293	76.400619	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04207	37.410060	76.412732	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04208	37.411779	76.402996	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04209	37.417317	76.402500	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04209.7Z	37.421028	76.405265	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04210	37.422971	76.404570	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04210.5	37.423474	76.407023	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04210.ZZ	37.425166	76.403351	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04211	37.426295	76.409403	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04211.3Z	37.426771	76.412354	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04212	37.431931	76.410503	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04212.4	37.435084	76.411121	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04212.5	37.438883	76.412789	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04213	37.415037	76.425447	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04214	37.415983	76.434940	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215	37.420543	76.446451	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215V	37.413897	76.463769	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215W	37.415293	76.460681	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215X	37.416417	76.457417	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215Y	37.417697	76.455319	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04215Z	37.418128	76.452707	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04216	37.428863	76.450621	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04217	37.435156	76.448198	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04218	37.441136	76.446796	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04219	37.422430	76.455213	WE-4	YORK	MOBJACK BAY	2080102	NORTH RIVER
04301	37.349340	76.407469	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04302	37.362048	76.406771	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04303	37.354333	76.424437	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04304	37.367499	76.422597	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04305	37.360814	76.435989	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04306	37.377150	76.435970	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04307	37.368795	76.446777	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
04307Y	37.361419	76.456105	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04307Z	37.363211	76.449813	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04308	37.375738	76.450251	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04309	37.366968	76.457576	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04309.5	37.366505	76.463041	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04310	37.369313	76.468164	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04311	37.363751	76.474119	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04312	37.363554	76.481227	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04312.1	37.366686	76.481851	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04312.2	37.368957	76.484729	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04312Z	37.361509	76.483573	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04313	37.378714	76.460837	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04314	37.386292	76.457411	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04314A	37.385510	76.451695	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04315	37.392333	76.462510	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04316	37.394644	76.470644	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04317	37.396870	76.477927	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04318	37.399920	76.485148	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04318.5X	37.402268	76.499468	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04318.5Y	37.401386	76.495243	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04318.5Z	37.400501	76.491864	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04319	37.404785	76.488740	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04320	37.407176	76.491429	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04321	37.410898	76.492187	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04322	37.413733	76.493362	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04323	37.416618	76.492680	WE-4	YORK	MOBJACK BAY	2080102	WARE RIVER
04401	37.320576	76.394349	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04402	37.331297	76.399535	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04403	37.312478	76.412784	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04404	37.318940	76.415681	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04405	37.313875	76.430976	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04406	37.321136	76.431200	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04407	37.311266	76.437054	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04407.5	37.306315	76.437672	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04408	37.305826	76.444104	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04409	37.302163	76.449983	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04410	37.302108	76.457203	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04411	37.296685	76.453460	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412	37.291844	76.454517	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412.1	37.288652	76.458386	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412.2	37.286635	76.462192	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412.3	37.285417	76.465354	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412V	37.280872	76.443502	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412W	37.281828	76.444211	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412X	37.284253	76.446095	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412Y	37.285533	76.450131	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04412Z	37.289125	76.451943	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04413	37.319104	76.440898	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04413.7Y	37.330298	76.445024	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04414	37.324213	76.450717	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04415	37.318966	76.458340	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04416	37.317462	76.466751	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04416.5Z	37.317956	76.473070	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04416.8	37.319983	76.468665	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04416.8Z	37.319725	76.470587	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04416.9	37.321374	76.471332	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417	37.322857	76.471909	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417.22	37.325070	76.473286	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417.4	37.327385	76.474028	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417.4Y	37.326209	76.476693	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417.4Z	37.326229	76.473432	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417Y	37.322758	76.473582	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04417Z	37.323924	76.473467	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04418	37.330519	76.473727	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04418.2	37.332478	76.475277	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04418.4	37.335567	76.476457	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04418.6	37.338066	76.479836	WE-4	YORK	MOBJACK BAY	2080102	SEVERN RIVER
04501	37.301561	76.378386	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04502	37.302576	76.385697	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04503	37.302058	76.390384	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04504	37.301520	76.397385	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04505	37.301076	76.403792	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04506	37.277649	76.375569	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04507	37.277279	76.381362	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04508	37.273888	76.385571	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04509	37.266093	76.382285	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04510	37.263804	76.388903	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04511	37.269890	76.387687	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04512	37.271017	76.394614	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04513	37.271455	76.400348	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04514	37.279832	76.386137	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04515	37.295015	76.389265	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04516	37.299064	76.399060	WE-4	YORK	MOBJACK BAY	2080102	BROWNS BAY AND MONDAY CREEK
04601	37.246003	76.486810	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04601.5	37.248275	76.486489	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04601A	37.245442	76.501557	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04601B	37.247268	76.496793	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04601C	37.249227	76.491306	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04602	37.252793	76.484551	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04602.5	37.255227	76.480800	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04602A	37.250405	76.480178	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04603	37.257179	76.478905	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04603.5	37.259309	76.480441	LE-4	YORK	LOWER YORK	2080107	YORK RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
04604	37.260552	76.481624	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04604.5	37.261294	76.483111	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04605	37.261550	76.484778	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04605.5	37.262780	76.487634	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04606	37.264266	76.488222	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04606.5	37.257129	76.476643	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04607	37.257763	76.474116	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04607.5	37.259037	76.471961	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04608	37.259560	76.469270	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04609	37.260388	76.420730	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04610	37.263441	76.423227	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04610.5	37.264566	76.423996	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04611	37.267373	76.424667	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04612	37.267452	76.429324	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04613	37.269557	76.433087	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04614	37.271616	76.435896	WE-4	YORK	MOBJACK BAY	2080102	PERRIN RIVER
04615	37.239562	76.428432	WE-4	YORK	LOWER YORK	2080107	YORK RIVER
04616	37.238947	76.444499	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04617	37.239805	76.460144	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04618	37.239626	76.479850	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04619	37.242921	76.409148	LE-4	YORK	LOWER YORK	2080107	YORK RIVER
04620	37.246484	76.390921	LE-4	YORK	LOWER YORK	2080107	SARAH CREEK
04621	37.249763	76.375054	LE-4	YORK	LOWER YORK	2080107	SARAH CREEK
04701	37.285198	76.541228	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04702	37.288263	76.539856	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04703	37.290346	76.535391	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04704	37.292188	76.535062	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04705	37.294509	76.534646	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04706	37.296574	76.533918	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04707	37.298201	76.532625	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04708	37.299446	76.532004	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04709	37.303377	76.531615	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04710	37.306653	76.532215	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04711	37.309632	76.533584	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04712	37.312793	76.535161	LE-4	YORK	LOWER YORK	2080107	TIMBERNECK CREEK
04713	37.308219	76.569211	LE-4	YORK	LOWER YORK	2080107	CEDARBUSH CREEK
04714	37.310571	76.561936	LE-4	YORK	LOWER YORK	2080107	CEDARBUSH CREEK
04715	37.310347	76.553560	LE-4	YORK	LOWER YORK	2080107	CEDARBUSH CREEK
04716	37.314647	76.547769	LE-4	YORK	YORK	2080107	CEDARBUSH CREEK
04717	37.317073	76.570331	LE-4	YORK	YORK	2080107	CARTER CREEK
04718	37.321921	76.574939	LE-4	YORK	YORK	2080107	CARTER CREEK
04718.2	37.325603	76.574213	LE-4	YORK	YORK	2080107	CARTER CREEK
04718.4	37.328293	76.570876	LE-4	YORK	YORK	2080107	CARTER CREEK
04718.6	37.330079	76.567828	LE-4	YORK	YORK	2080107	CARTER CREEK
04718.8	37.332557	76.564786	LE-4	YORK	YORK	2080107	CARTER CREEK
04719	37.337157	76.593985	LE-4	YORK	YORK	2080107	ABERDEEN CREEK
04720	37.340196	76.593185	LE-4	YORK	YORK	2080107	ABERDEEN CREEK
04721	37.342681	76.592391	LE-4	YORK	YORK	2080107	ABERDEEN CREEK
04722	37.360731	76.615845	LE-4	YORK	YORK	2080107	JONES CREEK
04723	37.358466	76.613726	LE-4	YORK	YORK	2080107	JONES CREEK
04724	37.358398	76.611766	LE-4	YORK	YORK	2080107	JONES CREEK
04725	37.360733	76.610397	LE-4	YORK	YORK	2080107	JONES CREEK
04726	37.364315	76.622942	LE-4	YORK	YORK	2080107	SANDY CREEK
04727	37.385649	76.643234	LE-4	YORK	YORK	2080107	FOX CREEK
04727.3	37.372005	76.644012	LE-4	YORK	YORK	2080107	YORK RIVER
04728	37.350293	76.622970	LE-4	YORK	YORK	2080107	YORK RIVER
04729	37.310798	76.588435	LE-4	YORK	YORK	2080107	YORK RIVER
04730	37.278636	76.543282	LE-4	YORK	YORK	2080107	YORK RIVER
04731	37.250322	76.513089	LE-4	YORK	YORK	2080107	YORK RIVER
04801	37.439654	76.705130	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04802	37.444095	76.704073	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04803	37.448046	76.705341	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04804	37.450838	76.700265	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04805	37.449465	76.694726	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04806	37.448129	76.688841	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04807	37.451882	76.686153	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04808	37.456049	76.681695	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04809	37.456049	76.681695	RET-4	YORK	LOWER YORK	2080107	YORK RIVER
04810	37.460906	76.672531	RET-4	YORK	YORK	2080107	YORK RIVER
048100	37.460139	76.732472	RET-4	YORK	YORK	2080107	YORK RIVER
048101	37.466997	76.736251	RET-4	YORK	YORK	2080107	YORK RIVER
048102	37.472992	76.739917	RET-4	YORK	YORK	2080107	YORK RIVER
04811	37.456523	76.669864	RET-4	YORK	YORK	2080107	POROPOTANK RIVER
04812	37.457243	76.664101	RET-4	YORK	YORK	2080107	POROPOTANK RIVER
04813	37.462490	76.662343	RET-4	YORK	YORK	2080107	POROPOTANK RIVER
04814	37.467353	76.657214	RET-4	YORK	YORK	2080107	POROPOTANK RIVER
04815	37.470308	76.654230	RET-4	YORK	YORK	2080107	POROPOTANK RIVER
04816	37.409153	76.669254	RET-4	YORK	YORK	2080107	PURTAN BAY
04817	37.404614	76.664448	RET-4	YORK	YORK	2080107	PURTAN BAY
04818	37.401294	76.660752	RET-4	YORK	YORK	2080107	PURTAN BAY
04819	37.412307	76.661740	RET-4	YORK	YORK	2080107	PURTAN BAY
04820	37.430826	76.690936	RET-4	YORK	YORK	2080107	YORK RIVER
04821	37.429031	76.684767	RET-4	YORK	YORK	2080107	ADAMS CREEK
04821.5	37.431605	76.679509	RET-4	YORK	YORK	2080107	YORK RIVER
04823	37.430276	76.707794	RET-4	YORK	YORK	2080107	YORK RIVER
04824	37.412659	76.687149	RET-4	YORK	YORK	2080107	YORK RIVER
04825	37.394616	76.667540	RET-4	YORK	YORK	2080107	YORK RIVER
04892	37.415369	76.684143	RET-4	YORK	YORK	2080107	YORK RIVER
04893	37.420779	76.691385	RET-4	YORK	YORK	2080107	YORK RIVER
04894	37.425382	76.696308	RET-4	YORK	YORK	2080107	YORK RIVER
04895	37.432029	76.703673	RET-4	YORK	YORK	2080107	YORK RIVER
04896	37.438733	76.710984	RET-4	YORK	YORK	2080107	YORK RIVER
04897	37.443289	76.717216	RET-4	YORK	YORK	2080107	YORK RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
04898	37.449164	76.724655	RET-4	YORK	YORK	2080107	YORK RIVER
04899	37.454418	76.728414	RET-4	YORK	YORK	2080107	YORK RIVER
049103	37.480628	76.744670	RET-4	YORK	YORK	2080107	YORK RIVER
049104	37.487418	76.749325	RET-4	YORK	YORK	2080107	YORK RIVER
049104A	37.491717	76.744699	RET-4	YORK	YORK	2080107	HOCKLEY CREEK
049104B	37.495141	76.744699	RET-4	YORK	YORK	2080107	HOCKLEY CREEK
049105	37.492439	76.757073	RET-4	YORK	YORK	2080107	YORK RIVER
049106	37.497760	76.766112	RET-4	YORK	YORK	2080107	YORK RIVER
049107	37.503458	76.773584	RET-4	YORK	YORK	2080107	YORK RIVER
049108	37.509191	76.782389	RET-4	YORK	YORK	2080107	YORK RIVER
049109	37.516127	76.786893	RET-4	YORK	YORK	2080107	YORK RIVER
049110	37.519983	76.787586	RET-4	YORK	YORK	2080107	YORK RIVER
049111	37.523566	76.788588	RET-4	YORK	YORK	2080107	YORK RIVER
049112	37.527865	76.788994	RET-4	YORK	YORK	2080107	YORK RIVER
049113	37.531986	76.790157	RET-4	YORK	YORK	2080107	YORK RIVER
049114	37.536173	76.790091	RET-4	YORK	YORK	2080107	YORK RIVER
049114Y	37.538983	76.796419	RET-4	YORK	YORK	2080107	YORK RIVER
049114Z	37.536474	76.794861	RET-4	YORK	YORK	2080107	YORK RIVER
049115	37.538914	76.787556	RET-4	YORK	YORK	2080107	YORK RIVER
049116	37.541994	76.783778	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049117	37.544872	76.780103	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049118	37.547678	76.777831	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049119	37.555655	76.778928	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049120	37.562798	76.782189	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049121	37.569718	76.788178	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049122	37.572340	76.799497	RET-4	YORK	YORK	2080107	MATTAPONI RIVER
049204	37.483785	76.757243	RET-4	YORK	YORK	2080107	YORK RIVER
049205	37.489197	76.766659	RET-4	YORK	YORK	2080107	YORK RIVER
049206	37.492511	76.775804	RET-4	YORK	YORK	2080107	YORK RIVER
049207	37.497108	76.783912	RET-4	YORK	YORK	2080107	YORK RIVER
049208	37.503524	76.788334	RET-4	YORK	YORK	2080107	YORK RIVER
049209	37.511294	76.791365	RET-4	YORK	YORK	2080107	YORK RIVER
049210	37.516755	76.794697	RET-4	YORK	YORK	2080107	YORK RIVER
049211	37.520007	76.797208	RET-4	YORK	YORK	2080107	YORK RIVER
049212	37.523926	76.799844	RET-4	YORK	YORK	2080107	YORK RIVER
049213	37.526960	76.802183	RET-4	YORK	YORK	2080107	YORK RIVER
049214	37.529467	76.804294	RET-4	YORK	YORK	2080107	YORK RIVER
049215	37.533443	76.806424	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
049216	37.537418	76.809449	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
049217	37.540834	76.810465	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
049218	37.544223	76.813713	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
049219	37.551574	76.820421	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
049220	37.547301	76.829007	RET-4	YORK	YORK	2080107	PAMUNKEY RIVER
05001	37.375801	76.669818	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05002	37.371252	76.665212	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05003	37.369429	76.671874	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05004	37.368325	76.675729	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05005	37.366647	76.680452	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05006	37.369516	76.683552	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05007	37.369226	76.689490	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05008	37.366844	76.691155	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05009	37.365078	76.695040	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05010	37.367855	76.698356	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05011	37.365360	76.700571	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05012	37.365613	76.703476	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05013	37.365010	76.706693	LE-4	YORK	YORK	2080107	SKIMINO CREEK
05014	37.357553	76.655448	LE-4	YORK	YORK	2080107	YORK RIVER
05015	37.353559	76.652327	LE-4	YORK	YORK	2080107	YORK RIVER
05016	37.349821	76.651078	LE-4	YORK	YORK	2080107	YORK RIVER
05017	37.346077	76.647949	LE-4	YORK	YORK	2080107	YORK RIVER
05018	37.343781	76.643765	LE-4	YORK	YORK	2080107	YORK RIVER
05019	37.348389	76.655725	LE-4	YORK	YORK	2080107	CARTER CREEK
050192	37.412261	76.693543	LE-4	YORK	YORK	2080107	YORK RIVER
050193	37.418379	76.700749	LE-4	YORK	YORK	2080107	YORK RIVER
050194	37.423063	76.707121	RET-4	YORK	YORK	2080107	YORK RIVER
050195	37.428217	76.713133	RET-4	YORK	YORK	2080107	YORK RIVER
050196	37.433370	76.719135	RET-4	YORK	YORK	2080107	YORK RIVER
050197	37.439523	76.725170	RET-4	YORK	YORK	2080107	YORK RIVER
050198	37.444758	76.729885	RET-4	YORK	YORK	2080107	YORK RIVER
050199	37.451397	76.735019	RET-4	YORK	YORK	2080107	YORK RIVER
05020	37.345563	76.662696	LE-4	YORK	YORK	2080107	CARTER CREEK
050200	37.457321	76.738099	RET-4	YORK	YORK	2080107	YORK RIVER
050201	37.465242	76.741820	RET-4	YORK	YORK	2080107	YORK RIVER
050202	37.470697	76.745659	RET-4	YORK	YORK	2080107	YORK RIVER
050203	37.477662	76.751288	RET-4	YORK	YORK	2080107	YORK RIVER
05021	37.345182	76.666822	LE-4	YORK	YORK	2080107	CARTER CREEK
05022	37.416573	76.715368	LE-4	YORK	YORK	2080107	TASKINAS CREEK
05022A	37.414790	76.715140	LE-4	YORK	YORK	2080107	TASKINAS CREEK
05022B	37.414616	76.718798	LE-4	YORK	YORK	2080107	TASKINAS CREEK
05023	37.458411	76.757172	RET-4	YORK	YORK	2080107	WARE CREEK
05024	37.458280	76.760852	RET-4	YORK	YORK	2080107	WARE CREEK
05025	37.452576	76.761265	RET-4	YORK	YORK	2080107	WARE CREEK
05101	37.241546	76.512747	RET-4	YORK	YORK	2080107	YORK RIVER
05102	37.242787	76.515638	LE-4	YORK	YORK	2080107	YORK RIVER
05103	37.243884	76.517815	LE-4	YORK	YORK	2080107	YORK RIVER
05104	37.245475	76.520342	LE-4	YORK	YORK	2080107	YORK RIVER
05105	37.247677	76.523606	LE-4	YORK	YORK	2080107	YORK RIVER
05106	37.250770	76.525939	LE-4	YORK	YORK	2080107	YORK RIVER
05107	37.249008	76.527850	LE-4	YORK	YORK	2080107	YORK RIVER
05108	37.245499	76.523289	LE-4	YORK	YORK	2080107	YORK RIVER
05109	37.244591	76.521687	LE-4	YORK	YORK	2080107	YORK RIVER
05110	37.243105	76.519863	LE-4	YORK	YORK	2080107	YORK RIVER
05111	37.241517	76.516876	LE-4	YORK	YORK	2080107	YORK RIVER

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
05112	37.242246	76.520290	LE-4	YORK	YORK	2080107	YORK RIVER
05112Z	37.241561	76.520904	LE-4	YORK	YORK	2080107	YORK RIVER
05113	37.2483612	76.521999	LE-4	YORK	YORK	2080107	YORK RIVER
05113Y	37.242516	76.524767	LE-4	YORK	YORK	2080107	YORK RIVER
05113Z	37.242897	76.523061	LE-4	YORK	YORK	2080107	YORK RIVER
05114	37.246099	76.525484	LE-4	YORK	YORK	2080107	YORK RIVER
05114Z	37.244352	76.525402	LE-4	YORK	YORK	2080107	YORK RIVER
05115	37.255929	76.532431	LE-4	YORK	YORK	2080107	YORK RIVER
05116	37.258989	76.534178	LE-4	YORK	YORK	2080107	YORK RIVER
05117	37.260355	76.537504	LE-4	YORK	YORK	2080107	YORK RIVER
05118	37.258368	76.540045	LE-4	YORK	YORK	2080107	YORK RIVER
05119	37.255218	76.536623	LE-4	YORK	YORK	2080107	YORK RIVER
05120	37.252324	76.533581	LE-4	YORK	YORK	2080107	YORK RIVER
05121	37.268419	76.557692	LE-4	YORK	YORK	2080107	INDIAN FIELD CREEK
05122	37.265758	76.559447	LE-4	YORK	YORK	2080107	INDIAN FIELD CREEK
05123	37.273702	76.572341	LE-4	YORK	YORK	2080107	YORK RIVER
05124	37.278715	76.576031	LE-4	YORK	YORK	2080107	YORK RIVER
05125	37.275400	76.580248	LE-4	YORK	YORK	2080107	YORK RIVER
05126	37.276529	76.585475	LE-4	YORK	YORK	2080107	YORK RIVER
05127	37.279233	76.585396	LE-4	YORK	YORK	2080107	KING CREEK
05128	37.280568	76.586748	LE-4	YORK	YORK	2080107	KING CREEK
05129	37.279387	76.589549	LE-4	YORK	YORK	2080107	KING CREEK
05130	37.278067	76.592657	LE-4	YORK	YORK	2080107	KING CREEK
05131	37.275566	76.598831	LE-4	YORK	YORK	2080107	KING CREEK
05132	37.274684	76.604833	LE-4	YORK	YORK	2080107	KING CREEK
05133	37.270538	76.609797	LE-4	YORK	YORK	2080107	KING CREEK
05134	37.267903	76.617770	LE-4	YORK	YORK	2080107	KING CREEK
05135	37.266242	76.623468	LE-4	YORK	YORK	2080107	KING CREEK
05136	37.274474	76.586124	LE-4	YORK	YORK	2080107	FELGATES CREEK
05137	37.269667	76.585702	LE-4	YORK	YORK	2080107	FELGATES CREEK
05138	37.266782	76.585070	LE-4	YORK	YORK	2080107	FELGATES CREEK
05139	37.261797	76.581149	LE-4	YORK	YORK	2080107	FELGATES CREEK
05140	37.257650	76.577179	LE-4	YORK	YORK	2080107	FELGATES CREEK
05141	37.253266	76.577784	LE-4	YORK	YORK	2080107	FELGATES CREEK
05142	37.283717	76.579895	LE-4	YORK	YORK	2080107	YORK RIVER
05143	37.285753	76.581918	LE-4	YORK	YORK	2080107	YORK RIVER
05144	37.285918	76.575818	LE-4	YORK	YORK	2080107	YORK RIVER
05145	37.288663	76.578813	LE-4	YORK	YORK	2080107	YORK RIVER
05146	37.295791	76.589875	LE-4	YORK	YORK	2080107	YORK RIVER
05147	37.300890	76.596709	LE-4	YORK	YORK	2080107	YORK RIVER
05148	37.296904	76.602363	LE-4	YORK	YORK	2080107	YORK RIVER
05149	37.301161	76.616188	LE-4	YORK	YORK	2080107	YORK RIVER
05150	37.299026	76.625048	LE-4	YORK	YORK	2080107	QUEEN CREEK
05151	37.296919	76.630204	LE-4	YORK	YORK	2080107	QUEEN CREEK
05152	37.299929	76.638292	LE-4	YORK	YORK	2080107	QUEEN CREEK
05153	37.298842	76.646084	LE-4	YORK	YORK	2080107	QUEEN CREEK
05154	37.296873	76.651125	LE-4	YORK	YORK	2080107	QUEEN CREEK
05155	37.300990	76.655336	LE-4	YORK	YORK	2080107	QUEEN CREEK
05156	37.302331	76.660519	LE-4	YORK	YORK	2080107	QUEEN CREEK
05157	37.297293	76.664021	LE-4	YORK	YORK	2080107	QUEEN CREEK
05158	37.293481	76.671156	LE-4	YORK	YORK	2080107	QUEEN CREEK
05159	37.292094	76.675973	LE-4	YORK	YORK	2080107	QUEEN CREEK
05160	37.293290	76.685608	LE-4	YORK	YORK	2080107	QUEEN CREEK
0520.5	37.235994	76.505442	LE-4	YORK	YORK	2080107	YORK RIVER
05201	37.234479	76.499783	LE-4	YORK	YORK	2080107	YORK RIVER
05201A	37.239611	76.507589	LE-4	YORK	YORK	2080107	YORK RIVER
05202	37.229185	76.491330	LE-4	YORK	YORK	2080107	YORK RIVER
05203	37.225539	76.483916	LE-4	YORK	YORK	2080107	YORK RIVER
05204	37.226056	76.472898	LE-4	YORK	YORK	2080107	YORK RIVER
05205	37.226597	76.465286	LE-4	YORK	YORK	2080107	YORK RIVER
05206	37.227341	76.457113	LE-4	YORK	YORK	2080107	YORK RIVER
05207	37.227819	76.447724	LE-4	YORK	YORK	2080107	YORK RIVER
05208	37.228703	76.436706	LE-4	YORK	YORK	2080107	YORK RIVER
05208A	37.229358	76.427159	LE-4	YORK	YORK	2080107	YORK RIVER
05208B	37.229881	76.417882	LE-4	YORK	YORK	2080107	YORK RIVER
05209	37.224738	76.437298	LE-4	YORK	YORK	2080107	YORK RIVER
05209A	37.221545	76.441566	LE-4	YORK	YORK	2080107	YORK RIVER
05209B	37.222428	76.432112	LE-4	YORK	YORK	2080107	YORK RIVER
05209C	37.225852	76.426274	LE-4	YORK	YORK	2080107	YORK RIVER
05209D	37.223891	76.422674	LE-4	YORK	YORK	2080107	YORK RIVER
05209E	37.225537	76.418619	LE-4	YORK	YORK	2080107	YORK RIVER
05210	37.224241	76.448064	LE-4	YORK	YORK	2080107	YORK RIVER
05210A	37.221285	76.451349	LE-4	YORK	YORK	2080107	YORK RIVER
05211	37.223923	76.456839	LE-4	YORK	YORK	2080107	YORK RIVER
05211A	37.220672	76.461590	LE-4	YORK	YORK	2080107	YORK RIVER
05212	37.223558	76.464612	LE-4	YORK	YORK	2080107	YORK RIVER
05212A	37.220696	76.468851	LE-4	YORK	YORK	2080107	YORK RIVER
05212B	37.216572	76.469418	LE-4	YORK	YORK	2080107	YORK RIVER
05212C	37.213493	76.474593	LE-4	YORK	YORK	2080107	WORMLEY CREEK
05212D	37.211866	76.468990	LE-4	YORK	YORK	2080107	WORMLEY CREEK
05212E	37.208334	76.470559	LE-4	YORK	YORK	2080107	WORMLEY CREEK
05212F	37.214104	76.468635	LE-4	YORK	YORK	2080107	WORMLEY CREEK
05213	37.223039	76.471961	LE-4	YORK	YORK	2080107	YORK RIVER
05213A	37.221817	76.478256	LE-4	YORK	YORK	2080107	YORK RIVER
05213B	37.219180	76.473998	LE-4	YORK	YORK	2080107	YORK RIVER
05214	37.228033	76.482440	LE-4	YORK	YORK	2080107	YORK RIVER
05215	37.232285	76.489630	LE-4	YORK	YORK	2080107	YORK RIVER
05216	37.237432	76.496784	LE-4	YORK	YORK	2080107	YORK RIVER
05216A	37.241881	76.504755	LE-4	YORK	YORK	2080107	YORK RIVER
053B54	37.211544	76.411442	WE-4	YORK	YORK	2080102	BACK CREEK
053B55	37.211991	76.415829	WE-4	YORK	YORK	2080102	BACK CREEK
053B56	37.207998	76.409364	WE-4	YORK	YORK	2080102	BACK CREEK
053B57	37.209341	76.416124	WE-4	YORK	YORK	2080102	BACK CREEK

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
053B58	37.206737	76.413770	WE-4	YORK	YORK	2080102	BACK CREEK
053B59	37.206522	76.418047	WE-4	YORK	YORK	2080102	BACK CREEK
053B60	37.205081	76.424615	WE-4	YORK	YORK	2080102	BACK CREEK
053B61	37.203631	76.429316	WE-4	YORK	YORK	2080102	BACK CREEK
053B62	37.204527	76.434362	WE-4	YORK	YORK	2080102	BACK CREEK
053B63	37.203657	76.438908	WE-4	YORK	YORK	2080102	BACK CREEK
053B64	37.204085	76.441021	WE-4	YORK	YORK	2080102	BACK CREEK
053B65	37.204899	76.444277	WE-4	YORK	YORK	2080102	BACK CREEK
053B66	37.217860	76.417151	WE-4	YORK	YORK	2080102	BACK CREEK
053P01	37.167919	76.392941	WE-4	YORK	YORK	2080102	POQUOSON
053P01A	37.174425	76.395532	WE-4	YORK	YORK	2080102	POQUOSON
053P02	37.170045	76.401131	WE-4	YORK	YORK	2080102	POQUOSON
053P03	37.174765	76.403863	WE-4	YORK	YORK	2080102	POQUOSON
053P04	37.178831	76.399937	WE-4	YORK	YORK	2080102	POQUOSON
053P05	37.178842	76.408828	WE-4	YORK	YORK	2080102	POQUOSON
053P06	37.181879	76.412872	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P07	37.181879	76.412872	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P08	37.186162	76.425697	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P09	37.183211	76.425264	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P10	37.182538	76.429582	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P11	37.181454	76.433393	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P12	37.179298	76.437867	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P13	37.178842	76.441246	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P14	37.177072	76.445873	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P15	37.177552	76.413219	WE-4	YORK	YORK	2080102	CHRISMAN CREEK
053P16	37.167670	76.402689	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P17	37.162246	76.405824	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P18	37.157172	76.410224	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P19	37.152690	76.414320	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P20	37.152557	76.421636	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P21	37.154201	76.427630	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P22	37.154536	76.429858	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P23	37.157666	76.432186	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P23.3	37.159193	76.432487	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P24	37.151049	76.424169	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P25	37.147204	76.424966	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P26	37.145304	76.427068	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P27	37.142358	76.428426	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P28	37.139160	76.429037	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P29	37.135582	76.429987	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P30	37.135507	76.434174	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P31	37.136053	76.439146	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P32	37.149146	76.411724	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P33	37.145900	76.412655	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P34	37.143357	76.413009	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P35	37.156120	76.394587	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P36	37.152943	76.393478	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P37	37.163999	76.384848	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P38	37.156940	76.374383	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P39	37.151009	76.380048	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P40	37.148927	76.381997	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P41	37.153440	76.373348	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P42	37.149598	76.372622	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P42A	37.151654	76.370221	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P43	37.146755	76.372592	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P44	37.144401	76.376020	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P44.1	37.142805	76.376727	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P44.2Z	37.141922	76.377779	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P44.5	37.137408	76.386504	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P45	37.144116	76.370730	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P46	37.141483	76.368168	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P46.5	37.140286	76.366768	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P46.5Z	37.140707	76.362967	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P47	37.139210	76.365208	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P47.5	37.137895	76.363680	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P48	37.154402	76.368712	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P49	37.153015	76.362812	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P50	37.154683	76.361145	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P51	37.154126	76.357903	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P52	37.151603	76.355343	WE-4	YORK	YORK	2080102	POQUOSON RIVER
053P53	37.159403	76.358439	WE-4	YORK	YORK	2080102	POQUOSON RIVER
054N01	37.113518	76.289038	WE-4	YORK	YORK	2080102	BACK RIVER
054N02	37.111045	76.296757	WE-4	YORK	YORK	2080102	BACK RIVER
054N03	37.108218	76.303391	WE-4	YORK	YORK	2080102	BACK RIVER
054N04	37.106014	76.309368	WE-4	YORK	YORK	2080102	BACK RIVER
054N05	37.103900	76.315507	WE-4	YORK	YORK	2080102	BACK RIVER
054N05A	37.109229	76.317062	WE-4	YORK	YORK	2080102	BACK RIVER
054N05B	37.112198	76.319190	WE-4	YORK	YORK	2080102	BACK RIVER
054N06	37.103237	76.322117	WE-4	YORK	YORK	2080102	BACK RIVER
054N06A	37.107014	76.322004	WE-4	YORK	YORK	2080102	BACK RIVER
054N06B	37.109628	76.324668	WE-4	YORK	YORK	2080102	BACK RIVER
054N06Z	37.099685	76.319252	WE-4	YORK	YORK	2080102	BACK RIVER
054N07	37.102535	76.327765	WE-4	YORK	YORK	2080102	BACK RIVER
054N07.1A	37.103481	76.328277	WE-4	YORK	YORK	2080102	BACK RIVER
054N07A	37.106542	76.330339	WE-4	YORK	YORK	2080102	BACK RIVER
054N07B	37.108773	76.331404	WE-4	YORK	YORK	2080102	BACK RIVER
054N07Z	37.097132	76.324180	WE-4	YORK	YORK	2080102	BACK RIVER
054N08	37.099923	76.332590	WE-4	YORK	YORK	2080102	BACK RIVER
054N08A	37.105851	76.335779	WE-4	YORK	YORK	2080102	BACK RIVER
054N08B	37.101369	76.332754	WE-4	YORK	YORK	2080102	BACK RIVER
054N08C	37.101932	76.335133	WE-4	YORK	YORK	2080102	BACK RIVER
054N08D	37.103358	76.336798	WE-4	YORK	YORK	2080102	BACK RIVER
054N09	37.098065	76.337652	WE-4	YORK	YORK	2080102	BACK RIVER

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
054N09A	37.099292	76.339979	WE-4	YORK	YORK	2080102	BACK RIVER
054N09B	37.100425	76.341403	WE-4	YORK	YORK	2080102	BACK RIVER
054N10	37.095765	76.341518	WE-4	YORK	YORK	2080102	BACK RIVER
054N10A	37.098039	76.342800	WE-4	YORK	YORK	2080102	BACK RIVER
054N10Z	37.092665	76.342197	WE-4	YORK	YORK	2080102	BACK RIVER
054N11	37.096747	76.345885	WE-4	YORK	YORK	2080102	BACK RIVER
054N11Z	37.095993	76.348355	WE-4	YORK	YORK	2080102	BACK RIVER
054N12	37.100132	76.347994	WE-4	YORK	YORK	2080102	BACK RIVER
054N12Z	37.100450	76.352481	WE-4	YORK	YORK	2080102	BACK RIVER
054N13	37.103753	76.348971	WE-4	YORK	YORK	2080102	BACK RIVER
054N14	37.107167	76.350554	WE-4	YORK	YORK	2080102	BACK RIVER
054N14A	37.111128	76.348985	WE-4	YORK	YORK	2080102	BACK RIVER
054N15	37.108093	76.355274	WE-4	YORK	YORK	2080102	BACK RIVER
054N15A	37.111250	76.353021	WE-4	YORK	YORK	2080102	BACK RIVER
054N15B	37.1113621	76.351947	WE-4	YORK	YORK	2080102	BACK RIVER
054N15Z	37.106732	76.359360	WE-4	YORK	YORK	2080102	BACK RIVER
054N15Z1	37.106070	76.362582	WE-4	YORK	YORK	2080102	BACK RIVER
054N15Z2	37.104116	76.363689	WE-4	YORK	YORK	2080102	BACK RIVER
054N15Z3	37.102008	76.365139	WE-4	YORK	YORK	2080102	BACK RIVER
054N15Z4	37.100271	76.365141	WE-4	YORK	YORK	2080102	BACK RIVER
054N16	37.109358	76.360071	WE-4	YORK	YORK	2080102	BACK RIVER
054N17	37.111751	76.364348	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.1	37.112154	76.369950	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.2	37.111702	76.372685	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.2A	37.1114476	76.372162	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.4	37.111095	76.376729	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.5	37.111058	76.380891	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.6	37.108305	76.387263	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.7	37.110314	76.393960	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.8	37.094135	76.420842	WE-4	YORK	YORK	2080102	BACK RIVER
054N17.9	37.086499	76.434335	WE-4	YORK	YORK	2080102	BACK RIVER
054N17A	37.115932	76.361454	WE-4	YORK	YORK	2080102	BACK RIVER
054NSTPE	37.088173	76.434683	WE-4	YORK	YORK	2080102	BACK RIVER
054S18	37.094310	76.331869	WE-4	YORK	YORK	2080102	BACK RIVER
054S18.5	37.091676	76.333162	WE-4	YORK	YORK	2080102	BACK RIVER
054S18Z	37.092757	76.328814	WE-4	YORK	YORK	2080102	BACK RIVER
054S19	37.088631	76.332707	WE-4	YORK	YORK	2080102	BACK RIVER
054S19A	37.089088	76.334536	WE-4	YORK	YORK	2080102	BACK RIVER
054S19Z	37.087855	76.330372	WE-4	YORK	YORK	2080102	BACK RIVER
054S20	37.085325	76.335221	WE-4	YORK	YORK	2080102	BACK RIVER
054S20A	37.086615	76.337778	WE-4	YORK	YORK	2080102	BACK RIVER
054S20Z	37.083355	76.329873	WE-4	YORK	YORK	2080102	BACK RIVER
054S21	37.080931	76.337584	WE-4	YORK	YORK	2080102	BACK RIVER
054S21Y	37.079709	76.330602	WE-4	YORK	YORK	2080102	BACK RIVER
054S21Z	37.080019	76.334588	WE-4	YORK	YORK	2080102	BACK RIVER
054S22	37.077783	76.339530	WE-4	YORK	YORK	2080102	BACK RIVER
054S23	37.074433	76.343134	WE-4	YORK	YORK	2080102	BACK RIVER
054S24	37.071212	76.347641	WE-4	YORK	YORK	2080102	BACK RIVER
054S25	37.099068	76.313645	WE-4	YORK	YORK	2080102	BACK RIVER
054S26	37.093321	76.309689	WE-4	YORK	YORK	2080102	BACK RIVER
054S26A	37.092534	76.312870	WE-4	YORK	YORK	2080102	BACK RIVER
054S27	37.090586	76.308320	WE-4	YORK	YORK	2080102	BACK RIVER
054S28	37.087532	76.306225	WE-4	YORK	YORK	2080102	BACK RIVER
054S29	37.084503	76.306025	WE-4	YORK	YORK	2080102	BACK RIVER
054S30	37.080699	76.305163	WE-4	YORK	YORK	2080102	BACK RIVER
054S31	37.076390	76.303134	WE-4	YORK	YORK	2080102	BACK RIVER
054S32	37.105406	76.294397	WE-4	YORK	YORK	2080102	BACK RIVER
054S32.Z	37.102028	76.292198	WE-4	YORK	YORK	2080102	BACK RIVER
054S33	37.102237	76.297209	WE-4	YORK	YORK	2080102	BACK RIVER
054S33V	37.097146	76.294221	WE-4	YORK	YORK	2080102	BACK RIVER
054S33W	37.094672	76.295171	WE-4	YORK	YORK	2080102	BACK RIVER
054S33X	37.096594	76.295741	WE-4	YORK	YORK	2080102	BACK RIVER
054S33Y	37.098092	76.294920	WE-4	YORK	YORK	2080102	BACK RIVER
054S33Z	37.099502	76.296059	WE-4	YORK	YORK	2080102	BACK RIVER
054S34	37.100509	76.299656	WE-4	YORK	YORK	2080102	BACK RIVER
054S34X	37.092843	76.297562	WE-4	YORK	YORK	2080102	BACK RIVER
054S34Y	37.094997	76.298821	WE-4	YORK	YORK	2080102	BACK RIVER
054S34Z	37.097188	76.300209	WE-4	YORK	YORK	2080102	BACK RIVER
054S35	37.099081	76.304930	WE-4	YORK	YORK	2080102	BACK RIVER
054S36	37.099811	76.288570	WE-4	YORK	YORK	2080102	BACK RIVER
054S37	37.096203	76.282823	WE-4	YORK	YORK	2080102	BACK RIVER
054S38	37.094115	76.280934	WE-4	YORK	YORK	2080102	BACK RIVER
054S39	37.091288	76.278406	WE-4	YORK	YORK	2080102	BACK RIVER
054S40	37.087019	76.277812	WE-4	YORK	YORK	2080102	BACK RIVER
054S41	37.082274	76.281895	WE-4	YORK	YORK	2080102	BACK RIVER
054S42	37.079477	76.279110	CB-8	YORK	YORK	2080101	CHESAPEAKE BAY
054S43	37.078005	76.279474	CB-8	YORK	YORK	2080101	CHESAPEAKE BAY
054S44	37.078338	76.284701	WE-4	YORK	YORK	2080102	BACK RIVER
054S45	37.081589	76.285427	WE-4	YORK	YORK	2080102	BACK RIVER
0580.5	37.065757	76.536554	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
0580.5A	37.060671	76.527338	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
0580.5Y	37.072904	76.551088	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
0580.5Z	37.068546	76.542838	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05801	37.072840	76.537658	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05801.5	37.076175	76.533595	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05801.5A	37.069977	76.528641	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05801A	37.065432	76.528778	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05802	37.078367	76.530443	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05802.5	37.079891	76.528510	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05802A	37.074962	76.528674	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05803	37.081552	76.525890	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804	37.083632	76.522626	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804A	37.085558	76.520186	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER

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STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
05804B	37.085582	76.516537	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804C	37.084536	76.512323	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804U	37.105641	76.513574	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804V	37.098592	76.515250	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804W	37.096392	76.518149	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804X	37.093023	76.515874	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804Y	37.091961	76.521271	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05804Z	37.088315	76.523379	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05805	37.079808	76.542310	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05805A	37.081886	76.535990	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05806	37.084422	76.546176	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05806A	37.085633	76.541064	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05806Z	37.080431	76.548826	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05807	37.088978	76.548807	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05807A	37.091044	76.544478	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05807Z	37.083498	76.551570	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05808	37.092722	76.551181	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05808A	37.098760	76.546877	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05808Z	37.087714	76.552249	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05809	37.097087	76.555132	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05809A	37.097592	76.552701	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05809Z	37.091571	76.554645	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05810	37.102051	76.558973	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05810Z	37.095354	76.560258	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05811	37.105718	76.560685	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05812	37.109617	76.564729	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813	37.113314	76.564471	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813A	37.115356	76.558987	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813B	37.118062	76.556600	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813C	37.119660	76.552000	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813D	37.118645	76.548542	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813E	37.113222	76.534682	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05813F	37.119897	76.526120	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05814	37.116327	76.568110	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05815	37.120829	76.569370	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05816	37.124300	76.570098	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05817	37.125650	76.572858	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05818	37.127233	76.580935	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05819	37.134742	76.581965	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05820	37.135301	76.586663	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05820Z	37.139548	76.586655	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05821	37.138780	76.578216	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822	37.138487	76.568496	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822A	37.141926	76.564272	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822B	37.138780	76.561607	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822C	37.136154	76.556569	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822D	37.132465	76.555888	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05822E	37.130691	76.543487	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05823	37.146292	76.566322	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05824	37.153129	76.567437	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05825	37.159688	76.563294	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
05826	37.168250	76.562670	LE-5	JAMES	LOWER JAMES	2080206	WARWICK RIVER
058A65	37.059185	76.534660	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
058B64	37.063328	76.533209	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
058B65	37.062854	76.536177	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
058C67	37.068511	76.547975	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
05901	37.166412	76.610136	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05902	37.169977	76.605339	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05903	37.174138	76.602519	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05904	37.177269	76.603650	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05905	37.181874	76.609222	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05906	37.186784	76.607916	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05907	37.177808	76.598681	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05908	37.180317	76.592679	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05909	37.179940	76.585760	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05910	37.183160	76.581926	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
05911	37.189108	76.578931	LE-5	JAMES	LOWER JAMES	2080206	SKIFFS CREEK
06001	37.141810	76.671274	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06002	37.132890	76.672441	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06003	37.125545	76.680753	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06004	37.113972	76.677191	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06005	37.104257	76.677892	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06006	37.094979	76.683130	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061-0.5	37.011357	76.565646	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061-0.5Z	37.007512	76.565268	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061-01	37.012681	76.556613	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
061-01Y	37.004125	76.557311	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
061-01Z	37.007505	76.556482	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
061-02	37.012815	76.550310	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
061-03	37.012718	76.540689	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06101	37.009167	76.571782	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06101A	37.013711	76.571672	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06101B	37.016018	76.574372	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06101Y	37.005381	76.559263	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06101Z	37.006736	76.570736	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06102	37.003056	76.574326	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06102A	37.005724	76.575944	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06102B	37.008673	76.579282	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06102Z	37.001859	76.571894	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06103	36.999742	76.575114	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06103A	37.002186	76.577732	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06103B	37.005188	76.581195	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06104	36.996977	76.579251	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
06105	36.996504	76.585292	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06106	36.997332	76.591997	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06107	36.997932	76.598735	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06108	36.997932	76.598735	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06109	36.996994	76.611169	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06110	36.996300	76.617376	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06111	36.992457	76.624328	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06112	36.987717	76.621017	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06113	36.982649	76.620875	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06114	36.999164	76.570553	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06115	36.995340	76.563940	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06116	36.990040	76.565003	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06117	36.986416	76.567727	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06118	36.981678	76.568395	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06119	36.976799	76.565244	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06120	36.973789	76.563990	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06121	36.972434	76.570427	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06122	36.970790	76.574454	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
06123	36.9666573	76.571410	LE-5	JAMES	LOWER JAMES	2080206	PAGAN RIVER
061A	37.019874	76.566541	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061B	37.015783	76.561104	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061C	37.007162	76.549401	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061D	37.002696	76.543608	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061E	36.998615	76.537986	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061F	37.002832	76.532245	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061G	37.007261	76.538288	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061H	37.011297	76.543922	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061I	37.015803	76.548577	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061J	37.020148	76.554962	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
061K	37.023393	76.560444	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
06201	36.934053	76.483122	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06201A	36.938592	76.481878	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06202	36.934734	76.490065	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06202.5	36.932103	76.494063	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06202A	36.938489	76.495993	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06202B	36.943559	76.499648	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06203	36.927001	76.492204	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06203A	36.926352	76.496351	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06204	36.921360	76.495046	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06205	36.917337	76.498131	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06206	36.913467	76.502860	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06207	36.913095	76.508320	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06208	36.910661	76.514946	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06209	36.906613	76.520709	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06209.1A	36.908164	76.526174	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06209.1B	36.916385	76.532097	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06209.1C	36.913041	76.539618	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06210	36.900205	76.524871	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06211	36.889458	76.530837	LE-5	JAMES	HAMPTON ROADS	2080208	CHUCKATUCK CREEK
06212	36.891200	76.539761	LE-5	JAMES	HAMPTON ROADS	2080208	CHUCKATUCK CREEK
06213	36.884887	76.545519	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06214	36.977974	76.525627	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06215	36.977974	76.525627	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06216	36.981311	76.528088	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06217	36.976544	76.528688	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
06218	36.974373	76.526243	LE-5	JAMES	LOWER JAMES	2080206	CHUCKATUCK CREEK
0630.0	36.914876	76.445887	LE-5	JAMES	HAMPTON ROADS	2080208	JAMES RIVER
0630.4Z	36.911216	76.434773	LE-5	JAMES	HAMPTON ROADS	2080208	JAMES RIVER
0630.5	36.907113	76.452119	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER
0630.5Z	36.908238	76.446695	LE-5	JAMES	HAMPTON ROADS	2080208	JAMES RIVER
06301	36.904929	76.458652	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301.5V	36.875200	76.456431	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301.5W	36.877439	76.457817	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301.5X	36.880039	76.459435	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301.5Y	36.882844	76.455295	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301.5Z	36.892198	76.457537	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301A	36.912132	76.479343	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06301Z	36.902174	76.453594	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302	36.892035	76.472230	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.2Y	36.883033	76.477122	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.2Z	36.887883	76.478826	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.4V	36.867341	76.479665	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.4W	36.871430	76.483174	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.4X	36.876341	76.483447	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.4Y	36.882186	76.481041	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302.4Z	36.886196	76.480997	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302A	36.897175	76.480408	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06302Z	36.884518	76.4740710	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06303	36.884918	76.496393	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06304	36.874102	76.504684	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06305	36.868239	76.513106	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06306	36.862231	76.521153	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06307	36.856184	76.525564	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06308	36.845485	76.526979	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06309	36.840943	76.533611	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06310	36.838242	76.539292	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06311	36.837468	76.548429	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06312	36.836134	76.555838	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06313	36.832119	76.560452	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06314	36.826678	76.561120	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06315	36.818854	76.555723	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06316	36.805605	76.558889	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06317	36.788144	76.562141	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
06317A	36.788532	76.565731	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIVER
06318	36.780198	76.547216	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06319	36.771922	76.557139	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06320	36.760953	76.562711	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06321	36.758237	76.578181	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06322	36.746599	76.573562	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06322A	36.743139	76.575287	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06322B	36.739179	76.582720	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
06323	36.745085	76.587403	LE-5	JAMES	HAMPTON ROADS	2080206	NANSEMOND RIVER
07001	36.906886	76.092228	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07002	36.903230	76.095472	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07002.5	36.901722	76.098108	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07002X	36.899980	76.087152	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07002Y	36.902841	76.086489	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07002Z	36.903982	76.089089	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07003	36.895954	76.093486	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004	36.893247	76.095877	CB-8	JAMES	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.3	36.890957	76.094175	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.4	36.890258	76.090165	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.6	36.888128	76.086118	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.6A	36.886062	76.088800	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.6B	36.884132	76.090266	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07004.9	36.886206	76.078568	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07005	36.896284	76.099965	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07006	36.899177	76.101534	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07007	36.892724	76.102101	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07008	36.889338	76.107590	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07009	36.886457	76.110099	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07010	36.883484	76.110578	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07011	36.882195	76.115036	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07012	36.880772	76.109685	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07013	36.877744	76.110095	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07014	36.873190	76.108075	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07014.2	36.869013	76.110770	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07014.4	36.863061	76.115874	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07014A	36.875230	76.106058	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07015	36.897863	76.086833	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07016	36.892693	76.080905	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07017	36.886580	76.074096	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07018	36.890821	76.071115	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07019	36.891936	76.067650	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07020	36.894573	76.069850	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07021	36.895358	76.071670	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07022	36.893579	76.066057	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07023	36.895527	76.064349	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07024	36.880096	76.068450	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07024.9	36.874478	76.067464	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07024.92	36.876193	76.060789	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07025	36.871001	76.072817	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07026	36.862946	76.069238	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07027	36.855237	76.065683	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07101	36.904245	76.086242	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07101.6	36.904178	76.071307	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07102	36.902096	76.061364	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07103	36.902107	76.048343	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104	36.899836	76.037047	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104A	36.894109	76.040492	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104B	36.893104	76.042973	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104C	36.892862	76.039904	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104Y	36.909227	76.039514	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07104Z	36.905541	76.033433	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07105	36.895010	76.027174	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07106	36.890366	76.018550	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07107	36.886242	76.012973	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07107A	36.886183	76.008909	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07107B	36.882863	75.997623	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07107C	36.878359	75.993460	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07108	36.878714	76.011683	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07109	36.871985	76.010694	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LYNNHAVEN BAY
07110	36.868402	76.014374	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07111	36.861114	76.011690	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07112	36.856214	76.006911	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07113	36.869810	76.005488	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07114	36.867305	75.999848	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07115	36.861708	75.996610	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LONG CREEK AND BROAD BAY
07301	36.825465	75.965500	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07401	37.894854	75.896457	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07402	37.864870	75.888424	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07403	37.865830	75.897454	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07404	37.888812	75.906982	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07405	37.922986	76.005376	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07601	37.884411	75.730740	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07602	37.889113	75.717625	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CHESAPEAKE BAY
07603	37.891586	75.710553	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07604	37.894803	75.702721	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07605	37.898007	75.694935	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07606	37.901529	75.688822	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07607	37.901268	75.684153	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07608	37.901719	75.678828	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07609	37.903789	75.674730	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07610	37.904741	75.669338	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07611	37.903930	75.663867	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE
07612	37.904197	75.659920	EE-3	CHESBAY	POCOMOKE	2060009	POCOMOKE

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
07613	37.903222	75.655908	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07614	37.876764	75.684391	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07615	37.878222	75.675309	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07616	37.855087	75.710611	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07617	37.855362	75.702414	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07618	37.852458	75.693606	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619	37.848029	75.687501	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619A	37.843841	75.685041	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619B	37.839082	75.687513	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619C	37.834200	75.686893	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619D	37.829964	75.689912	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619E	37.827285	75.689293	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619F	37.838185	75.681868	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07619G	37.836873	75.673197	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07620	37.849075	75.681126	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07621	37.852368	75.675261	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07622	37.856803	75.669360	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07623	37.859153	75.662797	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07701	37.833450	75.716155	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07702	37.823384	75.719773	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07703	37.804305	75.727961	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07704	37.800160	75.724970	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07705	37.797306	75.721595	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706	37.794214	75.715992	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706V	37.803737	75.699955	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706W	37.804952	75.702025	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706X	37.804952	75.707225	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706Y	37.801081	75.710084	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07706Z	37.797788	75.713223	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07707	37.792513	75.712879	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07708	37.790862	75.709394	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07709	37.788383	75.706415	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07710	37.785459	75.703850	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07711	37.779932	75.701801	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07712	37.776127	75.700202	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07713	37.792642	75.733637	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07714	37.786706	75.729375	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07715	37.795887	75.748968	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07716	37.789344	75.749808	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07717	37.784100	75.750309	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07718	37.777853	75.747977	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07719	37.773096	75.750112	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07720	37.769947	75.748935	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07721	37.766654	75.749539	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07722	37.763809	75.749326	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07723	37.760956	75.748776	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07724	37.757654	75.748130	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07801	37.806128	75.984352	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07802	37.813850	75.986967	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07802A	37.815930	75.992018	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07802B	37.818691	75.992339	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07802C	37.820213	75.995311	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07803	37.819730	75.982169	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07804	37.829577	75.985101	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07804A	37.827286	75.987755	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07805	37.840423	75.970411	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07805A	37.855843	75.990778	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07805B	37.851205	75.994923	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07806	37.835667	75.978525	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07807	37.831899	75.984904	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07808	37.829833	75.988196	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07809	37.830604	75.995129	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07810	37.832089	75.997940	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07811	37.830790	76.005583	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07812	37.825859	76.002987	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07813	37.816811	76.001952	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07814	37.810426	76.000294	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07815	37.864218	76.009998	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07816	37.799276	75.889097	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07817	37.784849	75.890463	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07818	37.800376	75.901202	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07819	37.815340	75.889194	EE-3	CHESEBAY	POCOMOKE	2060009	POKOMOKE
07901	37.754916	75.799925	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07901A	37.746166	75.805153	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07902	37.759847	75.791189	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07903	37.758586	75.783874	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07904	37.758012	75.777604	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07904Y	37.766486	75.771704	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07904Z	37.762107	75.774491	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07905	37.750821	75.777109	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07906	37.7479594	75.7711984	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07907	37.745615	75.769711	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07908	37.743847	75.766968	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07909	37.742407	75.764446	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX
07910	37.740153	75.760542	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	CHESCONESSEX CREEK
08001	37.718060	75.828349	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08002	37.722202	75.816203	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08003	37.724144	75.807343	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08004	37.718147	75.807505	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08004A	37.713160	75.811075	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08004B	37.708409	75.809237	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08004C	37.713512	75.802808	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08004D	37.711444	75.798602	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
08005	37.722847	75.796239	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08006	37.718097	75.789632	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08007	37.715578	75.782183	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08007Z	37.719482	75.776291	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08008	37.710549	75.777092	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08009	37.708793	75.770886	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08009A	37.704090	75.769987	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08010	37.710535	75.765614	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08011	37.709636	75.758591	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08011A	37.707639	75.758567	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08011Z	37.711050	75.756283	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	ONANCOCK CREEK
08012	37.704174	75.838128	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATCHOTANK CREEK
08013	37.703037	75.830648	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATCHOTANK CREEK
08014	37.701734	75.825153	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATCHOTANK CREEK
08101	37.671909	75.853522	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	PUNGTEAGUE CREEK
08102	37.673034	75.848626	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	PUNGTEAGUE CREEK
08103	37.671554	75.841037	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	PUNGTEAGUE CREEK
08104	37.670205	75.835588	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	PUNGTEAGUE CREEK
08104Z	37.675041	75.831672	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	PUNGTEAGUE CREEK
08509.6B	37.482396	75.915137	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6C	37.484439	75.910996	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6D	37.486085	75.907382	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6E	37.482968	75.905179	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6F	37.481656	75.899225	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6G	37.483223	75.894541	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6H	37.482182	75.893095	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08509.6I	37.480893	75.890933	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08510	37.488300	75.918896	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08511	37.493794	75.914162	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08512	37.499701	75.909384	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08513	37.501987	75.902535	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08513A	37.498584	75.898916	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08513B	37.495144	75.893467	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08514	37.506670	75.905216	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08515	37.511958	75.905085	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08516	37.516444	75.900962	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08517	37.520178	75.895037	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08518	37.523727	75.893232	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
08519	37.525467	75.890563	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	NASSAWADOX CREEK
085W01	37.452289	75.970327	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
085W02	37.449136	75.966033	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
085W03	37.448199	75.962012	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
085W04	37.445210	75.965395	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
085W05	37.442745	75.965117	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08601	37.397989	75.979804	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08602	37.401276	75.975871	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08603	37.405476	75.975466	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08604	37.408938	75.973194	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08605	37.409776	75.967847	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08606	37.413682	75.963373	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08606A	37.416131	75.966819	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08607	37.416935	75.960932	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08608	37.421176	75.959046	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609	37.424804	75.955189	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609A	37.421384	75.952327	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609B	37.418880	75.948418	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609C	37.418258	75.942276	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609D	37.419638	75.940208	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08609E	37.415497	75.936408	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08610	37.426246	75.951697	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08611	37.428128	75.948718	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08612	37.431224	75.946567	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08613	37.433377	75.942842	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08614	37.436120	75.938736	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	HUNGAR CREEK
08615	37.393067	75.967849	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08616	37.392305	75.963369	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08617	37.390028	75.960430	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08618	37.389629	75.957002	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08619	37.388657	75.952450	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08620	37.387819	75.948915	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08621	37.386881	75.946388	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08622	37.384281	75.945189	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08623	37.384238	75.942892	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08624	37.385235	75.941914	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08625	37.389387	75.976499	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08626	37.385547	75.978606	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08627	37.385457	75.974309	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08701	37.369149	75.988710	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08702	37.369734	75.986282	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08703	37.368654	75.984200	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08704	37.367060	75.984551	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08705	37.365645	75.984064	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08706	37.364393	75.982613	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08707	37.362898	75.981896	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08708	37.362112	75.980819	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08709	37.363191	75.976512	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08710	37.363711	75.972085	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	MATTAWOMAN CREEK
08801	37.282898	76.022927	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08802	37.287449	76.020832	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08803	37.291784	76.020466	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08804	37.295729	76.017708	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08805	37.300096	76.015630	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08806	37.303699	76.010653	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR

Virginia Shellfish Bacteriological Monitoring Program

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
08806A	37.299529	76.004287	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08807	37.306268	76.009027	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08808	37.309282	76.004407	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08809	37.311836	75.999444	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08810	37.314632	75.994280	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08810.5A	37.315730	75.988826	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08810A	37.313372	75.990279	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08810B	37.310014	75.986508	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08811	37.319146	75.994146	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08811A	37.318240	75.988496	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08811B	37.317385	75.978815	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08812	37.323239	75.993088	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08813	37.327877	75.989052	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08814	37.281464	76.013412	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08815	37.282167	76.009275	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08815A	37.280405	76.009613	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08815B	37.278824	76.009294	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08816	37.279487	76.006636	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08817	37.280216	76.002854	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08818	37.279684	75.999392	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08819	37.278692	75.994179	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08820	37.278666	75.991834	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08821	37.277591	75.990982	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08822	37.280284	75.991208	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08823	37.282375	75.988601	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08901	37.249443	76.029827	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08902	37.255637	76.029874	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08903	37.265014	76.026347	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08903A	37.264575	76.021715	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08903B	37.264311	76.018139	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08903Z	37.263561	76.031350	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08904	37.266761	76.028930	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
08905	37.272064	76.027887	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
089S01	37.202199	76.037088	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
089S02	37.225852	76.051894	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
089S03	37.233358	76.056400	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
089S04	37.250486	76.065641	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
089S05	37.285685	76.056983	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09001	37.231910	76.010688	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09002	37.232975	76.005280	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09002Y	37.236462	76.011176	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09002Z	37.235221	76.007305	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09003	37.234566	75.998924	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09003A	37.231175	75.996577	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09004	37.235641	75.994202	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09004A	37.235365	75.989800	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09005	37.240654	75.995245	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09006	37.244061	75.994595	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09007	37.247892	75.998050	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09008	37.251635	75.991911	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09009	37.256521	75.992598	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09010	37.219307	76.012743	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09101	37.168658	75.987977	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09102	37.165804	75.986322	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR
09103	37.130608	75.973326	CB-7	EASTERN SHORE	WESTERN LOWER DELMAR	2080109	LOWER DELMAR

MARYLAND PHYTOPLANKTON MONITORING PROGRAM

PROGRAM DESCRIPTION: The Maryland Phytoplankton Monitoring Program is designed to monitor the aquatic environment by sampling the community of phytoplankton to characterize the community and identify dominant species in the Maryland portion of the Chesapeake Bay Basin.

PROGRAM OBJECTIVES: To identify major groups of phytoplankton and identify dominant species to their lowest taxonomic level.

DATE INITIATED: 1979

COORDINATING AGENCY: Maryland Department of Natural Resources
Resource Assessment Services
Monitoring and Non-Tidal Assessment Division
Chinquapin Round Road
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Project Officer Walter Butler MDDNR

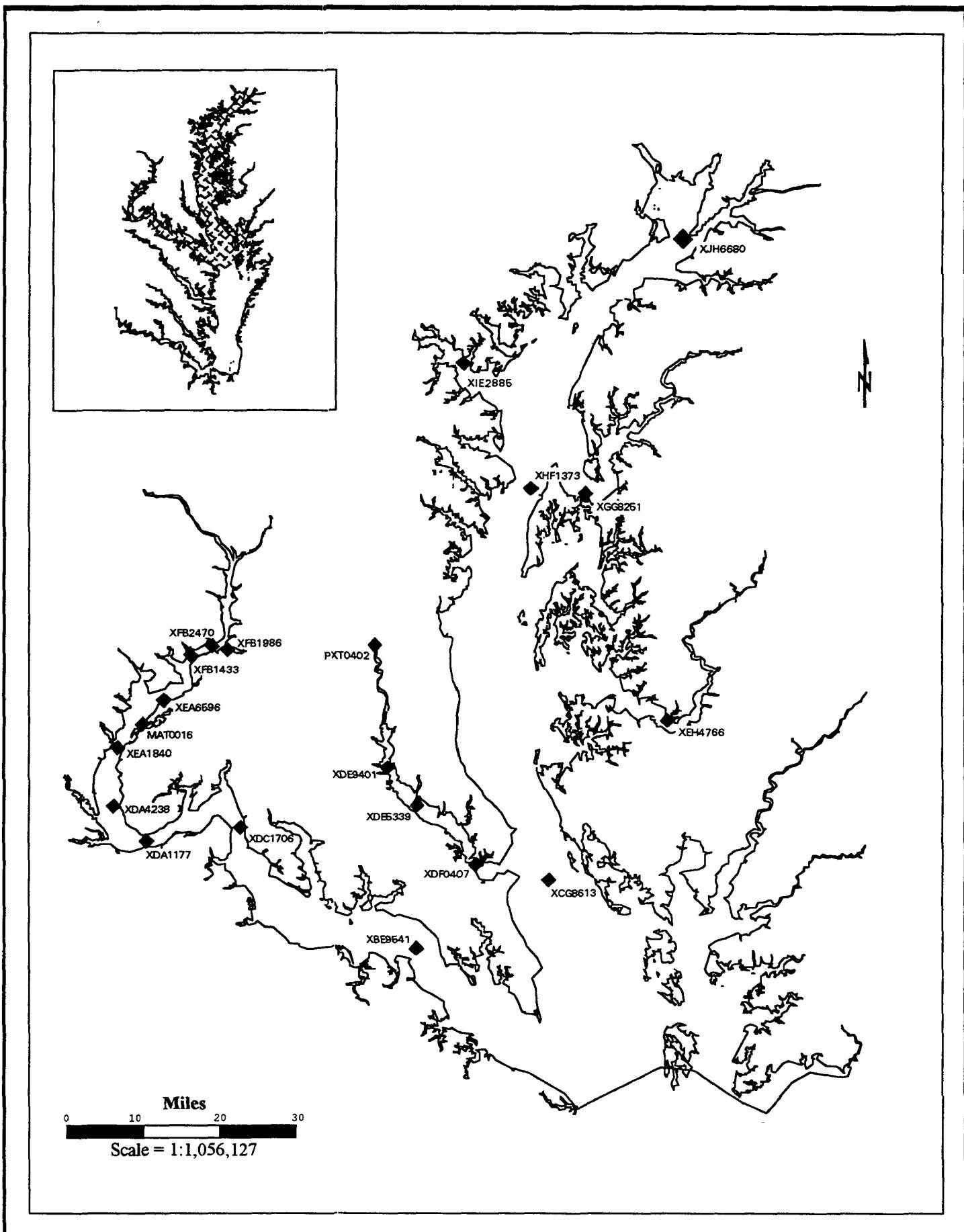
PARAMETERS: Identification to lowest possible taxa (genus or species)
Abundance
Percent composition by major groups

STATIONS: There are eight CORE stations including three in the bay mainstem, two in the Potomac, and one each in the Choptank, Chester, and Patapsco rivers. In addition, eight other stations on the Potomac and four stations on the Patuxent River are sampled for phytoplankton.

SAMPLE COLLECTION: Phytoplankton samples are collected on a monthly basis from November through February and twice a month from March through October. Grab samples are taken at the surface except at the Cedar Point and Morgantown stations where both surface and bottom samples are taken (bottom by pump), and at the Sandy Point station where sampling is done at the surface and at 15 feet. Samples are not preserved. Data collected in this study is utilized to determine long-term trends in general water quality as reflected by the nature and diversity of the phytoplankton community. It is also used in the short-term to predict or describe existing bloom conditions or the presence of nuisance algal blooms or possible toxic forms.

PROGRAM INTEGRATION: The Potomac stations are part of an earlier EPA sampling network (1977) which were picked up by the State (MDE and predecessors) eventually becoming part of the Potomac Regional Monitoring Program and finally part of the Bay tributary sampling network. The four Patuxent River phytoplankton sampling stations are part of the Bay tributary sampling network initiated in March 1983.

Maryland Phytoplankton Monitoring Program



Maryland Phytoplankton Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
MAT0016	38 33 53	77 11 37	TF-2	POTOMAC	POTOMAC	2070010	SWEDEN POINT LAUNCH
PXT0402	38 42 36	76 42 06	TF-1	PATUXENT	PATUXENT	2060006	UPPER PATUXENT
XBE9541	38 09 20	76 35 45	LB-2	POTOMAC	LOWER POTOMAC	2070011	OFF RAGGED POINT
XCG8613	38 18 39	76 18 42	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	BOUY RB "CB" OFF CEDAR PT
XDA1177	38 21 07	77 12 17	RET-2	POTOMAC	POTOMAC	2070011	MIDCHANNEL OFF MD PT
XDA4238	38 24 12	77 16 10	RET-2	POTOMAC	POTOMAC	2070011	BOUY'27' SE OF SMITH PT
XDC1706	38 21 45	76 59 27	RET-2	POTOMAC	POTOMAC	2070011	MID CHANNEL AT 301 BRIDGE
XDE5339	38 25 46	76 36 05	LE-1	PATUXENT	PATUXENT	2060006	SSW OF JACKBAY SANDPIT
XDE9401	38 29 26	76 39 52	RET-1	PATUXENT	PATUXENT	2060006	0.5 KM ENE OF LONG PT
XDF0407	38 20 26	76 29 18	LE-1	PATUXENT	PATUXENT	2060006	1200 M N OF PT PATIE
XEAI840	38 31 47	77 15 56	TF-2	POTOMAC	POTOMAC	2070010	BOUY '44' POSSUM PT
XEAI6596	38 36 29	77 10 27	TF-2	POTOMAC	POTOMAC	2070010	BOUY 'N54' INDIAN HEAD
XEH4766	38 34 50	76 03 22	ET-5	EASTERN SHORE	CHOPTANK	2060005	RT 50 DRAWSPAN
XFB1433	38 41 26	77 06 41	TF-2	POTOMAC	POTOMAC	2070010	BOUY '67' DOUGE CREEK
XFB1986	38 41 52	77 01 25	TF-2	POTOMAC	POTOMAC	2070010	PISCATAWAY CK
XFB2470	38 42 23	77 02 57	TF-2	POTOMAC	POTOMAC	2070010	BOUY FL '67' PISCATAWAY CK
XGG8251	38 58 16	76 14 52	ET-4	EASTERN SHORE	CHESTER	2060002	KENT ISLAND RT 50
XHF1373	39 01 16	76 22 40	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	2100 Y NE SANDY PT
XIE2885	39 12 45	76 31 32	WT-5	WEST CHESAPEAKE	PATAPSCO	2060003	FT MCHENRY CHANNEL
XJH6680	39 26 35	76 01 58	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	TURKEY PT BOUY RB

MARYLAND CHESAPEAKE BAY WATER QUALITY MONITORING PROGRAM PHYTOPLANKTON COMPONENT

PROGRAM DESCRIPTION: The Maryland Phytoplankton Component (MDDNR and BERC) consists of 14 stations located in the Maryland portion of the mainstem Chesapeake Bay and its tributaries. The stations chosen represent distinct physical segments of the mainstem Bay and tributaries, i.e. fresh headwater regions, saline regions of the lower Bay and the transition or mixing regions between these two salinity extremes. Monitoring is conducted monthly from October through March and twice monthly from April through September. Sampling was reduced to 14 times per year at 12 stations as of January 1996. The program is designed to give comprehensive spatial and temporal information on phytoplankton components.

PROGRAM OBJECTIVES: To measure phytoplankton species composition, density and biomass as well as information on primary production and chlorophyll concentrations.

DATE INITIATED: August 1984

COORDINATING

AGENCY: Maryland Department of Natural Resources
Chesapeake Bay and Watershed Assessment Administration
580 Taylor Ave.
Annapolis, Maryland 21401

FUNDING

AGENCIES: Maryland Department of Natural Resources (MDE prior to July 1995)

PARTICIPATING

AGENCIES: Maryland Department of Natural Resources (MDDNR)
Academy of Natural Sciences Benedict Estuarine
Research Center (BERC)

INVESTIGATORS:

Project Officer	Robert Magnier	MDDNR
Principal Investigator	Richard Lacouture	BERC

PARAMETERS:

Primary Production
Vertical and Horizontal Distributions of Chlorophyll a
Species Composition
Species Density
Species Carbon

STATIONS: There are 12 stations in this program located throughout the Maryland mainstem Chesapeake Bay and its tributaries.

SAMPLE COLLECTION: Samples are collected monthly from October through March (one sample is taken for the two months of January and February) and twice monthly from April through September at all 14 stations. At most stations five discrete samples are taken above the pycnocline and composited in a 20 liter carboy. Two replicate samples are taken both above and below the pycnocline in this manner. The replicate composites are then combined, and one sample is taken for determining species composition and density estimates. At the other sites, ten discrete depths evenly spaced throughout the water column are composited into a 50 liter carboy. One sample is taken from this carboy for taxonomic enumeration. Density and species identification are determined from composite subsamples fixed with acid lugol's and preserved with formalin. Counts and species identification are performed using an inverted microscope. Phytoplankton productivity is estimated in euphotic zones of all stations from surface composite samples using carbon 14 techniques. Carbon fixation rates are normalized to station chlorophyll a concentrations as well as being integrated over the depth of the euphotic zone, assuming an exponential decay of light energy and productivity. Light profiles are made with a Li-Cor quantum sensor on order to determine the euphotic depth.

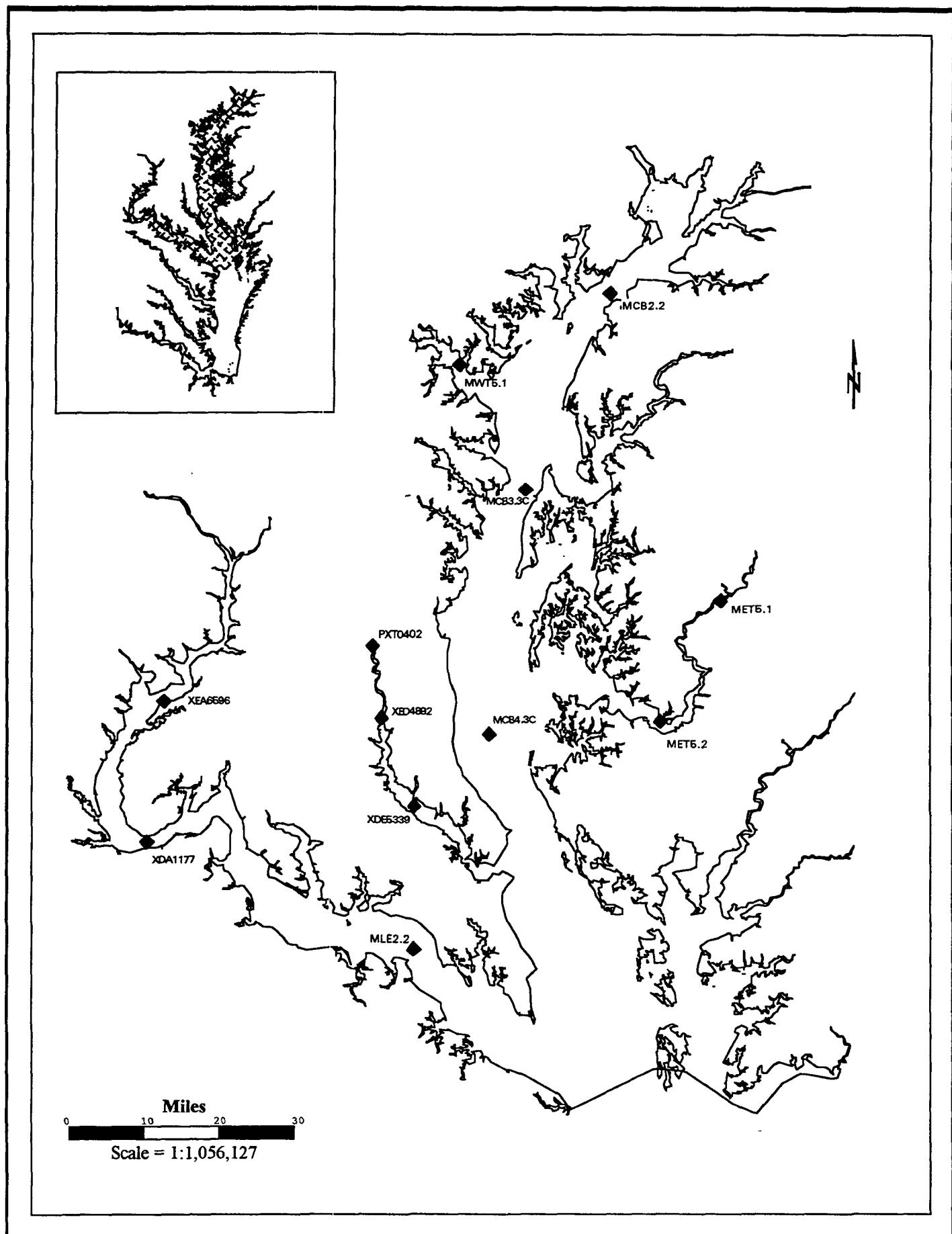
Maryland Chesapeake Bay Water Quality Monitoring Program: Phytoplankton Component

Vertical profiles of in vivo fluorescence are obtained at each station by lowering a hose through the water column and pumping water through a pre-calibrated Turner Designs Fluorometer. Calibration is done with acetone extracted grab samples as described in Strickland & Parsons, 1972. In addition, flow-through measurements of in vivo fluorescence are recorded with this fluorometer for the upper mainstem Bay, Patuxent River and seasonally in the upper Potomac River while the vessel moves between stations. The combination of this data and the chlorophyll measurements taken in the water quality monitoring program permit approximations of vertical and horizontal distributions of phytoplankton pigment over the Bay.

PROGRAM INTEGRATION: Phytoplankton sampling is performed in conjunction with the Maryland Department of Natural Resources (formerly MDE) zooplankton monitoring programs. The stations sampled are part of the Maryland Chesapeake Bay Water Quality Monitoring Program.

STATION NAME(S)	LATITUDE DDMM	LONGITUDE DDMM	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
MCB2.2	39 20.8	76 10.5	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	WEST OF STILL POND NEAR BUOY R 34
MCB3.3C	38 59.7	76 21.6	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTH OF BAY BRIDGE
MCB4.3C	38 33.4	76 26.1	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	E. OF DARES BEACH NEAR BUOY R 64
MET5.1	38 48	75 55	ET-5	EASTERN SHORE	CHOPTANK	2060005	UP CHOPTANK R., DWNSTR OF CONF TUCK CR
MET5.2	38 35	76 03	BFL	EASTERN SHORE	CHOPTANK	2060005	LOWER CHOPTANK RIVER NEAR RT. 50 BRIDGE
MLE2.2	38 10.00	76 35.80	LE-2	POTOMAC	LOWER POTOMAC	2070011	AT BUOY BWS1B OFF RAGGED POINT
MWT5.1	39 13	76 31	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PATAPSCO R. E OF HAWKINS PT. BUOY 5M
PXT0402	38 42.71	76 42.15	TF-1	WEST CHESAPEAKE	SEVERN	2060006	PATUXENT RIVER MIDCH. AT NOTTINGHAM
XDA1177	38 21.07	77 12.17	RET-2	POTOMAC	LOWER POTOMAC	2070011	MARYLAND POINT BUOY 19
XDE5339	38 25.46	76 36.05	LE-1	PATUXENT	PATUXENT	2060006	PATUXENT R. MIDCH/SSW JACK BAY SNDPIT
KEA6596	38 36.29	77 10.27	TF-2	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	POTOMAC INDIAN HEAD
XED4892	38 34.97	76 40.70	TF-1	WEST CHESAPEAKE	SEVERN	2060006	PATUXENT RIVER MIDCH/SSE FR JACKS CR

Maryland Chesapeake Bay Water Quality Monitoring Program: Phytoplankton Component



DISTRICT OF COLUMBIA PHYTOPLANKTON MONITORING PROGRAM

PROGRAM DESCRIPTION: The District of Columbia Phytoplankton Monitoring Program is designed to characterize phytoplankton community structure at 16 stations in the District of Columbia. Samples are taken on a prearranged monthly schedule coinciding with the ambient water quality monitoring schedule. Several additional samples may be taken for special projects.

PROGRAM OBJECTIVES: To characterize present conditions and detect short and long-term trends in phytoplankton species abundance, distribution and composition.

DATE INITIATED: 1983

COORDINATING AGENCY: District of Columbia
Department of Consumer and Regulatory Affairs
Environmental Regulation Administration
Water Resources Management Division
Water Quality Monitoring Branch
2100 MLK Ave SE Suite 200
Washington, D.C. 20020

FUNDING AGENCIES: U.S. EPA Region III

PARTICIPATING AGENCY: D.C. Department of Consumer and Regulatory Affairs (DCDCRA)

INVESTIGATORS:

Program Coordinator Hamid Karimi DCDCRA
Monitoring Coordinator Peter May DCDCRA

PARAMETERS: Species Identification Species Distribution
Species Abundance Chlorophyll *a*

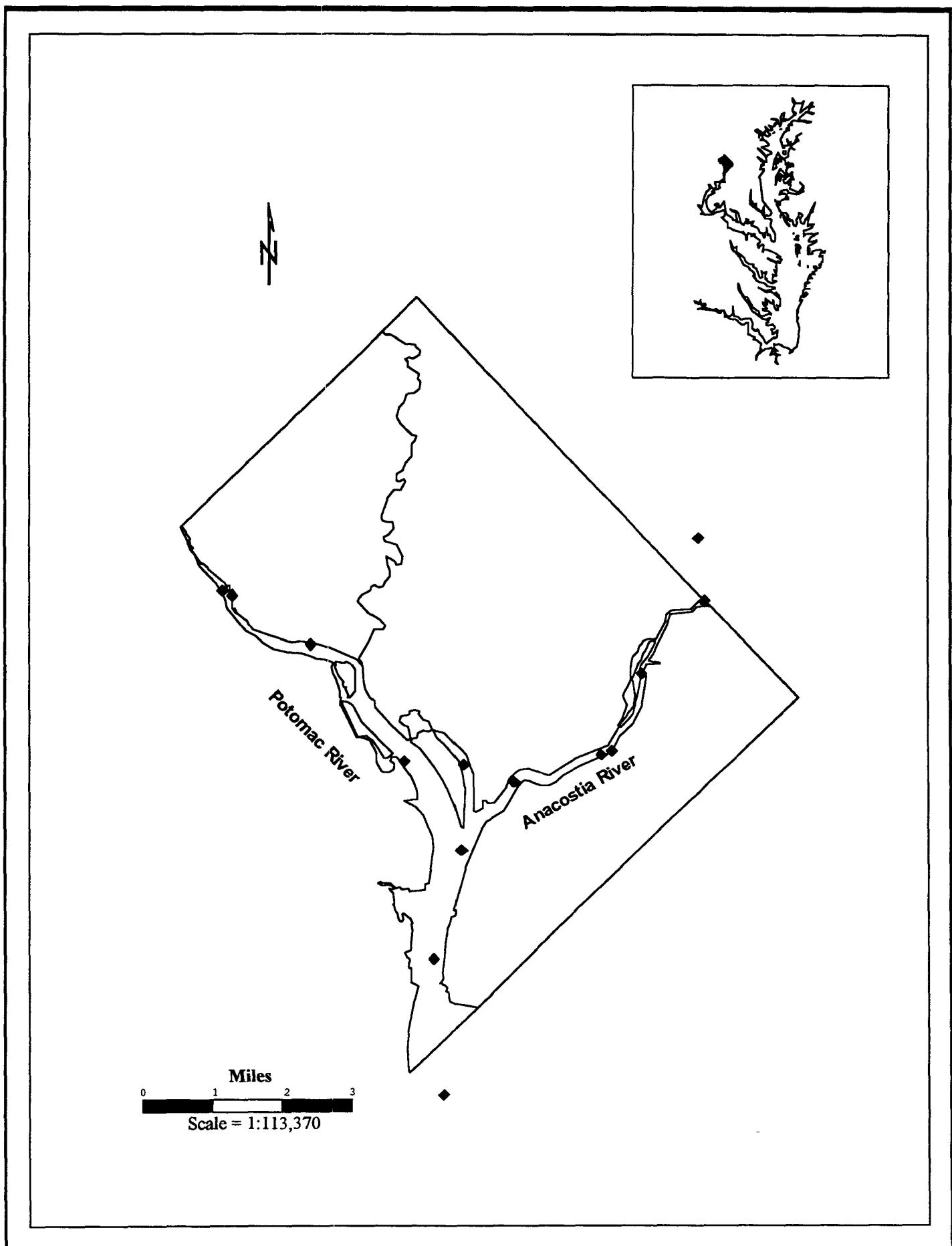
STATIONS: There are 16 stations located on the tidal reaches of the Potomac and Anacostia rivers and associated tributaries within the District of Columbia.

SAMPLE COLLECTION: Samples are taken once a month at each station as whole water surface samples. Phytoplankton are preserved with a Lugol's/formalin solution and chlorophyll *a* is transported in a dessicator. Counts and species identification are contracted to taxonomic experts.

PROGRAM INTEGRATION: All station locations and sampling times coincide with the ambient, chemical/physical monitoring components of the District of Columbia integrated monitoring program. All biological data is cross-referenced with chemical and physical data to allow for complete integration within the ambient monitoring network.

STATION NAME(S)	LATITUDE DDDMMSS	LONGITUDE DDDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
ANA01	38 55 05	76 56 31	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	NY AVE. BRIDGE/50M UPSTREAM OF W BOUND BRG.
ANA14	38 52 38	76 58 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	PENNSYLVANIA AVE./MARINA S. DOCK
ANA21	38 52 10	77 00 18	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	100M N OF SOUTH CAPITAL STREET BRIDGE
ANA29	38 51 02	77 01 21	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	AT RED AND GREEN FLASHER/POTOMAC CONFLUENCE
PMS01	38 55 04	77 06 18	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	FLETCHER'S BOATHOUSE
PMS21	38 52 27	77 02 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	14TH STREET BRIDGE
PMS37	38 49 18	77 01 53	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	100M S. OF NAVAL RESEARCH LAB PIER
PMS51	38 46 12	77 01 54	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	ACROSS FROM ROSIER BLUFF/100 M W OF BOUY #88
PWC04	38 52 25	77 01 21	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	WASH. CHAN./100M W OF N SIDE OF MUNICIP. PIER
TC001	38 54 15	77 04 30	AFL	POTOMAC	MIDDLE POTOMAC	2070010	C60 CANAL GEORGETOWN/25 YDS W OF 29TH ST. N.W.
TC006	38 55 00	77 06 06	AFL	POTOMAC	MIDDLE POTOMAC	2070010	C60 CANAL FLETCHER'S BOATHOUSE/CANAL ST. N.W.
PTB01	38 52 42	76 58 20	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	FAIRLAWN AVE. BTWN. M ST. AND M PL. S.E.
ANA08	38 53 55	76 57 45	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	BENNING RD POWER PLANT
ANA30	38 56 34	76 56 27	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	BLADENSBURG MARINA

District of Columbia Phytoplankton Monitoring Program



VIRGINIA PHYTOPLANKTON MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Phytoplankton Monitoring Program is designed to characterize planktonic communities throughout the year in the lower Chesapeake Bay and major Virginia tributaries. The same stations are used for both the phytoplankton and zooplankton components of the monitoring program.

PROGRAM OBJECTIVES: To provide a current and continuing body of data for the detection and interpretation of spatial and temporal trends in phytoplankton communities in the Virginia portion of the Chesapeake Bay and its major tributaries.

DATE INITIATED: July 1985 (mainstem)
March 1986 (tributaries)

COORDINATING AGENCY: Virginia Department of Environmental Quality
Chesapeake Bay and Coastal Program
PO Box 10009
Richmond, VA 23240

FUNDING AGENCY: Virginia Department of Environmental Quality
EPA Region III

PARTICIPATING AGENCIES: Virginia Department of Environmental Quality (DEQ)
Old Dominion University (ODU)

INVESTIGATORS:

Program Coordinator	Frederick Hoffman	DEQ
Principal Investigator	Harold Marshall	ODU
Principal Investigator	Kneeland Nesius	ODU

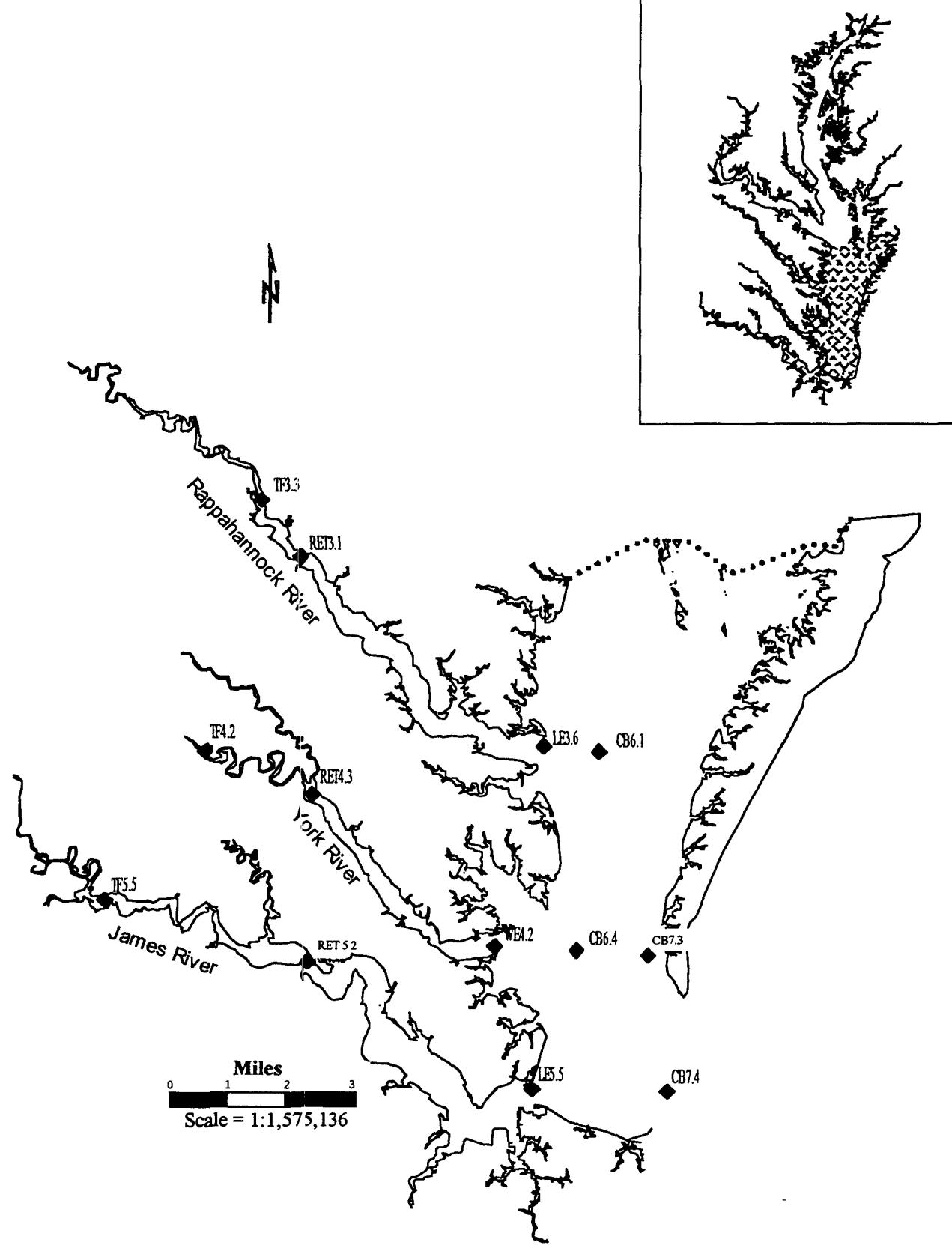
PARAMETERS:	Species Identification	Primary Production
	Species Abundance	Chlorophyll - a
	Species Distribution	

STATIONS: There are 13 stations located throughout the Virginia portion of the mainstem Chesapeake Bay and its tributaries. Samples are collected at seven mainstem and six tributary stations.

SAMPLE COLLECTION: Prior to 1996, samples were collected 20 times per year; once a month from November to February and twice a month from March to October. Beginning in 1996, samples will be collected once per month. Composite phytoplankton samples are taken with a diaphragm pump from five depths above and five depths below the pycnocline. Counts and species identification are performed using an inverted plankton microscope and epifluorescent microscopy.

PROGRAM INTEGRATION: Phytoplankton monitoring in Virginia is performed in conjunction with zooplankton, benthos, and water quality monitoring in the state.

Virginia Phytoplankton Monitoring Program



STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
LES5.5	36 59 48	76 18 12	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MOUTH OF JAMES RIVER
CB7.3E	37 13 43	76 03 12	CB-7	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER EASTERN SHORE CHANNEL AREA
TF5.5	37 18 46	77 13 59	TF-5	JAMES	LOWER JAMES	2080206	RED BUOY #107, JRWQMP STAT. #13
TF3.3	38 01 07	76 54 30	TF-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	VIMS SLACK WATER #N40
TF4.2	37 34 47	77 01 19	TF-4	YORK	PAMUNKEY	2080106	WHITEHOUSE
RET5.2	37 12 36	76 47 36	RET-5	JAMES	LOWER JAMES	2080206	SWANN'S PT., JRWQMP STA #19
RET3.1	37 55 12	76 49 18	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	NORTH OF BUOY R10, VIMS SLACK
RET4.3	37 30 24	76 47 18	RET-4	YORK	YORK	2080107	VIMS SLACK WATER #C57
CB6.4	37 14 11	76 12 30	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CENTRAL BAY OFF SHORE FROM YORK R MOUTH
CB7.4	36 59 36	76 00 38	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	BALTIMORE CHANNEL AT THE BAY BRIDGE
CB6.1	37 35 18	76 09 45	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER WEST CENTRAL CHESAPEAKE BAY
LE3.6	37 35 48	76 17 06	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MOUTH OF RAPPAHANNOCK RIVER
WE4.2	37 14 30	76 23 12	WE-4	YORK	GREAT WICOMICO-PIANKATANK	2080102	MOBJACK BAY AT THE MOUTH OF YORK R
SBE2	36 48 45	76 18 22	LE-5	JAMES	LOWER JAMES	2080208	ELIZABETH RIVER
SBE5	36 46 11	76 17 47	LE-5	JAMES	LOWER JAMES	2080208	ELIZABETH RIVER

GUNSTON COVE ECOSYSTEM MONITORING PROGRAM

PHYTOPLANKTON COMPONENT

PROGRAM DESCRIPTION: The Gunston Cove Ecosystem Monitoring Program carried out by George Mason University involves long-term monitoring of physical and biological components of the ecosystem in Pohick Creek, Gunston Cove, Dogue Creek, and the adjacent Potomac River. These studies include Phytoplankton surveys. In conjunction with this monitoring, Fairfax County conducts water quality monitoring in order to determine the effects of sewage outfall from a tertiary treatment plant which empties into Gunston Cove.

PROGRAM OBJECTIVES: To provide a description and analysis of seasonal and spatial patterns of abundance and activity of phytoplankton in the Gunston Cove vicinity. In conjunction with monitoring of other aquatic organisms, objectives are to assess current ecological conditions as well as to provide long-term baseline data for evaluating the effects of changes in land use and/or sewage treatment occurring in the future.

DATE INITIATED: 1984

COORDINATING

AGENCY: George Mason University
Department of Biology
4400 University Drive
Fairfax, Virginia 22030

FUNDING

AGENCY: Fairfax County

PARTICIPATING

AGENCIES: George Mason University (GMU)
County of Fairfax, Environmental Laboratory Services (FCDLS)

INVESTIGATORS:

Project Director	R. Christian Jones	GMU
Co-Principal Investigator	Don Kelso	GMU
Director	Elaine Schaeffer	FCDLS

PARAMETERS:

<i>George Mason University:</i>	Phytoplankton count, abundance and composition
<i>Fairfax County:</i>	Temperature Conductivity
	Dissolved Oxygen pH
	Total Alkalinity Secchi Depth
	Total Kjeldahl Nitrogen Nitrate
	Nitrite Ammonia
	Total Phosphorus Soluble Reactive Phosphorus
	Total Suspended Solids Volatile Suspended Solids
	Chlorophyll a Phaeophytin
	Biological Oxygen Demand Chloride

STATIONS: There are currently up to 5 stations in the vicinity of Gunson Cove, Pohick Creek, Dogue Creek, and Potomac River.

SAMPLE COLLECTION: Phytoplankton are sampled on a biweekly/semimonthly basis.

Top and bottom water samples are composited for phytoplankton count, abundance, and composition using a submersible pump. Samples for pH, alkalinity, chlorophyll and photosynthetic activity analyses are collected, and 100 ml are preserved in 1% Lugol's iodine for the phytoplankton analyses. At stream stations a grab sample is used for alkalinity and pH analyses. Simultaneous profile readings of temperature, dissolved oxygen, and conductivity are performed at 0.3 m, 1 m and at every meter thereafter using YSI meters. A surface sample is also collected for chlorophyll analysis and protected from direct sunlight. Photosynthetic rate is determined on samples maintained at in-situ temperature using ¹⁴C-labelled sodium bicarbonate.

Gunston Cove Ecosystem Monitoring Program Phytoplankton Component

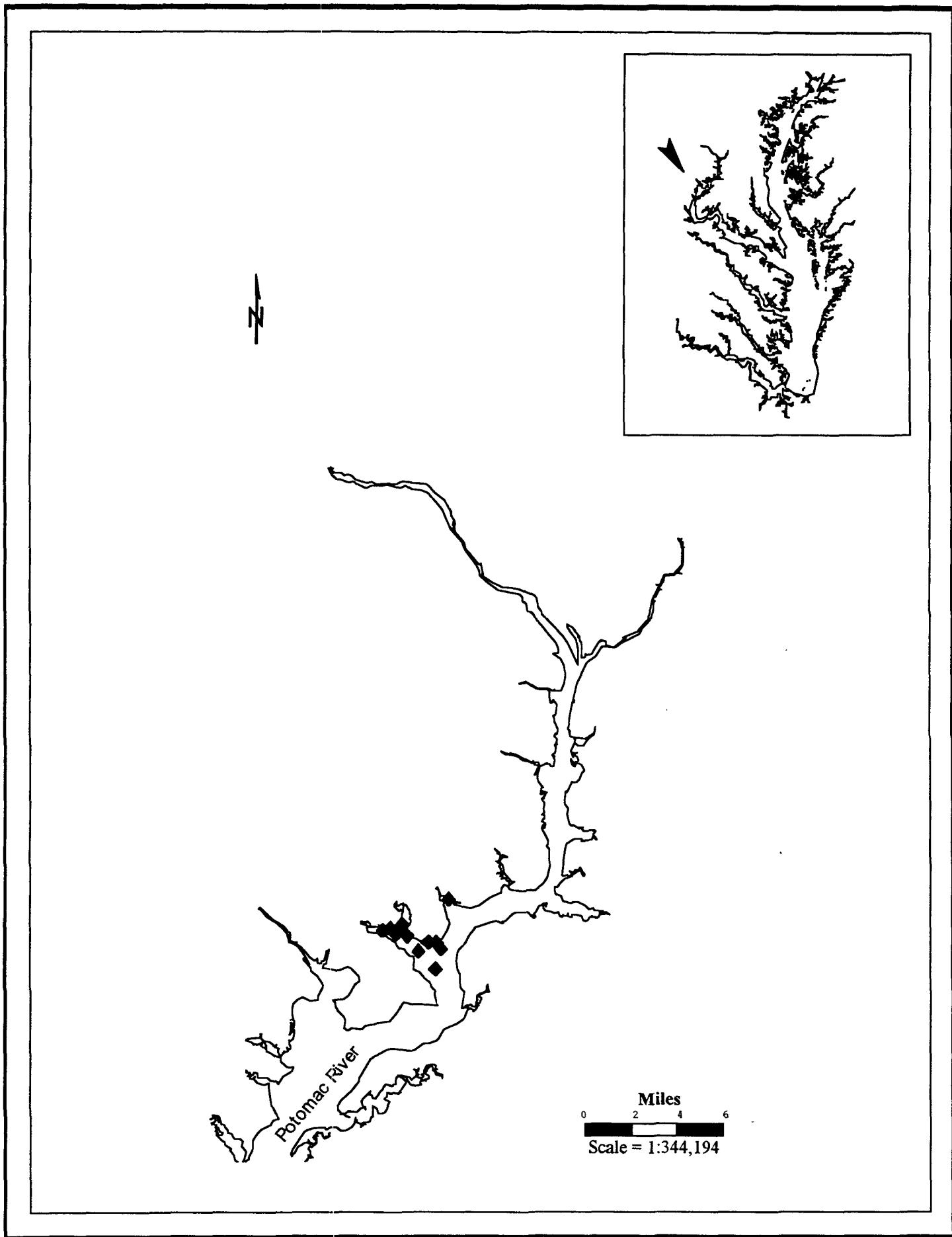
Fairfax County water quality monitoring is conducted every two weeks from April through November and monthly from December through March at these same stations.

PROGRAM INTEGRATION: The Gunston Cove Ecosystem Monitoring Program: Phytoplankton Component is one of many monitoring components including: benthos, zooplankton, bird, and fish surveys.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
10	38 41 01	77 10 13	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE POHICK BAY
11	38 40 10	77 08 50	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE MID GUNSTON COVE
12	38 40 32	77 08 20	BFL	POTOMAC	MIDDLE POTOMAC	2070010	COAST GUARD STATION
14	38 40 17	77 07 43	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER MD SIDE
15	38 42 11	77 07 25	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE DOGUE CREEK EMBAYMENT
4	38 40 57	77 10 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE POHICK BAY
5	38 40 49	77 09 56	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POHICK BAY PARK LAUNCH RAMP
6	38 41 10	77 09 39	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	MOUTH OF ACCOTINK BAY
7	38 40 45	77 09 24	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	CENTER OF GUNSTON COVE
8	38 39 31	77 07 58	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE OUTER GUNSTON COVE
9	38 40 32	77 07 58	BFL	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER CHANNEL

NOTE: STATION LOCATIONS INCLUDE THOSE FOR ALL ECOSYSTEM MONITORING COMPONENTS

Gunston Cove Ecosystem Monitoring Program: Phytoplankton Component



MARYLAND CHESAPEAKE BAY WATER QUALITY MONITORING PROGRAM ZOOPLANKTON COMPONENT

PROGRAM DESCRIPTION: The Maryland Chesapeake Bay Water Quality Monitoring Program Zooplankton Component is designed to provide comprehensive spatial and temporal information on microzooplankton and mesozooplankton at 15 stations located in the Maryland portions of the mainstem Chesapeake Bay and its tributaries. The stations were chosen to represent distinct physical segments of the main Bay and tributaries, i.e. fresh headwater regions, saline regions of the lower Bay and principal tributaries, and the transition or mixing regions between these two salinity extremes.

PROGRAM OBJECTIVES: To characterize spatial and temporal information on zooplankton species composition and densities.

DATE INITIATED: August 1984

COORDINATING AGENCY: Maryland Department of Natural Resources
Chesapeake Bay and Watershed Assessment Administration
580 Taylor Ave.
Annapolis, Maryland 21401

FUNDING AGENCY: Maryland Department of Natural Resources (MDE prior to July 1995)

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)
Academy of Natural Sciences, Benedict Estuarine Research Center (BERC)
Coastal Environmental Services, Inc.(CES)
Versar, Inc. (VER)

INVESTIGATORS:

Program Coordinator	Robert Magnien	MDDNR
Principal Investigator	Kevin Sellner	BERC
Principal Investigator	Fred Jacobs	CES
Principal Investigator	William Burton	VER
Principal Investigator	Richard Lacouture	BERC

PARAMETERS:

For mesozooplankton:	Species Composition	Ctenophore Volume and Number
	Species Density	Jellyfish Volume and Number
	Settled Volume of mesozooplankton	Sea Nettles
In Frozen Sample:	Total Mesozooplankton Biomass as Dry Weight	
	Total Mesozooplankton Biomass as Ash-Free Dry Weight	
For Microzooplankton:	Species Composition and Density	

STATIONS: There are 14 zooplankton monitoring stations located in the Maryland portion of the mainstem Chesapeake Bay and its tidal tributaries. Additional stations are sampled during the spring fish spawning period.

SAMPLE COLLECTION:

For Microzooplankton: Samples are collected monthly from March to December at all 14 stations, except in May when 9 of these stations are sampled twice to coincide with fish spawning periods. Since 1989, the entire water column is sampled from each of 10 depths for six of the 15 stations. A composite surface and composite bottom sample are taken at each of the remaining stations. Samples are filtered through a 44 micron mesh net to screen for microzooplankton. Filtered samples are then preserved with formalin.

For mesozooplankton: Samples collected with oblique tows using paired 20 cm, 202 µm mesh bongo nets.

Maryland Chesapeake Bay Water Quality Monitoring Program Zooplankton Component

The entire water column is sampled by first deploying the gear a few meters from the bottom and raising the net in timed progressive steps, usually 0.5 to 1.5 minutes/step. For stations less than 8 meters in depth, 1 meter step intervals are used; for stations in the depth range of 9-20 meters, 2 meter steps are used; at stations where depths exceed 20 meters, 4 meter step intervals are taken. The duration of the tow ranges from 5 to 10 minutes depending on plankton and ctenophore density.

One taxonomic sample (preserved with formalin in the field) and one biomass sample (frozen in the field) are collected from each bongo tow. Ctenophores, where they occur, are removed from samples in the field, and their numbers and biomass are recorded from the net that is used as the taxonomic sample.

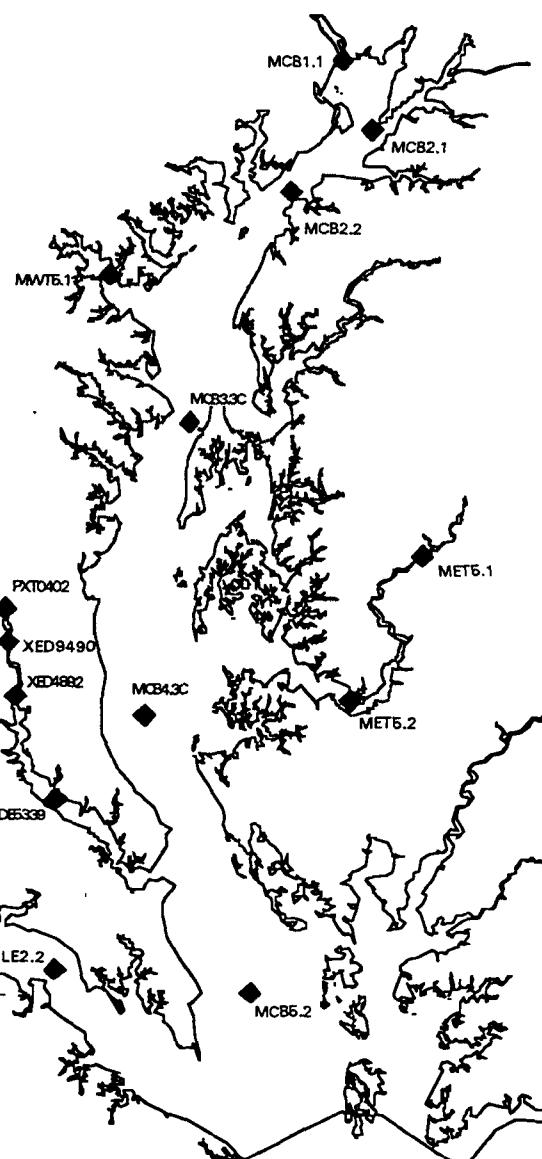
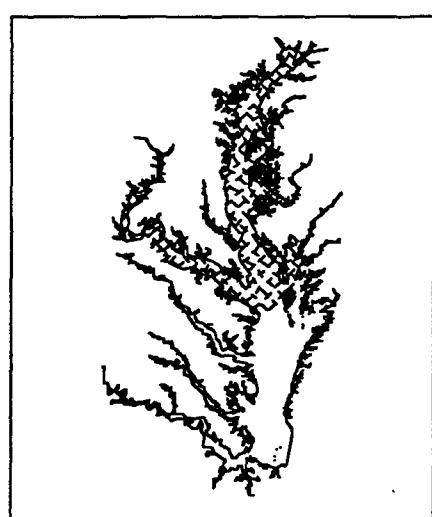
Ancillary data, such as dissolved oxygen, conductivity, pH, oxidation-reduction potential and secchi disk depth, are collected by Maryland Department of the Environment and transcribed on-site to CES (contractor) data sheets. When MDE water quality sampling is not done in conjunction with the mesozooplankton sampling, this data is taken on-site, independent of MDE.

In 1996, the monitoring regime changes in sampling stations and methodology were instituted, and program methodology will continue to be refined in coming years.

PROGRAM INTEGRATION: Zooplankton sampling is performed in conjunction with the sampling for the water quality and phytoplankton components of Maryland's Chesapeake Bay Water Quality Monitoring Program.

STATION NAME(S)	LATITUDE DDMM	LONGITUDE DDMM	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
MCB1.1	39 32.7	76 04.9	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	MOUTH OF SUSQUEHANNA RIVER
MCB2.1	39 26.4	76 01.5	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SPRING SAMPLE SITE
MCB2.2	39 20.8	76 10.5	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	WEST OF STILL POND NEAR BUOY R 34
MCB3.3C	38 59.7	76 21.6	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTH OF BAY BRIDGE
MCB4.3C	38 33.4	76 26.1	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	E. OF DARES BEACH NEAR BOUY R 64
MCB5.2	38 08.2	76 13.7	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	EAST OF POINT NO POINT
MET5.1	38 48	75 55	ET-5	EASTERN SHORE	CHOPTANK	2060005	UP CHOPTANK R, DWNSTR OF CONF TUCK CR
MET5.2	38 35	76 03	BFL	EASTERN SHORE	CHOPTANK	2060005	LOWER CHOPTANK RIVER NEAR RT. 50 BRIDGE
MLE2.2	38 10.00	76 35.80	LE-2	POTOMAC	LOWER POTOMAC	2070011	AT BUOY BWS18 OFF RAGGED POINT
MWT5.1	39 13	76 31	WT-5	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PATAPSCO R. E OF HAWKINS PT. BUOY 5M
PXT0402	38 42.71	76 42.15	TF-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER MIDCH. AT NOTTINGHAM
KDA1177	38 21.07	77 12.17	RET-2	POTOMAC	LOWER POTOMAC	2070011	MARYLAND POINT BUOY 19
KDE5339	38 25.46	76 36.05	LE-1	PATUXENT	PATUXENT	2060006	PATUXENT R. MIDCH/SSW JACK BAY SNDPT
XEAE6596	38 36.29	77 10.27	TF-2	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	POTOMAC INDIAN HEAD
XED4892	38 34.97	76 40.70	TF-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER MIDCH/SSE FR JACKS CR
XEAE1840	38 31.78	77 15.93	TF-2	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	POTOMAC MID BET POS PT A MOSS
XED9490	38 39.46	76 41.08	TF-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER MIDCH OFF WHARF

Maryland Chesapeake Bay Water Quality Monitoring Program Zooplankton Component



Miles
0 15 30

Scale = 1:1,056127

DISTRICT OF COLUMBIA ZOOPLANKTON MONITORING PROGRAM

PROGRAM DESCRIPTION: District of Columbia Zooplankton Monitoring Program tows are conducted monthly at three CORE stations on the Potomac and Anacostia Rivers to assist in the determination of zooplankton species abundance, distribution and composition.

PROGRAM OBJECTIVES: To characterize micro and mesozooplankton community structure, especially as it pertains to the detection of short and long-term trends in species abundance, distribution and composition.

DATE INITIATED: 1983 mesozooplankton, 1993 micro and mesozooplankton

COORDINATING AGENCY: Government of the District of Columbia
Department of Consumer and Regulatory Affairs
Environmental Regulation Administration
Water Resources Management Division
Water Quality Monitoring Branch
2100 MLK Ave SE Suite 200
Washington, D.C. 20020

FUNDING AGENCY: U.S. EPA Region III

PARTICIPATING AGENCIES: D.C. Department of Consumer and Regulatory Affairs (DCDCRA)

INVESTIGATORS:

Program Coordinator Hamid Karimi DCDCRA
Monitoring Coordinator Peter May DCDCRA

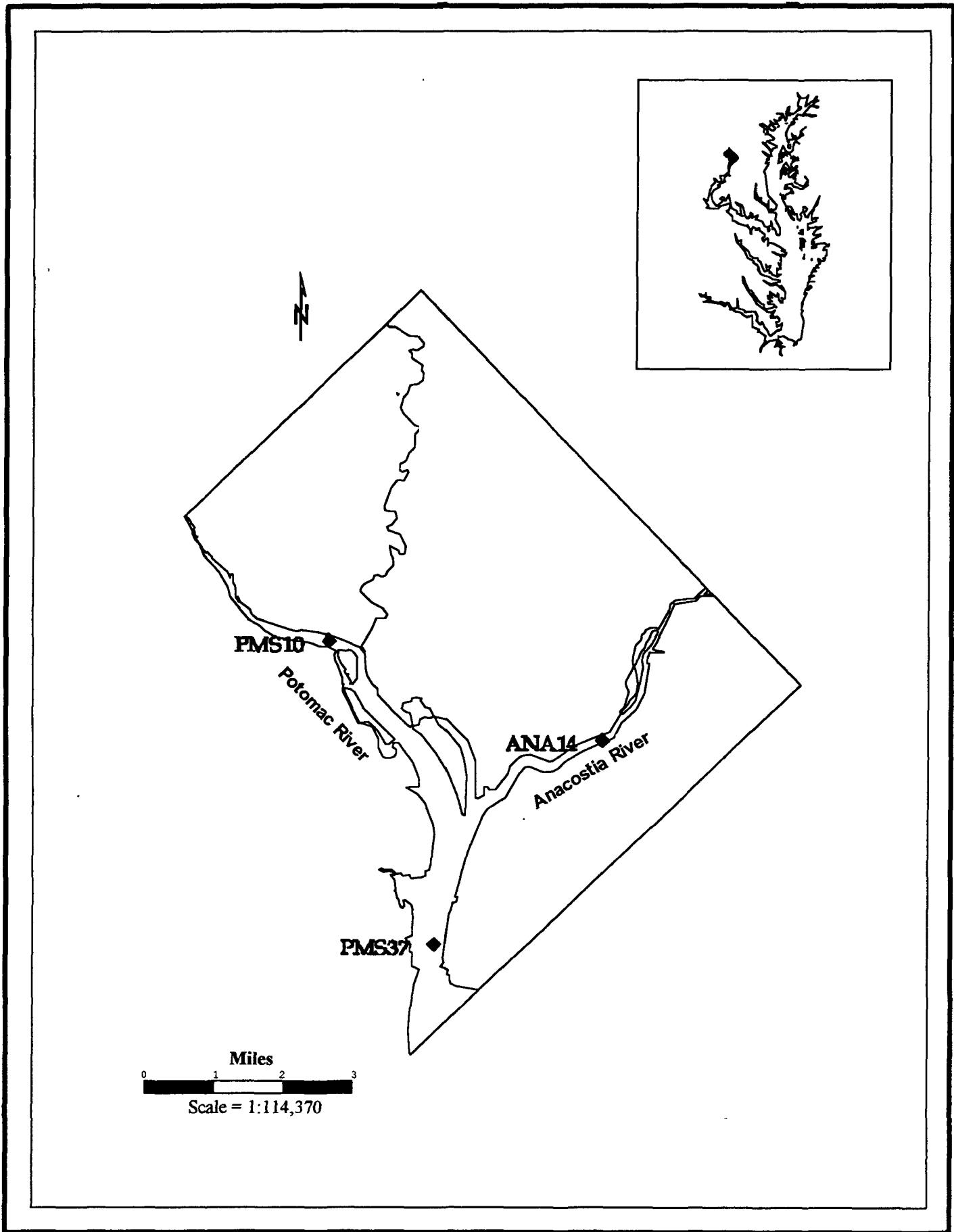
PARAMETERS: Species Identification
Species Abundance
Species Distribution

STATIONS: There are three EPA national water quality monitoring program (CORE) stations on the Potomac and Anacostia rivers.

SAMPLE COLLECTIONS: Samples are taken once a month at three CORE stations located on the Potomac and Anacostia Rivers. They are scheduled to coincide with the ambient water quality monitoring sampling. From 1983 to 1988 a metered Clarke-Bumpus plankton sampler with an 80 micron mesh netting was used to perform shallow subsurface towing for approximately 5 minutes in duration. Beginning August 1990 an 80 micron mesh vertical tow netting scheme was used and continued until December 1993 when the District incorporated into the program one 48 micron mesh net and one 202 micron mesh net to collect micro and mesozooplankton respectively. The 80 micron net was dropped from the sampling scheme completely. Samples are preserved with formalin. All zooplankton counts and identification are analyzed by taxonomic experts.

PROGRAM INTEGRATION: All station locations and sampling times coincide with their ambient, chemical/physical, monitoring analogs. All biological data is cross referenced with chemical and physical data to allow for complete integration within the District's ambient monitoring network.

STATION NAME(S)	LATITUDE DDMMS	LONGITUDE DDMMS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
ANA14	38 52 38	76 58 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	PENNSYLVANIA AVE./MARINA S DOCK
PMS10	38 54 08	77 04 11	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	UPSTREAM OF KEY BRIDGE
PMS37	38 49 18	77 01 53	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	100M S OF NAVAL RESEARCH LAB PIER



VIRGINIA ZOOPLANKTON MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Zooplankton Monitoring Program is designed to provide a current and continuing body of data adequate for the detection and interpretation of spatial and temporal trends in Virginia zooplankton communities. Samples are collected at seven mainstem and six tributary stations on a monthly basis.

PROGRAM OBJECTIVES: To characterize spatial and temporal patterns of zooplankton communities and examine the effects of water quality conditions on these patterns. To establish a long-term data base to allow for future trend analysis.

DATE INITIATED: July 1985 for mainstem
March 1986 for tributaries

COORDINATING AGENCY: Virginia Department of Environmental Quality
Chesapeake Bay and Coastal Program
PO Box 10009
Richmond, VA 23240

FUNDING AGENCY: Virginia Department of Environmental Quality (DEQ)
U.S. EPA Chesapeake Bay Program

PARTICIPATING AGENCIES: Virginia Department of Environmental Quality (DEQ)
Old Dominion University (ODU)

INVESTIGATORS:

Program Coordinator	Frederick Hoffman	DEQ
Principal Investigator	Raymond Alden	ODU

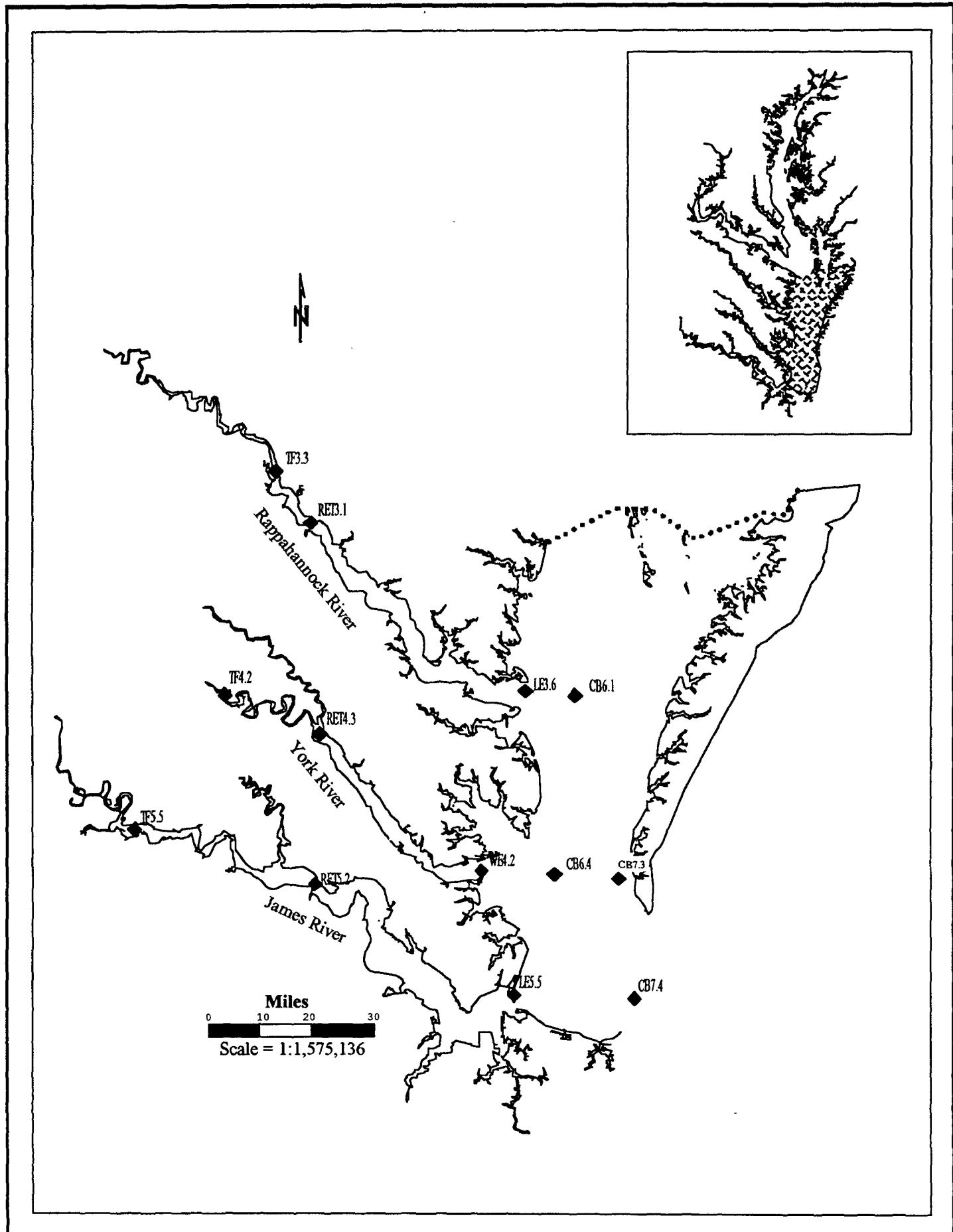
PARAMETERS:	<i>Microzooplankton and Mesozooplankton:</i> Species Identification Species Abundance Species Distribution	<i>Gelatinous Zooplankton:</i> Total Counts Settled Volume Biomass
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<i>Water quality parameters:</i>	Tidal Stage	Dissolved Oxygen
	Weather	Water Temperature
	Salinity Conductivity	

STATIONS: There are 13 zooplankton stations located in Virginia's portion of the mainstem Chesapeake Bay and its tributaries.

SAMPLE COLLECTION: Mesozooplankton samples are collected once a month. Single five minute oblique tows are employed from the surface to 1 meter above the bottom and back to the surface. Bongo apparatus is used with 202 μ mesh nets and flowmeters attached. Samples are preserved with formalin and processed according to the coefficient of variation stabilizing (CVS) method, and densities and species identifications for mesozooplankton are determined. Microzooplankton are collected once per month. Species composition are determined from preserved samples. During the months of July and September, a single five to ten minute surface tow is taken for gelatinous zooplankton. Settled volumes, biomass and total counts of ctenophores are recorded. In addition, spring and summer sampling events will be performed in anadromous fish spawning areas beginning in 1996.

PROGRAM INTEGRATION: Zooplankton monitoring in Virginia is performed in conjunction with phytoplankton and water quality monitoring in the state.



Virginia Zooplankton Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
LE5.5	36 59 48	76 18 12	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MOUTH OF JAMES RIVER
CB7.3E	37 13 43	76 03 12	CB-7	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER EASTERN SHORE CHANNEL AREA
TF5.5	37 18 46	77 13 59	TF-5	JAMES	LOWER JAMES	2080206	RED BUOY #107, JRWQMP STAT. #13
TF3.3	38 01 07	76 54 30	TF-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	VIMS SLACK WATER #N40
TF4.2	37 34 47	77 01 19	TF-4	YORK	PAMUNKEY	2080106	WHITEHOUSE
RET5.2	37 12 36	76 47 36	RET-5	JAMES	LOWER JAMES	2080206	SWANN'S PT., JRWQMP STA #19
RET3.1	37 55 12	76 49 18	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	NORTH OF BUOY R10, VIMS SLACK
RET4.3	37 30 24	76 47 18	RET-4	YORK	YORK	2080107	VIMS SLACK WATER #C57
CB6.4	37 14 11	76 12 30	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CENTRAL BAY OFF SHORE FROM YORK R MOUTH
CB7.4	36 59 36	76 00 38	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	BALTIMORE CHANNEL AT THE BAY BRIDGE
CB6.1	37 35 18	76 09 45	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER WEST CENTRAL CHESAPEAKE BAY
LE3.6	37 35 48	76 17 06	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	MOUTH OF RAPPAHANNOCK RIVER
WE4.2	37 14 30	76 23 12	WE-4	YORK	GREAT WICOMICO-PIANKATANK	2080102	MOBJACK BAY AT THE MOUTH OF YORK R

GUNSTON COVE ECOSYSTEM MONITORING PROGRAM ZOOPLANKTON COMPONENT

PROGRAM DESCRIPTION: The Gunston Cove Ecosystem Monitoring Program involves long-term monitoring of physical and biological components of the ecosystem in Pohick Creek, Gunston Cove, Dogue Creek, and the adjacent Potomac River. These studies include zooplankton and ichthyoplankton surveys. In conjunction with this monitoring, Fairfax County conducts water quality monitoring in order to determine the effects of sewage outfall from a tertiary treatment plant which empties into Gunston Cove.

PROGRAM OBJECTIVES: To provide a description and analysis of seasonal and spatial patterns of abundance and activity of zooplankton and ichthyoplankton in the Gunston Cove vicinity. In conjunction with monitoring of other aquatic organisms, objectives are to assess current ecological conditions as well as to provide long-term baseline data for evaluating the effects of changes in land use and/or sewage treatment occurring in the future.

DATE INITIATED: 1984

COORDINATING

AGENCY: George Mason University
Department of Biology
4400 University Drive
Fairfax, Virginia 22030

FUNDING

AGENCY: Fairfax County

PARTICIPATING

AGENCIES: George Mason University (GMU)
County of Fairfax, Environmental Laboratory Services (FCDLS)

INVESTIGATORS:

Project Director	R. Christian Jones	GMU
Co-Principal Investigator	Don Kelso	GMU
Director	Elaine Schaeffer	FCDLS

PARAMETERS:

<i>George Mason University:</i>	Zooplankton count, abundance and composition	
	Ichthyoplankton count, abundance and composition	
<i>Fairfax County:</i>	Temperature	Conductivity
	Dissolved Oxygen	pH
	Total Alkalinity	Secchi Depth
	Total Kjeldahl Nitrogen	Nitrate
	Nitrite	Ammonia
	Total Phosphorus	Soluble Reactive Phosphorus
	Total Suspended Solids	Volatile Suspended Solids
	Chlorophyll a	Phaeophytin
	Biological Oxygen Demand	Chloride

STATIONS: There are currently up to 5 stations located in the vicinity of Gunston Cove.

SAMPLE COLLECTION: Zooplankton and Ichthyoplankton are sampled on a biweekly/semimonthly basis. Zooplankton samples are obtained by pumping known quantities of water from 0.3 m, mid-depth and the bottom through a 44 µm mesh net. These are preserved with buffered formalin. Ichthyoplankton samples are obtained by using a 333 µm mesh net towed for two minutes at three depths (unless very shallow) and preserved in 5% formalin. Fairfax County water quality monitoring is conducted every two weeks from April through November and monthly from December through March at these same stations.

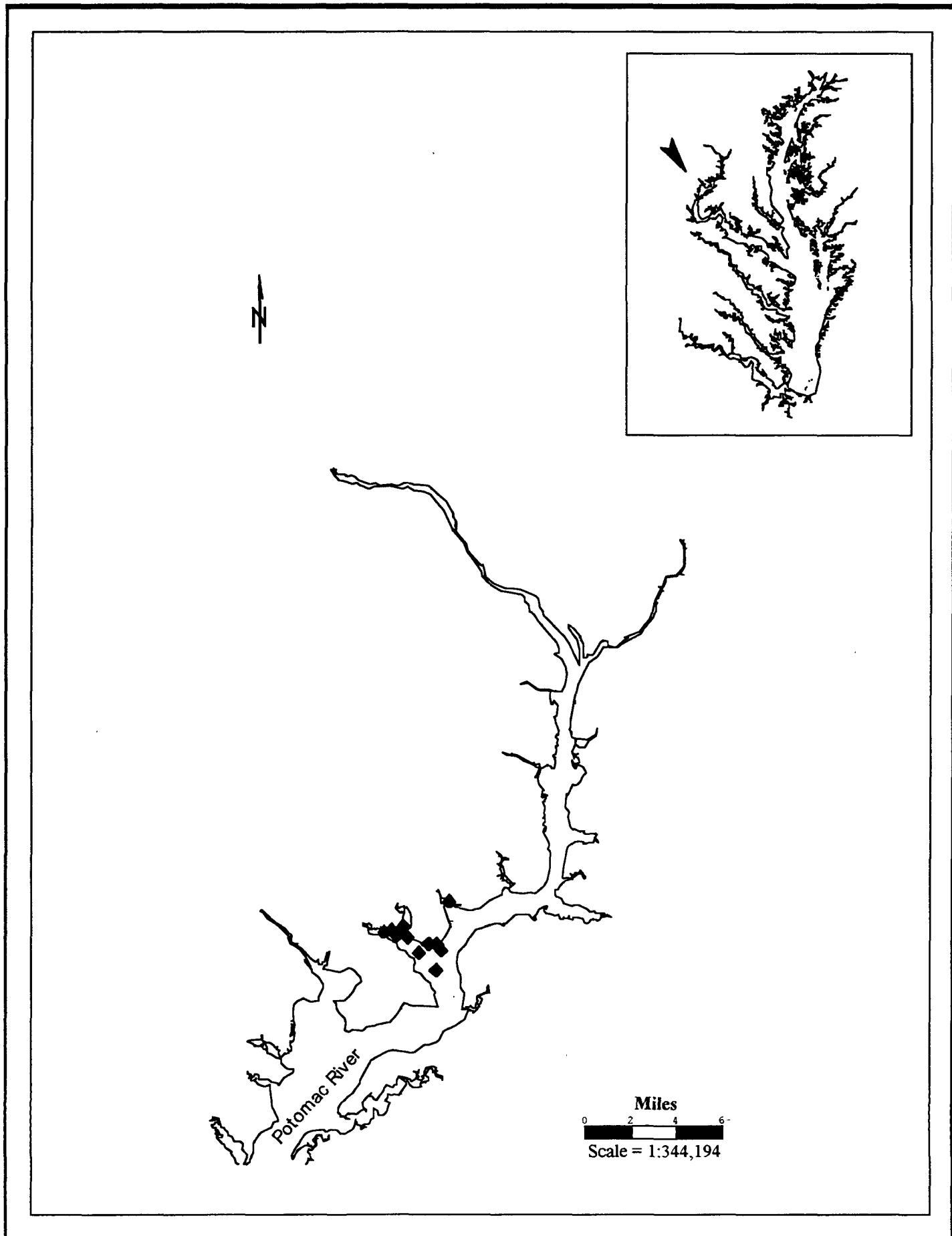
Gunston Cove Ecosystem Monitoring Program Zooplankton Component

PROGRAM INTEGRATION: The Gunston Cove Ecosystem Monitoring Program: Zooplankton and Ichthyoplankton Component is one of many monitoring components including: benthos, phytoplankton, bird, and fish surveys.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
10	38 41 01	77 10 13	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE POHICK BAY
11	38 40 10	77 08 50	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE MID GUNSTON COVE
12	38 40 32	77 08 20	BFL	POTOMAC	MIDDLE POTOMAC	2070010	COAST GUARD STATION
14	38 40 17	77 07 43	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER MD SIDE
15	38 42 11	77 07 25	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE DOGUE CREEK EMBAYMENT
4	38 40 57	77 10 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE POHICK BAY
5	38 40 49	77 09 56	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POHICK BAY PARK LAUNCH RAMP
6	38 41 10	77 09 39	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	MOUHT OF ACCOTINK BAY
7	38 40 45	77 09 24	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	CENTER OF GUNSTON COVE
8	38 39 31	77 07 58	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE OUTER GUNSTON COVE
9	38 40 32	77 07 58	BFL	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER CHANNEL

NOTE: STATION LOCATIONS INCLUDE THOSE FOR ALL ECOSYSTEM MONITORING COMPONENTS

Gunston Cove Ecosystem Monitoring Program Zooplankton Component



NEW YORK STREAM BIOMONITORING PROGRAM

PROGRAM DESCRIPTION: The New York State Biomonitoring Program, begun in 1972, presently includes sampling at routine and intensive sites throughout the state as part of cyclical basin studies. Most of these sites are also sampled for water column chemical parameters. The major drainage basins of the state have been divided into three groups, with each being intensively monitored during two successive years within a six year cycle. Four routine stations within the Susquehanna River Basin are monitored for chemical parameters once per year, and also on the six year cycle for macroinvertebrate analysis. The Susquehanna River Basin was sampled in this way first during 1991-1992, and is scheduled to begin its second two year intensive monitoring in 1997-1998.

PROGRAM OBJECTIVES: To produce timely, definitive statements on macroinvertebrate community structure and macroinvertebrate tissue contaminant levels, and to discern trends from detailed, interrelated, uniformly collected information.

DATE INITIATED: 1972

COORDINATING

AGENCY: New York State Department of Environmental Conservation
Division of Water, Rm 392
50 Wolf Road
Albany, New York 12233-3503

FUNDING

AGENCY: New York State Department of Environmental Conservation

PARTICIPATING

AGENCY: New York State Department of Environmental Conservation (NYDEC)

PRINCIPAL INVESTIGATOR:

Principal Investigator Robert Bode NYDEC

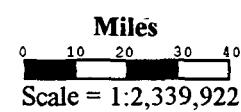
PARAMETERS: Species Richness PCBs in invertebrate tissues
Biotic index value Organochlorine pesticides in invertebrate tissues
EPT richness Metals in invertebrate tissues
Percent model affinity

STATIONS: There are four routine and seven intensive stations in the Susquehanna River Basin.

SAMPLE COLLECTION: At four routine and seven intensive sites in the Susquehanna River Basin, macroinvertebrate samples are collected one to two times during each two year intensive survey. In shallow, fast moving streams, a five minute kick method of sampling is utilized. In deeper water, multi-plate sampling is performed.

PROGRAM INTEGRATION: This program is conducted in conjunction with the New York Water Quality Assessment Program.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
05010005	42 00 10	76 38 06	AFL	SUSQUEHANNA	CHEMUNG	2050105	CHEMUNG RIVER IN CHEMUNG
06010006	42 01 45	76 23 06	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	SUSQUEHANNA RIVER, SMITHBORO AT RT 282 BRIDGE
06010094	42 13 38	75 31 28	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	SUSQUEHANNA RIVER IN AFTON AT RT 141 BRIDGE
06021001	42 06 11	75 54 54	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	CHENANGO RIVER IN BINGHAMTON AT CLINTON ST. BRIDGE



PENNSYLVANIA BENTHIC MACROINVERTEBRATE SURVEY

PROGRAM DESCRIPTION: The Pennsylvania Benthic Macroinvertebrate Survey is designed to supplement data obtained through the water quality network on the condition of Pennsylvania's waterways. Through it, macroinvertebrates are sampled once a year during low flow between August 1 and October 31 at all water quality stations.

PROGRAM OBJECTIVES: To assess long- and short-term trends in macroinvertebrate populations and to monitor the progress of the Commonwealth's water quality management program.

DATE INITIATED: 1975

COORDINATING

AGENCY: Pennsylvania Department of Environmental Protection
Bureau of Water Quality Management
P.O. Box 8465
Harrisburg, Pennsylvania 17105

FUNDING

AGENCY: Pennsylvania Department of Environmental Protection

PARTICIPATING

AGENCIES: Pennsylvania Department of Environmental Protection (PADEP)

INVESTIGATORS:

Water Quality Network Biologist	Robert J. Schott	PADEP - Harrisburg
Water Quality Network Biologist	Ronald E. Hughey	PADEP - Williamsport
Water Quality Network Biologist	Edward P. Kupsky	PADEP - Wilkes-Barre

PARAMETERS:

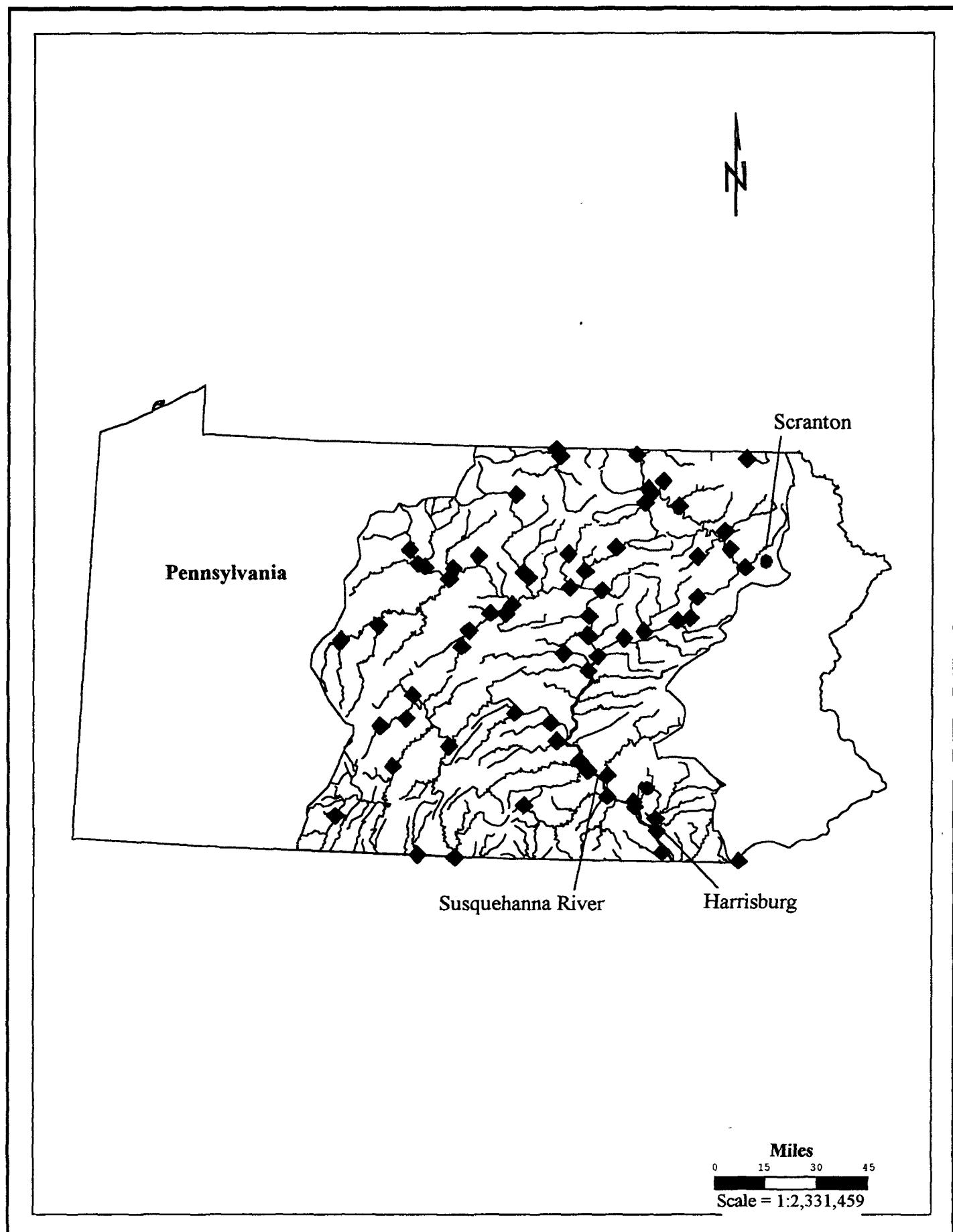
Species Identification
Five Most Abundant Species
Five Most Rare Species

STATIONS: There are approximately 155 stations sampled in this program, with 66 stations located in the Susquehanna River and Potomac River basins. The stations for this program are the same as for the Pennsylvania Surface Water Quality Network.

SAMPLE COLLECTION: All stations are sampled on a yearly basis between August 1 and October 31. Sampling for macroinvertebrates and water quality is performed simultaneously. Macroinvertebrate collections are made with a standard D-frame (0.3m wide) net with 800-900 µm mesh. Organisms are dislodged by kicking the substrate upstream from the screen. Each sample consists of two kicking efforts: one collected from a fast riffle/run habitat and one from a slow riffle/run habitat. A minimum area of 1x0.3 meters is disturbed in each of the two selected representative riffle areas. Organisms are evenly distributed in a gridded pan, and then randomly selected squares are removed and organisms counted until at least 100 are obtained. Organisms are identified to genus whenever possible. Habitat scoring is also determined.

Various types of sampling equipment may be used on the rare occasions that quantitative data is desirable. These include the Surber sampler, Hess sampler and Hester-Dendy artificial substrate sampler. Organisms are dislodged within the periphery of the sampler, placed in 70% ethanol and taken to the lab for processing and identification. When using the Hester-Dendy sampler, the sampler is left in the stream for a minimum of five weeks. The colonized sampler is placed in preservative and taken back to the lab for processing and identification of organisms.

PROGRAM INTEGRATION: This program is carried out in conjunction with, and at the same stations as, Pennsylvania's Surface Water Quality Network.



Pennsylvania Benthic Macroinvertebrate Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
N0201	40 01 43	76 31 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	PA RTE 462 COLUMBIA WRIGHTSVILLE BR.
N0203	40 51 15	76 48 21	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-PENNS	2050301	SUSQUEHANNA RIVER
N0204	39 53 34	76 21 29	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	PEQUEA CREEK AT TOWNSHP 408 BRDG
N0206	40 03 45	76 30 37	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	CHICKIES CREEK AT SR 0023 BRDG
N0210	40 04 52	76 43 04	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050305	W. CONEWAGO CR AT ROUTE 181 BRIDGE
N0211	40 11 58	76 43 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	SWATARA CR. AT RT 441 BRIDGE IN MIDDLETON
N0212	40 13 27	76 51 38	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	YELLOW CREEK BRIDGE
N0214	40 28 42	77 07 46	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	JUNIATA R. AT ROUTE 34 BRIDGE IN NEWPORT
N0217	40 36 33	78 08 11	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	L JUNIATA R, AT PA 45 BRIDGE AT SPRUCE CR
N0223	40 12 54	78 15 54	AFL	SUSQUEHANNA	RAYSTOWN	2050303	RAYSTOWN BR JUNIATA R. PR913 BRIDGE NR SAXTON
N0224	40 28 19	78 11 14	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	FRANKSTOWN BR JUNIATA R, R&R BR. UPSTR FR CLOVE
N0228	40 46 29	76 52 11	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-PENNS	2050301	MIDDLE CR, OLD US 11 & 15 BR. IN PENN TOWNSHIP
N0229	40 51 59	77 02 56	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-PENNS	2050301	PENNS CREEK, PA RT 104 BR AT VILLAGE OF PENNS C
N0231	39 57 41	76 21 57	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	CONESTOGA CREEK AT T-561 BRIDGE NR ROCK HILL
N0240	40 16 16	76 54 53	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	CONODGUINET CREEK MOUTH, NEAR PA RTES 11 & 15
N0243	40 22 50	77 04 57	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	SHERMANS CR. AT SR 2002 BRDG
N0245	40 31 45	77 23 32	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	TUSCARORA CR, PA RTE 75 BR.
N0249	40 20 05	77 51 37	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	AUGHWICH CR, TR 403 AT AUGHWICK MILL
N0252	40 25 51	78 21 45	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	BEAVERDAM BR JUNIATA R. 2000 FT UPSTR FR MOUTH
N0256	39 43 47	75 50 49	FBL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	BIG ELK CR, STRICKERSVILLE RD BR
N0259	39 46 23	76 18 59	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	MUDY CREEK AT SR2024 BRIDGE
N0262	40 01 21	77 18 31	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050305	MOUTAIN CREEK AT T340 PINE GROVE FURNACE
N0301	40 57 29	76 37 10	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	SUSQUEHANNA R, PR 54 BRIDGE AT DANVILLE
N0302	41 11 19	76 05 13	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	SUSQUEHANNA R, RT11 BR. NR RETREAT ST PRISON
N0305	41 45 55	76 26 28	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	SUSQUEHANNA R, BRIDGE ON RT 6 AT TOWANDA
N0306	41 57 48	75 44 33	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	SUSQUEHANNA R, ROUTE 11 BRIDGE
N0308	40 59 42	76 28 25	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	FISHING CR, RT 42 BRIDGE IN HELMLOCK TWP
N0309	41 03 18	76 13 54	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	NESCOPECK CREEK, BRIDGE ON LR 40017
N0310	41 04 17	76 08 02	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	WAPWALLOPEN CR, RT239 BR IN CONYNGHAM TWP
N0313	41 21 33	75 44 41	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	LACKAWANNA R, BRIDGE ST. BR IN OLD FORGE BORO
N0317	41 33 29	75 53 42	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	TUNKHANNOCK CREEK, BRIDGE ON RT 6
N0318	41 42 29	76 29 06	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	TOWANDA CREEK AT SR 3006 BRDG
N0320	42 00 05	77 01 40	AFL	SUSQUEHANNA	TIOGA	2050104	COWANCESQUE RIVER 1 MI UPSTR FR US RT 15
N0323	41 27 42	75 51 15	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050107	SUSQUEHANNA RIVER RT92 BR AT FALLS
N0324	41 57 27	77 06 58	AFL	SUSQUEHANNA	TIOGA	2050104	TIOGA R, BRIDGE ON TR773, LAWRENCE TWP
N0332	41 58 41	76 32 58	AFL	SUSQUEHANNA	CHEMUNG	2050105	CHEMUNG RIVER AT SR 4022 BRDG
N0333	41 47 24	76 27 43	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	LR08191 BR SUGAR CREEK
N0334	41 41 49	76 13 52	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	PA RT 706 BR. WYALUSING CREEK
N0335	41 48 05	76 22 32	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	WYSOX CREEK AT SR 1027 BRDG
N0337	41 24 57	76 05 27	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	BOWMAN CREEK T310 BR NEAR STULL
N0401	40 58 02	76 52 45	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	W. BR. SUSQUEHANNA RIVER AT PA RT 45
N0402	41 13 44	77 01 09	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	W.BR.SUSQ. R, MAYNARD ST BR IN WILLIAMSPORT
N0406	40 53 49	78 40 38	AFL	SUSQUEHANNA	UPPER WEST BRANCH SUSQUEHANNA	2050201	W.B.R.SUSQUEHANNA R, T-418 BRG IN GREENWOOD TWP
N0408	41 19 31	76 54 43	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	LOYALSOCK CR, PR 973 BRG AT LOYALSOCKVILLE
N0409	41 25 06	77 01 59	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	LYCOMING CR, TR 840 BRG IN LEWIS TOWNSHIP
N0410	41 16 59	77 19 22	AFL	SUSQUEHANNA	PINE	2050205	PINE CR, R&R BR AT RAMSEY
N0413	40 58 30	77 44 35	AFL	SUSQUEHANNA	BALD EAGLE	2050204	BALD EAGLE CR, LR 14010 BRIDGE AT CURTIN
N0415	40 53 23	77 47 40	AFL	SUSQUEHANNA	BALD EAGLE	2050204	SPRING CR, LR14040 HARTELL'S BR.
N0418	41 15 41	77 54 10	AFL	SUSQUEHANNA	SINNMAHONING	2050202	SINNMAHONING CR, LR18001 BR AT KEATING
N0419	41 19 12	78 04 51	AFL	SUSQUEHANNA	SINNMAHONING	2050202	FIRST FORK SINNMAHONING CREEK, PA RT 120
N0420	41 24 48	78 11 50	AFL	SUSQUEHANNA	SINNMAHONING	2050202	DREWID BR SINNMAHONG LR12004 BR AT STERLING RUN
N0422	40 59 09	78 24 22	AFL	SUSQUEHANNA	UPPER WEST BRANCH SUSQUEHANNA	2050201	CLEARFIELD CR, PA RT 153
N0423	41 04 29	77 35 32	AFL	SUSQUEHANNA	BALD EAGLE	2050204	US 220 BRIDGE AT BEECH CREEK
N0427	41 04 29	76 52 21	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	WHITE DEER CRK SR. 1011 BRDG
N0428	41 27 22	76 41 24	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	LOYALSOCK CREEK PA RT 87 BR NR HILLSGROVE
N0429	41 18 34	77 21 45	AFL	SUSQUEHANNA	PINE	2050205	LITTLE PINE CR, PA RT 44 BRG AT WATERVILLE
N0430	41 44 15	77 25 50	AFL	SUSQUEHANNA	PINE	2050205	PINE CREEK DNSTRM FR CONFL W/ MARSH CR
N0433	41 04 31	77 28 40	AFL	SUSQUEHANNA	BALD EAGLE	2050204	FISHING CR, LR18007 BR NEAR CEDAR SPRINGS
N0434	41 19 10	77 52 25	AFL	SUSQUEHANNA	MIDDLE WEST BRANCH SUSQUEHANNA	2050203	KETTLE CR, 3.2 MI UPSTRM FR PA RT 120
N0439	41 20 02	78 08 10	AFL	SUSQUEHANNA	SINNMAHONING	2050202	BENNETT BRANCH, T343 BRIDGE S OF DRIFTWOOD
N0443	41 23 22	77 41 28	AFL	SUSQUEHANNA	MIDDLE WEST BRANCH SUSQUEHANNA	2050203	YOUNG WOMANS CK .3MI DNSTM OF LAURELLY FORK
N0444	41 13 02	76 47 15	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	MUNCY CREEK SR2014(RT147) BRIDGE
N0445	41 07 35	77 26 00	AFL	SUSQUEHANNA	BALD EAGLE	2050204	BALD EAGLE CREEK SR2012 BR AT CASTANEA
N0501	39 42 29	77 50 00	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	CONOCOCHEAGUE CR 0.5 MI DNSTRM FR PA/MD BORDER
N0505	39 43 23	78 03 37	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	LICKING CREEK SR0456 BR AT PA/MD BORDER
N0506	39 55 37	78 39 36	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	LITTLE WILLS CREEK, SR0096 BR AT BARD

SUSQUEHANNA RIVER BASIN COMMISSION INTERSTATE MACROINVERTEBRATE MONITORING PROGRAM

PROGRAM DESCRIPTION: The Susquehanna River Basin Commission Interstate Macroinvertebrate Monitoring Program samples approximately 39 stations on the New York - Pennsylvania and the Maryland - Pennsylvania borders for benthic macroinvertebrate populations. These stations are sampled on an annual basis during low flow period (July-August) during a water quality survey of all interstate streams.

PROGRAM OBJECTIVES: To monitor biological factors as indicators of water quality.

DATE INITIATED: August 1986

COORDINATING AGENCY: Susquehanna River Basin Commission
1721 North Front Street, Harrisburg, Pennsylvania 17102

FUNDING AGENCY: U.S. EPA Region III
Pennsylvania Department of Environmental Resources

PARTICIPATING AGENCIES: Susquehanna River Basin Commission (SRBC)
Pennsylvania Department of Environmental Resources (PADER)

INVESTIGATORS: Program Coordinator Jennifer Rowles SRBC

PARAMETERS:	Species Identification	Species Density	RBP
	Species Diversity	Species Abundance	

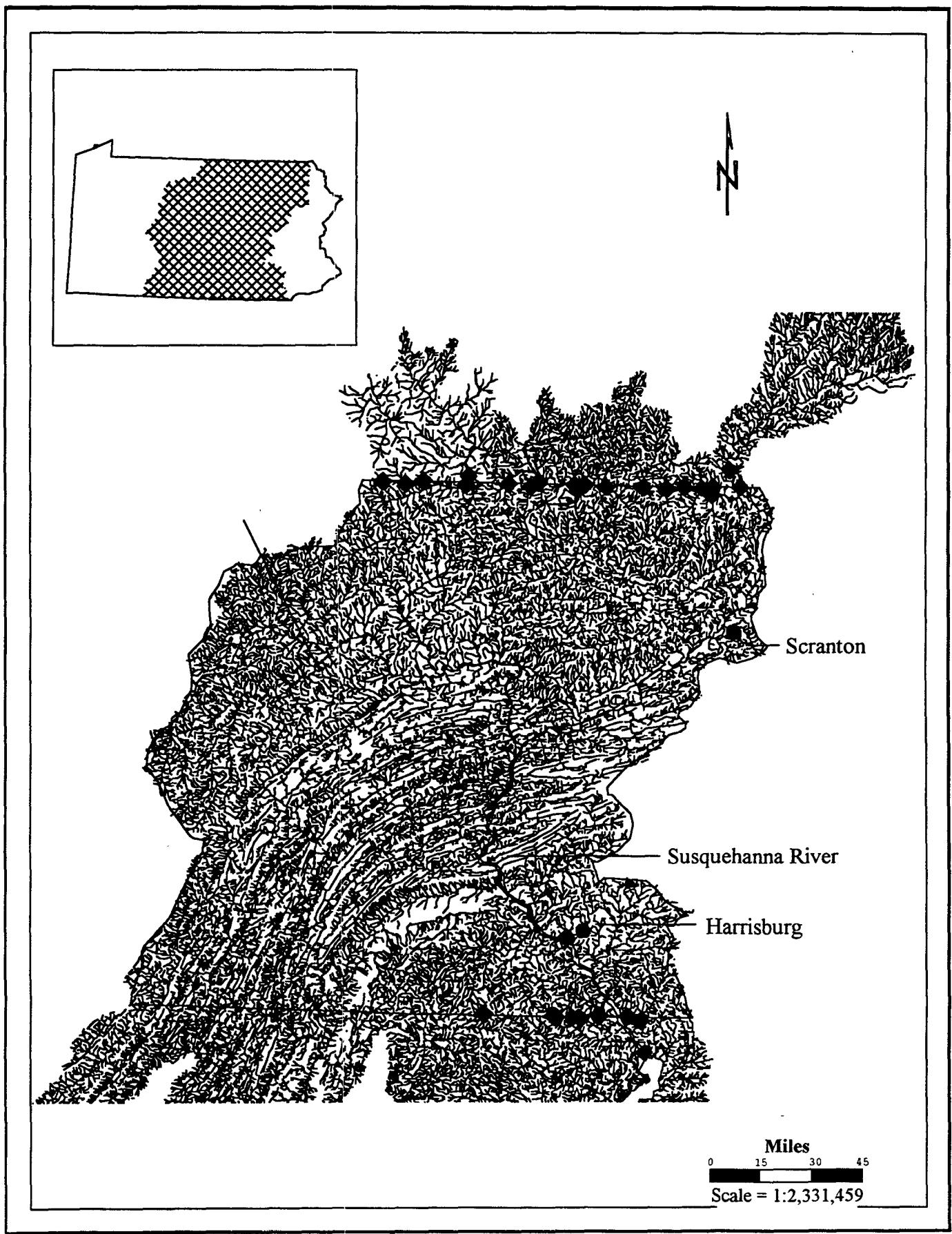
STATIONS: There are approximately 34 stations sampled annually. All stations are located near either the New York or Maryland borders of Pennsylvania.

SAMPLE COLLECTION: Sampling is performed using a one square meter kick screen. The kick screen is used to collect macroinvertebrate specimens for compiling a species list. Specimens are preserved with alcohol for later identification. Benthic macroinvertebrate samples are assessed using the procedures described in Rapid Bioassessment Protocols for use in streams and rivers.

PROGRAM INTEGRATION: SRBC's annual macroinvertebrate monitoring is a component of the Interstate Water Quality Monitoring Program.

STATION NAME(S)	LATITUDE DDMSS	LONGITUDE DDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
APAL6.9	41 59 41	76 07 59	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	APPALACHIAN CREEK
BBCC4.1	39 43 01	76 29 30	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	BIG BRANCH DEER CREEK
BNTY0.9	42 00 34	76 43 48	AFL	SUSQUEHANNA	CHEMUNG	2050105	BENTLEY CREEK
CACS1.6	42 00 01	75 34 45	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	CASCADE CREEK
CAYT1.7	42 00 00	76 31 24	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	CAYUTA CREEK AT WAVERLY, NY
CHEM12.0	42 00 08	76 28 06	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	CHEMUNG, NY
CHOC9.1	41 59 27	76 00 04	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	CHOCONUT CREEK
CNWG4.4	39 43 32	76 11 08	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	CONOWINGO CREEK AT PLEASANT GROVE, PA
COWN2.2	41 59 20	77 08 51	AFL	SUSQUEHANNA	TIOGA	2050104	COWANESQUE RIVER
DEER44.2	39 43 02	76 35 10	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	DEER CREEK NR NORRISVILLE, MD
EBAV1.5	39 43 29	76 35 45	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	EBAUGHS CREEK NR STEWARTSTOWN, PA
FBDC4.1	39 42 44	76 26 33	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	FALLING BRANCH DEER CREEK
HLDN3.5	42 00 15	77 23 34	AFL	SUSQUEHANNA	TIOGA	2050104	HOLDEN CREEK
LNGA2.5	39 43 31	76 58 55	AFL	POTOMAC	MONOCACY	2070009	LONG ARM CREEK
LSNK7.6	41 59 49	75 53 53	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	LITTLE SNAKE CREEK
NFCR7.6	41 59 48	77 37 22	AFL	SUSQUEHANNA	TIOGA	2050104	NORTH FORK COWANESQUE CREEK
OCTO6.6	39 42 24	76 06 57	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	OCTORARO CREEK AT NEW BRIDGE, MD
SBCC20.4	39 43 32	76 58 50	AFL	POTOMAC	MONOCACY	2070009	SOUTH BRANCH CONEWAGO CREEK
SCTT3.0	39 43 24	76 20 14	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SCOTT CREEK
SEEL10.3	42 00 03	76 54 12	AFL	SUSQUEHANNA	CHEMUNG	2050105	SEELLEY CREEK, NY
SNAK2.3	41 59 37	75 47 42	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	SNAKE CREEK NR BROOKDALE, PA
SOUT2.8	41 59 20	76 46 26	AFL	SUSQUEHANNA	CHEMUNG	2050105	SOUTH CREEK
SUSQ289.1	41 59 05	76 30 05	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	SAYRE, PA
SUSQ340.0	41 57 58	75 44 33	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	KIRKWOOD, NY
SUSQ365.0	42 04 28	75 38 14	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	WINDSOR, NY
SUSQ4.8	39 34 16	76 05 32	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	PORT DEPOSIT
SUSQ44.5	40 03 16	76 31 52	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	COLUMBIA, SC
TIOG10.8	42 01 44	77 07 57	AFL	SUSQUEHANNA	TIOGA	2050104	TIOGA RIVER AT LINDLEY, NY
TROW1.8	42 00 00	75 43 54	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	TROWBRIDGE CREEK
TRUP4.5	41 59 23	77 29 31	AFL	SUSQUEHANNA	TIOGA	2050104	TROUPS CREEK
WAPP2.6	41 59 39	76 20 40	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	WAPPASENING CREEK

Susquehanna River Basin Commission Interstate Macroinvertebrate Monitoring Program



MARYLAND CHESAPEAKE BAY WATER QUALITY MONITORING PROGRAM BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Maryland Chesapeake Bay Water Quality Monitoring Program: Long Term Benthic Monitoring and Assessment Component is a joint effort of the Maryland Department of the Environment and the Maryland Department of Natural Resources. From July 1989 through 1994, samples have been collected once to several times a year at 31 sampling strata located in the Maryland portion of the Chesapeake Bay and its tributaries. The sampling design from July 1984 to June of 1989 is described in the 1989 Edition of the Chesapeake Bay Monitoring Program Atlas (Volume II). The current sampling design includes both fixed stations and random stations.

PROGRAM OBJECTIVES: To assess the condition of benthic invertebrate communities; to identify trends in benthic community condition; and to characterize benthic responses to changes in water quality in specific tributaries.

DATE INITIATED: July 1984

COORDINATING AGENCIES: Maryland Department of Natural Resources
Chesapeake Bay and Watershed Assessment Administration
580 Taylor Ave.
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources (MDE prior to July 1995 in cooperation with MDDNR)

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)
Versar, Inc. (VERSAR)

INVESTIGATORS:

Project Officer	Robert Magnien	MDDNR
Project Officer	Paul Miller	MDDNR
Principal Investigator	Ana Ranasinghe	VERSAR

PARAMETERS: Temperature Conductivity
Salinity Dissolved Oxygen
pH Species Identification
ORP Depth
Species Abundance Species Biomass
Sediment Silt-clay Composition

STATIONS: Monitoring through 1994 consisted of 31 sampling strata located in the Maryland portion of the Chesapeake Bay and the tidal portions of the Patuxent, Potomac, Patapsco, Choptank, and Chester rivers. Starting in 1995, monitoring will change to a fixed station design, with sampling occurring at 19 to 27 fixed stations on an annual basis and then more intense sampling at various random locations throughout the bay or tributaries.

SAMPLE COLLECTION:

For monitoring through 1994: Benthic invertebrates are collected at least once per year at each of the 31 sampling strata. During each visit, samples are collected at four locations within each stratum. Three of the four sampling locations are selected at random. In the 27 sampling strata that contain fixed sampling sites that have been sampled continuously since 1984, the fourth sample is collected at the fixed site. In the other four strata, the fourth sampling site is also selected randomly.

Vertical profiles of temperature, conductivity, salinity, dissolved oxygen concentration, ORP, and pH of the water column are measured at one of the four locations within each stratum, typically the deepest according to navigation charts. The profiles consist of water quality measurements at one meter intervals from surface to bottom at

Maryland Chesapeake Bay Water Quality Monitoring Program Benthic Component

locations less than 7 meters deep, and at 3 meter intervals at locations deeper than 7 meters. In addition, at deep stations, measurements are made at 1.5 meter intervals in the vicinity of the pycnocline. Surface and bottom measurements are made at each of the other three locations.

Two bottom grabs are taken at each sampling site; the first grab for benthic invertebrates and the second for sediments. Gear type used for sample collection is determined by bottom depth. A hand operated box corer, which samples an area of 0.025 sq meters to a depth of 25 cm, is used in all strata with water depths less than 3 meters. A Wildco box corer, which samples an area of 0.022 sq meters to a maximum of depth of 23 cm, is used in deeper habitats. Sample volume and penetration depth are measured for all sample cores. Samples are sieved through a 0.5mm screen using an elutriative process. Organisms and detritus retained on the screen are transferred into labelled jars and preserved in a 10% formaldehyde solution stained with rose bengal. Benthic samples from the three random sampling locations are processed in the laboratory and the forth sample is archived. Organisms are sorted from detritus, identified to the lowest taxonomic level and counted. Species-specific ash-free dry weight biomass is estimated for 22 numerically dominant species.

Two surface-sediment subsamples of approximately 20 ml each are collected form grain size analysis from the second sample and frozen until processed in the laboratory. Silt-clay composition is determined for one of the two sediment subsamples. Sand and silt-clay particles are separated by wet-sieving through a 63 - um stainless steel sieve.

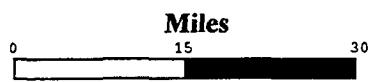
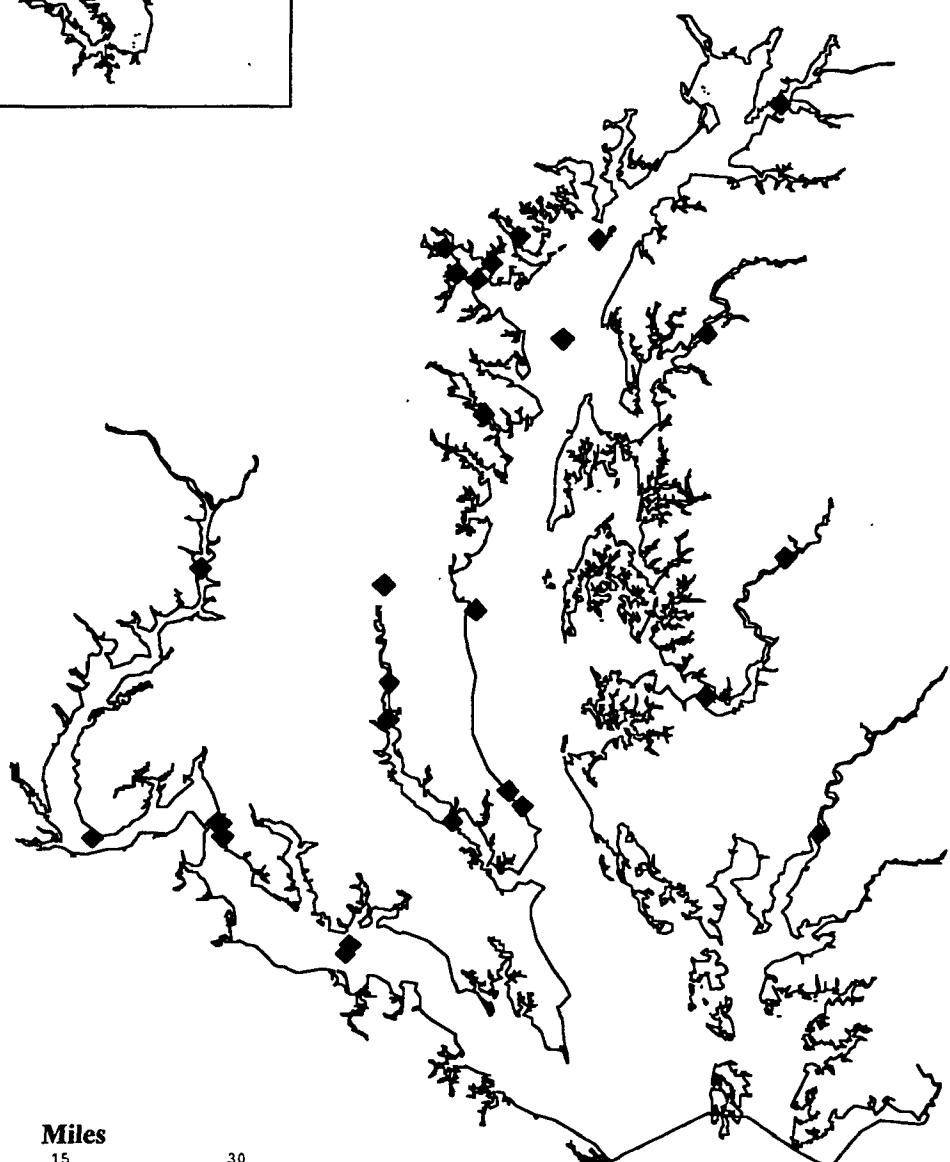
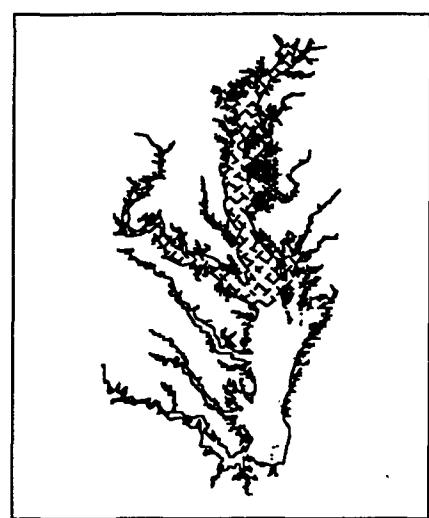
For monitoring in 1995: For more detailed information on sampling methods contact Principle Investigator.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
001	38.4198	76.4170	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE	02080101	
006	38.4423	76.4433	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE	02080101	
015	38.7150	76.5140	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE	02080101	
022	39.2548	76.5877	WT-5	PATAPSCO	BACK RIVER	02060003	
023	39.2082	76.5237	WT-5	PATAPSCO	BACK RIVER	02060003	
024	39.1220	76.3557	CB-3	CHESAPEAKE BAY	UPPER CHESAPEAKE	02060001	
026	39.2713	76.2903	CB-3	CHESAPEAKE BAY	UPPER CHESAPEAKE	02060001	
029	39.4795	75.9448	ET-2	EASTERN SHORE	ELK RIVER	02060002	
036	38.7697	77.0378	TF-2	POTOMAC	MIDDLE POTOMAC	02070008	
040	38.3573	77.2308	RET-2	POTOMAC	LOWER POTOMAC	02070011	
043	38.3840	76.9893	RET-2	POTOMAC	LOWER POTOMAC	02070011	
044	38.3855	76.9960	RET-2	POTOMAC	LOWER POTOMAC	02070011	
047	38.3642	76.9847	RET-2	POTOMAC	LOWER POTOMAC	02070011	
051	38.2053	76.7383	LE-2	POTOMAC	LOWER POTOMAC	02070011	
052	38.1922	76.7480	LE-2	POTOMAC	LOWER POTOMAC	02070011	
064	38.5903	76.0697	ET-5	CHOPTANK	CHOPTANK RIVER	02060005	
066	38.8013	75.9222	ET-5	CHOPTANK	CHOPTANK RIVER	02060005	
068	39.1328	76.0790	ET-4	EASTERN SHORE	CHESTER RIVER	02060002	
071	38.3950	76.5492	RET-1	PATUXENT	MIDDLE PATUXENT RIVER	02060006	
074	38.5488	76.6765	TF-1	PATUXENT	UPPER PATUXENT RIVER	02060006	
077	38.6043	76.6753	TF-1	PATUXENT	UPPER PATUXENT RIVER	02060006	
079	38.7503	76.6893	TF-1	PATUXENT	UPPER PATUXENT RIVER	02060006	
201	39.2341	76.4975	WT-5	PATAPSCO	BACK RIVER	02060003	
202	39.2179	76.5642	WT-5	PATAPSCO	BACK RIVER	02060003	
203	39.2750	76.4445	WT-4	PATAPSCO	BACK RIVER	02060003	
204	39.0067	76.5050	WT-7	WESTERN SHORE	SEVERN RIVER	02060004	
062	38.3838	75.8503	ET-6	EASTERN SHORE	NANTICOKE RIVER	02060008	

NOTE: STATION LOCATIONS FOR MONITORING BEGINNING IN 1995

Maryland Chesapeake Bay Water Quality Monitoring Program Benthic Component



Scale = 1:1,056,127

Note: Map contains fixed stations only

Maryland Chesapeake Bay Water Quality Monitoring Program Benthic Component

STRATUM NAME(S)	WEST LON	EAST LON	NORTH LAT	SOUTH LAT	DEPTH	DESCRIPTION
	STRATUM	STRATUM	STRATUM	STRATUM	FT.	
	LIMIT DDMMSS	LIMIT DDMMSS	LIMIT DDMMSS	LIMIT DDMMSS		
101	76 30 00	76 24 16	38 30 00	38 25 00	6-12	Calvert Cliffs
102	76 27 47	76 22 43	38 30 00	38 25 00	36-50	Calvert Cliffs
003	76 25 18	76 20 00	38 30 00	38 25 00	50-50	Calvert Cliffs
004	76 31 56	76 30 00	38 43 50	38 35 00	6-12	Holland Point
105	76 28 55	76 23 15	38 43 50	38 35 00	36-36	Holland Point
106	76 27 02	76 21 02	38 59 50	38 50 30	36-36	Bloody Point
107	76 26 02	76 14 16	39 09 58	39 02 23	12-12	Bodkin Point
108	76 23 35	76 11 00	39 18 00	39 12 57	12-12	Poole's Island
109	76 08 28	75 55 26	39 30 00	39 22 18	6- 6	Turkey Point
110	76 21 55	76 18 27	38 10 00	38 01 57	6-12	Point Lookout
111	76 24 20	76 11 13	38 10 00	38 00 00	30-30	Point Lookout
112	76 49 00	76 41 07	38 14 43	38 12 14	6-12	St Clements Island
113	76 51 15	76 41 07	38 14 20	38 09 47	24-24	St Clements Island
114	76 59 40	76 55 30	38 23 46	38 17 22	6-12	Morgantown
115	77 00 50	76 55 30	38 23 40	38 16 27	12-12	Morgantown
116	77 19 18	77 07 28	38 32 03	38 20 14	6- 6	Maryland Point
117	77 08 40	77 01 23	38 47 37	38 38 04	12-12	Rosier Bluff
118	76 17 54	76 08 48	38 38 28	38 36 42	6-12	Todd's Point
119	76 19 30	76 09 12	38 41 00	38 37 00	12-12	Todd's Point
120	76 04 53	75 56 52	38 41 04	38 33 40	6- 6	Jamaica Point
121	75 59 53	75 53 53	38 48 52	38 45 24	6- 6	King's Creek
122	76 13 47	76 06 50	39 06 33	38 58 31	6- 6	Piney Point
123	76 05 23	76 02 12	39 12 30	39 07 45	6- 6	Frying Pan Point
124	76 32 08	76 27 51	39 13 00	39 10 00	6- 6	Sparrows Point
125	76 31 13	76 29 17	39 14 53	39 12 15	6- 6	Bear Creek
126	76 35 03	76 33 06	39 13 38	39 12 02	6- 6	Curtis Bay
127	76 37 51	76 35 01	39 15 56	39 14 00	6- 6	Middle Branch
128	76 37 08	76 30 12	38 26 01	38 23 09	6-12	Broomes Island
129	76 37 08	76 30 12	38 26 01	38 22 23	12-12	Broomes Island
130	76 41 03	76 39 18	38 37 03	38 30 43	6- 6	Chalk Point
131	76 42 55	76 41 45	38 46 53	38 45 00	6- 6	Jug Bay
132	77 07 38	77 01 23	38 47 37	38 38 04	6-12	Rosier Bluff
133	76 16 40	76 15 70	39 15 50	39 15 30	12-12	Poole's Island A
134	76 15 50	76 14 85	39 17 15	39 16 40	12-12	Poole's Island B
135	76 14 60	76 13 70	39 18 98	39 18 00	12-12	Poole's Island C
136	76 23 58	76 11 00	39 18 00	39 12 95	12-12	Poole's Island D

NOTE: STRATA LOCATIONS FOR MONITORING THROUGH 1994

MARYLAND NON-TIDAL BENTHIC MACROINVERTEBRATE MONITORING PROGRAM

PROGRAM DESCRIPTION: The Maryland Non-Tidal Benthic Macroinvertebrate Monitoring Program provides data on benthic macroinvertebrates for many streams in the state. Through it, an entire network of 390 stations in the nontidal reaches of the Maryland's Chesapeake Bay Basin is sampled within a two year period. CORE stations are sampled annually.

PROGRAM OBJECTIVES: To characterize trends in water quality based on the benthic macroinvertebrate community.

DATE INITIATED: CORE Trend - 1976; Rapid Bioassessment 1990.

COORDINATING AGENCY: Maryland Department of Natural Resources
416 Chinquapin Round Road
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources (MDE prior to July 1995)
U.S. EPA Region III

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Principal Investigator	Niles Primrose	MDDNR
Principal Investigator	Walter Butler	MDDNR

PARAMETERS:

CORE/Trend - Identification to Genus or species, Diversity, Abundance, Biotic Index, EPT, %EPT,
Number of taxa, %Dominant taxa

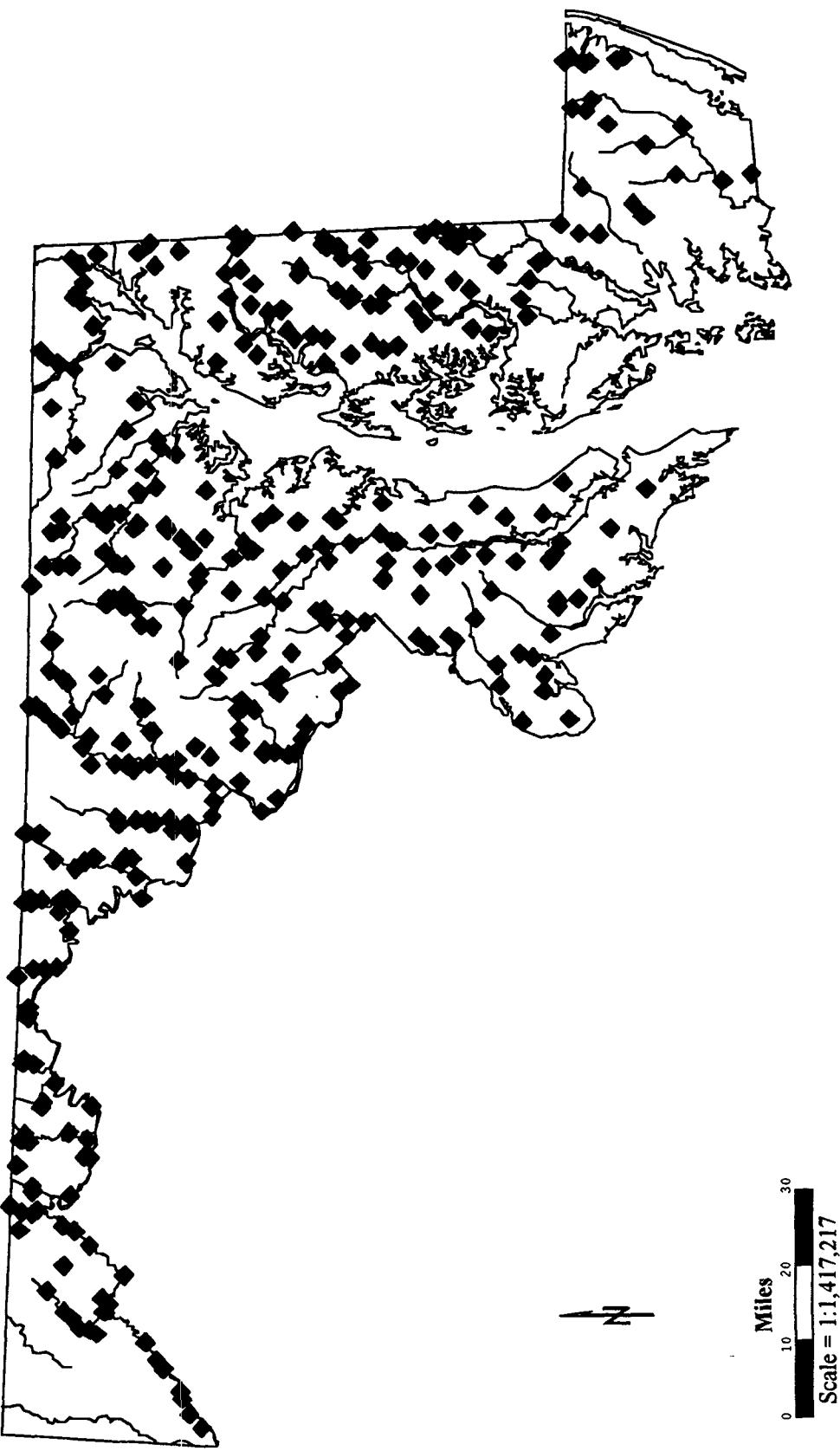
Rapid Bioassessment - Identification to Family, Number of Taxa, EPT, %EPT, Biotic Index,
Similarity Index, %Dominant Taxa, % non-insect, EPT/Chironomids,
and habitat assessment

STATIONS: There are 390 stations located throughout the nontidal reaches of Maryland's tributaries within the Chesapeake Bay basin. There are 48 stations in the CORE/TREND program and 342 stations in the Rapid Bioassessement Program.

SAMPLE COLLECTION: Sampling is conducted between May and August of every year, although all 390 stations are not covered each year. All stations are sampled at least every other year, except CORE stations, part of the EPA's national water quality monitoring network, which are sampled annually. An effort is made to collect within a week of the date of the last sampling (i.e. 1st week in June). In the Rapid Bioassessement Program samples are collected using a kick siene or dip net, and in the CORE/TREND program a Surber Sampler and multiplates sampling devices (placed in the field for about 6 weeks) are used. For the Rapid Bioassessement samples are identified to family level, and several metrics are calculated, which are compared to a reference to yield a bioscore. Habitat is also evaluated using several metrics, which are compared to a reference to yield a habitat score. For the CORE/Trend program specimens are identified to the lowest taxonomic level, and several metrics are calculated.

PROGRAM INTEGRATION: N/A

Maryland Non-Tidal Benthic Macroinvertebrate Monitoring Program



Maryland Non-Tidal Benthic Macroinvertebrate Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CSP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
ANT0044	39 27 01	77 43 55	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	ANTIETAM CREEK AT BURNSIDE BRIDGE (USGS GAGE)
ANT0203	39 35 40	77 42 40	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	ANTIETAM CREEK AT POFFENBERGERS ROAD
ANT0366	39 42 57	77 36 31	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	ANTIETAM CREEK AT ROCKY FORGE
BDK0000	39 40 13	78 47 28	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	MOUTH OF BRADDOCK RUN
BPC0035	39 36 43	77 14 15	AFL	POTOMAC	MONOCACY	2070009	BIG PIPE AT MD ROUTE 194
BRD0046	39 40 32	76 17 13	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	BROAD CREEK AT WHITEFORD RD
BYN0007	39 28 18	76 16 02	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BYNUM RUN AT MD ROUTE 7
CAC0031	39 19 59	77 34 40	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	CATOCTIN CREEK AT MD ROUTE 464
CAC0148	39 25 32	77 33 33	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	CATOCTIN CREEK AT MD ROUTE 17 (USGS GAGE)
CON0005	39 36 11	77 49 19	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	CONOCOHEAGUE CREEK AT MD ROUTE 68
CON0180	39 42 57	77 49 31	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	CONOCOHEAGUE CR AT FAIRVIEW ROAD (USGS GAGE)
CHA0006	38 22 10	76 47 07	BFL	POTOMAC	LOWER POTOMAC	2070011	CHAPTICO CREEK AT MD ROUTE 234
CJB0005	38 58 24	77 08 57	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	CABIN JOHN BRANCH AT MCARTHUR BLVD
CHO0626	38 59 49	75 47 12	BFL	EASTERN SHORE	CHOPTANK	2060005	CHOPTANK RIVER AT RED BRIDGE ROAD (USGS GAGE)
DER0015	39 37 22	76 09 53	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	DEER CREEK AT STAFFORD BRIDGE
FIF0004	39 37 40	78 23 22	AFL	POTOMAC	CACAPON-TOWN	2070003	FIFTEEN MILE CR AT FAIRVIEW ROAD (USGS GAGE)
GEO0009	39 29 37	79 02 42	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	GEORGES CREEK AT USGS GAGE
GUN0258	39 32 59	76 38 09	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GUNPOWDER FALLS AT LOWER GLENCOE ROAD
GUN0476	39 41 21	76 46 51	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GUNPOWDER FALLS AT GUNPOWDER ROAD
GUN0036	39 24 51	76 24 25	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GUNPOWDER FALLS AT MD ROUTE 7
GUN0125	39 25 32	76 31 45	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	GUNPOWDER FALLS AT CROMWELL BRIDGE ROAD
JAM0014	39 28 34	76 15 42	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	JAMES RUN AT MD ROUTE 7
HRR0015	39 18 17	76 32 20	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	HERRING RUN AT US 40
JON0184	39 23 36	76 39 44	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	JONES FALLS AT SORRENTO (USGS GAGE)
LTW0001	39 41 57	78 11 12	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	HANCOCK
LCC0001	39 36 16	77 54 36	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	LITTLE CONOCOHEAGUE CREEK AT DAM #3 ROAD
LGU0024	39 25 29	76 22 42	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	LITTLE GUNPOWDER FALLS AT MD ROUTE 7
MXT0021	39 09 36	76 51 40	AFL	PATUXENT	PATUXENT	2060006	MIDDLE PATUXENT RIVER AT MURRAYHILL ROAD
MAT0078	38 35 18	77 07 08	BFL	POTOMAC	LOWER POTOMAC	2070011	MATTAWOMAN CREEK AT MD ROUTE 225
MON0020	39 16 18	77 26 31	AFL	POTOMAC	MONOCACY	2070009	MONOCACY RIVER RT 28
MON0155	39 23 16	77 22 53	AFL	POTOMAC	MONOCACY	2070009	MONOCACY RIVER REELS MILL RD
MON0528	39 40 47	77 14 10	AFL	POTOMAC	MONOCACY	2070009	MONOCACY RIVER AT MD ROUTE 140 (USGS GAGE)
MON0269	39 28 49	77 23 23	AFL	POTOMAC	MONOCACY	2070009	MONOCACY RIVER AT BIGGS FORK ROAD
NPA0165	39 28 58	76 52 57	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NO. BRANCH PATAPSCO AT CEDARHURST (USGS GAGE)
NBP0023	39 32 13	78 36 41	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NORTH BRANCH POTOMAC RIVER AT OLDTOWN
NBP0103	39 34 57	78 43 54	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	N BRANCH POTOMAC RIVER AT BLUE SPRING
NBP0326	39 34 00	78 50 21	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	N BRANCH POTOMAC RIVER AT PINTO (USGS GAGE)
NBP0461	39 26 41	78 58 19	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NORTH BRANCH POTOMAC RIVER AT US 220
NBP0534	39 28 45	79 04 06	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NORTH BRANCH POTOMAC RIVER AT BLOOMINGTON
OCT0035	39 41 22	76 07 49	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	OCTOARO CREEK AT PORTER BRIDGE (USGS GAGE)
POK0170	38 04 34	75 34 18	BFL	EASTERN SHORE	POCOMOKE	2060009	POCOMOKE RIVER AT US 13 ALTERNATE
POK0527	38 23 20	75 19 30	BFL	EASTERN SHORE	POCOMOKE	2060009	POCOMOKE RIVER AT US ROUTE 50 (USGS GAGE)
PXT0939	39 10 02	76 59 05	AFL	PATUXENT	PATUXENT	2060006	PATUXENT RIVER AT MINK HOLLOW ROAD
PAT0195	39 14 19	76 44 47	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	PATAPSCO RIVER AT ORANGE GROVE
PXT0972	39 14 21	77 03 23	AFL	PATUXENT	PATUXENT	2060006	PATUXENT RIVER AT MD ROUTE 97
POT1183	38 56 51	77 07 38	TF-2	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	POTOMAC RIVER BELOW LITTLE FALLS
POT1471	39 09 16	77 31 18	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	POTOMAC RIVER AT WHITES FERRY (MD SIDE)
PIS0033	38 41 54	76 59 10	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	PISCATAWAY CREEK AT MD ROUTE 210
POT1595	39 16 24	77 32 38	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	POTOMAC RIVER AT POINT OF ROCK (USGS GAGE)
POT1830	39 26 06	77 48 11	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	POTOMAC RIVER AT SHEPHERDS TOWN (USGS GAGE)
POT2386	39 41 50	78 10 36	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	POTOMAC RIVER AT HANCOCK (USGS GAGE)
POT2766	39 32 19	78 27 17	AFL	POTOMAC	CACAPON-TOWN	2070003	POTOMAC RIVER AT PAW PAW (USGS GAGE)
SCC0023	39 19 60	76 43 31	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	ST. CLEMENT CREEK AT MD ROUTE 242 (USGS GAGE)
RCM0111	38 59 34	77 03 48	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	ROCK CREEK AT MD ROUTE 410
WIW0241	38 24 33	75 35 40	BFL	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	WICOMICO RIVER AT NAYLOR MILL ROAD
TOW0013	39 30 44	78 32 35	AFL	POTOMAC	CACAPON-TOWN	2070003	TOWN CREEK AT MD ROUTE 51
WIL0013	39 39 42	78 46 50	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	WILLS CREEK ONE HALF MILE ABOVE USGS GAGE
DER0282	39 39 56	76 26 31	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	DEER CREEK AT RT 165
LDC0006	39 39 44	76 26 51	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	LITTLE DEER CREEK AT RT 165
STD0001	39 36 58	76 24 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	STIRRUP RUN AT RT 24
BAS0000	39 39 41	78 08 51	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	BASIN RUN AT ROWLANDSVILLE
SNE0001	39 42 11	76 06 33	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	STONE RUNS AT HORSE SHOE RD
BIH0009	38 24 31	75 12 48	AFL	EASTERN SHORE	CHINCOTEAGUE	2060010	BIRCH BRANCH AT RT 113
BNT0012	38 27 20	75 12 24		EASTERN SHORE	CHINCOTEAGUE	2060010	BUNTING BRANCH AT RT 54 (DELAWARE)
BSH0030	38 26 32	75 11 40		EASTERN SHORE	CHINCOTEAGUE	2060010	BISHOPSVILLE PRONG AT RT 367
SBR0022	38 23 40	75 12 20		EASTERN SHORE	CHINCOTEAGUE	2060010	SOUTH BRANCH AT RT 113
BOB0001	38 18 48	75 11 40		EASTERN SHORE	CHINCOTEAGUE	2060010	BOTTLE BRANCH NEAR RT 376
KIT0005	38 19 54	75 12 10		EASTERN SHORE	CHINGOTEAGUE	2060010	KITTS BRANCH AT FLOWER RD
POK0316	38 10 28	75 24 13		EASTERN SHORE	POCOMOKE	2060009	POCOMOKE RIVER AT SNOW HILL PARK
WGR0012	38 00 34	75 32 52		EASTERN SHORE	POCOMOKE	2060009	WAGRAMS CREEK AT RT 13
BMB0024	38 24 09	75 21 29		EASTERN SHORE	POCOMOKE	2060009	BURNT MILL BRANCH AT BETHEL/WILLARDS RD
BMP0016	38 21 08	75 24 01		EASTERN SHORE	POCOMOKE	2060009	CAMPBELL DITCH AT MORRIS RD
GRV0012	38 26 12	75 21 06		EASTERN SHORE	POCOMOKE	2060009	GREEN RUN AT WILLARDS/BETHEL RD
POK0527	38 23 20	75 19 30		EASTERN SHORE	POCOMOKE	2060009	POCOMOKE RIVER AT RT 50
DIV0113	38 11 13	75 33 12		EASTERN SHORE	POCOMOKE	2060009	DIVIDING CREEK AT FIVE BRIDGES RD
NAS0101	38 15 45	75 27 48		EASTERN SHORE	POCOMOKE	2060009	KINGS CREEK AT ARDEN STATION RD
PAS0028	38 17 22	75 38 39		EASTERN SHORE	WICOMICO	2060007	PASSERDYKE CREEK RT 13
ZEP0009	38 15 50	75 40 49		EASTERN SHORE	WICOMICO	2060007	UNNAMED TRIB TO WICOMICO CRK RT 529
WIW0241	38 24 33	75 35 40		EASTERN SHORE	BLACKWATER-WICOMICO	2060007	WICOMICO RIVER AT NAYLOR MILL RD
CIC0026	38 30 57	75 49 26		EASTERN SHORE	NANTICOKE	2060008	CHICONE CREEK AT CHICONE CREEK BRIDGE RD
MKC0001	38 27 47	75 42 28		EASTERN SHORE	NANTICOKE	2060008	MOCKINGBIRD CREEK AT RT 54
QUA0010	38 22 12	75 44 20		EASTERN SHORE	NANTICOKE	2060008	QUANTICO CREEK CATCHPENNY RD
REW0072	38 25 05	75 44 05		EASTERN SHORE	NANTICOKE	2060008	REWASTICO CREEK PORTERS MILL RD
DMP0020	38 40 03	75 44 33		EASTERN SHORE	NANTICOKE	2060008	DAVIS MILL POND RELIANCE RD
FAU0001	38 42 37	75 46 36		EASTERN SHORE	NANTICOKE	2060008	FAULKNER BRANCH RT 630
HOU0025	38 43 59	75 43 43		EASTERN SHORE	NANTICOKE	2060008	HOUSTON BRANCH RT 306
MRH0025	38 45 41	75 43 24		EASTERN SHORE	NANTICOKE	2060008	MARSHYHOPE CREEK NOBLE RD
SKN0007	38 29 53	75 48 47		EASTERN SHORE	NANTICOKE	2060008	SKINNERS RUN RIVER RD
SMD0025	38 47 25	75 44 25		EASTERN SHORE	NANTICOKE	2060008	SMITHVILLE DITCH MEETINGHOUSE RD
SUB0003	38 43 54	75 45 46		EASTERN SHORE	NANTICOKE	2060008	SULLIVAN BRANCH SMITHVILLE RD
TAN0010	38 41 49	75 44 31		EASTERN SHORE	NANTICOKE	2060008	TANYARD BRANCH RT 315
WRB0005	38 36 47	75 49 58		EASTERN SHORE	NANTICOKE	2060008	WRIGHTS MILL BRANCH PALMERS MILL RD

Maryland Non-Tidal Benthic Macroinvertebrate Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
CCM0160	38 32 08	75 52 46		EASTERN SHORE	BLACKWATER	2060007	CHICAMOCOMICO RIVER BILL MILL RD
TRQ0250	38 33 16	75 56 11		EASTERN SHORE	BLACKWATER	2060007	TRANSQUAKING RIVER LINKWOOD RD
ZES0030	38 32 27	75 59 09		EASTERN SHORE	BLACKWATER	2060007	UNNAMED TRIB TO TRANSQUAKING R BEAVER NECK RD
BLG0046	38 37 48	76 02 27		EASTERN SHORE	CHOPTANK	2060005	BOLINGBROKE CREEK BEAVER DAM RD
GVN0020	38 40 36	75 54 42		EASTERN SHORE	CHOPTANK	2060005	GRAVEL RUN GRAVEL BRANCH RD
HNT0063	38 42 58	75 53 02		EASTERN SHORE	CHOPTANK	2060005	HUNTING CREEK KRAFT RD ABOVE LINCH. PND
BDB0013	39 02 05	75 46 30		EASTERN SHORE	CHOPTANK	2060005	BROADWAY BRANCH RT 287
BVB0012	38 48 41	75 58 18		EASTERN SHORE	CHOPTANK	2060005	BEAVERDAM BR RT 328
CHO0654	39 01 48	75 45 32		EASTERN SHORE	CHOPTANK	2060005	CHOPTANK RIVER RT 287
ENG0047	38 55 27	75 45 30		EASTERN SHORE	CHOPTANK	2060005	ENGLE DITCH B/W BAKER & SHEPARD RD
FOR0024	38 59 06	75 49 00		EASTERN SHORE	CHOPTANK	2060005	FORGE BRANCH HOLLY RD
FOW0020	38 47 01	75 50 57		EASTERN SHORE	CHOPTANK	2060005	FOWLING CREEK RT 16
GVB0004	38 59 41	75 46 57		EASTERN SHORE	CHOPTANK	2060005	GRAVELY BRANCH DRAPER MILL RD
HEI0002	38 51 15	75 48 49		EASTERN SHORE	CHOPTANK	2060005	HERRING RUN LEGION RD
HGE0022	38 45 53	75 56 40		EASTERN SHORE	CHOPTANK	2060005	HOG CREEK RT 578
KNS0063	38 47 19	76 00 31		EASTERN SHORE	CHOPTANK	2060005	KINGS CREEK GANNON RD
MLE0051	38 40 16	76 01 42		EASTERN SHORE	CHOPTANK	2060005	MILES CREEK WRIGHTS MILL RD
MZC0024	38 49 12	75 49 37		EASTERN SHORE	CHOPTANK	2060005	MILL CREEK CLARK RD
OLD0005	39 01 22	75 47 15		EASTERN SHORE	CHOPTANK	2060005	OLDTOWN BRANCH RT 311
SPB0008	38 56 36	75 48 45		EASTERN SHORE	CHOPTANK	2060005	SPRING BRANCH DENTON/GREENSBORO RD
TIC0046	39 06 24	75 44 28		EASTERN SHORE	CHOPTANK	2060005	TIDY ISLAND CREEK MARYDEL STATE LINE
UCS0013	38 56 03	75 51 04		EASTERN SHORE	CHOPTANK	2060005	UNNAMED TRIB TO CHOPTANK R HOLLY RD BELOW
WAC0018	38 51 15	75 49 08		EASTERN SHORE	CHOPTANK	2060005	WATTS CREEK LEGION RD
BDT0030	39 05 29	75 52 11		EASTERN SHORE	CHOPTANK	2060005	BEAVERDAM DITCH RT 313 NR INGLESIDE
BLO0002	38 58 03	75 56 42		EASTERN SHORE	CHOPTANK	2060005	BLOCKSTON BRANCH NEAR RT 481
LOM0030	39 05 11	75 50 55		EASTERN SHORE	CHOPTANK	2060005	LONG MARSH DITCH TRUNKLINE RD
NOW0006	38 54 57	75 57 33		EASTERN SHORE	CHOPTANK	2060005	NORWICH BRANCH AT RT 40
PEB0005	38 57 34	75 55 51		EASTERN SHORE	CHOPTANK	2060005	PINEY BRANCH EVELAND RD
UIA0019	38 52 58	75 55 32		EASTERN SHORE	CHOPTANK	2060005	UNNAMED TRIB TO TUCKAHOE RIVER DEER BRANCH RD
UIB0014	38 53 26	75 57 36		EASTERN SHORE	CHOPTANK	2060005	UNNAMED TRIB TO TUCKAHOE RIVER EASTON RD
UMO0002	38 59 55	75 55 01		EASTERN SHORE	CHOPTANK	2060005	UNNAMED TRIB TO MASON'S BRANCH CHERRY LANE
PTS0011	38 50 53	76 04 54		EAST CHESAPEAKE	MILES	2060002	POTTS CREEK RABBIT HILL RD
MAB0019	38 57 38	76 06 38		EAST CHESAPEAKE	WYE	2060002	MADAM ALICE BRANCH ARRINGTON RD
MZL0015	38 54 39	76 04 25		EAST CHESAPEAKE	WYE	2060002	MILL CREEK RT 50
SKP0030	38 52 51	76 05 42		EAST CHESAPEAKE	WYE	2060002	SKIPTON CREEK RT 662
WYE0114	38 57 38	76 06 36		EAST CHESAPEAKE	WYE	2060002	WYE RIVER RT 456
REE0038	39 01 27	76 08 20		EAST CHESAPEAKE	CHESTER	2060002	REED CREEK TILGHMAN NECK RD
EFL0070	39 11 12	76 06 50		EAST CHESAPEAKE	CHESTER	2060002	EAST FORK OF LANKFORD CREEK
OMS0028	39 01 23	76 03 51		EAST CHESAPEAKE	CHESTER	2060002	OLD MILL STREAM BRANCH
TBB0005	39 03 15	76 03 16		EAST CHESAPEAKE	CHESTER	2060002	THREE BRIDGES BRANCH RT 213
BWN0017	39 09 40	75 59 03		EAST CHESAPEAKE	CHESTER	2060002	BROWNS BRANCH RT 213
GFB0019	39 06 55	76 02 28		EAST CHESAPEAKE	CHESTER	2060002	GRANNY FINLEY BRANCH FRIEL FARM RD
ILS0058	39 05 53	76 03 50		EAST CHESAPEAKE	CHESTER	2060002	ISLAND CREEK COON BOX RD
SEB0059	39 07 58	75 58 35		EAST CHESAPEAKE	CHESTER	2060002	SOUTHEAST CREEK RT 19
UAG0002	39 07 47	75 58 38		EAST CHESAPEAKE	CHESTER	2060002	UNNAMED TRIB TO SOUTHEAST CRK
MGN0062	39 16 47	76 00 53		EAST CHESAPEAKE	CHESTER	2060002	MORGAN CREEK PERKINS MILL RD
RAD0025	39 13 08	76 04 49		EAST CHESAPEAKE	CHESTER	2060002	RADCLIFFE CREEK RT 20/514
AND0019	39 14 20	75 47 21		EAST CHESAPEAKE	CHESTER	2060002	ANDOVER BRANCH BLANCO RD
FOB0037	39 12 14	75 57 48		EAST CHESAPEAKE	CHESTER	2060002	FOREMAR BRANCH HOFFECKER RD
GRF0006	39 13 07	75 45 40		EAST CHESAPEAKE	CHESTER	2060002	GRAVEL RUN STULLTOWN BLANCO RD
MZB0006	39 15 52	75 52 06		EAST CHESAPEAKE	CHESTER	2060002	MILLS BRANCH RT 291 NR RT 301
RLB0042	39 11 50	75 53 56		EAST CHESAPEAKE	CHESTER	2060002	RED LION BRANCH RT 290
SEE0027	39 14 38	75 44 56		EAST CHESAPEAKE	CHESTER	2060002	SEWELL BRANCH RD 0.5 MI EAST OF MD LINE
UNI0021	39 13 51	75 51 22		EAST CHESAPEAKE	CHESTER	2060002	UNICORN BRANCH HACKETT'S CORNER RD
UVE0013	39 15 24	75 56 26		EAST CHESAPEAKE	CHESTER	2060002	UNNAMED TRIB TO CHESTER RIVER RT 291 NR CHERRY
UAU0010	39 26 47	75 46 42		UPPER CHESAPEAK	ELK	2060002	UNNAMED TRIB TO GR. BOHEMIA SANDY BR RD
UEV0005	39 28 26	75 48 30		UPPER CHESAPEAK	ELK	2060002	UNNAMED TRIB TO GR. BOHEMIA BUCKSWORTH RD
UXP0010	39 26 02	75 50 54		UPPER CHESAPEAK	ELK	2060002	MILL CREEK ELK NECK RD
MIK0009	39 36 04	75 53 53		UPPER CHESAPEAK	ELK	2060002	PERCH CREEK RT 213
PER0015	39 34 15	75 48 39		UPPER CHESAPEAK	ELK	2060002	LONG BRANCH KNIGHTS CORNER RD
LON0019	39 34 14	75 48 51		UPPER CHESAPEAK	ELK	2060002	LITTLE ELK CREEK
LEL0024	39 36 43	75 51 00		UPPER CHESAPEAK	ELK	2060002	BIG ELK RIVER RICKETTS MILL RD
BEL0060	39 37 49	75 49 32		UPPER CHESAPEAK	ELK	2060002	NORTHEAST CREEK MECHANICS VALLEY RD
LNE0008	39 37 03	75 55 49		UPPER CHESAPEAK	NORTHEAST RIVER	2060002	NORTHEAST CREEK LUMBS RD
NOC0031	39 37 38	75 56 40		UPPER CHESAPEAK	NORTHEAST RIVER	2060002	STONY RUN RAZOR STRAP RD
STR0014	39 36 24	75 57 32		UPPER CHESAPEAK	NORTHEAST RIVER	2060002	PRINCIPIO CREEK RT 7
PRI0013	39 34 41	76 01 53		UPPER CHESAPEAK	NORTHEAST RIVER	2060002	SASSAFRAS RIVER RT 299
SAS0257	39 22 41	75 48 04		UPPER CHESAPEAK	NORTHEAST RIVER	2060002	MILL CREEK NEWTON ST JAMES RD
MLQ0018	39 16 50	76 08 28		UPPER CHESAPEAK	NORTHEAST RIVER	2060003	WINTERS RUN MILL RD
WIN0080	39 29 51	76 21 14		WEST CHESAPEAKE	GUNPOWDER	2060003	SWAN CREEK RT 40
SWA0048	39 31 23	76 08 34		WEST CHESAPEAKE	GUNPOWDER	2060003	LONG GREEN RUN HARFORD RD
LOG0011	39 26 57	76 28 23		WEST CHESAPEAKE	GUNPOWDER	2060003	WHITEMARSH RUN EBENEZER RD
WHR0006	39 22 44	76 25 30		WEST CHESAPEAKE	GUNPOWDER	2060003	LITTLE GUNPOWDER RIVER BALDWIN MILL RD
LGU0137	39 30 54	76 28 37		WEST CHESAPEAKE	GUNPOWDER	2060003	BEETREE RUN BENTLEY RD
BET0002	39 40 20	76 40 29		WEST CHESAPEAKE	GUNPOWDER	2060003	BEAVER DAM RUN RT 83
BEV0018	39 28 29	76 39 49		WEST CHESAPEAKE	GUNPOWDER	2060003	BLACK ROCK RUN STRINGTOWN RD
BLK0014	39 32 38	76 43 58		WEST CHESAPEAKE	GUNPOWDER	2060003	CHARLES RUN MONKTON RD
CHD0003	39 34 34	76 36 41		WEST CHESAPEAKE	GUNPOWDER	2060003	CAROL BRANCH CAROLL RD
CLB0014	39 32 03	76 36 59		WEST CHESAPEAKE	GUNPOWDER	2060003	DELAWARE RUN BELMONT RD
DLW0003	39 29 39	76 46 36		WEST CHESAPEAKE	GUNPOWDER	2060003	DULANEY VALLEY BRANCH LOCH RAVEN RD
DVB0000	39 28 00	76 32 42		WEST CHESAPEAKE	GUNPOWDER	2060003	GREENE BRANCH PHOENIX RD
GB0006	39 30 24	76 36 49		WEST CHESAPEAKE	GUNPOWDER	2060003	GOODWIN RUN BEAVER DAM RD
G00012	39 27 51	76 38 42		WEST CHESAPEAKE	GUNPOWDER	2060003	INDIAN RUN FALLS RD
IND0001	39 32 31	76 44 09		WEST CHESAPEAKE	GUNPOWDER	2060003	LITTLE FALLS EAGLE MILL RD
LIT0093	39 40 06	76 40 42		WEST CHESAPEAKE	GUNPOWDER	2060003	MCGILL RUN BUTLER RD
MCG0002	39 30 52	76 46 06		WEST CHESAPEAKE	GUNPOWDER	2060003	OWL BRANCH PARKTON
OWL0001	39 38 45	76 39 46		WEST CHESAPEAKE	GUNPOWDER	2060003	PINEY RUN BUTLER RD
PIU0016	39 31 17	76 46 00		WEST CHESAPEAKE	GUNPOWDER	2060003	PINEY CREEK YORK RD
PYC0011	39 32 22	76 38 56		WEST CHESAPEAKE	GUNPOWDER	2060003	SECOND MINE BRANCH WHITE HALL RD
SMB0001	39 37 24	76 46 47		WEST CHESAPEAKE	GUNPOWDER	2060003	THIRD MINE BRANCH TYSON RD
TMB0019	39 39 00	76 37 37		WEST CHESAPEAKE	GUNPOWDER	2060003	GEORGES RUN GEORGES CREEK RD
GOB0042	39 37 31	76 46 22		WEST CHESAPEAKE	GUNPOWDER	2060003	

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STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE CBP DDMMSS	SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
GRG0013	39 39 15	76 46 47		WEST CHESAPEAKE	GUNPOWDER	2060003	GRAVE RUN BECKLEYSVILLE RD
GUN0522	39 42 58	76 50 21		WEST CHESAPEAKE	GUNPOWDER	2060003	GUNPOWDER RIVER LINEBORO
MRL0034	39 08 39	76 36 23		WEST CHESAPEAKE	PATAPSCO	2060003	MARLEY CREEK RT 2
SAW0016	39 10 12	76 37 53		WEST CHESAPEAKE	PATAPSCO	2060003	SAWMILL CREEK
UQQ0005	39 23 55	76 38 55		WEST CHESAPEAKE	PATAPSCO	2060003	ROLAND RUN RUXTON RD
DDR0001	39 18 18	76 41 11		WEST CHESAPEAKE	PATAPSCO	2060003	DEAD RUN LEAKIN PARK
GWN0115	39 20 34	76 43 36		WEST CHESAPEAKE	PATAPSCO	2060003	GWYNNS FALLS LIBERTY RD
RDR0001	39 24 19	76 46 42		WEST CHESAPEAKE	PATAPSCO	2060003	RED RUN PAINTERS MILL RD
DGW0002	39 19 02	76 47 35		WEST CHESAPEAKE	PATAPSCO	2060003	DOGWOOD RUN HOLLOWFIELD RD
DXC0024	39 11 23	76 43 10		WEST CHESAPEAKE	PATAPSCO	2060003	DEEP CREEK DEEP RUN RANCH - HANOVER RD
EBH0000	39 21 39	76 41 28		WEST CHESAPEAKE	PATAPSCO	2060003	HERBERT RUN RT 1
MAM0002	39 19 19	76 49 23		WEST CHESAPEAKE	PATAPSCO	2060003	MARCELL RUN WRIGHTS MILL RD
SXR0002	39 12 40	76 41 47		WEST CHESAPEAKE	PATAPSCO	2060003	STONY RUN RT 168
ZFI0001	39 12 10	76 43 16		WEST CHESAPEAKE	PATAPSCO	2060003	UNNAMED TRIBUTARY TO DEEP CREEK HANOVER RD
BEA0016	39 29 24	76 54 09		WEST CHESAPEAKE	PATAPSCO	2060003	BEAVER RUN HUGHES RD
DYP0009	39 32 04	76 52 34		WEST CHESAPEAKE	PATAPSCO	2060003	DEEP RUN EMERY RD
EWP0000	39 32 12	76 53 32		WEST CHESAPEAKE	PATAPSCO	2060003	EAST BRACH PATAPSCO SANDY MOUNT/WESLEY RD
LMR0015	39 25 35	76 57 39		WEST CHESAPEAKE	PATAPSCO	2060003	LITTLE MORGAN RUN BARTHOLOW RD
MDE0026	39 27 47	76 54 27		WEST CHESAPEAKE	PATAPSCO	2060003	MIDDLE RUN LOUISVILLE RD
MOR0040	39 27 07	76 57 19		WEST CHESAPEAKE	PATAPSCO	2060003	MORGAN RUN LONDON BRIDGE RD
NPA0165	39 31 08	76 52 33		WEST CHESAPEAKE	PATAPSCO	2060003	PATAPSCO RIVER LAWNDALE
UNP0002	39 29 40	76 52 05		WEST CHESAPEAKE	PATAPSCO	2060003	UNNAMED TRIBUTARY TO LIBERTY RES
UZP0002	39 29 47	76 52 13		WEST CHESAPEAKE	PATAPSCO	2060003	UNNAMED TRIB LIBERTY RES HOLLINGSWORTH RD
WBP0000	39 32 16	76 53 37		WEST CHESAPEAKE	PATAPSCO	2060003	WEST BRANCH PATAPCO
GIL0000	39 21 43	77 03 54		WEST CHESAPEAKE	PATAPSCO	2060003	GILLIS FALLS
PIR0002	39 21 12	76 53 49		WEST CHESAPEAKE	PATAPSCO	2060003	PINEY RUN
SPB0125	39 21 43	77 03 58		WEST CHESAPEAKE	PATAPSCO	2060003	SOUTH BRANCH PATAPCO WOODBINE
JAB0000	39 04 54	76 37 50		WEST CHESAPEAKE	SEVERN	2060004	JABEZ BRANCH CECIL AVE
SER0011	39 05 06	76 38 01		WEST CHESAPEAKE	SEVERN	2060004	SEVERN RUN DISCUS MILL RD
BRB0013	39 00 00	76 36 54		WEST CHESAPEAKE	SOUTH RIVER	2060004	BACON RIDGE BRANCH CHESTERFIELD
NTH0012	38 59 17	76 37 31		WEST CHESAPEAKE	SOUTH RIVER	2060004	NORTH RIVER RT 450
MDC0016	38 52 46	76 33 59		WEST CHESAPEAKE	RHODE RIVER	2060004	MUDGY CREEK OLD MUDGY CREEK RD
BAT0040	38 29 36	76 35 35		WEST CHESAPEAKE	PATUXENT	2060006	BATTLE CREEK RT 506
BSW0024	38 38 00	76 43 24		WEST CHESAPEAKE	PATUXENT	2060006	BLACK SWAMP CREEK RT 382
FSC0039	38 39 02	76 34 12		WEST CHESAPEAKE	PATUXENT	2060006	FISHING CREEK DALRYMPLE BRANCH
HAC0045	38 42 32	76 39 08		WEST CHESAPEAKE	PATUXENT	2060006	HALL CREEK RT 4
HNG0063	38 35 01	76 36 16		WEST CHESAPEAKE	PATUXENT	2060006	HUNTING CREEK RT 2
KLP0026	38 28 40	76 44 03		WEST CHESAPEAKE	PATUXENT	2060006	KILL PECK CREEK ALL FAITHS PLAIN RD
LSC0022	38 27 50	76 42 49		WEST CHESAPEAKE	PATUXENT	2060006	LOCKS SWAMP CREEK RT 6
PRS0013	38 27 04	76 40 47		WEST CHESAPEAKE	PATUXENT	2060006	PERSIMMON CREEK RT 6
SLE0055	38 26 55	76 29 42		WEST CHESAPEAKE	PATUXENT	2060006	ST LEONARDS CREEK RT 2
SPK0016	38 41 28	76 43 34		WEST CHESAPEAKE	PATUXENT	2060006	SPICE CREEK RT 382
SWS0044	38 33 30	76 44 23		WEST CHESAPEAKE	PATUXENT	2060006	SWANSON CREEK RT 381 COUNTY LINE
FER0008	38 50 32	76 41 15		WEST CHESAPEAKE	PATUXENT	2060006	FERRY BRANCH SANDS RD
LYN0023	38 45 49	76 39 35		WEST CHESAPEAKE	PATUXENT	2060006	LYONS CREEK RT 260
MTI0041	38 43 36	76 45 17		WEST CHESAPEAKE	PATUXENT	2060006	MATTAPONI CREEK RT 382
ROB0002	38 51 15	76 41 14		WEST CHESAPEAKE	PATUXENT	2060006	ROCK BRANCH SANDS RD
STK0009	38 53 00	76 39 47		WEST CHESAPEAKE	PATUXENT	2060006	STOCKETTS RUN SANDS RD
CHL0028	38 46 56	76 45 46		WEST CHESAPEAKE	PATUXENT	2060006	CHARLES BRANCH CROOM STATIONS RD
CLN0037	38 52 06	76 44 48		WEST CHESAPEAKE	PATUXENT	2060006	COLLINGTON BRANCH LEELAND RD
SWB0002	38 52 32	76 48 10		WEST CHESAPEAKE	PATUXENT	2060006	SOUTHWEST BRANCH RT 202
WXT0221	38 52 30	76 47 52		WEST CHESAPEAKE	PATUXENT	2060006	WESTERN BRANCH RT 202
HRP0005	39 00 29	76 44 46		WEST CHESAPEAKE	PATUXENT	2060006	HORSEPEN BRANCH BOWIE RACE TRACK RD
PXT0603	38 57 20	76 41 40		WEST CHESAPEAKE	PATUXENT	2060006	PATUXENT RIVER RT 50
PXT0809	39 07 00	76 52 31		WEST CHESAPEAKE	PATUXENT	2060006	PATUXENT RIVER BELOW DAM
DOR0011	39 07 15	76 46 54		WEST CHESAPEAKE	PATUXENT	2060006	DORSEY RUN GUILFORD RD
LXT0274	39 14 22	76 50 50		WEST CHESAPEAKE	PATUXENT	2060006	LITTLE PATUXENT RIVER RT 108
MW0004	39 03 52	76 43 52		WEST CHESAPEAKE	PATUXENT	2060006	MIDWAY BRANCH RANGE RD
TOS0000	39 01 23	76 42 09		WEST CHESAPEAKE	PATUXENT	2060006	TOWERS BRANCH EVERGREEN RD
HAW0017	39 10 35	77 01 53		WEST CHESAPEAKE	PATUXENT	2060006	HAWLINGS RIVER GOLDMINE RD
ZFG0000	39 10 22	77 01 47		WEST CHESAPEAKE	PATUXENT	2060006	UNNAMED TRIB TO HAWLINGS RIVER
CAI0008	39 16 37	77 06 20		WEST CHESAPEAKE	PATUXENT	2060006	CABIN BRANCH HIPSLEYS MILL RD
CTC0019	39 15 20	77 03 06		WEST CHESAPEAKE	PATUXENT	2060006	CATTAIL CREEK RT 97
PXT1066	39 15 57	77 06 57		WEST CHESAPEAKE	PATUXENT	2060006	PATUXENT RIVERHIPSLEYS MILL RD
RER0004	38 32 00	77 13 36		POTOMAC	LOWER POTOMAC	2070011	REEDER RUN RT 224
SMR0130	38 15 03	76 30 28		POTOMAC	LOWER POTOMAC	2070011	ST MARYS RIVER INDIAN BR RD
MCN0047	38 20 00	76 37 56		POTOMAC	LOWER POTOMAC	2070011	MCINTOSH RUN RT 5
BDD0021	38 24 25	76 50 47		POTOMAC	WICOMICO	2080102	BUDDS CREEK RT 234
COF0000	38 22 17	76 47 02		POTOMAC	WICOMICO	2080102	COFFEE HILL RUN RT 234
GTC0031	38 27 18	76 52 19		POTOMAC	WICOMICO	2080102	GILBERT CREEK RT 232
HYD0002	38 22 19	76 46 52		POTOMAC	WICOMICO	2080102	HAYDEN RUN RT 234
TCR0008	38 27 20	76 51 12		POTOMAC	WICOMICO	2080102	TRINITY CHURCH RUN DUBOIS SYCAMORE RD
CLA0019	38 28 20	76 57 22		POTOMAC	WICOMICO	2080102	CLARK RUN NEWTOWN RD
ZEK0157	38 36 52	76 49 55		POTOMAC	WICOMICO	2080102	ZEKIAH CREEK RT 382
HOG0004	38 30 43	77 01 45		POTOMAC	LOWER POTOMAC	2070011	HOGHOLE RUN RT 6
PTC0026	38 32 33	77 01 04		POTOMAC	LOWER POTOMAC	2070011	PORT TABACCO RUN RT 225
MYL0110	38 28 55	77 05 05		POTOMAC	LOWER POTOMAC	2070011	MILL RUN RT 6
NAJ0110	38 25 20	77 12 50		POTOMAC	NANJEMOY	2070011	NANJEMOY CREEK HANCOCK RD
WDS0018	38 29 00	77 07 57		POTOMAC	NANJEMOY	2070011	WARDS RUN RT 6
MAT0224	38 39 08	76 54 53		POTOMAC	LOWER POTOMAC	2070011	MATTAWOMAN CREEK ACTON LANE
ODR0045	38 35 48	77 03 21		POTOMAC	LOWER POTOMAC	2070011	OLD WOMANS RUN RT 227
BKD0022	38 45 36	77 00 05		POTOMAC	LOWER POTOMAC	2070011	BROAD CREEK OXEN HILL RD
HEN0026	38 47 20	76 58 37		POTOMAC	LOWER POTOMAC	2070011	HENSON CREEK TUCKER RD
BRK0006	39 07 05	77 28 51		POTOMAC	MIDDLE POTOMAC	2070010	BROAD RUN RIVER RD
LMO0038	39 12 31	77 25 55		POTOMAC	MIDDLE POTOMAC	2070010	LITTLE MONOCACY RIVER RT 28
MUB0007	39 03 47	77 17 41		POTOMAC	MIDDLE POTOMAC	2070010	MUDGY BRANCH RIVER RD RT 190
WAT0010	39 03 11	77 15 11		POTOMAC	MIDDLE POTOMAC	2070010	WATTS BRANCH LAKE POTOMAC DRIVE
PIS0164	38 47 06	76 50 39		POTOMAC	MIDDLE POTOMAC	2070010	PISCATAWAY CREEK PICATAWAY RD
TIN0006	38 42 48	76 58 14		POTOMAC	MIDDLE POTOMAC	2070010	TINKER CREEK GALLAHAN RD
BDM0008	38 54 59	76 55 53		POTOMAC	ANACOSTIA	2070010	BEAVER DAM RUN KENILWORTH AQUATIC GARDENS
BED0000	39 00 59	76 53 48		POTOMAC	ANACOSTIA	2070010	BEAVER DAM CREEK RT 201
INC0045	39 02 01	76 54 05		POTOMAC	ANACOSTIA	2070010	INDIAN CREEK SUNSHINE RD

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STATION NAME(S)	LATITUDE DDMRSS	LONGITUDE DDMRSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
LPB0000	39 00 25	76 55 59		POTOMAC	ANACOSTIA	2070010	LITTLE PAINT BRANCH UNIV BLVD PARK NR RT 1
NEB0016	38 57 35	76 55 36		POTOMAC	ANACOSTIA	2070010	NORTHEAST BR. ANACOSTIA RIVERDALE RD
NWA0160	39 05 37	77 02 04		POTOMAC	ANACOSTIA	2070010	NORTHWEST BRANCH ANACOSTIA BONIFANT RD
PNT0026	39 00 23	76 56 00		POTOMAC	ANACOSTIA	2070010	PAINT BRANCH UNIV BLVD PARK NER RT 1
SLI0002	38 57 42	76 58 37		POTOMAC	ANACOSTIA	2070010	SLIGO CREEK OLIVER STREET
RCM0280	39 08 13	77 07 43		POTOMAC	MIDDLE POTOMAC	2070010	ROCK CREEK MUNCASTER MILL RD
ZFF0018	39 07 16	77 09 25		POTOMAC	MIDDLE POTOMAC	2070010	UNNAMED TRIBUTARY ROCK CREEK REDLAND RD
ZNB0016	39 07 05	77 06 05		POTOMAC	MIDDLE POTOMAC	2070010	NORTH BRANCH ROCK CREEK MUNCASTER MILL RD
BL80006	39 09 10	77 20 31		POTOMAC	MIDDLE POTOMAC	2070010	BUCKLIDGE BRANCH WHITE GROUNDS RD
CBN0107	39 10 42	77 12 39		POTOMAC	MIDDLE POTOMAC	2070010	CABIN BRANCH WATKINS MILL RD
DSE0004	39 05 38	77 20 49		POTOMAC	MIDDLE POTOMAC	2070010	DRY SENECA CREEK MONTVIDEO RD
GOS0013	39 12 31	77 11 00		POTOMAC	MIDDLE POTOMAC	2070010	GOSHEN BRANCH HUNTMMASTER RD
GSE0128	39 12 34	77 12 23		POTOMAC	MIDDLE POTOMAC	2070010	GREAT SENECA CREEK HUNTMMASTER RD
LSN0007	39 09 04	77 20 05		POTOMAC	MIDDLE POTOMAC	2070010	LITTLE SENECA CREEK SCHAEFFER RD
LSN0082	39 12 52	77 16 15		POTOMAC	MIDDLE POTOMAC	2070010	LITTLE SENECA CREEK WEST OLD BALTIMORE RD
SEN0008	39 04 46	77 20 24		POTOMAC	MIDDLE POTOMAC	2070010	SENECA CREEK RIVER RD
SEN0056	39 07 40	77 20 08		POTOMAC	MIDDLE POTOMAC	2070010	SENECA CREEK RT 107
TEN0030	39 12 39	77 18 39		POTOMAC	MIDDLE POTOMAC	2070010	TENMILE CREEK TENMILE CREEK RD
WLD0003	39 13 03	77 12 51		POTOMAC	MIDDLE POTOMAC	2070010	WILDCAT BRANCH DAVIS MILL RD
ISL0005	39 19 54	77 41 10		POTOMAC	MIDDLE POTOMAC	2070010	ISREAL CREEK RT 340
LCA0021	39 19 22	77 35 39		POTOMAC	MIDDLE POTOMAC	2070010	LITTLE CATOCTIN CREEK RT 464
TUC0024	39 16 07	77 29 33		POTOMAC	MIDDLE POTOMAC	2070010	TUSCARORA CREEK RT 28
BEN0089	39 19 03	77 19 40		POTOMAC	MONOCACY	2070009	BENNETT CREEK BIG WOODS RD
BES0002	39 25 15	77 17 08		POTOMAC	MONOCACY	2070009	BENS BRANCH SAN ANDREW RD
BNG0005	39 21 50	77 25 06		POTOMAC	MONOCACY	2070009	BALLINGER CREEK NEW DESIGN RD
BSC0013	39 21 35	77 22 14		POTOMAC	MONOCACY	2070009	BUSH CREEK REELS MILL RD
CAR0001	39 25 38	77 23 01		POTOMAC	MONOCACY	2070009	CARROLL CREEK FREDERICK STP ENTRANCE
CGN0003	39 29 34	77 19 09		POTOMAC	MONOCACY	2070009	CABBAGE RUN DAYSVILLE RD
FAH0013	39 19 04	77 19 39		POTOMAC	MONOCACY	2070009	FAHRNEY BRANCH BIG WOODS RD
ISR0065	39 34 08	77 18 13		POTOMAC	MONOCACY	2070009	ISREAL CREEK CASH SMITH RD
LBE0001	39 16 47	77 21 34		POTOMAC	MONOCACY	2070009	LITTLE BENNETT CREEK COVELL RD
LIN0072	39 25 36	77 17 00		POTOMAC	MONOCACY	2070009	LINGANORE CREEK GASHOUSE PIKE RD
NFL0006	39 27 09	77 12 43		POTOMAC	MONOCACY	2070009	NORTH FORK LINGANORE CREEK DOLLYHYDE RD
RFR0001	39 19 52	77 25 37		POTOMAC	MONOCACY	2070009	ROCKY FOUNTAIN RUN MICHAELS MILL RD
SFL0011	39 26 26	77 12 44		POTOMAC	MONOCACY	2070009	SOUTH FORK LINGANORE CREEK
AAL0000	39 41 56	77 12 57		POTOMAC	MONOCACY	2070009	ALLOWAY CREEK McMULLEN RD
FIS0006	39 30 26	77 23 04		POTOMAC	MONOCACY	2070009	FISHING CREEK LENHART RD
GLA0004	39 28 35	77 23 06		POTOMAC	MONOCACY	2070009	GLADE CREEK RETREAT RD
HUN0030	39 33 52	77 23 20		POTOMAC	MONOCACY	2070009	HUNTING CREEK WILHIDE RD
LHC0000	39 33 52	77 23 21		POTOMAC	MONOCACY	2070009	LITTLE HUNTING CREEK WILHIDE RD
MON0575	39 42 49	77 12 54		POTOMAC	MONOCACY	2070009	MONOCACY RIVER CONOVER RD
OWN0007	39 35 07	77 20 10		POTOMAC	MONOCACY	2070009	OWENS CREEK LINGS MILL RD
PIN0000	39 39 18	77 15 53		POTOMAC	MONOCACY	2070009	PINEY CREEK BAUMGARDNERS RD
TOM0003	39 38 23	77 16 57		POTOMAC	MONOCACY	2070009	TOMS CREEK SIXES RD
TUS0018	39 27 50	77 24 14		POTOMAC	MONOCACY	2070009	TUSCARORA CREEK WILLOWBROOK RD
BEB0009	39 38 08	77 07 41		POTOMAC	MONOCACY	2070009	BEAR BRANCH RT 32
BPC0213	39 39 41	77 00 31		POTOMAC	MONOCACY	2070009	BIG PIPE CREEK SAW MILL RD
DPN0001	39 40 07	77 00 42		POTOMAC	MONOCACY	2070009	DEEP RUN DEEP RUN RD
LPC0144	39 33 09	77 06 51		POTOMAC	MONOCACY	2070009	LITTLE PIPE CREEK LADISBURG RD
MEB0000	39 37 29	77 08 27		POTOMAC	MONOCACY	2070009	MEADOW BRANCH CLEARVIEW RD
SAM0028	39 32 12	77 10 17		POTOMAC	MONOCACY	2070009	SAMS CREEK LEHIGH RD
SIL0001	39 40 02	77 06 10		POTOMAC	MONOCACY	2070009	SILVER RUN STONE RD
FLI0015	39 42 07	78 33 55		POTOMAC	TOWN	2070003	FLINTSTONE CREEK MAIN STREET FIREHOUSE
MPE0009	39 35 25	78 32 17		POTOMAC	TOWN	2070003	MAPLE RUN NEAR FORD OF TOWN CREEK RD
MYB0008	39 41 06	78 34 07		POTOMAC	TOWN	2070003	MURLEY BRANCH WARM SPRINGS RD
SPT0010	39 32 44	78 33 18		POTOMAC	TOWN	2070003	SAWFIT RUN RT 51
TOW0246	39 41 39	78 32 53		POTOMAC	TOWN	2070003	TOWN CREEK RT 40
MNB0013	39 33 02	78 36 37		POTOMAC	NORTH BRANCH	2070002	MILL RUN OLD BRADDOCK TRAIL
SSR0001	39 32 28	78 36 21		POTOMAC	NORTH BRANCH	2070002	SEVEN SPRINGS RUN OLDTOWN RD
WRO0009	39 35 45	78 49 32		POTOMAC	NORTH BRANCH	2070002	WARRIOR RUN
ELL0008	39 40 26	78 42 30		POTOMAC	NORTH BRANCH	2070002	ELK LICK RUN
EVI0060	39 40 21	78 43 22		POTOMAC	NORTH BRANCH	2070002	EVITTS CREEK ALLI GHAN RD
RKG0039	39 42 39	78 38 37		POTOMAC	NORTH BRANCH	2070002	ROCKY GAP CREEK PLEASANT VALLEY RD
JEN0000	39 41 39	78 47 12		POTOMAC	NORTH BRANCH	2070002	JENNINGS RUN RT 36
NJE0002	39 41 58	78 50 39		POTOMAC	NORTH BRANCH	2070002	NORTH BRANCH JENNINGS RUN BARRELVILLE
WIL0067	39 43 21	78 46 10		POTOMAC	NORTH BRANCH	2070002	WILLS CREEK ELLERSLIE
GEO0009	39 29 37	79 02 42		POTOMAC	NORTH BRANCH	2070002	GEORGES RUN RT 36 (GAGE)
GEO0114	39 35 29	78 56 59		POTOMAC	NORTH BRANCH	2070002	GEORGES RUN NORTH OF MIDLAND RT 36
GLR0000	39 18 03	79 19 31		POTOMAC	NORTH BRANCH	2070002	GLADE RUN BETWEEN GORMAN AND STEYER
LNB0014	39 14 39	79 25 46		POTOMAC	NORTH BRANCH	2070002	LAUREL RUN DOBBIN RD
LOS0002	39 21 41	79 14 00		POTOMAC	NORTH BRANCH	2070002	LOSTLAND RUN NEAR CONFLE WITH POTOMAC
LRE0000	39 20 34	79 15 30		POTOMAC	NORTH BRANCH	2070002	LAUREL RUN LAUREL RUN RD NEAR POTOMAC
MRW0011	39 31 50	78 52 57		POTOMAC	NORTH BRANCH	2070002	MILL RUN RT 220 OFF LILAC CT
NBP0528	39 28 35	79 03 40		POTOMAC	NORTH BRANCH	2070002	NORTH BRANCH POTOMAC PIEDMONT
NBP0534	39 28 45	79 04 06		POTOMAC	NORTH BRANCH	2070002	NORTH BRANCH POTOMAC LUKE
NBP0689	39 23 21	79 10 47		POTOMAC	NORTH BRANCH	2070002	NORTH BRANCH POTOMAC KITZMILLER
NYD0000	39 17 38	79 20 42		POTOMAC	NORTH BRANCH	2070002	NYEDEGGAR RUN AT GORMANIA
SHE0008	39 16 35	79 23 23		POTOMAC	NORTH BRANCH	2070002	SHIELDS RUN WILSON/CORONA RD
BRU0003	39 32 46	79 08 33		POTOMAC	SAVAGE	2070002	BIG RUN SAVAGE RIVER RD
CRT0013	39 30 16	79 09 22		POTOMAC	SAVAGE	2070002	CRABTREE CREEK SAVAGE RIVER RD
DRR0003	39 31 21	79 08 42		POTOMAC	SAVAGE	2070002	DRY RUN SAVAGE RIVER RD
SAV0010	39 29 13	79 05 08		POTOMAC	SAVAGE	2070002	SAVAGE RIVER NEAR LUKE
SAV0097	39 33 58	79 06 31		POTOMAC	SAVAGE	2070002	SAVAGE RIVER SAVAGE RIVER RD NR BROADWATER
SAV0118	39 34 59	79 05 32		POTOMAC	SAVAGE	2070002	SAVAGE RIVER BELOW POPULAR LICK
SAV0189	39 37 42	79 01 48		POTOMAC	SAVAGE	2070002	SAVAGE RIVER AVILTON SCHOOL RD
BRA0014	39 21 59	77 35 18		POTOMAC	CATOCTIN	2070008	BROAD RUN ST MARKS RD
CAC0240	39 30 05	77 33 15		POTOMAC	CATOCTIN	2070008	CATOCTIN CREEK HARMONY RD
COB0001	39 24 34	77 33 58		POTOMAC	CATOCTIN	2070008	CONE BRANCH BENNIES HILL RD
GRI0002	39 29 34	77 34 25		POTOMAC	CATOCTIN	2070008	GRINDSTONE RUN MILL SUMMERS RD
LCT0002	39 27 09	77 33 43		POTOMAC	CATOCTIN	2070008	LITTLE CATOCTIN CREEK OLD HAGARSTOWN RD
MIM0003	39 25 13	77 34 17		POTOMAC	CATOCTIN	2070008	MIDDLE CREEK MIDDLETOWN RD
ZFA0005	39 22 23	77 33 17		POTOMAC	CATOCTIN	2070008	UNNAMED TRIB CATOCTIN CREEK POFFENBERGER RD

Maryland Non-Tidal Benthic Macroinvertebrate Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
ZFD0002	39 19 52	77 33 56		POTOMAC	CATOCTIN	2070008	UNNAMED TRIB CATOCTIN CREEK RT 464
ZET0002	39 37 55	78 01 40		POTOMAC		2070008	UNNAMED TRIB INDIAN SPRINGS ERNSTVILLE
BEC0029	39 33 01	77 40 45		POTOMAC	ANTIETAM	2070004	BEAVER CREEK ALT RT 40
DGR0007	39 28 33	77 40 44		POTOMAC	ANTIETAM	2070004	DOG CREEK DOG ST RD
LAN0020	39 41 00	77 36 42		POTOMAC	ANTIETAM	2070004	LITTLE ANTIETAM CREEK SMITHBURY RD
LAS0041	39 27 41	77 40 46		POTOMAC	ANTIETAM	2070004	LITTLE ANTIETAM CREEK MARBLE QUARRY RD
LBC0002	39 32 46	77 40 39		POTOMAC	ANTIETAM	2070004	LITTLE BEAVER CREEK ALT RT 40
LND0000	39 34 17	77 41 22		POTOMAC	ANTIETAM	2070004	LANDIS SPRING BRANCH ALT RT 40
MRS0000	39 38 56	77 41 18		POTOMAC	ANTIETAM	2070004	MARSH RUN CONFLUENCE ANTIETAM CREEK
UAI0002	39 29 16	77 41 30		POTOMAC	ANTIETAM	2070004	UNNAMED TRIB LITTLE ANTIETAM KEEDYSVILLE
MEA0009	39 38 02	77 51 06		POTOMAC	CONOCOCHEAGUE	2070004	MEADOW BROOK KEMPS MILL RD
RKD0006	39 41 58	77 49 44		POTOMAC	CONOCOCHEAGUE	2070004	ROCKDALE RUN GOSSARD MILL RD
RUS0005	39 40 26	77 49 01		POTOMAC	CONOCOCHEAGUE	2070004	RUSH RUN TABOR RD
SEM0006	39 36 49	77 48 20		POTOMAC	CONOCOCHEAGUE	2070004	SEMPLE RUN RT 63
TMS0006	39 42 18	77 48 30		POTOMAC	CONOCOCHEAGUE	2070004	TOMS RUN FAIRVIEW RD
UWR0004	39 37 35	77 48 46		POTOMAC	CONOCOCHEAGUE	2070004	UNNAMED TRIB CONOCACHEAGUE RT 63
LES0003	39 39 45	78 02 07		POTOMAC	UPPER POTOMAC	2070004	LANES RUN LICKING CREEK RD
LIC0094	39 43 32	78 03 33		POTOMAC	UPPER POTOMAC	2070004	LICKING CREEK HOLLOW RD
RAT0008	39 41 19	78 02 07		POTOMAC	UPPER POTOMAC	2070004	RATTLE RUN MOORESVILLE RD
TOC0004	39 41 52	78 09 22		POTOMAC	UPPER POTOMAC	2070004	TONOLOWAY CREEK HANCOCK
BAR0001	39 42 06	78 19 01		POTOMAC	UPPER POTOMAC	2070004	BEAR CREEK RT 40
SID0121	39 42 28	78 19 51		POTOMAC	UPPER POTOMAC	2070003	SIDLING CREEK HIGH GERMANY RD
ZEW0000	39 40 44	78 19 56		POTOMAC	UPPER POTOMAC	2070003	UNNAMED TRIB SIDLING HILL CREEK
DXP0005	39 39 09	78 27 06		POTOMAC	UPPER POTOMAC	2070003	DEEP RUN FIFTEEN MILE CREEK RD
WSU0005	39 39 29	78 27 47		POTOMAC	UPPER POTOMAC	2070003	WHITE SULPHUR RUN FIFTEEN MILE CREEK RD

RHODE RIVER WATERSHED ENVIRONMENTAL MONITORING PROGRAM BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Rhode River Watershed Environmental Monitoring Program is a long-term interdisciplinary landscape level study of the Rhode River, its watershed and airshed, and is conducted by the Smithsonian Environmental Research Center. One component of this program involves monitoring the benthos of the river. The focus of this program is on the impacts of human use of the land, air and water upon water quality and biological populations and ecosystems. Comparative studies are used to assess the generality of results from this site to the Chesapeake region.

PROGRAM OBJECTIVE: To distinguish the effects of weather variation from those of local land use and air quality. Ultimately, to develop predictive models to synthesize and test our understanding of the overall system.

DATE INITIATED: 1979

COORDINATING AGENCY: Smithsonian Environmental Research Center
P.O. Box 28
Edgewater, Maryland 21037-0028

FUNDING AGENCY: Smithsonian Environmental Research Center
U.S. Department of Energy
National Science Foundation

PARTICIPATING AGENCIES: Smithsonian Environmental Research Center (SERC)
National Oceanic and Atmospheric Administration (NOAA)

INVESTIGATORS:

Chemical Ecologist	David Correll	SERC
Protozoologist	Wayne Coats	SERC
Plant Physiologist	Bert Drake	SERC
Estuarine Ecologist	Thomas Jordan	SERC
Microbiologist	Charles Gallegos	SERC
Estuarine Animal Ecologist, PI	Anson Hines	SERC
Terrestrial Animal Ecologist	James Lynch	SERC
Photobiologist	Patrick Neale	SERC
Forest Ecologist	Jess Parker	SERC
Estuarine Animal Ecologist	Gregory Ruiz	SERC
Quantitative Ecologist	Donald Weller	SERC
Plant Ecologist	Dennis Whigham	SERC

PARAMETERS:

Estuarine Benthic Parameters: Taxa Identification and Abundance

Other Parameters: Numerous other parameters are measured in this program in the areas of
Bulk Precipitation, Wet Precipitation, Throughfall Chemistry
Weather
Solar Irradiance
Dry Deposition Chemistry
Ground Water, Stream Water Discharge, Infiltration Chemistry
Overland Flow Chemistry
Tidal Water Quality Chemistry
Forest Tree and Herb Populations
Crab and other Decapod crustacean Populations

Rhode River Watershed Environmental Monitoring Program Benthic Component

Plankton Populations
Mammal Populations
Fish Populations
Bird Populations

STATIONS: Benthic invertebrate populations are monitored at five stations.

SAMPLE COLLECTION: Seven core samples are taken at each station eight times per year. Many additional benthic samples are collected each year for monitoring parasites of bivalves and for other experiments.

PROGRAM INTEGRATION: The benthic monitoring is only one of many biological, water quality and air and solar monitoring efforts within this program. See other parameters above.

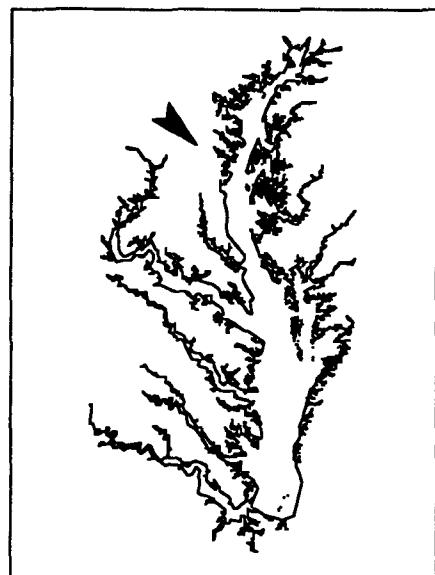
STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
RHODE R	38 52 15	76 31 15	WT-8	CHESBAY	SEVERN	2060004	MOUTH OF RHODE RIVER
RHODE R	38 52 45	76 33 15	WT-8	CHESBAY	SEVERN	2060004	HEAD OF RHODE RIVER

NOTE: APPROXIMATE LOCATIONS OF SAMPLING STATIONS

Rhode River Watershed Environmental Monitoring Program Benthic Component



N



Miles
0 .25 .50 .75 1
Scale = 1:1,056,127

DISTRICT OF COLUMBIA AQUATIC MACROINVERTEBRATE MONITORING PROGRAM

PROGRAM DESCRIPTION: The District of Columbia Aquatic Macroinvertebrate Monitoring Program has historically carried out benthic macroinvertebrate monitoring on a year to year basis in separate studies as funding allows. When performed, these studies consist of macroinvertebrate sampling on each tributary now monitored routinely for chemical and physical parameters. However, the program is now expecting to replace full chemical testing on most of the smaller tributaries with a benthic monitoring protocol adapted from the EPA's RBPs. Special projects also utilize benthic monitoring for pre and post implementation monitoring of BMPs and stream or wetland restoration efforts.

PROGRAM OBJECTIVES: To assess the current ecological status of streams in the District of Columbia and to determine their potential for recovery by identifying macroinvertebrate species and community structure. To use the resulting data as a tool for water quality monitoring and biotic reference to existing chemical data and management decision making.

DATE INITIATED: Intermittent monitoring since 1977.

COORDINATING AGENCY: Government of the District of Columbia
Department of Consumer and Regulatory Affairs
Environmental Regulation Administration
Water Resources Management Division
Water Quality Monitoring Branch
2100 MLK Ave, SE Suite 200
Washington, D.C. 20020

FUNDING AGENCY: U.S. EPA Region III

PARTICIPATING AGENCIES: D.C. Department of Consumer and Regulatory Affairs (DCDCRA)

INVESTIGATORS:

Program Coordinator	Hamid Karimi	DCDCRA
Monitoring Coordinator	Peter May	DCDCRA

PARAMETERS: Identification of Species Abundance of Species
Distribution of Species

STATIONS: In the past there have been several studies conducted or funded by the District. These studies utilized numerous locations from which benthic macroinvertebrate samples were collected and used for water quality and aquatic life use determinations. These stations were sampled periodically and were not a part of any ongoing fixed station monitoring program. The District is in the process of locating benthic bioassessment stations on the majority of its river tributaries for long term monitoring and assessment purposes. Approximately 30 macroinvertebrate sampling stations on the tributaries of the Anacostia and Potomac Rivers are expected. An additional 8 stations are sampled as part of pre and post implementation monitoring of wetland reconstruction efforts in the Kenilworth Marsh and Kingman Lake waterbodies.

SAMPLE COLLECTION: Sampling takes place on a yearly basis, although every station is not necessarily sampled every year. The establishment of an ongoing, routine sampling schedule is presently in the planning stages. This may consist of yearly sampling at a small number of stations, or a greater number of stations sampled on a bi- or tri-annual basis.

Samples are collected using an invertebrate box sampler or an Eckman dredge sampler. At each station, two samples, a quantitative composite sample and a qualitative composite sample, are retained with a sieve, sorted in the field, and preserved with 70% ethanol. Qualitative methods yield a general species census, detection of selected groups and a synoptic analysis of community structure, while quantitative methods supply data on

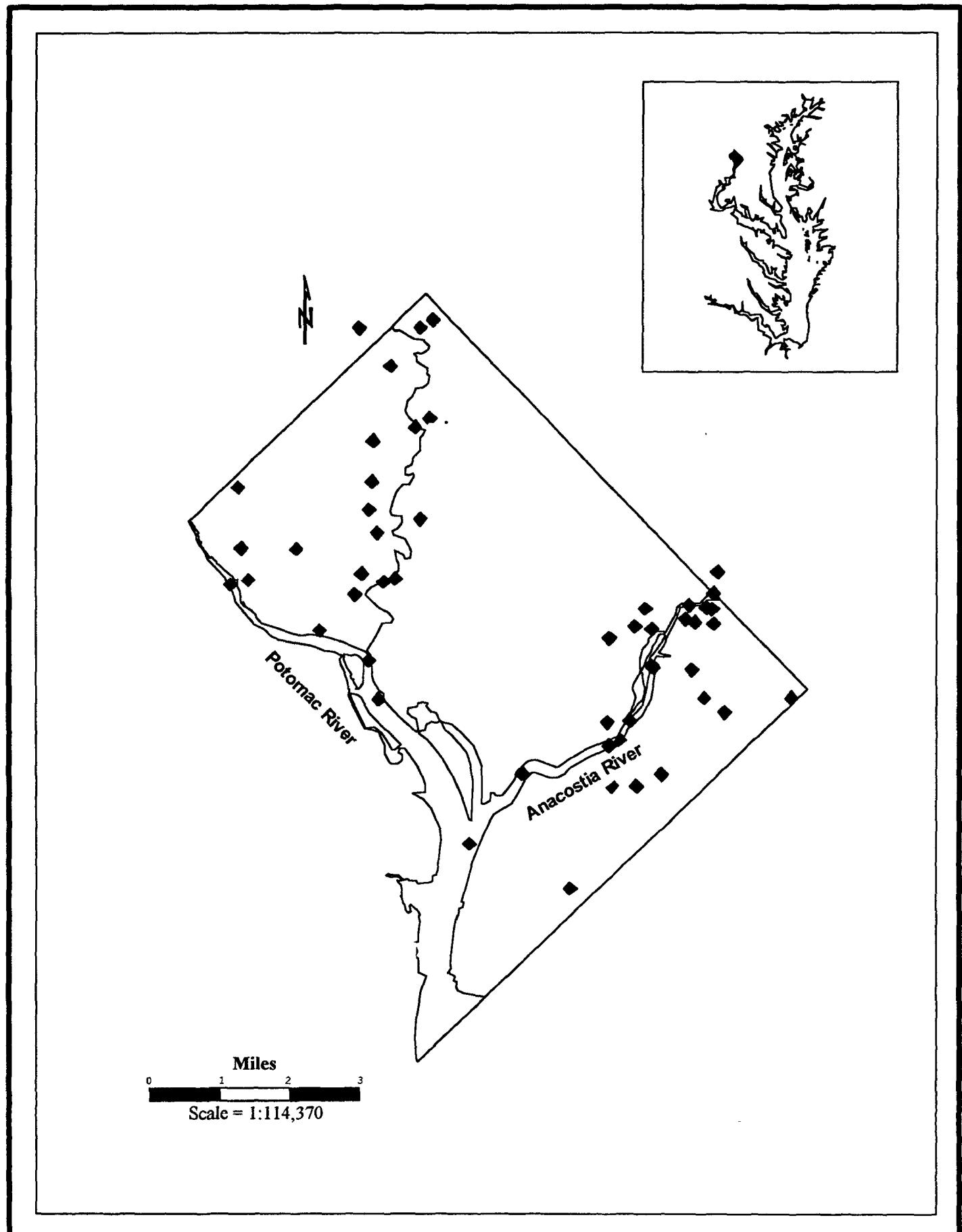
District of Columbia Aquatic Macroinvertebrate Monitoring Program

species diversity, species richness and individuals per unit area. Organisms are counted and identified to the lowest taxonomic level possible with the assistance of stereoscopic and/or phase contrast microscopes where needed.

PROGRAM INTEGRATION: All macroinvertebrate sampling is performed at existing water column sampling station locations. This allows for maximum comparability and corroboration between the two data bases.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
TBK01	38 55 04	77 05 40	BFL	POTOMAC	MIDDLE POTOMAC	2070010	BATTERY KEMBLE CREEK
TBR01	38 57 23	77 03 30	BFL	POTOMAC	MIDDLE POTOMAC	2070010	BROAD BRANCH
TDA01	38 55 43	77 06 20	AFL	POTOMAC	MIDDLE POTOMAC	2070010	DALECARLIA TRIBUTARY
TD001	38 54 57	77 03 48	BFL	POTOMAC	MIDDLE POTOMAC	2070010	DUNBARTON OAKS
TDU01	38 53 00	76 58 36	BFL	POTOMAC	ANACOSTIA	2070010	FORT DUPONT CREEK
TFB01	38 55 39	77 05 00	BFL	POTOMAC	MIDDLE POTOMAC	2070010	FOUNDRY BRANCH
TFC01	38 53 12	76 56 15	BFL	POTOMAC	ANACOSTIA	2070010	FORT CHAPLIN TRIBUTARY
TFD01	38 52 12	76 57 30	BFL	POTOMAC	ANACOSTIA	2070010	FORT DAVIS TRIBUTARY
TFE01	38 59 13	77 02 35	AFL	POTOMAC	MIDDLE POTOMAC	2070010	FENWICK BRANCH
TFS01	38 52 00	76 58 30	BFL	POTOMAC	ANACOSTIA	2070010	FORT STANTON TRIBUTARY
THR01	38 54 30	76 57 45	BFL	POTOMAC	ANACOSTIA	2070010	HICKEY RUN
TKV01	38 55 56	77 03 22	BFL	POTOMAC	MIDDLE POTOMAC	2070010	KLINGLE VALLEY
TLU01	38 57 45	77 02 22	BFL	POTOMAC	MIDDLE POTOMAC	2070010	LUZON BRANCH
TMH01	38 56 18	77 03 33	BFL	POTOMAC	MIDDLE POTOMAC	2070010	MELVIN HAZEN VALLEY BRANCH
TNA01	38 54 36	76 56 30	BFL	POTOMAC	ANACOSTIA	2070010	NASH RUN
TNS01	38 55 17	77 03 40	BFL	POTOMAC	MIDDLE POTOMAC	2070010	NORMANSTONE CREEK
TOR01	38 50 20	76 59 17	BFL	POTOMAC	ANACOSTIA	2070010	OXON RUN
TPB01	38 52 42	76 58 20	BFL	POTOMAC	ANACOSTIA	2070010	POPES BRANCH
TP101	38 58 35	77 03 10	AFL	POTOMAC	MIDDLE POTOMAC	2070010	PINEHURST BRANCH
TPC01	38 59 20	77 02 20	AFL	POTOMAC	MIDDLE POTOMAC	2070010	PORTAL BRANCH
TPY01	38 56 10	77 02 30	BFL	POTOMAC	MIDDLE POTOMAC	2070010	PINEY BRANCH
RCR01	38 59 11	77 03 50	BFL	POTOMAC	MIDDLE POTOMAC	2070010	ROCK CREEK
RCR04	38 57 37	77 02 39	BFL	POTOMAC	MIDDLE POTOMAC	2070010	ROCK CREEK
RCR09	38 55 13	77 02 59	BFL	POTOMAC	MIDDLE POTOMAC	2070010	ROCK CREEK
RCR11	38 55 10	77 03 13	BFL	POTOMAC	MIDDLE POTOMAC	2070010	ROCK CREEK
TS001	38 56 45	77 03 30	BFL	POTOMAC	MIDDLE POTOMAC	2070010	SOAPSTONE CREEK
TTX27	38 52 00	76 58 00	BFL	POTOMAC	ANACOSTIA	2070010	TEXAS AVENUE TRIBUTARY
TWB02	38 53 52	76 56 56	BFL	POTOMAC	ANACOSTIA	2070010	WATTS BRANCH
TWB01	38 53 27	76 54 56	BFL	POTOMAC	ANACOSTIA	2070010	WATTS BRANCH
TC001	38 54 20	77 04 30	BFL	POTOMAC	MIDDLE POTOMAC	2070010	C&O CANAL GEORGETOWN
TC006	38 55 39	77 06 06	BFL	POTOMAC	MIDDLE POTOMAC	2070010	C&O CANAL FLETCHERS
PMS01	38 55 04	77 06 18	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
PMS13	38 53 54	77 03 29	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
PMS16	38 53 17	77 03 16	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
PMS29	38 51 01	77 01 21	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
PMS41	38 58 23	77 02 10	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
PMS51	38 46 12	77 01 54	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC MONITORING STATION
ANA01	38 55 05	76 56 31	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
ANA03	38 54 53	76 57 01	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
ANA08	38 53 55	76 57 45	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
ANA11	38 53 02	76 58 09	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
ANA14	38 52 38	76 58 33	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
ANA21	38 52 10	77 00 18	BFL	POTOMAC	ANACOSTIA	2070010	ANACOSTIA RIVER
AAG02	38 54 50	76 56 33	BFL	POTOMAC	ANACOSTIA	2070010	KENILWORTH HIGH MARSH
AAG03	38 54 37	76 56 53	BFL	POTOMAC	ANACOSTIA	2070010	KENILWORTH MIDDLE MARSH
AAG04	38 54 51	76 56 40	BFL	POTOMAC	ANACOSTIA	2070010	KENILWORTH LOW MARSH
AAG05	38 54 40	76 57 05	BFL	POTOMAC	ANACOSTIA	2070010	KENILWORTH INTERNAL REFERENCE
AAG06	38 55 26	76 56 27	BFL	POTOMAC	ANACOSTIA	2070010	KENILWORTH EXTERNAL REFERENCE
KNG01	38 53 25	76 56 40	BFL	POTOMAC	ANACOSTIA	2070010	KINGMAN INTERNAL REFERENCE
KNG03	38 54 20	76 57 96	BFL	POTOMAC	ANACOSTIA	2070010	KINGMAN HIGH MARSH
KNG04	38 54 49	76 57 54	BFL	POTOMAC	ANACOSTIA	2070010	KINGMAN MIDDLE MARSH
KNG05	38 54 32	76 57 66	BFL	POTOMAC	ANACOSTIA	2070010	KINGMAN LOW MARSH
PEP01	38 53 53	76 57 43	BFL	POTOMAC	ANACOSTIA	2070010	PEPCO WETLAND

Note: ALL STATION LOCATIONS (PAST & PRESENT) ARE APPROXIMATE AND SUBJECT TO CHANGE BEGINNING IN 1996.



VIRGINIA CHESAPEAKE BAY BENTHIC MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Chesapeake Bay Benthic Monitoring Program consists of quarterly cruises to 19 stations in the tributaries of the Rappahannock, York and James rivers and the Virginia mainstem of the Chesapeake Bay.

PROGRAM OBJECTIVES: To quantitatively characterize the estuarine macrobenthic communities on a regional basis.

DATE INITIATED: March 1985

COORDINATING AGENCY: Virginia Department of Environmental Quality
Chesapeake Bay and Coastal Program
PO Box 10009
Richmond, VA 23240

FUNDING AGENCY: Virginia Department of Environmental Quality

PARTICIPATING AGENCIES: Virginia Department of Environmental Quality (DEQ)
Old Dominion University (ODU)

INVESTIGATORS:

Program Coordinator	Frederick Hoffman	DEQ
Principal Investigator	Daniel Dauer	ODU

PARAMETERS:

Water Column:
Temperature
Dissolved Oxygen
Salinity
Specific Conductivity

Benthic fauna:
Taxa identification
Taxa abundance
Biomass (ash-free dry weight)

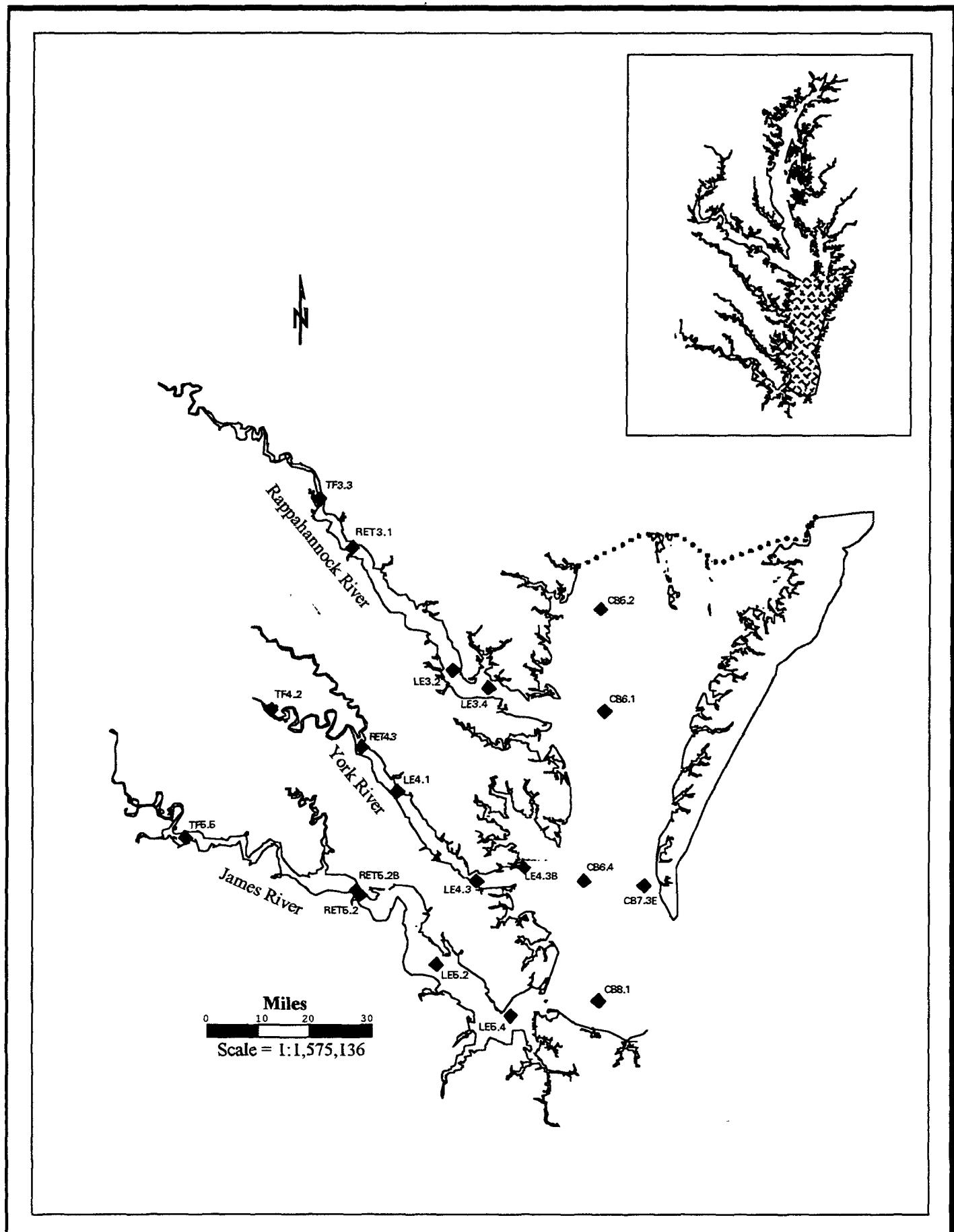
Sediment:
Total Volatile Solids
Size Frequency Particle Distribution

STATIONS: There are 19 benthic monitoring stations located in the major salinity-sedimentary regions of the estuarine gradient of the York, Rappahannock, and James rivers, and in the Virginia portion of the mainstem Chesapeake Bay.

SAMPLE COLLECTION: Stations are visited on a quarterly basis. At each station, bottom temperature, dissolved oxygen and salinity are recorded, and a sediment sample and four replicate box core samples to a depth of 25 cm are collected. Of the four samples, one is archived and the others frozen until they are analyzed. All organisms from the remaining three samples are retained on a 0.5 sieve screen and preserved with formalin. They are then identified, counted and ash-free dry weight or biomass is determined for the 20 numerically dominant species. One of the samples is analyzed for depth distribution with partitioning at 2, 5, 10, 15, 20 and 25 cm. Sediment particles analysis is performed on one replicate sample per station during autumn, winter and spring, and on one replicate sample partitioned into three depths per station during the summer.

A new sampling regime utilizing random site locations and a sediment profiling image camera was initiated in 1996.

PROGRAM INTEGRATION: Benthic monitoring stations coincide with Virginia water quality and some plankton monitoring stations in order to maximize interdisciplinary analyses and evaluation of results.



Virginia Chesapeake Bay Benthic Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
CB5.2	37 48 00	76 10 30	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	EAST OF PT. NO POINT
CB6.1	37 35 18	76 09 45	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER WEST CENTRAL CHESAPEAKE BAY
CB6.4	37 14 11	76 12 30	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	CENTRAL BAY OFF SHORE FR YORK R. MOUTH
CB7.3E	37 13 43	76 03 15	CB-7	CHESBAY	LOWER CHESAPEAKE BAY	2080101	LOWER EASTERN SHORE CHANNEL AREA
CB8.1	36 59 15	76 10 05	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	BTW JAMES R. MOUTH AND THIMBLE SHOALS CH
LE3.2	37 40 13	76 33 16	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LONG PT UPSTREAM OF BUOY #R8
LE3.4	37 38 00	76 27 48	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	OFF ORCHARD POINT
LE4.1	37 25 06	76 41 36	LE-3	YORK	YORK	2080107	VIMS SLACK WATER #N44
LE4.3	37 14 06	76 29 06	LE-4	YORK	YORK	2080107	BETWEEN AMOCO AND SARAH CREEKS
LE4.3B	37 14 00	76 29 00	LE-4	YORK	YORK	2080107	OFF VIMS IN DEEP CHANNEL
LE5.2	37 03 28	76 35 00	LE-5	JAMES	LOWER JAMES	2080206	BUOY #C12-13
LE5.4	36 57 18	76 23 30	LE-5	JAMES	LOWER JAMES	2080206	BUOY #9, HAMPTON ROADS, VIMS
RET3.1	37 55 12	76 49 18	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	NORTH OF BUOY R10, VIMS SLACK
RET4.3	37 30 24	76 47 18	RET-4	YORK	YORK	2080107	VIMS SLACK WATER #C57
RET5.2	37 12 36	76 47 36	RET-5	JAMES	LOWER JAMES	2080206	SWANN'S PT., JRWQMP STA # 19
RET5.2B	37 12 00	76 47 00	RET-5	JAMES	LOWER JAMES	2080206	OFF HOG POINT
TF3.3	38 01 07	76 54 30	TF-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	VIMS SALCK WATER #N40
TF4.2	37 34 47	77 01 19	TF-4	YORK	PAMUNKEY	2080106	WHITEHOUSE
TF5.5	37 18 46	77 13 59	TF-5	JAMES	LOWER JAMES	2080206	RED BOUY #107, JRWQMP STA # 13

VIRGINIA LONG-TERM BENTHIC MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Long-term Benthic Monitoring Program is designed to provide a long-term examination of benthic community structure and function in the York River. Monitoring in the Virginia mainstem of the Chesapeake Bay has now been discontinued.

PROGRAM OBJECTIVES: To characterize long-term patterns in species diversity, biomass, and secondary production of benthic macroinvertebrates in the York River. Findings are related to the historical sedimentary record.

DATE INITIATED: 1961 (York River), 1983 (Mainstem Bay - discontinued in 1990)

COORDINATING AGENCY: Virginia Institute of Marine Sciences
Division of Biological Sciences
Gloucester Point, Virginia 23062

FUNDING AGENCY: Commonwealth of Virginia

PARTICIPATING AGENCY: Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

Principal Investigator Robert Diaz VIMS

PARAMETERS: *Macroinvertebrates:* *Sediment:*
Biomass Grain Size
Diversity Sediment Surface
Counts per species and Profile Photography
Secondary Production estimates

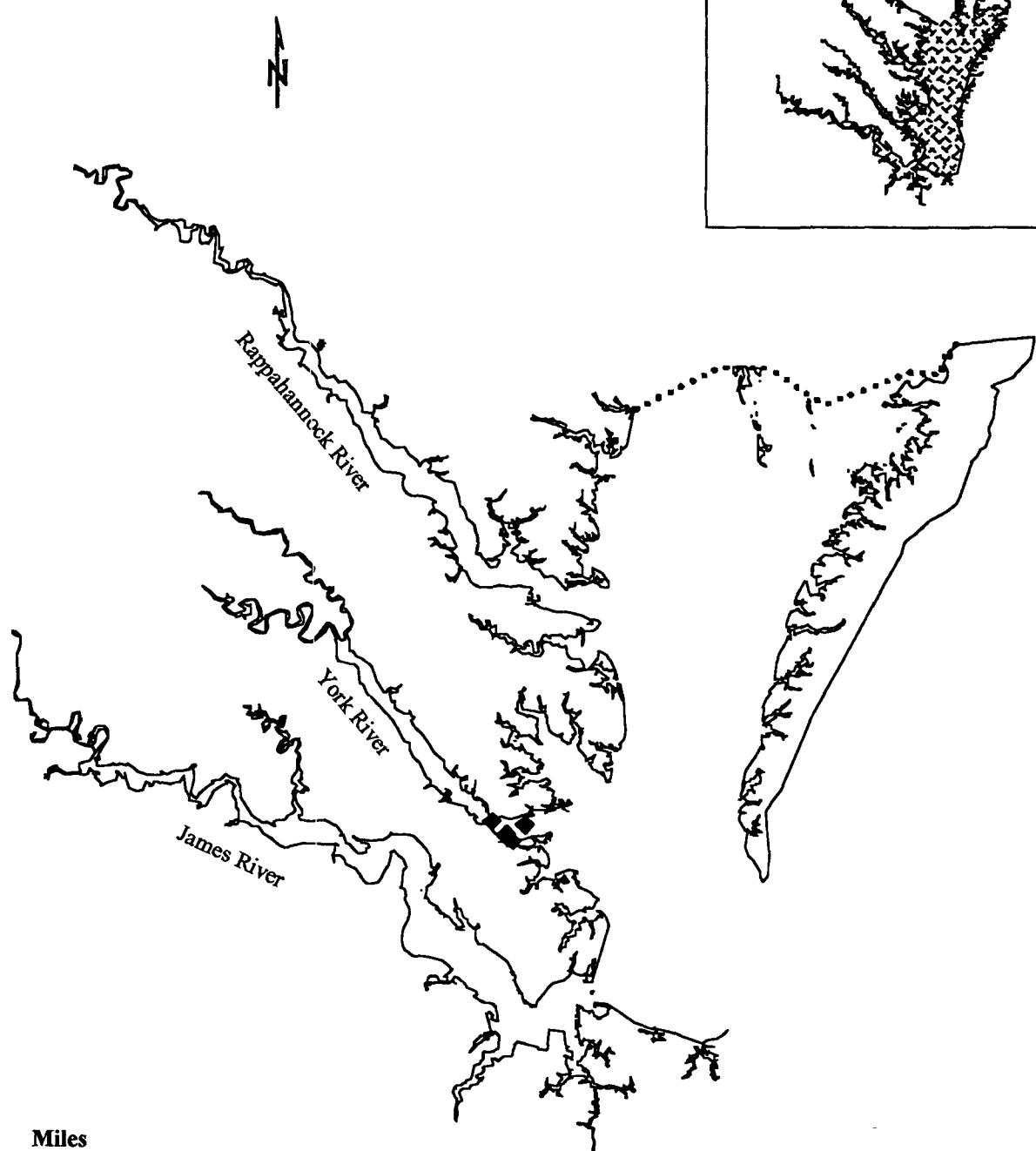
STATIONS: There are 4 stations located in the York River.

SAMPLE COLLECTION: Stations are sampled on a quarterly basis, although some York River stations were sampled on a weekly basis from 1979 to 1986. At stations in the York River, a VanVeen or a Smith-Macintyre Grab are used for sample collection. In the mainstem, a box core (0.06 m²) is used. Some samples are cored, sieved with 500 µm to 125 µm sieves and preserved in the field. Other samples are sieved intact on 1000 µm sieves. Surface and sediment profile photographs as well as cores are taken periodically.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
DH	37 13 30	76 28 14	LE-4	YORK	YORK	2080107	DEXTER HAVEN
DHIS	37 13 24	76 28 19	LE-4	YORK	YORK	2080107	DEXTER HAVEN IN SHORE
PB	37 14 26	76 26 06	WE-4	YORK	YORK	2080107	PLANKTON BOUY
PIER	37 14 45	76 30 00	LE-4	YORK	YORK	2080107	VIMS PIER

Virginia Long-Term Benthic Monitoring Program



Miles
0 20 40 60

Scale = 1:4,571,017

VIRGINIA BENTHIC MONITORING PROGRAM

PROGRAM DESCRIPTION: The Virginia Benthic Monitoring Program consists of approximately 175 stations examined biennially in the spring and fall of sampling years. The program utilizes the U.S. EPA Rapid Biological Assessment Protocol, Level II for non-tidal wadable streams and rivers.

PROGRAM OBJECTIVES: Objectives include monitoring of benthic communities to determine compliance with Clean Water Act goals and state water quality standards, identification of problem areas, and to assess efficacy of discharge permit limits in protecting biological integrity.

DATE INITIATED: 1978

COORDINATING

AGENCY: Virginia Department of Environmental Quality
 Division of Scientific Research
 P.O. Box 10009
 629 East Main Street
 Richmond, VA 23219

FUNDING

AGENCY: Virginia Department of Environmental Quality

PARTICIPATING

AGENCY: Virginia Department of Environmental Quality (DEQ)

INVESTIGATORS:

Program Coordinator Louis D. Seivard

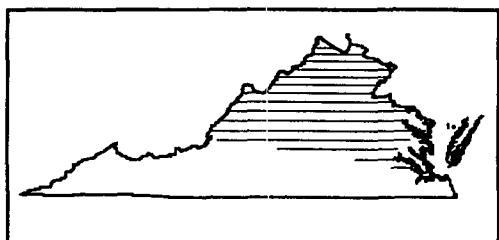
PARAMETERS:	Temperature	Family Taxonomic Identifications
	Dissolved Oxygen	Habitat Assessment
	Conductivity	RBP II Metrics
	pH	

STATIONS: There are approximately 175 stations statewide, and approximately 110 of these are in the Chesapeake Bay watershed. Station locations are subject to change and an effort is being made to sample many different locations.

SAMPLE COLLECTION: Sampling is conducted utilizing modified RBP II methodology. Two square meters of most productive habitat are sampled for macroinvertebrates using a D-frame net.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
XGP002.20	37 26 36	78 07 12	AFL	JAMES	APPOMATTOX	2080207	DEEP CREEK AT CREWE STP(SITE SPECIFIC CONTROL)
ABR000.78	39 10 45	78 05 08	AFL	POTOMAC	OPEQUON	2070004	ABRAMS CREEK AT RT 659 BRIDGE
ACO006.10	38 43 42	77 12 11	AFL	POTOMAC	MIDDLE POTOMAC	2070010	ACCOTINK CREEK (URBAN WATERSHED)
APP013.00	37 13 48	77 30 00	AFL	JAMES	APPOMATTOX	2080207	APPOTTAHOX RVR AT .25MI ABOVE RT36
BAP000.80	37 12 51	76 31 49	AFL	JAMES	LYNNHAVEN-POQUASON	2080108	BAPTIST RUN 20M ABOVE RT637 CULVERT
BCC020.81	38 14 34	79 46 19	AFL	JAMES	UPPER JAMES	2080201	BACK CREEK AT LIGHTNER BRIDGE
BLD000.22	37 40 44	79 25 36	AFL	JAMES	MAURY	2080202	BUFFALO CREEK
BLK005.62	38 25 07	78 53 22	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	BLACKS RUN TURBAN)
BLP000.79	38 11 43	79 34 14	AFL	JAMES	UPPER JAMES	2080201	BULLPASTURE RIVER
BRT000.03	37 58 09	79 30 18	AFL	JAMES	MAURY	2080202	BRATTONS RUN AT RT 39
BRT000.94	37 58 01	79 31 04	AFL	JAMES	MAURY	2080202	BRATTONS RUN AT RT 780
BUF002.18	37 36 34	78 55 27	AFL	JAMES	MIDDLE JAMES	2080203	BUFFALO RIVER AT RT 657 BRIDGE
BUL010.28	38 48 06	77 26 58	AFL	POTOMAC	MIDDLE POTOMAC	2070010	BULL RUN AT RT 28
CAX004.57	39 15 18	77 34 36	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	CATOCTIN CREEK AT RT 663
CDR013.55	39 04 33	78 19 30	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	CEDAR CREEK
CFP002.54	37 58 00	79 29 50	AFL	JAMES	MAURY	2080202	CALFPASTURE RVR AT X TRIB OFF RT 39
CFP003.94	37 58 42	79 29 41	AFL	JAMES	MAURY	2080202	CALFPASTURE RVR AT END FARM ROAD NEAR STILLWA

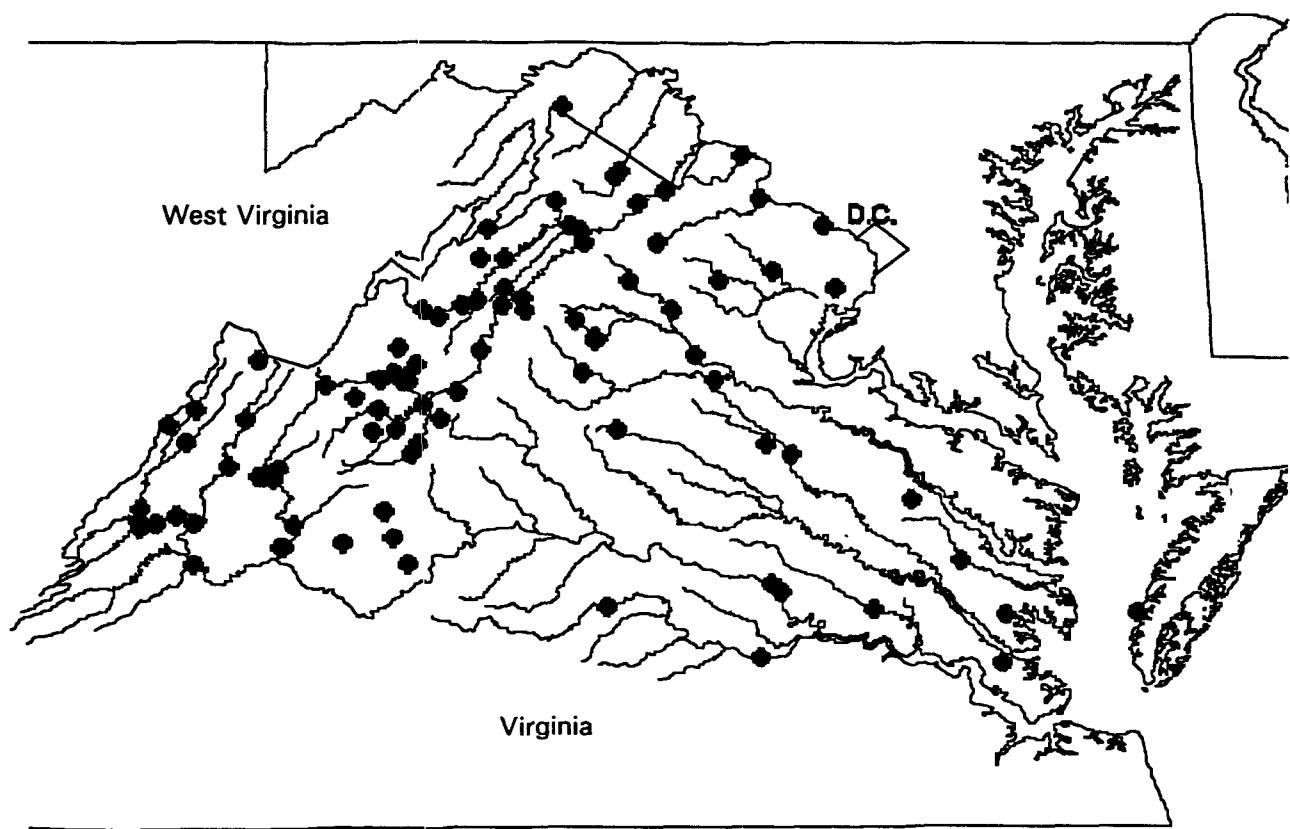


Pennsylvania

West Virginia

D.C.

Virginia



Miles

0 20 40 60

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STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
CHK035.30	37 25 48	77 03 00	BFL	JAMES	LOWER JAMES	2080206	CHICKAHOMINY RIVER AT RT 618
CKS003.04	38 22 21	78 56 03	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	COOKS CREEK ABOVE CONFLUENCE WITH BLACKS RUN
COW042.06	38 00 50	79 38 20	AFL	JAMES	UPPER JAMES	2080201	COWPASTURE RIVER AT RT 625
CST007.42	38 09 26	78 58 19	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	CHRISTIANS CREEK AT RT 795
DIF000.86	38 58 32	77 14 45	AFL	POTOMAC	MIDDLE POTOMAC	2070008	DIFFICULT RIN AT RT 193
DRN010.56	37 38 03	76 41 48	CB-6	CHESBAY	GREAT WICOMICO-PIANKATANK	2080102	DRAGON RUN 50M ABOVE RT 603
DUR000.06	38 23 34	78 58 47	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	DRY RIVER AT FORD UPSTM OF CONFLUENCE
EHC001.18	38 38 40	78 27 08	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	EAST HAWKSBILL CREEK AT RT 642
FOX002.30	37 24 22	76 30 55	BFL	YORK	GREAT WICOMICO-PIANKATANK	2080107	FOXMILL RUN 250M ABOVE OLD BRIDGE
FOX002.55	37 24 29	76 31 14	BFL	YORK	GREAT WICOMICO-PIANKATANK	2080107	FOXMILL RUN 30M ABOVE RT 17 BRIDGE
FOX002.75	37 24 28	76 31 23	BFL	YORK	GREAT WICOMICO-PIANKATANK	2080107	FOXMILL RUN 30M ABOVE STP DISCHARGE
FRS001.21	37 25 13	76 00 00	LE-5	JAMES	LOWER JAMES	2080206	FRANCE SWAMP 10M ABOVE RT 606
GOO002.38	39 05 08	77 30 39	AFL	POTOMAC	MIDDLE POTOMAC	2070008	GOOSE CREEK AT RT 7
GOO044.36	38 54 50	77 55 19	AFL	POTOMAC	MIDDLE POTOMAC	2070008	GOOSE CREEK AT RT 17
GRT001.70	38 38 34	77 51 33	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	GREAT RUN AT RT 687
HAZ032.54	38 31 35	78 10 20	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	HAZEL RIVER AT RT 644
HAZ042.43	38 36 11	78 15 10	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	HAZEL RIVER AT RT 681
HKS000.96	38 41 11	78 27 30	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	HAWKSBILL CREEK AT RT 648
HUE000.20	38 31 20	78 10 18	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	HUGHES RIVER AT RT 644
JKS006.67	37 48 38	79 51 15	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT LANCASTER COL.
JKS013.29	37 46 50	79 55 40	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT LOW MOORE CAVE
JKS018.68	37 45 23	79 59 15	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT RT 18 BRIDGE
JKS023.61	37 47 18	80 00 00	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT RT 18 BRIDGE
JKS030.65	37 50 30	79 59 20	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT RT 687 BRIDGE
JKS067.00	38 06 18	79 48 50	AFL	JAMES	UPPER JAMES	2080201	JACKSON RIVER AT HIDDEN VALLEY BRIDGE
JMS110.34	37 31 48	77 27 36	AFL	JAMES	MIDDLE JAMES	2050205	JAMES RIVER .25 MI ABOVE MAYO BRIDGE (SOUTH)
JMS110.44	37 30 36	77 25 48	AFL	JAMES	MIDDLE JAMES	2080205	JAMES RIVER 100M ABOVE MAYO BRIDGE (NORTH)
JMS115.29	37 30 00	77 25 12	AFL	JAMES	MIDDLE JAMES-WILLIS	2080205	JAMES RIVER 1.5MI BELOW RT 147 (ABOVE ALL DISC)
JMS326.30	37 36 29	79 47 03	AFL	JAMES	UPPER JAMES	2080201	JAMES RIVER AT SALISBURY
JMS345.73	37 46 32	79 46 51	AFL	JAMES	UPPER JAMES	2080201	JAMES RIVER AT RT 220 BRIDGE
LCF000.76	37 57 31	79 27 36	AFL	JAMES	MAURY	2080202	LITTLE CALFPASTURE RIVER DWNSTM OF LAKE MERRIW
LCF004.80	38 00 13	79 26 31	AFL	JAMES	MAURY	2080202	LITTLE CALFPASTURE RIVER RT 601 PRIVATE FORD
LDR000.70	38 23 18	78 13 07	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	LITTLE DARK RUN AT RT 680 (BELOW STP)
LEW006.95	38 09 04	79 03 39	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	LEWIS CRSEK AT VSDB GROUNDS
LNV000.71	38 36 44	78 48 03	AFL	JAMES	MAURY	2070006	LINVILLE CREEK AT RT 1414 BRIDGE
LTB007.76	38 10 45	79 52 42	AFL	JAMES	MAURY	2080202	LITTLE BACK CREEK AT RT 601
MDL001.85	38 15 12	78 51 44	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	MIDDLE RIVER AT RT 769 BRIDGE
MDL036.10	38 14 37	79 02 09	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	MIDDLE RIVER AT RT 742 BRIDGE
MFT006.24	38 17 36	79 07 39	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	MOFFETT CREEK AT RT 42 BRIDGE
MIL001.00			AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	MILL CREEK AT RT 671 BRIDGE
MOS003.01	38 21 30	79 01 50	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	MOSSY CREEK NEAR OLD DAM
MPN094.79	38 03 36	77 23 05	BFL	YORK	MATTAPONI	2080105	MATTAPONI RIVER AT RT 605
MRY005.58	37 40 50	79 24 56	AFL	JAMES	MAURY	2080202	MAURY RIVER AT RT 663 CANAL LOCK
MTA001.69	38 06 11	77 28 52	AFL	JAMES	MAURY	2080105	MATTA RIVER AT RT 632
MTN000.59	38 27 21	77 46 14	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	MOUNTAIN RUN AR RT 620
MUD005.81	38 29 12	78 57 38	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	MUDDY CREEK UPSTREAM OF RT 726
NFS002.41	38 57 42	78 13 45	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	N. FORK SHENANDOAH R. AT CAMPG OFF RT 55
NFS054.80	38 50 55	78 31 49	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	N. FORK SHENANDOAH R. AT 672
NFS081.61	38 39 33	78 41 59	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	N. FORK SHENANDOAH R. AT RT 728 BRIDGE
NFS094.51	38 38 28	78 51 47	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	N. FORK SHENANDOAH RIVER AT BROCKS GAP
NTH014.48	38 20 42	78 56 39	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	NORTH RIVER NEAR RAIL ROAD BRIDGE
NTH016.45	38 20 45	78 55 18	AFL	POTOMAC	CACAPON	2070003	NORTH RIVER AT MOUNT CRAWFORD
NTH046.75	38 20 21	79 14 43	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	NORTH RIVER AT FR 95 NEAR FLOW GAGE
OPE029.61	39 12 15	78 04 28	AFL	POTOMAC	OPEQUON	2070004	OPEQUON CREEK AT RT 660 FORD
OPE034.53	38 09 38	78 05 04	AFL	POTOMAC	OPEQUON	2070004	OPEQUON CK AT PRIVATE BRIDGE OFF RT 657
PAN002.70	38 11 53	78 47 39	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	PAINE RUN AT SHENANDOAH NAT. PARK
PIS009.24	37 52 38	76 54 04	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PISCATAWAY CREEK 20M ABOVE RT 691 BRIDGE
PLE000.08	38 20 45	78 55 33	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	PLEASANT RUN AT RT 867 BRIDGE
PNY005.30	37 42 07	79 10 40	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	PINEY RIVER AT RT 151 BRIDGE
PSG000.20	38 58 30	78 16 05	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	PASSAGE CREEK UPSTM OF RAIL ROAD BRIDGE
PSG031.99	38 43 46	78 32 00	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	PASSAGE CREEK NEAR LION TALE TRAIL
RAP006.53	38 21 34	77 41 10	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	RAPIDAN RIVER AR RT 610
RAP082.43			AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	RAPIDAN RIVER AT RT 662
ROB001.90	38 21 34	77 41 10	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	ROBINSON RIVER AT RT 614
ROB022.56	39 27 26	78 18 08	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	ROBINSON RIVER AT RT 642
RPP175.51	38 45 23	78 01 42	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	RAPPAHANNOCK RIVER AT RT 647
SBB000.17	37 54 46	75 35 30	CB-7	CHESAPEAKE BAY	WESTERN LOWER DELMAR	2080209	SANDY BOTTOM BRCH 10M ABOVE RT
SHN023.02	39 07 18	77 53 37	AFL	POTOMAC	SHENANDOAH	2070007	SHENANDOAH RIVER UPSTM OF RT 7 BRIDGE
SMT005.71	38 40 49	78 38 23	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	SMITH CREEK AT RT 620 BRIDGE
SOT001.44	38 45 18	77 40 26	AFL	POTOMAC	MIDDLE POTOMAC	2070010	SOUTH RUN AT RT 215
SPR000.41	39 03 56	78 00 15	AFL	POTOMAC	SHENANDOAH	2070007	SPOUT RUN
SSF003.50	38 54 48	78 12 36	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	S FORK SHENANDOAH R AT FRONT ROYAL LANDING
SSF053.05	38 39 18	78 32 34	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	S FORK SHENANDOAH AT OLD MILL DAM WHITE HOUSE
SSF078.18	38 28 56	78 37 41	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	S FORK SHENANDOAH DOWNSTREAM OF DAM
SSF100.12	38 18 46	78 43 13	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	S FORK SHENANDOAH AT RT 708 BRIDGE
STC004.27	38 26 09	79 31 17	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	WEST STRAIT CREEK UPSTM OF RT 629 BRIDGE
STH000.21	37 46 14	79 22 52	AFL	JAMES	MAURY	2080202	SOUTH RIVER PRVT DRIVE OFF RT 608
STH021.72	38 05 46	78 52 38	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	SOUTH RIVER DWNSTM OF HOPEMAN PKWY
STH027.08	38 03 25	78 54 28	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	SOUTH RIVER AT RT 664 BRIDGE
STY004.24	38 58 19	78 36 11	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	STONY CREEK AT RT 691 BRIDGE
STY006.73	38 50 47	78 37 34	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	STONY CREEK AT RT 675 BRIDGE
TYE020.67	37 42 55	78 58 54	AFL	JAMES	MIDDLE JAMES	2080203	TYE RIVER AT RT 56/158 BRIDGE
TYE032.71	37 50 02	79 01 05	AFL	JAMES	MIDDLE JAMES	2080203	TYE RIVER AT RT 682 BRIDGE
XAZ000.30	37 54 10	75 34 46	CB-7	CHESAPEAKE BAY	WESTERN LOWER DELMAR	2080109	SANDY BOTTOM BRCH 20M ABOVE RT 693 CULVERT
XDD000.84			AFL	JAMES	LOWER JAMES	2080206	X CHICKAHOMINY R .25MI BELOW TYSON STP
XDD001.23			AFL	JAMES	LOWER JAMES	2080206	X CHICKAHOMINY R 100YDS ABOVE TYSON STP
XGP001.80			AFL	JAMES	APPOMATTOX	2080207	X DEEP CREEK AT RT 619

GUNSTON COVE ECOSYSTEM MONITORING PROGRAM

BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Gunston Cove Ecosystem Monitoring Program involves long-term monitoring of physical and biological components of the ecosystem in Pohick Creek, Gunston Cove, Dogue Creek, and the adjacent Potomac River. These studies include annual benthos surveys. In conjunction with this monitoring, Fairfax County conducts water quality monitoring in order to determine the effects of sewage outfall from a tertiary treatment plant which empties into Gunston Cove.

PROGRAM OBJECTIVES: To provide a description and analysis of seasonal and spatial patterns of abundance and activity of benthic organisms in the Gunston Cove vicinity. In conjunction with monitoring of other aquatic organisms, objectives are to assess current ecological conditions as well as to provide long-term baseline data for evaluating the effects of changes in land use and/or sewage treatment occurring in the future.

DATE INITIATED: 1984

COORDINATING

AGENCY: George Mason University
Department of Biology
4400 University Drive
Fairfax, Virginia 22030

FUNDING

AGENCY: Fairfax County

PARTICIPATING

AGENCIES: George Mason University (GMU)
County of Fairfax, Environmental Laboratory Services (FCDLS)

INVESTIGATORS:

Project Director	R. Christian Jones	GMU
Co-Principal Investigator	Don Kelso	GMU
Director	Elaine Schaeffer	FCDLS

PARAMETERS:

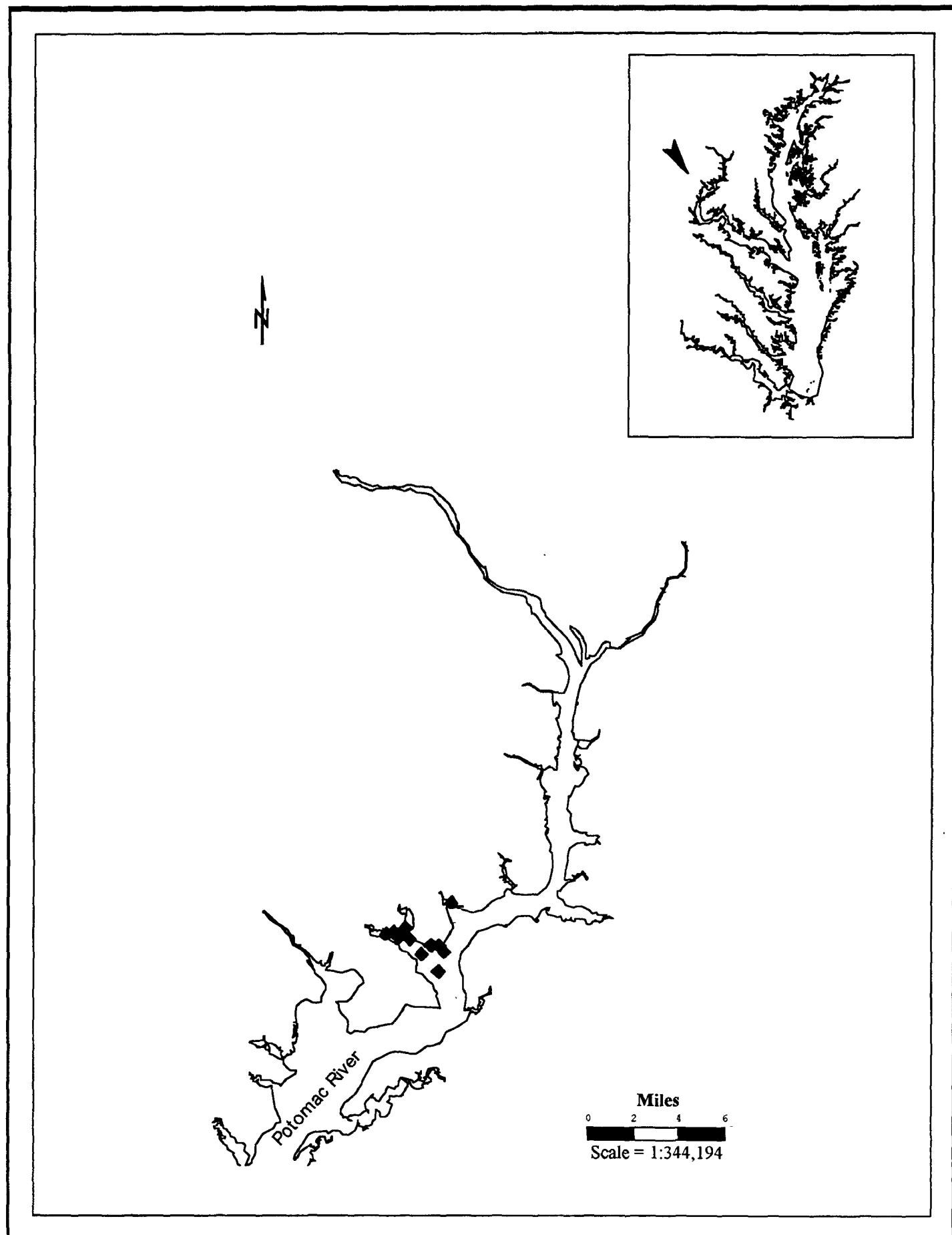
<i>George Mason University:</i>	Benthos count, abundance and composition	
<i>Fairfax County:</i>	Temperature	Conductivity
Dissolved Oxygen	Total Alkalinity	Soluble Reactive Phosphorus
Secchi Depth	Nitrate	Total Kjeldahl Nitrogen
Nitrite	Ammonia	Total Phosphorus
Total Suspended Solids	Chlorophyll a	Volatile Suspended Solids
Phaeophytin	Chloride	Biological Oxygen Demand
pH		

STATIONS: There are currently up to 5 stations located in Pohick Creek, Dogue Creek, Gunston Cove, and the adjacent Potomac River.

SAMPLE COLLECTION: Benthos are sampled on an annual basis. Benthic samples are obtained using a Ponar sampler with an opening of 23x23cm. The samples are washed in the field through a 0.35 mm mesh screen and preserved in formalin. In the laboratory they are sieved through a 0.5 mm mesh screen. Fairfax County water quality monitoring is conducted every two weeks from April through November and monthly from December through March at these same stations.

PROGRAM INTEGRATION: The Gunston Cove Ecosystem Monitoring Program: Benthic Component is one of many monitoring components including: phytoplankton, zooplankton, bird, and fish surveys.

Gunston Cove Ecosystem Monitoring Program Benthic Component



Gunston Cove Ecosystem Monitoring Program Benthic Component

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
10	38 41 01	77 10 13	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE POHICK BAY
11	38 40 10	77 08 50	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE MID GUNSTON COVE
12	38 40 32	77 08 20	BFL	POTOMAC	MIDDLE POTOMAC	2070010	COAST GUARD STATION
14	38 40 17	77 07 43	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER MD SIDE
15	38 42 11	77 07 25	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE DOGUE CREEK EMBAYMENT
4	38 40 57	77 10 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE POHICK BAY
5	38 40 49	77 09 56	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POHICK BAY PARK LAUNCH RAMP
6	38 41 10	77 09 39	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	MOUTH OF ACCOTINK BAY
7	38 40 45	77 09 24	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	CENTER OF GUNSTON COVE
8	38 39 31	77 07 58	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE OUTER GUNSTON COVE
9	38 40 32	77 07 58	BFL	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER CHANNEL

NOTE: STATION LOCATIONS INCLUDE THOSE FOR ALL ECOSYSTEM MONITORING COMPONENTS

BATH COUNTY POWER STATION BACK CREEK STREAM IMPROVEMENT PROJECT BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Bath County Power Station Back Creek Stream Improvement Project - Benthic Macroinvertebrate Component is conducted annually in the spring and fall at two stations located downstream of the dam in the company's stream improvement area. Benthic macroinvertebrate monitoring is conducted concomitantly with finfish monitoring in this program.

PROGRAM OBJECTIVE: To monitor benthic macroinvertebrates in order to maximize the potential of the Back Creek Stream Improvement Area.

DATE INITIATED: 1988

COORDINATING

AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING

AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING

AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:

Program Manager Burton M. Marshall VP

PARAMETERS:

Temperature	Dissolved Oxygen
Taxa Identification	Taxa Abundance

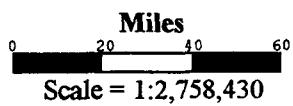
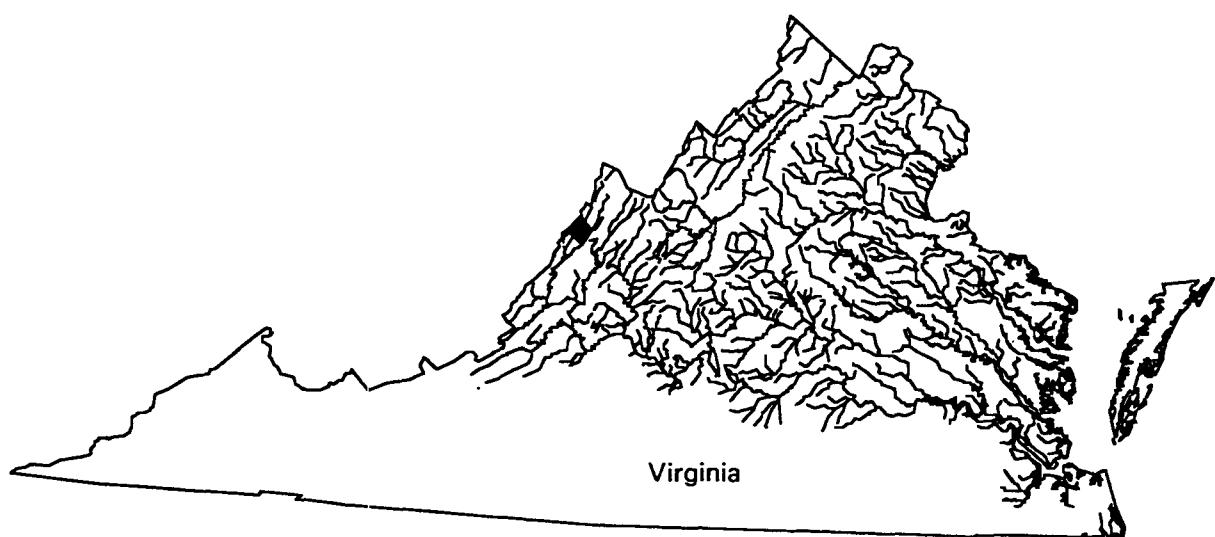
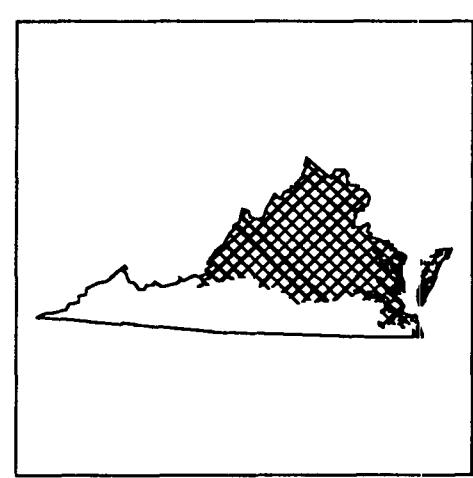
STATIONS: There are two stations located downstream of the dam in the company's stream improvement area.

SAMPLE COLLECTION: Benthic macroinvertebrates are collected each year in the spring and fall at two stations using a kick-net. All samples are preserved and returned to the laboratory for identification and enumeration of community structure and forage base. Benthic sampling occurs in conjunction with finfish sampling. Results are documented annually in technical reports submitted to FERC.

PROGRAM INTEGRATION: The Bath County Power Station - Benthic Component is part of the Back Creek Stream Improvement Project's biological survey.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 12 30	79 48 00	AFL	JAMES	UPPER JAMES	2080201	BATH COUNTY POWER STATION

Bath County Power Station Back Creek Stream Improvement Project Benthic Component



VIRGINIA SAVE OUR STREAMS PROGRAM

PROGRAM DESCRIPTION: The Save Our Streams Program is a grassroots river monitoring and restoration program formally coordinated by the Izaak Walton League of America. Data collected by volunteers is used by state, local, university and federal reports for assessing the impacts of nonpoint source pollution.

PROGRAM OBJECTIVES: To provide macroinvertebrate as well as other habitat/stream quality data for use in reports monitoring stream quality.

DATE INITIATED: 1989

COORDINATING

AGENCY: Virginia Department of Conservation & Recreation
Division of Soil & Water
203 Governors St Suite 206
Richmond VA 23219

Izaak Walton League of America
707 Conservation Lane
Gaithersburg MD 20878-2983

FUNDING

AGENCY: Commonwealth of Virginia

PARTICIPATING

AGENCY: Virginia Department of Conservation and Recreation (VDCR)
Izaak Walton League of America (IWLA)

INVESTIGATORS:

Program Coordinator Charles Lunsford VDCR

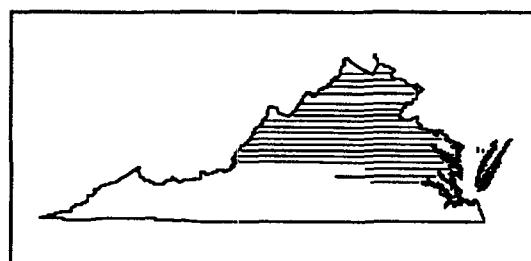
PARAMETERS: Relative macroinvertebrate abundance pH
Water temperature Habitat Assessments

STATIONS: There are 87 macroinvertebrate volunteer monitored stations located in the Chesapeake Bay Basin in Virginia.

SAMPLE COLLECTION: Sampling methods follow those initiated by the Izaak Walton League. Samplers use kick seine for macroinvertebrate qualitative abundance. All data collected by volunteer IWLA groups throughout Virginia are sent to the Virginia Department of Conservation & Recreation for data management.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	38 00 44	78 28 46	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
2A	38 00 00	78 29 15	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
2B	37 59 48	78 29 15	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
3	37 59 36	78 29 09	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
4	37 59 24	78 29 15	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
5	37 59 12	78 29 21	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
6	37 59 00	78 29 35	AFL	JAMES	UPPER JAMES	2080204	COW BRANCH
3	38 08 14	78 40 04	AFL	JAMES	UPPER JAMES	2080204	DOYLES RIVER
4	38 08 01	78 40 00	AFL	JAMES	UPPER JAMES	2080204	DOYLES RIVER
3	38 04 26	78 32 24	AFL	JAMES	UPPER JAMES	2080204	IVY CREEK
3A	38 03 36	78 32 19	AFL	JAMES	UPPER JAMES	2080204	IVY CREEK
1	37 59 15	78 25 31	AFL	JAMES	UPPER JAMES	2080204	HENDERSON CREEK
1A	38 00 56	78 28 46	AFL	JAMES	UPPER JAMES	2080204	MOORES CREEK
1	38 08 27	78 33 42	AFL	JAMES	UPPER JAMES	2080204	MOOREMANS RIVER
1A	38 08	78 31	AFL	JAMES	UPPER JAMES	2080204	MOORMANS RIVER
2	38 07 19	78 37 07	AFL	JAMES	UPPER JAMES	2080204	MOORMANS RIVER
3	38 07 38	78 40 04	AFL	JAMES	UPPER JAMES	2080204	MOORMANS RIVER

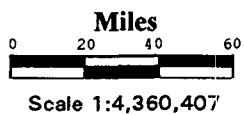
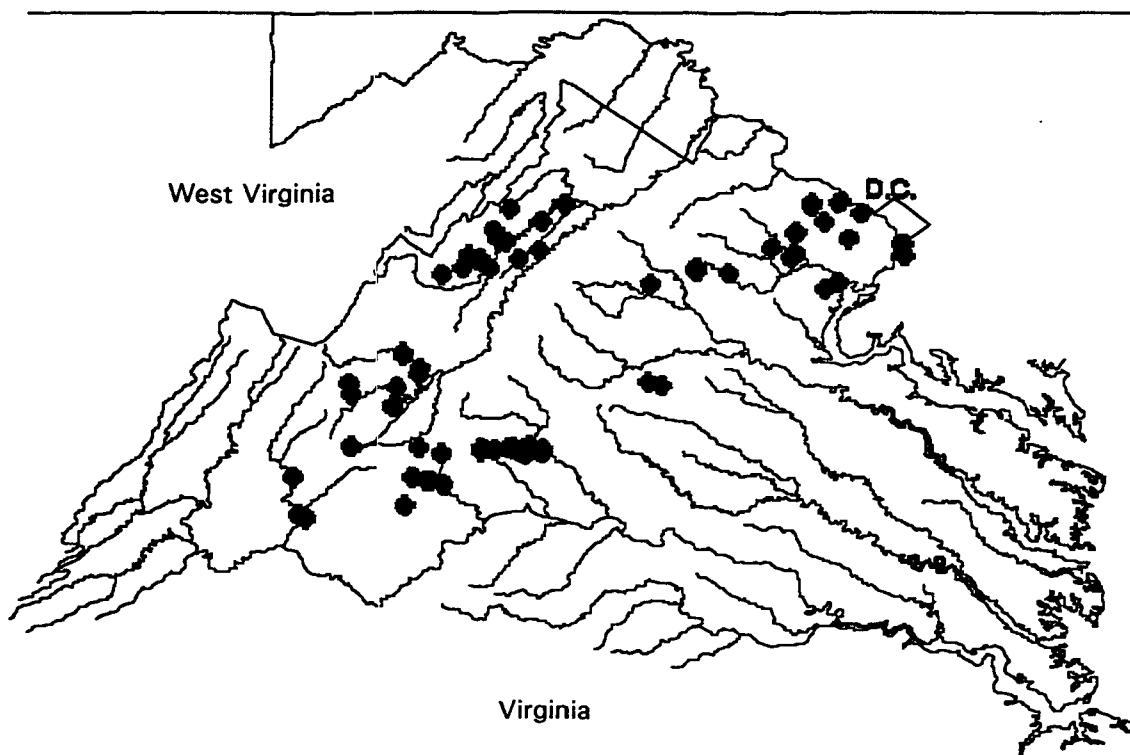


Pennsylvania

West Virginia

D.C.

Virginia



STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	38 04 23	78 25 30	AFL	JAMES	UPPER JAMES	2080204	REDBUD CREEK
2	38 48 27	77 06 42	BFL	POTOMAC	MIDDLE POTOMAC	2070010	CAMERON RUN
3	38 48 37	77 06 51	BFL	POTOMAC	MIDDLE POTOMAC	2070010	CAMERON RUN
1	38 08 59	79 10 59	AFL	POTOMAC	UPPER POTOMAC	2070005	BACK CREEK
2	38 15 37	79 11 16	AFL	POTOMAC	UPPER POTOMAC	2070005	JENNINGS BRANCH
1	38 10 01	79 02 57	AFL	POTOMAC	UPPER POTOMAC	2070005	LEWIS CREEK
1	38 14 37	79 02 08	AFL	POTOMAC	UPPER POTOMAC	2070005	MIDDLE RIVER
2	38 12 58	79 10 49	AFL	POTOMAC	UPPER POTOMAC	2070005	MIDDLE RIVER
3	38 10 27	79 07 56	AFL	POTOMAC	UPPER POTOMAC	2070005	MIDDLE RIVER
1	38 17 40	78 54 40	AFL	POTOMAC	UPPER POTOMAC	2070005	NORTH RIVER TRIB
1	38 03 43	78 54 52	AFL	POTOMAC	UPPER POTOMAC	2070005	PRATTS RUN
1	38 03 18	78 29 45	AFL	JAMES	UPPER JAMES	2080204	MEADOW CREEK
2	38 03 18	78 29 37	AFL	JAMES	UPPER JAMES	2080204	MEADOW CREEK
1A	38 49 55	77 13 12	AFL	POTOMAC	UPPER POTOMAC	2070010	ACCOTINK CREEK
1	38 51 09	77 25 47	AFL	POTOMAC	UPPER POTOMAC	2070010	BIG ROCKY RUN
2	38 51 19	77 25 36	AFL	POTOMAC	UPPER POTOMAC	2070010	BIG ROCKY RUN
1	38 55 47	77 10 14	AFL	POTOMAC	UPPER POTOMAC	2070010	BRYAN BRANCH
3	38 54	77 19	AFL	POTOMAC	UPPER POTOMAC	2070010	DIFFICULT RUN
11-D	38 58 14	77 15 35	AFL	POTOMAC	UPPER POTOMAC	2070010	DIFFICULT RUN
1	38 45 52	77 07 19	AFL	POTOMAC	UPPER POTOMAC	2070010	DOGUE CREEK
2	38 45 52	77 07 20	AFL	POTOMAC	UPPER POTOMAC	2070010	DOGUE CREEK
1	38 57 28	77 22 09	AFL	POTOMAC	UPPER POTOMAC	2070010	SUGARLAND RUN
2	38 58 23	77 21 59	AFL	POTOMAC	UPPER POTOMAC	2070010	SUGARLAND RUN
4	38 59	77 15	AFL	POTOMAC	UPPER POTOMAC	2070010	SUGARLAND RUN
1A	38 41 28	77 41 25	AFL	POTOMAC	UPPER POTOMAC	2070010	CEDAR RUN
1	38 42 05	77 49 05	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
2	38 42 14	77 49 17	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
3	38 42 27	77 49 25	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
3A	38 41 22	78 49 28	AFL	POTOMAC	UPPER POTOMAC	2070006	GREAT RUN
4	38 42 44	77 49 08	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
5	38 42 46	77 49 08	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
6	38 42 10	77 49 11	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080103	GREAT RUN
1	37 47 08	78 58 14	AFL	JAMES	UPPER JAMES	2080203	HAT CREEK
1	37 53 04	78 53 14	AFL	JAMES	UPPER JAMES	2080203	REEDS CREEK
9	37 52	78 49	AFL	JAMES	UPPER JAMES	2080203	ROCKFISH RIVER
6	37 53	78 52	AFL	JAMES	UPPER JAMES	2080203	S. FORK ROCKFISH RIVER
2	37 53 43	78 56 22	AFL	JAMES	UPPER JAMES	2080203	SPRUCE CREEK
1	37 59 17	78 49 30	AFL	JAMES	UPPER JAMES	2080203	WILLIAMS CREEK
1	38 15 05	77 57 11	AFL	YORK	YORK	2080105	RIGA RUN
2	38 15 38	78 09 16	AFL	YORK	YORK	2080105	POPLAR RUN
1	38 47 30	77 31 26	AFL	POTOMAC	UPPER POTOMAC	2070010	BULL RUN
1	38 39 37	77 15 49	AFL	POTOMAC	UPPER POTOMAC	2070010	MARUMSCO CREEK
2	38 39 27	77 15 40	AFL	POTOMAC	UPPER POTOMAC	2070010	MARUMSCO CREEK
1	38 38 08	77 19 02	AFL	POTOMAC	UPPER POTOMAC	2070010	NEABSCO CREEK
1	38 46 22	77 25 53	AFL	POTOMAC	UPPER POTOMAC	2070010	RUSSIA BRANCH
2	38 45 59	77 25 48	AFL	POTOMAC	UPPER POTOMAC	2070010	RUSSIA BRANCH
3	38 45 14	77 26 52	AFL	POTOMAC	UPPER POTOMAC	2070010	RUSSIA BRANCH
2	38 39	78 08	AFL	RAPPAHANNOCK	UPPER RAPPAHANNOCK	2080102	THORTON RIVER
1	37 53 53	79 24 20	AFL	JAMES	UPPER JAMES	2080202	HAYS CREEK
1	37 44 58	79 23 18	AFL	JAMES	UPPER JAMES	2080202	MAURY RIVER
2A	37 44 24	79 21 32	AFL	JAMES	UPPER JAMES	2080202	MAURY RIVER
2	37 44 19	79 21 31	AFL	JAMES	UPPER JAMES	2080202	MAURY RIVER
3	37 44 01	79 21 36	AFL	JAMES	UPPER JAMES	2080202	MAURY RIVER
2A	38 22 41	78 58 40	AFL	POTOMAC	UPPER POTOMAC	2070005	NORTH RIVER
2B	38 22 10	78 58 22	AFL	POTOMAC	UPPER POTOMAC	2070005	NORTH RIVER
3	38 19 05	78 54 27	AFL	POTOMAC	UPPER POTOMAC	2070005	NORTH RIVER
8B	38 57	78 33	AFL	POTOMAC	UPPER POTOMAC	2070006	CEDAR CREEK
1	38 42 51	78 44 31	AFL	POTOMAC	UPPER POTOMAC	2070006	HOLMAN'S CREEK
1	38 46	78 43	AFL	POTOMAC	UPPER POTOMAC	2070006	MILL CREEK
2	38 45	78 41	AFL	POTOMAC	UPPER POTOMAC	2070006	MILL CREEK
3	38 45 20	78 40 16	AFL	POTOMAC	UPPER POTOMAC	2070006	MILL CREEK
1	38 47	78 26	AFL	POTOMAC	UPPER POTOMAC	2070006	N.FORK SHENANDOAH
3	38 54 05	78 25 30	AFL	POTOMAC	UPPER POTOMAC	2070006	N.FORK SHENANDOAH
11	39 58	78 20	AFL	POTOMAC	UPPER POTOMAC	2070006	N.FORK SHENANDOAH
1	38 45	78 31	AFL	POTOMAC	UPPER POTOMAC	2070006	PASSAGE CREEK
2	38 43	78 38	AFL	POTOMAC	UPPER POTOMAC	2070006	SMITH CREEK
1A	38 52	78 37	AFL	POTOMAC	UPPER POTOMAC	2070006	STONY CREEK
2	38 52	78 37	AFL	POTOMAC	UPPER POTOMAC	2070006	STONY CREEK
3	38 49 12	78 33 56	AFL	POTOMAC	UPPER POTOMAC	2070006	STONY CREEK
B13	38 50	78 36	AFL	POTOMAC	UPPER POTOMAC	2070006	STONY CREEK

WEST VIRGINIA MACROINVERTEBRATE MONITORING PROGRAM

PROGRAM DESCRIPTION: The West Virginia Ambient Biological Monitoring Program (1978-1995) assisted in the collection of biological ambient data to support varied activities of the West Virginia Division of Environmental Protection and other agencies. This monitoring program is scheduled to be restructured beginning in 1996.

PROGRAM OBJECTIVES: To provide baseline data and determine long-term trends on benthic macroinvertebrates and corresponding water quality in West Virginia.

DATE INITIATED: 1978

COORDINATING

AGENCY: West Virginia Division of Environmental Protection
Office of Water Resources
1201 Greenbrier Street
Charleston, WV 25311

FUNDING

AGENCY: West Virginia Division of Environmental Protection (DEP)

PARTICIPATING

AGENCY: West Virginia Division of Environmental Protection

INVESTIGATORS:

Program Supervisor	Janice Smithson	DEP
Program Coordinator	Jeffrey Bailey	DEP

PARAMETERS:

Macroinvertebrates: Taxa Composition Taxa Abundance Diversity

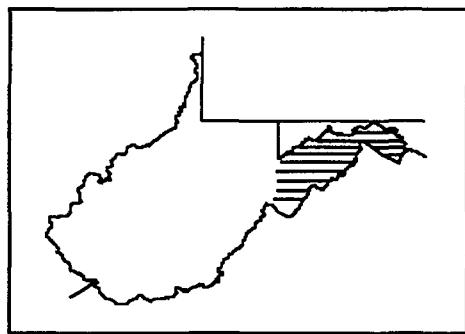
STATIONS: As part of the West Virginia Ambient Biological Monitoring Program (through 1995) there were four macroinvertebrate stations located in the Potomac River Basin; one on the Shenandoah River, two on the South Branch of the Potomac River and one on the Opequon Creek.

Beginning in 1996, a watershed approach will be used to restructure the monitoring program. Sampling stations are to be determined in 1996.

SAMPLE COLLECTION: In previous years (through 1995) sampling was conducted on an annual (1978-1990) or biannual basis (1991-1995). Multiplate samplers (in triplicate) remained in the water column for 6-8 weeks. Placement and retrieval of the samplers occurred from mid-June through August. Modifications of sampling methodology are to be determined in 1996.

PROGRAM INTEGRATION: This program was part of West Virginia's ambient biological monitoring network. Monthly phytoplankton sampling was conducted at the same stations.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
550462	39 31 01	77 53 23	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	OPEQUON CREEK AT RT. 12 BRIDGE NEAR BEDINGTON
550468	39 26 49	78 39 16	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	S. BRANCH AT RT. 3 BRIDGE NEAR SPRINGFIELD
550471	39 19 22	77 44 33	AFL	POTOMAC	SHENANDOAH	2070004	US ROUTE 340 BRIDGE IN BOLIVAR
550843	39 06 15	78 57 34	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	S. BRANCH AT RT. 220 BRIDGE NEAR MOOREFIELD



Pennsylvania

West Virginia

Virginia

N

Miles

0 13 26 39

Scale 1:2,799,355

WEST VIRGINIA SAVE OUR STREAMS PROGRAM

PROGRAM DESCRIPTION: The West Virginia Save Our Streams Program is a volunteer macroinvertebrate monitoring program coordinated with the West Virginia Department of Environmental Protection.

PROGRAM OBJECTIVES: To provide bimonthly macroinvertebrate data to determine long-term trends on benthic macroinvertebrates and corresponding water quality in West Virginia.

DATE INITIATED: 1989

COORDINATING AGENCY: West Virginia Division of Environmental Protection
Office of Water Resources
1201 Greenbrier Street
Charleston, WV 25311

FUNDING AGENCY: West Virginia Division of Environmental Protection (DEP)
U.S. Environmental Protection Agency

PARTICIPATING AGENCY: West Virginia Division of Environmental Protection
U.S. Environmental Protection Agency
West Virginia State Soil Conservation Committee

INVESTIGATORS:

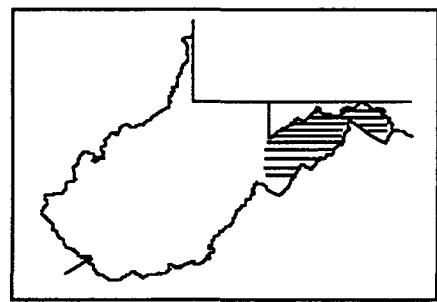
Program Coordinator Alvan Gale DEP

PARAMETERS: *Macroinvertebrates:* Macroinvertebrate abundance Water temperature
Habitat Assessments pH

STATIONS: There about 32 citizen monitoring macroinvertebrate stations located in the Chesapeake Bay Basin.

SAMPLE COLLECTION: Sampling methods follow those initiated by the Izaak Walton League. Samping uses kick seine for macroinvertebrate qualitative abundance.

PROGRAM INTEGRATION: N/A



Pennsylvania

West Virginia

Virginia

N

Miles

0 13 26 39

Scale 1:2,799,355

West Virginia Save Our Streams Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	39 23	78 09	AFL	POTOMAC	UPPER POTOMAC	2070004	BACK CREEK
2A	39 33 48	78 00 25	AFL	POTOMAC	UPPER POTOMAC	2070004	BACK CREEK
2B	39 34 49	78 00 44	AFL	POTOMAC	UPPER POTOMAC	2070004	BACK CREEK
3	39 35 19	78 00 12	AFL	POTOMAC	UPPER POTOMAC	2070004	BACK CREEK
1	39 36 34	78 02 48	AFL	POTOMAC	UPPER POTOMAC	2070004	CHERRY RUN
1	39 34 06	78 00 25	AFL	POTOMAC	UPPER POTOMAC	2070004	KATES HOLLOW RUN
1	39 21	78 04	AFL	POTOMAC	UPPER POTOMAC	2070004	MILL CREEK
2	39 19 56	78 02 15	AFL	POTOMAC	UPPER POTOMAC	2070004	MILL CREEK
1	38 59 11	79 15 54	AFL	POTOMAC	UPPER POTOMAC	2070006	N. FORK OF S. BRANCH POTOMAC RIVER
2	38 59 32	79 12 45	AFL	POTOMAC	UPPER POTOMAC	2070006	N. FORK OF S. BRANCH POTOMAC RIVER
1	39 18 04	78 25 30	AFL	POTOMAC	UPPER POTOMAC	2070003	CACAPON RIVER
1	39 28 16	78 31 27	AFL	POTOMAC	UPPER POTOMAC	2070003	LITTLE CACAPON RIVER
1	39 03 56	78 39 20	AFL	POTOMAC	UPPER POTOMAC	2070003	LOST RIVER
1	39 29	77 50	AFL	POTOMAC	UPPER POTOMAC	2070003	ROCKY MARSH RUN
1	39 20	77 46	AFL	POTOMAC	UPPER POTOMAC	2070007	ELKS RUN
2	39 20	77 46	AFL	POTOMAC	UPPER POTOMAC	2070007	ELKS RUN
1	39 14 50	77 49 56	AFL	POTOMAC	UPPER POTOMAC	2070007	EVITTS RUN
1	39 12	77 54	AFL	POTOMAC	UPPER POTOMAC	2070007	LONG MARSH RUN
2	39 11 04	77 51 59	AFL	POTOMAC	UPPER POTOMAC	2070007	LONG MARSH RUN
1	39 14	77 54	AFL	POTOMAC	UPPER POTOMAC	2070007	BULLSKIN RUN
2	39 14	77 53	AFL	POTOMAC	UPPER POTOMAC	2070007	BULLSKIN RUN
3	39 12 51	77 50 54	AFL	POTOMAC	UPPER POTOMAC	2070007	BULLSKIN RUN
2	39 18	77 49	AFL	POTOMAC	UPPER POTOMAC	2070007	FLOWING SPRINGS RUN
4	39 18	77 48	AFL	POTOMAC	UPPER POTOMAC	2070007	FLOWING SPRINGS RUN
1	39 21 14	77 56 13	AFL	POTOMAC	UPPER POTOMAC	2070004	HOPEWELL RUN
1	39 16 25	77 54 03	AFL	POTOMAC	UPPER POTOMAC	2070004	N. FORK BULLSKIN RUN
1	39 12	77 51	AFL	POTOMAC	UPPER POTOMAC	2070007	SHENANDOAH RIVER
1	39 40	78 06	AFL	POTOMAC	UPPER POTOMAC	2070004	SLEEPY CREEK
1	39 37 16	78 14 59	AFL	POTOMAC	UPPER POTOMAC	2070004	WARM SPRING RUN
2	39 37 20	78 14 50	AFL	POTOMAC	UPPER POTOMAC	2070004	WARM SPRING RUN
3	39 37 21	78 14 46	AFL	POTOMAC	UPPER POTOMAC	2070004	WARM SPRING RUN

MARYLAND BIOLOGICAL STREAM SURVEY

BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Maryland Biological Stream Survey is a comprehensive sampling program to assess the status of biological resources in Maryland's non-tidal streams, quantify the extent to which acidic deposition has affected or may be affecting critical biological resources in the state, and establish a benchmark for long-term monitoring of trends in these resources.

PROGRAM OBJECTIVES: To provide a qualitative description of the community composition at each sampling site, as well as provide abundance and biomass estimates of fish, map the geographic distribution of biological resources, establish priorities for environmental issues of concern in Maryland's streams and rivers, and help to identify regions that most require protection or mitigation.

DATE INITIATED: 1993 pilot project

COORDINATING AGENCY: Maryland Department of Natural Resources
Monitoring and Non-tidal Assessment Division
Tawes State Office Building
580 Taylor Avenue
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)
Versar, Inc. (VI)
Coastal Environmental Services (CES)
University of Maryland (UMD)

INVESTIGATORS:

Ronald Klauda	MDDNR
Paul Kazyak	MDDNR
Nancy E. Roth	VI
Janis C. Chaillou	VI
Michael Gaughan	VI
M.T. Southerland	VI
J.H. Volstad	VI
S.B. Weisberg	VI
D.G. Heimbuch	CES
J.C. Seibel	CES
Lenwood Hall	UMD
Ray Morgan	UMD

PARAMETERS: Benthic counts by species
Physical habitat measurements: flow, wetted width, velocity, rootwad count, large woody debris count, riparian buffer width and count
RBP subjective habitat survey
pH, ANC, conductivity, sulfate, nitrate, DOC, DO, temperature
Fish, herpetofauna, mussels, and aquatic vegetation
are also surveyed during portions of the year.

STATIONS: The survey study area comprises 18 distinct drainage basins across the state. Lattice sampling is used to schedule sampling of all basins over a three-year sampling cycle. The study area is divided into three geographic regions with five to seven basins each: (1) western, (2) central, and (3) eastern. Two basins are randomly selected from each region for sampling each year. One randomly selected basin in each region is visited twice, to quantify between year variability in the response variables. Sampling occurs on a five year

Maryland Biological Stream Survey Benthic Component

cycle, with field sampling occurring in three consecutive years followed by two years of analysis. Sampling is restricted to non-tidal, third order and smaller stream reaches, excluding impoundments that were non-wadable or that substantially altered the riverine nature of the reach. Basins are sampled using a stratified random sampling of 75-meter segments within each basin. The number of segments sampled per basin is proportional to the number of stream miles in the basin within a given stream order. Additional segments are sampled to account for loss of sampling events such as weather, field conditions, etc.

SAMPLE COLLECTION: Benthic macroinvertebrates are sampled during the spring index period using D net at all sampled segments. Approximately 20 square feet of combined substrates (riffle, rootwads, woody debris, leaf packs, macrophytes, undercut banks) are sampled and organisms are preserved in 70% ethanol. In the laboratory, samples are transferred to a gridded pan and organisms are counted to the family level from randomly selected grid cells until the cell that contains the 100th individual (if possible) is completed.

PROGRAM INTEGRATION: The Maryland Biological Stream Survey benthic component is conducted along with fish, herpetofauna, mussel, and aquatic vegetation surveys. See Marland Biological Stream Survey fish component for more information, or contact Maryland DNR.

MONTGOMERY COUNTY WATER QUALITY MONITORING PROGRAM BENTHIC COMPONENT

PROGRAM DESCRIPTION: The Montgomery County Water Quality Monitoring Program: Benthic Component is part of a county wide assessment of streams and rivers and provide the foundation from which to accomplish the water resource management goals of the county.

PROGRAM OBJECTIVES: Information on the integrity of the county's streams and rivers from assessments of benthic, fish, and habitat resources is being used to protect, maintain, and restore high quality chemical, physical, and biological stream conditions; to reverse the past trends of stream deterioration through improved water management practices; to restore streams damaged by storm water runoff impacts from land development practices of the past; and to maintain a natural stream environment in county streams, with habitat conditions supporting wildlife and aquatic life along with appropriate recreational, water supply and other water uses.

DATE INITIATED: 1994

COORDINATING

AGENCY:

Montgomery County Department of Environmental Protection
Watershed Management Division
250 Hungerford Drive Suite 175
Rockville, MD 20850

FUNDING

AGENCIES:

Montgomery County Department of Environmental Protection

PARTICIPATING

AGENCIES:

Montgomery County Department of Environmental Protection

INVESTIGATORS:

Keith Van Ness
Ken Brown
Michael S. Haddaway
Doug Marshall
David Jordahl

PARAMETERS:

Benthic macroinvertebrate count, genus or species identifications
Instream habitat measurements and rapid habitat assessment
Physiochemical parameters: pH, %sat, DO, cond., water temperature

STATIONS: A baseline inventory stream survey is conducted on three to four watersheds per year. Each watershed survey effort consists of sampling at least two first order, two second order, and two third order reaches, with each reach divided into 75 meter non-overlapping stream segments. One segment is randomly chosen per stream reach to be inventoried.

SAMPLE COLLECTION: Samples are collected two times per year during the spring and fall. Samples are collected using 530 micron mesh, square meter kick net. Two 1 square meter samples collected per station. Samples are composited by station, preserved, and transferred to a gridded pan. Organisms are counted to genus level from randomly selected grids until the grid containing the 200th organism is counted.

PROGRAM INTEGRATION: The benthic component of this program is conducted in conjunction with freshwater fish monitoring.

CHESAPEAKE BAY SUBMERGED AQUATIC VEGETATION AERIAL SURVEY

PROGRAM DESCRIPTION: The Chesapeake Bay Submerged Aquatic Vegetation Aerial Survey maps all SAV beds in the Bay. In addition to the aerial summer surveys, ground surveys are performed to provide as much detail as possible on location, size and density of SAV beds and changes in these beds from year to year. Coordinated by the EPA Chesapeake Bay Program, the U.S. Fish and Wildlife Service, Maryland Department of Natural Resources and the College of William and Mary's Virginia Institute of Marine Science, various agencies, organizations and volunteer groups participate in the aerial and ground truth surveys.

PROGRAM OBJECTIVES: To provide annual information on the distribution and abundance of submerged aquatic vegetation for permit making decisions and to assess long term trends.

DATE INITIATED: 1984 (The first Bay-wide survey was completed in 1978 although reports were issued separately by Maryland and Virginia).

COORDINATING AGENCY: U.S. EPA Chesapeake Bay Program Office
410 Severn Avenue
Annapolis, Maryland 21403

FUNDING AGENCIES: U.S. EPA Chesapeake Bay Program Office
U.S. Fish and Wildlife Service
Maryland Department of Natural Resources
Virginia Department of Environmental Quality
Virginia Institute of Marine Science
N.O.A.A. - Coastal Resources Management Program

PARTICIPATING AGENCIES: U.S. EPA Chesapeake Bay Program Office (CBP)
U.S. Fish and Wildlife Service (FWS)
Maryland Department of Natural Resources (MDDNR)
Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

Program Coordinator	Peter Bergstrom	FWS
Program Coordinator	Carin Bisland	CBP
Program Coordinator	P. Burton	MDDNR
Principal Investigator	Robert Orth	VIMS

PARAMETERS: SAV Bed Location
SAV Bed Size

SAV Density Classification (as percent crown cover):

1. Very Sparse, 0-10%
2. Sparse, 10-40%
3. Moderate, 40-70%
4. Dense, 70-100%

SAV Species (from ground truthing data):

<i>Ceratophyllum demersum</i> (coontail)	<i>Chara</i> (muskgrass)
<i>Eloea canadensis</i> (common elodea)	<i>Egeria densa</i> (water weed)
<i>Heteranthera dubia</i> (waterstargrass)	<i>Hydrilla verticilla</i> (hydrilla)
<i>Myriophyllum spicatum</i> (eurasion watermilfoil)	<i>Najas</i> (naiad)
<i>Nitella flexilis</i> (stonewort)	<i>Potamogeton crispus</i> (curly pondweed)
<i>Potamogeton pectinatus</i> (sago pondweed)	<i>Potamogeton perfoliatus</i> (redhead grass)

Chesapeake Bay Submerged Aquatic Vegetation Aerial Survey

Potamogeton pusillus (slender pondweed)
Trapa natans (water chestnut)
Zanichellia palustris (horned pondweed)

Ruppia maritima (widgeon grass)
Vallisneria americana (wild celery)
Zostera marina (eelgrass)

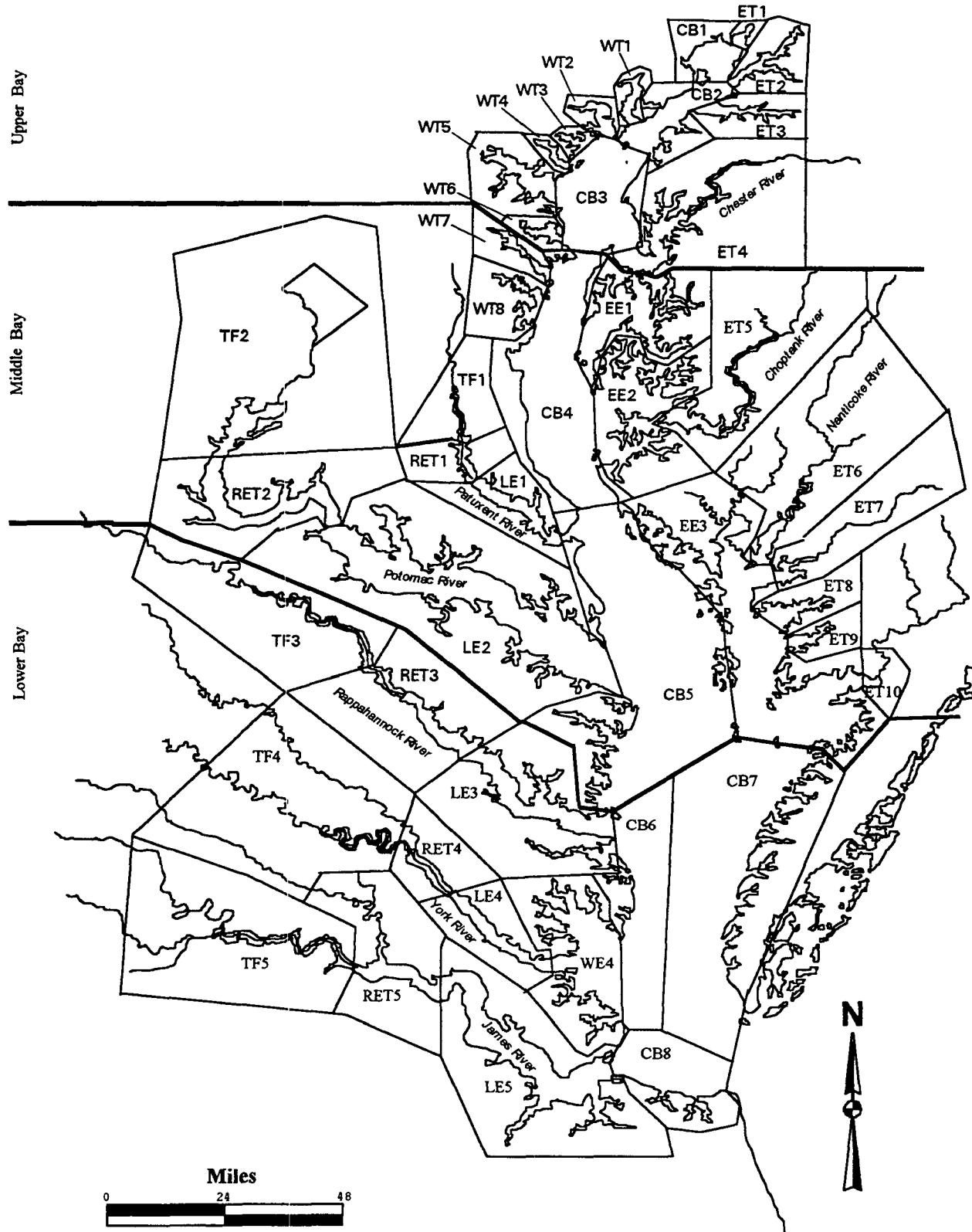
STATIONS: The survey covers virtually all shoreline areas of the Chesapeake Bay and its tidal tributaries.

SAMPLE COLLECTION:: Flight lines for aerial photography are designed to cover all shoreline and shoal areas, ensuring both complete bed coverage and inclusion of land features as control points for mapping. Flight paths are oriented so that the overall mission progresses in the same direction as tide propagation, and to ensure that photography occurs at the lowest possible tidal stage. Guidelines set for the taking of photographs specify that they can be taken only at low tide, during maximum delineation of SAV, at certain sun angles, during periods of low turbidity and low or no wind and clouds, in the vertical mode with less than 5 degrees tilt, and with sufficient identifiable land area to assure accurate plotting of beds. Ground truthing data to coincide with the aerial survey is collected by various agencies, organization and individuals. Data is collected for the lower portion of the Bay by VIMS using small boat surveys. Ground surveys are also performed by the USGS in the upper reaches of the tidal Potomac River and its tributaries, by Harford Community College in the upper Chesapeake Bay and by the University of Maryland's Horn Point Environmental Laboratory in the Choptank River. In addition to these scientific surveys, citizen volunteers perform ground truthing surveys. Through aerial photography and ground-truthing surveys, location and extent of SAV bed distribution is determined. SAV beds identified on the photographs are then traced onto mylar USGS quadrangles and digitized into ArcInfo. Density is estimated as percent crown cover from photography and information supplied by ground truthing. Species distribution is available from ground truthing. Data is recorded in square meters for each quadrangle, though for sampling, the Bay was divided into 21 sections and three zones (Upper, Middle and Lower) for ease of reporting.

* Beginning in 1994, this survey changed into a CBP segmentation scheme. For more information contact Principle Investigator.

PROGRAM INTEGRATION: The Bay-wide aerial survey program is coordinated with the SAV ground survey and ground truthing programs undertaken in Maryland and Virginia.

Chesapeake Bay Submerged Aquatic Vegetation Aerial Survey



CITIZENS SUBMERGED AQUATIC VEGETATION HUNT PROGRAM

PROGRAM DESCRIPTION: The Citizen's Submerged Aquatic Vegetation Hunt program was initiated to assist in the characterization of submerged aquatic vegetation (SAV) in the Chesapeake Bay as part of an overall effort to document the needed conditions and successful techniques to revegetate the Bay.

PROGRAM OBJECTIVES: To verify presence and determine species composition of SAV in areas of the Chesapeake Bay and its tributaries which have been photo-interpreted as SAV beds.

DATE INITIATED: 1985

**COORDINATING
AGENCIES:** U.S. Fish & Wildlife Service
Chesapeake Bay Estuary Program
177 Admiral Cochrane Drive
Annapolis, Maryland 21401

FUNDING AGENCIES: U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: U.S. Fish and Wildlife Service (FWS)

INVESTIGATORS:

Program Coordinator **Kathy Reshetiloff** **FWS**
Participating Citizens

PARAMETERS:

Weather Conditions	Tide
SAV Location	
SAV Species:	
<i>Ceratophyllum demersum</i> (coontail)	<i>Elodea canadensis</i> (common waterweed)
<i>Heteranthera dubia</i> (water stargrass)	<i>Hydrilla verticillata</i> (hydrilla)
<i>Naiads spp.</i>	<i>Myriophyllum spicatum</i> (eurasian watermilfoil)
<i>Potamogeton crispus</i> (curly pondweed)	<i>Potamogeton pectinatus</i> (sago pondweed)
<i>Potamogeton perfoliatus</i> (redhead grass)	<i>Potamogeton pusillus</i> (slender pondweed)
<i>Ruppia maritima</i> (widgeon grass)	<i>Vallisneria americana</i> (wild celery)
<i>Zanichellia palustris</i> (horned pondweed)	<i>Zostera marina</i> (eelgrass)

STATIONS: Areas are identified by the previous years' aerial reconnaissance and, thus, change from year to year.

SAMPLE COLLECTION: Volunteers are provided with SAV identification guides, reduced SAV quadrangle maps and data sheets. SAV bed locations are affirmed at low tide through the use of a canoe, zodiac, rowboat, etc. Unidentified samples are forwarded to FWS for identification.

PROGRAM INTEGRATION: The ground-truthing of the Chesapeake Bay Submerged Aquatic Vegetation Aerial Survey assists in ensuring quality data on the distribution of SAV in the Chesapeake Bay.

MARYLAND ANNUAL OYSTER SPAT INDEX AND DISEASE SURVEY

PROGRAM DESCRIPTION: The Maryland Annual Oyster Spat Index and Disease Survey is an extensive survey designed to provide descriptive information on oyster recruitment, mortality, and population structure and the status of oyster parasites in the Maryland portion of the Chesapeake Bay.

PROGRAM OBJECTIVE: To provide information on oyster populations in the Maryland portion of the Chesapeake bay.

DATE INITIATED: 1939

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division - Shellfish Program
Tawes State Office Building C-2
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources
National Oceanic and Atmospheric Administration

PARTICIPATING AGENCIES: MDDNR: Fisheries Division, Shellfish Program (FDSP)
Chesapeake Bay Research and Monitoring Division,
Cooperative Oxford Lab (COL)

INVESTIGATORS:

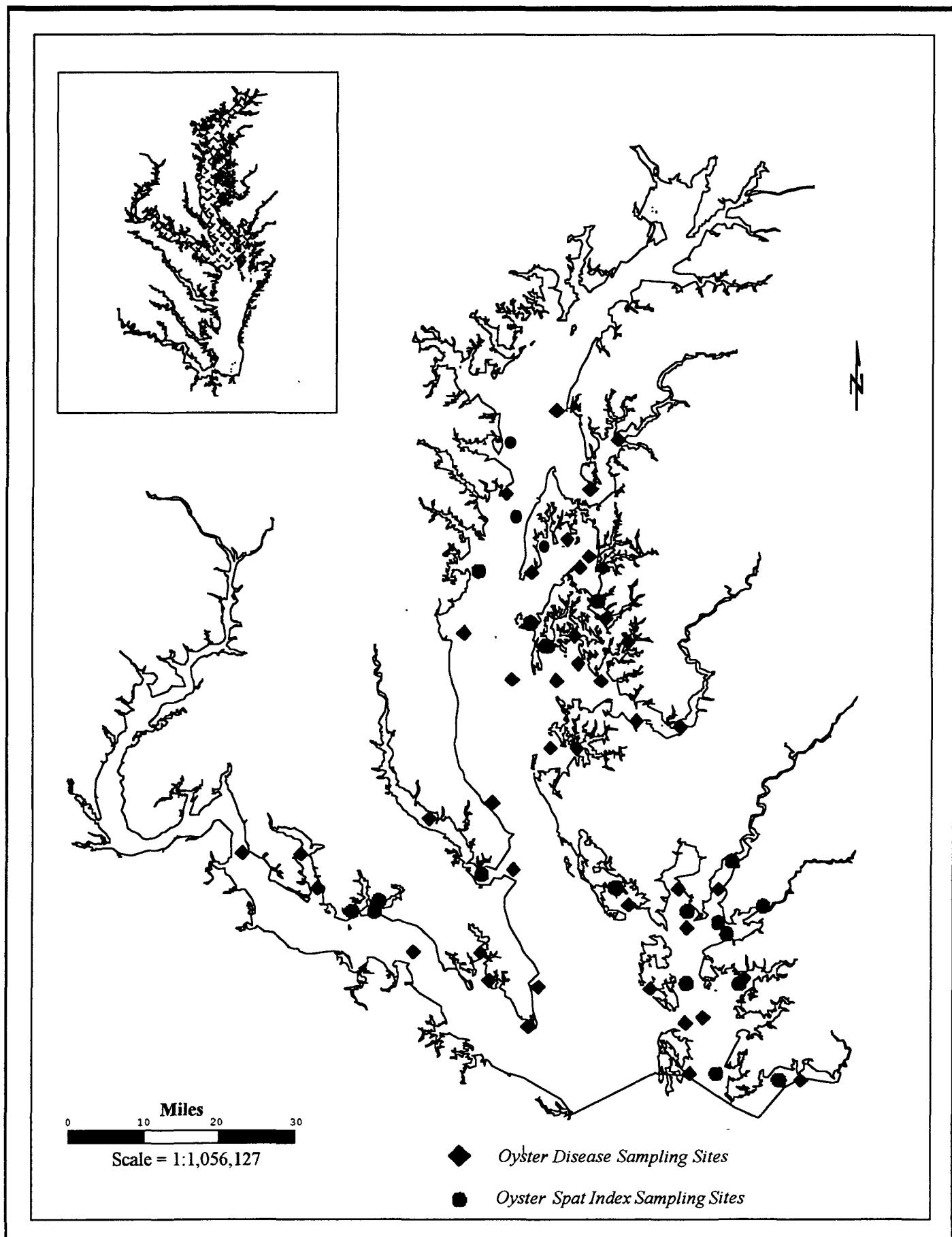
Principal Investigator	Roy Scott	FDSP
Principal Investigator	William Outten	FDSP
Principal Investigator	Mark L. Homer	FDSP
Principal Investigator	Steve Jordan	COL

PARAMETERS: *Physical/Chemical:* *Biological:*
Depth Number of live spat, smalls, and markets
Salinity Number/stage of dead spat, smalls, and markets
Temperature Size distribution at selected sites
Bottom Type meat quality
Reproductive stage
Relative density and type of fouling organisms
Prevelance and intensity of oyster parasites

STATIONS: Samples are collected at between 250 and 350 Maryland Chesapeake Bay sites; 53 of these are a subset used to determine the spat index; 43 are included in a subset where oysters are collected for later parasite diagnostic tests.

SAMPLE COLLECTION: Stations are located using a LORAN C receiver. Biological samples are collected using an oyster dredge and data are from 0.5 bushel subsamples.

PROGRAM INTEGRATION: N/A



Maryland Annual Oyster Spat Index and Disease Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
DISEASE SITES							
BNSP	39.14	76.30	CB-3	CHESAPEAKE BAY	UPPER CHESP BAY	2060001	
CHOF	39.09	76.16	ET-4	CHESTER	CHESTER	2060002	
CHBR	39.00	76.22	ET-4	CHESTER	CHESTER	2060002	
UBHA	38.99	76.41	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060003	
EBPI	38.91	76.27	EE-1	EASTERN BAY	EASTERN BAY	2060005	
EBBU	38.88	76.22	EE-1	EASTERN BAY	EASTERN BAY	2060005	
MRBI	38.86	76.19	EE-1	EASTERN BAY	MILES RIVER	2060005	
MRTU	38.86	76.24	EE-1	EASTERN BAY	MILES RIVER	2060005	
MRLP	38.77	76.18	EE-1	EASTERN BAY	MILES RIVER	2060005	
EBHN	38.85	76.35	EE-1	EASTERN BAY	EASTERN BAY	2060005	
CRTW	38.72	76.32	EE-2	CHOPTANK	HARRIS	2060005	
BCDN	38.74	76.25	EE-2	CHOPTANK	BROAD CREEK	2060005	
CRRO	38.69	76.24	EE-2	CHOPTANK	BROAD CREEK	2060005	
TADM	38.73	76.13	EE-2	CHOPTANK	TRED AVON RIVER	2060005	
CRLI	38.66	76.19	EE-2	CHOPTANK	TRED AVON RIVER	2060005	
CRCP	38.66	76.29	EE-2	CHOPTANK	CHOPTANK	2060005	
MESR	38.66	76.39	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060003	
WSHP	38.74	76.50	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060003	
CRSH	38.59	76.11	EE-2	CHOPTANK	CHOPTANK	2060005	
CROS	38.58	76.01	EE-2	CHOPTANK	CHOPTANK	2060005	
LCRP	38.54	76.30	EE-2	CHOPTANK	LITTLE CHOPTANK	2060005	
LCCA	38.54	76.24	EE-2	CHOPTANK	LITTLE CHOPTANK	2060005	
WSFP	38.44	76.43	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060001	
PXBI	38.41	76.57	RET-1	PATUXENT	PATUXENT	2060006	
WSHI	38.32	76.38	CB-5	CHESAPEAKE BAY	LOWER CHESAPEAKE BAY	2060001	
PRLC	38.34	76.99	LE-2	POTOMAC	LOWER POTOMAC	2070011	
WWMW	38.34	76.86	LE-2	POTOMAC	WICOMICO	2070011	
WWLA	38.28	76.82	LE-2	POTOMAC	WICOMICO	2070011	
PRRP	38.17	76.60	LE-2	POTOMAC	LOWER POTOMAC	2070011	
SMPA	38.17	76.45	LE-2	POTOMAC	ST MARYS	2070011	
SMCC	38.12	76.43	LE-2	POTOMAC	ST MARYS	2070011	
WSBU	38.11	76.32	CB-5	CHESAPEAKE BAY	LOWER CHESAPEAKE BAY	2060001	
PRCH	38.04	76.34	LE-2	POTOMAC	LOWER POTOMAC	2070011	
HRNO	38.26	76.12	EE-3	CHESAPEAKE BAY	HONGA	2060001	
FBGC	38.29	76.01	EE-3	CHESAPEAKE BAY	FISHING BAY	2060001	
NRWS	38.29	75.92	ET-6	NANTICOKE	NANTICOKE	2060008	
TSSS	38.22	75.99	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
HOHO	38.11	76.07	EE-3	CHESAPEAKE BAY	HOLLAND STRAITS	2060001	
MAGE	38.13	75.86	ET-8	CHESAPEAKE BAY	MANOKIN	2060009	
TSPI	38.06	75.95	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
TSBC	38.05	75.99	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
TSOW	37.96	75.98	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
PSMA	37.95	75.73	EE-3	POKOMOKE	POKOMOKE	2060001	
POPULATION SITES							
UBBH	38.94	76.38	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060001	
EBWG	38.89	76.31	EE-1	EASTERN BAY	EASTERN BAY	2060002	
BNMP	39.08	76.42	CB-3	CHESAPEAKE BAY	UPPER CHESAPEAKE BAY	2060001	
PSGU	37.95	75.78	EE-3	POKOMOKE	POKOMOKE	2060001	
TSGR	37.96	75.92	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
MADP	38.12	75.87	ET-8	CHESAPEAKE BAY	MANOKIN	2060009	
TSTE	38.12	75.99	EE-3	CHESAPEAKE BAY	TANGIER SOUND	2060001	
WRES	38.21	75.90	ET-7	WICOMICO	WICOMICO	2060007	
NRMG	38.23	75.92	ET-6	NANTICOKE	NANTICOKE	2060008	
WRMV	38.26	75.82	ET-7	WICOMICO	WICOMICO	2060007	
FBCI	38.25	75.99	EE-3	CHESAPEAKE BAY	FISHING BAY	2060001	
NRWE	38.34	75.89	ET-6	NANTICOKE	NANTICOKE	2060008	
HRWI	38.29	76.15	EE-3	CHESAPEAKE BAY	HONGA	2060001	
PRDC	38.24	76.74	LE-2	POTOMAC	LOWER POTOMAC	2070011	
PRBS	38.24	76.69	LE-2	POTOMAC	LOWER POTOMAC	2060011	
PRBW	38.26	76.68	LE-2	POTOMAC	LOWER POTOMAC	2060001	
PXBA	38.31	76.45	LE-1	PATUXENT	LOWER PATUXENT	2060006	
HCEP	38.72	76.31	EE-2	CHESAPEAKE BAY	HARRIS	2060005	
POSH	38.76	76.35	EE-1	EASTERN BAY	EASTERN BAY	2060002	
MRAS	38.80	76.20	EE-1	EASTERN BAY	MILES RIVER	2060002	
UBTS	38.85	76.47	CB-4	CHESAPEAKE BAY	MIDDLE CHESAPEAKE BAY	2060001	

Note: All latitude/longitude are approximate.

MARYLAND OYSTER STOCK ASSESSMENT PROGRAM

PROGRAM DESCRIPTION: The Maryland Oyster Stock Assessment Program is a Bay-wide survey which produces unbiased estimates of oyster standing stocks and oyster habitat parameters.

PROGRAM OBJECTIVE: Provide absolute oyster abundance and habitat structural data for management and research purposes.

DATE INITIATED: 1975 (for 2 years); 1989 to present.

COORDINATING

AGENCY: Maryland Department of Natural Resources
Tidewater Administration, Fisheries Division, Shellfish Program
Tawes State Office Building C-2
Annapolis, MD 21401

FUNDING

AGENCIES: Maryland Department of Natural Resources
National Oceanic and Atmospheric Agency

PARTICIPATING

AGENCIES: MDDNR: Fisheries Division, Shellfish Program (FDSP)

INVESTIGATORS:

Principal Investigators	Mark L. Homer	FDSP
Principal Investigators	W.P. Jensen	FD

PARAMETERS: *Physical/Chemical:* *Biological:*

Depth	Number of live and dead oysters per unit area
Bottom Type	Size class distribution of live and dead oysters
Salinity	Volume of shell per unit area: live, dead, blank surface,
Temperature	subsurface, clam, and mussel
	Volume of live clams (soft and hardclams), mussels (recurved), and <i>Molgula</i>

STATIONS: Since 1989, over 100,000 acres of oyster habitat have been surveyed with over 25,000 samples taken throughout Maryland's portion of the Chesapeake Bay. Over 100 individual oyster bars have been surveyed.

SAMPLE COLLECTION: Samples are collected at stations set along regularly spaced grid points using a set of patent tongs covering 1 sq meter of bottom.

PROGRAM INTEGRATION: N/A

MARYLAND BLUE CRAB MONITORING PROGRAM

PROGRAM DESCRIPTION: The Maryland Blue Crab Monitoring Program is designed to estimate recruitment of juvenile blue crabs through a network of 37 stations in the Chester, Choptank, Patuxent, Pocomoke and Tangier sounds, and Eastern Bay. Monitoring is conducted monthly from May to October. This program was previously conducted concomitantly with Maryland weakfish monitoring. Although the latter program has been discontinued, juvenile weakfish and other finfish species are still picked up in this survey.

PROGRAM OBJECTIVES: To determine relative abundance and distribution of adult and juvenile crabs, and to determine any relationship between the annual index of abundance of juvenile crabs and future adult stock size.

DATE INITIATED: May 1975

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Tidal Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING AGENCY: Maryland Department of Natural Resources (MDDNR)

PARTICIPATING AGENCY: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Principal Investigator James Casey MDDNR

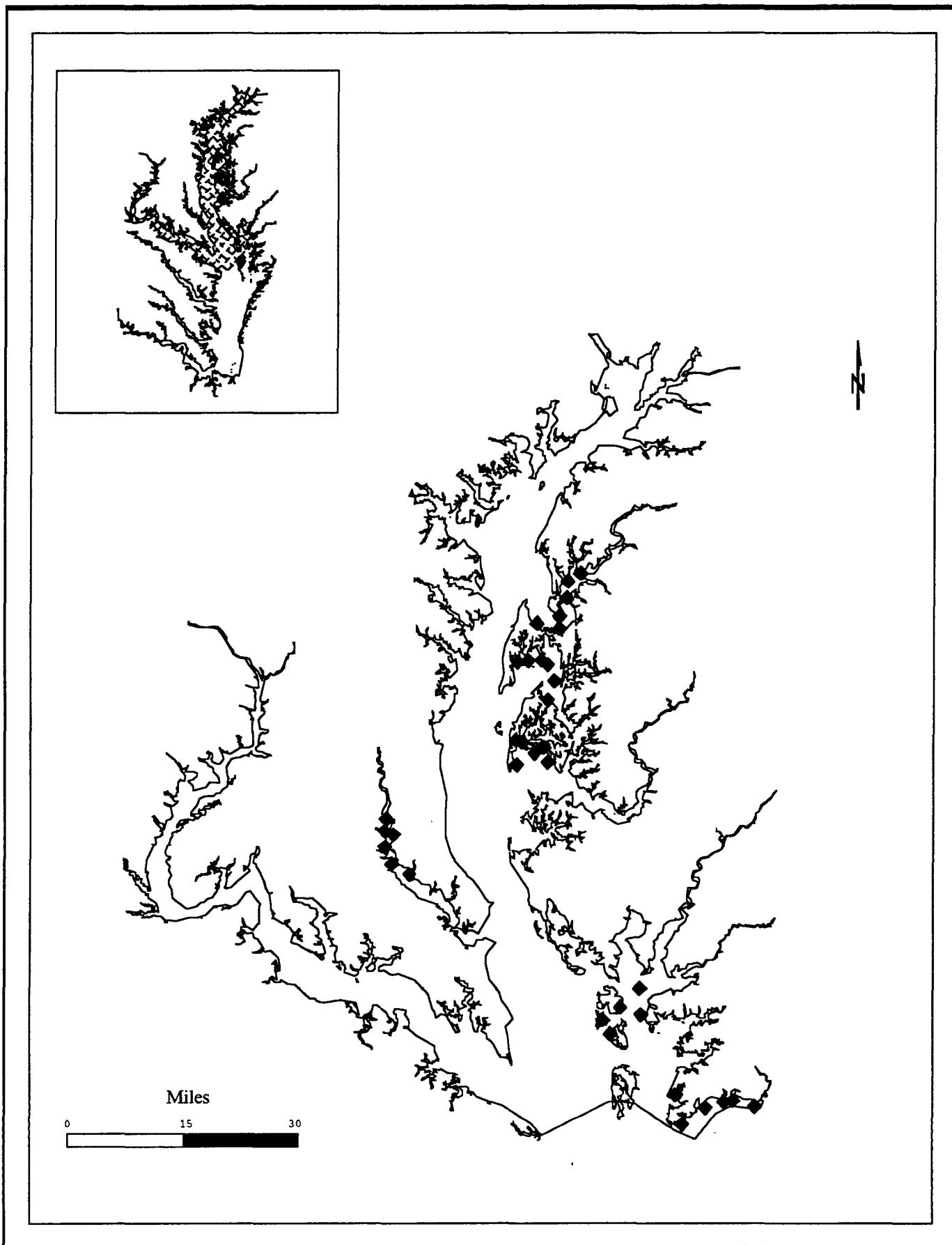
PARAMETERS: *Water Column:* *Finfish Species:*
Depth Number
Weather Catch per unit effort
Midwater Temperature Size
Midwater Salinity

Blue Crabs:
Size/condition
Sex
Size
Age/maturity
Catch per Unit Effort

STATIONS: There are 35 stations located in the Chester, Choptank, Patuxent, Pocomoke and Tangier sounds, and Eastern Bay.

SAMPLE COLLECTION: Monitoring is conducted monthly from May to October. Sixteen foot headrope bottom trawls of 1.25 inch mesh with a 0.50 inch liner in the cod end are dragged at 2.5-3.0 knots for six minutes. All species are recorded, and crabs and fish are measured.

PROGRAM INTEGRATION: N/A



Maryland Blue Crab Monitoring Program

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
CHEST/1	38 59 25	76 16 18	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHEST/2	39 00 17	76 12 36	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHEST/3	38 58 45	76 12 36	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHEST/4	39 02 44	76 11 30	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHEST/5	39 04 50	76 11 23	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHEST/6	39 05 52	76 09 11	ET-4	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
CHOPT/1	38 44 22	76 19 26	EE-2	EASTERN SHORE	CHOPTANK	2060005	
CHOPT/2	38 44 02	76 18 21	EE-2	EASTERN SHORE	CHOPTANK	2060005	
CHOPT/3	38 43 26	76 14 47	EE-2	EASTERN SHORE	CHOPTANK	2060005	
CHOPT/4	38 42 38	76 16 17	EE-2	EASTERN SHORE	CHOPTANK	2060005	
CHOPT/5	38 41 33	76 14 05	EE-2	EASTERN SHORE	CHOPTANK	2060005	
CHOPT/6	38 41 10	76 19 13	EE-2	EASTERN SHORE	CHOPTANK	2060005	
EASTB/1	38 54 22	76 19 24	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
EASTB/2	38 54 32	76 17 38	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
EASTB/3	38 54 37	76 15 26	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
EASTB/4	38 54 06	76 14 23	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
EASTB/5	38 52 00	76 13 18	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
EASTB/6	38 49 31	76 14 18	EE-1	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	
PATUX/1	38 33 55	76 40 36	TF-1	WEST CHESAPEAKE	SEVERN	2060006	
PATUX/2	38 32 22	76 40 51	RET-1	PATUXENT	PATUXENT	2060006	
PATUX/3	38 31 53	76 39 18	BFL	PATUXENT	PATUXENT	2060006	
PATUX/4	38 30 15	76 40 42	RET-1	PATUXENT	PATUXENT	2060006	
PATUX/5	38 28 03	76 39 30	LE-1	PATUXENT	PATUXENT	2060006	
PATUX/6	38 26 44	76 36 33	BFL	PATUXENT	PATUXENT	2060006	
POCOM/1	37 54 51	75 51 29	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
POCOM/3	37 56 58	75 47 44	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
POCOM/4	37 57 42	75 44 44	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
POCOM/6	37 57 53	75 43 15	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
POCOM/8	37 57 12	75 39 50	ET-10	EASTERN SHORE	POCOMOKE	2060009	
POCOM/9	37 58 35	75 52 34	BFL	EASTERN SHORE	POCOMOKE	2060009	
TANGS/2	38 08 49	75 58 15	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
TANGS/3	38 09 45	76 01 42	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
TANGS/4	38 08 03	76 04 29	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
TANGS/5	38 06 16	76 03 12	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
TANGS/6	38 12 12	75 58 37	EE-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	

MARYLAND BAYWIDE WINTER CRAB STUDY

PROGRAM DESCRIPTION: A baywide study of crab abundance and distribution is done in the winter months of December, January and February. The study includes tows in most reaches of tidal, estuarine and various other habitats throughout the bay.

PROGRAM OBJECTIVES: To determine the Blue Crab abundance and distribution throughout the reaches of the Chesapeake Bay.

DATE INITIATED: 1990

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, MD 21401

FUNDING AGENCY: N.O.A.A. National Marine Fisheries Service

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)
Virginia Institute of Marine Science
University of Maryland
Virginia Marine Resources Commission

INVESTIGATORS:

Contract Administrator Phil Jones MDDNR

PARAMETERS: Average number of Blue Crabs per tow
Number of Crabs per 1,000 sq meters

STATIONS: This baywide study involves the funding of one boat to survey crab habitat in Virginia waters and two boats to survey crab habitat in Maryland waters. All sites are chosen at random each year depending on available crab habitat.

SAMPLE COLLECTION: Boats tow 8 ft crab dredges in 1,500 random tows per year in tributaries as well as the main bay. Average number of crabs per tow is determined.

PROGRAM INTEGRATION: This is a cooperative effort between Maryland and Virginia to determine crab abundance and distribution throughout the bay.

RHODE RIVER WATERSHED ENVIRONMENTAL MONITORING PROGRAM CRAB COMPONENT

PROGRAM DESCRIPTION: The Rhode River Watershed Environmental Monitoring Program is a long-term interdisciplinary landscape level study of the Rhode River, its watershed and airshed, and is conducted by the Smithsonian Environmental Research Center. One component of this program involves monitoring crab populations in the river. The focus of this program is on the impacts of human use of the land, air and water upon water quality and biological populations and ecosystems. Comparative studies are used to assess the generality of results from this site to the Chesapeake region.

PROGRAM OBJECTIVE: To distinguish the effects of weather variation from those of local land use and air quality. Ultimately, to develop predictive models to synthesize and test our understanding of the overall system.

DATE INITIATED: 1981

COORDINATING AGENCY: Smithsonian Environmental Research Center
P.O. Box 28
Edgewater, Maryland 21037-0028

FUNDING AGENCY: Smithsonian Environmental Research Center
U.S. Department of Energy
National Science Foundation

PARTICIPATING AGENCIES: Smithsonian Environmental Research Center (SERC)

INVESTIGATORS:

Chemical Ecologist	David Correll	SERC
Protozoologist	Wayne Coats	SERC
Plant Physiologist	Bert Drake	SERC
Estuarine Ecologist	Thomas Jordan	SERC
Microbiologist	Charles Gallegos	SERC
Estuarine Animal Ecologist, PI	Anson Hines	SERC
Terrestrial Animal Ecologist	James Lynch	SERC
Photobiologist	Patrick Neale	SERC
Forest Ecologist	Jess Parker	SERC
Estuarine Animal Ecologist	Gregory Ruiz	SERC
Quantitative Ecologist	Donald Weller	SERC
Plant Ecologist	Dennis Whigham	SERC

PARAMETERS:

Crab Populations: Taxa Identification and Abundance, Size, sex, molt stage

Other Parameters: Numerous other parameters are measured in this program in the areas of

Bulk Precipitation, Wet Precipitation, Weather	Throughfall Chemistry Solar Irradiance
Dry Deposition Chemistry	
Ground Water, Stream Water Discharge	Infiltration Chemistry
Overland Flow Chemistry	Tidal Water Quality Chemistry
Forest Tree and Herb Populations	Other Decapod Crustacean Populations
Plankton Populations	Mammal Populations
Benthic Populations	Bird Populations
Fish Populations	

Rhode River Watershed Environmental Monitoring Program Crab Component

STATIONS: Crab populations are monitored in the Rhode River at 4 trawling stations, and also at a fish wier.

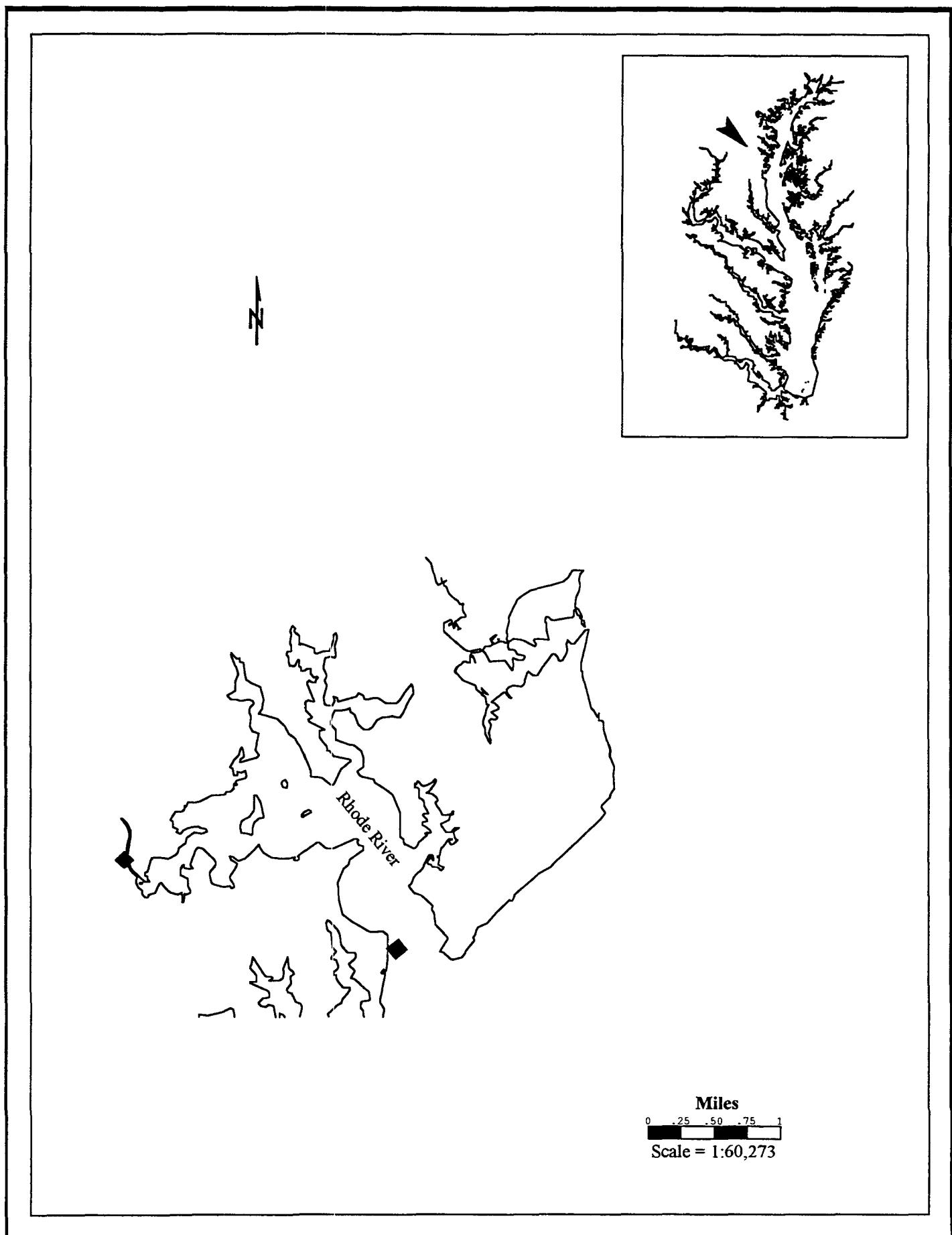
SAMPLE COLLECTION: Crab populations are monitored with triplicate trawls per month at each of 4 stations, and in one 24 hour period per week at a fish wier. Numerous additional samples are taken for experiments.

PROGRAM INTEGRATION: Crab population monitoring is only one of many biological, water quality and weather monitoring efforts within this program. See other parameters above.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
RHODE R	38 52 15	76 31 15	CB-4	CHESBAY	SEVERN	2060004	MOUTH OF RHODE RIVER
RHODE R	38 52 45	76 33 15	CB-4	CHESBAY	SEVERN	2060004	HEAD OF RHODE RIVER

NOTE: APPROXIMATE LOCATIONS OF SAMPLING STATIONS

Rhode River Watershed Environmental Monitoring Program Crab Component



VIRGINIA OYSTER DISEASE SURVEY

PROGRAM DESCRIPTION: The Virginia Oyster Disease Survey is set up to monitor disease in Virginia's oysters through summer and fall sampling of Virginia's public oyster bars.

PROGRAM OBJECTIVES: To monitor the occurrence and distribution of Dermo and MSX.

DATE INITIATED: 1960

COORDINATING AGENCY: College of William and Mary
 Virginia Institute of Marine Sciences
 Division of Fisheries and Biological Sciences
 Gloucester Point, Virginia 23062

FUNDING AGENCY: Commonwealth of Virginia

PARTICIPATING AGENCY: Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

Principal Investigator Eugene Burresson VIMS

PARAMETERS: Percent occurrence of Dermo and MSX in oyster tissue.

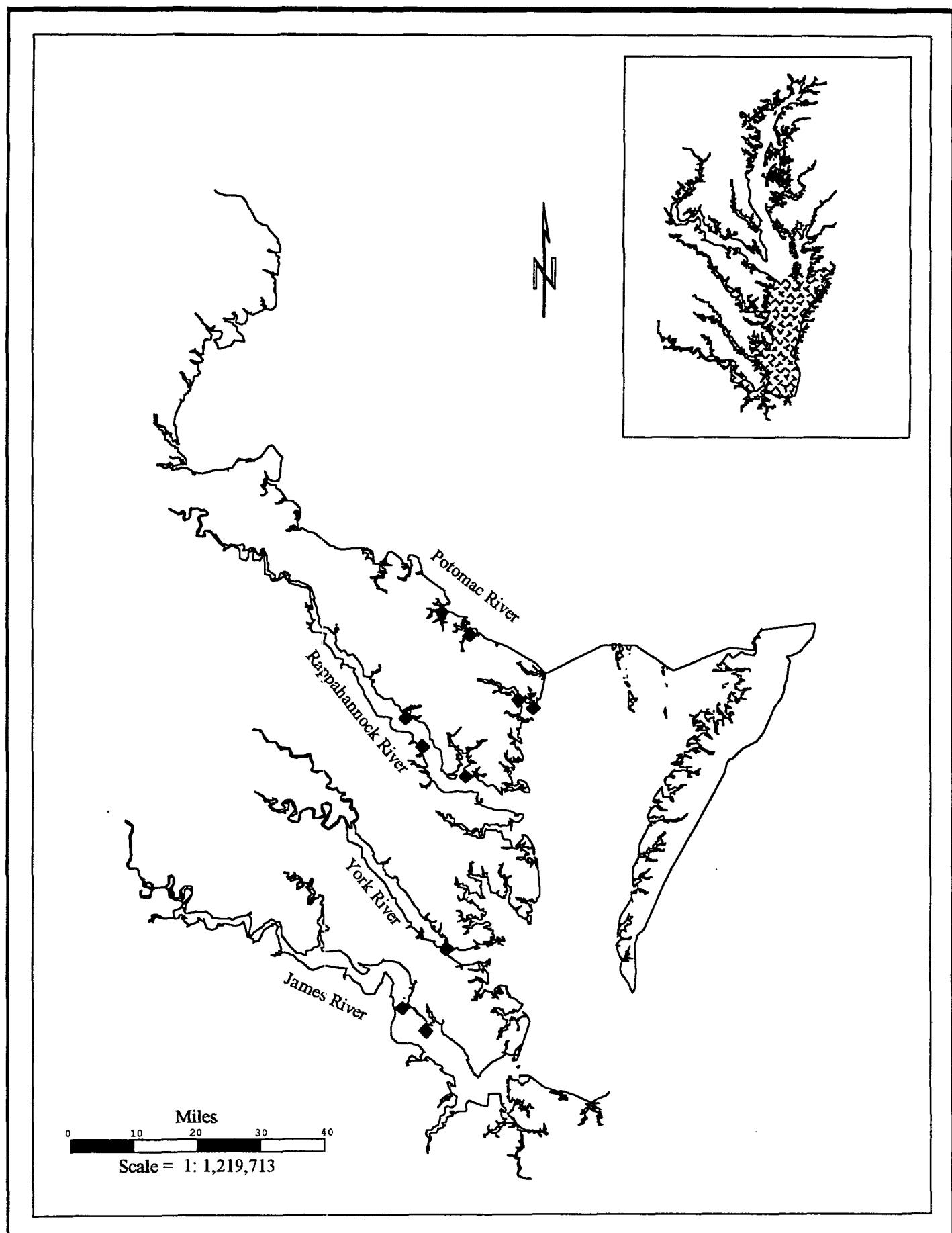
STATIONS: Various public oyster reefs located throughout the Virginia tributaries of the Chesapeake Bay are monitored. Although some locations may vary, 10 selected stations are sampled each year. Two of these are located in the James River, one in the York River, three in the Rappahannock River, two in the Great Wicomico River and two in the Virginia embayments of the Potomac River.

SAMPLE COLLECTION: Samples of 25 oysters are collected via dredging three times a year on June 1, August 1, and October 1. Wreck Shoal in the James River is the exception and is sampled monthly. The oysters are then returned to the laboratory and analyzed for MSX (*Haplosporidium nelsoni*) and Dermo (*Perkinsus marinus*).

PROGRAM INTEGRATION: This program is performed in conjunction with Virginia Marine Resources Commission, Maryland Department of Natural Resources and Rutgers University.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	38 01 25	76 32 27	LE-2	POTOMAC	LOWER POTOMAC	2070011	YEOCOMICO RIVER
10	37 03 48	76 34 11	LE-5	JAMES	LOWER JAMES	2080206	WRECK SHOAL
2	37 58 28	76 27 37	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
3	37 49 43	76 18 53	CB-5	CHESBAY	GREAT WICOMICO RIVER	2080102	HAYNIES BAR - GREAT WICOMICO RIVER
4	37 48 33	76 16 18	CB-5	CHESBAY	GREAT WICOMICO RIVER	2080102	FLEET POINT
5	37 46 56	76 38 31	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MARATTICO BAR
6	37 43 02	76 35 33	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	SMOKEY POINT
7	37 38 57	76 28 06	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DRUMMING GROUND
8	37 15 10	76 30 48	LE-4	YORK	YORK	2080107	VIRGINIA INSTITUTE OF MARINE SCIENCE
9	37 06 55	76 38 18	LE-5	JAMES	LOWER JAMES	2080206	POINT OF SHOAL

Virginia Oyster Disease Survey



VIRGINIA SPRING/FALL OYSTER BAR SURVEY

PROGRAM DESCRIPTION: The Virginia Spring/Fall Oyster Bar Survey conducts semi-annual counts of spat, yearling and market oysters on Virginia's public oyster stocks.

PROGRAM OBJECTIVES: To measure the survival of oysters in Virginia waters.

DATE INITIATED: 1960

COORDINATING AGENCY: College of William and Mary
Virginia Institute of Marine Sciences
Division of Fisheries and Biological Sciences
Gloucester Point, Virginia 23062

FUNDING AGENCY: Commonwealth of Virginia

PARTICIPATING AGENCY: Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

Co-principal Investigator Roger Mann VIMS

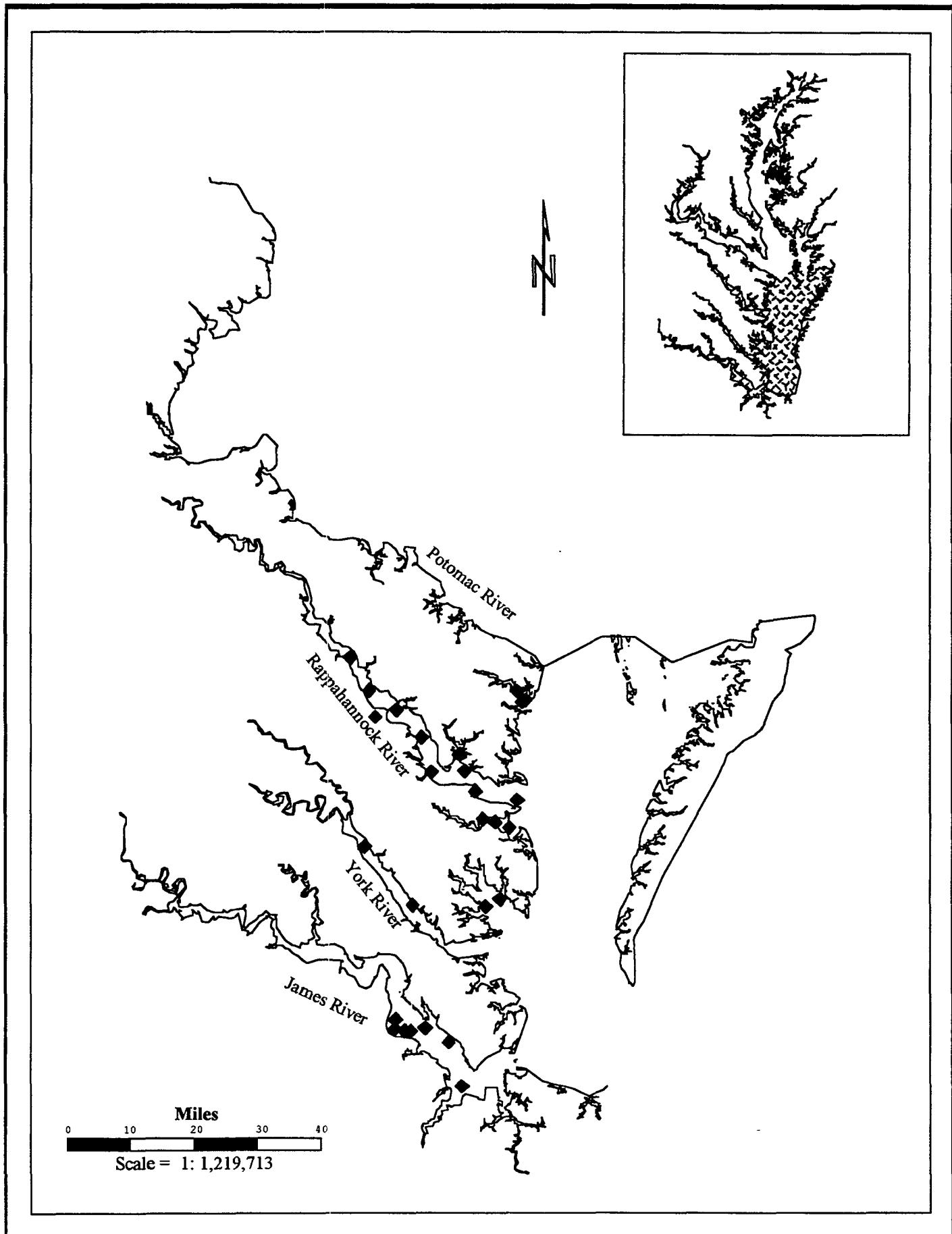
PARAMETERS: *Physical/Chemical:* *Biological:*
Temperature Count of Spat, Small and Market
Salinity Oysters: Estimate of Condition of Bar, Description of Predators

STATIONS: There are currently nearly 30 stations at various oyster bars in the Virginia waters of the Chesapeake Bay including the James, York, Piankatank, Rappahannock, Great Wicomico rivers, and Mobjack Bay.

SAMPLE COLLECTION: Thirteen oyster bars are sampled once in May and 29 bars are sampled once in October of each year. Three to five dredge hauls are performed at each station, based on measurements of variance. Temperature and salinity is measured near the bottom of the water column. Oysters are counted and the bars evaluated, and descriptions of consumer and commercial value are made.

PROGRAM INTEGRATION: The Virginia Spatfall Monitoring Program is conducted simultaneously with this program. Spatfall results and bar survey results are used in advising the VMRC Shell Repletion Program and other interested parties.

Virginia Spring/Fall Oyster Bar Survey



Virginia Spring/Fall Oyster Bar Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
001	37 20 00	76 36 06	LE-4	YORK	YORK	2080107	ABERDEEN RK
011	37 49 30	76 44 00	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	BOWLER'S RK
015	37 34 42	76 18 24	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	BROAD CREEK
020	37 30 54	76 19 42	LE-3	PIANKATANK	PIANKATANK	2080104	BURTON'S POINT
048	37 48 36	76 17 18	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	FLEET POINT
050	37 32 00	76 24 12	LE-3	PIANKATANK	PIANKATANK	2080104	GINNEY POINT
064	37 49 48	76 18 42	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	HAYNIE POINT
067	37 38 24	76 33 12	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	HOG HOUSE
073	37 06 18	76 37 54	LE-5	JAMES	LOWER JAMES	2080206	HORSEHEAD
110	37 31 36	76 22 12	LE-3	PIANKATANK	PIANKATANK	2080104	PALACE BAR
123	37 04 30	76 38 42	LE-5	JAMES	LOWER JAMES	2080206	POINT OF SHOALS
131	36 55 30	76 27 12	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIDGE
167	37 48 18	76 17 48	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	WHALEY'S EAST
180	37 46 54	76 39 18	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	MORATTICO
181	37 38 42	76 27 30	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	DRUMMING GD
190	37 43 12	76 35 00	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	SMOKEY POINT DEEP
201	37 41 00	76 28 24	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	CORROTOMAN RIVER - MIDDLE GD C
209	37 01 30	76 29 30	LE-5	JAMES	LOWER JAMES	2080206	THOMAS RK
210	37 21 06	76 21 06	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	OUTH OF EAST RIVER (PULTZ BAR)
220	37 35 54	76 25 30	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	PARROT IN
274	37 03 27	76 33 35	LE-5	JAMES	LOWER JAMES	2080206	WRECK SHOAL
96	37 05 36	76 37 00	LE-5	JAMES	LOWER JAMES	2080206	SWASH
179	37 28 02	76 44 48	RET-4	YORK	YORK	2080107	BELL ROCK
195	37 03 30	76 36 06	LE-5	JAMES	LOWER JAMES	2080206	DRY SHOAL
151	37 20 00	76 23 30	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	TOW STAKE
182	37 54 00	76 47 30	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	ROSS ROCK
227	37 45 54	76 42 54	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LONG ROCK
198	37 04 36	76 37 16	LE-5	JAMES	LOWER JAMES	2080206	LONG ROCK JAMES RIVER
45	37 08 48	76 38 06	LE-5	JAMES	LOWER JAMES	2080206	DEEP WATER SHOAL

VIRGINIA OYSTER SPAT SURVEY

PROGRAM DESCRIPTION: The Virginia Oyster Spat Survey involves monitoring of oyster spatfall on shellstring in the summer and early fall of each year.

PROGRAM OBJECTIVES: To monitor oyster spatfall (recruitment) success.

DATE INITIATED: 1946

COORDINATING AGENCY: College of William and Mary
Virginia Institute of Marine Sciences
Division of Fisheries and Biological Sciences
Gloucester Point, Virginia 23062

FUNDING AGENCY: Commonwealth of Virginia

PARTICIPATING AGENCIES: Virginia Institute of Marine Sciences (VIMS)
Virginia Marine Resources Commission (VMRC)

INVESTIGATORS:

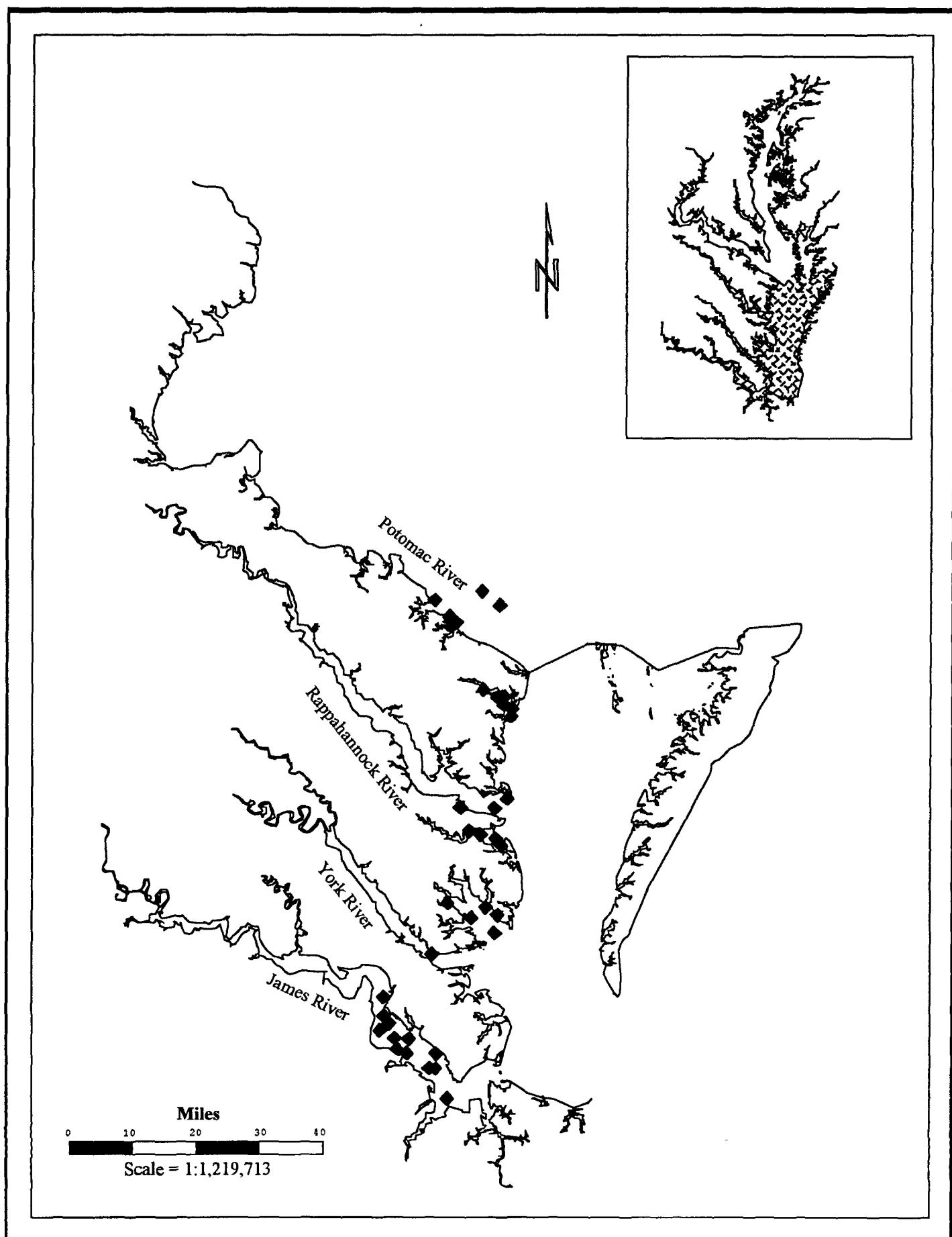
Principal Investigator Roger Mann VIMS

PARAMETERS: Count of spat on each shell

STATIONS: There are currently 44 stations located in Virginia waters including the James, York, Piankatank, Rappahannock, and Potomac rivers, along with Mobjack Bay.

SAMPLE COLLECTION: Each of the 44 stations is maintained with a shellstring collector, a series of 12 oyster shells strung on a wire suspended 20 inches above the bottom. Collections and replacements are made weekly from June to October of each year. Ten of these shells are removed and examined under 10-15x magnification (top and bottom shell are discarded) with the smooth side only being examined. The number of spat are recorded.

PROGRAM INTEGRATION: This program is conducted simultaneously with the Virginia Spring/Fall Oyster Bar Survey.



Virginia Oyster Spat Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
017	37 18 00	76 19 30	WE-4	MOBJACK	MOBJACK BAY	2080102	BROWNS BAY
020	37 31 00	76 19 30	LE-3	PIANKATANK	PIANKATANK RIVER	2080104	BURTON POINT
030	37 59 24	76 27 48	LE-2	POTOMAC	LOWER POTOMAC	2070011	COAN RIVER
035	38 02 24	76 19 24	BFL	POTOMAC	LOWER POTOMAC	2070011	CORNFIELD
037	37 49 00	76 18 30	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	CRANES CREEK
040	37 01 30	76 34 00	LE-5	JAMES	LOWER JAMES	2080206	DAY'S POINT
043	37 09 00	76 38 00	LE-5	JAMES	LOWER JAMES	2080206	DEEPWATER SHOALS
048	37 48 30	76 17 00	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	FLEET POINT
050	37 32 00	76 24 00	LE-3	PIANKATANK	PIANKATANK	2080104	GINNEY POINT
051	37 51 00	76 22 00	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	GLEBE POINT
053	38 00 00	76 26 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	GREAT NECK
064	37 50 00	76 18 30	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	HAYNIE POINT
066	38 00 48	76 27 54	LE-2	POTOMAC	LOWER POTOMAC	2070011	HOG ISLAND
073	37 06 30	76 37 54	BFL	JAMES	LOWER JAMES	2080206	HORSEHEAD
074	37 50 00	76 19 30	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	HUDNALLS PIER
080	38 04 18	76 22 30	LE-2	POTOMAC	LOWER POTOMAC	2070011	JONES SHORE
087	37 47 30	76 17 00	CB-5	GREAT WICOMICO	GREAT WICOMICO	2060001	DAMERON MARSH EAST
089	37 01 30	76 29 00	LE-5	JAMES	LOWER JAMES	2080206	MILES WATCH HOUSE
096	37 05 30	76 37 00	LE-5	JAMES	LOWER JAMES	2080206	MULBERRY POINT
098	36 59 30	76 29 00	LE-5	JAMES	LOWER JAMES	2080206	NANSEWAY SHOALS
106	37 15 00	76 30 00	BFL	YORK	YORK	2080107	VIMS OYSTER PIER (OLD PIER)
110	37 31 30	76 22 00	LE-3	PIANKATANK	PIANKATANK	2080104	PALACE BAR
113	37 20 30	76 19 00	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	PEPPER CREEK
123	37 04 30	76 38 30	LE-5	JAMES	LOWER JAMES	2080206	POINT OF SHOALS
131	36 55 30	76 27 00	LE-5	JAMES	LOWER JAMES	2080206	NANSEMOND RIDGE
150	37 30 00	76 18 30	LE-3	PIANKATANK	PIANKATANK RIVER	2080104	THREE BRANCHES
151	37 20 00	76 23 30	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	TOW STAKE
171	37 22 00	76 27 30	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	WILSON CREEK
194	36 59 30	76 30 00	LE-5	JAMES	LOWER JAMES	2080206	DOG SHOAL
195	37 03 30	76 36 00	LE-5	JAMES	LOWER JAMES	2080206	DRY SHOALS
199	37 02 00	76 35 30	LE-5	JAMES	LOWER JAMES	2080206	ROCK WHARF SHOALS
200	37 35 06	76 19 48	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	STURGEON
204	37 21 30	76 21 00	WE-4	MOBJACK BAY	MOBJACK BAY	2080102	MOUTH OF EAST RIVER (PULTZ BAR)
208	37 35 09	76 25 36	BFL	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOCKLIES
217	37 36 27	76 17 36	CB-5	CHESBAY	UPPER CHESAPEAKE BAY	2060001	WINDMILL
274	37 03 27	76 33 35	LE-5	JAMES	LOWER JAMES	2080206	WRECK SHOAL
247	38 03 02	76 30 31	LE-2	POTOMAC	LOWER POTOMAC	2070011	LYNCH POINT

VIRGINIA BLUE CRAB MEGALOPAE MONITORING PROGRAM

PROGRAM DESCRIPTION: The Blue Crab Megalopae Monitoring Program is conducted at one station (with four passive traps at surface and bottom of water column) at Gloucester Point, Virginia from August through November of each year.

PROGRAM OBJECTIVE: To determine blue crab post-larval settlement and attempt to relate settlement with juvenile and adult abundance.

DATE INITIATED: August 1985

COORDINATING AGENCY: College of William and Mary
Virginia Institute of Marine Sciences
Division of Fisheries and Biological Sciences
Gloucester Point, Virginia 23062

FUNDING AGENCY: Virginia Institute of Marine Science

PARTICIPATING AGENCY: Virginia Institute of Marine Science (VIMS)

INVESTIGATORS:

Principal Investigator	Rom Lipcius	VIMS
Principal Investigator	Robert Orth	VIMS
Principal Investigator	Jacques van Monfrans	VIMS

PARAMETERS: *Physical/Chemical:* Surface Temperature Surface Salinity *Biological:* Megalopae Abundance

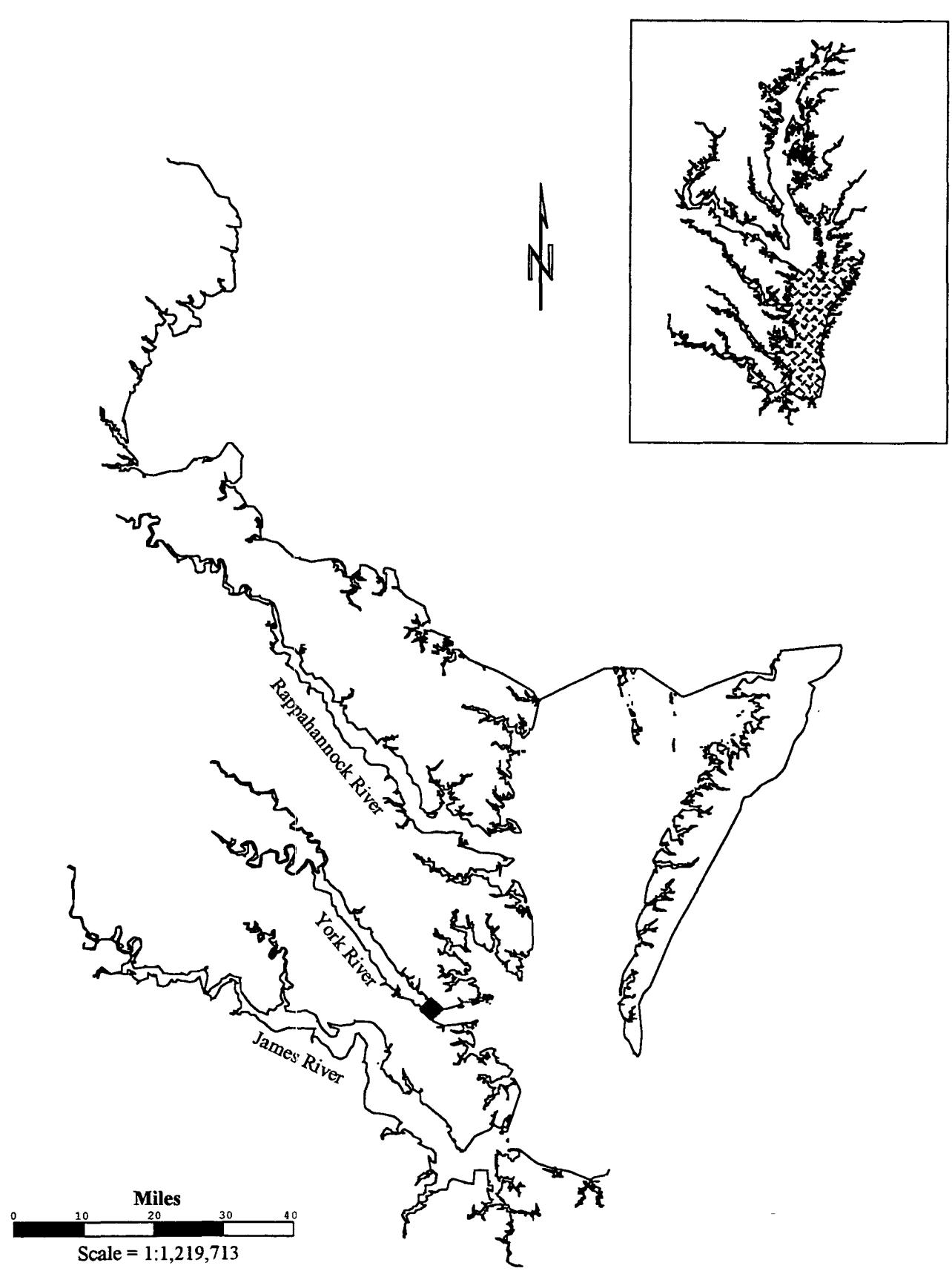
STATIONS: There is one station located at VIMS in Gloucester Point, Virginia .

SAMPLE COLLECTION: Four traps made of hogs hair (air conditioning filter material) are deployed in surface waters on the bottom and off the VIMS pier. These traps are changed every 24 hours from July 1 through November 15. Traps are collected with a dip net and rinsed in fresh water to dislodge megalopae. All megalopae are then identified to species and enumerated.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMRSS	LONGITUDE DDMRSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	37 15 00	76 30 00	BFL	YORK	YORK	2080107	VIMS PIER AT GLOUCESTER POINT, VA

Virginia Blue Crab Megalopae Monitoring Program



VIRGINIA JUVENILE BLUE CRAB SURVEY

PROGRAM DESCRIPTION: The Virginia Juvenile Blue Crab Survey assesses stocks of juvenile blue crabs according to abundance and size, by trawling 13 stations at five-mile intervals in the James, York and Rappahannock rivers. This monitoring is conducted on a monthly basis from May to November.

PROGRAM OBJECTIVES: To monitor year class production of blue crabs in the lower Chesapeake Bay area.

DATE INITIATED: 1954

COORDINATING AGENCY: College of William and Mary
 Virginia Institute of Marine Sciences
 Division of Biological and Fisheries Science
 Gloucester Point, Virginia 23062

FUNDING AGENCY: Commonwealth of Virginia

PARTICIPATING AGENCY: Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

Principal Investigator Rom Lipcius VIMS

PARAMETERS:	<i>Water Column:</i>	<i>Blue Crab:</i>
	Temperature	Count
	Dissolved Oxygen	Size, sorted by sex and age
	Salinity	
	Secchi Depth	

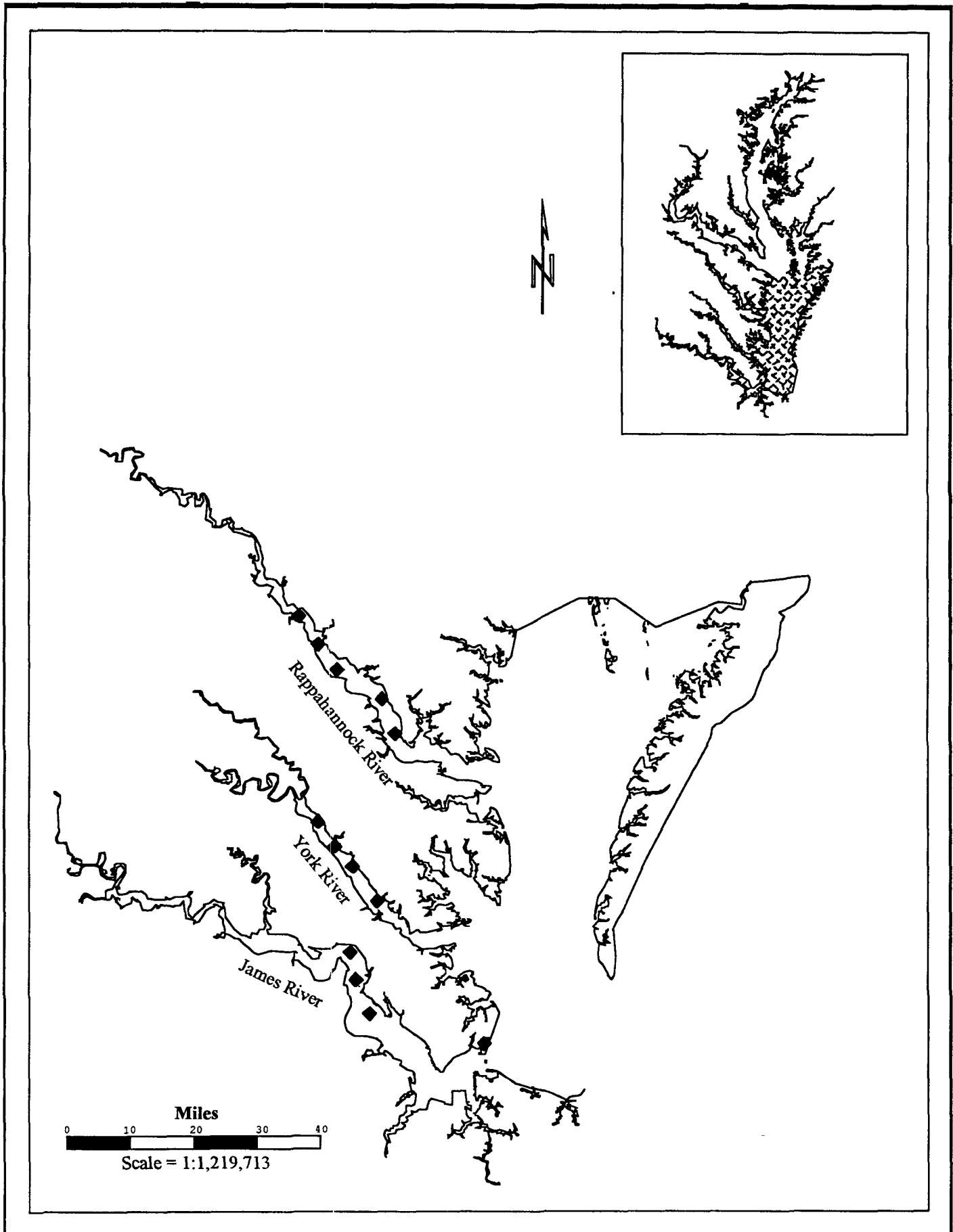
STATIONS: There are 13 survey stations; four trawl sites located on the James and York rivers and five on the Rappahannock, starting at mile 5 and continuing upriver at five-mile intervals.

SAMPLE COLLECTION: Samples are collected monthly from May through November with a semi-balloon bottom trawl, 9.1 meters wide with a 38mm stretch mesh net and 13 mm cod-end liner and tickler chain. The net is towed twice, once with the current and once against at each station for five minutes, at approximately 2.5 knots. Temperature, dissolved oxygen and salinity measurements are made at both the surface and the bottom of the water column at the start of each station with a Y.S.I. model 51B D.O. meter.

PROGRAM INTEGRATION: This monitoring effort is performed concomitantly with Virginia's juvenile finfish survey.

STATION NAME(S)	LATITUDE DDMRSS	LONGITUDE DDMRSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
J13	37 01 24	76 18 24	LE-5	JAMES	LOWER JAMES	2080206	JAMES RIVER BRIDGE, 18 FT
J17	37 04 54	76 36 30	LE-5	JAMES	LOWER JAMES	2080206	ROCK LANDING SHOAL, AT 18 FT
J24	37 09 06	76 38 30	LE-5	JAMES	LOWER JAMES	2080206	DEEP WATER SHOALS, IDLE FLEET, AT 25 FT
J27	37 12 24	76 39 36	LE-5	JAMES	LOWER JAMES	2080206	KINGSMILL, AT 28 FT
R12	37 44 30	76 35 12	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	SMOKEY POINT, WATER VIEW, AT 18 FT
R15	37 40 12	76 33 00	LE-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	ROGUE POINT, URBANNA, AT 18 FT
R18	37 51 12	76 45 18	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	BOWLER'S ROCK LIGHT, AT 12 FT
R25	37 47 18	76 35 24	BFL	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080102	TARPLY POINT, MCKAN'S BAY, AT 18 FT
R35	37 54 36	76 48 24	RET-3	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	LOWERY POINT, AT 12 FT
Y06	37 18 54	76 35 30	LE-4	YORK	YORK	2080107	PAGE'S ROCK LIGHT, AT 25 FT
Y12	37 25 42	76 42 12	RET-4	YORK	YORK	2080107	POROPOTANK RIVER, AT 12 FT
Y15	37 23 12	76 39 24	LE-4	YORK	YORK	2080107	ALMONDSVILLE, AT 25 FT
Y25	37 28 48	76 44 54	RET-4	YORK	YORK	2080107	BELL'S ROCK LIGHT, AT 25 FT

Virginia Juvenile Blue Crab Survey



BATH COUNTY POWER STATION MONITORING PROGRAM: ZEBRA MUSSEL COMPONENT

PROGRAM DESCRIPTION: The Bath County Power Station Zebra Mussel Component is conducted annually at Back Creek downstream of the dam.

PROGRAM OBJECTIVE: To monitor the ecosystem for Zebra mussels and to assist station management in evaluating effective control strategies.

DATE INITIATED: 1993

COORDINATING AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS: Temperature Dissolved Oxygen
pH Conductivity
Ca

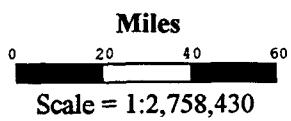
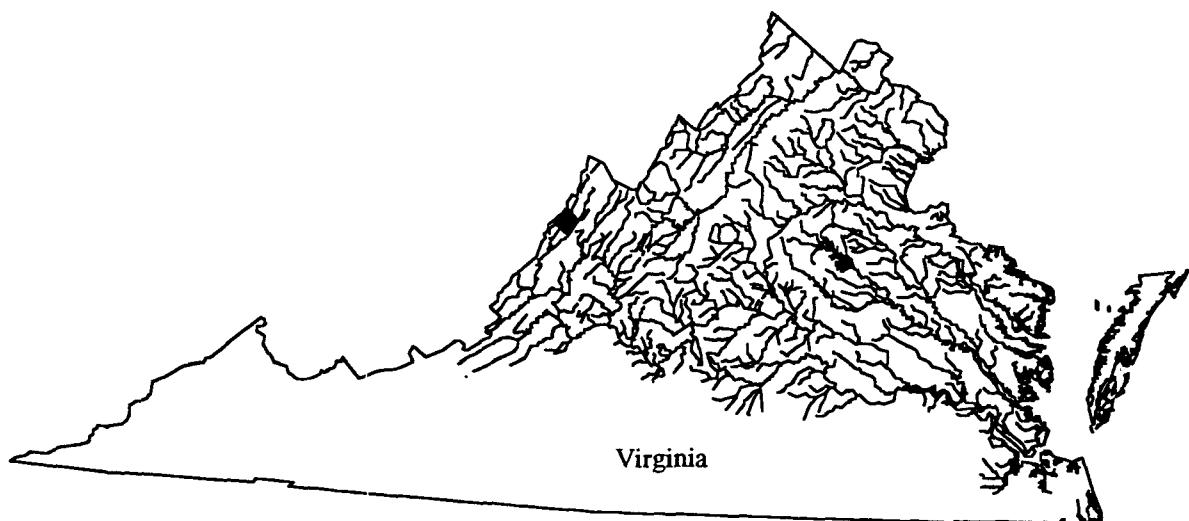
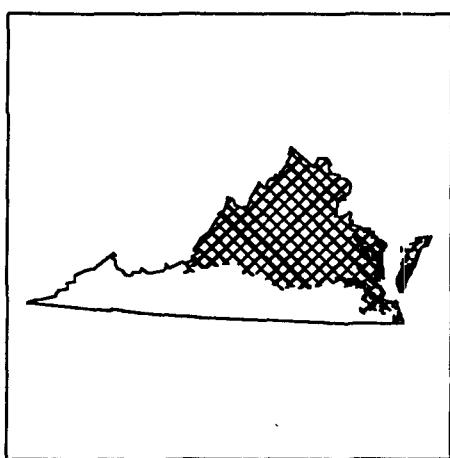
STATIONS: There is a single set of artificial substrates located at the pump intake on Back Creek.

SAMPLE COLLECTION: Substrates are examined for the presence of settled Zebra mussels. Physical and chemical data are gathered in association with mussel monitoring.

PROGRAM INTEGRATION: The Bath County Power Station - Zebra Mussel Component is part of the Back Creek Stream Improvement Project's biological survey.

STATION NAME(S)	LATITUDE DDMMS	LONGITUDE DDMMS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 12 30	79 48 00	AFL	JAMES	UPPER JAMES	2080201	BATH COUNTY POWER STATION

Bath County Power Station Back Creek Monitoring Program Zebra Mussel Component



CHESTERFIELD POWER STATION MONITORING PROGRAM

ZEBRA MUSSEL COMPONENT

PROGRAM DESCRIPTION: The Chesterfield Power Station Monitoring Program Zebra Mussel Component is conducted annually on the James River adjacent to the power station.

PROGRAM OBJECTIVE: To monitor the ecosystem for Zebra mussels and to assist station management in evaluating effective control strategies.

DATE INITIATED: 1993

COORDINATING AGENCY:
Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY:
Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES:
Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS:
Temperature Dissolved Oxygen
pH Conductivity
Ca

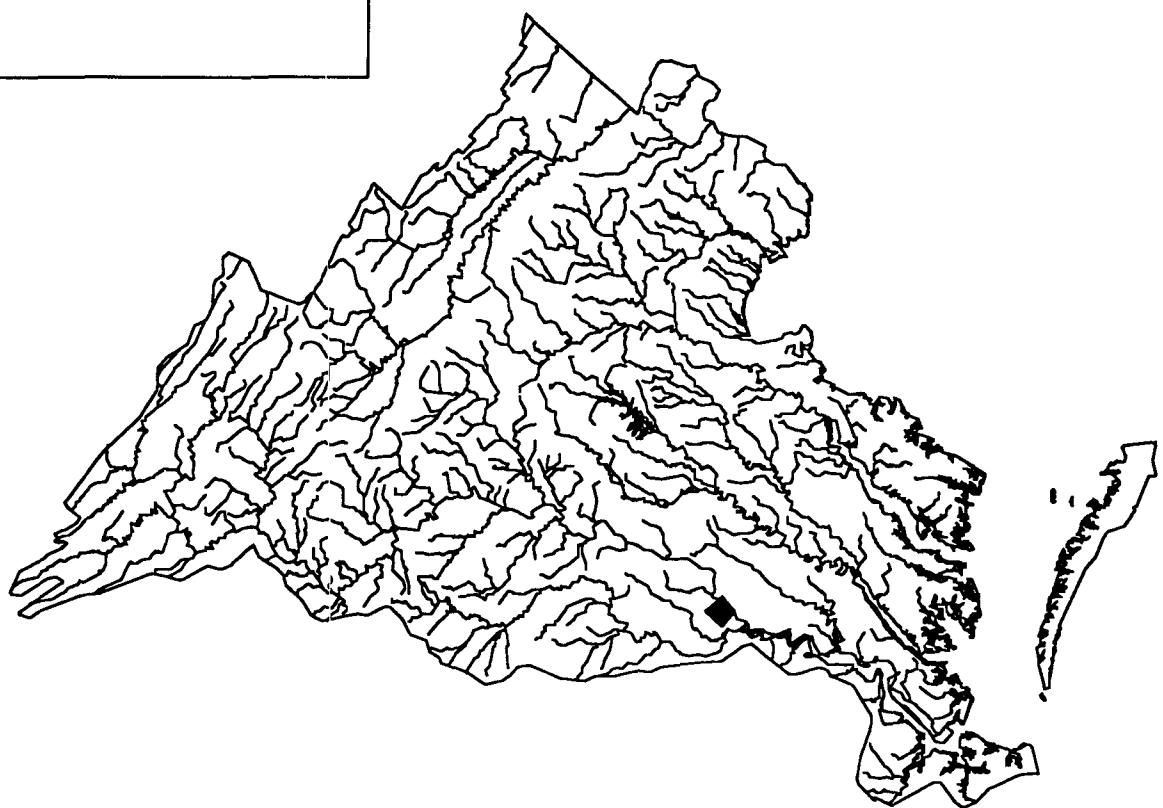
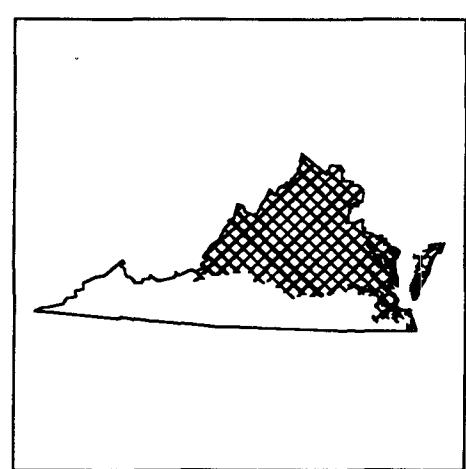
STATIONS: There are two sets of artificial substrates located adjacent to the power station. One is located at the public dock off Osborne Turnpike and the other is located at the stations off loading dock downstream of the intake area.

SAMPLE COLLECTION: Throughout the spring, summer, and fall artificial substrates are examined for the presence of settled Zebra mussels. Physical and chemical data are gathered in association with mussel monitoring.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	37 22 59	77 22 53		JAMES	UPPER JAMES		CHESTERFIELD POWER STATION

Chesterfield Power Station Monitoring Program Zebra Mussel Component



Miles
0 20 40 60
Scale = 1:2,758,430

NORTH ANNA POWER STATION MONITORING PROGRAM

CORBICULA COMPONENT

PROGRAM DESCRIPTION: The North Anna Power Station Monitoring Program Corbicula Component is conducted bi-annually at five stations a Lake Anna, Virginia.

PROGRAM OBJECTIVE: To monitor Corbicula populations of Lake Anna and to determine if they represent a macro-fouling threat to the operation of the North Anna Power Station.

DATE INITIATED: 1990

COORDINATING AGENCY: Virginia Power
5000 Dominion Blvd.
Glen Allen, Virginia 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power (VP)
Nuclear Regulatory Commission

INVESTIGATORS: Program Manager Burton M. Marshall VP

PARAMETERS: *Water Column:* temperature Dissolved Oxygen pH Conductivity *Corbicula:* Age Size Taxa distribution Taxa Abundance

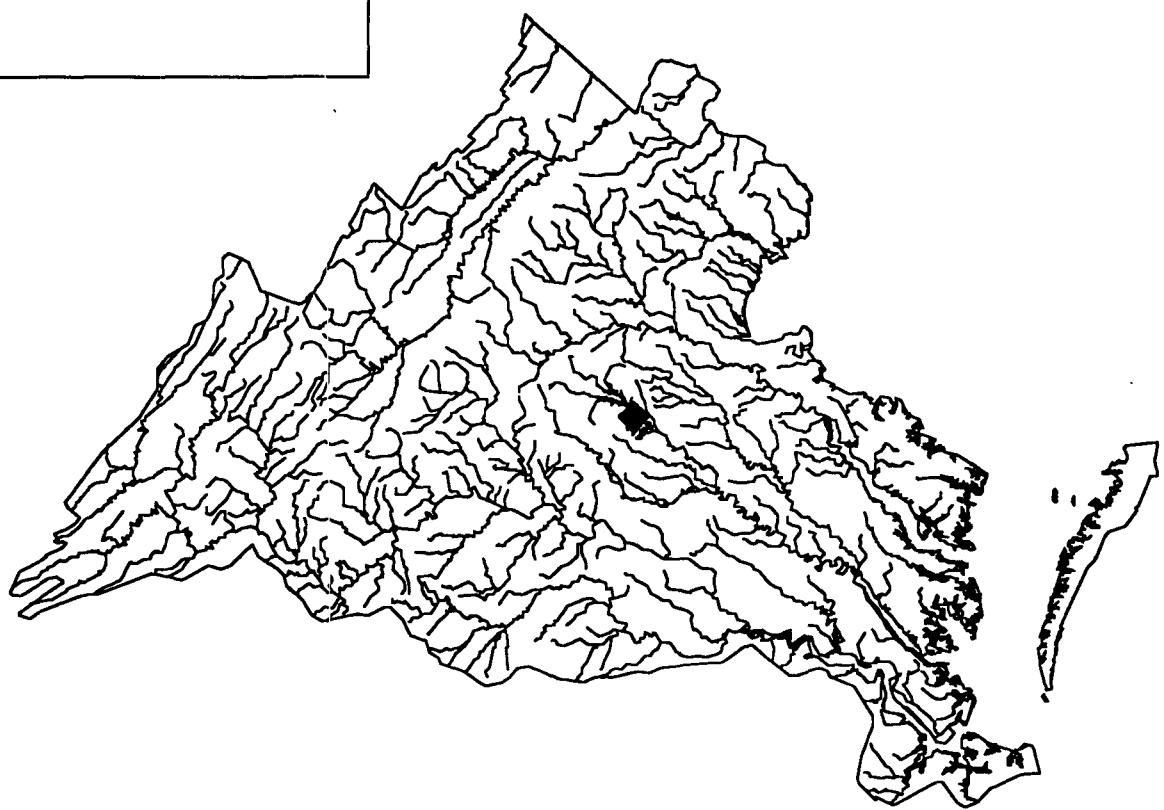
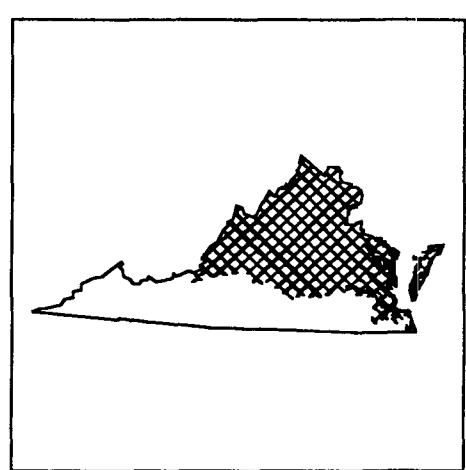
STATIONS: There are two Corbicula monitoring stations in Lake Anna, two in the Waste Heat Treatment Facility, and one in the Service Water Reservoir.

SAMPLE COLLECTION: Asiatic clams are collected bi-annually with a Ekman dredge for population estimates.

PROGRAM INTEGRATION: The North Anna Power Station Monitoring Program - Corbicula Monitoring Component is a part of the benthos monitoring at Lake Anna which also includes radiological, and biological monitoring.

STATION NAME(S)	LATITUDE DDMMS	LONGITUDE DDMMS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 03 30	77 47 30	AFL	YORK	PAMUNKEY	2080106	NORTH ANNA POWER STATION

North Anna Power Station Monitoring Program Corbicula Component



Miles

0 20 40 60

Scale = 1:2,758,430

NORTH ANNA POWER STATION MONITORING PROGRAM

ZEBRA MUSSEL COMPONENT

PROGRAM DESCRIPTION: The North Anna Power Station Zebra Mussel Component is conducted annually on the James River adjacent to the power station.

PROGRAM OBJECTIVE: To monitor the ecosystem for Zebra mussels and to assist station management in evaluating effective control strategies.

DATE INITIATED: 1993

COORDINATING AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS: Temperature
pH
Ca

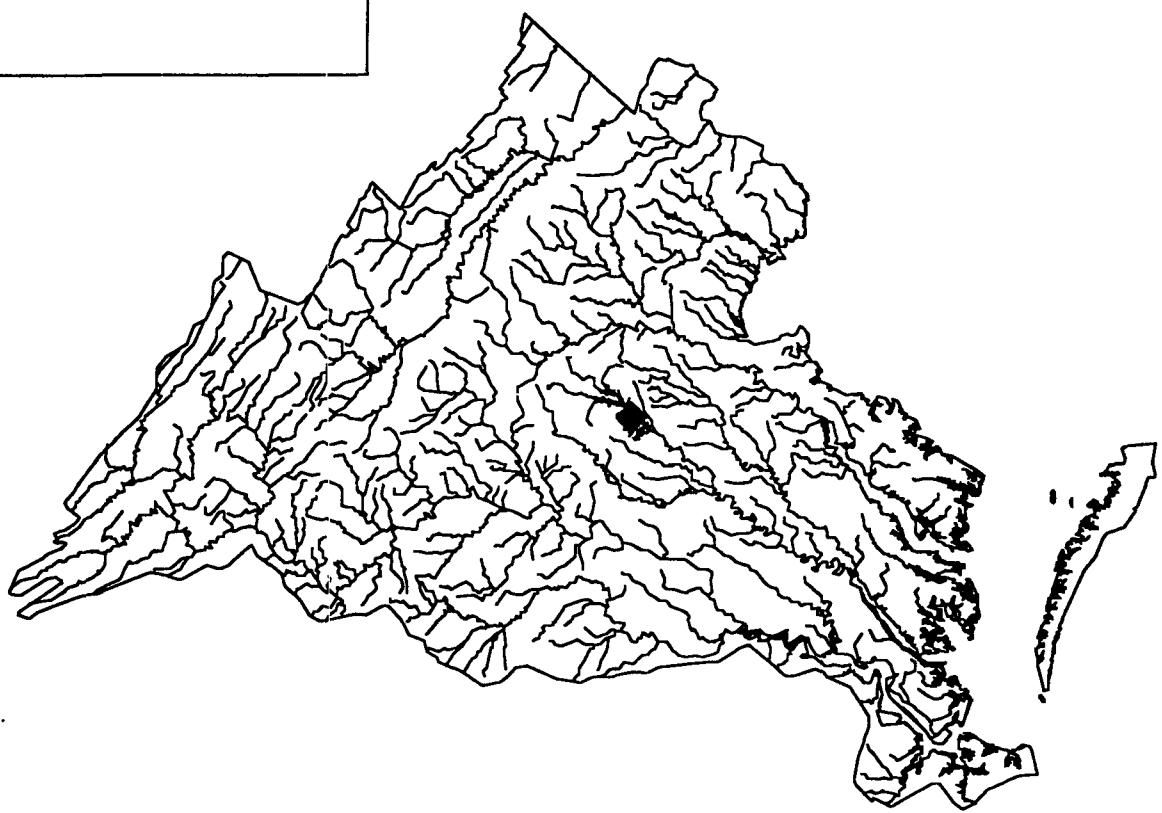
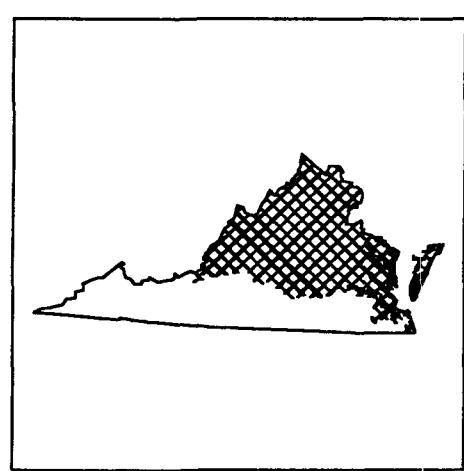
STATIONS: There are two sets of artificial substrates located on either side of the power stations intake structure.

SAMPLE COLLECTION: Throughout the spring, summer, and fall artificial substrates are examined for the presence of settled Zebra mussels. Physical and chemical data are gathered in association with mussel monitoring.

PROGRAM INTEGRATION: The North Anna Power Station Monitoring Program Zebra Mussel Component is a part of the benthos monitoring at Lake Anna which also includes radiological and biological monitoring.

STATION NAME(S)	LATITUDE DDMSS	LONGITUDE DDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 03 30	77 47 30	AFL	YORK	PAMUNKEY	2080106	NORTH ANNA POWER STATION

North Anna Power Station Monitoring Program Zebra Mussel Component



Miles



Scale = 1:2,758,430

POSSUM POINT POWER STATION MONITORING PROGRAM

ZEBRA MUSSEL COMPONENT

PROGRAM DESCRIPTION: The Possum Point Power Station Monitoring Program Zebra Mussel Component is conducted annually at two stations in the Potomac River adjacent to the power station.

PROGRAM OBJECTIVE: To monitor the ecosystem for Zebra mussels and to assist station management in evaluating effective control strategies.

DATE INITIATED: 1993

COORDINATING AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS: Temperature Dissolved Oxygen
pH Conductivity
Ca

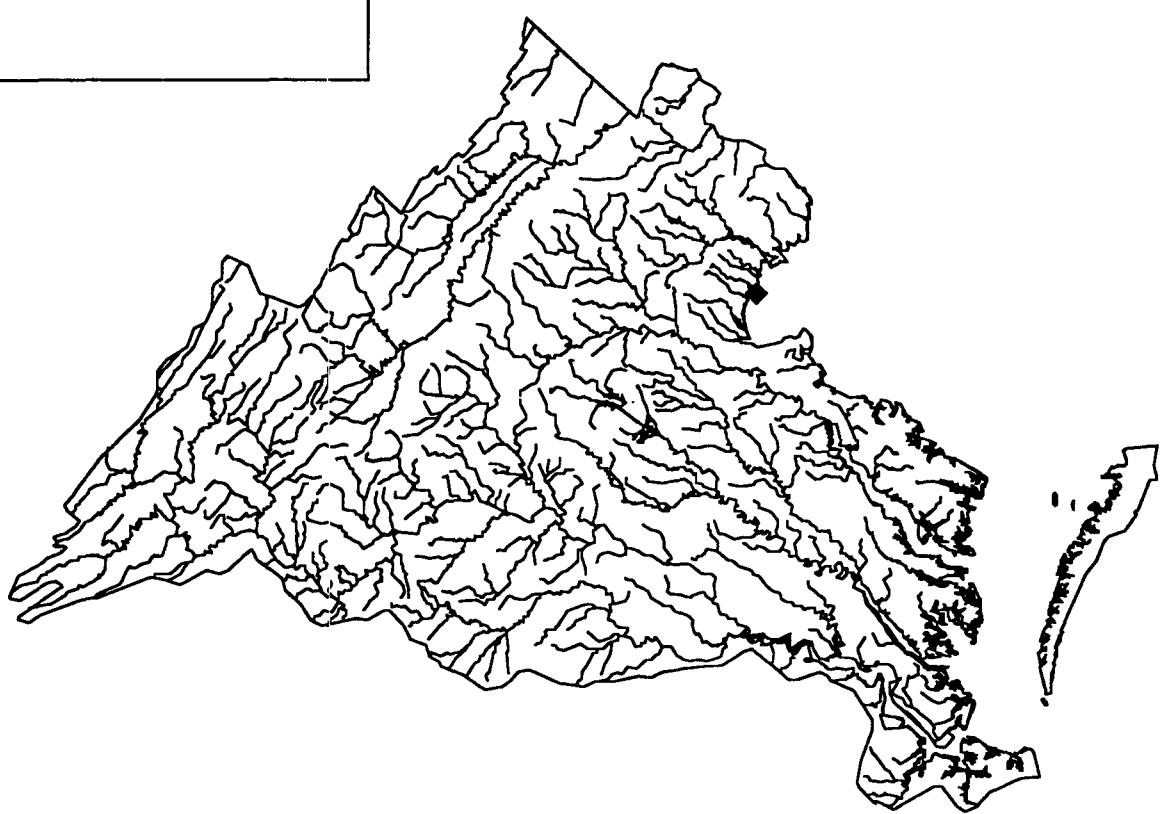
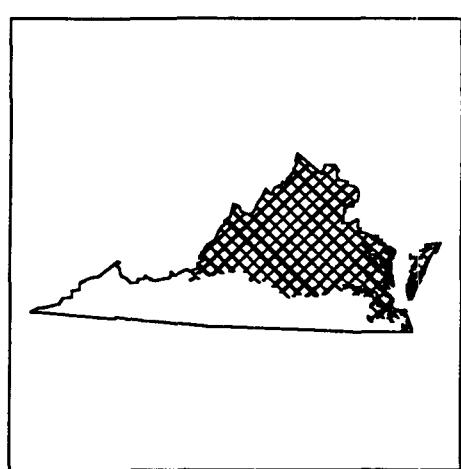
STATIONS: There are two sets of artificial substrates located on either side of the oil dock adjacent to the power station's intake area.

SAMPLE COLLECTION: Throughout the spring, summer, and fall artificial substrates and beach debris are examined for the presence of settled zebra mussels. Also, in association with this task physical and chemical parameters are gathered.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMS	LONGITUDE DDMMS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 31 42	77 16 51		POTOMAC	POTOMAC		POSSUM POINT POWER STATION

Possum Point Power Station Monitoring Program Zebra Mussel Component



Miles

0 20 40 60

Scale = 1:2,758,430

PENNSYLVANIA JUVENILE ALOSIDS SURVEY

PROGRAM DESCRIPTION: The Pennsylvania Juvenile Alosids Survey is an annual survey in late summer and fall to monitor populations of juvenile American Shad and River Herring.

PROGRAM OBJECTIVES: The objectives of this survey is to measure relative abundance, growth, timing of out-migration, and collect specimens for otolith analysis within the Susquehanna River.

DATE INITIATED: 1984

COORDINATING AGENCY: Pennsylvania Fish and Boat Commission
Bureau of Fisheries
450 Robinson Lane
Bellefonte, PA 16823

FUNDING AGENCIES: Pennsylvania Fish and Boat Commission (PFBC)
Atlantic Fisheries Cooperative Management Act

PARTICIPATING AGENCY: Pennsylvania Fish and Boat Commission (PFBC)
U.S. Fish and Wildlife Service (USFWS)

INVESTIGATORS:

Project Officer R. Scott Carney PFBC

PARAMETERS:

Catch per haul or lift of Juvenile Alosids; total length by sampling date; otolith analysis to detect tetracycline mark.

STATIONS: Several areas along the Susquehanna River are sampled depending on river conditions. In 1995 random stations were located in the Lower Susquehanna, Upper Susquehanna, and in the Juniata River. Contact PFBC for more station information.

SAMPLE COLLECTION: Sampling for juvenile alosids (American Shad and River Herring) is conducted in late summer and fall using haul seines (400 ft. x 6 ft. x 3/8 in. net) and lift nets (3/4 in. with 1/4 in. mesh liner). Monitoring data is contained in annual SRAFRC reports.

PROGRAM INTEGRATION: This survey is part of the comprehensive Alosid restoration effort in the Susquehanna River.

PENNSYLVANIA SMALLMOUTH BASS SURVEY

PROGRAM DESCRIPTION: The Pennsylvania Smallmouth Bass Survey is a statewide survey of both adult and young-of-year (YOY) bass populations. Catch per unit effort is determined for adults in late summer and YOY in July.

PROGRAM OBJECTIVES: The objective of this survey is to measure the relative abundance (catch per hour/per 50 meters) of smallmouth bass populations.

DATE INITIATED: 1988 for YOY
1990 for adults

COORDINATING AGENCY: Pennsylvania Fish and Boat Commission
Bureau of Fisheries
450 Robinson Lane
Bellefonte, PA 16823

FUNDING AGENCIES: Pennsylvania Fish and Boat Commission (PFBC)
U.S. Fish and Wildlife Service (USFWS)

PARTICIPATING AGENCY: Pennsylvania Fish and Boat Commission (PFBC)

INVESTIGATORS:

Chief Fisheries Management Richard A. Snyder PFBC

PARAMETERS:
For Adult Bass: Catch per hour of gamefish species
 Catch per hour by length group and age for Smallmouth Bass

For YOY Bass: Catch per 50 meters of shoreline

STATIONS: There are numerous stations throughout the Susquehanna River Basin, including the North Branch Susquehanna, West Branch Susquehanna, Juniata River, Bald Eagle Creek, Towanda Creek, and Standing Stone Creek. For more station location information, contact PFBC.

SAMPLE COLLECTION: Sampling for adult bass occurs in late summer using fixed boat electroshockers or tow boat electroshockers. Sampling for YOY occurs in July using back pack electrofishing equipment.

PROGRAM INTEGRATION: n/a

SUSQUEHANNA STEAM ELECTRIC STATION FISH MONITORING PROGRAM

PROGRAM DESCRIPTION: The Susquehanna Steam Electric Station Fish Monitoring Program monitors fish of the Susquehanna River in the vicinity of the Susquehanna Steam Electric Station (Susquehanna SES). Sampling for this program includes electrofishing six times per year in April, May, July, August, and October at four sites and seining three times per year in June, August, and October at four sites.

PROGRAM OBJECTIVE: To evaluate the environmental impact of the Susquehanna SES by comparing preoperational (pre-1983) and operational fish data.

DATE INITIATED: 1976 (in present format although fish studies have been conducted since 1971)

COORDINATING AGENCIES:
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Ecology III, Inc.
Susquehanna SES Biological Laboratory
R.D. 1
Berwick, Pennsylvania 18603

FUNDING AGENCIES:
Pennsylvania Power and Light Company
Allegheny Electric Cooperative, Inc.

PARTICIPATING AGENCIES:
Pennsylvania Power and Light Company (PP&L)
Ecology III, Inc. (EIII)

INVESTIGATORS:

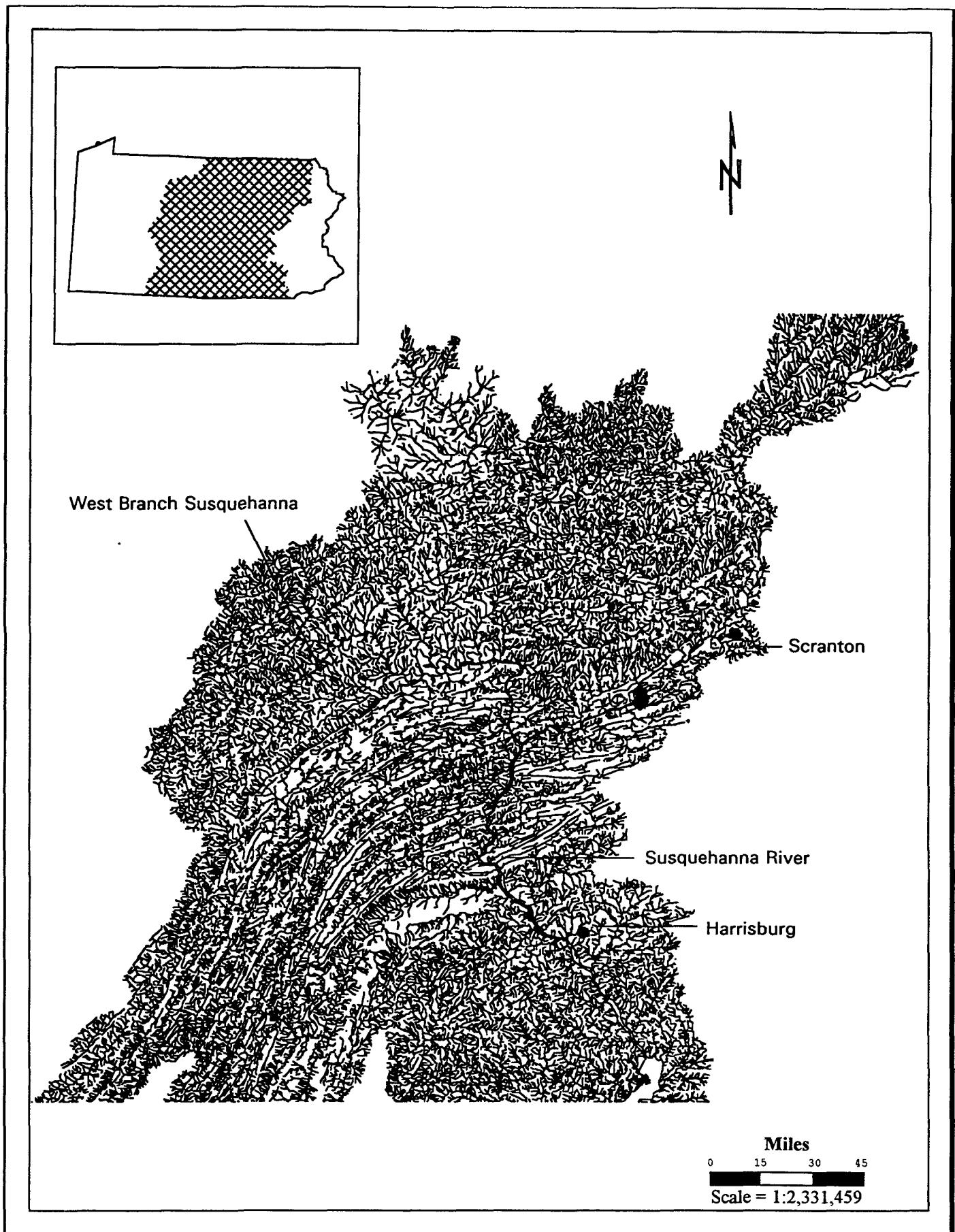
Program Director	Jerome S. Fields	PP&L
Principal Investigator	Brian P. Mangan	EIII

PARAMETERS:
Abundance
Taxa Identification
Length/Weight

STATIONS: There are eight fish monitoring stations in the vicinity of the Susquehanna SES: four electrofishing stations and four seining stations. The two electrofishing sites upriver from the intake are EL1 on the east bank, 130 m upriver from the gas-line crossing to 330 m upriver from a point opposite the center of the Susquehanna SES intake structure, and EL2 on the west bank, from the gas-line crossing to a point 250 m upriver from the center of the Susquehanna SES intake structure. The other two sites are EL3 located on the east bank, 390 m downriver from a point opposite the Susquehanna SES intake structure to a point 500 m upriver from the mouth of Wapwallopen Creek, and EL4 located on the west bank, 390 m downriver from the Susquehanna SES intake structure, to a point near the southeastern boundary of PP&L's Wetlands Nature Area. Electrofishing is usually conducted within 50 m of the river bank unless low water conditions make it impossible to do so.

The two seining sites upriver from the intake are SN1 on the east bank, 560 m upriver from a point opposite the center of the Susquehanna SES intake and SN2 on the west bank, 400 m upriver from the center of the Susquehanna SES intake. The downriver sites are SN3 located on the east bank, 2.6 km downriver from a point opposite the Susquehanna SES intake structure at the launching ramp of the Berwick Boat Club, and SN4 located on the west bank, 1.3 km downriver from the Susquehanna SES intake near the southeastern boundary of PP&L's Wetland Nature Area.

Susquehanna Steam Electric Station Fish Monitoring Program



Susquehanna Steam Electric Station Fish Monitoring Program

SAMPLE COLLECTION: Electrofishing is conducted at four 1000 m sites in April, May, June, July, August and October of each year when river levels do not exceed 150.3 m above mean sea level. At levels greater than this, electrofishing is ineffective due to increased turbidity and current velocity. Sampling is conducted approximately one hour after sunset and sequences of sites sampled are randomly determined. The electrofisher consists of a 4-KV (D.C.) generator and a variable voltage pulsator mounted in a 6 m flat-bottomed boat powered by an outboard motor. Long-handled nets are used by two observers in the bow and by the boat operator to collect fish for closer examination. Identifications and counts are recorded on a cassette recorder or in a field notebook and the first 20 fish of select species are weighed and measured. Scale samples are also collected from the fish. These data are retained for future age and growth studies of selected species.

Seining is conducted at four sites during the months of June, August and October when river levels do not exceed 149.4 m above mean sea level. Sampling is conducted approximately one hour after sunset and sequences of sites sampled are randomly determined. Fish are collected with a 7.6 m bag seine (6 mm mesh) with one seine brail kept stationary on the river bank as the seine is taken into the river to a distance of about 6 m, if not limited by depth, and then pulled upriver and into shore. Two replicate hauls are made at each site with catches from both hauls combined and considered one unit of effort. Fish are immediately placed in 10% formalin in the field and samples are stored in the laboratory for at least 2 weeks. The fish are then washed and soaked in water for two days before each is identified, weighed and measured. Final preservation is in 40% isopropyl alcohol.

PROGRAM INTEGRATION: N/A

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
EL1	41 05 28	76 07 38	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	E BNK 130M UPRIVER FROM GASLINE GOING 200M
EL2	41 05 28	76 07 48	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	W BNK FROM GASLINE CROSSING GOING 250M NORTH
EL3	41 04 35	76 07 45	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	E BNK 390M DOWNRIVER FROM INTAKE GOING NORTH
EL4	41 04 35	76 07 56	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	W BNK 390M DOWNRIVER FROM INTAKE GOING NORTH
PLANT	41 07 05	76 08 39	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	SUSQUEHANNA STEAM ELECTRIC STATION
SN1	41 05 37	76 07 37	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	E BNK 560M UPRIVER FROM INTAKE
SN2	41 05 30	76 07 51	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	W BNK 400M UPRIVER FROM INTAKE
SN3	41 04 00	76 08 35	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	E BNK 2.6KM DOWNRIVER FROM INTAKE
SN4	41 04 38	76 08 03	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	W BNK 1.3KM DOWNRIVER FROM INTAKE

MARYLAND YELLOW PERCH POPULATION SURVEY

PROGRAM DESCRIPTION: The Maryland Yellow Perch Population Survey is designed to characterize yellow perch populations. Monitoring is conducted in the Choptank, Chester, and Bush rivers at commercial fyke nets.

PROGRAM OBJECTIVES: To determine current and long-term trends, mortality rates, abundance, distribution, and composition of adult stocks of yellow perch in the Choptank River.

DATE INITIATED: December 1986

COORDINATING AGENCY:
Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING AGENCIES:
Maryland Department of Natural Resources
U. S. Fish and Wildlife Service

PARTICIPATING AGENCY: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Principal Investigator Paul Piavia MDDNR
Principat Investigator Dale Weinrich MDDNR

PARAMETERS: *Water Column:* *Perch:*
Depth Length
Surface Water Temperature Age (Otoliths)
Surface Salinity Sex
Catch Per Unit Effort

Other Finfish Species:
Number
Size

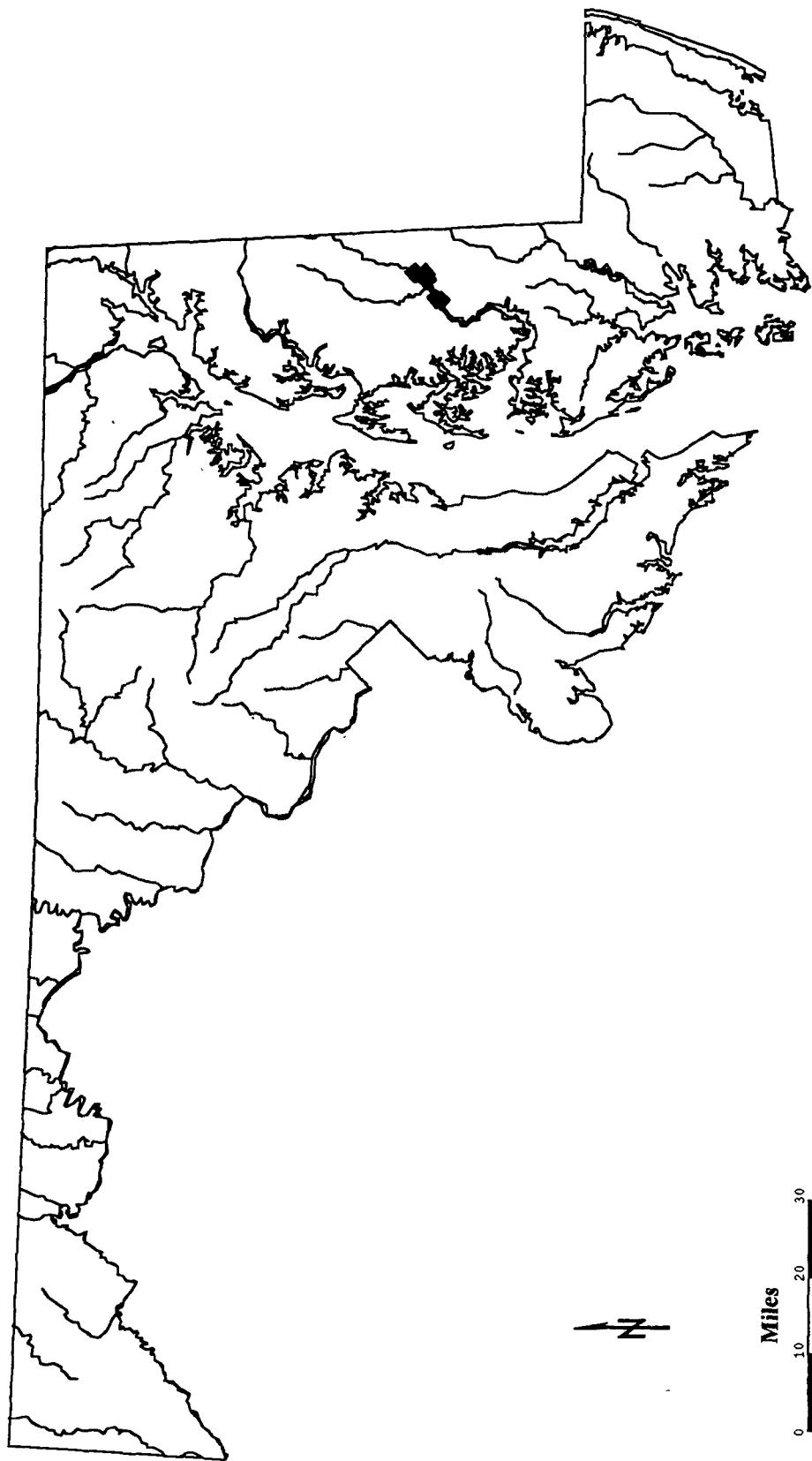
STATIONS: There are five permanent fyke net stations in the Choptank River. Other systems are sampled with cooperating commercial fisherman.

SAMPLE COLLECTION: Surveys are performed from March through April. Fyke nets are set up during March and visited three times per week. Commercial pound and fyke nets are sampled in Chester River and Bush River.

PROGRAM INTEGRATION: Data is co-analyzed with other stock assessment data.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	38 47 12	75 56 08	BFL	EASTERN SHORE	CHOPTANK	2060005	
2	38 47 54	75 55 50	BFL	EASTERN SHORE	CHOPTANK	2060005	
3	38 49 22	75 52 30	BFL	EASTERN SHORE	CHOPTANK	2060005	
4	38 49 32	75 51 24	BFL	EASTERN SHORE	CHOPTANK	2060005	
5	38 51 04	75 51 19	BFL	EASTERN SHORE	CHOPTANK	2060005	

Maryland Yellow Perch Population Survey



MARYLAND JUVENILE RIVER HERRING SURVEY

PROGRAM DESCRIPTION: As part of the Multifish Study, the Maryland Juvenile River Herring Survey characterizes the juvenile herring population through weekly monitoring at 10 stations located in the Nanticoke River from May to September.

PROGRAM OBJECTIVES: To determine relative abundance and distribution of juvenile alewife herring, blueback herring and American shad in order to examine the relationship between juvenile and adult abundance, and evaluate trends in reproduction in relation to environmental variables.

DATE INITIATED: June 1983

COORDINATING

AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING

AGENCIES: Maryland Department of Natural Resources

PARTICIPATING

AGENCY: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Principle Investigator Dale Weinrich MDDNR
Principle Investigator Jim Mowrer MDDNR

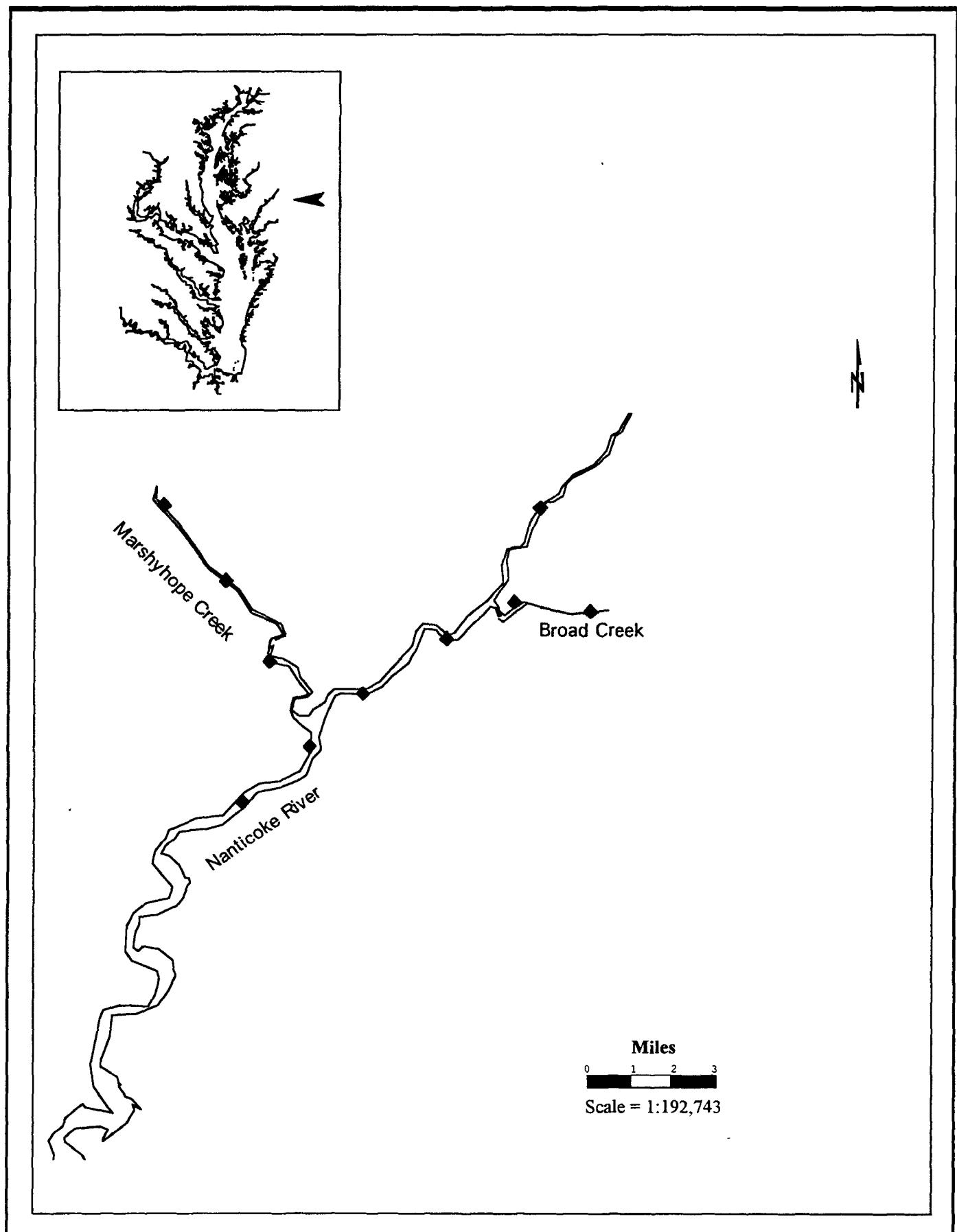
PARAMETERS: *Water Column:* *Herring and Shad:*
Depth Length
Surface Temperature Number
Surface Salinity Catch per Unit Effort

STATIONS: The 10 Nanticoke River stations are located on the river mainstem from Seaford south to Vienna on Marshyhope Creek and Broad Creek.

SAMPLE COLLECTION: Sampling is performed weekly at 10 stations from May to September. Samples are collected with a 5-foot wide midwater trawl towed at two knots for five minutes.

PROGRAM INTEGRATION: Juvenile abundance of these species is compared with adult abundance of the same. In addition, juvenile abundance is examined in conjunction with spring water quality conditions.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
38 29 54	75 47 12	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 31 06	75 45 24	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 32 00	75 44 00	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 33 06	75 41 42	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 34 12	75 39 54	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 36 00	75 38 00	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River
38 32 54	75 46 30	ET6	EASTERN SHORE	NANTICOKE		2060008	Marshyhope Creek
38 34 36	75 47 42	ET6	EASTERN SHORE	NANTICOKE		2060008	Marshyhope Creek
38 36 12	75 49 24	ET6	EASTERN SHORE	NANTICOKE		2060008	Marshyhope Creek
38 34 00	75 38 00	ET6	EASTERN SHORE	NANTICOKE		2060008	Nanticoke River



MARYLAND ADULT AMERICAN SHAD SURVEY

PROGRAM DESCRIPTION: The Maryland Adult American Shad Survey in Upper Chesapeake Bay was established to characterize adult American shad populations, with monitoring performed in the spring at four stations in the Susquehanna River and Susquehanna Flats. Monitoring was added on the Nanticoke in 1988 but was modified in 1991 to sample from Tyaskin to Vienna. This survey is now part of the Maryland Department of Natural Resources Multifish Study.

PROGRAM OBJECTIVES: To determine selected stock assessment parameters for adult American shad populations in the upper Chesapeake Bay and Nanticoke River.

DATE INITIATED: April 1980

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources
U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Principal Investigator Dale Weinrich MDDNR

PARAMETERS:	<i>Water Column:</i> Water Temperature	<i>American Shad:</i> Population Count Length Age	Catch per Unit Effort Spawning history Mortality Sex
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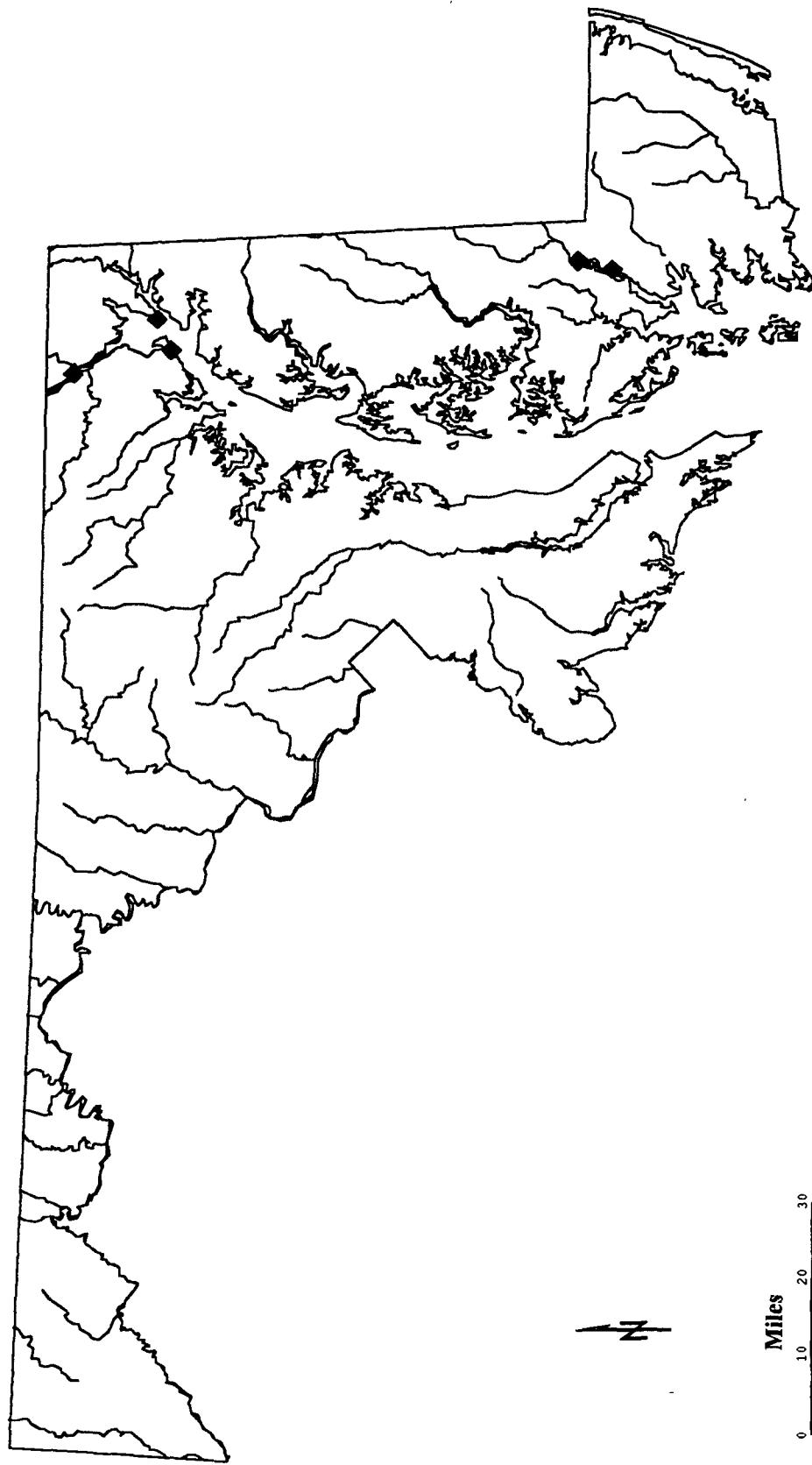
STATIONS: There is one station located in the Susquehanna River at the base of the Conowingo Dam, and 1-3 stations located in the Susquehanna Flats at the head of Chesapeake Bay. Additional stations were added on the Nanticoke River from Tyaskin to Sharptown in 1988. These are commercial pound nets, the locations of which may vary from year to year.

SAMPLE COLLECTION: Sampling is performed at the upper bay stations 2-4 days per week from mid-March to the beginning of June. Hook and line is used at the station near the Conowingo Dam. Commercial pound nets are used at the stations in the Susquehanna Flats with more commercial pound nets possibly added in the future depending on cooperation by fishermen. Fyke and commercial pound nets are utilized on the Nanticoke from Tyaskin to Vienna.

PROGRAM INTEGRATION: This project in the Susquehanna River is considered a part of the SRAFRC annual work plan with findings reported in the SRAFRC annual report, but is a separately funded Federal Aid Project. In addition, a fish trap is operated at Conowingo Dam and catch per unit effort there is related to MDDNR population estimates.

STATION NAME(S)	LATITUDE DDMSS	LONGITUDE DDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
2	39 28 00	76 00 24	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTH OF TURKEY POINT
3	39 39 31	76 10 28	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	BASE OF THE CONOWINGO DAM
4	39 25 51	76 06 00	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
4	38 28 21	75 48 53	ET-6	EASTERN SHORE	NANTICOKE	2060008	
5	38 23 29	75 50 12	ET-6	EASTERN SHORE	NANTICOKE	2060008	

Maryland Adult American Shad Survey



Miles
Scale = 1:1,417,277

MARYLAND ESTUARINE JUVENILE FINFISH SURVEY

PROGRAM DESCRIPTION: The Maryland Estuarine Juvenile Finfish Survey examines all shore zone fish populations in the upper Bay and the Choptank, Nanticoke and Potomac rivers. It is conducted monthly in July, August and September at 22 permanent stations and at 18 auxilliary stations. A special emphasis is placed on striped bass, white perch and other anadromous species.

PROGRAM OBJECTIVES: To determine relative annual reproduction of several important finfish species.

DATE INITIATED: 1954

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources
U.S. Fish and Wildlife Service

PARTICIPATING AGENCY: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

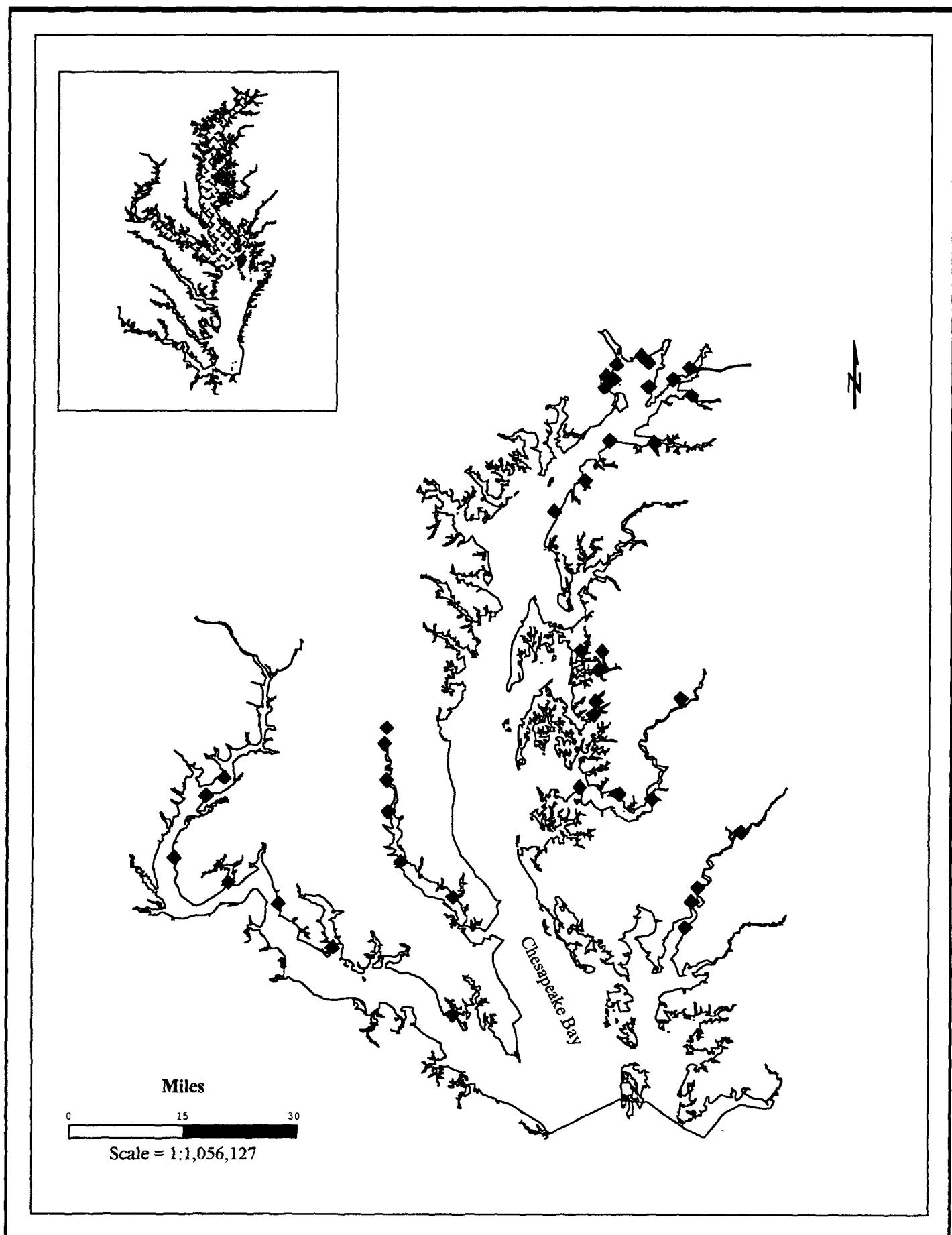
Principal Investigator	Harry T. Hornick	MDDNR
Principal Investigator	Don Cosden	MDDNR

PARAMETERS:	<i>Physical/Chemical:</i>	<i>Species Captured:</i>
	Surface Water Temperature	Number
	Surface Salinity	Length, Age
	Location	Catch per Unit Effort
	Depth, Bottom Type	

STATIONS: There are 22 permanent stations located in the upper Bay and the Choptank, Nanticoke and Potomac rivers, and 18 auxilliary stations in the Patuxent, upper Bay, Wye and Miles rivers.

SAMPLE COLLECTION: Each site is visited once during the months of July, August and September. Two samples are taken each visit using a 100 x 4 foot haul seine with 1/4 inch mesh. Auxiliary stations are seined once on each visit. Indices of abundance of various species of juveniles are then related to subsequent abundance of adult stocks of these species, such as striped bass, white perch and herring.

PROGRAM INTEGRATION: Juvenile catches of various species are compared with adult catches of these species obtained in other studies undertaken in Maryland. Data is also used to monitor habitat quality and in development of Index of Biotic Integrity (MDDNR/ CBRM).



Maryland Estuarine Juvenile Finfish Survey

STATION NAME(S)	LATITUDE DD	LONGITUDE DD	CSP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
68*	39 32.2	76 05.3	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SUSQUEHANNA FLATS, SPOIL ISLAND
129*	39 30.2	76 05.6	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SUSQUEHANNA FLATS, 1.9 MI S TYDINGS PARK
130*	39 29.2	76 06.8	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SUSQUEHANNA FLATS, N SIDE PLUM PT
144*	39 30.5	76 06.7	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SUSQUEHANNA FLATS, TYDINGS ESTATE
132*	39 32.9	76 01.3	BFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SUSQUEHANNA FLATS, 0.2 MI E POPLAR PT
59*	39 32.4	76 00.2	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTHEAST RIVER, CARPENTER POINT
3	39 28.9	75 59.7	CB-1	CHESBAY	UPPER CHESAPEAKE BAY	2060001	NORTHEAST RIVER ELK ST PARK BEACH
4	39 31.6	75 52.9	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	WELCH POINT, ELK RIVER
5	39 30.3	75 55.7	ET-2	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	ELK RIVER, HYLAND POINT LIGHT
115	39 28.3	75 52.7	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	BOHEMIA RIVER, PARLOR POINT
9	39 22.2	75 58.7	ET-3	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	SASSAFRAS RIVER, ORDINARY POINT
10	39 22.3	76 06.3	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	SASSAFRAS RIVER, HOWELL POINT
11	39 17.2	76 10.2	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	MOUTH OF TIMS CREEK, WEST SHORE
88*	39 12.8	76 14.7	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	CHESAPEAKE BAY, BEACH AT TOLCHESTER YACHT CLUB
139	38 37.8	77 07.8	TF-2	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	HALLOWING PT VA
50	38 36.0	77 11.1	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	INDIANHEAD- OLD BOAT BASIN
51	38 27.5	77 16.1	RET-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER, LIVERPOOL POINT
52	38 24.5	77 06.7	RET-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER, BLOSSOM POINT
111	38 21.7	76 59.0	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER, MORGANTOWN S.E.S. PROPERTY
56	38 08.1	76 29.8	LE-2	POTOMAC	LOWER POTOMAC	2070011	POTOMAC RIVER, ST. GEORGE ISLAND
55	38 16.4	76 50.0	BFL	POTOMAC	LOWER POTOMAC	2070011	WICOMICO RIVER, ROCK POINT
2	38 48.9	75 53.7	BFL	EASTERN SHORE	CHOPTANK	2060005	TUCKAHOE CREEK, EASTSIDE NEAR MOUTH
29	38 37.6	76 09.8	ET-5	EASTERN SHORE	CHOPTANK	2060005	CASTLE HAVEN, NORTHEAST SIDE
67	38 36.4	75 58.4	ET-5	EASTERN SHORE	CHOPTANK	2060005	CHOPTANK RIVER, MOUTH OF WARWICK CREEK
135	38 36.7	76 04.0	ET-5	EASTERN SHORE	CHOPTANK	2060005	CHOPTANK RIVER, N SHORE OF HAMBROOK BAR
36	38 32.3	75 43.6	BFL	EASTERN SHORE	NANTICOKE	2060008	NANTICOKE RIVER, SHARPTOWN PULPWOOD PIER
37	38 25.1	75 51.0	ET-6	EASTERN SHORE	NANTICOKE	2060008	NANTICOKE RIVER, 0.3 MILES ABOVE LEWIS LANDING
38	38 22.8	75 52.0	ET-6	EASTERN SHORE	NANTICOKE	2060008	NANTICOKE RIVER, OPPOSITE CHAPTER POINT
39	38 19.6	75 52.6	ET-6	EASTERN SHORE	NANTICOKE	2060008	NANTICOKE RIVER, TAYSIN BEACH
85*	38 45.1	76 42.0	BFL	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, SELBY LANDING
86*	38 42.7	76 42.2	BFL	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, NOTTINGHAM - WINDSOR FARM
91*	38 38.3	76 41.5	TF-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, MILLTOWN LANDING
92*	38 34.3	76 40.9	RET-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, EAGLE HARBOR
106*	38 28.0	76 38.8	LE-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, SHERIDAN POINT
90*	38 23.3	76 30.4	LE-1	PATUXENT	PATUXENT	2060006	PATUXENT RIVER, PETERSON POINT
149*	38 52.6	76 07.4	EE-1	EASTERN SHORE	WYE	2060002	WYE EAST RIVER, MTH PICKERING CK
150*	38 55.3	76 06.7	EE-1	EASTERN SHORE	WYE	2060002	WYE EAST RIVER, ABOVE WYE LANDING
151*	38 54.9	76 09.9	EE-1	EASTERN SHORE	WYE	2060002	WYE RIVER, BELOW QUARTER CREEK
152*	38 47.2	76 08.2	EE-1	EASTERN SHORE	MILES	2060002	MILES RIVER, @ DONCASTER GRN #9
153*	38 49.0	76 07.6	EE-1	EASTERN SHORE	MILES	2060002	MILES RIVER, UNIONVILLE ABV RT 370

* INDICATES AUXILIARY SEINING SITES

MARYLAND ADULT STRIPED BASS SURVEY

PROGRAM DESCRIPTION: The Maryland Adult Striped Bass Survey was established to characterize adult striped bass populations. Monitoring is conducted 4-6 times per week at over 60 stations in Maryland portions of the Chesapeake Bay, the Potomac and Choptank rivers. Through this survey other species, notably white perch, are also collected.

PROGRAM OBJECTIVES: To seasonally determine age structure, relative abundance, size, and sex composition, and maturity, migration and mortality rates, of adult striped bass populations; to estimate wild stock and hatchery contributions to these populations; and to provide tagged fish for determination of in season fishing mortality rates and to biologically characterize and monitor Striped Bass catch from the commercial fishery.

DATE INITIATED: November 1981

COORDINATING AGENCY: Maryland Department of Natural Resources
Tidewater Administration
Fisheries Division
Estuarine and Marine Fisheries Program
Tawes State Office Building
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources
U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MD DNR)
U.S. Fish and Wildlife Service (FWS)

INVESTIGATORS:

Principle Investigator Harry T. Hornick MD DNR

PARAMETERS:	<i>Water Column:</i>	<i>Striped Bass:</i>	<i>White Perch:</i>
	Surface Temperature	Length	Length
	Surface Salinity	Age	sex
	Surface pH (certain seasons)	Sex	Catch Per Unit Effort
	Location	Catch Per Unit Effort	
	Depth		

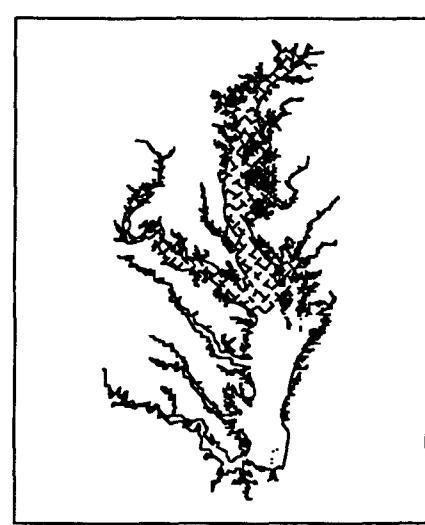
STATIONS: There are approximately 60 stations utilized in the striped bass survey during the fall, winter and spring month. For more detailed station location information contact MD DNR:

- In the Fall, the survey is conducted utilizing commercial pound nets in the upper, middle and lower Chesapeake Bay, and on the Potomac River.
- In the Winter, the survey is conducted utilizing commercial Striped Bass check stations statewide using a random survey design. Random sampling is conducted on board commercial fishing vessels fishing in Maryland waters.
- In the spring, the survey is conducted at randomly chosen stations using a randomized station design in the upper Bay from Worton Point to Turkey Point, on the Choptank River from below 331 bridge to Williston, and at random on the Potomac from Maryland Point to Freestone Point.

SAMPLE COLLECTION:

- Fall sampling is performed four to five times per week for a six week period from September to October using commercial pound nets from the Upper, Middle and Lower Chesapeake Bay and from the Upper, Middle and Lower Potomac River.

Maryland Adult Striped Bass Survey



N



Miles

0 15 30

Scale = 1:1,056,127

- Winter sampling is conducted for to five times per week from December through February utilizing commercial Striped Bass check stations which are located throughout the State of Maryland. Random sampling to biologically characterize catch is conducted on commercial fishing vessels.

- Spring sampling takes place from early April through late May. Sampling is performed at a different random station each day in the upper Bay, at 11 stations in the Choptank and at a different random station each day in the Potomac River. An experimental multipanel drift gill net is used.

PROGRAM INTEGRATION: Through this program, MDDNR (along with other coastal states) is cooperating with the U.S. FWS in a coastal tagging project. Intra and inter-state Striped Bass management is dependent on the quality and quantity of timely data provided by these studies. Results provide information used in fisheries management including: recruitment, age and growth, relative abundance, mortality, fecundity, and migration. With the recent declaration by the ASMFC that the Atlantic coast Striped Bass population is recovered, effective Jan 1, 1995, the data collected by Maryland provide both guidance, and a reference point for future Atlantic coast Striped Bass management actions and considerations.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
20A	38 44 09	75 59 46	ET-5	EASTERN SHORE	CHOPTANK	2060005	
20B	38 44 42	75 59 54	ET-5	EASTERN SHORE	CHOPTANK	2060005	
21A	38 44 57	76 00 00	ET-5	EASTERN SHORE	CHOPTANK	2060005	
21B	38 45 13	76 00 02	ET-5	EASTERN SHORE	CHOPTANK	2060005	
22A	38 45 33	75 59 39	ET-5	EASTERN SHORE	CHOPTANK	2060005	
22B	38 45 51	75 58 45	ET-5	EASTERN SHORE	CHOPTANK	2060005	
23A	38 46 04	75 58 29	ET-5	EASTERN SHORE	CHOPTANK	2060005	
23B	38 46 32	75 58 14	ET-5	EASTERN SHORE	CHOPTANK	2060005	
24A	38 46 46	75 57 52	ET-5	EASTERN SHORE	CHOPTANK	2060005	
24B	38 46 40	75 57 20	ET-5	EASTERN SHORE	CHOPTANK	2060005	
25A	38 46 44	75 57 00	ET-5	EASTERN SHORE	CHOPTANK	2060005	
25B	38 47 08	75 56 26	ET-5	EASTERN SHORE	CHOPTANK	2060005	
26A	38 47 53	75 55 46	ET-5	EASTERN SHORE	CHOPTANK	2060005	
26B	38 48 03	75 55 26	ET-5	EASTERN SHORE	CHOPTANK	2060005	
27A	38 48 08	75 55 11	ET-5	EASTERN SHORE	CHOPTANK	2060005	
27B	38 48 22	75 54 28	ET-5	EASTERN SHORE	CHOPTANK	2060005	
28A	38 48 58	75 53 06	ET-5	EASTERN SHORE	CHOPTANK	2060005	
28B	38 49 14	75 52 50	ET-5	EASTERN SHORE	CHOPTANK	2060005	
29	39 16 29	76 18 33	ET-5	EASTERN SHORE	CHOPTANK	2060005	
30A	38 49 31	75 51 32	ET-5	EASTERN SHORE	CHOPTANK	2060005	
30B	38 49 49	75 51 21	ET-5	EASTERN SHORE	CHOPTANK	2060005	
1	38 34 57	76 03 11	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
2	39 12 52	76 21 45	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
3	39 13 33	76 20 40	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
4	39 05 37	76 18 45	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
5	39 04 18	76 19 42	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
6	39 03 15	76 21 20	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
7	38 58 25	76 24 15	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
8	38 57 46	76 23 16	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
9	38 58 22	76 23 03	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
10	38 53 50	76 22 49	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	*
11	38 53 54	76 24 33	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
12	38 37 04	76 04 33	ET-5	EASTERN SHORE	CHOPTANK	2060005	
13	39 00 39	76 23 04	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
14	39 00 36	76 21 41	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
15	38 52 06	76 23 06	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
16	38 52 16	76 24 50	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
17	39 04 26	76 22 39	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
18	39 04 12	76 16 56	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
19	39 05 52	76 17 21	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
20	39 06 21	76 18 32	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
21	39 09 20	76 17 48	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
22	39 13 54	76 15 04	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
23	39 15 41	76 14 04	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
24	39 16 35	76 13 08	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
25	39 18 49	76 12 49	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
27	39 17 15	76 12 03	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
29	38 48 42	75 53 36	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
32	39 08 41	76 22 12	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
35	39 05 59	76 15 05	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
36	39 04 56	76 16 53	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
37	38 58 49	76 21 17	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
40	39 18 20	76 11 17	CB-2	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
41	39 10 27	76 17 34	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
42	38 54 09	76 25 45	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
43	39 14 59	76 13 57	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
44	39 06 13	76 20 16	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
45	39 07 20	76 17 04	CB-3	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
46	38 56 43	76 22 28	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	
47	38 57 49	76 21 52	CB-4	CHESBAY	UPPER CHESAPEAKE BAY	2060001	

MARYLAND BIOLOGICAL STREAM SURVEY

FISH COMPONENT

PROGRAM DESCRIPTION: The Maryland Biological Stream Survey is a comprehensive sampling program to assess the status of biological resources in Maryland's non-tidal streams, quantify the extent to which acidic deposition has affected or may be affecting critical biological resources in the state, and establish a benchmark for long-term monitoring of trends in these resources.

PROGRAM OBJECTIVES: To provide abundance and biomass estimates of fish, map the geographic distribution of biological resources, establish priorities for environmental issues of concern in Maryland's streams and rivers, and help to identify regions that most require protection or mitigation.

DATE INITIATED: 1993 pilot project

COORDINATING AGENCY: Maryland Department of Natural Resources
Monitoring and Non-tidal Assessment Division
Tawes State Office Building
580 Taylor Avenue
Annapolis, Maryland 21401

FUNDING AGENCIES: Maryland Department of Natural Resources

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)
Versar, Inc. (VI)
Coastal Environmental Services (CES)
University of Maryland (UMD)

INVESTIGATORS:

Ronald Klauda	MDDNR
Paul Kazyak	MDDNR
Nancy E. Roth	VI
Janis C. Chaillou	VI
Michael Gaughan	VI
M.T. Southerland	VI
J.H. Volstad	VI
S.B. Weisberg	VI
H.T. Wilson	CES
D.G. Heimbuch	CES
J.C. Seibel	CES
Lenwood Hall	UMD
Ray Morgan	UMD

PARAMETERS: Fish count by species, total length of gamefish species
Aggregate biomass of non-game and gamefish species
Fish anomalies, type and count
Benthic macroinvertebrates, herpetofauna, mussels, and aquatic vegetation
are also surveyed during portions of the year.

Physical habitat measurements: flow, wetted width, fowl weg depth, velocity, rootwad count, large woody debris count, riparian buffer width and count
RBP subjective habitat survey
pH, ANC, conductivity, sulfate, nitrate, DOC, DO, temperature

STATIONS: The survey study area comprises 18 distinct drainage basins across the state. Lattice sampling is used to schedule sampling of all basins over a three-year sampling cycle. The study area is divided into three geographic regions with five to seven basins each: (1) western, (2) central, and (3) eastern. Two basins are randomly selected from each region for sampling each year. One randomly selected basin in each region is visited twice, to quantify between year variability in the response variables. Sampling occurs on a five year cycle, with field sampling occurring in three consecutive years followed by two years of analysis. Sampling is restricted to non-tidal, third order and smaller stream reaches, excluding impoundments that were non-wadable or that substantially altered the riverine nature of the reach. Basins are sampled using a stratified random sampling of 75-meter segments within each basin. The number of segments sampled per basin is proportional to the number of stream miles in the basin within a given stream order. Additional segments are sampled to account for loss of sampling events such as weather, field conditions, etc.

SAMPLE COLLECTION: Fish are sampled during the summer index period using double-pass electrofishing of 75-meter stream segments. Block nets are used at segment extremes with DC backpack electrofishing units used throughout the length of the segment and in all available habitat. In segments with width less than ten meters, one backpack electrofishing unit was used. Two or more units are used for segment widths greater than 10 meters. Captured fish are counted and identified, and up to 50 individuals of gamefish species are measured for total length. For each pass, gamefish and non-game species are weighed separately for aggregate biomass measurements. All species are examined for visible external pathology or anomalies. Electrofishing is also conducted at supplemental non-randomly selected sites during the summer.

PROGRAM INTEGRATION: The Maryland Biological Stream Survey fish component is conducted along with benthic macroinvertebrate, herpetofauna, mussel, and aquatic vegetation surveys. See Marland Biological Stream Survey Benthic component for more information, or contact Maryland DNR.

MONTGOMERY COUNTY WATER QUALITY MONITORING PROGRAM FISH COMPONENT

PROGRAM DESCRIPTION: The Montgomery County Water Quality Monitoring Program: Benthic Component is part of a county wide assessment of streams and rivers and provide the foundation from which to accomplish the water resource management goals of the county.

PROGRAM OBJECTIVES: Information on the integrity of the county's streams and rivers from assessments of benthic, fish, and habitat resources is being used to protect, maintain, and restore high quality chemical, physical, and biological stream conditions; to reverse the past trends of stream deterioration through improved water management practices; to restore streams damaged by stormwater runoff impacts from land development practices of the past; and to maintain a natural stream environment in county streams, with habitat conditions supporting wildlife and aquatic life along with appropriate recreational, water supply and other water uses.

DATE INITIATED: 1994

COORDINATING AGENCY: Montgomery County Department of Environmental Protection
Watershed Management Division
250 Hungerford Drive Suite 175
Rockville, MD 20850

FUNDING AGENCIES: Montgomery County Department of Environmental Protection

PARTICIPATING AGENCIES: Montgomery County Department of Environmental Protection

INVESTIGATORS: Keith Van Ness
Ken Brown
Michael S. Haddaway
Doug Marshall
David Jordahl

PARAMETERS: Fish count, genus or species identifications
Instream habitat measurements and habitat assessment
Physiochemical parameters: pH, %sat, DO, cond., water temperature

STATIONS: A baseline inventory stream survey is conducted on three to four watersheds per year. Each watershed survey effort consists of sampling at least two first order, two second order, and two third order reaches, with each reach divided into 75 meter non-overlapping stream segments. One segment is randomly chosen per stream reach to be inventoried.

SAMPLE COLLECTION: Three pass backpack electrofishing sampling is conducted on 75 meter stream segments. Block nets are placed at both ends of the sampling segment with fish identified after each upstream pass. Gross external pathology and anomalies of fish are also recorded.

PROGRAM INTEGRATION: The benthic component of this program is conducted in conjunction with benthic macroinvertebrate monitoring.

RHODE RIVER WATERSHED ENVIRONMENTAL MONITORING PROGRAM FISH COMPONENT

PROGRAM DESCRIPTION: The Rhode River Watershed Environmental Monitoring Program is a long-term interdisciplinary landscape level study of the Rhode River, its watershed and airshed, and is conducted by the Smithsonian Environmental Research Center. One component of this program involves monitoring fish populations of the river. The focus of this program is on the impacts of human use of the land, air and water upon water quality and biological populations and ecosystems. Comparative studies are used to assess the generality of results from this site to the Chesapeake region.

PROGRAM OBJECTIVE: To distinguish the effects of weather variation from those of local land use and air quality. Ultimately, to develop predictive models to synthesize and test our understanding of the overall system.

DATE INITIATED: 1981

COORDINATING AGENCY: Smithsonian Environmental Research Center
P.O. Box 28
Edgewater, Maryland 21037-0028

FUNDING AGENCY: Smithsonian Environmental Research Center
U.S. Department of Energy
National Science Foundation

PARTICIPATING AGENCIES: Smithsonian Environmental Research Center (SERC)

INVESTIGATORS:

Chemical Ecologist	David Correll	SERC
Protozoologist	Wayne Coats	SERC
Plant Physiologist	Bert Drake	SERC
Estuarine Ecologist	Thomas Jordan	SERC
Microbiologist	Charles Gallegos	SERC
Estuarine Animal Ecologist, PI	Anson Hines	SERC
Terrestrial Animal Ecologist	James Lynch	SERC
Photobiologist	Patrick Neale	SERC
Forest Ecologist	Jess Parker	SERC
Estuarine Animal Ecologist	Gregory Ruiz	SERC
Quantitative Ecologist	Donald Weller	SERC
Plant Ecologist	Dennis Whigham	SERC

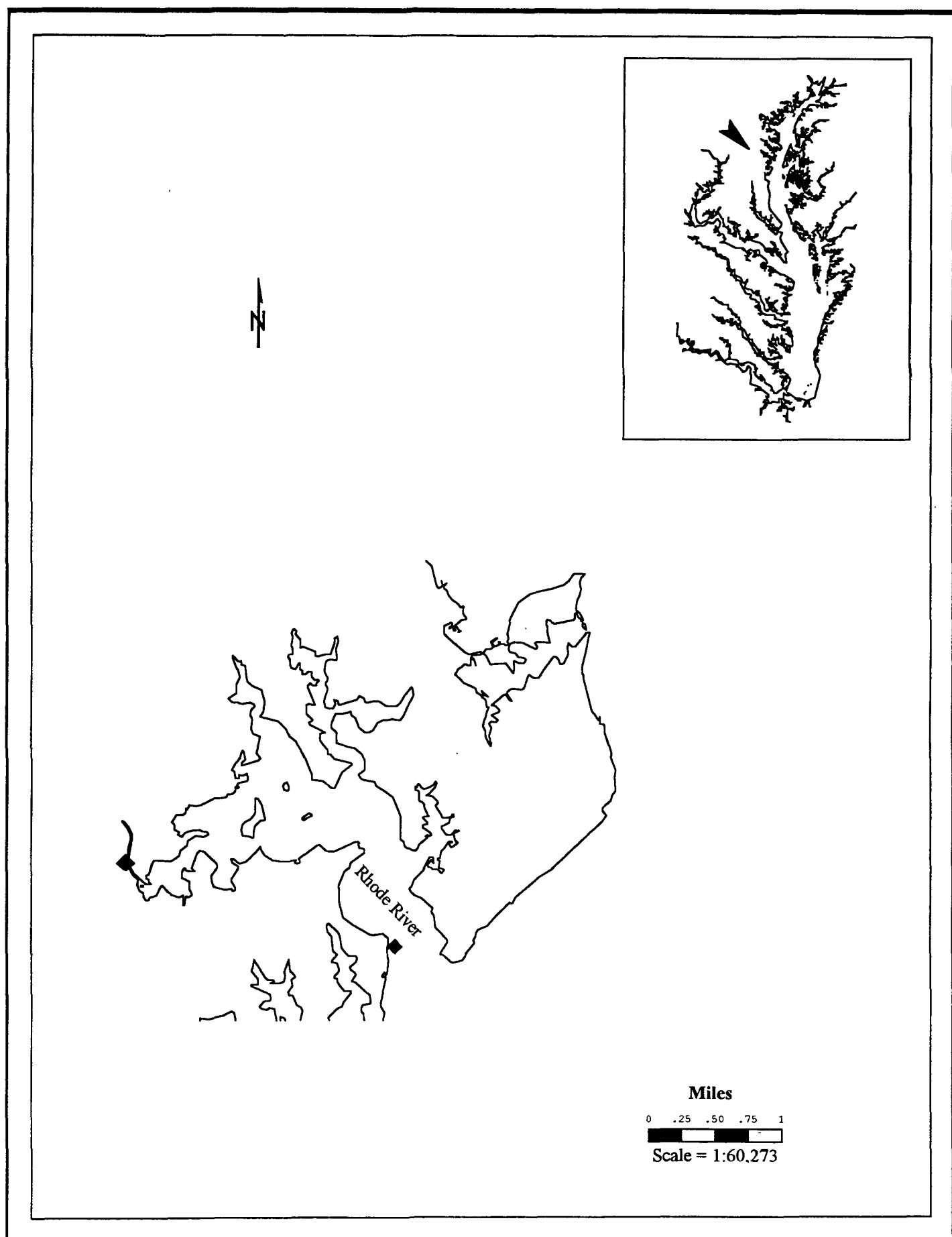
PARAMETERS:

Estuarine Fish Populations: Taxa Identification and Abundance, Distribution, Size

Other Parameters:

Bulk Precipitation	Wet Precipitation
Throughfall Chemistry	Weather
Solar Irradiance	Dry Deposition Chemistry
Ground Water	Stream Water Discharge
Infiltration Chemistry	Overland Flow Chemistry
Tidal Water Quality Chemistry	Forest Tree and Herb Populations
Plankton Populations	Crab other Decapod crustacean Populations
Mammal Populations	Benthic Populations
Bird Populations	

Rhode River Watershed Environmental Monitoring Program: Fish Component



Rhode River Watershed Environmental Monitoring Program: Fish Component

STATIONS: Fish populations are monitored in the Rhode River at 13 seining stations, 4 trawling stations, and 1 weir station.

SAMPLE COLLECTION: Fish populations are monitored at a fish weir for one 24 hour period per week, trawling 3 times per month, and shoreline seining once annually in summer.

PROGRAM INTEGRATION: Fish monitoring is only one of many biological, water quality and weather monitoring efforts within this program. See other parameters above.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
RHODE R	38 52 15	76 31 15	WT-8	Ches Bay	Severn	2060004	MOUTH OF RHODE RIVER
RHODE R	38 52 45	76 33 15	WT-8	Ches Bay	Severn	2060004	HEAD OF RHODE RIVER

NOTE: APPROXIMATE LOCATIONS OF SAMPLING STATIONS

DISTRICT OF COLUMBIA SPORT-FISH RESTORATION SURVEY PROGRAM

PROGRAM DESCRIPTION: The District of Columbia sport-fish restoration program is an enhancement over the earlier survey program initiated in 1985 and recast in 1988. The present program launched in 1989 was modified for 1990 to serve as a long-term assessment of anadromous and resident sport-fish of Potomac and Anacostia Rivers. The current strategy includes seining, ichthyoplankton surveys, gill-netting, electrofishing, and age - growth surveys. Fish trawling was introduced in 1995 to make assessments of fish stock.

PROGRAM OBJECTIVES: Characterization of the present levels of anadromous and resident fish stocks for formulation of effective fisheries management decisions; detection of long-term fishery trends and responses to management actions; determine interaction of environmental and hydrographic components with anadromous fish resources; and establish annual juvenile indices for selected species.

DATE INITIATED: Original - March 1985; changed - January 1988
Progressively modified - January 1989 to date.

COORDINATING AGENCY: District of Columbia
Department of Consumer and Regulatory Affairs
Environmental Regulation Administration
Fisheries Management Branch
2000 Martin Luther King, Jr. Avenue, S.E.
Washington, D.C. 20020

FUNDING AGENCIES: D.C. Department of Consumer and Regulatory Affairs
U.S. Fish and Wildlife Service

PARTICIPATING AGENCY: D.C. Department of Consumer and Regulatory Affairs (DCDCRA)

INVESTIGATORS:

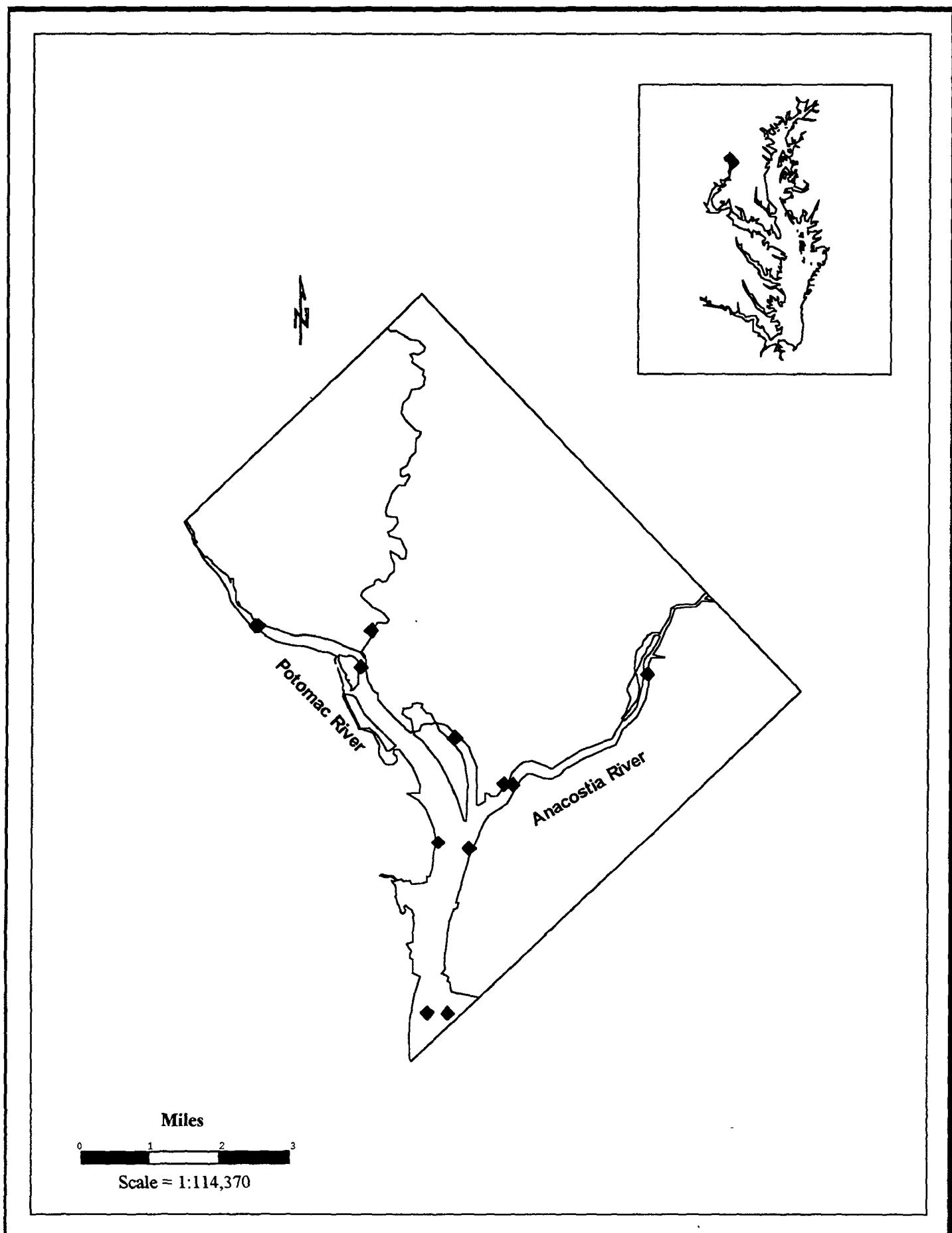
Fisheries Chief	Ira Palmer	DCDCRA
Project Leader	Raj Tilak	DCDCRA
	Jon Siemien	DCDCRA

PARAMETERS:	Temperature	Redox Potential
	Scales sample per individual	Secchi Depth
	Weather conditions	pH
	Dissolved Oxygen	Conductivity
	Tidal Stage	Air Temperature

<i>All Fish:</i>	<i>Anadromous and Resident Sport-fish:</i>
Total Count	Weight per individual
Total Biomass	
Species Identification	

STATIONS: Twelve sampling stations in the Anacostia and Potomac Rivers, and in the Washington Channel, as well occasional stations in Oxen Cove, Kenilworth Marsh, and Rock Creek. For more detailed station location information contact DCRA.

SAMPLE COLLECTION: Sampling once per month beginning in February and ending in December (depending on conditions) at all stations using seining, gill-netting, and ichthyoplankton methods. Electroshocking method used on 7 regular and 5 alternate stations on alternate months. Seine sampling uses single haul 100 ft long at each station. Electrofishing sampling uses two reps of 10 minutes each at each station. Gill-netting sampling involves



District of Columbia Sport-Fish Restoration Survey Program

soak time of 30 minutes and two nets at each site. All sport fish are measured and weighed; scales used in aging study. All data used to determine various indices, total catch, length weight relationships etc. Water quality parameters are measured at 0.5 m from surface and near also near bottom depth.

PROGRAM INTEGRATION: Within the project, adjustments are made to collaborate in collection of joint data from certain localities, particularly to accommodate the needs of a sister branch from the Water Management Division.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
A2	38 53 48	76 57 43	TF-2	POTOMAC	UPPER POTOMAC	2070010	
A1	38 52 00	77 00 23	TF-2	POTOMAC	UPPER POTOMAC	2070010	
A1A	38 52 00	77 00 35	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P2A	38 50 58	77 01 15	TF-2	POTOMAC	UPPER POTOMAC	2070010	
W1	38 52 43	77 01 35	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P2	38 51 03	77 01 52	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P1	38 48 18	77 01 35	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P1A	38 48 18	77 02 00	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P3	38 53 48	77 03 32	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P3A	38 54 23	77 03 20	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P4	38 54 25	77 05 37	TF-2	POTOMAC	UPPER POTOMAC	2070010	
P4A	38 54 25	77 05 40	TF-2	POTOMAC	UPPER POTOMAC	2070010	

Note: All latitude/longitude are approximate.

VIRGINIA ADULT STRIPED BASS SURVEY

PROGRAM DESCRIPTION: The Virginia Striped Bass Survey monitors the abundance of Striped Bass in both the James and Rappahannock Rivers.

PROGRAM OBJECTIVES: To characterize stocks of Striped Bass, in portions of the James and Rappahannock Rivers.

DATE INITIATED: Rappahannock River Sampling: 1982; James River sampling: 1994

COORDINATING AGENCY: Virginia Institute of Marine Sciences
College of William and Mary
Gloucester Point, Virginia 23062

FUNDING AGENCY: Virginia Marine Resources Commission

PARTICIPATING AGENCIES: Virginia Institute of Marine Sciences (VIMS)
Virginia Marine Resources Commission (VMRC)

INVESTIGATORS:

Principal Investigator Bruce Hill VIMS

PARAMETERS: Weight Length
Age Sex

STATIONS: Sampling occurs in the James and Rappahannock Rivers. For station location information contact VIMS.

SAMPLE COLLECTION: Sampling occurs in the Spring and Fall. Fyke net used in the James River stations. An experimental gill net (mesh size ranging from 3 to 10 inches) is also being used on both rivers.

PROGRAM INTEGRATION: N/A

VIRGINIA JUVENILE ALOSINE SURVEY

PROGRAM DESCRIPTION: The Virginia Juvenile Alosine Survey monitors the abundance and size of alosines in the Mattaponi and Pamunkey Rivers through weekly push net surveys in June and July of each year.

PROGRAM OBJECTIVE: To monitor year class strength of alosines.

DATE INITIATED: 1967

COORDINATING AGENCY: Virginia Institute of Marine Sciences
College of William and Mary
Gloucester Point, Virginia 23062

FUNDING AGENCIES: U.S. Fish and Wildlife Service
National Oceanic and Atmospheric Administration

PARTICIPATING AGENCY: Virginia Institute of Marine Sciences (VIMS)

INVESTIGATORS:

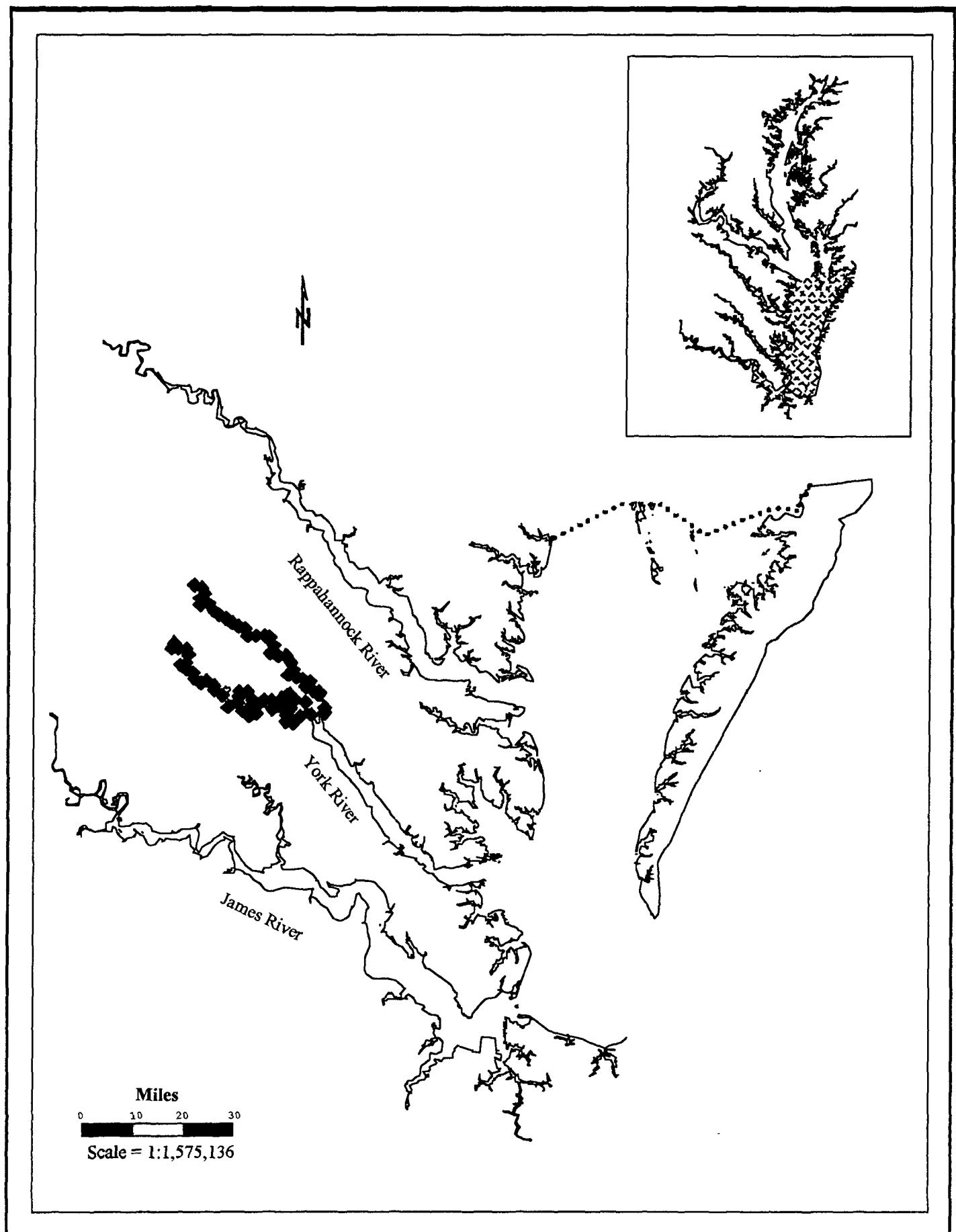
Principal Investigator Bruce Hill VIMS

PARAMETERS: Temperature Dissolved Oxygen
Salinity Fish Count, Length of Shad and River Herring species

STATIONS: Surveys are performed in the Mattaponi and Pamunkey rivers.

SAMPLE COLLECTION: A weekly survey is conducted at night in each of the Mattaponi and Pamunkey Rivers in June and July of each year. These surveys are performed with a 5 x 5 foot framed push net. Water quality measurements are taken at the surface of the water column.

PROGRAM INTEGRATION: N/A



Virginia Juvenile Alosine Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1-5MP030	37 32 42	76 46 48	RET-4	YORK	YORK	2080107	
1-5MP031	37 33 18	76 46 48	RET-4	YORK	YORK	2080107	
1-5MP032	37 34 48	76 47 42	TF-4	YORK	PAMUNKEY	2080106	
1-5MP033	37 35 06	76 47 36	TF-4	YORK	PAMUNKEY	2080106	
1-5MP034	37 35 18	76 48 36	TF-4	YORK	PAMUNKEY	2080106	
1-5MP035	37 35 42	76 49 36	TF-4	YORK	PAMUNKEY	2080106	
1-5MP036	37 36 18	76 49 00	TF-4	YORK	PAMUNKEY	2080106	
1-5MP037	37 36 36	76 50 06	TF-4	YORK	PAMUNKEY	2080106	
1-5MP038	37 36 48	76 50 54	BFL	YORK	MATTAPONI	2080105	
1-5MP039	37 37 00	76 52 06	TF-4	YORK	PAMUNKEY	2080106	
1-5MP040	37 37 36	76 51 24	BFL	YORK	MATTAPONI	2080105	
1-5MP041	37 38 24	76 51 42	TF-4	YORK	PAMUNKEY	2080106	
1-5MP042	37 39 12	76 52 30	TF-4	YORK	PAMUNKEY	2080106	
1-5MP043	37 39 12	76 53 36	BFL	YORK	MATTAPONI	2080105	
1-5MP044	37 39 24	76 54 48	TF-4	YORK	PAMUNKEY	2080106	
1-5MP045	37 40 24	76 54 18	TF-4	YORK	PAMUNKEY	2080106	
1-5MP046	37 41 18	76 54 54	TF-4	YORK	PAMUNKEY	2080106	
1-5MP047	37 41 24	76 55 30	BFL	YORK	MATTAPONI	2080105	
1-5MP048	37 41 24	76 56 48	TF-4	YORK	PAMUNKEY	2080106	
1-5MP049	37 41 24	76 58 06	TF-4	YORK	PAMUNKEY	2080106	
1-5MP050	37 42 12	76 58 30	TF-4	YORK	PAMUNKEY	2080106	
1-5MP051	37 42 24	76 59 24	TF-4	YORK	PAMUNKEY	2080106	
1-5MP052	37 42 48	77 00 30	TF-4	YORK	PAMUNKEY	2080106	
1-5MP053	37 43 18	77 01 18	TF-4	YORK	PAMUNKEY	2080106	
1-5MP054	37 43 42	77 02 18	TF-4	YORK	PAMUNKEY	2080106	
1-5MP055	37 44 12	77 03 06	TF-4	YORK	PAMUNKEY	2080106	
1-5MP056	37 45 00	77 03 48	TF-4	YORK	PAMUNKEY	2080106	
1-5MP057	37 44 48	77 05 00	BFL	YORK	MATTAPONI	2080105	
1-5MP058	37 45 36	77 05 06	BFL	YORK	MATTAPONI	2080105	
1-5MP059	37 46 12	77 04 30	BFL	YORK	MATTAPONI	2080105	
1-5MP060	37 46 48	77 04 54	BFL	YORK	MATTAPONI	2080105	
1-5MP061	37 47 06	77 06 00	BFL	YORK	MATTAPONI	2080105	
1-5PM030	37 32 30	76 48 42	RET-4	YORK	YORK	2080107	
1-5PM031	37 33 54	76 49 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM032	37 32 12	76 50 12	TF-4	YORK	PAMUNKEY	2080106	
1-5PM033	37 31 24	76 51 12	BFL	YORK	PAMUNKEY	2080106	
1-5PM034	37 31 36	76 52 18	TF-4	YORK	PAMUNKEY	2080106	
1-5PM035	37 32 24	76 52 18	TF-4	YORK	PAMUNKEY	2080106	
1-5PM036	37 33 12	76 51 36	TF-4	YORK	PAMUNKEY	2080106	
1-5PM037	37 34 12	76 51 12	TF-4	YORK	PAMUNKEY	2080106	
1-5PM038	37 34 48	76 51 54	TF-4	YORK	PAMUNKEY	2080106	
1-5PM039	37 34 18	76 52 54	TF-4	YORK	PAMUNKEY	2080106	
1-5PM040	37 33 54	76 52 24	BFL	YORK	PAMUNKEY	2080106	
1-5PM041	37 33 30	76 53 18	BFL	YORK	PAMUNKEY	2080106	
1-5PM042	37 33 00	76 54 18	TF-4	YORK	PAMUNKEY	2080106	
1-5PM043	37 34 00	76 54 18	TF-4	YORK	PAMUNKEY	2080106	
1-5PM044	37 34 00	76 55 30	TF-4	YORK	PAMUNKEY	2080106	
1-5PM045	37 33 24	76 56 30	TF-4	YORK	PAMUNKEY	2080106	
1-5PM046	37 32 30	76 56 30	TF-4	YORK	PAMUNKEY	2080106	
1-5PM047	37 32 12	76 57 30	TF-4	YORK	PAMUNKEY	2080106	
1-5PM048	37 32 42	76 58 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM049	37 33 12	76 57 30	TF-4	YORK	PAMUNKEY	2080106	
1-5PM050	37 34 06	76 57 12	BFL	YORK	PAMUNKEY	2080106	
1-5PM051	37 35 00	76 57 54	BFL	YORK	PAMUNKEY	2080106	
1-5PM052	37 35 00	76 59 06	BFL	YORK	PAMUNKEY	2080106	
1-5PM053	37 34 24	76 59 12	TF-4	YORK	PAMUNKEY	2080106	
1-5PM054	37 33 42	76 59 24	TF-4	YORK	PAMUNKEY	2080106	
1-5PM055	37 33 06	77 00 42	BFL	YORK	PAMUNKEY	2080106	
1-5PM056	37 34 30	77 01 36	TF-4	YORK	PAMUNKEY	2080106	
1-5PM057	37 35 06	77 02 42	BFL	YORK	PAMUNKEY	2080106	
1-5PM058	37 35 36	77 02 42	TF-4	YORK	PAMUNKEY	2080106	
1-5PM059	37 36 06	77 03 48	TF-4	YORK	PAMUNKEY	2080106	
1-5PM060	37 35 48	77 04 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM061	37 36 24	77 05 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM062	37 37 00	77 05 48	BFL	YORK	PAMUNKEY	2080106	
1-5PM063	37 37 24	77 06 42	BFL	YORK	PAMUNKEY	2080106	
1-5PM064	37 37 54	77 07 42	BFL	YORK	PAMUNKEY	2080106	
1-5PM065	37 38 12	77 06 48	BFL	YORK	PAMUNKEY	2080106	
1-5PM066	37 39 06	77 06 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM067	37 39 48	77 06 48	BFL	YORK	PAMUNKEY	2080106	
1-5PM068	37 39 48	77 08 06	BFL	YORK	PAMUNKEY	2080106	
1-5PM069	37 40 24	77 08 36	BFL	YORK	PAMUNKEY	2080106	
1-5PM070	37 39 48	77 09 00	BFL	YORK	PAMUNKEY	2080106	

GUNSTON COVE ECOSYSTEM MONITORING PROGRAM FISH COMPONENT

PROGRAM DESCRIPTION: The Gunston Cove Ecosystem Monitoring Program involves long-term monitoring of physical and biological components of the ecosystem in Pohick Creek, Gunston Cove, Dogue Creek, and the adjacent Potomac River. These studies include fish surveys. In conjunction with this monitoring, Fairfax County conducts water quality monitoring in order to determine the effects of sewage outfall from a tertiary treatment plant which empties into Gunston Cove.

PROGRAM OBJECTIVES: To provide a description and analysis of seasonal and spatial patterns of abundance and activity of fish in the Gunston Cove vicinity. In conjunction with monitoring of other aquatic organisms, objectives are to assess current ecological conditions as well as to provide long-term baseline data for evaluating the effects of changes in land use and/or sewage treatment occurring in the future.

DATE INITIATED: 1984

COORDINATING AGENCY: George Mason University
Department of Biology
4400 University Drive
Fairfax, Virginia 22030

FUNDING AGENCY: Fairfax County

PARTICIPATING AGENCIES: George Mason University (GMU)
County of Fairfax, Environmental Laboratory Services (FCDLS)

INVESTIGATORS:

Project Director	R. Christian Jones	GMU
Co-Principal Investigator	Don Kelso	GMU
Director	Elaine Schaeffer	FCDLS

PARAMETERS:

<i>George Mason University:</i>	fish count, abundance and composition		
<i>Fairfax County:</i>	Temperature	Conductivity	Dissolved Oxygen
	pH	Total Alkalinity	Secchi Depth
	Nitrate	Nitrite	Total Kjeldahl Nitrogen
	Ammonia	Total Phosphorus	Soluble Reactive Phosphorus
	Chlorophyll a	Phaeophytin	Total Suspended Solids
	Chloride	Volatile Suspended Solids	
	Biological Oxygen Demand		

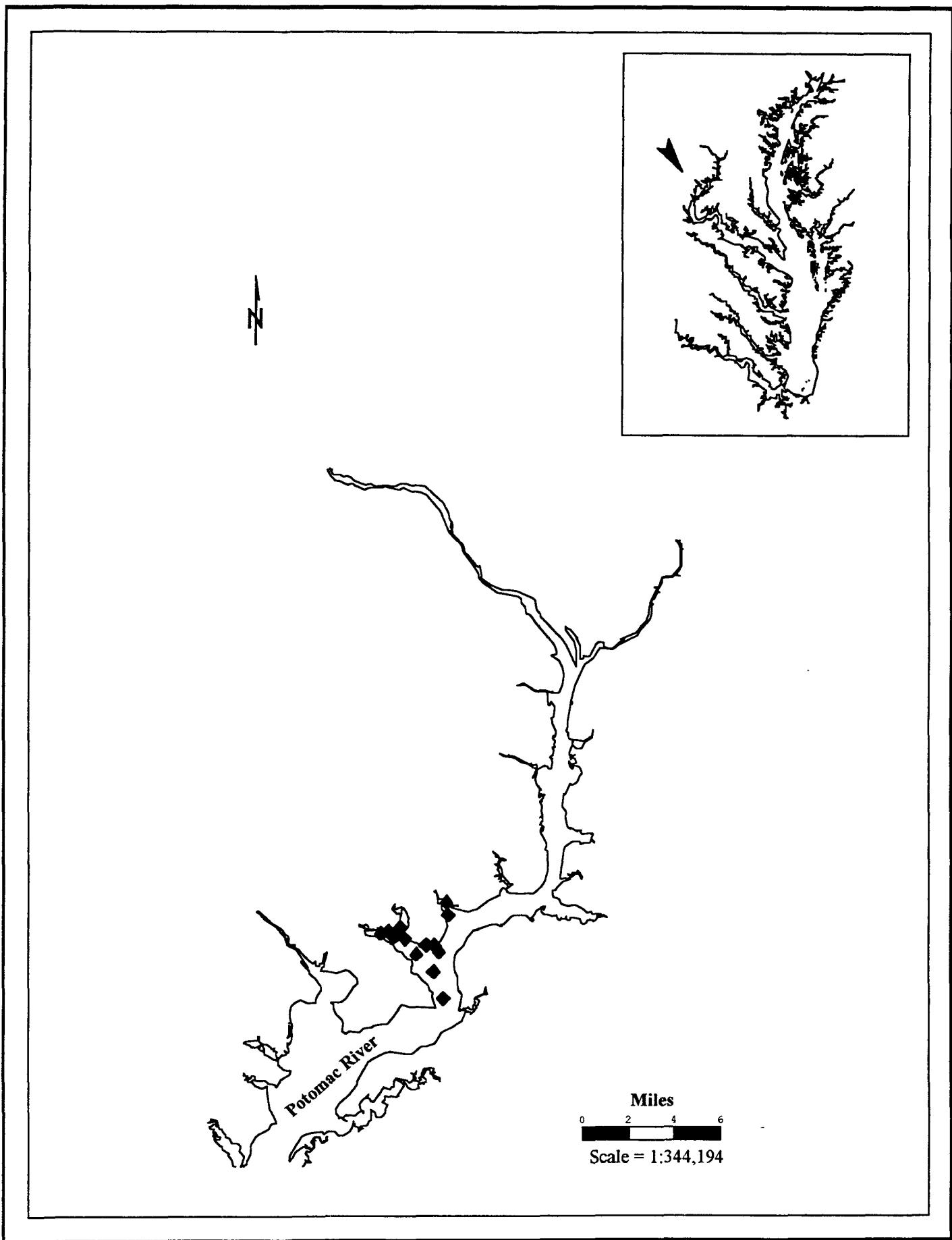
STATIONS: There are currently 6 trawl stations and 4 seine stations located in Pohick Creek, Dogue Creek, Gunston Cove, and the adjacent Potomac River.

SAMPLE COLLECTION:

Fish are sampled on a biweekly/semimonthly basis. Fish are sampled by trawling with a try-net bottom trawl with a 15 ft. horizontal opening, a 3/4 in. square body mesh and a 1/4 in. square cod end mesh at 2-3 miles per hour for 10 minutes. Fish are identified, measured in length and weighed. Fish along the shoreline are sampled by seining at 4 stations with a 45-50 ft., 4 feet high, 1/4 in. square mesh seine. Fairfax County water quality monitoring is conducted every two weeks from April through November and monthly from December through March at these same stations.

PROGRAM INTEGRATION: The Gunston Cove Ecosystem Monitoring Program: Fish Component is one of many monitoring components including: benthos, phytoplankton, zooplankton, and bird surveys.

Gunston Gove Ecosystem Monitoring Program Fish Component



Gunston Cove Ecosystem Monitoring Program Fish Component

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
10	38 41 01	77 10 13	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE POHICK BAY
11	38 40 10	77 08 50	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE MID GUNSTON COVE
12	38 40 32	77 08 20	BFL	POTOMAC	MIDDLE POTOMAC	2070010	COAST GUARD STATION
14	38 40 17	77 07 43	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER MD SIDE
15	38 42 11	77 07 25	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	N. SHORE DOGUE CREEK EMBAYMENT
16	38 38 29	77 07 27	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER AT HALLOWING PT.
18	38 41 42	77 07 17	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE DOGUE CREEK EMBAYMENT
4	38 40 57	77 10 33	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE POHICK BAY
5	38 40 49	77 09 56	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	POHICK BAY PARK LAUNCH RAMP
6	38 41 10	77 09 39	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	MOUTH OF ACCOTINK BAY
7	38 40 45	77 09 24	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	CENTER OF GUNSTON COVE
8	38 39 31	77 07 58	TF-2	POTOMAC	MIDDLE POTOMAC	2070010	S. SHORE OUTER GUNSTON COVE
9	38 40 32	77 07 58	BFL	POTOMAC	MIDDLE POTOMAC	2070010	POTOMAC RIVER CHANNEL

NOTE: STATION LOCATIONS INCLUDE THOSE FOR ALL ECOSYSTEM MONITORING COMPONENTS

BATH COUNTY POWER STATION LITTLE BACK CREEK STREAM SURVEY FISH COMPONENT

PROGRAM DESCRIPTION: The Bath County Power Station Little Back Creek Stream Survey Finfish Component is conducted as a part of a joint stream survey of the creek located immediately downstream of the Bath County Pumped Storage Station's upper reservoir. Monitoring is conducted annually at two stations. Finfish monitoring is one component of this program which also involves water quality and occasional benthic invertebrate monitoring.

PROGRAM OBJECTIVE: To monitor the effects of construction and subsequent operation of the Bath County Power Station on the fishery of Little Back Creek.

DATE INITIATED: 1979

COORDINATING AGENCY:
Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY:
Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)
U.S. Forest Service

PARTICIPATING AGENCIES:
Virginia Power
Virginia Department of Game and Inland Fisheries
U.S. Forest Service

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS: *Physical/Chemical:* Temperature Sulfate *Biological:* Taxa Identification
Dissolved Oxygen TSS Taxa Abundance
pH Turbidity Length
Metals

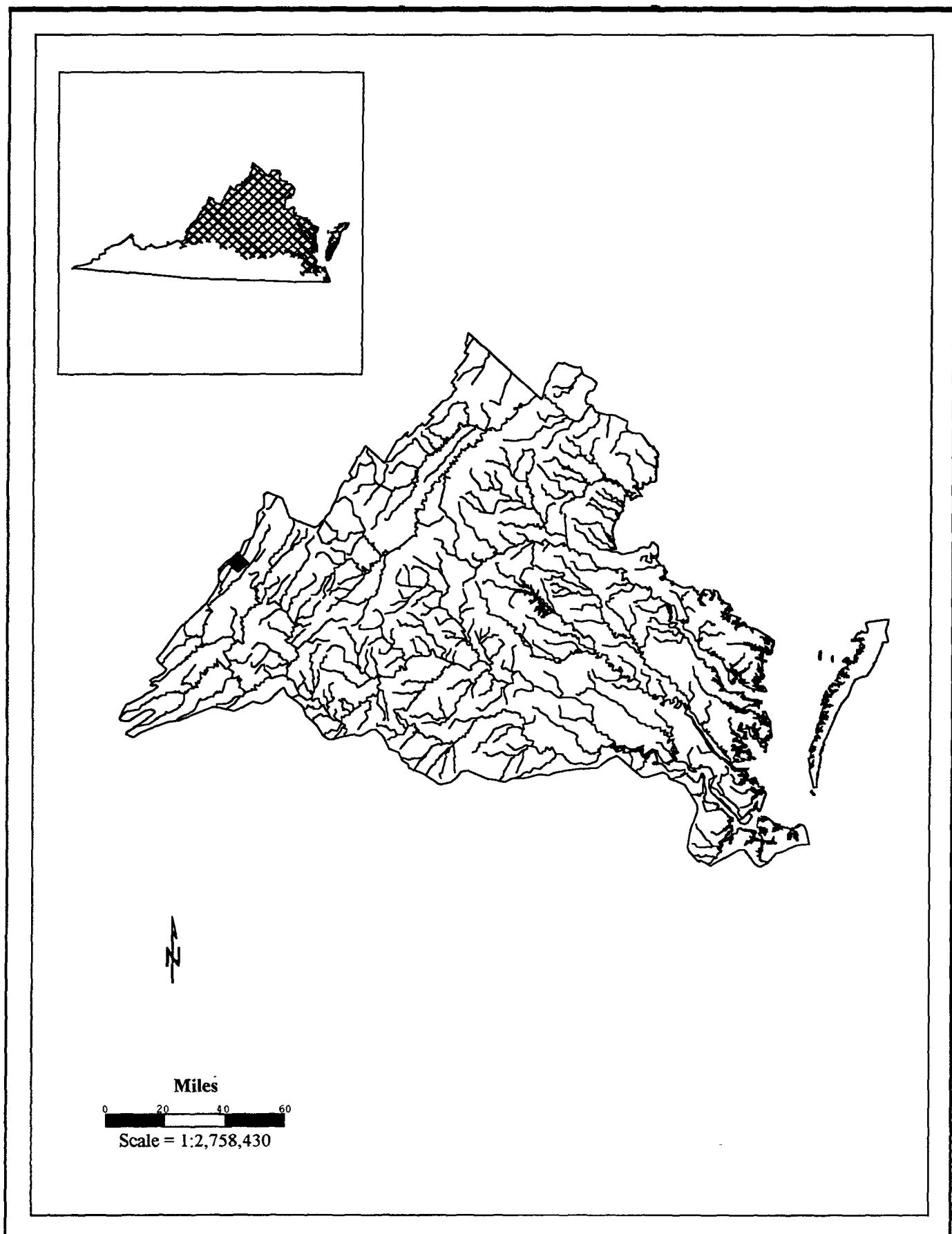
STATIONS: There are two stations, 100 meters in length, in Little Back Creek in the vicinity of Bath County Power Station.

SAMPLE COLLECTION: Fish are collected annually in the summer using an electric seine powered by a Smith-Root Model 2.5 GPP Electrofisher at the upper station and a Smith-Root Model 15-A Backpack Electrofisher at the lower. Brook Trout are measured and released in the field. The remaining fish are preserved and returned to the laboratory for subsequent identification, enumeration and measurement. Fish samples are collected concurrently with benthic and water quality samples.

PROGRAM INTEGRATION: The Bath County Power Station Back Creek Stream Improvement Project Finfish Component is one of three fisheries surveys conducted at the Bath Power Station.

STATION NAME(S)	LATITUDE DDDMSS	LONGITUDE DDDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 12 30	79 48 00	AFL	JAMES	UPPER JAMES	2080201	BATH COUNTY POWER STATION

Bath County Power Station Little Back Creek Stream Survey Fish Component



BATH COUNTY POWER STATION RECREATION POND MONITORING PROGRAM FISH COMPONENT

PROGRAM DESCRIPTION: The Bath County Power Station Recreation Pond Monitoring Program - Finfish component is conducted in two ponds created as a part of mitigation efforts outlined in the Stations 401 Certificate. The recreation ponds draw water from and discharge back into Back Creek downstream of the Power Station's lower reservoir. Finfish monitoring is conducted in each pond.

PROGRAM OBJECTIVE: To monitor finfish populations in order to maximize the fishery potential of the recreation ponds.

DATE INITIATED: 1986

COORDINATING AGENCY: Virginia Power
5000 Dominion Blvd.
Glen Allen, Virginia 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS: Finfish Identifications
Population Structure
Age and Growth
Conditions

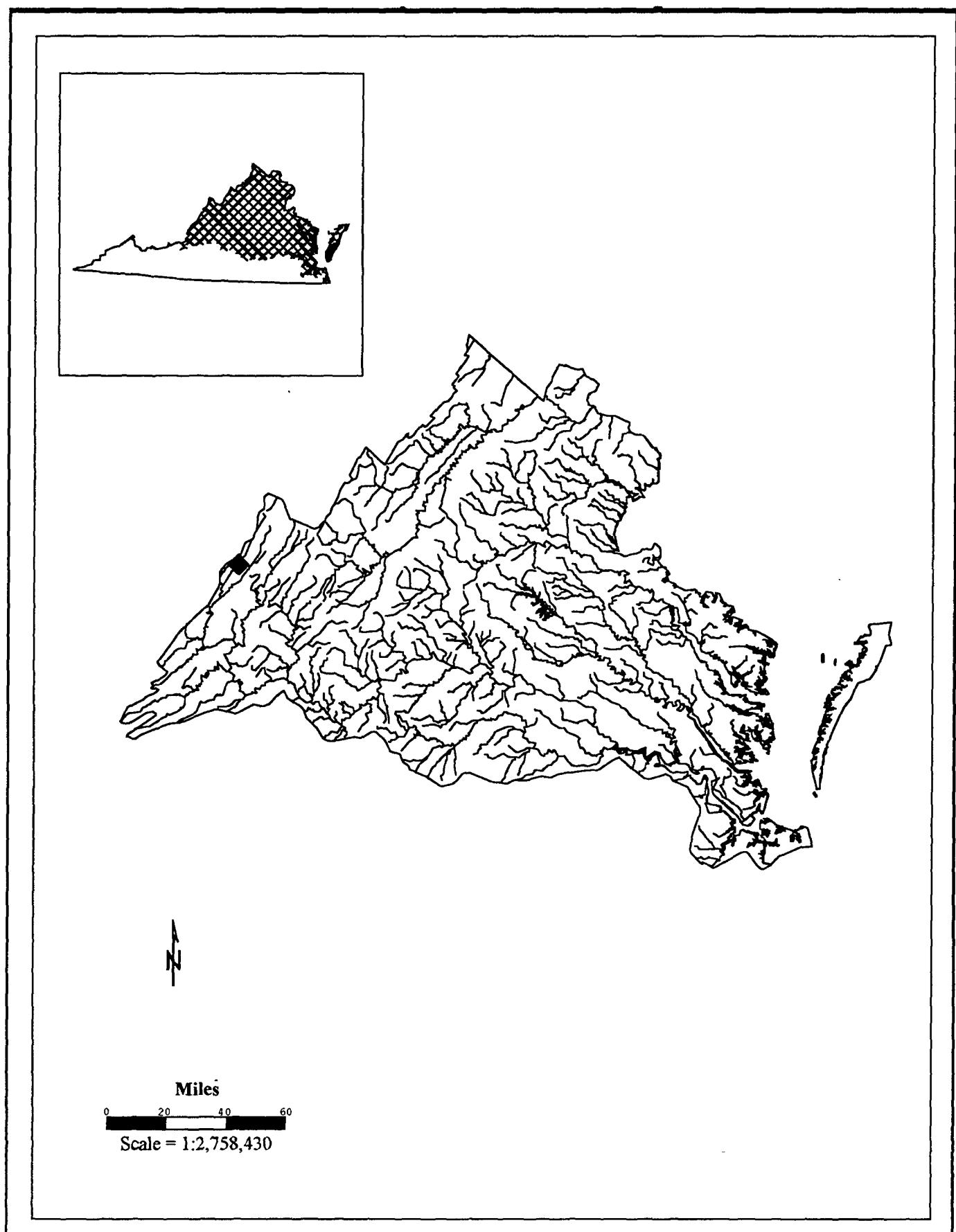
STATIONS: There is one station in each of the two recreation ponds near the Bath County Power Station.

SAMPLE COLLECTION: Monitoring is conducted annually in each pond. Adult finfish are collected by boat electrofishing. Quantitative methods (catch per unit effort) are used to determine relative abundance, and length frequency analysis is used to assess stock structure. Results are documented annually in technical reports submitted to FERC.

PROGRAM INTEGRATION: The Bath County Power Station Recreation Pond Monitoring Program - Finfish Component is one of three fisheries surveys conducted at the Bath County Pumped Storage Station.

STATION NAME(S)	LATITUDE DDMSS	LONGITUDE DDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 12 30	79 48 00	AFL	JAMES	UPPER JAMES	2080201	BATH COUNTY POWER STATION

Bath County Power Station Recreation Pond Monitoring Program



BATH COUNTY POWER STATION BACK CREEK STREAM IMPROVEMENT PROJECT FISH COMPONENT

PROGRAM DESCRIPTION: The Bath County Power Station Back Creek Stream Improvement Project - Finfish Component is conducted annually in the spring and fall at two stations located downstream of the dam in the Company's stream improvement area.

PROGRAM OBJECTIVE: To monitor fish populations in order to maximize the potential of the Back Creek Stream Improvement Area.

DATE INITIATED: 1988

COORDINATING AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS:

Temperature Taxa Identification
Dissolved Oxygen Taxa Abundance

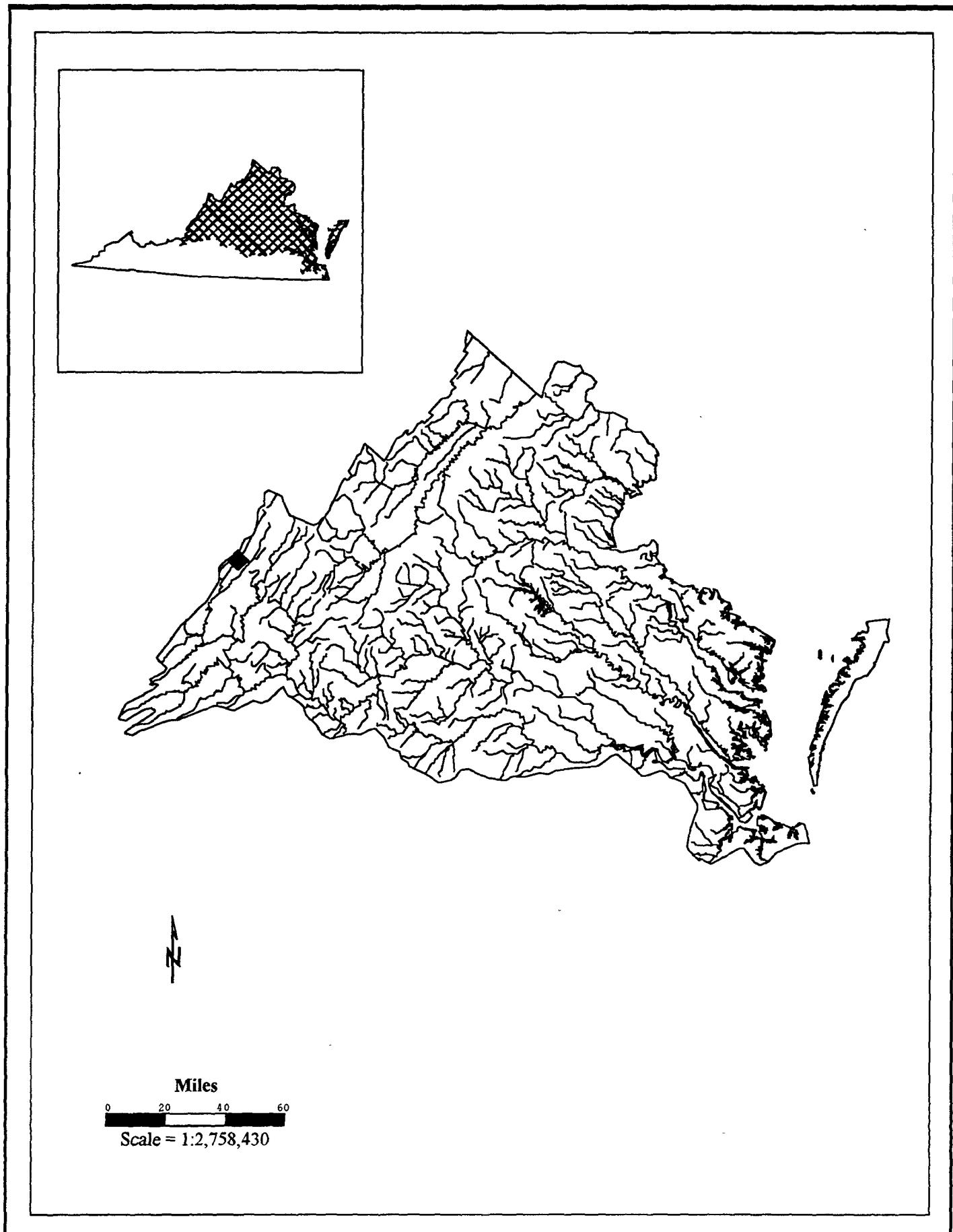
STATIONS: There are two stations located downstream of the dam in the Company's stream improvement area.

SAMPLE COLLECTION: Finfish are collected each year in the spring and fall at two stations. Quantitative electrofishing samples are taken at designated riffle areas for assessment of community structure and forage base. Qualitative sampling to assess the relative abundance and condition of important game species is also conducted. Finfish samples are taken at the same time as benthic macroinvertebrate samples. Results are documented annually in technical reports submitted to FERC.

PROGRAM INTEGRATION: The Bath County Power Station Back Creek Stream Improvement Project - Finfish Component is one of three fisheries surveys conducted at the Bath Power Station.

STATION NAME(S)	LATITUDE DDMMS	LONGITUDE DDMMS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
PLANT	38 12 30	79 48 00	AFL	JAMES	UPPER JAMES	2080201	BATH COUNTY POWER STATION

Bath County Power Station Back Creek Stream Improvement Project Fish Component



NORTH ANNA POWER STATION MONITORING PROGRAM FISH COMPONENT

PROGRAM DESCRIPTION: The North Anna Power Station Monitoring Program Finfish Component is conducted routinely on a quarterly basis at 15 stations. Electrofishing surveys are also conducted in the North Anna River downstream of Lake Anna at four stations.

PROGRAM OBJECTIVE: To monitor the ecosystem to confirm the absence of harmful effects of station operation, and to assist the Virginia Department of Game and Inland Fisheries in developing and supporting a lake management program.

DATE INITIATED: 1986

COORDINATING AGENCY: Virginia Power
5000 Dominion Boulevard
Glen Allen, VA 23060

FUNDING AGENCY: Virginia Power (VP)
Virginia Department of Game and Inland Fisheries (VDGIF)

PARTICIPATING AGENCIES: Virginia Power
Virginia Department of Game and Inland Fisheries

INVESTIGATORS:
Program Manager Burton M. Marshall VP

PARAMETERS:

Temperature
Taxa Identification
Taxa Abundance

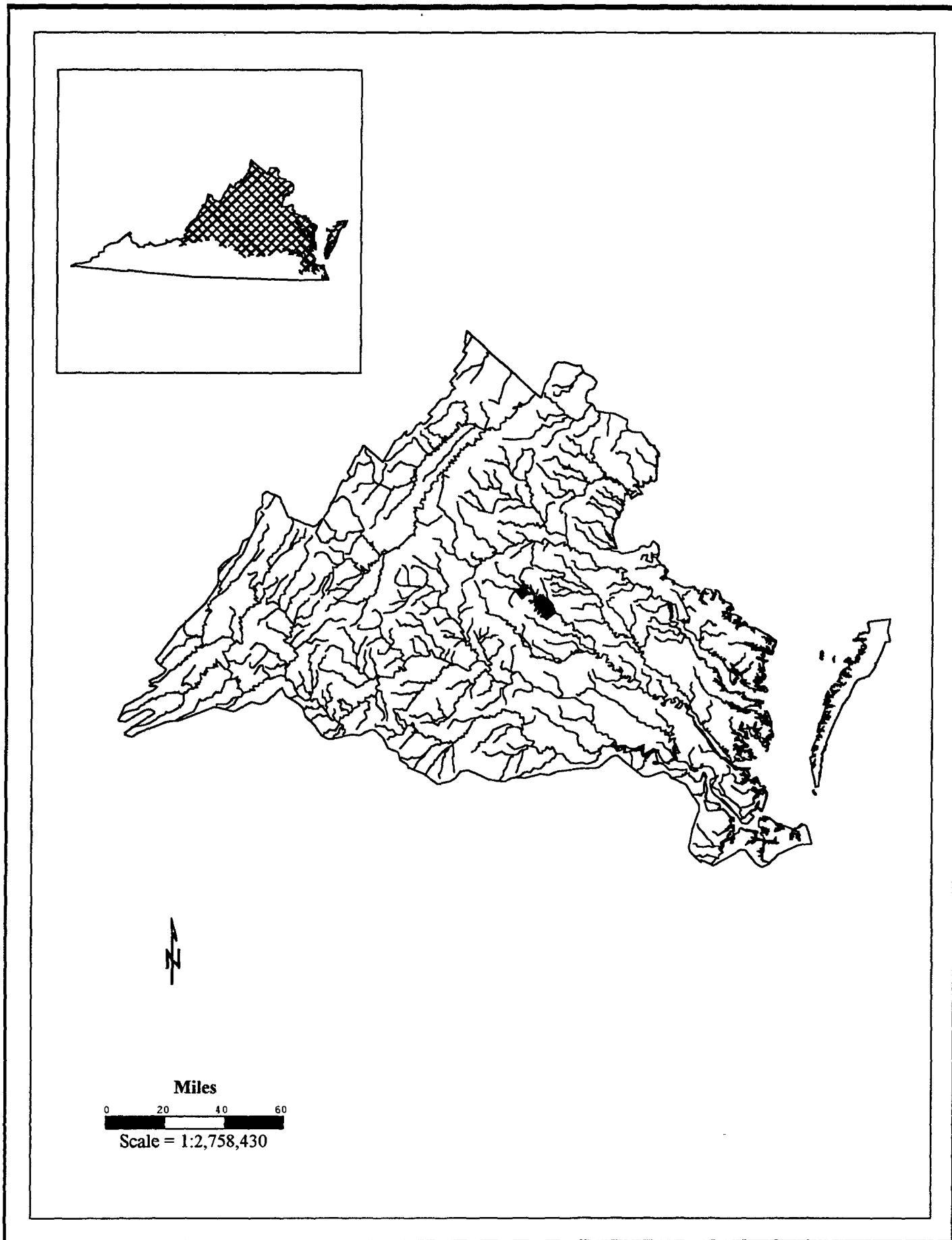
STATIONS: There are six gill net and nine electrofishing stations located on Lake Anna. North Anna River has four electrofishing stations.

SAMPLE COLLECTION: Adult fish are collected quarterly by gill netting and electrofishing for population estimates and life history studies of selected species on a quarterly basis. Temperature and electrofishing surveys are also conducted in the North Anna River, downstream of Lake Anna at four stations using an electric seine.

PROGRAM INTEGRATION: This Finfish Component monitoring is a part of the biological monitoring at Lake Anna which also includes radiological, and benthos monitoring.

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CSP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	38 06 34	77 54 15	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - N. ANNA ARM
10	38 03 04	77 46 37	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE1
11	38 02 49	77 46 40	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE1
12	38 00 46	77 43 55	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE3
13	38 00 28	77 43 39	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE3
14	38 00 09	77 44 09	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE3
2	38 04 05	77 46 57	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - MIDLAKE
3	38 02 59	77 46 59	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - DIKE1
4	38 01 52	77 43 36	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - LEVY CREEK
5	38 00 54	77 43 45	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - LOWER LAKE
6	38 00 04	77 44 05	AFL	YORK	PAMUNKEY	2080106	GILL NET STATION - DIKE3
7	38 06 38	77 54 21	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - N. ANNA ARM
8	38 04 02	77 46 05	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - THURMAN ISLAND
9	38 02 56	77 47 12	AFL	YORK	PAMUNKEY	2080106	ELECTROFISH STATION - DIKE1
PLANT	38 03 30	77 47 30	AFL	YORK	PAMUNKEY	2080106	NORTH ANNA POWER STATION

North Anna Power Station Monitoring Program Fish Component



ANNUAL MIDWINTER WATERFOWL SURVEY

PROGRAM DESCRIPTION: The Midwinter Waterfowl Survey covers the entire Chesapeake Bay including the upper reaches of many tributaries. It is conducted every year in mid-January by experienced observers in a fixed-wing airplane who visually estimate numbers of waterfowl by species. This program is part of a national midwinter waterfowl survey.

PROGRAM OBJECTIVES: To provide data on current status and short and long-term trends of migratory and other waterfowl in the Chesapeake Bay and surrounding states.

DATE INITIATED: January 1948

COORDINATING AGENCY: U.S. Fish and Wildlife Service
Office of Migratory Bird Management
Patuxent Wildlife Science Center
Laurel, Maryland 20708

FUNDING AGENCY: U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: U.S. Fish & Wildlife Service
-Office of Migratory Bird Management (OMBM)
Maryland Department of Natural Resources (MDDNR)
Virginia Department of Game and Inland Fisheries (VDGIF)
Pennsylvania Game Commission (PGC)

INVESTIGATORS:	Pilot-in-charge	Jim Goldsberry	OMBM
	Principal Investigator	Larry Hindman	MDDNR
	Principal Investigator	Gary Costanzo	VDGIF
	Principal Investigator	John Dunn	PGC

PARAMETERS: Mallard (<i>Anas platyrhynchos</i>)	Black duck (<i>Anas rubripes</i>)
Gadwall (<i>Anas strepera</i>)	Widgeon (<i>Anas americana</i>)
G-W Teal (<i>Anas crecca</i>)	B-W Teal (<i>Anas discors</i>)
Shoveler (<i>Anas clypeata</i>)	Pintail (<i>Anas acuta</i>)
Redhead (<i>Aythya americana</i>)	Canvasback (<i>Aythya valisineria</i>)
Scaup (<i>Aythya marila/affinis</i>)	Ringneck (<i>Aythya collaris</i>)
Goldeneye (<i>Bucephala clangula</i>)	Bufflehead (<i>Bucephala albeola</i>)
Ruddy duck (<i>Oxyura jamaicensis</i>)	Scoters (<i>Melanitta spp.</i>)
Oldsquaw (<i>Clangula hyemalis</i>)	Mergansers (<i>Mergus/Lophodytes cucullatus</i>)
Brant goose (<i>Branta bernicula</i>)	Snow goose (<i>Chen caerulescens</i>)
Canada goose (<i>Branta canadensis</i>)	Tundra swan (<i>Cygnus columbianus</i>)
Mute swan (<i>Cygnus olor</i>)	Coot (<i>Fulica americana</i>)

STATIONS: The survey is performed by segments. The Maryland portion of the Bay is divided into 33 segments, and the Virginia portion is divided into 20 segments.

PROTOCOL: The survey is conducted each winter for about a two-week period in early-January. It is performed in a fixed-wing aircraft at 150 m altitude, paralleling shorelines of segments at 100-500 m seaward. Agricultural uplands where concentrations of field-feeding waterfowl (i.e. geese and tundra swans) occur are transected. A minimal amount of driving may also be done in the survey.

PROGRAM INTEGRATION: These data are used to assist in analysis of waterfowl population trends within the Atlantic flyway, to assess habitat availability and are related to breeding results in more northern regions of North America. Presently, they are also used as rough descriptive data to "correlate" with other data from other Chesapeake Bay monitoring programs, such as the presence or absence of SAV beds. This survey provides the only reliable population data for tundra swans. Estimates of black duck numbers derived from the survey are also important to monitoring population trends.



NATIONAL AUDUBON SOCIETY CHRISTMAS BIRD COUNT

PROGRAM DESCRIPTION: The National Audubon Society Christmas Bird Count is a series of 24 hr censuses conducted annually for a three week period in late December and early January. It is conducted by volunteers from the National Audubon Society and various bird clubs throughout the Bay basin (as well as throughout the nation and other parts of the world). These counts have been conducted since 1900. Some previous count areas have been discontinued while others have commenced more recently.

PROGRAM OBJECTIVE: To create and maintain a long-term record of early winter bird species and populations.

DATE INITIATED: 1900

COORDINATING AGENCY: National Audubon Society
700 Broadway
New York, NY 10003

FUNDING AGENCY: National Audubon Society
Individuals Involved

PARTICIPATING AGENCY: National Audubon Society (NAS)

INVESTIGATORS:

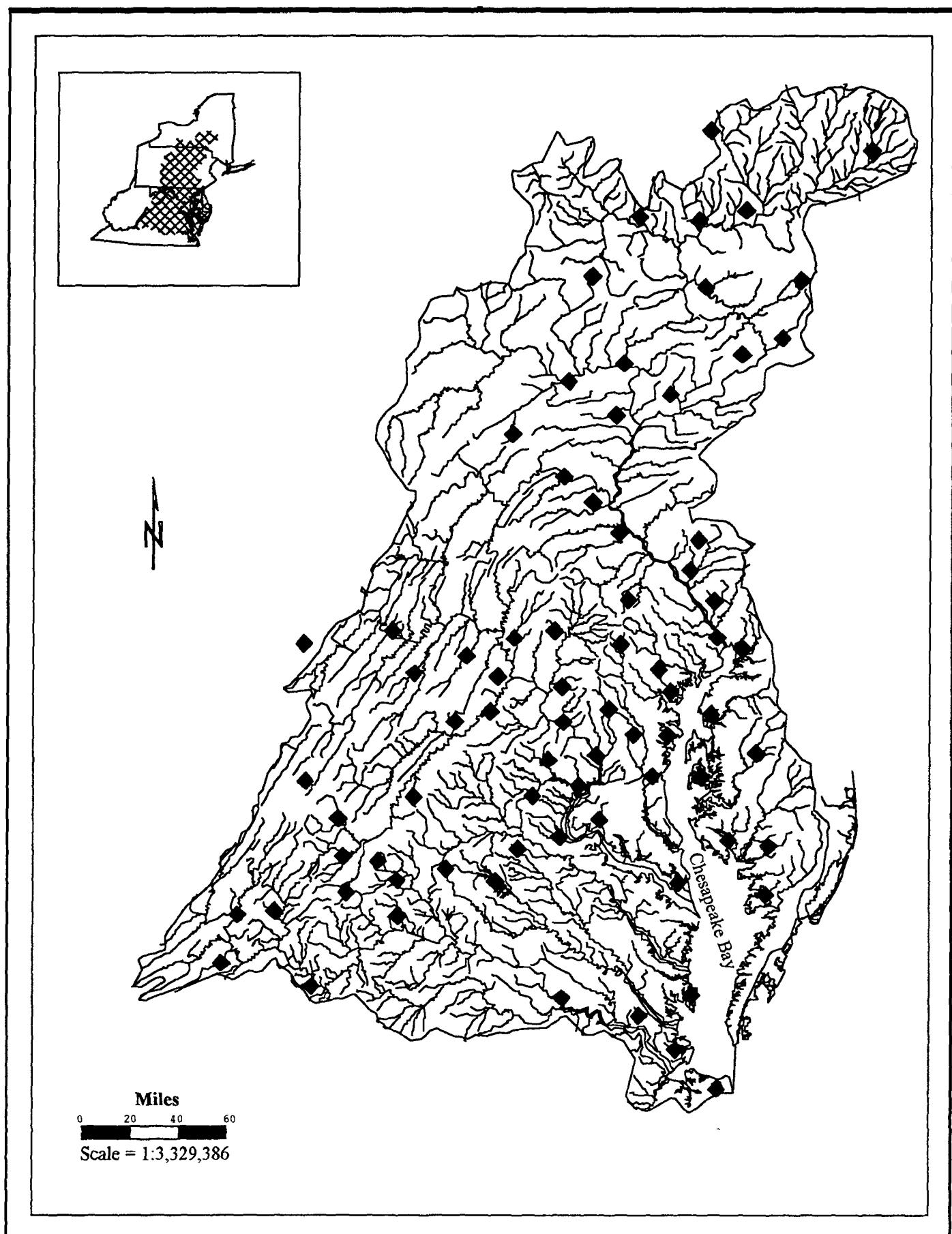
Bird Count Editor Geoffrey LeBaron NAS

PARAMETERS: All species and individuals observed are included in the count.

STATIONS: There are a total of 64 stations located throughout the Chesapeake Bay basin.

PROTOCOL: Volunteers from the National Audubon Society and regional bird clubs cover fixed circular areas 15 miles in diameter. A coordinator for each count assigns areas and chooses the day for each count, and develops a composite list of species for all counts. All species and individuals observed are included in the count.

PROGRAM INTEGRATION: N/A



National Audubon Society Christmas Bird Count

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	42 11 00	75 58 00	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	BINGHAMTON, NY
10	41 43 00	76 17 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	SOUTHEASTERN BRADFORD COUNTY, PA
11	39 49 00	76 10 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	SOUTHEASTERN LANCASTER COUNTY, PA
12	40 56 00	76 59 00	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	LEWISBURG, PA
13	40 33 00	77 23 00	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	LEWISTOWN, PA
14	40 11 00	76 18 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	LITITZ, PA
15	41 08 00	77 22 00	AFL	SUSQUEHANNA	MIDDLE WEST BRANCH SUSQUEHANNA	2050203	LOCK HAVEN-JERSEY SHORE, PA
16	41 46 00	77 12 00	AFL	SUSQUEHANNA	TIOGA	2050104	MANSFIELD, PA
17	40 24 00	77 09 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	NEW BLOOMFIELD, PA
18	41 04 00	76 33 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	BLOOMSBURG, PA
19	39 35 00	78 41 00	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	ALLEGANY COUNTY, MD-WV
2	42 40 00	76 16 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050102	CORTLAND, NY
20	39 00 00	76 31 00	BFL	WEST CHESAPEAKE	SEVERN	2060004	ANNAPOLIS AND GIBSON ISLAND, MD
21	39 16 00	76 30 00	BFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BALTIMORE HARBOR, MD
22	39 00 00	76 47 00	BFL	PATUXENT	PATUXENT	2060006	BOWIE, MD
23	39 37 00	77 25 00	AFL	POTOMAC	MONOCACY	2070009	CATOCTIN MOUNTAIN, MD
24	38 02 00	75 45 00	BFL	EASTERN SHORE	POCOMOKE	2060009	CRISFIELD, MD
25	38 54 00	75 50 00	BFL	EASTERN SHORE	CHOPTANK	2060005	DENTON, MD
26	39 32 00	75 57 00	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	ELKTON, MD
27	38 45 00	76 38 00	BFL	PATUXENT	PATUXENT	2060006	JUG BAY, MD
28	39 08 00	76 11 00	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	LOWER KENT COUNTY, MD
29	38 06 00	76 25 00	LB-2	POTOMAC	LOWER POTOMAC	2070011	POINT LOOKOUT, MD
3	42 08 00	76 50 00	AFL	SUSQUEHANNA	CHEMUNG	2050105	ELMIRA, NY
30	38 29 00	77 02 00	BFL	POTOMAC	LOWER POTOMAC	2070011	PORT TOBACCO, MD
31	39 36 00	76 09 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	ROCK RUN, MD
32	38 20 00	75 44 00	BFL	EASTERN SHORE	NANTICOKE	2060008	SALISBURY, MD
33	39 04 00	77 20 00	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	SENECA, MD-VA
34	38 22 00	76 02 00	BFL	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	SOUTHERN DORCHESTER COUNTY, MD
35	39 17 00	77 21 00	AFL	POTOMAC	MONOCACY	2070009	SUGARLOAF MOUNTAIN, MD
36	39 09 00	76 59 00	AFL	PATUXENT	PATUXENT	2060006	TRIADELPHIA RESERVOIR, MD
37	39 34 00	77 44 00	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	WASHINGTON COUNTY, MD
38	38 52 00	77 04 00	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	WASHINGTON, D.C.
39	38 12 00	78 59 00	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	AUGUSTA COUNTY, VA
4	42 33 00	74 57 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	ONEONTA, NY
40	38 11 00	78 43 00	AFL	JAMES	RIVANNA	2080204	BIG FLAT MOUNTAIN, VA
41	38 22 00	77 20 00	BFL	POTOMAC	LOWER POTOMAC	2070011	BROOKE, VA
42	39 07 00	77 54 00	AFL	POTOMAC	SHENANDOAH	2070007	CALMES NECK, VA-WV
43	38 04 00	78 34 00	AFL	JAMES	RIVANNA	2080204	CHARLOTTESVILLE, VA
44	37 49 00	79 46 00	AFL	JAMES	UPPER JAMES	2080201	CLIFTON FORGE, VA
45	37 31 00	79 52 00	AFL	JAMES	UPPER JAMES	2080201	FINCASLLE, VA
46	38 41 00	77 12 00	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	FORT BELVOIR, VA
47	38 09 00	78 12 00	AFL	YORK	PAMUNKEY	2080106	GORDONSVILLE, VA
48	37 23 00	77 17 00	BFL	JAMES	LOWER JAMES	2080206	HOPEWELL, VA
49	37 51 00	79 29 00	AFL	JAMES	MAURY	2080202	LEXINGTON, VA
5	42 07 00	76 21 00	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	OWEGO, NY
50	36 51 00	76 06 00	BFL	JAMES	LYNNHAVEN-POQUOSON	2080108	LITTLE CREEK, VA
51	37 24 00	79 11 00	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	LYNCHBURG, VA
52	37 25 00	76 18 00	BFL	YORK	GREAT WICOMICO-PIANKATANK	2080102	MATHEWS, VA
53	37 05 00	76 25 00	BFL	JAMES	LYNNHAVEN-POQUOSON	2080108	NEWPORT NEWS, VA
54	38 37 00	77 33 00	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NOKESVILLE, VA
55	39 03 00	78 10 00	AFL	POTOMAC	SHENANDOAH	2070007	NORTHERN SHENANDOAH VALLEY, VA
56	38 26 00	79 02 00	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	ROCKINGHAM COUNTY, VA
57	38 35 00	78 28 00	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	SHENANDOAH NP LURAY, VA
58	37 51 00	78 33 00	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	WARREN, VA
59	37 59 00	78 57 00	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	WAYNESBORO, VA
6	40 48 00	77 48 00	AFL	SUSQUEHANNA	BALD EAGLE	2050204	STATE COLLEGE, PA
60	37 17 00	76 42 00	BFL	JAMES	LOWER JAMES	2080206	WILLIAMSBURG, VA
61	39 20 00	77 51 00	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	CHARLES TOWN, WV
62	39 20 00	78 30 00	AFL	POTOMAC	CACAPON-TOWN	2070003	HAMPSHIRE COUNTY, WV
63	39 27 00	78 06 00	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	INWOOD, WV
64	38 39 00	79 18 00	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	PENDLETON COUNTY, WV
7	41 46 00	75 31 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	THOMPSON, PA
8	41 15 00	76 56 00	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	WILLIAMSPORT, PA
9	41 25 00	75 40 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	SCRANTON, PA
A	40 00 00	76 22 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	LANCASTER, PA
B	40 13 00	76 56 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	HARRISBURG, PA
C	39 49 00	76 51 00	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	YORK, PA
D	41 19 00	75 59 00	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	DALLAS AREA, PA
E	38 45 00	76 15 00	EE-2	EASTERN SHORE	CHOPTANK	2060005	ST. MICHAEL'S, MD
F	39 29 00	79 22 00	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	OAKLAND, MD
G	39 33 00	76 54 00	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	LIBERTY RESERVOIR, MD
H	39 24 00	76 36 00	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	BALTIMORE, MD
I	38 50 00	77 26 00	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	MANASSAS - BULL RUN, VA
J	38 05 00	77 49 00	AFL	YORK	PAMUNKEY	2080106	LAKE ANNA, VA
K	38 17 00	77 39 00	AFL	YORK	MATTAPONI	2080105	CHANCELLORSVILLE, VA

INTERNATIONAL BREEDING BIRD SURVEY

PROGRAM DESCRIPTION: The International Breeding Bird Survey is conducted by well qualified volunteers each June along specified car routes within states surrounding the Chesapeake Bay. These regional surveys are part of a larger cooperative program sponsored jointly by the National Biological Survey and the Canadian Wildlife Service.

PROGRAM OBJECTIVE: To estimate long-term population trends of the many species of birds that nest in North America north of Mexico and that migrate across international boundaries, and to identify short-term increases and decreases in these populations due to normal year to year variations, specific weather incidents, recovery periods following catastrophic declines, and invasions of exotic species.

DATE INITIATED: 1966

COORDINATING AGENCY: National Biological Survey
Patuxent Wildlife Research Center
Laurel, Maryland 20708

FUNDING AGENCY: National Biological Survey

PARTICIPATING AGENCIES: National Biological Survey (NBS)
Canadian Wildlife Service (CWS)

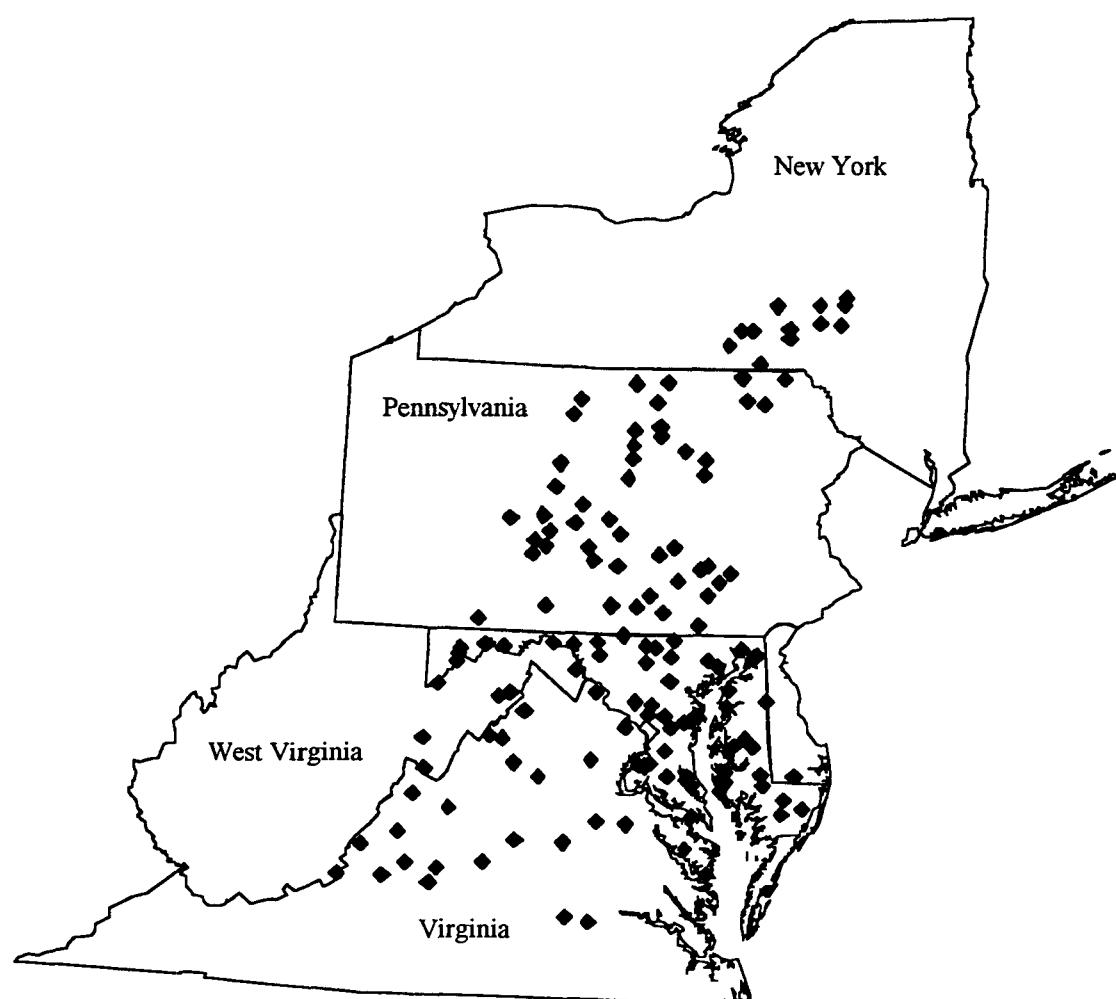
INVESTIGATORS:
Program Coordinator Bruce Peterjohn NBS

PARAMETERS: Sky condition Temperature
Count of all species observed Wind speed

STATIONS: The same routes are run year after year throughout New York, Pennsylvania, Maryland, Delaware, Virginia, and West Virginia.

PROTOCOL: One morning each year in the month of June, volunteers well versed in breeding bird songs and calls conduct specific routes by car. Each route consists of 50 three-minute stops 0.8 kilometers apart, starting one half hour before sunrise. At each stop the observer stands near the car and records, on prepared forms, the total number of each bird species heard, as well as those seen within 400 meters. Sky condition, wind speed and temperature are recorded at the beginning and end of each route.

PROGRAM INTEGRATION: This survey is conducted in coordination with the Canadian Wildlife Service.



Miles

0 50 100 150 200

Scale = 1:6,934,268

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
123	42 33 59	74 53 37	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR MILFORD, NY
23	42 37 44	74 52 29	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR COOPERSTOWN, NY
24	42 22 57	74 56 15	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR MERIDALE, NY
29	42 33 47	75 10 45	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR LAURENS, NY
30	42 19 59	75 56 57	AFL	SUSQUEHANNA	CHENANGO	2050102	NEAR WHITNEY, NY
31	42 16 26	75 31 03	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR COVENTRYVILLE, NY
32	42 33 14	75 39 17	AFL	SUSQUEHANNA	CHENANGO	2050102	NEAR MCDONOUGH, NY
33	42 02 47	75 50 40	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR CORBETTSVILLE, NY
34	42 24 17	75 10 28	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR ONEONTA, NY
36	42 21 21	75 31 03	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR OXFORD, NY
38	42 20 17	76 03 51	AFL	SUSQUEHANNA	CHENANGO	2050102	NEAR LISLE, NY
39	42 12 43	76 12 08	AFL	SUSQUEHANNA	WEGO-WAPPASNING	2050103	NEAR E. NEWARK, NY
1	39 30 45	79 07 30	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR FLOYD, MD
10	39 02 08	77 01 14	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NEAR SILVER SPRING, MD
11	39 08 25	77 10 48	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	NEAR OLNEY, MD
12	39 06 58	76 59 51	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NEAR NORWOOD, MD
121	39 01 48	76 30 48	BFL	WEST CHESAPEAKE	SEVERN	2060004	NEAR SEVERNA PARK, MD
123	38 59 12	76 38 40	BFL	WEST CHESAPEAKE	SEVERN	2060004	NEAR DAVIDSONVILLE, MD
13	39 29 19	77 03 29	AFL	POTOMAC	MONOCACY	2070009	NEAR WARFIELDSBURG, MD
14	39 37 21	77 04 18	AFL	POTOMAC	MONOCACY	2070009	NEAR PLEASANT VALLEY, MD
15	39 36 42	76 58 17	AFL	POTOMAC	MONOCACY	2070009	NEAR BACHMAN MILL, MD
16	39 32 14	76 48 49	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NEAR FOWBLESBURG, MD
17	39 40 28	76 45 39	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NEAR EKLO, MD
18	39 20 03	76 48 34	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NEAR RANDALLSTOWN, MD
19	39 30 43	76 23 45	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NEAR UPPER CROSSROADS, MD
2	39 33 35	79 07 08	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR MT NEBO, MD
20	39 28 00	76 17 58	AFL	WEST CHESAPEAKE	GUNPOWDER-PATAPSCO	2060003	NEAR VAN BIBBER, MD
21	39 01 46	76 30 04	BFL	WEST CHESAPEAKE	SEVERN	2060004	NEAR JONES, MD
22	39 01 11	76 51 23	BFL	PATUXENT	PATUXENT	2060006	NEAR BELTSVILLE, MD
23	38 55 31	76 47 41	BFL	PATUXENT	PATUXENT	2060006	NEAR LARGO, MD
24	38 43 50	76 50 34	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NEAR CHRISTENHAM, MD
25	38 25 42	76 33 25	BFL	PATUXENT	PATUXENT	2060006	NEAR BROOMES ISLAND, MD
26	38 30 30	76 35 18	BFL	PATUXENT	PATUXENT	2060006	NEAR POINT REPUBLIC, MD
27	38 09 49	76 32 14	BFL	POTOMAC	LOWER POTOMAC	2070011	NEAR TALL TIMBERS, MD
28	38 35 55	77 07 03	BFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NEAR LA PLATA, MD
29	38 30 09	76 49 10	BFL	POTOMAC	LOWER POTOMAC	2070011	NEAR HUGHESVILLE, MD
3	39 26 52	79 09 06	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR VINDEX, MD
30	38 35 14	77 03 10	BFL	POTOMAC	LOWER POTOMAC	2070011	NEAR POMONKEY, MD
31	38 36 21	77 00 07	BFL	POTOMAC	LOWER POTOMAC	2070011	NEAR POMFRET, MD
32	39 36 38	76 01 09	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR THEODORE, MD
33	39 31 52	75 54 19	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR NORTHEAST, MD
34	39 33 45	75 52 17	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR ELKTON, MD
35	39 09 33	75 45 30	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR MILLINGTON, MD
36	39 15 31	76 09 32	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR MELITOTA, MD
37	39 07 07	76 11 30	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR PINEY NECK, MD
38	38 46 32	75 53 29	BFL	EASTERN SHORE	CHOPTANK	2060005	NEAR HARMONY, MD
39	38 50 27	75 58 07	BFL	EASTERN SHORE	CHOPTANK	2060005	NEAR MATTHEWS, MD
4	39 35 04	78 37 23	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR OLD TOWN, MD
40	38 46 34	76 04 58	BFL	EASTERN SHORE	CHESTER-SASSAFRAS	2060002	NEAR EASTON, MD
41	38 27 54	76 10 54	BFL	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	NEAR GOLDEN HILL, MD
42	38 22 46	76 15 22	BFL	EASTERN SHORE	CHOPTANK	2060005	NEAR HONGA, MD
43	38 32 20	76 11 40	BFL	EASTERN SHORE	CHOPTANK	2060005	NEAR MADISON, MD
44	38 31 21	75 48 50	BFL	EASTERN SHORE	NANTICOKE	2060008	NEAR VIENNA, MD
45	38 18 55	75 33 37	BFL	EASTERN SHORE	BLACKWATER-WICOMICO	2060007	NEAR FRUITLAND, MD
46	38 26 24	75 47 30	BFL	EASTERN SHORE	NANTICOKE	2060008	NEAR MARDELA, MD
47	38 10 32	75 35 29	BFL	EASTERN SHORE	POCOMOKE	2060009	NEAR COKESBURY, MD
5	39 35 40	78 50 44	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR POTOMAC PARK, MD
50	38 13 44	75 22 05	BFL	EASTERN SHORE	POCOMOKE	2060009	NEAR SNOW HILL, MD
6	39 37 24	77 52 48	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	NEAR WILLIAMSPORT, MD
7	39 38 26	77 35 31	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	NEAR SMITHSBURG, MD
8	39 32 27	77 34 52	AFL	POTOMAC	CONOCOCHEAGUE-OPEQUON	2070004	NEAR WOLFSVILLE, MD
9	39 42 31	77 19 40	AFL	POTOMAC	MONOCACY	2070009	NEAR EMMITSBURG, MD
8	38 30 39	75 26 58	BFL	EASTERN SHORE	NANTICOKE	2060008	NEAR LOWES CROSSROADS, DE
1	39 02 14	78 23 18	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	NEAR STAR TANNERS, VA
10	38 04 31	77 14 45	BFL	YORK	MATTAPONI	2080105	NEAR PORT ROYAL, VA
11	38 05 07	77 34 01	AFL	YORK	MATTAPONI	2080105	NEAR PARTLOW, VA
12	38 38 00	77 38 11	AFL	POTOMAC	MIDDLE POTOMAC-ANACOSTIA-OCCOQUA	2070010	NEAR DAVID, VA
15	37 49 29	80 06 01	AFL	JAMES	UPPER JAMES	2080201	NEAR COVINGTON, VA
17	37 33 35	79 51 21	AFL	JAMES	UPPER JAMES	2080201	NEAR FINCASTLE, VA
18	37 40 57	79 36 21	AFL	JAMES	MAURY	2080202	NEAR NATURAL BRIDGES, VA
19	37 38 36	79 16 20	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	NEAR AMHERST, VA
2	39 13 22	77 36 30	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	NEAR TAYLORSTOWN, VA
20	37 30 48	79 21 05	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	NEAR BIG ISLAND, VA
21	37 56 36	79 42 16	AFL	JAMES	UPPER JAMES	2080201	NEAR COVESVILLE, VA
22	37 54 48	78 26 11	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	NEAR CARTERS BRIDGE, VA
23	37 42 32	78 46 16	AFL	JAMES	MIDDLE JAMES-BUFFALO	2080203	NEAR SHIPMAN, VA
25	37 15 18	77 52 35	AFL	JAMES	APPOMATTOX	2080207	NEAR MANNBORO, VA
26	37 54 06	77 55 28	AFL	YORK	PAMUNKEY	2080106	NEAR HALL, VA
28	37 13 09	77 37 31	AFL	JAMES	APPOMATTOX	2080207	NEAR CHURCH ROAD, VA
29	37 39 05	76 22 33	BFL	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	NEAR WHITE STONE, VA
3	38 17 22	79 34 27	AFL	JAMES	UPPER JAMES	2080201	NEAR WEST AUGUSTA, VA
30	37 52 00	76 36 34	BFL	RAPPAHANNOCK	LOWER RAPPAHANNOCK	2080104	NEAR SHARPS, VA
4	38 10 03	79 10 01	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	NEAR CHURCHVILLE, VA
5	38 35 06	78 28 28	AFL	POTOMAC	SOUTH FORK SHENANDOAH	2070005	NEAR STANLEY, VA
6	38 28 20	78 12 58	AFL	RAPPAHANNOCK	RAPIDAN-UPPER RAPPAHANNOCK	2080103	NEAR TRYME, VA
7	38 48 07	78 36 16	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	NEAR EDINBURG, VA
8	38 49 24	78 45 27	AFL	POTOMAC	NORTH FORK SHENANDOAH	2070006	NEAR JEROME, VA
9	38 55 52	77 17 01	AFL	POTOMAC	MIDDLE POTOMAC CATOCTIN	2070008	NEAR GREAT FALLS, VA
3	37 33 38	80 20 03	AFL	JAMES	UPPER JAMES	2080201	NEAR PEDRO, WVA
31	38 30 59	79 27 16	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	NEAR SUGAR GROVE, WVA
33	38 46 50	79 29 12	AFL	POTOMAC	SOUTH BRANCH POTOMAC	2070001	NEAR MD OF SENECA, WVA
47	39 14 59	79 20 24	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR MT. STORM, WVA

International Breeding Bird Survey

STATION NAME(S)	LATITUDE DDMMSS	LONGITUDE DDMMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
48	39 11 51	78 32 16	AFL	POTOMAC	CACAPON-TOWN	2070003	NEAR YELLOW SPRINGS, WVA
49	39 09 14	78 39 49	AFL	POTOMAC	CACAPON-TOWN	2070003	NEAR RIO, WVA
50	39 37 41	78 05 23	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	NEAR SLEEPY CREEK, WVA
51	39 24 29	77 50 16	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	NEAR MARTINSBURG, WVA
13	41 09 58	78 04 53	AFL	SUSQUEHANNA	UPPER WEST BRANCH SUSQUEHANNA	2050201	NEAR POTTERSDALE, PA
21	41 20 08	77 15 45	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	NEAR RAMSEY, PA
22	41 42 21	77 00 41	AFL	SUSQUEHANNA	TIOGA	2050104	NEAR ARNOT, PA
23	41 35 32	77 57 11	AFL	SUSQUEHANNA	SINNEMAHONING	2050202	NEAR LOGUE, PA
24	41 51 60	77 14 54	AFL	SUSQUEHANNA	TIOGA	2050104	NEAR LITTLE MARSH, PA
25	41 03 25	77 18 42	AFL	SUSQUEHANNA	BALD EAGLE	2050204	NEAR ROSECRANS, PA
26	41 13 19	77 15 38	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	NEAR ENGLISH CENTER, PA
27	41 28 10	77 14 47	AFL	SUSQUEHANNA	SINNEMAHONING	2050202	NEAR RAVENSBURG, PA
28	41 43 29	77 52 47	AFL	SUSQUEHANNA	PINE	2050205	NEAR CHERRY SPRS, PA
29	41 18 02	76 40 58	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	NEAR MAWR GLEN, PA
30	41 53 16	76 53 46	AFL	SUSQUEHANNA	CHEMUNG	2050105	NEAR AUSTINVILLE, PA
31	41 44 28	76 00 02	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	NEAR RUSH, PA
32	41 29 33	76 58 23	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	NEAR RALSTON, PA
33	41 55 57	76 02 43	AFL	SUSQUEHANNA	WEGO-WAPPASENING	2050103	NEAR BOB BRIDGE, PA
34	41 24 57	76 57 47	AFL	SUSQUEHANNA	LOWER WEST BRANCH SUSQUEHANNA	2050206	NEAR MARSH HILL, PA
35	41 13 06	76 26 43	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	NEAR WALLER, PA
36	41 05 23	76 27 42	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-LACKAWANNA	2050107	NEAR MILLVILLE, PA
38	41 42 06	75 48 13	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA-TUNKHANNOCK	2050106	NEAR HOP BOTTOM, PA
43	41 55 58	75 34 09	AFL	SUSQUEHANNA	UPPER SUSQUEHANNA	2050101	NEAR SUSQUEHANNA, PA
58	40 40 53	78 36 50	AFL	SUSQUEHANNA	UPPER WEST BRANCH SUSQUEHANNA	2050201	NEAR PATTON, PA
59	40 23 04	78 21 07	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR MARTINSBURG, PA
60	40 58 21	78 07 23	AFL	SUSQUEHANNA	UPPER WEST BRANCH SUSQUEHANNA	2050201	NEAR MUNSON, PA
61	40 27 10	78 12 46	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR WILLIAMSBURG, PA
62	40 29 56	78 20 50	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR BERSEYTON, PA
63	40 42 59	78 15 29	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR BALD EAGLE, PA
64	40 35 05	78 10 59	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR WATERSTREET, PA
65	40 18 28	77 24 36	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	NEAR DOUBLING GAP, PA
66	40 26 59	77 44 22	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	NEAR RYDE, PA
67	40 49 12	77 48 36	AFL	SUSQUEHANNA	BALD EAGLE	2050204	NEAR STATE COLLEGE, PA
68	40 21 01	77 40 48	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	NEAR PERU MILLS, PA
69	40 42 06	77 31 33	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	NEAR NAGINEY, PA
70	40 03 17	77 02 25	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR CLEAR SPRINGS, PA
71	40 39 21	77 54 23	AFL	SUSQUEHANNA	UPPER JUNIATA	2050302	NEAR PINE GR MILLS, PA
72	40 34 08	77 23 46	AFL	SUSQUEHANNA	LOWER JUNIATA	2050304	NEAR MIFFLINTOWN, PA
73	40 24 18	76 56 52	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-PENNS	2050301	NEAR PETERS MT, PA
74	40 03 36	76 24 18	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR SPORTING HILL, PA
75	40 15 12	76 09 48	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR EPHRATA, PA
76	40 10 49	76 43 53	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	NEAR MIDDLETON, PA
77	40 16 52	76 28 48	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	NEAR MT GRETN, PA
78	40 10 55	76 17 27	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR BRUNNERSVILLE, PA
79	40 28 24	76 46 42	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-PENNS	2050301	NEAR CARSONVILLE, PA
80	40 19 16	76 24 43	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA-SWATARA	2050305	NEAR SCHAEFFERSTON, PA
91	39 49 11	78 55 20	AFL	POTOMAC	NORTH BRANCH POTOMAC	2070002	NEAR WARRENS MILL, PA
92	39 56 33	78 11 09	AFL	SUSQUEHANNA	RAYSTOWN	2050303	NEAR NEEDMORE, PA
93	39 57 02	77 10 54	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR ASPERS, PA
94	39 57 34	77 27 36	AFL	POTOMAC	CONOCOHEAGUE-OPEQUON	2070004	NEAR BIG FLAT, PA
95	39 48 17	76 29 43	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR GATCHELVILLE, PA
96	39 55 05	76 53 22	AFL	SUSQUEHANNA	LOWER SUSQUEHANNA	2050306	NEAR LABOTT, PA

MARYLAND WATERFOWL BREEDING SURVEY

PROGRAM DESCRIPTION: The Maryland Waterfowl Breeding Survey is conducted by the Maryland Wildlife Division annually in late April. Since 1989, about 75 km² plots are surveyed throughout different geographical regions. Between April 10-20, two person field crews visually inspect and perform intensive searches within each plot for breeding waterfowl. Salt marsh plots are surveyed with fixed-wing aircraft. Other plots are surveyed on foot or boat.

PROGRAM OBJECTIVE: To determine the relative size and densities of Mallard, Black Duck, Wood Duck, and Canada Goose breeding populations in the Atlantic flyway and Maryland.

DATE INITIATED: 1963 (line transect surveys on state wildlife management areas)
1989 (km² plots)

COORDINATING AGENCY: Maryland Department of Natural Resources
Wildlife Division
P.O. Box 68
Wye Mills, Maryland 21679

FUNDING AGENCY: Maryland Department of Natural Resources

PARTICIPATING AGENCIES: Maryland Department of Natural Resources (MDDNR)

INVESTIGATORS:

Waterfowl Project Manager Larry J. Hindman MDDNR

PARAMETERS: Singles, pairs and groups of breeding Mallards, Black Ducks, Gadwall, Wood Ducks and Canada Geese
Numbers of nonbreeding waterfowl species
Numbers of wading birds
Numbers of raptors

Note: All parameters (i.e., number of wading birds and raptors) are not measured at every station.

STATIONS: 75 km² plots are surveyed each year throughout the state at approximately 50 survey areas. In addition, state wildlife management areas including South March Island, Deal Island, Fairmount, Cedar Island, Fishing Bay, Taylors Island, Pocomoke Sound, Apes Hole, and E. A. Vaughn. For specific station location information contact Maryland DNR.

SAMPLE COLLECTION: Ground survey crews initiate stream surveys one-half hour before sunrise and terminate at 10:00 am. Breeding waterfowl observed are classified into singles, pairs and groups. All other wildlife observed are recorded by observers. Aerial survey crews conduct similar surveys at an altitude of 300 feet and airspeeds of 90-100 mph when winds do not exceed 15 mph.

PROGRAM INTEGRATION: This survey provides long-term trends of waterfowl breeding populations in Maryland and the Atlantic flyway.

VIRGINIA BALD EAGLE SURVEY

PROGRAM DESCRIPTION: The Virginia Bald Eagle Survey covers the Virginia waters of the Chesapeake Bay including all major tributaries and the Eastern Shore. It is carried out from March through July by experienced observers in single engine aircraft as well as by boat, car and foot surveys. This survey is performed concurrently with similar studies in other mid-Atlantic states to monitor the continuing recovery of the bald eagle.

PROGRAM OBJECTIVE: To determine hatching and fledgling success of bald eagles in Virginia. To identify ownership of nesting areas and concentration areas of bald eagles and to develop management agreements and protection strategies where possible for these areas. To monitor eagle concentration areas and to determine the effect of human activity on these areas. To make an intensive study of the bald eagle population and occupied habitat on the James River and to develop an overall management strategy for the area. To provide other states with young eagles for recovery and re-establishment efforts.

DATE INITIATED: January 1977

COORDINATING AGENCY: Virginia Department of Game and Inland Fisheries
4010 West Broad Street
P.O. Box 11104
Richmond, Virginia 23230

FUNDING AGENCIES: Virginia Department of Game and Inland Fisheries
U.S. Fish and Wildlife Service

AGENCIES: Virginia Department of Game and Inland Fisheries (VDGIF)
College of William and Mary (W&M)

INVESTIGATORS:

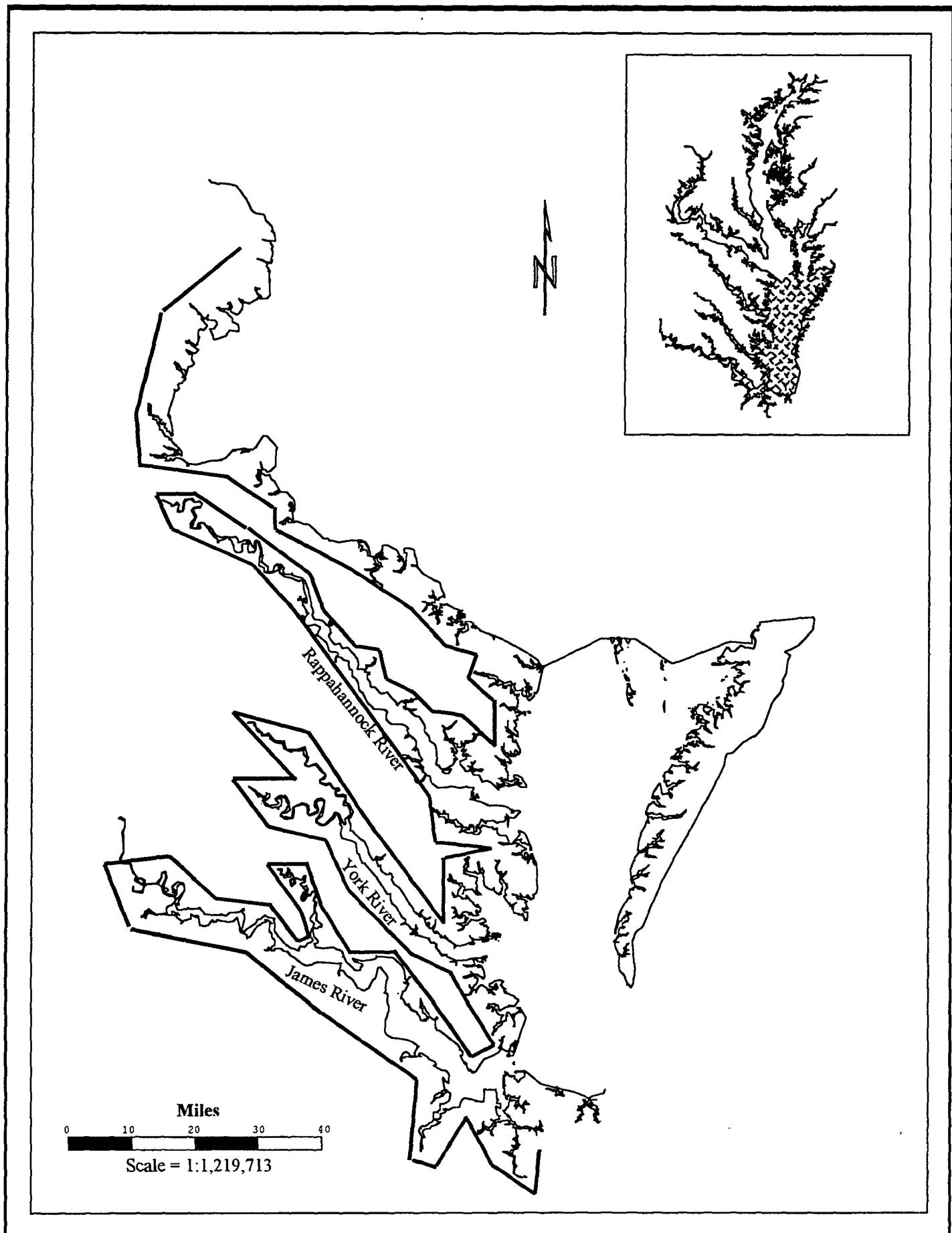
Pilot-in-charge	Sherwin Beck Pvt.
Principle Investigator	M.A. Byrd W&M
Principle Investigator	Keith Cline VDGIF

PARAMETERS: Bald Eagle population status

STATIONS: There are five segments created along lines of the following river systems: the Potomac, Rappahannock, York, Mattaponi, Pamunkey, James, Chickahominy, and the Eastern Shore.

SAMPLE COLLECTION: The study is conducted annually for about 20 weeks from March through July. It is performed from a single engine airplane at 50-150 m altitude, paralleling shorelines to survey coastal habitat along each tributary in each segment. A smaller amount of driving is also done to reach and monitor land-based roost areas for observation, as well as for researching land ownerships.

PROGRAM INTEGRATION: Information from this project will be used in the Virginia Department of Game and Inland Fisheries data base as well as in the state's Natural Heritage Program species inventory data base for evaluating environmental impacts of coastal development. In addition, this survey is performed concurrently with similar studies in other mid-Atlantic states to monitor the continuing recovery of the bald eagle.



VIRGINIA COLONIAL BIRD STUDY

PROGRAM DESCRIPTION: The Virginia Colonial Bird Study is conducted entirely on the coastal plain and Eastern Shore of Virginia from April through July. It is carried out by experienced observers by boat, car and on foot as well as in fixed-wing aircraft. Population surveys are conducted on all relevant species to determine current status and accumulate trend information.

PROGRAM OBJECTIVE: To coordinate the protection and management of colonial birds in the state. To detect changes in population number as well as population shifts. To sample nesting success in colonies of a selected species each year. To conduct preliminary studies on the effects and extent of predation on colonial breeders. To locate, map and describe all existing yellow-crowned night heron colonies and single nests in tidewater Virginia. To locate and map all potential habitats for future observation and management. To evaluate human impacts on heron populations in residential areas in tidewater Virginia.

DATE INITIATED: May 1975

COORDINATING AGENCY: Virginia Department of Game and Inland Fisheries
4010 West Broad Street
Box 11104
Richmond, Virginia 23230

FUNDING AGENCIES: Virginia Department of Game and Inland Fisheries
U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: Virginia Department of Game and Inland Fisheries (VDGIF)
College of William and Mary (W&M)

INVESTIGATORS:

Pilot-in-charge	Sherwin Beck	Pvt.
Principle Investigator	M.A. Byrd	W&M
Principle Investigator	R.A. Beck	W&M
Principle Investigator	Don Schwab	VDGIF

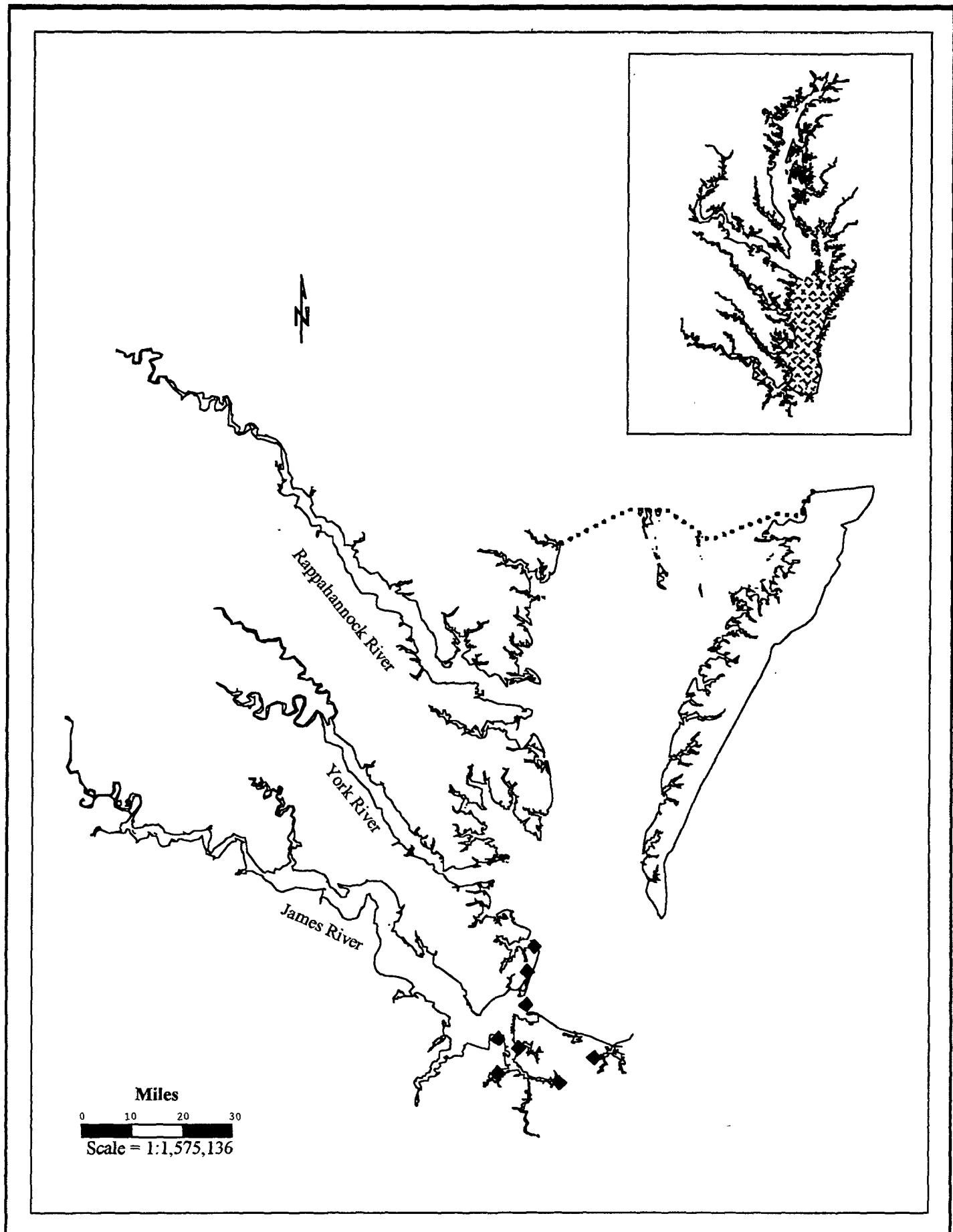
PARAMETERS:	Great Egrets	Great Blue Herons	Oystercatchers
	Yellow-crowned Night Herons	Cattle Egrets	Black Skimmers
	Least Terns	Common Terns	Piping Plovers

STATIONS: There are numerous colonies located throughout the Virginia coastal plain. Locations of 10 least tern and great egret colonies observed are shown. Location of great blue heron colonies are not available at this time.

SAMPLE COLLECTION: The study is conducted annually for about 16 weeks from April through July. Survey method (driving, boat, on foot or in fixed-wing aircraft) is determined by the species involved.

PROGRAM INTEGRATION: Information from this project will be stored in the Virginia Department of Game and Inland Fisheries data base as well as in the state's Natural Heritage Program species inventory data base, to be used by state agencies for environmental impact statements and public education information.

STATION NAME(S)	LATITUDE DDMSS	LONGITUDE DDMSS	CBP SEGMENT	BASIN	SUB-BASIN	HUC	DESCRIPTION
1	36 53 00	76 08 00	BFL	JAMES	LYNNHAVEN-POQUOSON	2080108	LITTLE CREEK
2	36 50 00	76 13 00	LE-5	JAMES	LOWER JAMES	2080206	KEMPSVILLE
4	36 51 00	76 22 00	BFL	JAMES	LYNNHAVEN-POQUOSON	2080108	NORFOLK SOUTH
5	36 54 00	76 19 00	LE-5	JAMES	LOWER JAMES	2080206	NORFOLK NORTH
6	37 03 00	76 18 00	BFL	JAMES	HAMPTON ROADS	2080208	HAMPTON
CRANEY	36 55 00	76 22 00	BFL	JAMES	LYNNHAVEN-POQUOSON	2080108	CRANEY ISLAND
GRAND	37 06 00	76 17 00	WE-4	YORK	GREAT WICOMICO-PIANKATANK	2080102	GRANDVIEW BEACH
HAMPTON	36 59 00	76 18 00	CB-8	CHESBAY	LOWER CHESAPEAKE BAY	2080101	HAMPTON ROADS TUNNEL
NEW PT	37 18 00	76 16 00	CB-6	CHESBAY	LOWER CHESAPEAKE BAY	2080101	NEW POINT COMFORT



VIRGINIA OSPREY STUDY

PROGRAM DESCRIPTION: The Virginia Osprey Study covers the Virginia waters of the Chesapeake Bay including major tributaries and inland impoundments east of I-95. It is carried out from April through June by experienced observers in daily boat surveys and fixed wing aircraft. Productivity of a designated sample of 350-400 nests is determined by direct visitation a total of three times per breeding season.

PROGRAM OBJECTIVE: To determine total breeding population size through aerial and ground surveys. To determine hatching and fledgling success of a sample of osprey nests representative of all of the major estuaries as well as the Eastern shore of Virginia. To coordinate transfer of young ospreys from Virginia to other states involved in re-introduction programs. To make detailed studies at nests in areas of high pre-fledgling mortality and areas of low pre-fledgling mortality to determine causes of differential rates of survival.

DATE INITIATED: May 1971

COORDINATING AGENCY: Virginia Department of Game and Inland Fisheries
4010 West Broad Street
Box 11104
Richmond, Virginia 23230

FUNDING AGENCIES: Virginia Department of Game and Inland Fisheries
U.S. Fish and Wildlife Service

PARTICIPATING AGENCIES: Virginia Department of Game and Inland Fisheries (VDGIF)
College of William and Mary (W&M)

INVESTIGATORS:

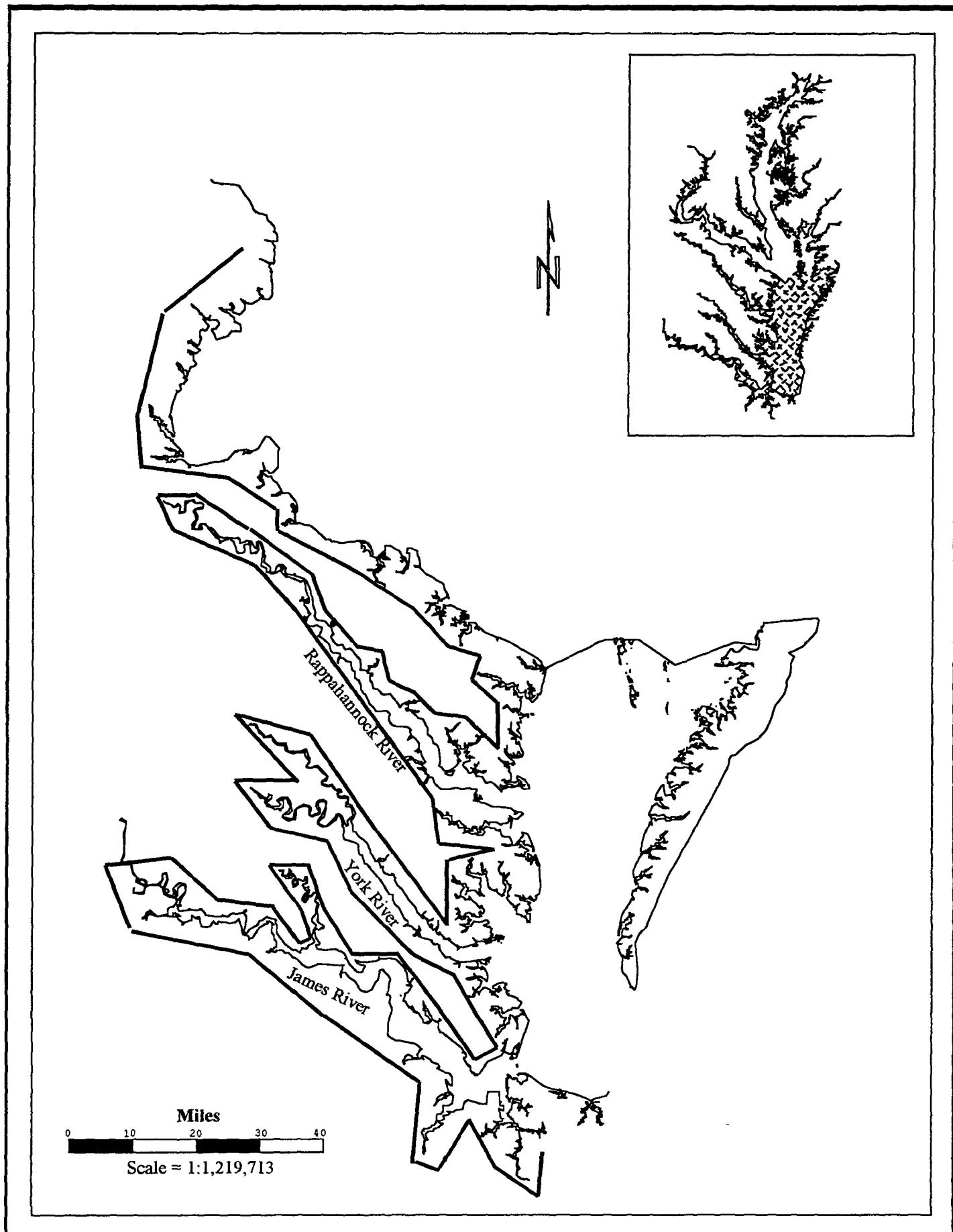
Pilot-in-charge	Sherwin Beck Pvt.
Principle Investigator	M.A. Byrd W&M
Principle Investigator	Don Schwab VDGIF

PARAMETERS: Osprey

STATIONS: There are nine regions with data collected by region for comparative purposes: the James and Chickahominy rivers; York, Mattaponi and Pamunkey rivers; Potomac River; Rappahannock River; Mobjack Bay and New Point Comfort; Fleets Bay and Great Wicomico River; Lower Tidewater; Eastern Shore; and Inland Impoundments.

SAMPLE COLLECTION: The study is conducted each spring and summer for about 12 weeks from April through June. It is performed primarily by daily boat surveys as weather permits plus at least one aerial survey to cover inaccessible areas. A minimal amount of the survey is conducted by automobile.

PROGRAM INTEGRATION: Information from this project will be used in the Virginia Department of Game and Inland Fisheries data base (FWIS) and will be accessible to the state's Natural Heritage Program species inventory data base. In addition, this survey will be used by various state agencies for environmental impact statements and as a basis for working with the U.S. Coast Guard on problems with ospreys nesting on navigational aids.



GUNSTON COVE ECOSYSTEM MONITORING PROGRAM

WATERFOWL COMPONENT

PROGRAM DESCRIPTION: The Gunston Cove Ecosystem Monitoring Program carried out by George Mason University involves long-term monitoring of physical and biological components of the ecosystem in Pohick Creek, Gunston Cove, Dogue Creek, and the adjacent Potomac River. These studies include waterfowl surveys. In conjunction with this monitoring, Fairfax County conducts water quality monitoring in order to determine the effects of sewage outfall from a tertiary treatment plant which empties into Gunston Cove.

PROGRAM OBJECTIVES: To provide a description and analysis of seasonal variations in waterfowl numbers, species diversity, and specific habitat preferences of bird species in the Gunston Cove vicinity. In conjunction with monitoring of other aquatic organisms, objectives are to assess current ecological conditions as well as to provide long-term baseline data for evaluating the effects of changes in land use and/or sewage treatment occurring in the future.

DATE INITIATED: 1984

COORDINATING AGENCY: George Mason University
Department of Biology
4400 University Drive
Fairfax, Virginia 22030

FUNDING AGENCY: Fairfax County

PARTICIPATING AGENCIES: George Mason University (GMU)
County of Fairfax, Environmental Laboratory Services (FCDLS)

INVESTIGATORS:

Project Director	R. Christian Jones	GMU
Co-Principal Investigator	Don Kelso	GMU
Waterfowl Survey	James C. Wilgenbusch	GMU
Director	Elaine Schaeffer	FCDLS

PARAMETERS: bird count, species habitat preferences

STATIONS: There are currently four study areas: Pohick Bay, Accotink Bay, north half Gunston Cove, and southern half Gunston Cove. An observation station is designated in each of the four study areas.

SAMPLE COLLECTION: Two bird censuses are made in each season. Each census occurs on similar tidal stages and times, and counts are obtained between 6am and 1pm. Each study area is observed for one hour, with half this time spent at the observation station and half spent at other locations within the study area. Bird tallies are made at 15 minute intervals in each area, and the highest tally per 15 minute interval is used for the species total in that area.

PROGRAM INTEGRATION: The Gunston Cove Ecosystem Monitoring Program: Waterfowl Component is one of many monitoring components including: benthos, phytoplankton, zooplankton, bird, and fish surveys.

Gunston Cove Ecosystem Monitoring Program Waterfowl Component

