
STATE OF DELAWARE

SURFACE WATER QUALITY MONITORING PROGRAM

FY 2007

Prepared by

Department of Natural Resources and Environmental Control
Division of Water Resources
Watershed Assessment Branch

Delaware Division of Water Resources



Executive Summary

Delaware's Surface Water Quality Monitoring Program for Fiscal Year 2007 is described in this report. Delaware maintains a General Assessment Monitoring Network (GAMN) of 181 stations and has one Special Projects monitoring station. GAMN stations are considered long term stations whose data is used to do long term status and trend assessments of water quality conditions or the State's surface waters and support compilation of Watershed Assessment Reports as mandated by the Clean Water Act under section 305(b). Special Project monitoring stations are for short term projects that require data to meet Department needs. Under this plan the frequency of monitoring events at GAMN stations has been upgraded from sampling 4-6 times per year to 6-12 times per year for a suite of physical and chemical parameters. Some stations in selected watersheds are monitored for up to six key metals for dissolved and total concentrations in the water column.

Ambient Surface Water Quality Monitoring Program - FY 2007

The purpose of the Ambient Surface Water Quality Monitoring Program is to collect data on the chemical, physical and biological characteristics of Delaware's surface waters. The information that is collected under this Program is used to:

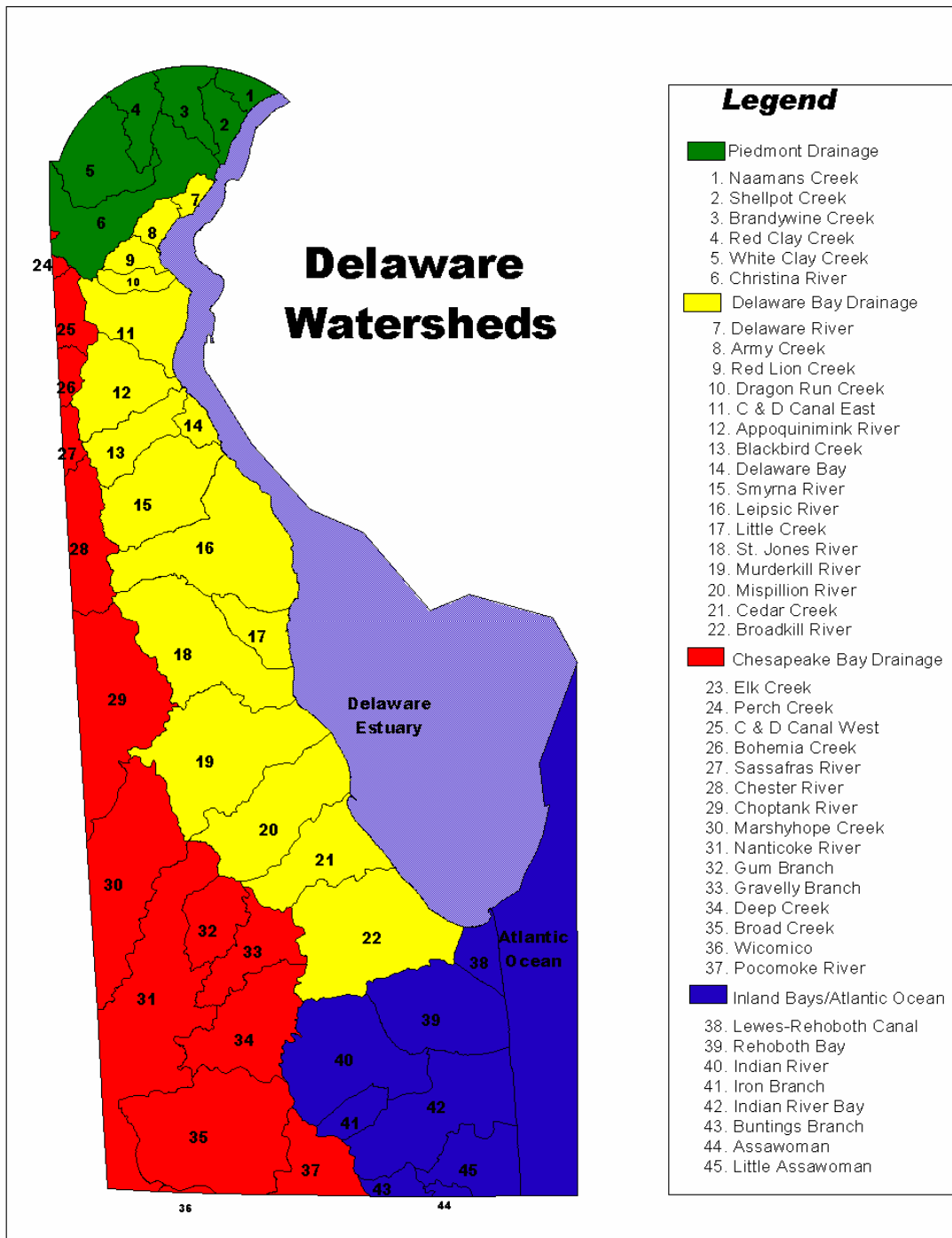
- Describe general water quality conditions in the State;
- Identify long term trends in water quality;
- Determine the suitability of Delaware waters for water supply, recreation, fish and aquatic life, and other uses;
- Monitor achievement of water quality standards;
- Identify and prioritize high quality and degraded waters;
- Support Total Maximum Daily Load Program; and
- Evaluate the overall success of Delaware's water quality management efforts.

There are five major components to Delaware's Surface Water Quality Monitoring Program:

- General Assessment Monitoring
- TMDL-Related Monitoring
- Biological Assessment Monitoring
- Toxics in Biota Monitoring
- Toxics in Sediment Monitoring

This report discusses the first three components, General Assessment, TMDL related Monitoring and Biological Assessment Monitoring. Current Toxics in Biota and Sediment Monitoring plans are available on request.

Figure 1 State of Delaware Basins



Part I The General Assessment Monitoring Network (GAMN)

The General Assessment Monitoring Network (GAMN) provides for routine water quality monitoring of surface waters throughout Delaware. Each station is monitored for conventional parameters such as nutrients, bacteria, dissolved oxygen, pH, alkalinity, and hardness. Some stations are monitored for total and dissolved metals. See tables 3 and 4 for parameters and methods. The data from this monitoring is entered into the STORET database, is reviewed and then analyzed in assessing the water quality of each basin for the Watershed Assessment Report (CWA Section 305 (b) Report).

The plan provides for monitoring at several stations within each watershed in the state. Furthermore, it calls for a substantial increase in the sampling frequency at GAMN station in the network beginning in calendar year 2006. With the establishment of TMDL targets for nutrients and bacteria for many watersheds with the State, there is a need for enhanced monitoring frequency so that the effect of TMDL implementation plans can be evaluated more accurately. See Table 1: FY 2007 Monitoring Plan and Schedule .

The Department anticipates evaluating metals monitoring results in the near future and may adjust the scope or frequency of metals monitoring in surface waters of the State.

I.1 Objectives

The objective of this monitoring is to collect water quality data for status and trends assessment on all basins within Delaware. The data will also be compared to water quality standards to assess designated use support, as mandated by Section 305(b) of the Clean Water Act.

I.2 Scope of Monitoring

Table 2 provides a listing of all stations to be monitored during FY 2007. There are two station types shown in Table 2, GAMN and Special Project Monitoring stations. The GAMN stations are generally considered to be long term stations and the Special Project Monitoring stations are generally short term and are designed to support development of a hydrodynamic and water quality model for the receiving streams as described in Part II of this plan.

Table 3 provides a listing of parameters that will be monitored at all stations in the network. In order to calculate loading estimates, all free flowing wadeable stations in the network will be monitored for flow at the time of the sampling event.

Stations shown for metals testing in Table 2 shall be sampled according to the specifications in Table 4.

Part II Special Project Monitoring

Special project monitoring is needed from time to time in specific watersheds to address specific concerns. These projects are generally short term in nature. The Department is looking into surface water iron levels in the Delaware River and Shellpot Creek in this monitoring plan as a special project. One new short term station has been added in the

watershed, and monitoring frequency at all three stations will be monthly for calendar year 2006. As a further part of this project, the Department is looking into coordinating sampling for iron in the Delaware River with the Delaware River Basin Commission.

II.1 Special Surveys

The purpose of special survey monitoring is to collect data that are not obtained using other monitoring activities and are needed for modeling purposes as described above. Special surveys include deployment of continuous monitors (YSI Data Sondes) and sediment sampling. No special survey sediment sampling is called for in this fiscal year.

II.2 Continuous Monitoring

The Department is implementing a network of continuous water quality monitoring stations to collect data for dissolved oxygen and other parameters several times each day using YSI (or similar) datasondes. The data collected from the network will be used for water quality and 305(b) reporting. At this time the Department envisions a rotating basin approach to using the monitors. The continuous monitoring will start in the Piedmont Basin for calendar year 2006, and proceed through the Chesapeake, Inland Bays and Delaware Bay drainages in the following calendar years. As the design and implementation of this network occurs, monitoring plans will be updated to reflect those decisions and techniques.

The Department has also put into place a special highly sophisticated on-site monitoring station/automated lab device to collect and analyze samples for nutrients and other parameters at the outlet to Millsboro Pond. The data from this station will be used to assess nutrient loads leaving the pond and entering the Delaware Inland Bays and thereby monitor TMDL implementation progress.

II.3 Special Considerations for Sampling in Tidal Waters

In tidal waters, samples should be collected at (or near) low slack tide starting at the most downstream station moving upstream.

Boat run surveys

Boat run surveys should be conducted within one day of tributary sampling in the watershed.

Part III Biological and Habitat Monitoring for FY 2007

The Department is working on a long-term project to collect biological and habitat data at or near STORET water quality monitoring stations to correlate water quality data with biological data. The Department is also in the process of revisiting sites that showed impacted biology in earlier assessments. These projects are expected to develop into an ongoing project.

Part IV Field and Laboratory Procedures

Field procedures for sample collection activities are detailed in the Quality Assurance Management Plan, Environmental Laboratory Section, December 2002. Method references, STORET codes and reporting levels for parameters listed in Table 2 are from an Access database maintained by the Environmental Laboratory Section. Any deviation from standard field, laboratory procedures, or this sampling plan shall be documented with a complete description of the alteration.

Part V Quality Assurance, Documentation, Data Usage and Reporting

The quality assurance objectives and quality control procedures for these surveys are documented in the Quality Assurance Management Plan, Environmental Laboratory Section, December 2002. A duplicate water column sample will be collected and analyzed on 10% of the samples from this project. All analytical results from the duplicate analyses shall be reported with the other data.

All analytical results shall be reported to the Watershed Assessment Section digitally and on paper (using standard Environmental Laboratory Section data report forms).

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Piedmont Basin | | | | | | | | |
| Brandywine Creek | | | | | | | | |
| Foot Bridge | 104011 | 12 | | 12 | | | | |
| Rd. 279 Bridge (USGS gage 01481500) | 104021 | 12 | | 12 | | | | |
| Smith Bridge | 104051 | 12 | | 12 | | | | |
| Brandywine Creek, .6 miles upstream of the confluence with Christina River | 104081 | 12 | | | | | | |
| Christina River | | | | | | | | |
| Rt. 13/Rt. 9 Bridge | 106011 | 12 | | 12 | | | | |
| Rt. 141, Newport (USGS tide gage 01480065) | 106021 | 12 | | 12 | | | | |
| Smalley's Dam Spillway | 106031 | 12 | | 12 | | | | |
| Old Baltimore Pike, Below Newark (USGS gage 01478000) | 106141 | 12 | | 12 | | | | ✓ |
| Rt. 273, Above Newark | 106191 | 12 | | 12 | | | | |
| Little Mill Creek, Atlantic Avenue (USGS Gage 01480095) | 106281 | 12 | | 12 | | | | |
| Conrail Br. (USGS tide gage 01481602) | 106291 | 12 | | 12 | | | | ✓ |
| Naamans Creek | | | | | | | | |
| Naamans Creek at Naamans road | 101021 | 6 | | | | | | |
| Naamans Creek South Branch | 101031 | 6 | | | | | | |
| Rt. 13A | 101041 | 6 | | | | | | ✓ |
| Red Clay Creek | | | | | | | | |
| Stanton, Rt. 4 (USGS gage 01480015) | 103011 | 12 | | 12 | | | | ✓ |
| Wooddale, Rt. 8 (USGS gage 01480000) | 103031 | 12 | | 12 | | | | |
| Ashland, Rd. 258a | 103041 | 12 | | 12 | | | | |
| Burrough's Run Confluence | 103061 | 12 | | 12 | | | | ✓ |
| Shellpot Creek | | | | | | | | |
| Shellpot Creek at Rt. 13 (Governor Printz Boulevard) Bridge | 102011 | 12 | | | | 12 | | ✓ |
| Shellpot Creek, Cherry Island at Rt. 501 Bridge | 102041 | 12 | | | | 12 | | |
| Stoney Creek at Rt. 13 | | | 12 | | | 12 | | |
| White Clay Creek | | | | | | | | |
| Stanton, Old Rt. 7 Bridge | 105011 | 12 | | 12 | | | | |
| Chambers Rock Rd. | 105031 | 12 | | 12 | | | | ✓ |
| Mill Creek Confluence above Rt. 4 at Delaware Park | 105071 | 12 | | 12 | | | | |
| Pike Creek Confluence, Upper Pike Creek Rd. | 105101 | 12 | | 12 | | | | ✓ |
| Middle Run Confluence, Possum Park Rd. | 105131 | 12 | | 12 | | | | |
| DE Park Race Track (USGS gage 01479000) | 105151 | 12 | | 12 | | | | ✓ |
| White Clay Creek, at the end of McKees Lane | 105171 | 12 | | 12 | | | | |
| Pike Creek at Paper Mill Road Bridge | 105181 | 12 | | | | | | |
| 0.8 miles upstream of confluence with Christina River | 105161 | 12 | | | | | | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Chesapeake Bay Basin | | | | | | | | |
| <i>Chester River</i> | | | | | | | | |
| Sewell Branch at Rd. 95 | 112021 | 6 | | | | | | |
| Gravelly Run at Stilltown Rd. | 112031 | 6 | | | | | | |
| <i>Choptank River</i> | | | | | | | | |
| Cow marsh creek at Rd. 208 | 207021 | 6 | | | | | | |
| Tappahanna Ditch at Rd. 222 | 207081 | 6 | | | | | | |
| Culbreth Marsh at Rd. 210 | 207091 | 6 | | | | | | |
| White marsh branch at Rd. 268 | 207111 | 6 | | | | | | |
| <i>Marshyhope Creek</i> | | | | | | | | |
| Rt. 404 Bridge | 302021 | 6 | | | | | | |
| Marshyhope Creek at Fishers Bridge Road (Rt. 308) Bridge, the site of USGS gaging station 01488500 | 302031 | 12 | | | | | | |
| <i>Nanticoke River Sub-Basin</i> | | | | | | | | |
| Sharptown | 304011 | 12 | | 12 | 12 | | | |
| Buoy 45 State line | 304071 | 12 | | 12 | 12 | | | |
| Buoy 51 (Conf. Broad Creek) | 304091 | 12 | | 12 | 12 | | | |
| Buoy 66 (Conf. DuPont Gut) | 304151 | 12 | | 12 | 12 | | | |
| Seaford STP Discharge | 304461 | 12 | | 12 | 12 | | | |
| <i>Nanticoke Tributary Stations</i> | | | | | | | | |
| Middleford Bridge | 304041 | 12 | | 12 | 12 | | | |
| Rd 545 Mainstem Nanticoke | 304191 | 12 | | 12 | 12 | | | |
| Nanticoke @ Rt 600 Bridge | 304291 | 12 | | 12 | 12 | | | |
| Concord Pond Overflow | 304311 | 12 | | 12 | 12 | | | |
| Williams Pond Overflow | 304321 | 12 | | 12 | 12 | | | |
| Bucks Branch at Rd. 546 | 304381 | 12 | | 12 | 12 | | | |
| Rt 13 Bridge | 304471 | 12 | | 12 | 12 | | | |
| Raccoon Prong at RT 66 | 307371 | 12 | | 12 | 12 | | | |
| Records Pond Overflow | 307011 | 12 | | 12 | 12 | | | |
| Horsey Pond Overflow | 307171 | 12 | | 12 | 12 | | | |
| Rd 525 Gravelly Branch | 316011 | 12 | | 12 | 12 | | | |
| <i>Gum Branch</i> | | | | | | | | |
| Gum Branch at RT 591 | 304661 | 6 | | | | | | |
| <i>Pocomoke</i> | | | | | | | | |
| Pocomoke River at Rt. 419 Bridge | 313011 | 6 | | | | | | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|---|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Delaware Bay Drainage | | | | | | | | |
| Appoquinimink River | | | | | | | | |
| Silver Lake, Rd 442* (inflow) | 109031 | 12 | | 12 | 12 | | | |
| Rt 13 Bridge | 109041 | 12 | | 12 | 12 | | | |
| Rt 299 Bridge, Odessa | 109051 | 12 | | 12 | 12 | | | |
| Drawyer Creek, Rt 13 | 109071 | 12 | | 12 | 12 | | | |
| Confluence with Delaware River | 109091 | 12 | | 12 | 12 | | | |
| Rt 9 Bridge | 109121 | 12 | | 12 | 12 | | | |
| Noxontown Pond, Rd 38* (Upstream of pond) | 109131 | 12 | | 12 | 12 | | | |
| Mouth of East Br. Drawyer Ck. | 109141 | 12 | | 12 | 12 | | | |
| Above West Br. Drawyer Creek | 109151 | 12 | | 12 | 12 | | | |
| MOT Gut (Appo Gut)-West bank | 109171 | 12 | | 12 | 12 | | | |
| Shallcross Lake Overflow | 109191 | 12 | | 12 | 12 | | | |
| Army Creek | | | | | | | | |
| Rt. 9 | 114011 | 6 | | | | | | |
| Rt. 13 bridge | 114021 | 6 | | | | | | |
| Blackbird Creek | | | | | | | | |
| Rt. 13 Bridge (northern Branch) | 110021 | 6 | | | | | | |
| Rt. 9 Taylors bridge | 110041 | 6 | | | | | | |
| Broadkill River | | | | | | | | |
| Ingram Branch at Rd. 246 | 303011 | 6 | | | | | | |
| Ingram Branch at Rd 248 | 303021 | 6 | | | | | | |
| Broadkill River at Rt. 5 Br | 303031 | 6 | | | | | | |
| Rt. 1 bridge (mainstem) | 303041 | 6 | | | | | | |
| Red Mill Pond at Rt. 1 | 303051 | 6 | | | | | | |
| Beaverdam Creek at Rd. 88 | 303171 | 6 | | | | | | |
| Beaverdam Creek at Rd 259 | 303181 | 6 | | | | | | |
| Trib. to Red Mill Pond | 303231 | 6 | | | | | | |
| Round Pole Branch at Rd. 88 | 303311 | 6 | | | | | | |
| Waples Pond at Rt. 1 | 303331 | 6 | | | | | | |
| Pemberton Branch at Rt.30 | 303341 | 6 | | | | | | |
| Waggamons Pond outlet | 303351 | 6 | | | | | | |
| Sowbridge Branch at Rd. 212 | 303381 | 6 | | | | | | |
| Ingrams Branch at Rt. 30 | 303481 | 6 | | | | | | |
| C & D Canal | | | | | | | | |
| St. Georges Bridge | 108021 | 6 | | | | | | |
| Summit Bridge | 108031 | 6 | | | | | | |
| Lums Pond boat ramp | 108111 | 6 | | | | | | |
| Cedar Creek | | | | | | | | |
| Cedar Creek at Rd. 212 | 301021 | 6 | | | | | | |
| Rt. 1 Bridge | 301031 | 6 | | | | | | |
| Cedar Creek at Rt. 36 br. | 301091 | 6 | | | | | | |
| Delaware Bay | | | | | | | | |
| Roosevelt Inlet | 401011 | 6 | | | | | | |
| Primehook Beach | 401021 | 6 | | | | | | |
| Fowlers Beach | 401031 | 6 | | | | | | |
| Big Stone Beach | 401061 | 6 | | | | | | |
| Murderkill Jetty | 401081 | 6 | | | | | | |
| Little River | 401101 | 6 | | | | | | |
| Dragon Run | | | | | | | | |
| Rt. 9 Bridge | 111011 | 6 | | | | | | |
| Rt. 13 Bridge (flow at Rd. 407) | 111031 | 6 | | | | | | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Leipsic River | | | | | | | | |
| Rd. 42 bridge | 202011 | 6 | | | | | | |
| Rt. 13 bridge | 202021 | 6 | | | | | | |
| Leipsic River at Rt. 9 | 202031 | 6 | | | | | | |
| Rt. 42 | 202041 | 6 | | | | | | |
| Little River | | | | | | | | |
| Postal Corner Road (rd 348) | 204011 | 6 | | | | | | |
| Rt. 9 bridge | 204031 | 6 | | | | | | |
| Rt. 8 bridge | 204041 | 6 | | | | | | |
| Mispillion River | | | | | | | | |
| Haven Lake at Rt. 113 | 208011 | 6 | | | | | | |
| Rt. 1 Bridge | 208021 | 6 | | | | | | |
| Misspillion River 0.43 miles from mouth at lighthouse | 208061 | 6 | | | | | | |
| Misspillion River 4.64 miles from mouth | 208101 | 6 | | | | | | |
| Misspillion River 7.14 miles from mouth | 208121 | 6 | | | | | | |
| Abbotts Pond at Rd.620 | 208181 | 6 | | | | | | |
| Blairs Pond off Rd 443, at the Boat Ramp | 208191 | 6 | | | | | | |
| Rt. 36 Silver Lake | 208211 | 6 | | | | | | |
| Rt. 384 Beaverdam Branch ** | 208231 | 6 | | | | | | |
| Murderkill River | | | | | | | | |
| Murderkill River at US Rt. 13 Bridge (below Felton) | 206011 | 12 | | 12 | 12 | | | |
| Murderkill River, Browns Branch at Rt. 14 Bridge | 206041 | 12 | | 12 | 12 | | | |
| Murderkill River, Browns Branch at Rd. 384 Bridge | 206051 | 12 | | 12 | 12 | | | |
| Murderkill River, Andrews Lake at Rd. 380 Bridge | 206071 | 12 | | 12 | 12 | | | |
| Murderkill River, Spring Creek at Rt. 12 Bridge | 206081 | 12 | | 12 | 12 | | | |
| Murderkill River, US Rt. 113 | 206091 | 12 | | 12 | 12 | | | |
| Murderkill River at Bowers Beach Wharf | 206101 | 12 | | 12 | 12 | | | |
| Murderkill River at Webb Landing (1.25 miles from the mouth) | 206131 | 12 | | 12 | 12 | | | |
| Murderkill River, 3.25 miles from the mouth | 206141 | 12 | | 12 | 12 | | | |
| Murderkill River at conf. of Kent County STP trib. | 206231 | 12 | | 12 | 12 | | | |
| Murderkill River, McCauley Pond near spillway | 206361 | 12 | | 12 | 12 | | | |
| Murderkill River, Coursey pond at Rd. 388 Bridge | 206451 | 12 | | 12 | 12 | | | |
| Murderkill River, Hudson Branch, McGinnis Pond | 206461 | 12 | | 12 | 12 | | | |
| Murderkill River, Double Run at Rt. 371 Bridge | 206561 | 12 | | 12 | 12 | | | |
| Red Lion Creek | | | | | | | | |
| Red Lion Creek at Rt. 7 | 107011 | 6 | | | | | | |
| Rt. 9 Bridge | 107031 | 6 | | | | | | |
| Smyrna River | | | | | | | | |
| Rt. 137 Bridge | 201021 | 6 | | | | | | |
| Rt. 9 Flemmings Landing | 201041 | 6 | | | | | | |
| Rt. 485 Bridge | 201051 | 6 | | | | | | |
| Rt. 482 Bridge | 201161 | 6 | | | | | | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|-------------------------------|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>St. Jones River</i> | | | | | | | | |
| Barkers Landing | 205041 | 6 | | | | | | |
| Rt. 10 Bridge | 205091 | 6 | | | | | | |
| Rd. 69 State College | 205151 | 6 | | | | | | |
| Rt. 13 Alt. Moores Lake | 205181 | 6 | | | | | | |
| Silver Lake Spillway | 205191 | 6 | | | | | | |
| Derby Pond at Rt. 13A | 205211 | 6 | | | | | | |
| Rt. 13 North Moores Lake | 205241 | 6 | | | | | | |
| Division Street ** | 205571 | 6 | | | | | | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Inland Bays | | | | | | | | |
| <i>Inland Bays Sub-basin Survey</i> | | | | | | | | |
| <i>Tributary Stations</i> | | | | | | | | |
| Burton Pond, Rd. 24 | 308031 | 12 | | 12 | 12 | | 12 | |
| Millsboro Dam Overflow | 308071 | 12 | | 12 | 12 | | 12 | |
| Pepper Creek at Rt. 26 Bridge | 308091 | 12 | | 12 | 12 | | 12 | |
| Blackwater creek at Rd 54 | 308361 | 12 | | 12 | 12 | | 12 | |
| Derrickson Creek, Rd. 381 | 310031 | 12 | | 12 | 12 | | 12 | |
| <i>Bunting Branch</i> | | | | | | | | |
| Bunting Branch at Rt. 54 | 311041 | 12 | | | | | | |
| <i>Guinea Creek</i> | | | | | | | | |
| Guinea Creek at Rt. 298 Bridge | 308051 | 12 | | 12 | 12 | | 12 | |
| <i>Iron Branch</i> | | | | | | | | |
| Iron Branch at Rt. 113 Bridge | 309021 | 12 | | 12 | 12 | | 12 | |
| Whartons Branch at Rt. 334 Bridge | 309041 | 12 | | 12 | 12 | | 12 | |
| <i>Lewes and Rehoboth Canal</i> | | | | | | | | |
| Lewes and Rehoboth Canal at Rt. 18 Bridge | 305041 | 12 | | 12 | 12 | | 12 | |
| Munchy Branch | 305081 | 12 | | 12 | 12 | | 12 | |
| <i>Little Assawoman Canal</i> | | | | | | | | |
| Little Assawoman Bay Ditch at Rd. 58 Bridge | 310011 | 12 | | 12 | 12 | | 12 | |
| White Creek at the mouth of Assawoman Canal | 312011 | 12 | | 12 | 12 | | 12 | |
| Assawoman Canal, Rd. 361 | 312041 | 12 | | 12 | 12 | | 12 | |
| <i>Love Creek</i> | | | | | | | | |
| Love Creek, Rd. 277 | 308291 | 12 | | 12 | 12 | | 12 | |
| Bundick's branch at Rt. 23 Bridge (trib. Of Love Crk) | 308371 | 12 | | 12 | 12 | | 12 | |
| <i>Miller Creek</i> | | | | | | | | |
| Beaver Dam Ditch, Rd. 363 Bridge | 310101 | 12 | | 12 | 12 | | 12 | |
| Beaver Dam Ditch at Rt 368 bridge | 310121 | 12 | | 12 | 12 | | 12 | |
| <i>Stockley Branch/Cow Branch/Millsboro Pond/Ingram Pond/Betts Pond</i> | | | | | | | | |
| Cow Bridge Branch Rd. 48 | 308281 | 12 | | 12 | 12 | | 12 | |
| <i>Swan Creek</i> | | | | | | | | |
| Swan Creek, Rd. 304 | 308301 | 12 | | 12 | 12 | | 12 | |
| Swan Creek at Rt. 297 Bridge | 308341 | 12 | | 12 | 12 | | 12 | |
| <i>Vines Creek</i> | | | | | | | | |
| Deep Hole Branch at Rt. 382 Bridge | 308461 | 12 | | 12 | 12 | | 12 | |
| <i>Ocean Boundary Stations</i> | | | | | | | | |
| Canal Rt. 1 | 305011 | 12 | | 12 | 12 | | 12 | |
| Indian River Inlet | 306321 | 12 | | 12 | 12 | | 12 | |

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>Boat Run Stations</i> | | | | | | | | |
| Buoy 3 | 306071 | 12 | | 12 | 12 | | 12 | |
| Buoy 7 RHB | 306091 | 12 | | 12 | 12 | | 12 | |
| Masseys | 306111 | 12 | | 12 | 12 | | 12 | |
| Buoy 20 IRB | 306121 | 12 | | 12 | 12 | | 12 | |
| Buoy 26 IRB | 306131 | 12 | | 12 | 12 | | 12 | |
| Buoy 38 IRB | 306161 | 12 | | 12 | 12 | | 12 | |
| Buoy 49 IRB | 306181 | 12 | | 12 | 12 | | 12 | |
| Buoy 55 IRB | 306191 | 12 | | 12 | 12 | | 12 | |
| Island Cr | 306331 | 12 | | 12 | 12 | | 12 | |
| Island Creek, upper third | 306341 | 12 | | 12 | 12 | | 12 | |
| Little Assawoman Mid-Bay | 310071 | 12 | | 12 | 12 | | 12 | |
| <i>Atlantic Ocean</i> | | | | | | | | |
| Rehoboth Beach | 402011 | 6 | | 6 | 6 | | 6 | |
| Bethany Beach | 402031 | 6 | | 6 | 6 | | 6 | |
| 1.5 miles offshore, 1 Mile N of IR Inlet | 402041 | 6 | | 6 | 6 | | 6 | |
| 1.5 miles offshore, 1 Mile S of IR Inlet | 402051 | 6 | | 6 | 6 | | 6 | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Piedmont Basin | | | | | | | | |
| <i>Brandywine Creek</i> | | | | | | | | |
| Foot Bridge | 104011 | 12 | | 12 | | | | |
| Rd. 279 Bridge (USGS gage 01481500) | 104021 | 12 | | 12 | | | | |
| Smith Bridge | 104051 | 12 | | 12 | | | | |
| Brandywine Creek, .6 miles upstream of the confluence with Christina River | 104081 | 12 | | | | | | |
| <i>Christina River</i> | | | | | | | | |
| Rt. 13/Rt. 9 Bridge | 106011 | 12 | | 12 | | | | |
| Rt. 141, Newport (USGS tide gage 01480065) | 106021 | 12 | | 12 | | | | |
| Smalley's Dam Spillway | 106031 | 12 | | 12 | | | | |
| Old Baltimore Pike, Below Newark (USGS gage 01478000) | 106141 | 12 | | 12 | | | | ✓ |
| Rt. 273, Above Newark | 106191 | 12 | | 12 | | | | |
| Little Mill Creek, Atlantic Avenue (USGS Gage 01480095) | 106281 | 12 | | 12 | | | | |
| Conrail Br. (USGS tide gage 01481602) | 106291 | 12 | | 12 | | | | ✓ |
| <i>Naamans Creek</i> | | | | | | | | |
| Naamans Creek at Naamans road | 101021 | 6 | | | | | | |
| Naamans Creek South Branch | 101031 | 6 | | | | | | |
| Rt. 13A | 101041 | 6 | | | | | | ✓ |
| <i>Red Clay Creek</i> | | | | | | | | |
| Stanton, Rt. 4 (USGS gage 01480015) | 103011 | 12 | | 12 | | | | ✓ |
| Wooddale, Rt. 8 (USGS gage 01480000) | 103031 | 12 | | 12 | | | | |
| Ashland, Rd. 258a | 103041 | 12 | | 12 | | | | |
| Burrough's Run Confluence | 103061 | 12 | | 12 | | | | ✓ |
| <i>Shellpot Creek</i> | | | | | | | | |
| Shellpot Creek at Rt. 13 (Governor Printz Boulevard) Bridge | 102011 | 12 | | | | 12 | | ✓ |
| Shellpot Creek, Cherry Island at Rt. 501 Bridge | 102041 | 12 | | | | 12 | | |
| Stoney Creek at Rt. 13 | | | 12 | | | 12 | | |
| <i>White Clay Creek</i> | | | | | | | | |
| Stanton, Old Rt. 7 Bridge | 105011 | 12 | | 12 | | | | |
| Chambers Rock Rd. | 105031 | 12 | | 12 | | | | ✓ |
| Mill Creek Confluence above Rt. 4 at Delaware Park | 105071 | 12 | | 12 | | | | |
| Pike Creek Confluence, Upper Pike Creek Rd. | 105101 | 12 | | 12 | | | | ✓ |
| Middle Run Confluence, Possum Park Rd. | 105131 | 12 | | 12 | | | | |
| DE Park Race Track (USGS gage 01479000) | 105151 | 12 | | 12 | | | | ✓ |
| White Clay Creek, at the end of McKees Lane | 105171 | 12 | | 12 | | | | |
| Pike Creek at Paper Mill Road Bridge | 105181 | 12 | | | | | | |
| 0.8 miles upstream of confluence with Christina River | 105161 | 12 | | | | | | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Chesapeake Bay Basin | | | | | | | | |
| <i>Chester River</i> | | | | | | | | |
| Sewell Branch at Rd. 95 | 112021 | 6 | | | | | | |
| Gravelly Run at Stilltown Rd. | 112031 | 6 | | | | | | |
| <i>Choptank River</i> | | | | | | | | |
| Cow marsh creek at Rd. 208 | 207021 | 6 | | | | | | |
| Tappahanna Ditch at Rd. 222 | 207081 | 6 | | | | | | |
| Culbreth Marsh at Rd. 210 | 207091 | 6 | | | | | | |
| White marsh branch at Rd. 268 | 207111 | 6 | | | | | | |
| <i>Marshyhope Creek</i> | | | | | | | | |
| Rt. 404 Bridge | 302021 | 6 | | | | | | |
| Marshyhope Creek at Fishers Bridge Road (Rt. 308) Bridge, the site of USGS gaging station 01488500 | 302031 | 12 | | | | | | |
| <i>Nanticoke River Sub-Basin</i> | | | | | | | | |
| Sharptown | 304011 | 12 | | 12 | 12 | | | |
| Buoy 45 State line | 304071 | 12 | | 12 | 12 | | | |
| Buoy 51 (Conf. Broad Creek) | 304091 | 12 | | 12 | 12 | | | |
| Buoy 66 (Conf. DuPont Gut) | 304151 | 12 | | 12 | 12 | | | |
| Seaford STP Discharge | 304461 | 12 | | 12 | 12 | | | |
| <i>Nanticoke Tributary Stations</i> | | | | | | | | |
| Middleford Bridge | 304041 | 12 | | 12 | 12 | | | |
| Rd 545 Mainstem Nanticoke | 304191 | 12 | | 12 | 12 | | | |
| Nanticoke @ Rt 600 Bridge | 304291 | 12 | | 12 | 12 | | | |
| Concord Pond Overflow | 304311 | 12 | | 12 | 12 | | | |
| Williams Pond Overflow | 304321 | 12 | | 12 | 12 | | | |
| Bucks Branch at Rd. 546 | 304381 | 12 | | 12 | 12 | | | |
| Rt 13 Bridge | 304471 | 12 | | 12 | 12 | | | |
| Raccoon Prong at RT 66 | 307371 | 12 | | 12 | 12 | | | |
| Records Pond Overflow | 307011 | 12 | | 12 | 12 | | | |
| Horsey Pond Overflow | 307171 | 12 | | 12 | 12 | | | |
| Rd 525 Gravelly Branch | 316011 | 12 | | 12 | 12 | | | |
| <i>Gum Branch</i> | | | | | | | | |
| Gum Branch at RT 591 | 304661 | 6 | | | | | | |
| <i>Pocomoke</i> | | | | | | | | |
| Pocomoke River at Rt. 419 Bridge | 313011 | 6 | | | | | | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|---|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| Delaware Bay Drainage | | | | | | | | |
| Appoquinimink River | | | | | | | | |
| Silver Lake, Rd 442* (inflow) | 109031 | 12 | | 12 | 12 | | | |
| Rt 13 Bridge | 109041 | 12 | | 12 | 12 | | | |
| Rt 299 Bridge, Odessa | 109051 | 12 | | 12 | 12 | | | |
| Drawyer Creek, Rt 13 | 109071 | 12 | | 12 | 12 | | | |
| Confluence with Delaware River | 109091 | 12 | | 12 | 12 | | | |
| Rt 9 Bridge | 109121 | 12 | | 12 | 12 | | | |
| Noxontown Pond, Rd 38* (Upstream of pond) | 109131 | 12 | | 12 | 12 | | | |
| Mouth of East Br. Drawyer Ck. | 109141 | 12 | | 12 | 12 | | | |
| Above West Br. Drawyer Creek | 109151 | 12 | | 12 | 12 | | | |
| MOT Gut (Appo Gut)-West bank | 109171 | 12 | | 12 | 12 | | | |
| Shallcross Lake Overflow | 109191 | 12 | | 12 | 12 | | | |
| Army Creek | | | | | | | | |
| Rt. 9 | 114011 | 6 | | | | | | |
| Rt. 13 bridge | 114021 | 6 | | | | | | |
| Blackbird Creek | | | | | | | | |
| Rt. 13 Bridge (northern Branch) | 110021 | 6 | | | | | | |
| Rt. 9 Taylors bridge | 110041 | 6 | | | | | | |
| Broadkill River | | | | | | | | |
| Ingram Branch at Rd. 246 | 303011 | 6 | | | | | | |
| Ingram Branch at Rd 248 | 303021 | 6 | | | | | | |
| Broadkill River at Rt. 5 Br | 303031 | 6 | | | | | | |
| Rt. 1 bridge (mainstem) | 303041 | 6 | | | | | | |
| Red Mill Pond at Rt. 1 | 303051 | 6 | | | | | | |
| Beaverdam Creek at Rd. 88 | 303171 | 6 | | | | | | |
| Beaverdam Creek at Rd 259 | 303181 | 6 | | | | | | |
| Trib. to Red Mill Pond | 303231 | 6 | | | | | | |
| Round Pole Branch at Rd. 88 | 303311 | 6 | | | | | | |
| Waples Pond at Rt. 1 | 303331 | 6 | | | | | | |
| Pemberton Branch at Rt.30 | 303341 | 6 | | | | | | |
| Waggamons Pond outlet | 303351 | 6 | | | | | | |
| Sowbridge Branch at Rd. 212 | 303381 | 6 | | | | | | |
| Ingrams Branch at Rt. 30 | 303481 | 6 | | | | | | |
| C & D Canal | | | | | | | | |
| St. Georges Bridge | 108021 | 6 | | | | | | |
| Summit Bridge | 108031 | 6 | | | | | | |
| Lums Pond boat ramp | 108111 | 6 | | | | | | |
| Cedar Creek | | | | | | | | |
| Cedar Creek at Rd. 212 | 301021 | 6 | | | | | | |
| Rt. 1 Bridge | 301031 | 6 | | | | | | |
| Cedar Creek at Rt. 36 br. | 301091 | 6 | | | | | | |
| Delaware Bay | | | | | | | | |
| Roosevelt Inlet | 401011 | 6 | | | | | | |
| Primehook Beach | 401021 | 6 | | | | | | |
| Fowlers Beach | 401031 | 6 | | | | | | |
| Big Stone Beach | 401061 | 6 | | | | | | |
| Murderkill Jetty | 401081 | 6 | | | | | | |
| Little River | 401101 | 6 | | | | | | |
| Dragon Run | | | | | | | | |
| Rt. 9 Bridge | 111011 | 6 | | | | | | |
| Rt. 13 Bridge (flow at Rd. 407) | 111031 | 6 | | | | | | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>Leipsic River</i> | | | | | | | | |
| Rd. 42 bridge | 202011 | 6 | | | | | | |
| Rt. 13 bridge | 202021 | 6 | | | | | | |
| Leipsic River at Rt. 9 | 202031 | 6 | | | | | | |
| Rt. 42 | 202041 | 6 | | | | | | |
| <i>Little River</i> | | | | | | | | |
| Postal Corner Road (rd 348) | 204011 | 6 | | | | | | |
| Rt. 9 bridge | 204031 | 6 | | | | | | |
| Rt. 8 bridge | 204041 | 6 | | | | | | |
| <i>Mispillion River</i> | | | | | | | | |
| Haven Lake at Rt. 113 | 208011 | 6 | | | | | | |
| Rt. 1 Bridge | 208021 | 6 | | | | | | |
| Misspillion River 0.43 miles from mouth at lighthouse | 208061 | 6 | | | | | | |
| Misspillion River 4.64 miles from mouth | 208101 | 6 | | | | | | |
| Misspillion River 7.14 miles from mouth | 208121 | 6 | | | | | | |
| Abbotts Pond at Rd.620 | 208181 | 6 | | | | | | |
| Blairs Pond off Rd 443, at the Boat Ramp | 208191 | 6 | | | | | | |
| Rt. 36 Silver Lake | 208211 | 6 | | | | | | |
| Rt. 384 Beaverdam Branch ** | 208231 | 6 | | | | | | |
| <i>Murderkill River</i> | | | | | | | | |
| Murderkill River at US Rt. 13 Bridge (below Felton) | 206011 | 12 | | 12 | 12 | | | |
| Murderkill River, Browns Branch at Rt. 14 Bridge | 206041 | 12 | | 12 | 12 | | | |
| Murderkill River, Browns Branch at Rd. 384 Bridge | 206051 | 12 | | 12 | 12 | | | |
| Murderkill River, Andrews Lake at Rd. 380 Bridge | 206071 | 12 | | 12 | 12 | | | |
| Murderkill River, Spring Creek at Rt. 12 Bridge | 206081 | 12 | | 12 | 12 | | | |
| Murderkill River, US Rt. 113 | 206091 | 12 | | 12 | 12 | | | |
| Murderkill River at Bowers Beach Wharf | 206101 | 12 | | 12 | 12 | | | |
| Murderkill River at Webb Landing (1.25 miles from the mouth) | 206131 | 12 | | 12 | 12 | | | |
| Murderkill River, 3.25 miles from the mouth | 206141 | 12 | | 12 | 12 | | | |
| Murderkill River at conf. of Kent County STP trib. | 206231 | 12 | | 12 | 12 | | | |
| Murderkill River, McCauley Pond near spillway | 206361 | 12 | | 12 | 12 | | | |
| Murderkill River, Coursey pond at Rd. 388 Bridge | 206451 | 12 | | 12 | 12 | | | |
| Murderkill River, Hudson Branch, McGinnis Pond | 206461 | 12 | | 12 | 12 | | | |
| Murderkill River, Double Run at Rt. 371 Bridge | 206561 | 12 | | 12 | 12 | | | |
| <i>Red Lion Creek</i> | | | | | | | | |
| Red Lion Creek at Rt. 7 | 107011 | 6 | | | | | | |
| Rt. 9 Bridge | 107031 | 6 | | | | | | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|-------------------------------|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>Smyrna River</i> | | | | | | | | |
| Rt. 137 Bridge | 201021 | 6 | | | | | | |
| Rt. 9 Flemmings Landing | 201041 | 6 | | | | | | |
| Rt. 485 Bridge | 201051 | 6 | | | | | | |
| Rt. 482 Bridge | 201161 | 6 | | | | | | |
| <i>St. Jones River</i> | | | | | | | | |
| Barkers Landing | 205041 | 6 | | | | | | |
| Rt. 10 Bridge | 205091 | 6 | | | | | | |
| Rd. 69 State College | 205151 | 6 | | | | | | |
| Rt. 13 Alt. Moores Lake | 205181 | 6 | | | | | | |
| Silver Lake Spillway | 205191 | 6 | | | | | | |
| Derby Pond at Rt. 13A | 205211 | 6 | | | | | | |
| Rt. 13 North Moores Lake | 205241 | 6 | | | | | | |
| Division Street ** | 205571 | 6 | | | | | | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>Inland Bays</i> | | | | | | | | |
| <i>Inland Bays Sub-basin Survey</i> | | | | | | | | |
| <i>Tributary Stations</i> | | | | | | | | |
| Burton Pond, Rd. 24 | 308031 | 12 | | 12 | 12 | | 12 | |
| Millsboro Dam Overflow | 308071 | 12 | | 12 | 12 | | 12 | |
| Pepper Creek at Rt. 26 Bridge | 308091 | 12 | | 12 | 12 | | 12 | |
| Blackwater creek at Rd 54 | 308361 | 12 | | 12 | 12 | | 12 | |
| Derrickson Creek, Rd. 381 | 310031 | 12 | | 12 | 12 | | 12 | |
| <i>Bunting Branch</i> | | | | | | | | |
| Bunting Branch at Rt. 54 | 311041 | 12 | | | | | | |
| <i>Guinea Creek</i> | | | | | | | | |
| Guinea Creek at Rt. 298 Bridge | 308051 | 12 | | 12 | 12 | | 12 | |
| <i>Iron Branch</i> | | | | | | | | |
| Iron Branch at Rt. 113 Bridge | 309021 | 12 | | 12 | 12 | | 12 | |
| Whartons Branch at Rt. 334 Bridge | 309041 | 12 | | 12 | 12 | | 12 | |
| <i>Lewes and Rehoboth Canal</i> | | | | | | | | |
| Lewes and Rehoboth Canal at Rt. 18 Bridge | 305041 | 12 | | 12 | 12 | | 12 | |
| Munchy Branch | 305081 | 12 | | 12 | 12 | | 12 | |
| <i>Little Assawoman Canal</i> | | | | | | | | |
| Little Assawoman Bay Ditch at Rd. 58 Bridge | 310011 | 12 | | 12 | 12 | | 12 | |
| White Creek at the mouth of Assawoman Canal | 312011 | 12 | | 12 | 12 | | 12 | |
| Assawoman Canal, Rd. 361 | 312041 | 12 | | 12 | 12 | | 12 | |
| <i>Love Creek</i> | | | | | | | | |
| Love Creek, Rd. 277 | 308291 | 12 | | 12 | 12 | | 12 | |
| Bundick's branch at Rt. 23 Bridge (trib. Of Love Crk) | 308371 | 12 | | 12 | 12 | | 12 | |
| <i>Miller Creek</i> | | | | | | | | |
| Beaver Dam Ditch, Rd. 363 Bridge | 310101 | 12 | | 12 | 12 | | 12 | |
| Beaver Dam Ditch at Rt 368 bridge | 310121 | 12 | | 12 | 12 | | 12 | |
| <i>Stockley Branch/Cow Branch/Millsboro Pond/Ingram Pond/Betts Pond</i> | | | | | | | | |
| Cow Bridge Branch Rd. 48 | 308281 | 12 | | 12 | 12 | | 12 | |
| <i>Swan Creek</i> | | | | | | | | |
| Swan Creek, Rd. 304 | 308301 | 12 | | 12 | 12 | | 12 | |
| Swan Creek at Rt. 297 Bridge | 308341 | 12 | | 12 | 12 | | 12 | |
| <i>Vines Creek</i> | | | | | | | | |
| Deep Hole Branch at Rt. 382 Bridge | 308461 | 12 | | 12 | 12 | | 12 | |

Table 2: Station Locations, Descriptions and Parameters

| Station Information | Storet Number | Station Type | | Monitor for Metals Criteria | | | Other Parameters and Testing | |
|--|---------------|--------------|--------------------|-----------------------------|------------------------------|------|------------------------------|------------|
| | | GAMN | Special Monitoring | Copper Lead Zinc* | Arsenic (III) Chromium (VI)* | Iron | DIP and DIN* | Data Sonde |
| <i>Ocean Boundary Stations</i> | | | | | | | | |
| Canal Rt. 1 | 305011 | 12 | | 12 | 12 | | 12 | |
| Indian River Inlet | 306321 | 12 | | 12 | 12 | | 12 | |
| <i>Boat Run Stations</i> | | | | | | | | |
| Buoy 3 | 306071 | 12 | | 12 | 12 | | 12 | |
| Buoy 7 RHB | 306091 | 12 | | 12 | 12 | | 12 | |
| Masseys | 306111 | 12 | | 12 | 12 | | 12 | |
| Buoy 20 IRB | 306121 | 12 | | 12 | 12 | | 12 | |
| Buoy 26 IRB | 306131 | 12 | | 12 | 12 | | 12 | |
| Buoy 38 IRB | 306161 | 12 | | 12 | 12 | | 12 | |
| Buoy 49 IRB | 306181 | 12 | | 12 | 12 | | 12 | |
| Buoy 55 IRB | 306191 | 12 | | 12 | 12 | | 12 | |
| Island Cr | 306331 | 12 | | 12 | 12 | | 12 | |
| Island Creek, upper third | 306341 | 12 | | 12 | 12 | | 12 | |
| Little Assawoman Mid-Bay | 310071 | 12 | | 12 | 12 | | 12 | |
| <i>Atlantic Ocean</i> | | | | | | | | |
| Rehoboth Beach | 402011 | 6 | | 6 | 6 | | 6 | |
| Bethany Beach | 402031 | 6 | | 6 | 6 | | 6 | |
| 1.5 miles offshore, 1 Mile N of IR Inlet | 402041 | 6 | | 6 | 6 | | 6 | |
| 1.5 miles offshore, 1 Mile S of IR Inlet | 402051 | 6 | | 6 | 6 | | 6 | |

Table 3 Water Quality Parameters to be analyzed at all Stations in the Monitoring Network, FY 2007

| <i>Parameter</i> | <i>Method Reference (EPA)</i> | <i>Reporting Level¹</i> |
|---|-------------------------------|------------------------------------|
| <i>Water Column Nutrients</i> | | |
| Total Phosphorus | EPA365.1 M | 0.005 mg/l P |
| Soluble Ortho-phosphorus | EPA365.1 | 0.005 mg/l P |
| Ammonia Nitrogen | EPA350.1 | 0.005 mg/l N |
| Nitrite+Nitrate N | EPA353.2 | 0.005 mg/l N |
| Total N | SM 4500 NC | 0.08 mg/l N |
| <i>Carbon and Organics</i> | | |
| Total Organic Carbon | EPA415.1 | 1 mg/l |
| Dissolved Organic Carbon | EPA415.1 | 1 mg/l |
| Chlorophyll-a (Corr) | EPA 445.0 | 1 µg/l |
| <i>Biochemical Oxygen Demand</i> | | |
| BOD ₅ , N-Inhib (CBOD) | SM20 th ed-5210B | 2.4 mg/l |
| BOD ₂₀ , N-Inhib (CBOD) | SM20 th ed-5210B | 2.4 mg/l |
| <i>General</i> | | |
| Dissolved oxygen – Winkler ² | EPA360.2 | 0.25 mg/l |
| Dissolved oxygen – Field | EPA360.1 | 0.1 mg/l |
| Total Suspended Solids | EPA160.2 | 2 mg/l |
| Alkalinity | EPA310.1 | 1 mg/l |
| Hardness | EPA130.2 | 5 mg/l |
| Field pH | EPA150.1 | 0.2 pH units |
| Conductivity – Field | EPA120.1 | 1 µS/cm |
| Salinity | SM20 th ed-2520B | 1 ppt |
| Temperature | EPA170.1 | °C |
| Secchi Depth ³ | EPA/620/R-01/003 | meters |
| Light Attenuation ⁴ | EPA/620/R-01/003 | % |
| Turbidity | EPA180.1 | 1 NTU |
| Chloride | EPA325.2 | 1 mg/l |
| <i>Bacteria</i> | | |
| Enterococcus | SM20 th ed-9230C | 1 cfu/100 ml |

- ¹ As documented in the ELS Quality Assurance Management Plan, the ELS defines the Limit of Quantitation (LOQ) as the lowest standard in the calibration curve or, in instances where a standard curve is not specified by the procedure, LOQ represents the limitations of the method. For those tests where reference spiking material exists, the ELS measures Method Detection Limit (MDL), as defined in the Federal Register 40 CFR Part 136 Appendix B. MDL values are generated or verified once per year. Results less than the MDL are considered to be not detected and “< MDL” is reported. Results greater than the MDL but less than the LOQ are qualified with a J to indicate a result that is extrapolated or estimated. For tests where MDL is not applicable, results less than the LOQ are reported as “< LOQ”, ELS MDLs meet or exceed (i.e. are lower than) the reporting level requirements listed in Table 3.
- ² Secchi Depth to be measured at designated stations.
- ³ Light attenuation to be conducted as practical to obtain correlation with Secchi disk readings

Table 4 Metals Parameters

| <i>Metals (dissolved and total)</i> | <i>Method Reference (EPA)</i> | <i>Reporting Level</i> |
|-------------------------------------|-------------------------------|------------------------|
| Copper | EPA 200.7 M | 5.0 ug/l |
| Lead | EPA 200.7 M | 3.0 ug/l |
| Zinc | EPA 200.7 M | 10 ug/l |
| Arsenic (III) | EPA 200.7 M | 10 ug/l |
| Chromium (hex) - Dissolved | SM13 th ed-117A | 10 ug/l |
| Iron | EPA 200.7 M | 100 ug/l |