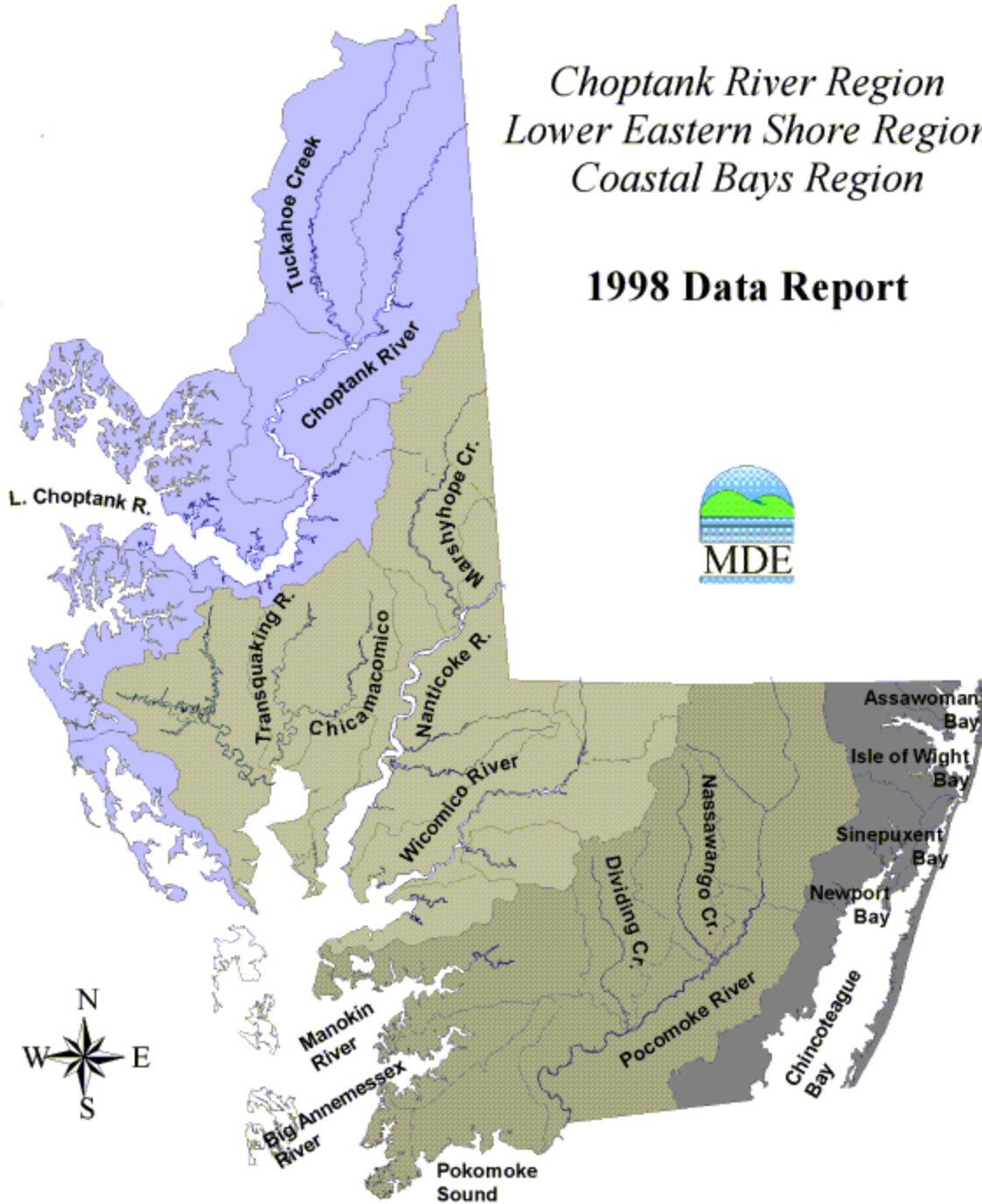


# Maryland's Lower Delmarva Peninsula

*Choptank River Region  
Lower Eastern Shore Region  
Coastal Bays Region*

## 1998 Data Report



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\* The six-digit basin name used by DNR

## **Introduction**

Section 303(d) of the federal Clean Water Act directs states to identify and list waters, known as water quality limited segments (WQLSs), for which technology-based effluent controls of a specified substance are inadequate to achieve water quality standards (40 Code of Federal Regulations 130.7(b)(i - iii)). For each WQLS each state must establish a Total Maximum Daily Load (TMDL). A TMDL establishes the ceiling for the total sum of pollutant loads that a body of water can receive and still meet water quality standards.

As a coordinating framework for Maryland's TMDL program, the Maryland Department of the Environment has developed a whole basin, watershed cycling approach. This approach focuses on protecting Maryland's water quality by developing and implementing TMDLs in a comprehensive fashion, by drainage basin. By adopting drainage basins as the primary management units, MDE addresses the appropriate natural spatial domain and is able to consolidate the necessary resources with sufficient spatial focus.

This report compiles data collected in 1998 (except for the Pokomoke where 1997 data was also used) for the following major watersheds on Maryland's Lower Delmarva Peninsula: Coastal Bays, Choptank, Wicomico, Transquaking/Chicamacomico, Pokomoke, Manokin, and Marshyhope.

## **Maryland's Watershed Cycling Strategy**

Under the whole basin framework, the State is divided into five regions. Monitoring activities are being cycled through these regions over a five-year period (Figure 1). The cycling process was initiated in the Lower Delmarva Peninsula region in 1998. This approach allows a significant amount of resources to be concentrated in 20% of the State at any given time, thereby increasing both the efficient use of resources and the intensity of water quality evaluations.

In each region, MDE collects water quality data for three wet periods (March, April, May) and three dry periods (July, August, September) for use in estimating watershed model loading rates, and for water quality model calibration and validation. Note that these data collection efforts currently focus on characterizing the water body systems (flow, geometry, etc.) and water quality attributes associated with eutrophication problems (i.e., over enrichment with nutrients, causing excessive algal growth, which leads to loss of water clarity and the potential for low dissolved oxygen levels).

Because the five-year cycle repeats itself, the watershed cycling strategy establishes a natural evaluation framework. As the cycle is completed for a given watershed, field monitoring will be conducted again where it was conducted five-years beforehand. This will provide an opportunity to assess the initial results of the TMDL and implementation activities. This watershed cycling framework is endorsed by the federal Environmental Protection Agency (EPA). A similar framework is used by many other states (e.g., Delaware has been using a similar approach for about 4 years).

## Data Collection Methodology

**Table 1**

### **Key Parameters Ascertained by Monitoring within the Watershed Cycling Strategy**

| <b>Parameter</b>           | <b>Units</b>       |
|----------------------------|--------------------|
| Silicate                   | mg/l               |
| Dissolved Organic Carbon   | filtered mg/as C   |
| Particulate Carbon         | mg/l as C          |
| Total Suspended Solids     | mg/l               |
| Particulate Nitrogen       | filtered mg/l as N |
| Ammonia                    | mg/l as N          |
| Nitrate and Nitrite        | filtered mg/l as N |
| Nitrite                    | filtered mg/l N    |
| Total Dissolved Phosphorus | mg/l as P          |
| Orthophosphate             | mg/l as P          |
| Particulate Phosphorus     | mg/l as P          |
| BOD 5 day <sup>1</sup>     | mg/l               |
| Chlorophyll <i>a</i>       | µg/l               |
| Pheophytin <i>a</i>        | mg/l               |
| pH                         | std unit           |
| Dissolved Oxygen           | mg/l               |
| Specific Conductance       | µs/cm              |
| Salinity                   | ppt                |
| Temperature                | degree C           |
| Stream flow                | cfs                |

Field: A network of monitoring sites located on all major tributaries in each watershed was sampled during both high and low flow periods by MDE's Field Monitoring Program to obtain a broad characterization of water quality conditions. Measurements of stream flow were made at the time of each sampling event, using either U.S. Geological Survey gages or in-situ measurements of flow velocity and cross-sectional area.

Laboratory: Standard laboratory methods were used to analyze samples for the constituents included above. All collections are discrete grab samples interval collections using multiple laboratories. Nutrient chemistry is analyzed by the University of Maryland, Chesapeake Biological Laboratory, using their protocols. BOD5, active chlorophyll *a*, and pheophytin are analyzed by the Department of Health and Mental Hygiene. Physical in-situ measurements are done for water and air temperature, dissolved oxygen, conductivity, salinity and pH. Flows are measured at all free flowing "watershed" sites using standard hydrological techniques, primarily the stream segmentation method.

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<sup>1</sup> BOD was not collected at all stations because of lab constraints.

Data Management: The monitoring effort was coordinated with parallel data management activities. The data collected in the field was assembled and verified using standard software maintained for this purpose by the MDE-TARSA Computer Modeling Program. After the data has gone through data QA/QC process it is archived in SAS data sets for future use.

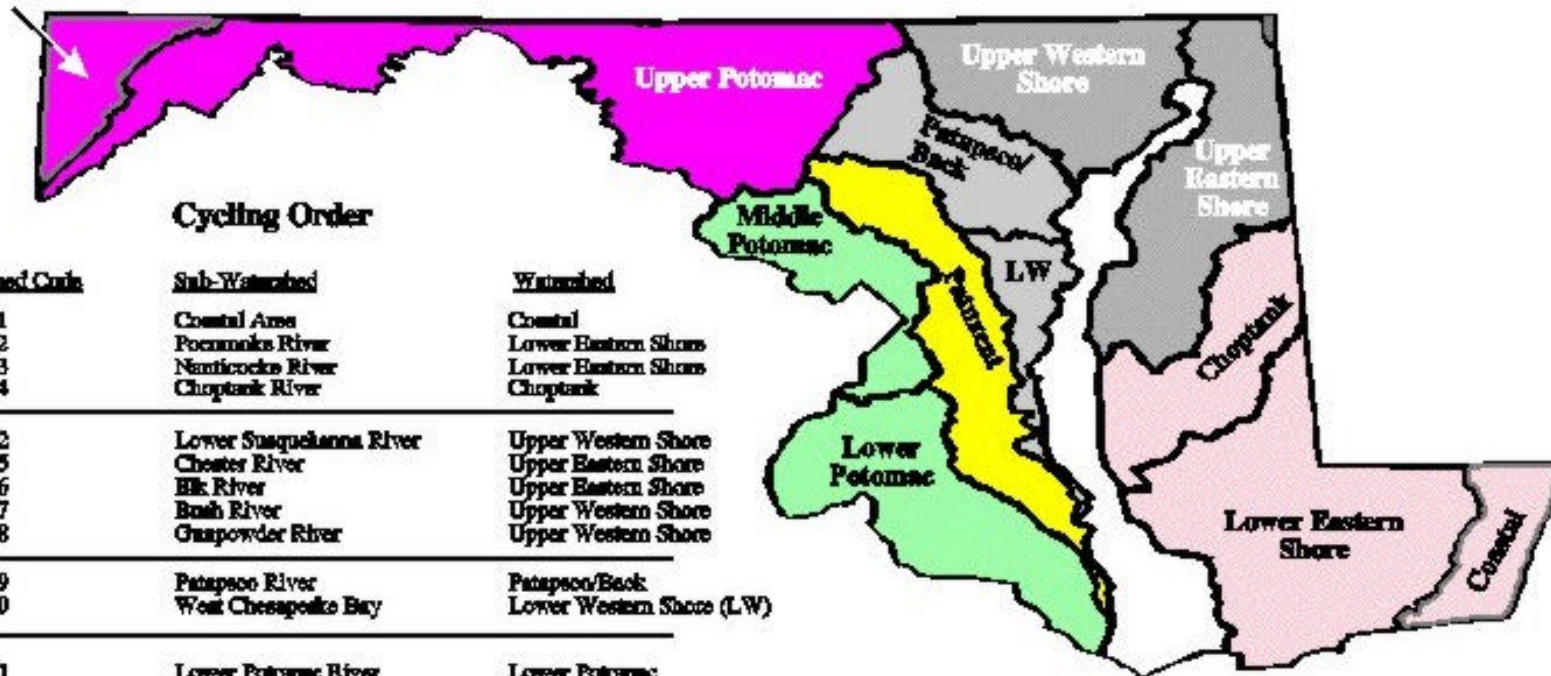
### **Report Organization**

The report is organized by geographic region delineated by three major drainage basins. The Lower Eastern Shore drainage basin consists of the DNR 6-digit watersheds for the Pocomoke River and the Nanticoke River. The other two drainage basins are the DNR 6-digit watersheds for the Choptank River and the Maryland Coastal Bays (see cover page). The cover page shows the smaller 8-digit basins contained within the larger 6-digit basins. This organization is reflected in the Table of Contents which also names basins not mentioned because they were not reported as impaired on Maryland's 303d list.

In general, for each 8-digit basin there is a map with stations, graphical presentations of data, and a station description list. The graphs include the parameters of most interest: chlorophyll *a*, dissolved oxygen, total suspended solids, BOD, dissolved inorganic nitrogen, dissolved inorganic phosphorus, total nitrogen and total phosphorus. Data is presented for the mainstem of the river, high flow (January-May) first and then low flow (July-October) followed by the same presentation for the tributaries. The graphs present data from the mouth of the water body progressively upstream.

# Proposed Regions for the TMDL Watershed 5-Year Cycling Strategy

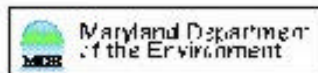
Youghiogheny



## Cycling Order

| <u>Watershed Code</u> | <u>Sub-Watershed</u>       | <u>Watershed</u>         |
|-----------------------|----------------------------|--------------------------|
| 02-13-01              | Coastal Area               | Coastal                  |
| 02-13-02              | Pocomoke River             | Lower Eastern Shore      |
| 02-13-03              | Nanticoke River            | Lower Eastern Shore      |
| 02-13-04              | Choptank River             | Choptank                 |
| 02-12-02              | Lower Susquehanna River    | Upper Western Shore      |
| 02-13-05              | Chester River              | Upper Eastern Shore      |
| 05-13-06              | Elk River                  | Upper Eastern Shore      |
| 02-13-07              | Bash River                 | Upper Western Shore      |
| 02-13-08              | Gunpowder River            | Upper Western Shore      |
| 02-13-09              | Patapsco River             | Patapsco/Back            |
| 02-13-10              | West Chesapeake Bay        | Lower Western Shore (LW) |
| 02-14-01              | Lower Potomac River        | Lower Potomac            |
| 02-14-02              | Washington Metro Area      | Middle Potomac           |
| 02-13-11              | Patuxent River             | Patuxent                 |
| 05-02-02              | Youghiogheny               | Youghiogheny             |
| 02-05-03              | Chesapeake River Creek     | Upper Potomac            |
| 02-14-03              | Middle Potomac River       | Upper Potomac            |
| 02-14-05              | Upper Potomac River        | Upper Potomac            |
| 02-14-10              | North Branch Potomac River | Upper Potomac            |

Figure 1



# Choptank River Region

# Choptank River Area

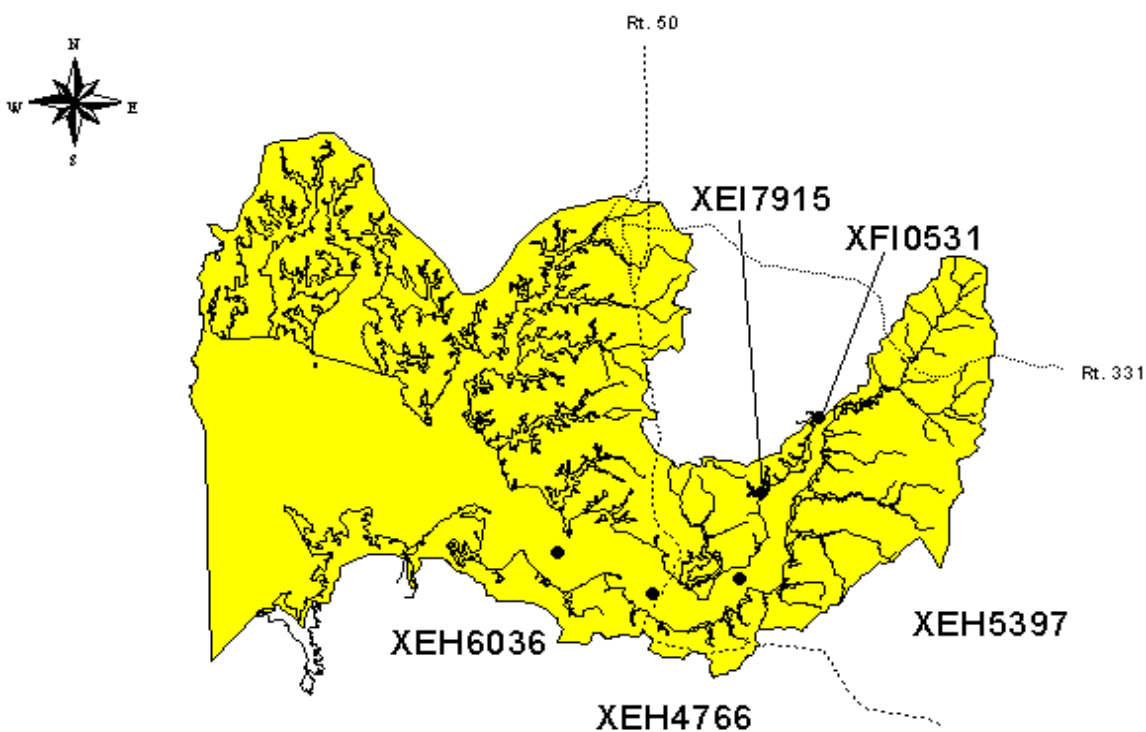
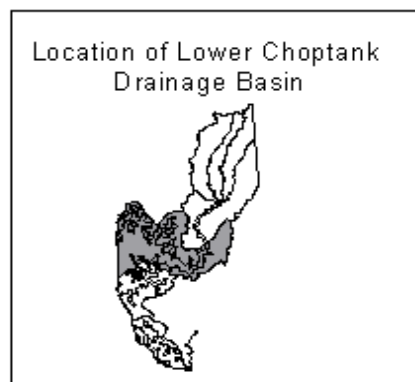
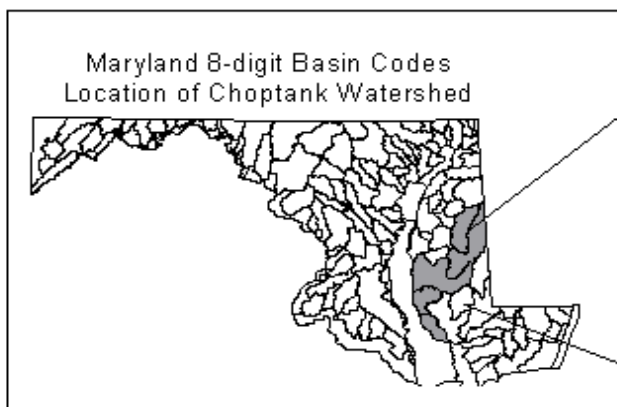
**Lower Choptank River**

**Upper Choptank River**

**Tuckahoe Creek**



# Lower Choptank River Monitoring Stations



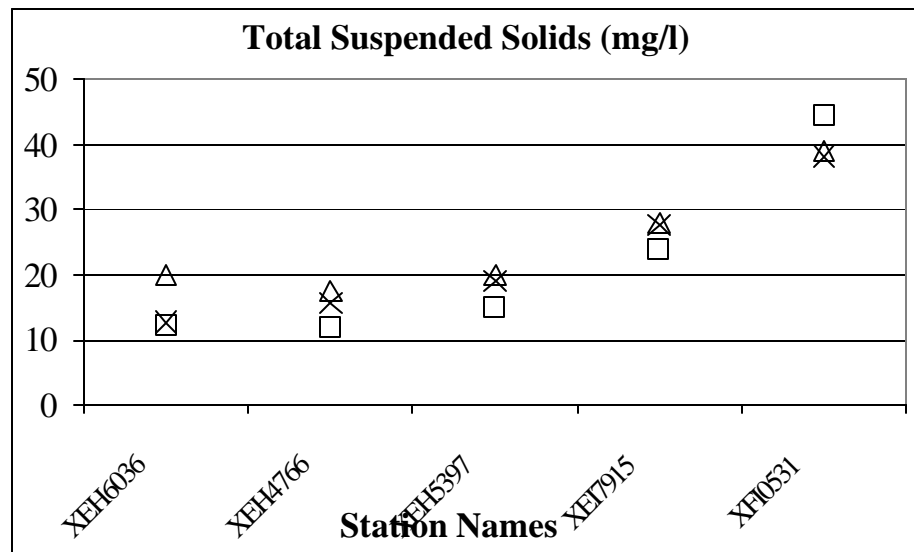
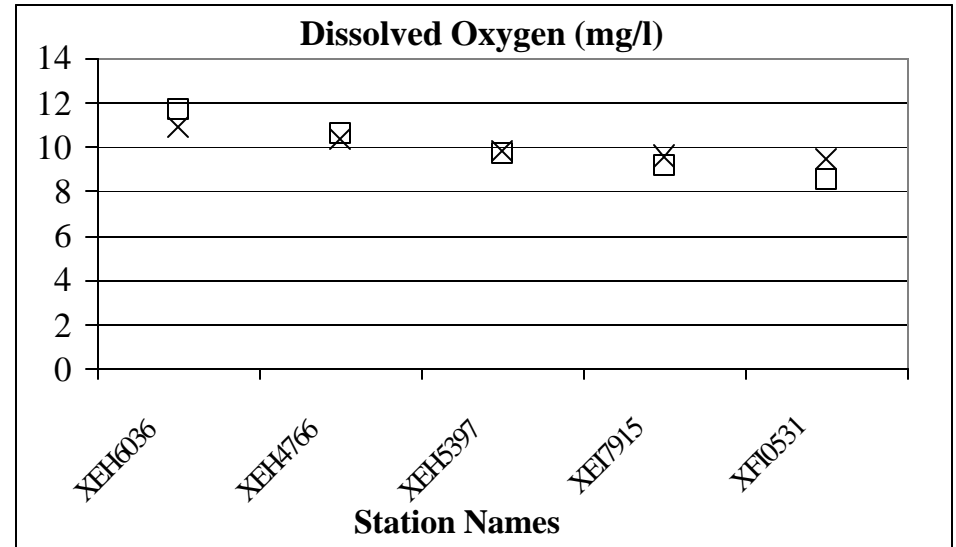
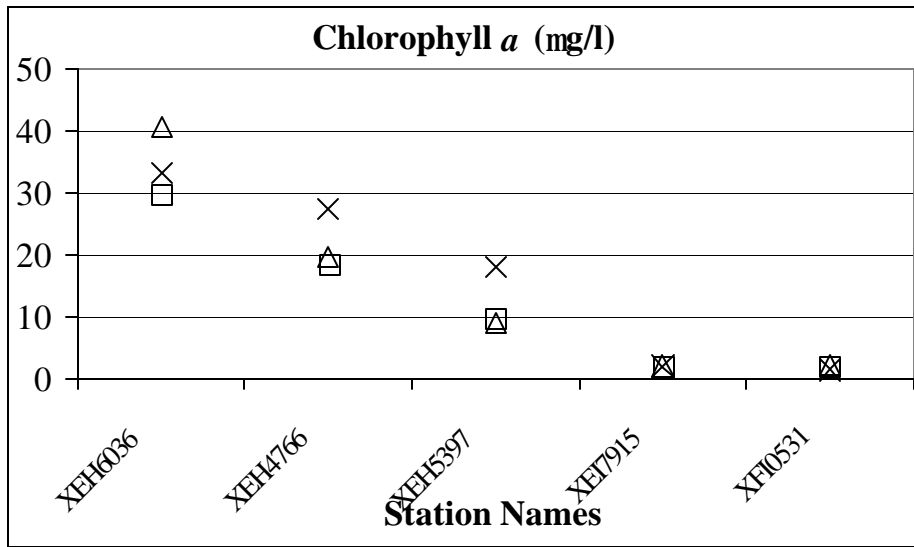
- MDE Monitoring Stations
- Major Roads
- Roads
- Lower Choptank River
- Watershed 02130403

101 2345 Kilometers



**Lower Choptank River**  
 High Flow Conditions (January - May)

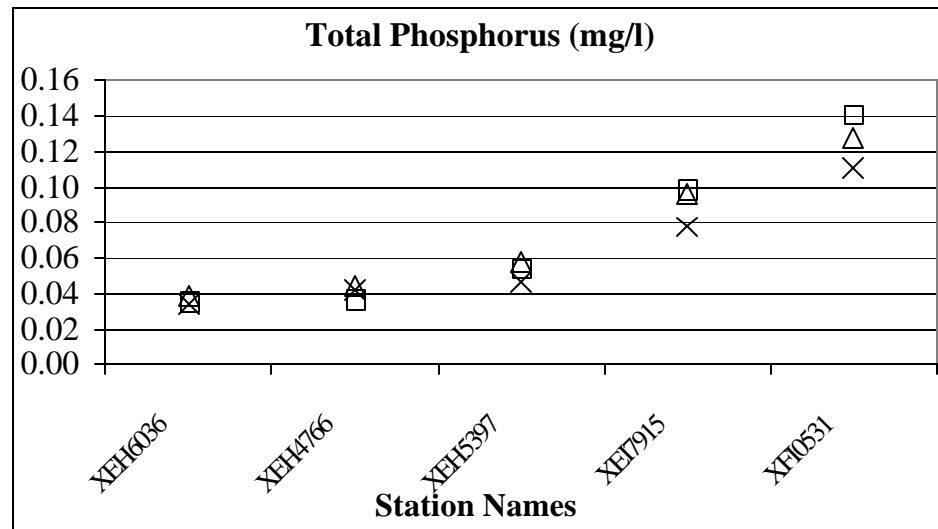
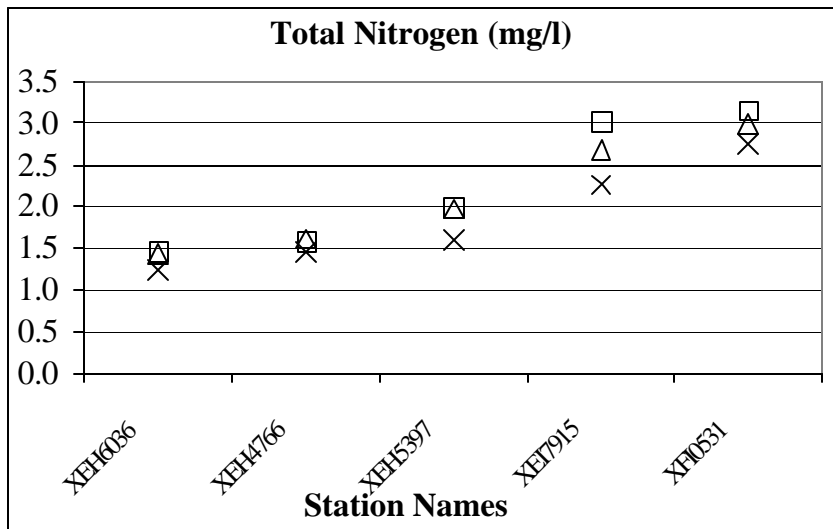
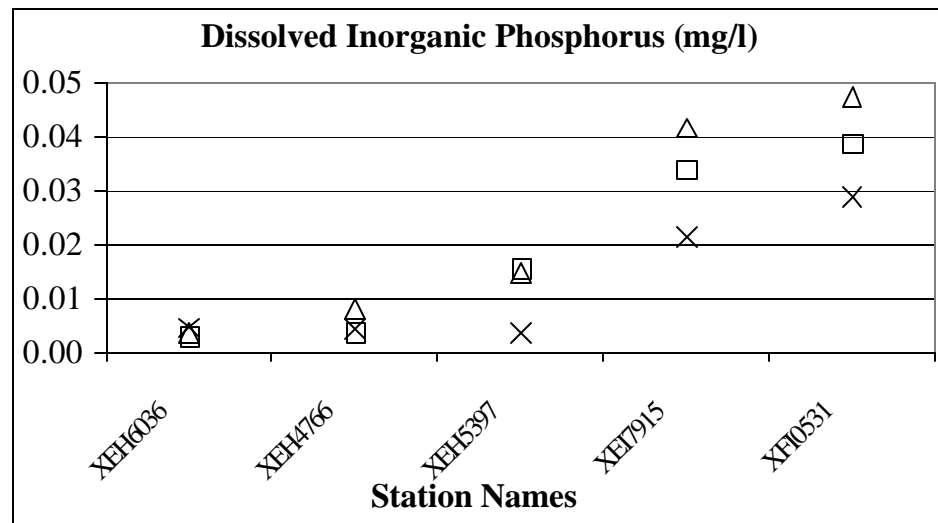
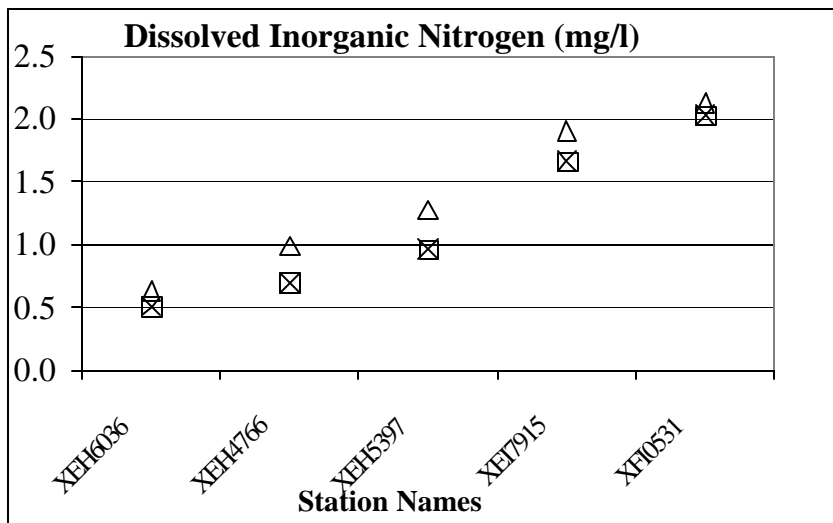
Stations are presented from left to right in downstream to upstream order



x 09-Mar-98      „ 30-Mar-98      Δ 06-Apr-98

**Lower Choptank River**  
 High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

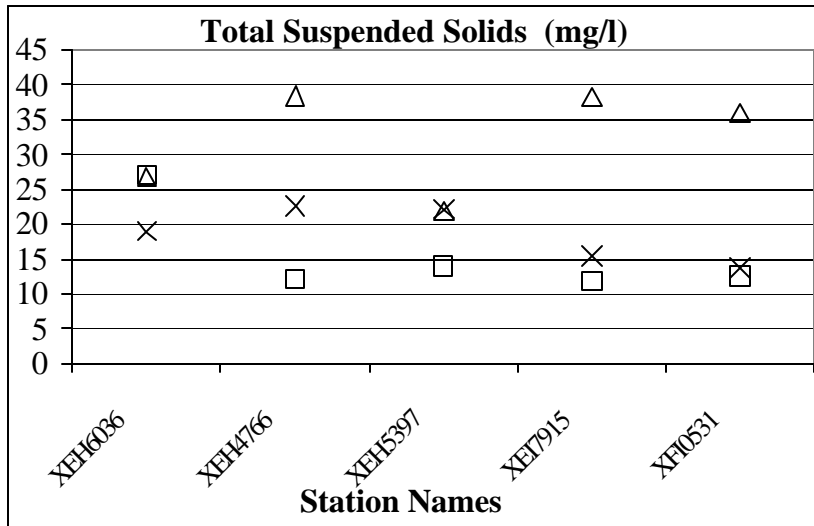
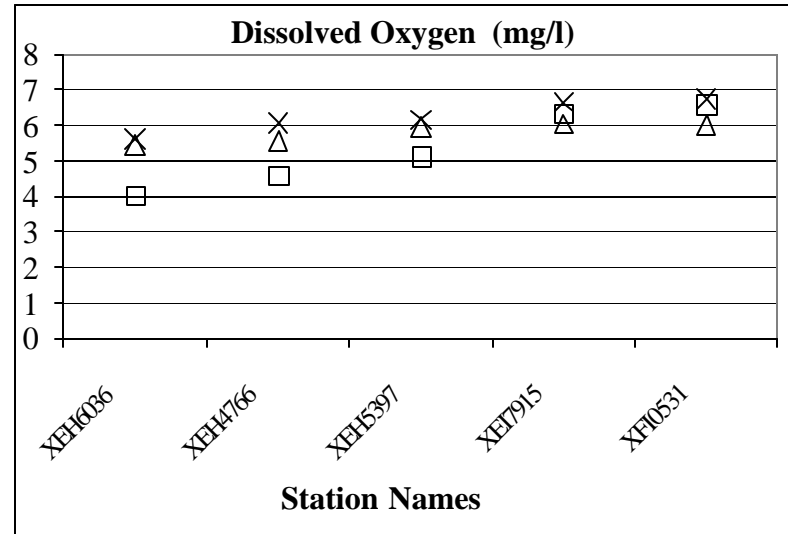
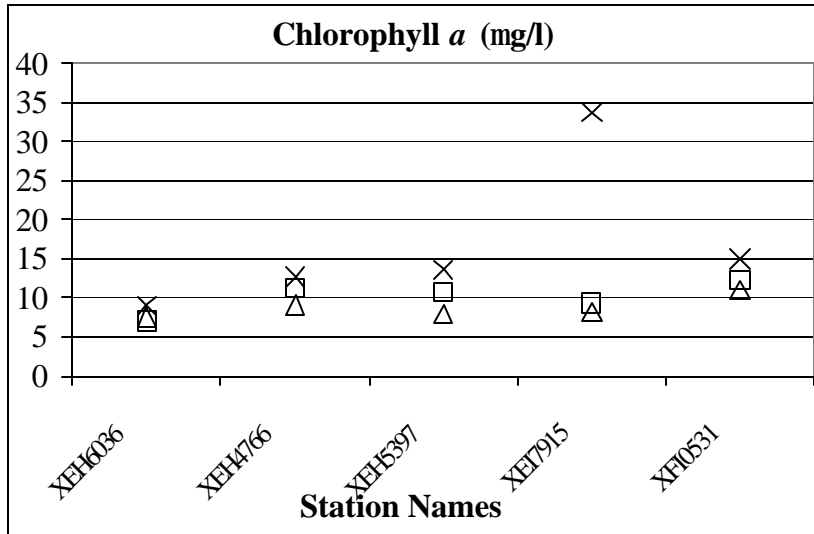


x 09-Mar-98      „ 30-Mar-98      Δ 06-Apr-98

## Lower Choptank River

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

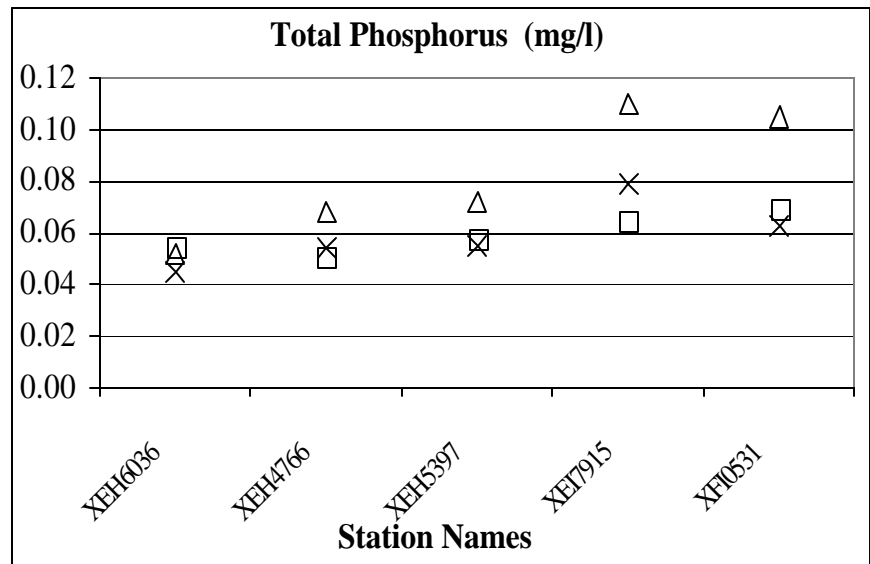
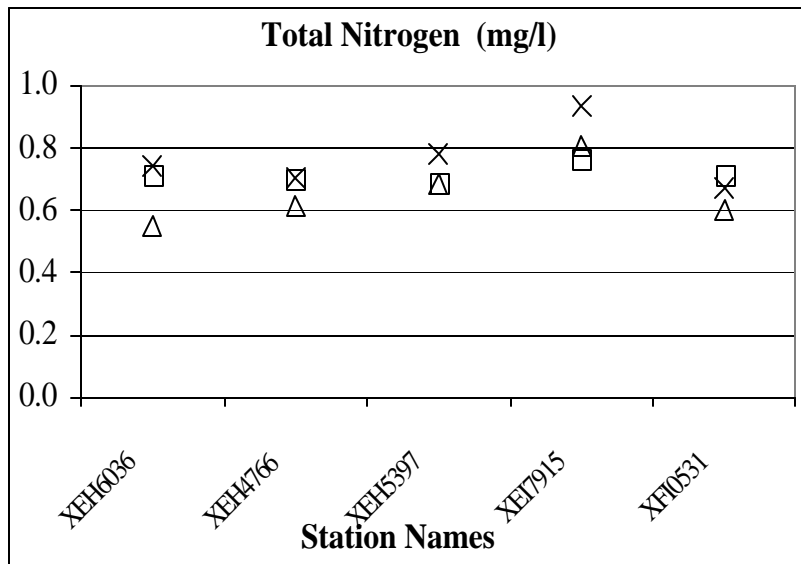
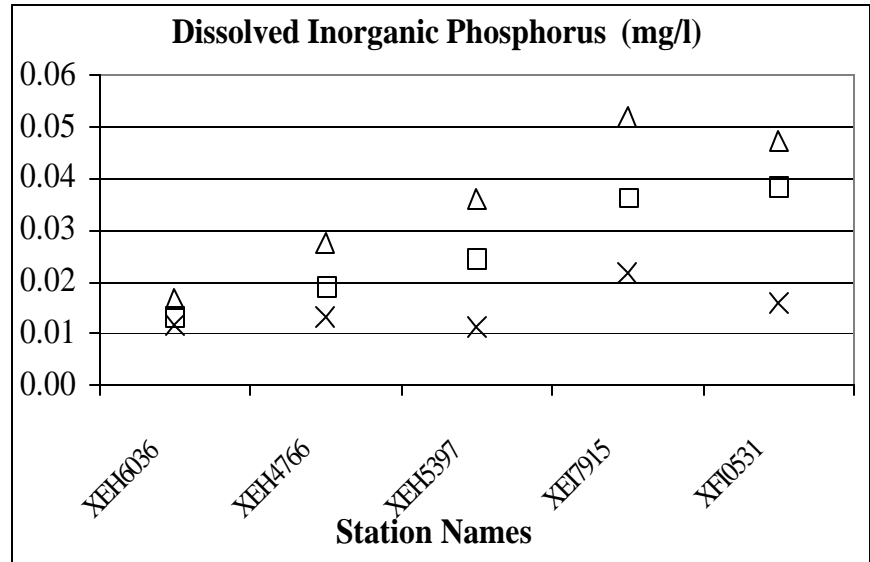
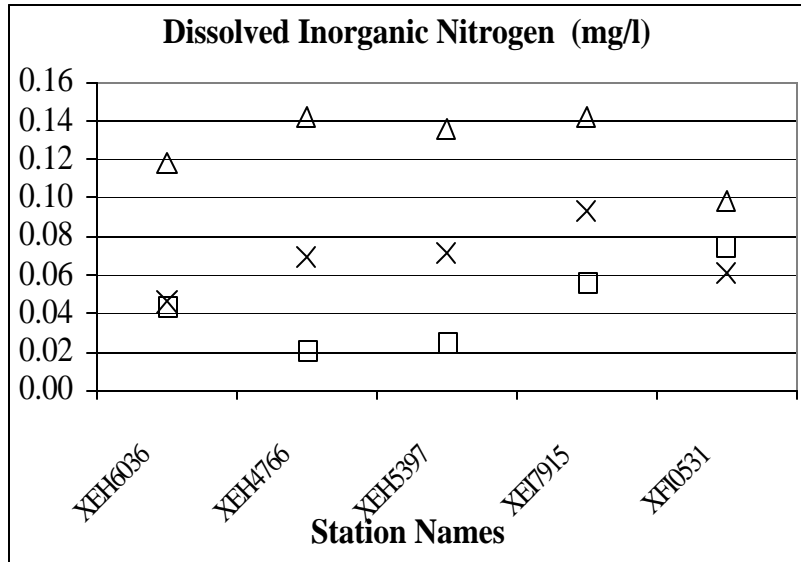


|             |           |             |
|-------------|-----------|-------------|
| x 13-Jul-98 | 04-Aug-98 | Δ 08-Sep-98 |
|-------------|-----------|-------------|

## Lower Choptank River

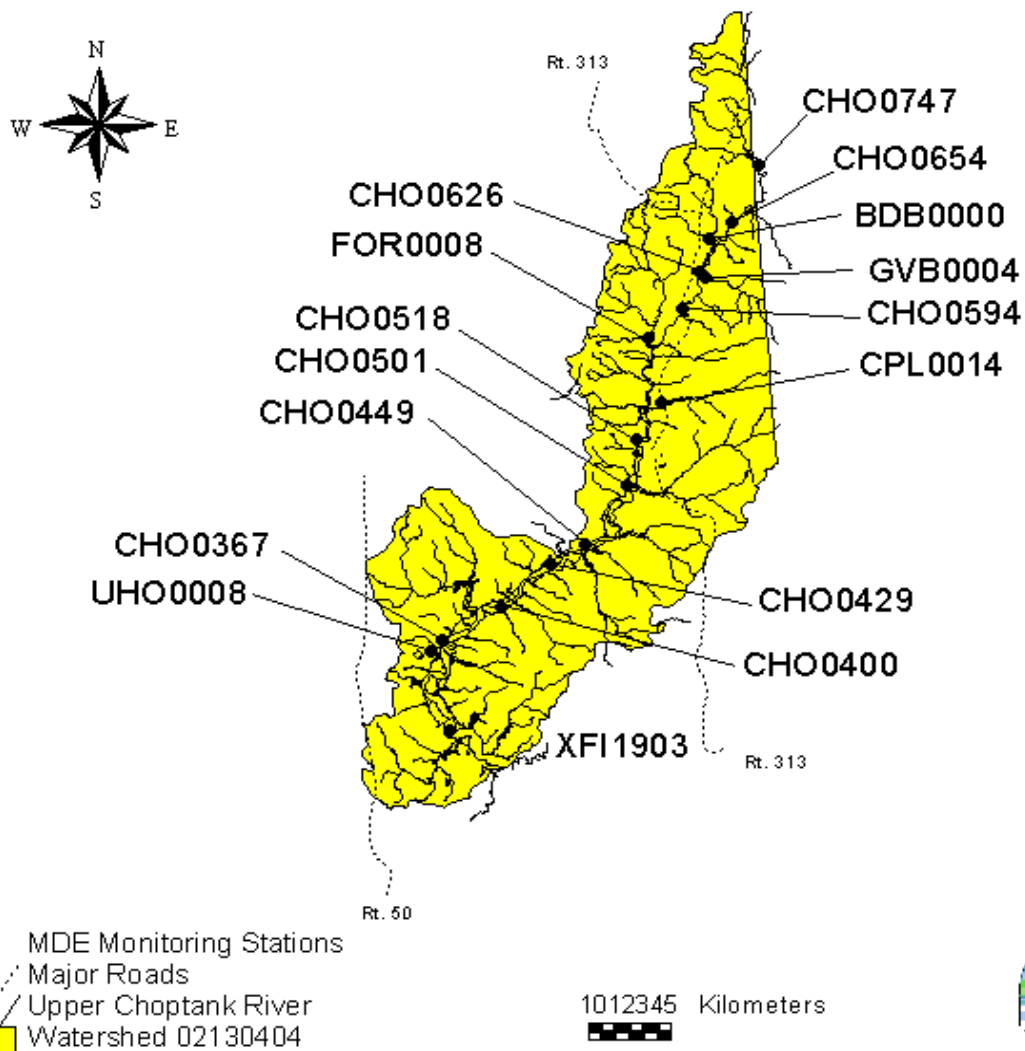
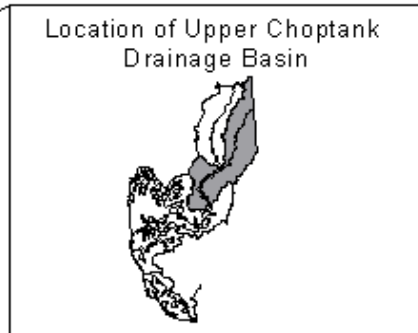
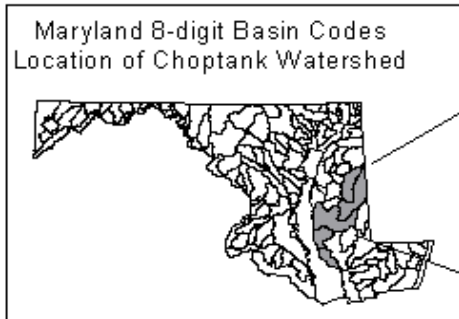
Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

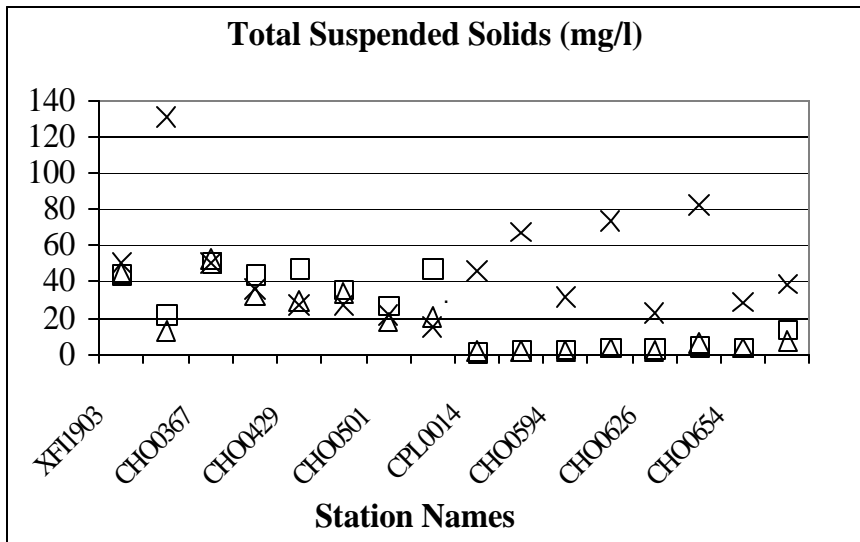
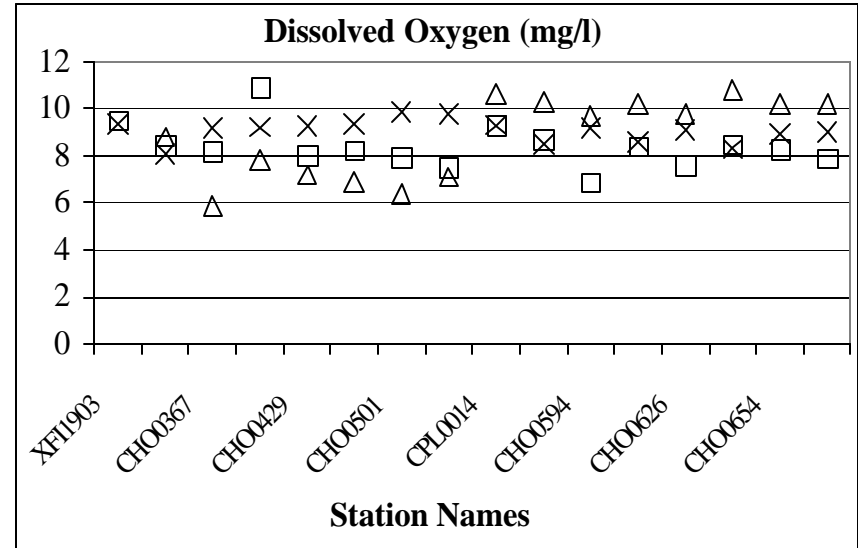
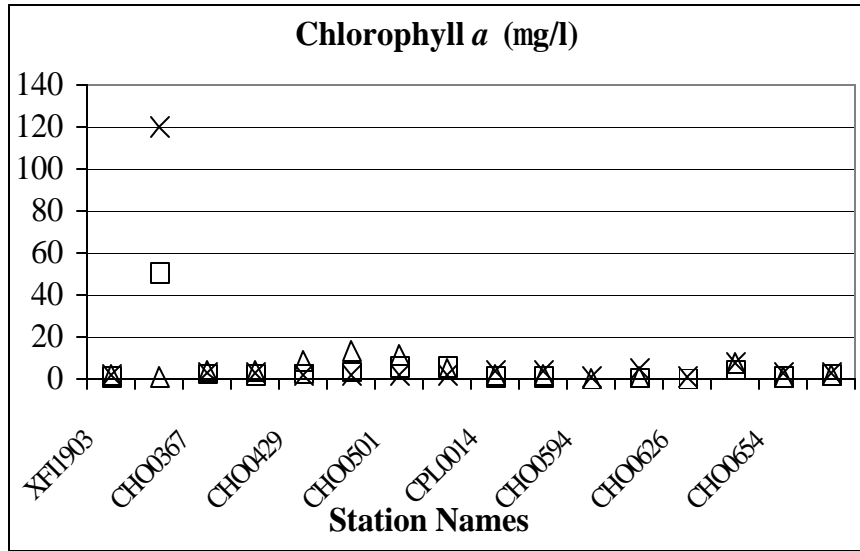


x 13-Jul-98
□ 04-Aug-98
△ 08-Sep-98

# Upper Choptank River Monitoring Stations



**Upper Choptank River**  
 High Flow Conditions (January - May)  
 Stations are presented from left to right in downstream to upstream order

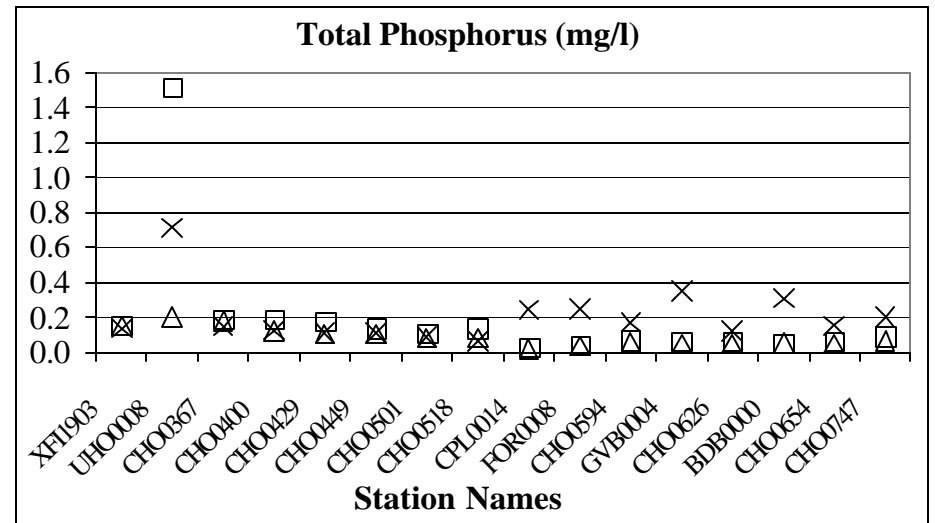
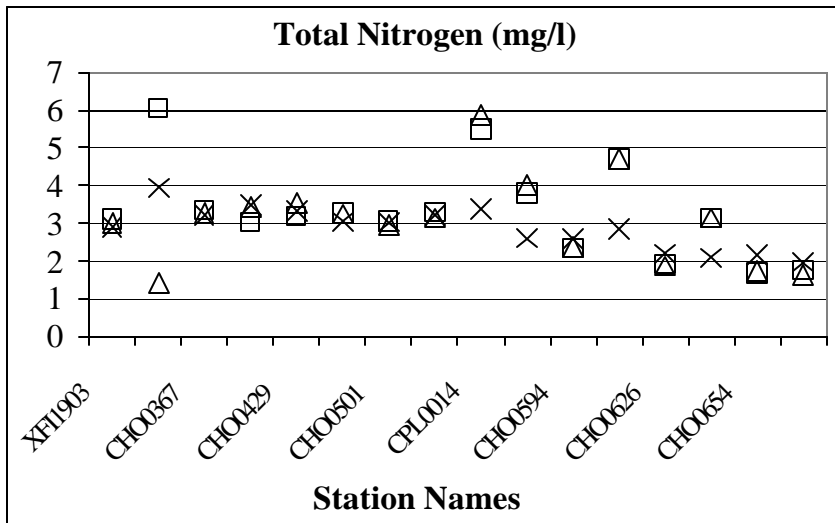
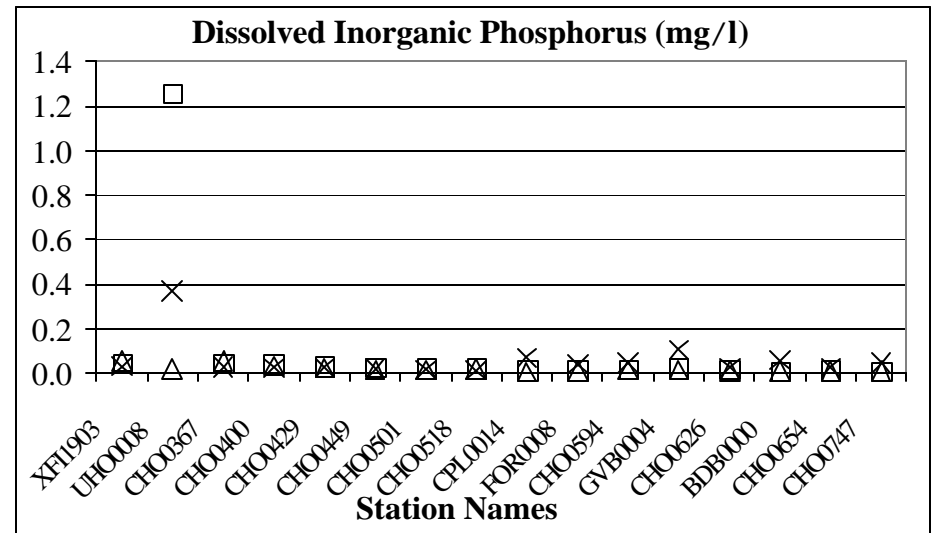
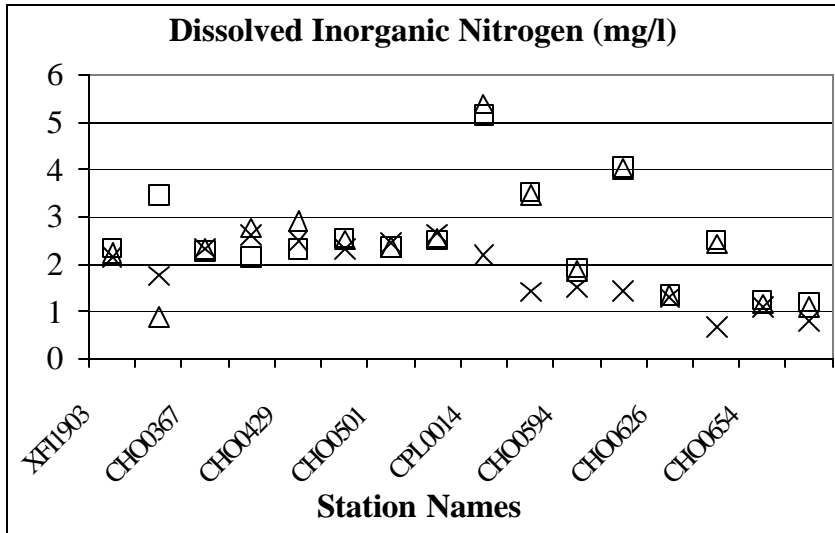


x 09-Mar-98      □ 30-Mar-98      Δ 06-Apr-98

## Upper Choptank River

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



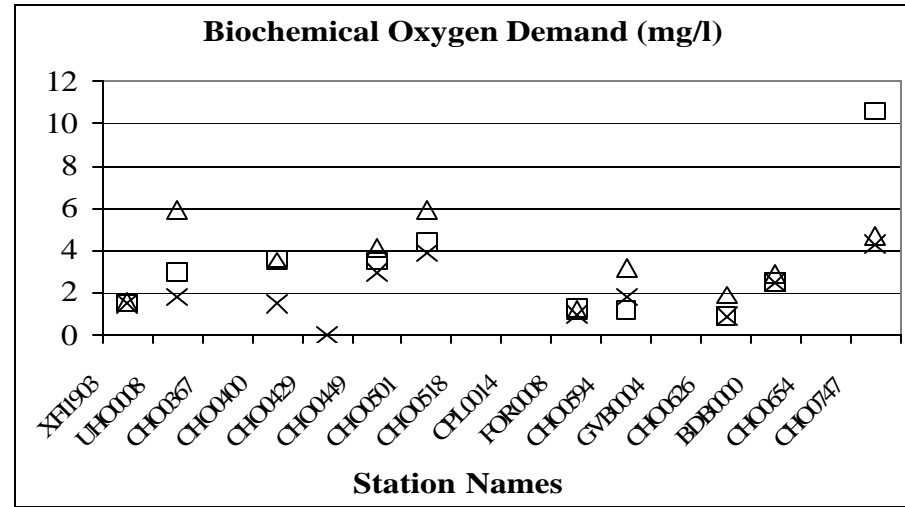
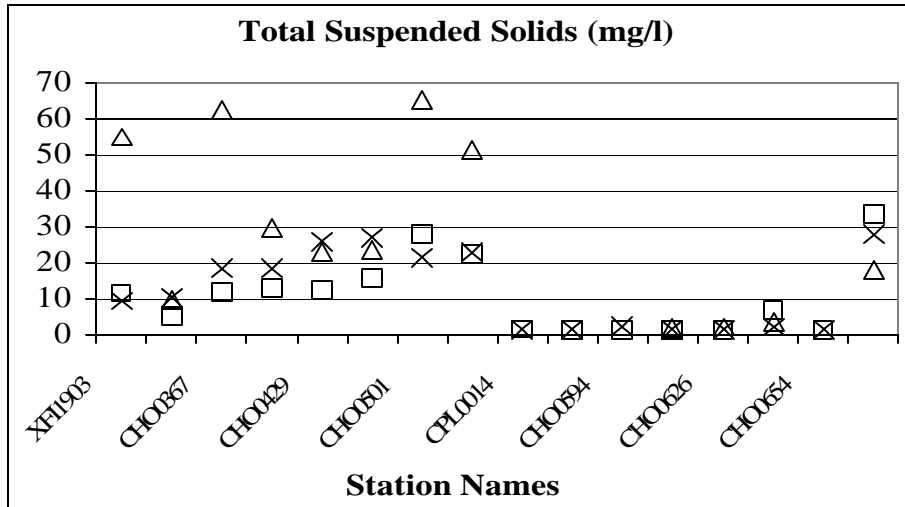
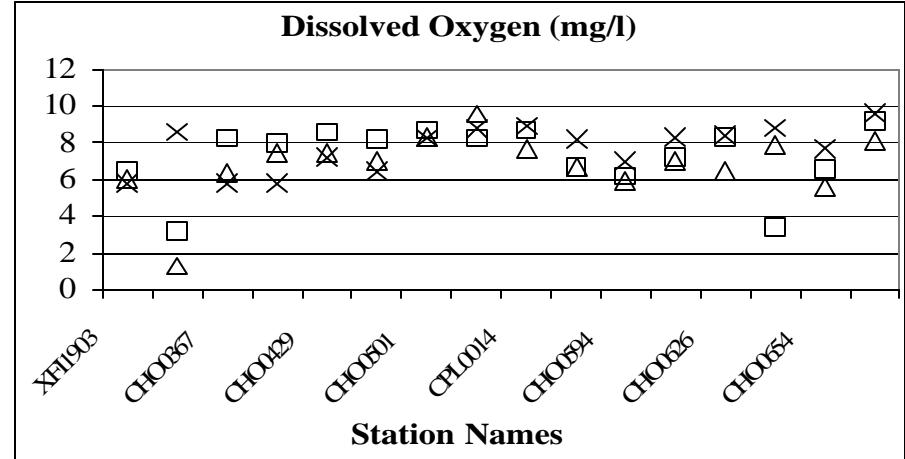
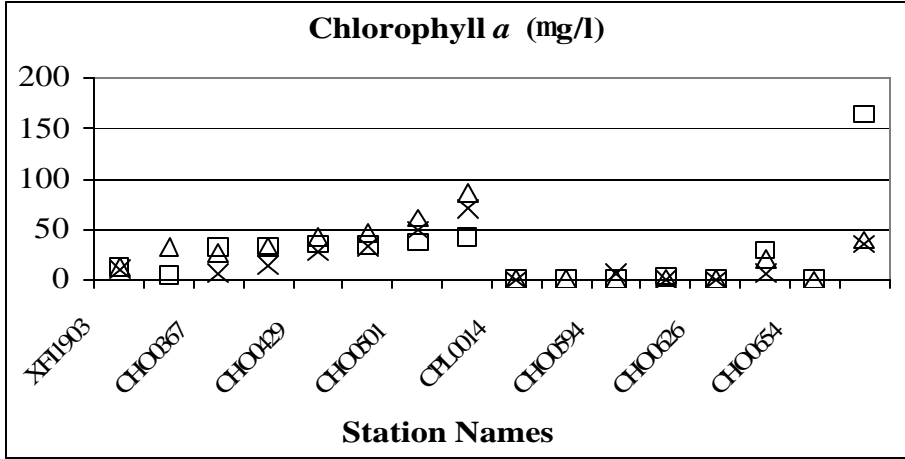
x 09-Mar-98      ,, 30-Mar-98      Δ 06-Apr-98



### Upper Choptank River

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

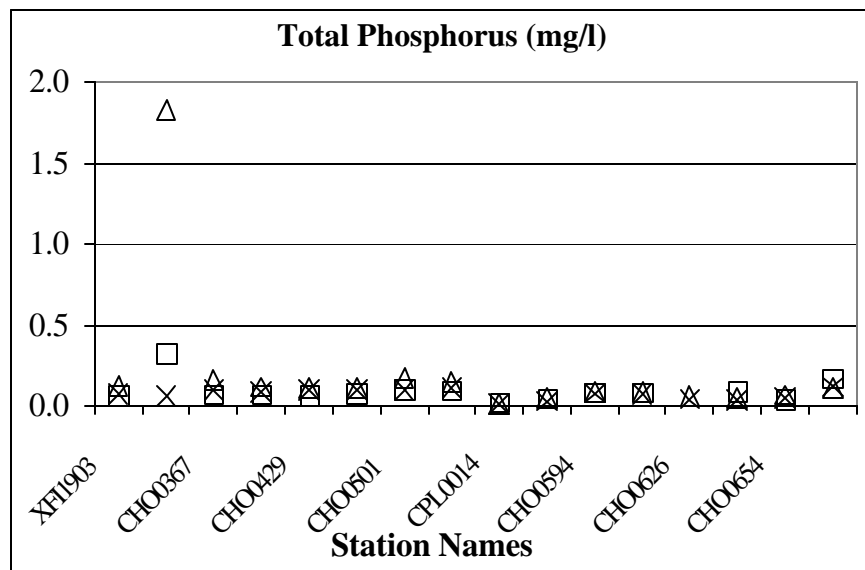
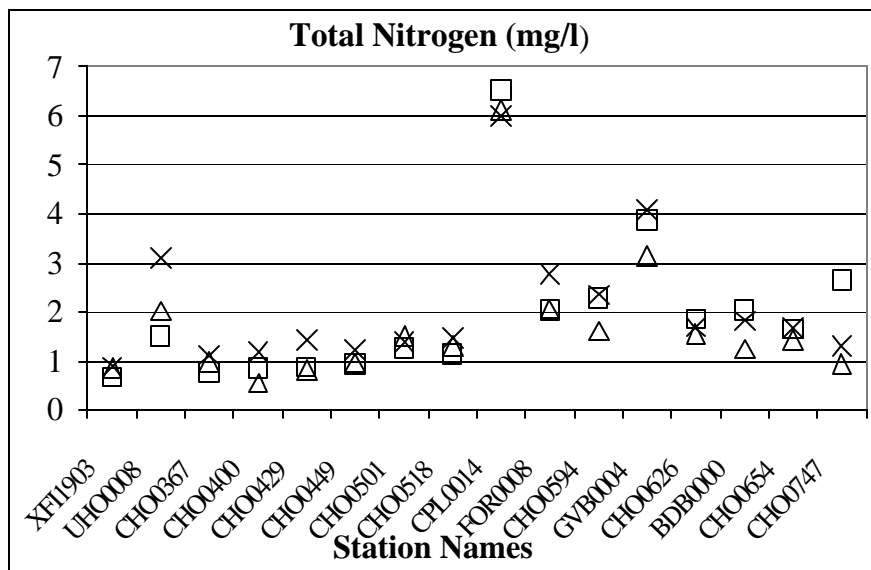
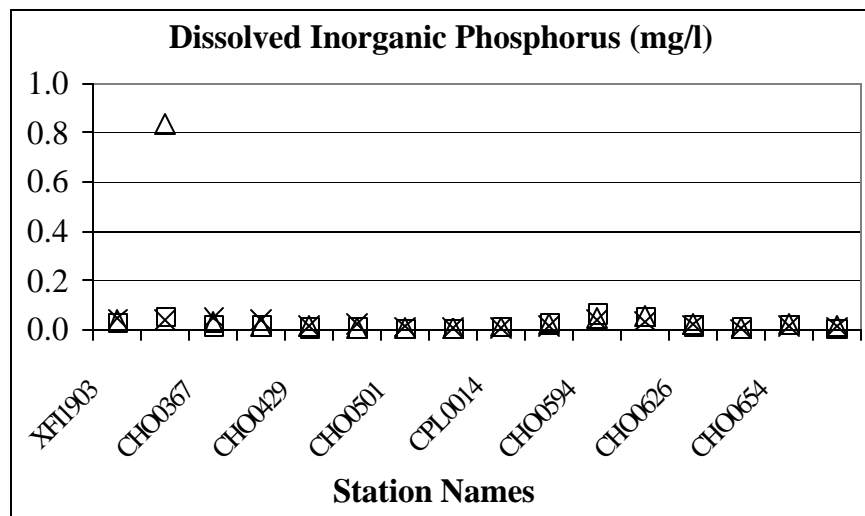
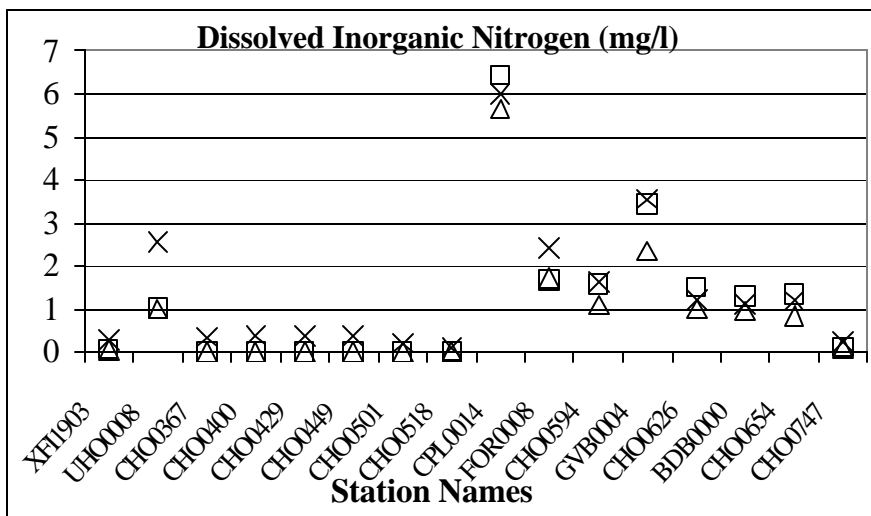


x 13-Jul-98      04-Aug-98      △ 08-Sep-98

## Upper Choptank River

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order



x 13-Jul-98      04-Aug-98      △ 08-Sep-98

CHOPTANK RIVER  
STATION LIST

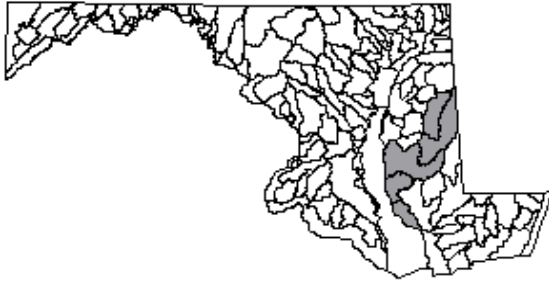
| Station Code                  | Lat/Long              | Description                                                                 |
|-------------------------------|-----------------------|-----------------------------------------------------------------------------|
| <b><i>Choptank River:</i></b> |                       |                                                                             |
| XEH6036*                      | 38°36.144' 76°07.042' | 1500 yds. south of Howell Pt., mid-channel.                                 |
| XEH4766*                      | 38°34.832' 76°03.585' | 500 yds. WNW of old Rt. 50 bridge crossing, mid-channel.                    |
| XEH5397*                      | 38°35.460' 76°00.434' | 675 yds. NW of Oystershell Pt.                                              |
| XEI7915*                      | 38°37.999' 75°59.377' | 700 yds. WSW of red buoy #2, off Cabin Cr. confluence. Mid-channel.         |
| XFI0531*                      | 38°40.407' 75°56.854' | 300 yds. NE of Bow Knee Pt. at confluence of Hunting Cr.                    |
| XFI1903*                      | 38°41.900' 75°59.450' | At Frazier Pt., due east of Lloyd's Landing.                                |
| CHO0367                       | 38°45.464' 75°59.886' | At Rt. 331 crossing, upstream of Williams Cr.                               |
| CHO0400*                      | 38°46.726' 75°56.946' | 0.6 miles above Kingston Landing, day beacon "59". At McCarty's Wharf.      |
| CHO0429*                      | 38°48.349' 75°54.580' | At Ganey's Wharf, 1500 yds. below Tuckahoe confluence.                      |
| CHO0449*                      | 38°49.190' 75°52.914' | Just below Robbin's Cr., between Todd's Wharf and Downs Landing.            |
| CHO0501*                      | 38°51.478' 75°50.804' | Downstream of Denton Lagoon effluent, just above Martinak Park boat ramp.   |
| CHO0518*                      | 38°53.261' 75°50.373' | At Bus. Rt. 404(Meeting House Rd.) in Denton, near boat ramp.               |
| CHO0594                       | 38°58.400' 75°48.058' | In Greensboro at Sunset Ave. E. road crossing.                              |
| CHO0626                       | 38°59.870' 75°47.132' | At USGS gage station on Red Bridges Rd.                                     |
| CHO0654                       | 39°01.826' 75°45.510' | At Rt. 287 road crossing.                                                   |
| CHO0747                       | 39°04.099' 75°44.200' | At impoundment spillage of Mud Mill Pond on Mud Mill Rd.                    |
| <b><i>Unnamed Creek:</i></b>  |                       |                                                                             |
| UHO0008                       | 38°44.972' 76°00.454' | Unpaved road crossing end of N. Dover Rd. below discharge of Easton lagoon. |

| Station Code            | Lat/Long              | Description                                                 |
|-------------------------|-----------------------|-------------------------------------------------------------|
| <i>Chapel Branch:</i>   |                       |                                                             |
| CPL0014                 | 38°54.748' 75°49.093' | At Rt. 313 road crossing.                                   |
| <i>Forge Branch:</i>    |                       |                                                             |
| FOR0008                 | 38°57.270' 75°49.792' | At Rt. 480 road crossing.                                   |
| <i>Gravelly Branch:</i> |                       |                                                             |
| GVB0004                 | 38°59.694' 75°46.929' | At Draper's Mill Rd. crossing.                              |
| <i>Broadway Branch:</i> |                       |                                                             |
| BDB0000                 | 39°01.185' 75°46.634' | Below impoundment spillage, above confluence with Choptank. |

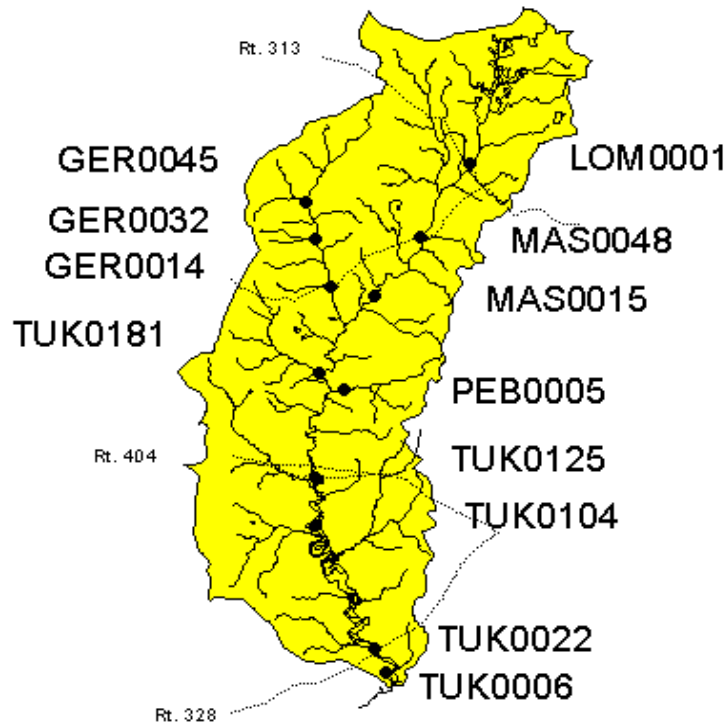
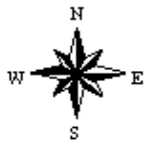
\*Boat Stations

# Tuckahoe River Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Choptank Watershed



Location of Tuckahoe Drainage Basin



- MDE Monitoring Stations
- Roads
- Tuckahoe River
- Watershed 02130405

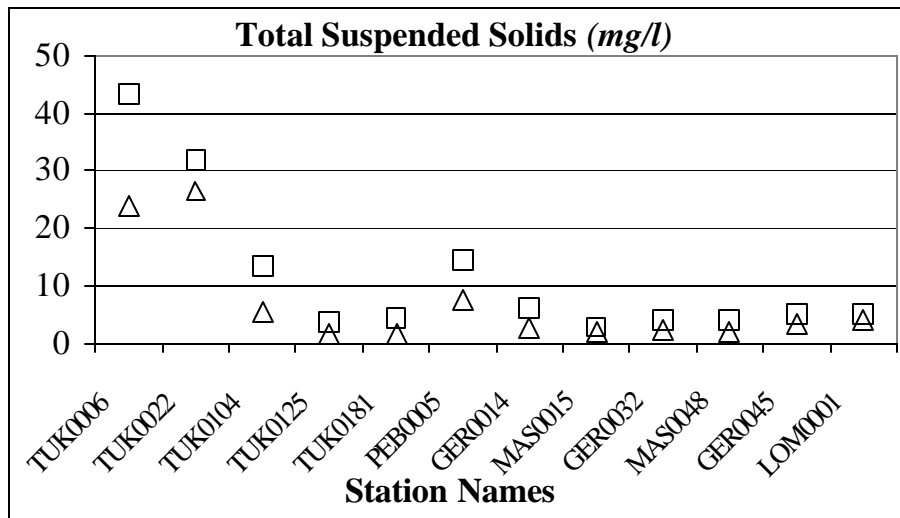
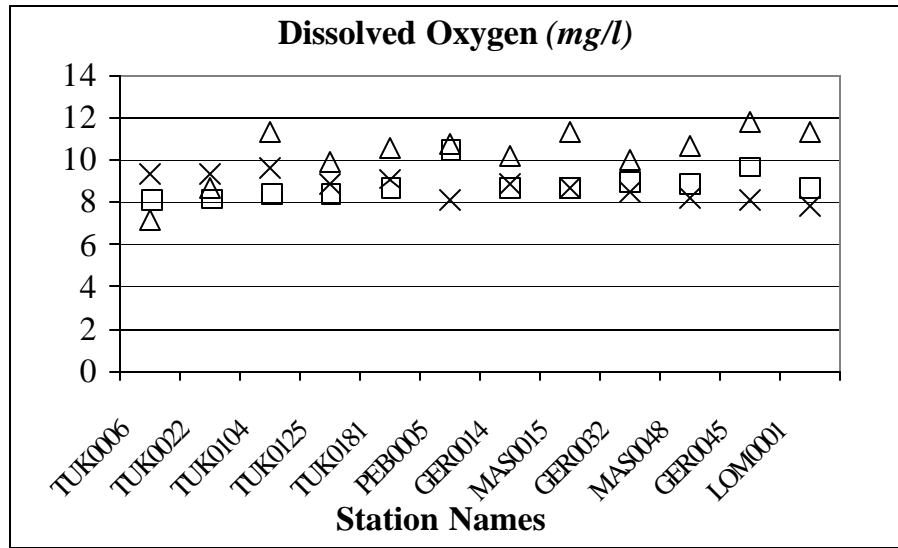
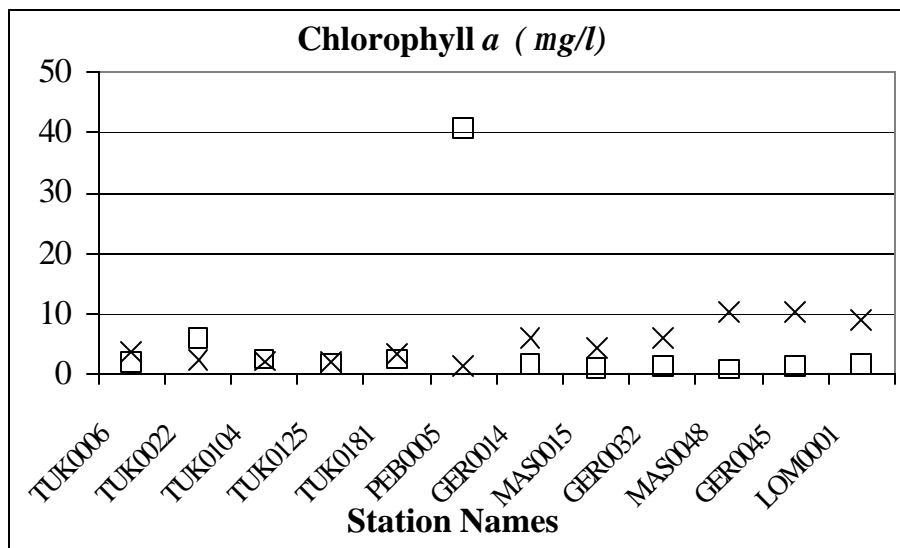
1 0 1 2 3 4 5 Kilometers



## Tuckahoe River

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

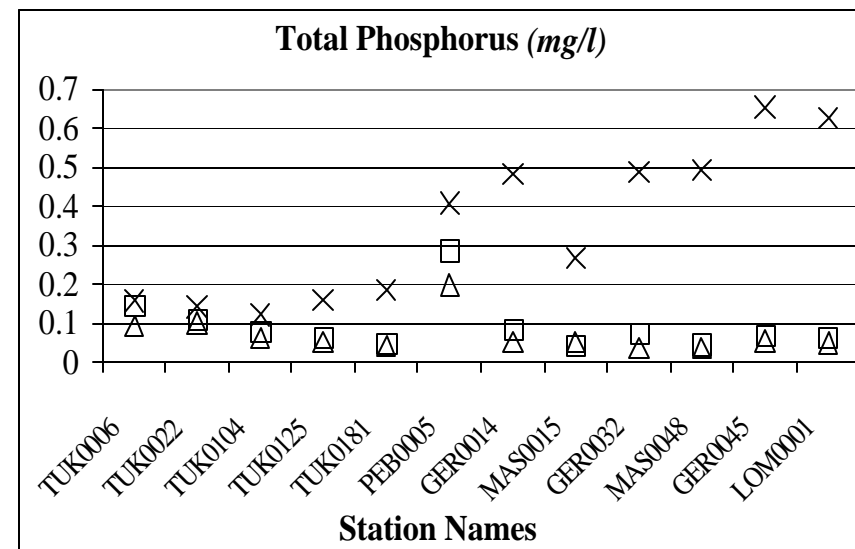
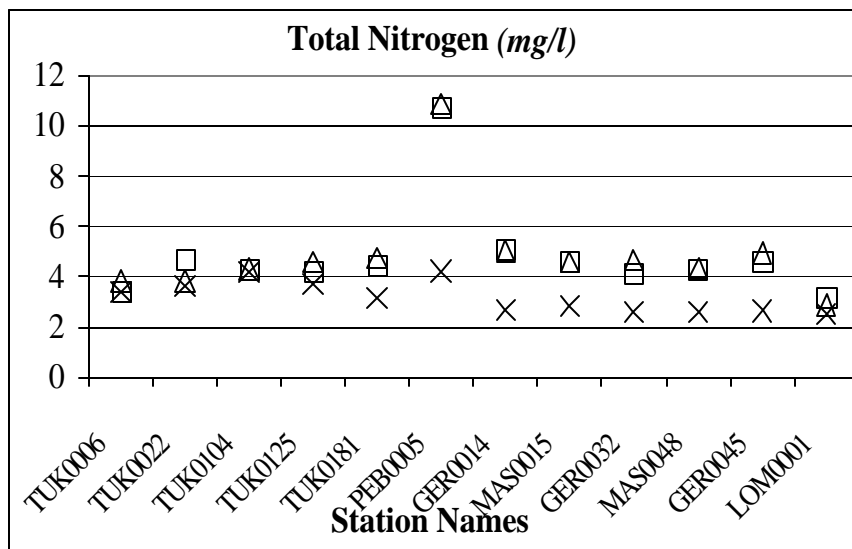
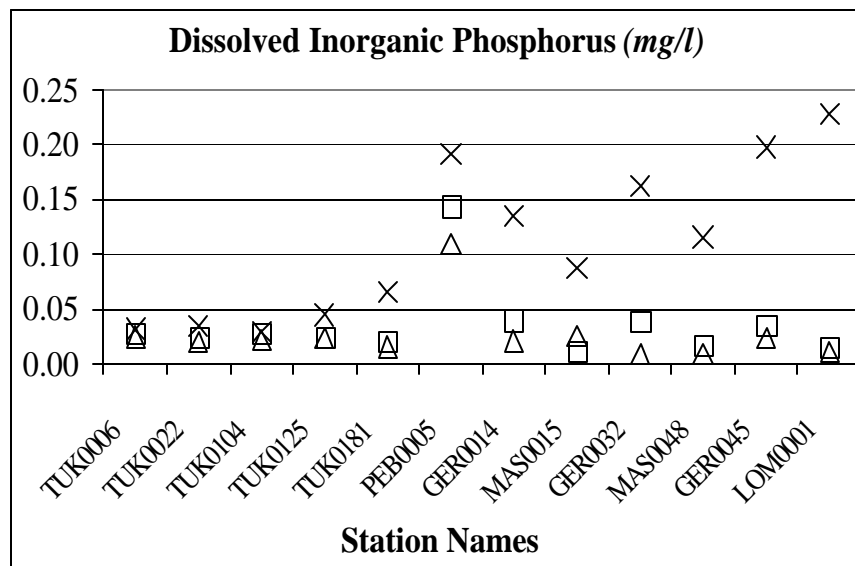
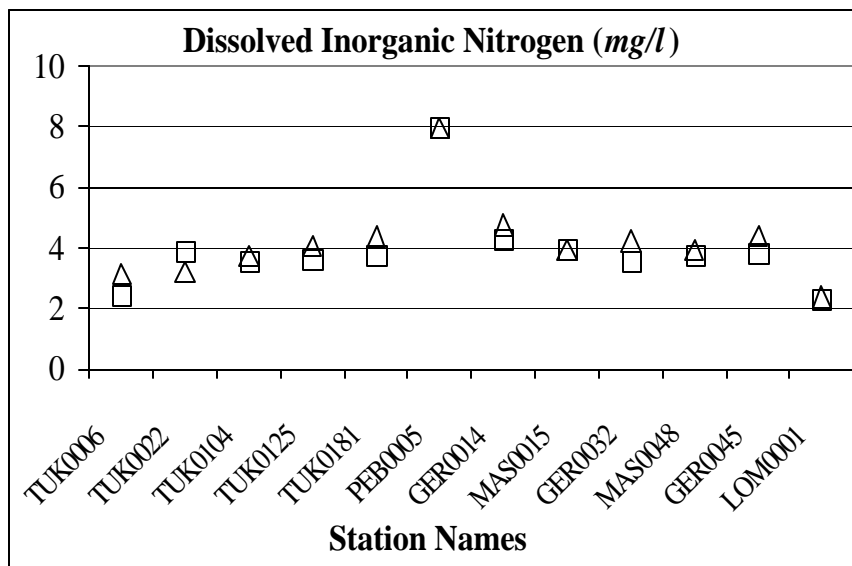


x 09-Mar-98      „ 30-Mar-98      Δ 06-Apr-98

## Tuckahoe River

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

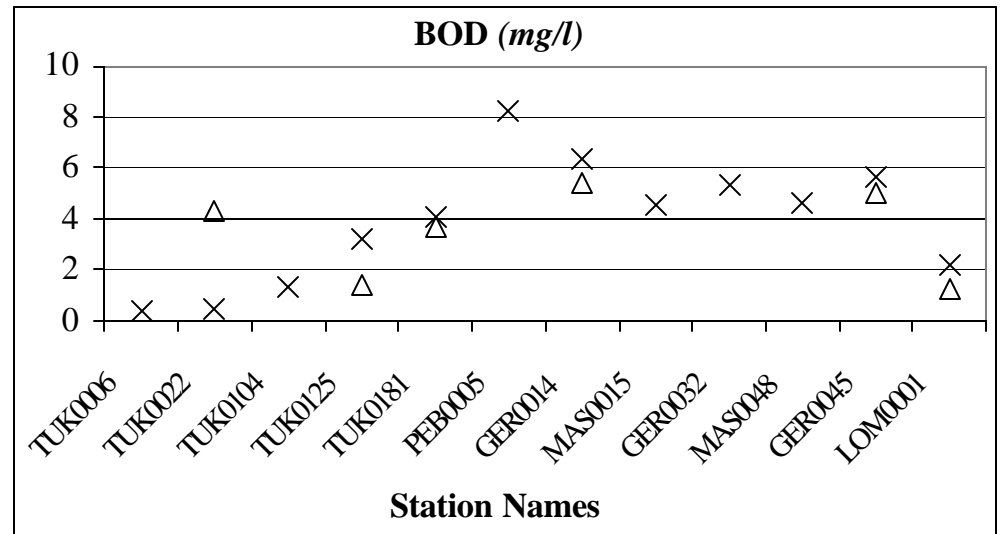
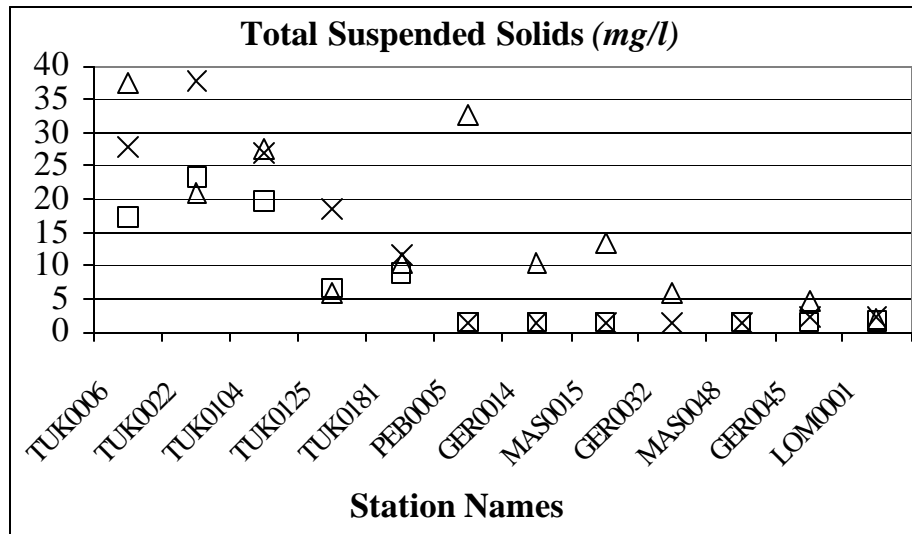
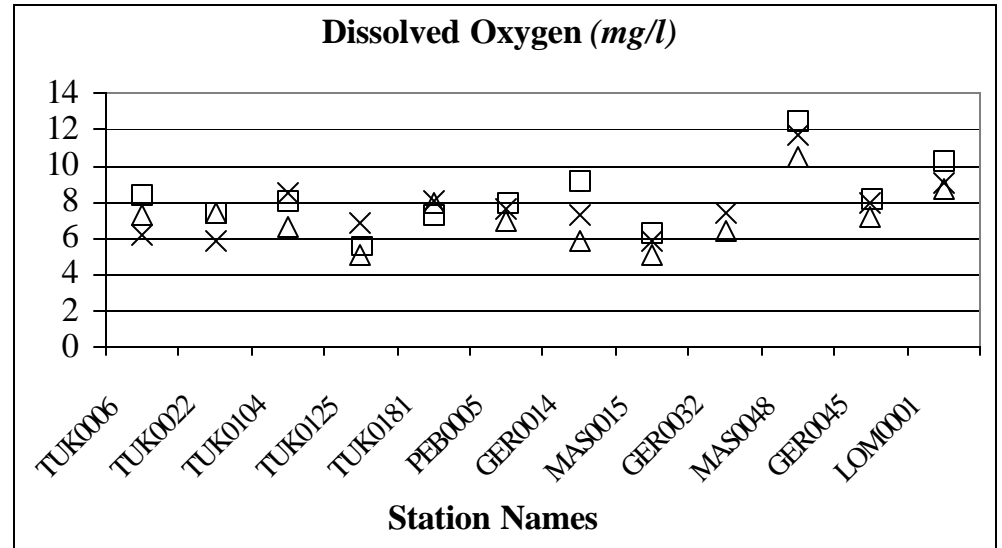
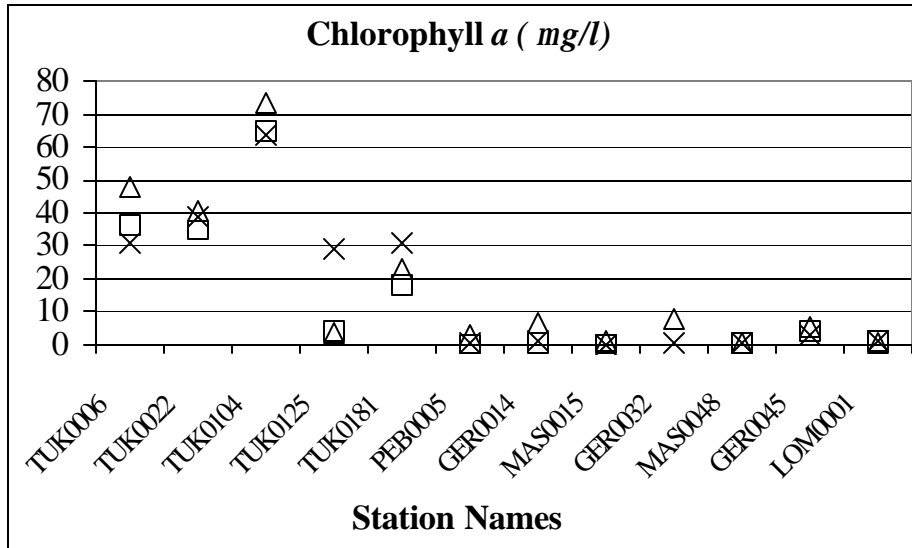


x 09-Mar-98      „ 30-Mar-98      Δ 06-Apr-98

## Tuckahoe River

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order



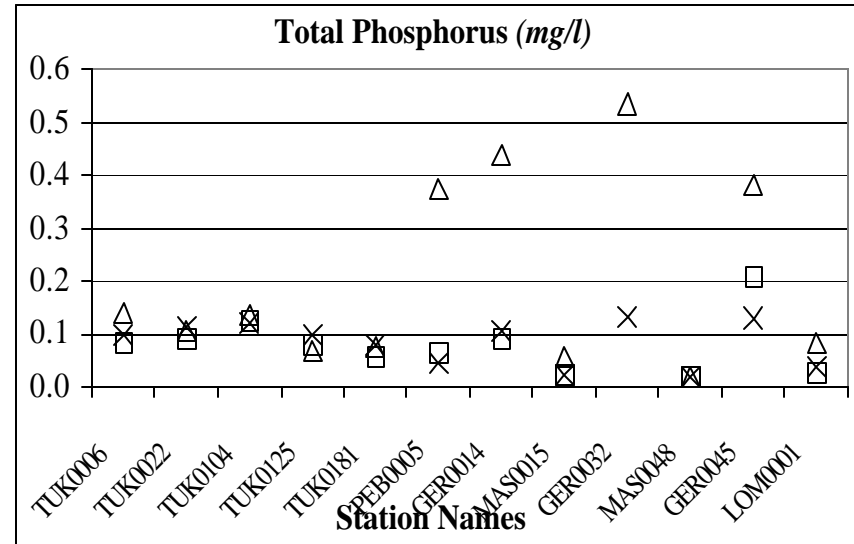
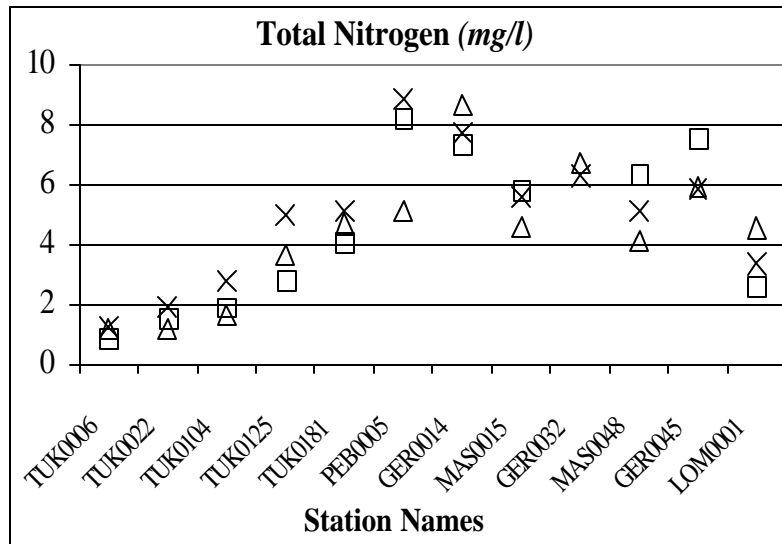
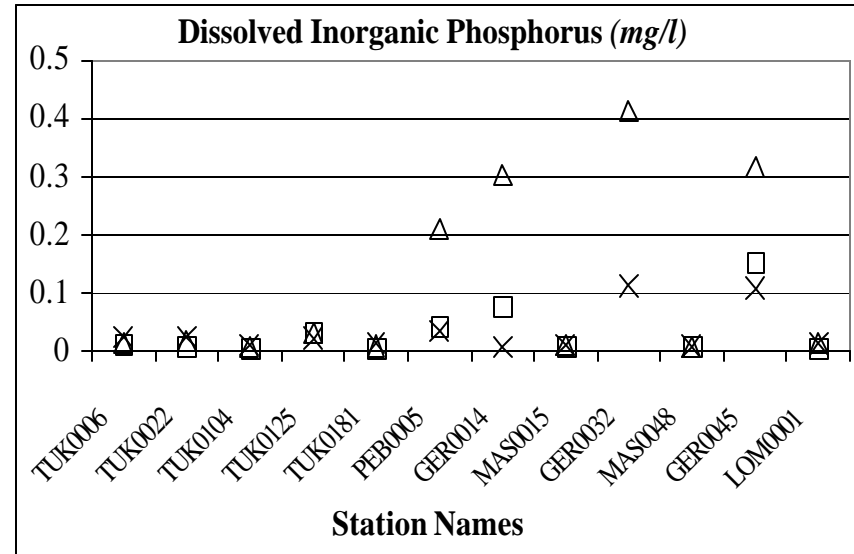
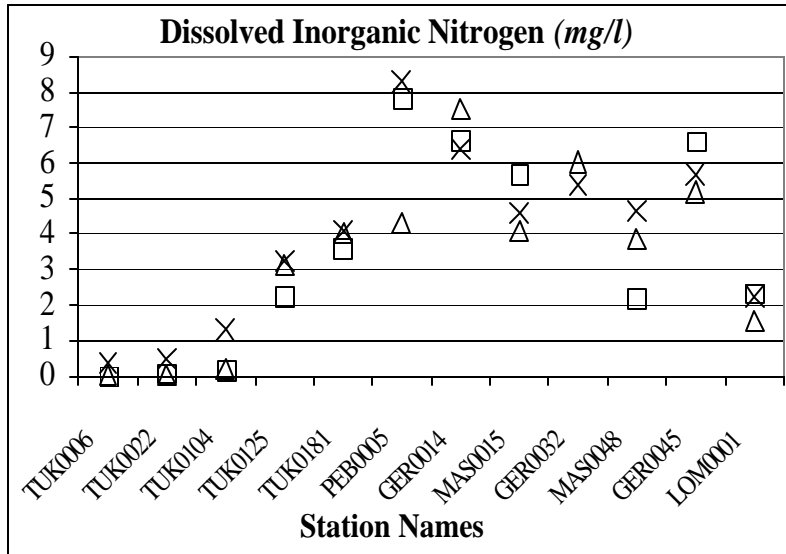
x 13-Jul-98      . 04-Aug-98      Δ 08-Sep-98



## Tuckahoe River

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order



x 13-Jul-98      □ 04-Aug-98      Δ 08-Sep-98

TUCKAHOE CREEK  
STATION LIST

| Station Code                    | Lat/Long              | Description                                                                     |
|---------------------------------|-----------------------|---------------------------------------------------------------------------------|
| <i><b>Tuckahoe Creek:</b></i>   |                       |                                                                                 |
| TUK0006                         | 38°49.218' 75°54.402' | 0.6 miles up from confluence with Choptank.                                     |
| TUK0022                         | 38°49.915' 75°54.833' | At Rt. 328 bridge crossing.                                                     |
| TUK0104                         | 38°53.542' 75°56.843' | Off Stony Pt., collected from bank.                                             |
| TUK0125                         | 38°54.940' 75°56.806' | In Hillsboro, at Main St. bridge.                                               |
| TUK0181                         | 38°58.052' 75°56.550' | At Crouse Mill Rd. bridge crossing. (Spillage of Tuckahoe Cr. Impoundment Dam.) |
| <i><b>Piney Branch:</b></i>     |                       |                                                                                 |
| PEB0005                         | 38°57.602' 75°55.824' | At Eveland Rd. crossing.                                                        |
| <i><b>Mason Branch:</b></i>     |                       |                                                                                 |
| MAS0015                         | 39°00.274' 75°54.636' | At Mason Branch Rd. crossing                                                    |
| MAS0048                         | 39°01.987' 75°52.955' | In Bridgetown, at Rt. 304 bridge crossing                                       |
| <i><b>Long Marsh Ditch:</b></i> |                       |                                                                                 |
| LOM0001                         | 39°04.096' 75°51.169' | At Rt. 313 crossing.                                                            |
| <i><b>German Branch:</b></i>    |                       |                                                                                 |
| GER0014                         | 39°00.537' 75°56.215' | At Ruthburg - Bridgetown Rd. crossing (Rt. 304). (Flow- staff gage)             |
| GER0032                         | 39°01.936' 75°56.700' | At Dever Branch Rd. crossing.                                                   |
| GER0045                         | 39°03.034' 75°57.055' | At Hope - Roe Rd. crossing. (Flow - staff gage)                                 |

# Lower Eastern Shore Region

# Pocomoke River Area

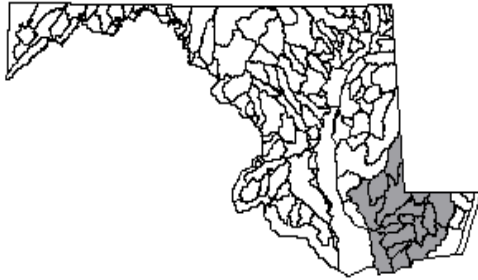
**Lower Pocomoke River, Dividing Creek, Nassawango Creek, Adkins Race**

**Upper Pocomoke River**

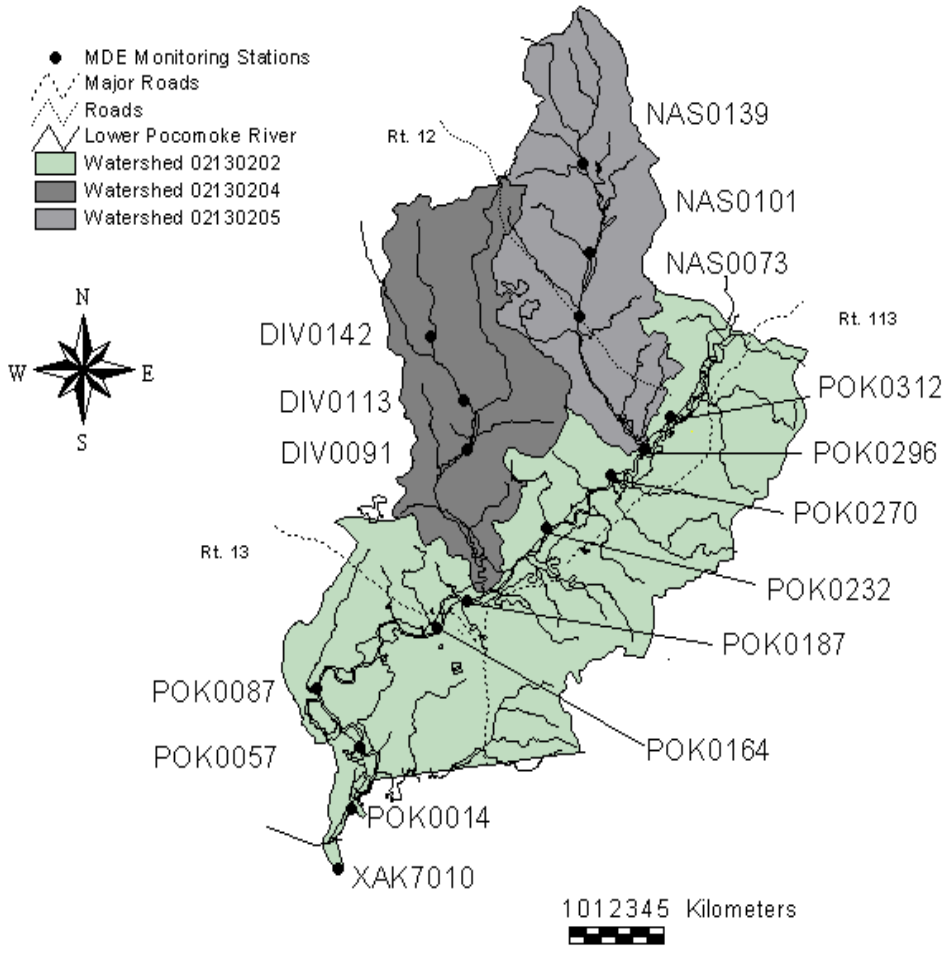
**Manokin River**

# Lower Pocomoke River Monitoring Stations Including Nassawango and Dividing Creeks

Maryland 8-digit Basin Codes  
Location of Lower Eastern Shore Watershed

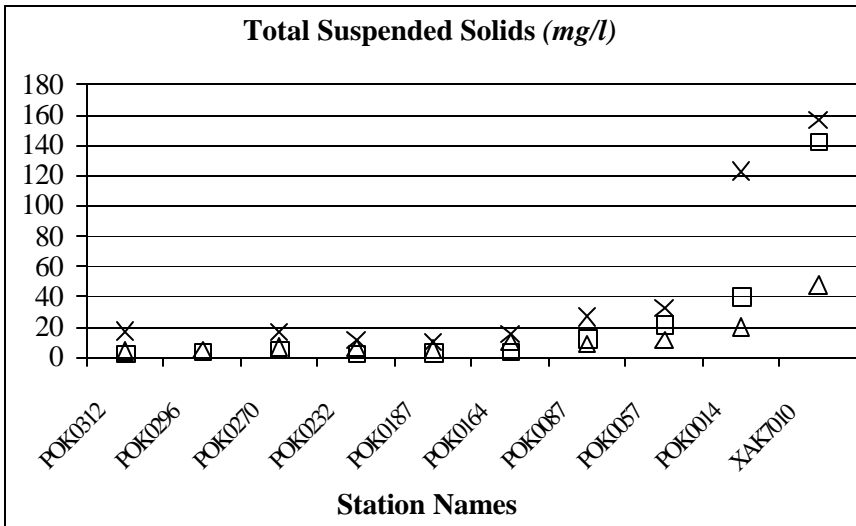
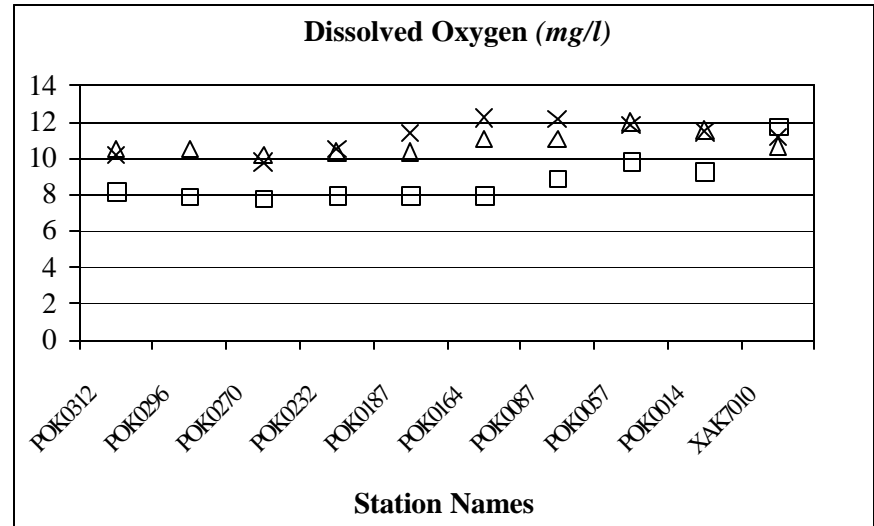
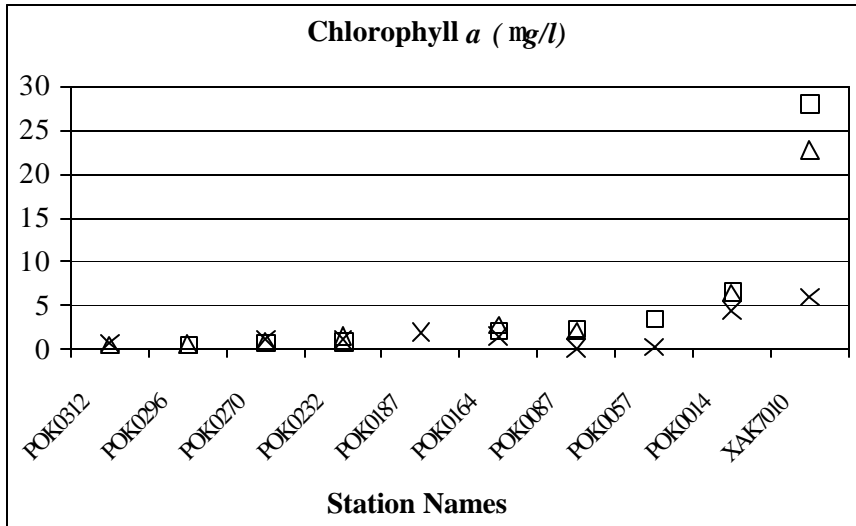


Location of Lower Pocomoke  
Drainage Basin  
Including Nassawango  
and Dividing Creeks



**Lower Pocomoke River Mainstem**  
High Flow Conditions (January - May)

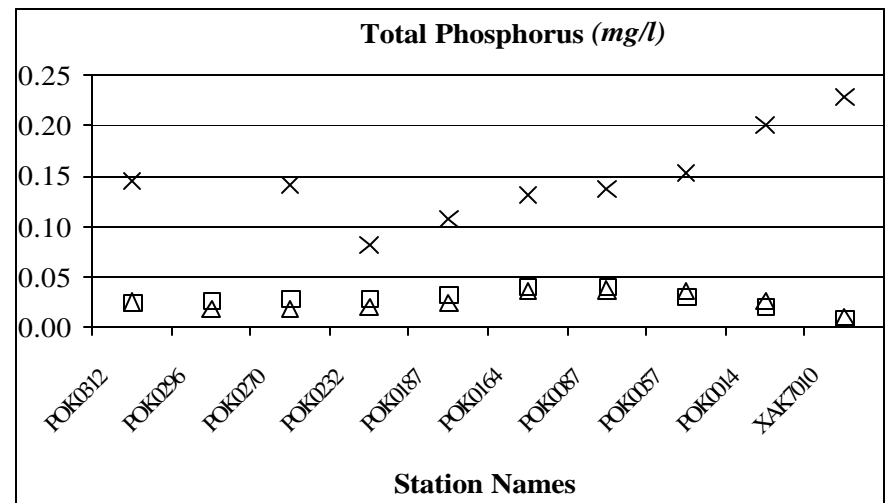
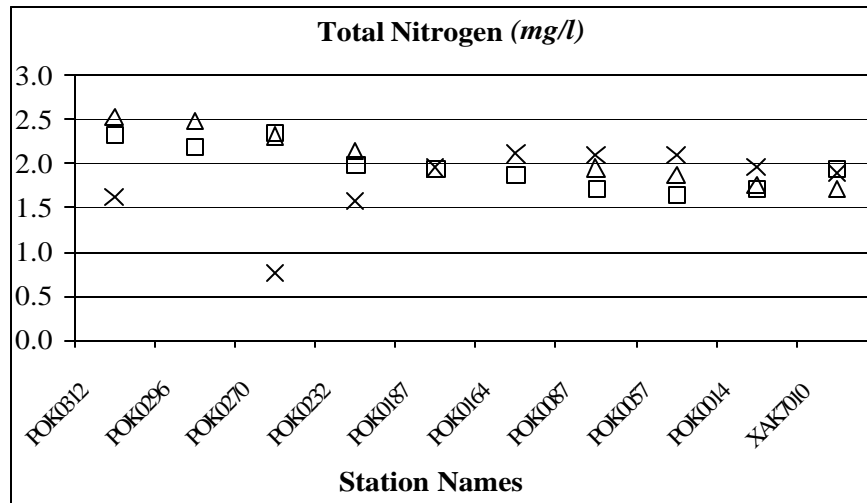
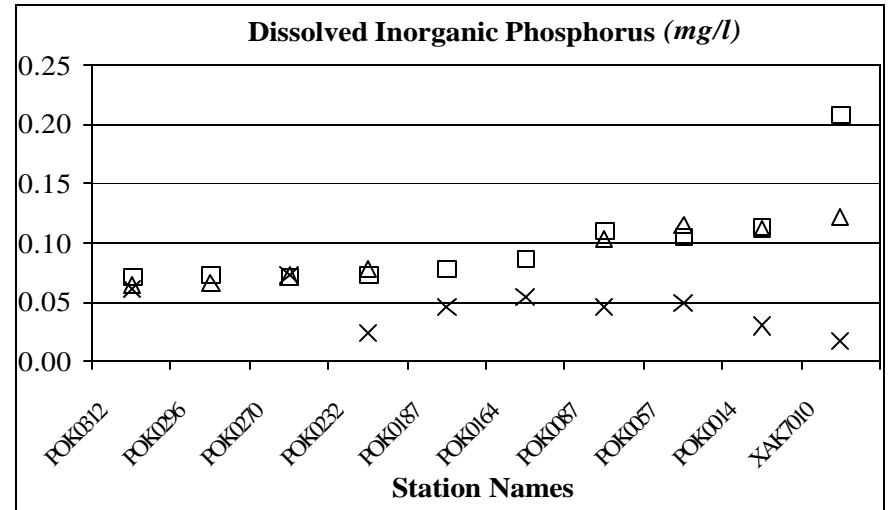
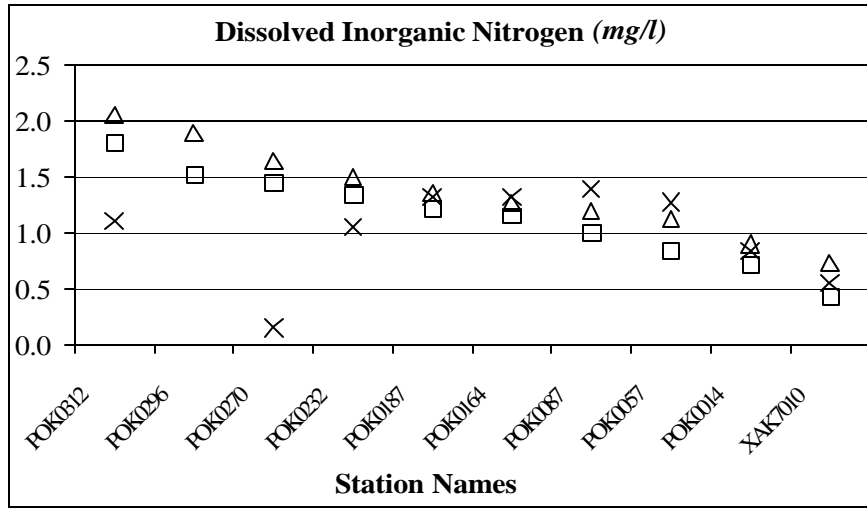
Stations are presented from left to right in downstream to upstream order



× 05-Feb-98      □ 03-Mar-98      △ 18-Mar-98

**Lower Pocomoke River Mainstem**  
 High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



× 05-Feb-98

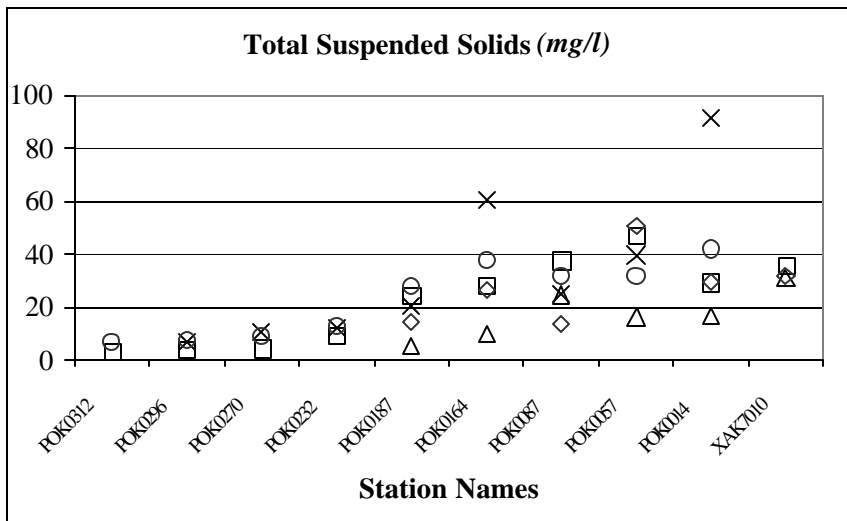
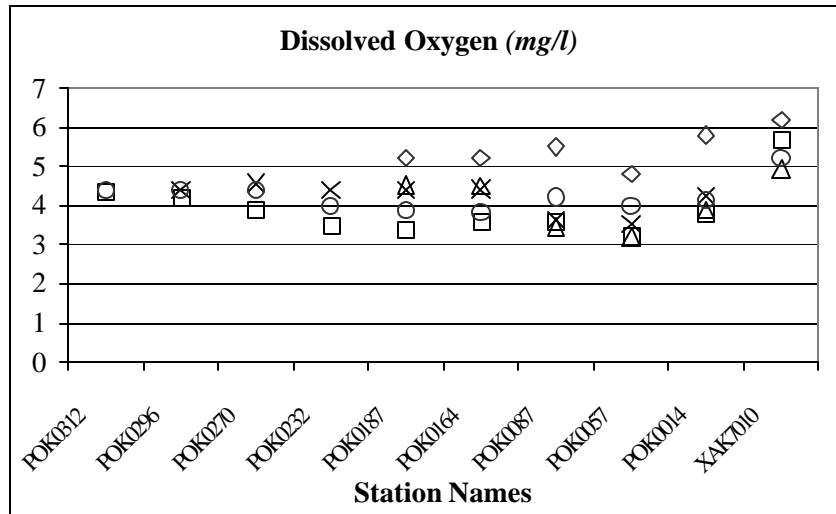
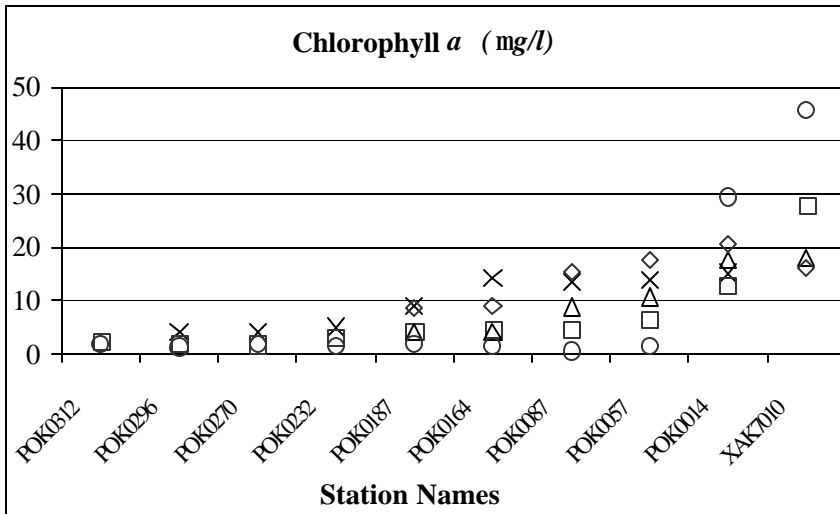
□ 03-Mar-98

Δ 18-Mar-98

### Lower Pocomoke River Mainstem

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

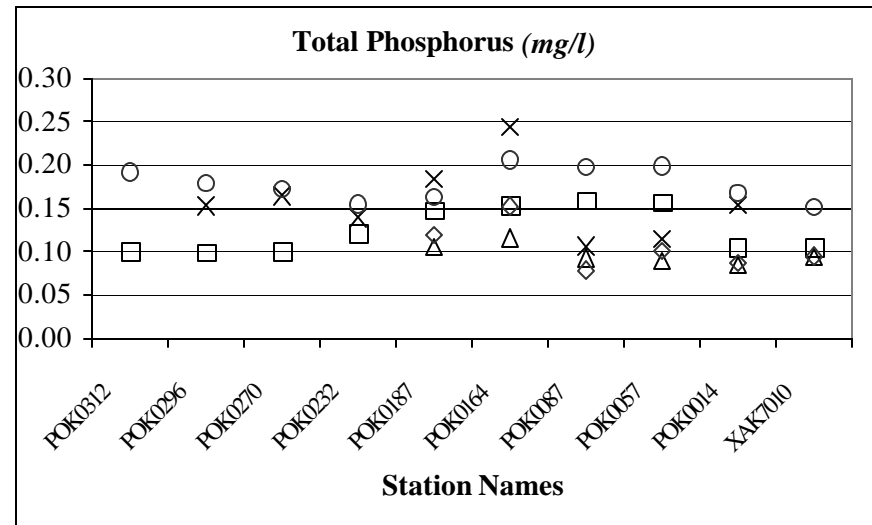
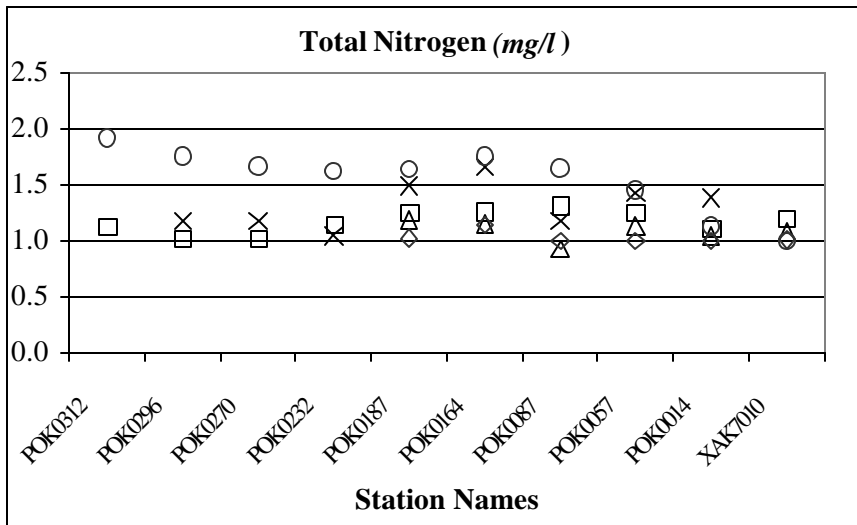
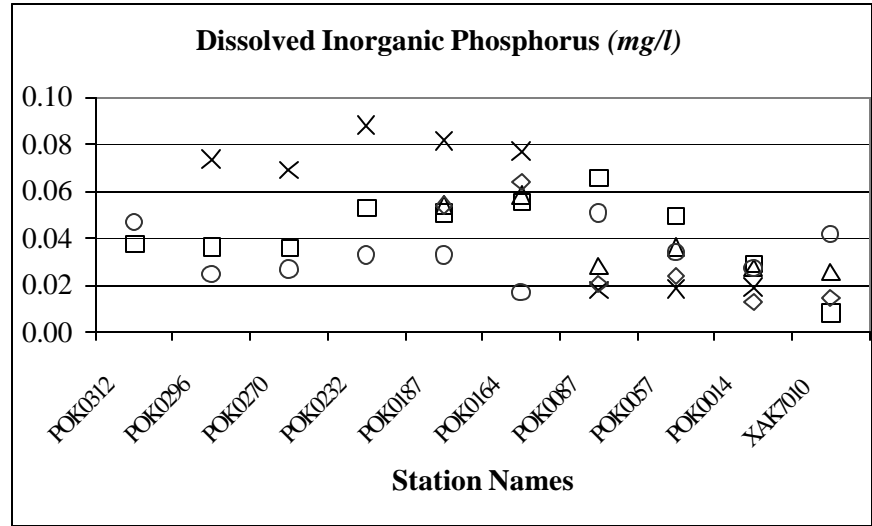
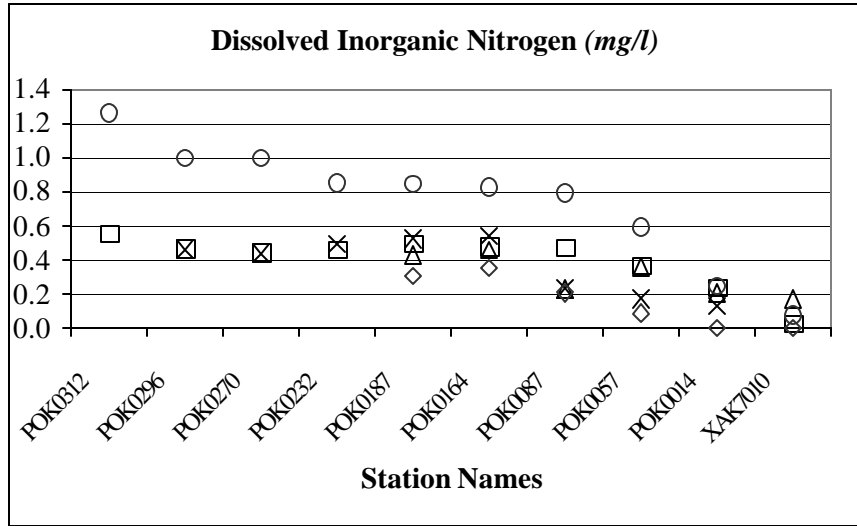


× 23-Jul-97    □ 06-Aug-97    △ 20-Aug-97    ◇ 16-Sep-97    ○ 09-Jul-98



**Lower Pocomoke River Mainstem**  
 Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

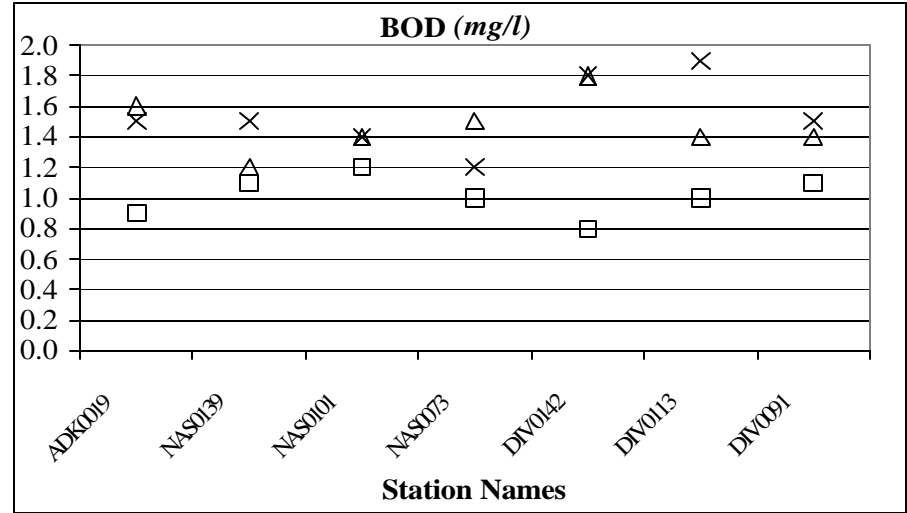
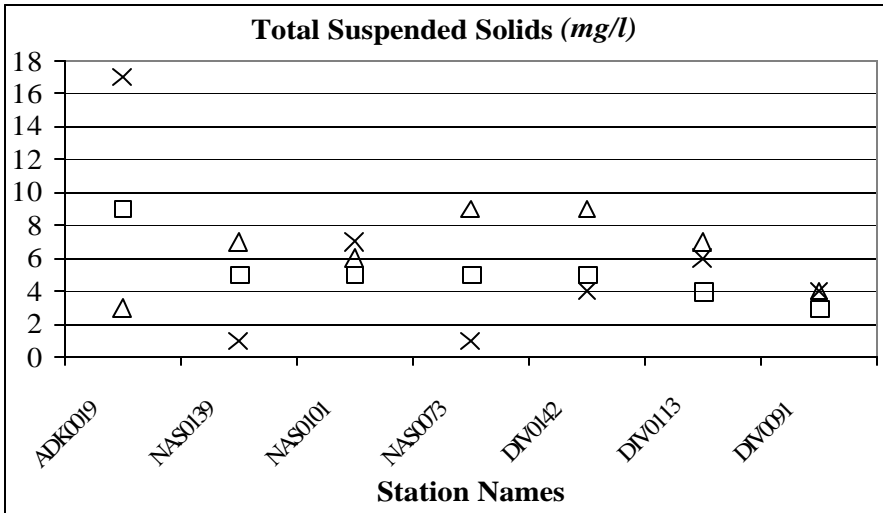
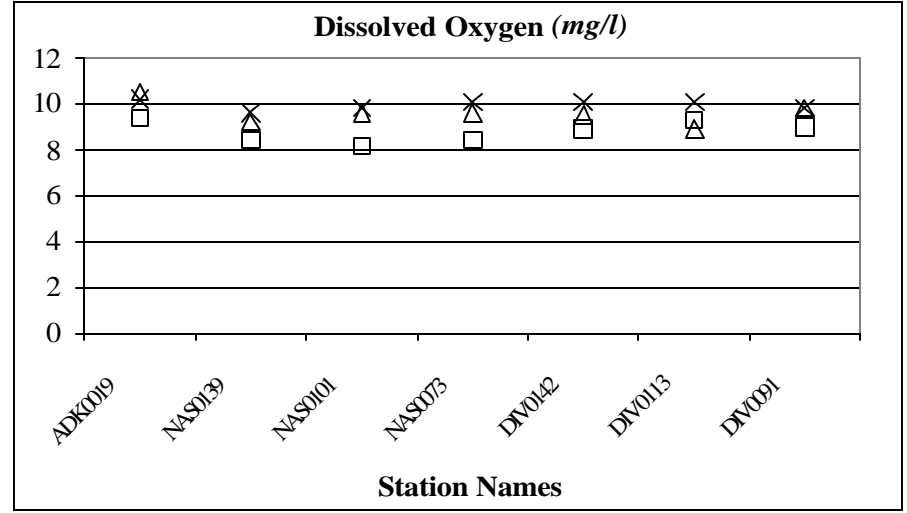
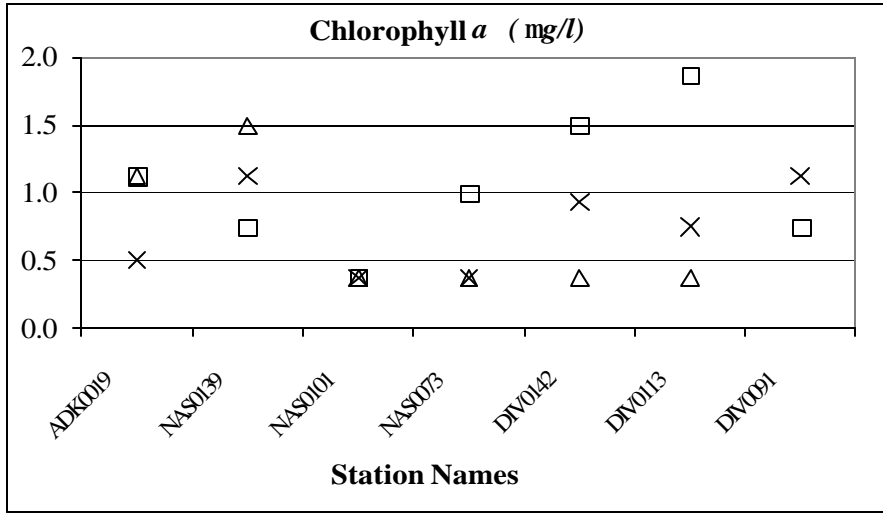


× 23-Jul-97   
 □ 06-Aug-97   
 △ 20-Aug-97   
 ◇ 16-Sep-97   
 ○ 09-Jul-98

**Pocomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

High Flow Conditions (January - May)

Stations are grouped by tributaries and presented from left to right in downstream to upstream order



× 05-Feb-98

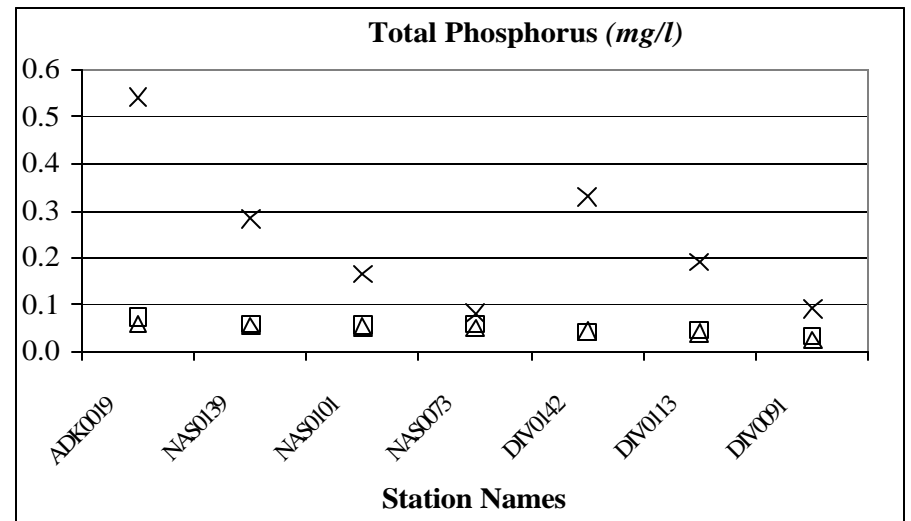
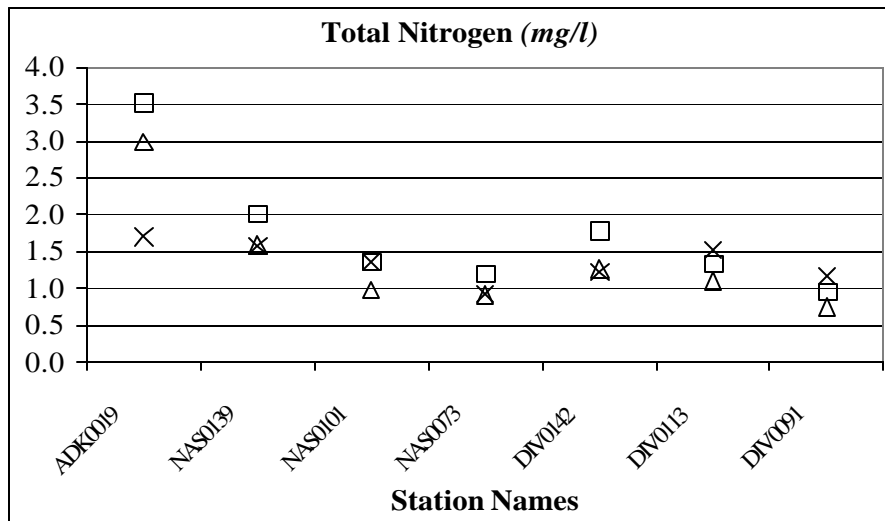
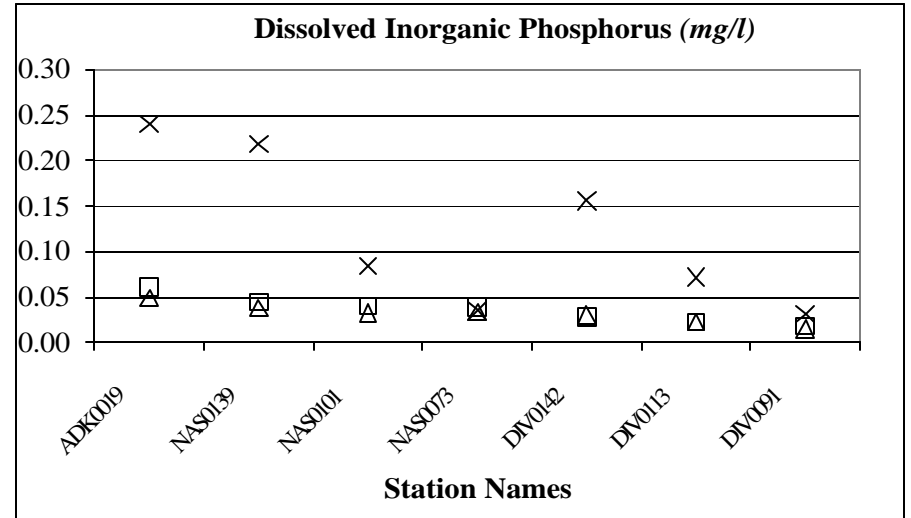
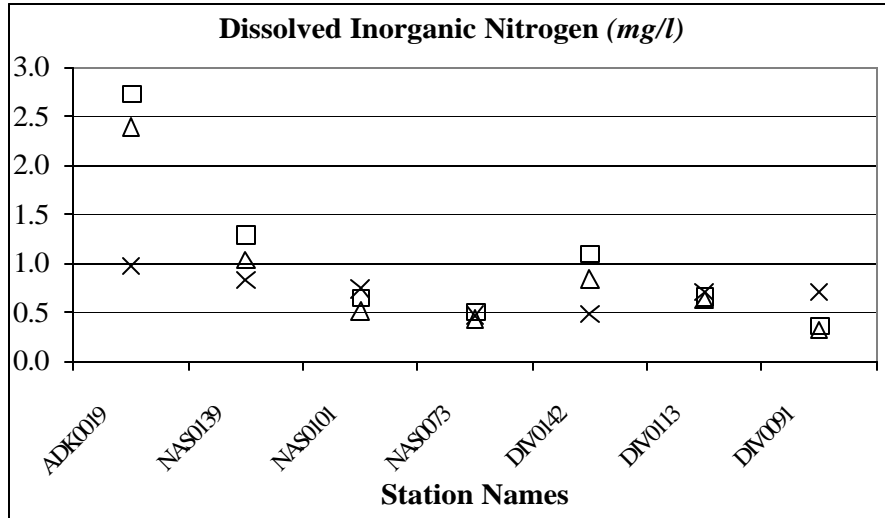
□ 03-Mar-98

△ 18-Mar-98

**Pocomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

High Flow Conditions (January - May)

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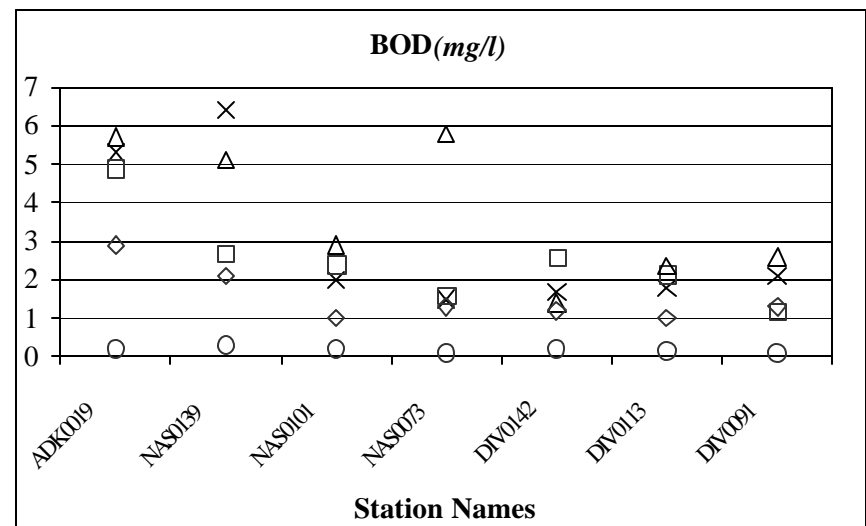
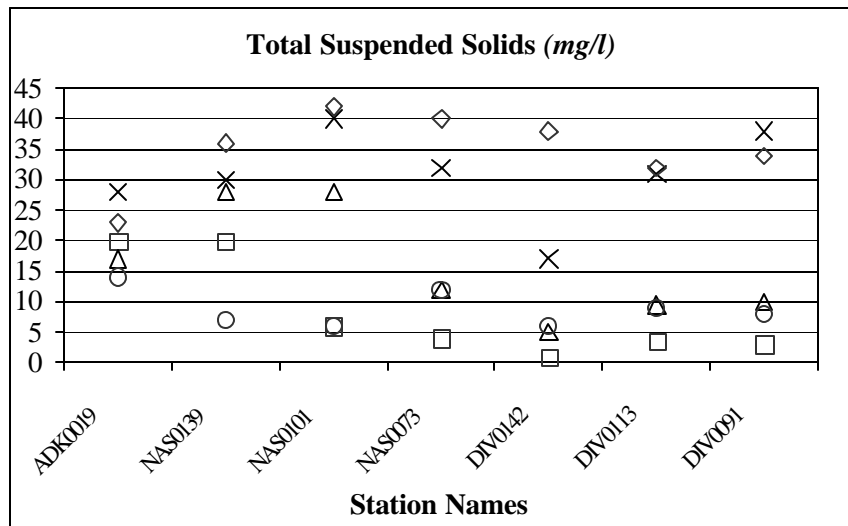
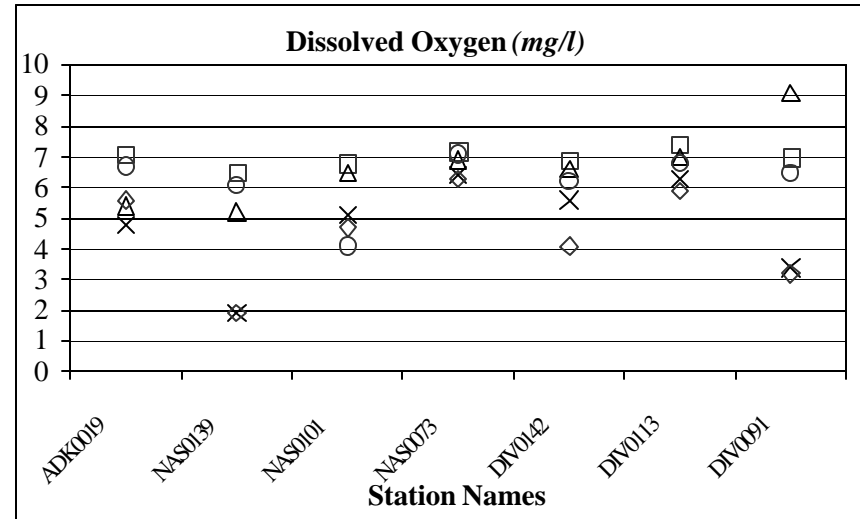
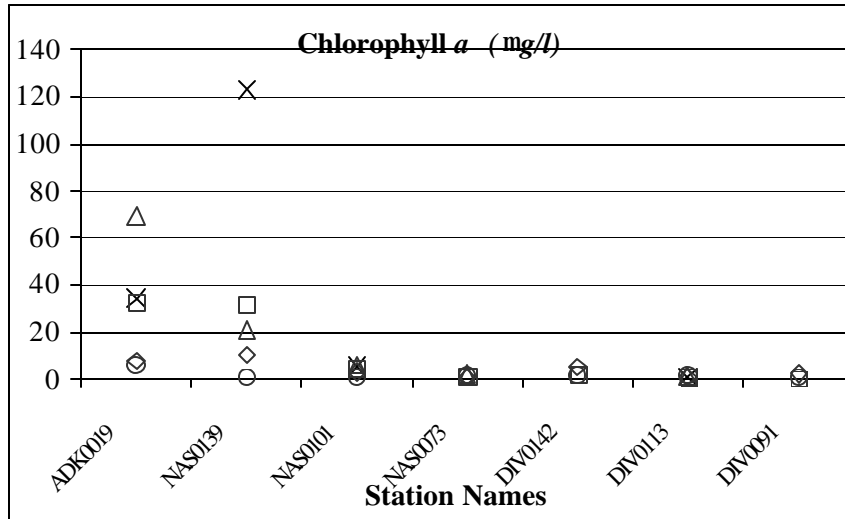
□ 03-Mar-98

△ 18-Mar-98

**Pokomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

Low Flow Conditions (July - October)

Stations are grouped by tributaries and are presented left to right in downstream to upstream order

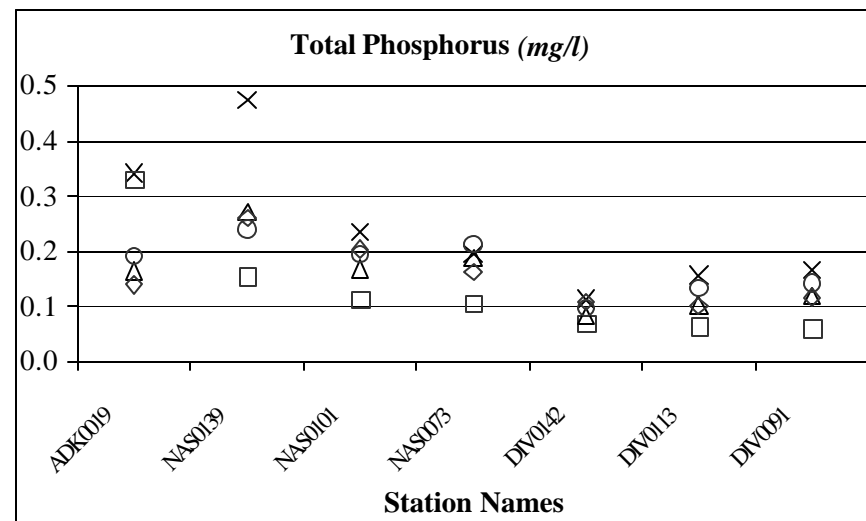
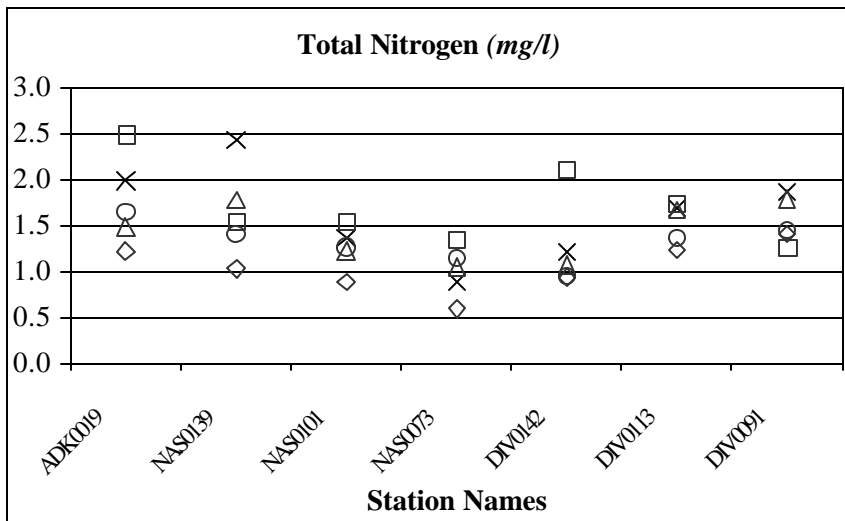
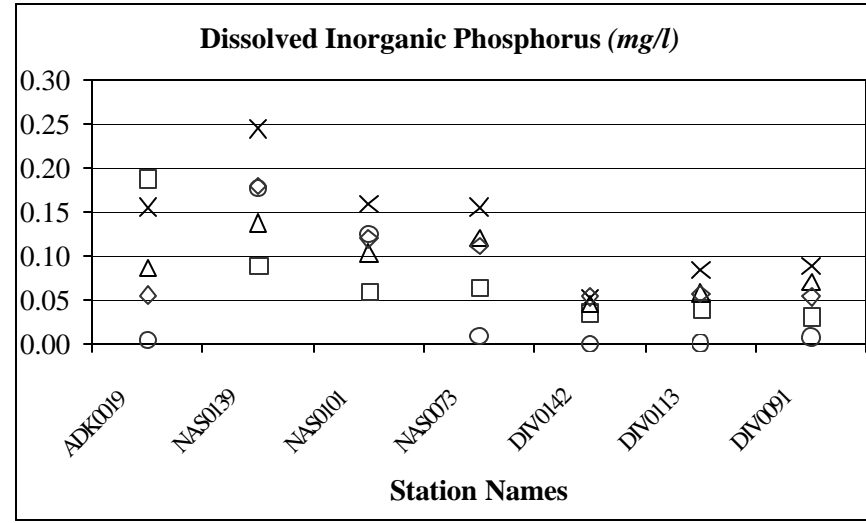
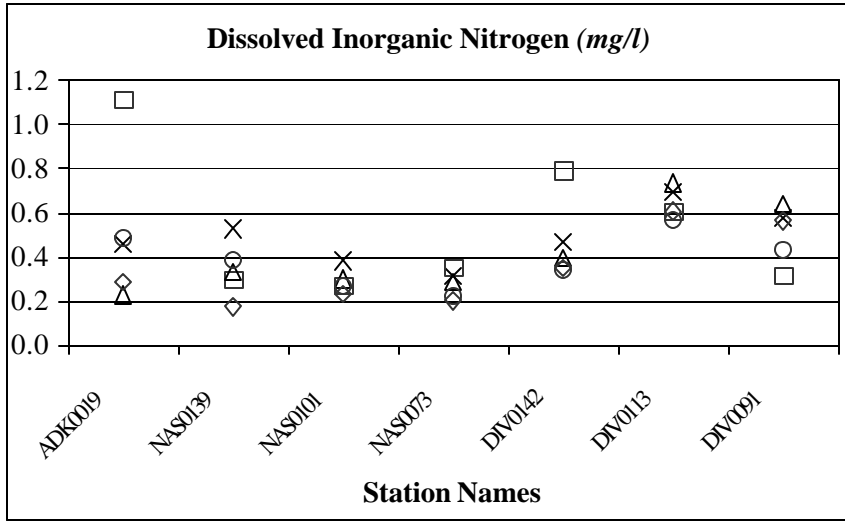


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**Pokomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

Low Flow Conditions (July - October)

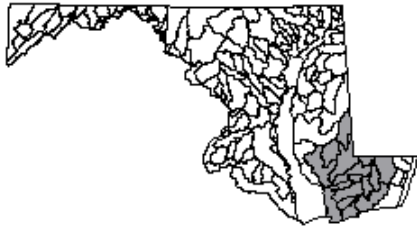
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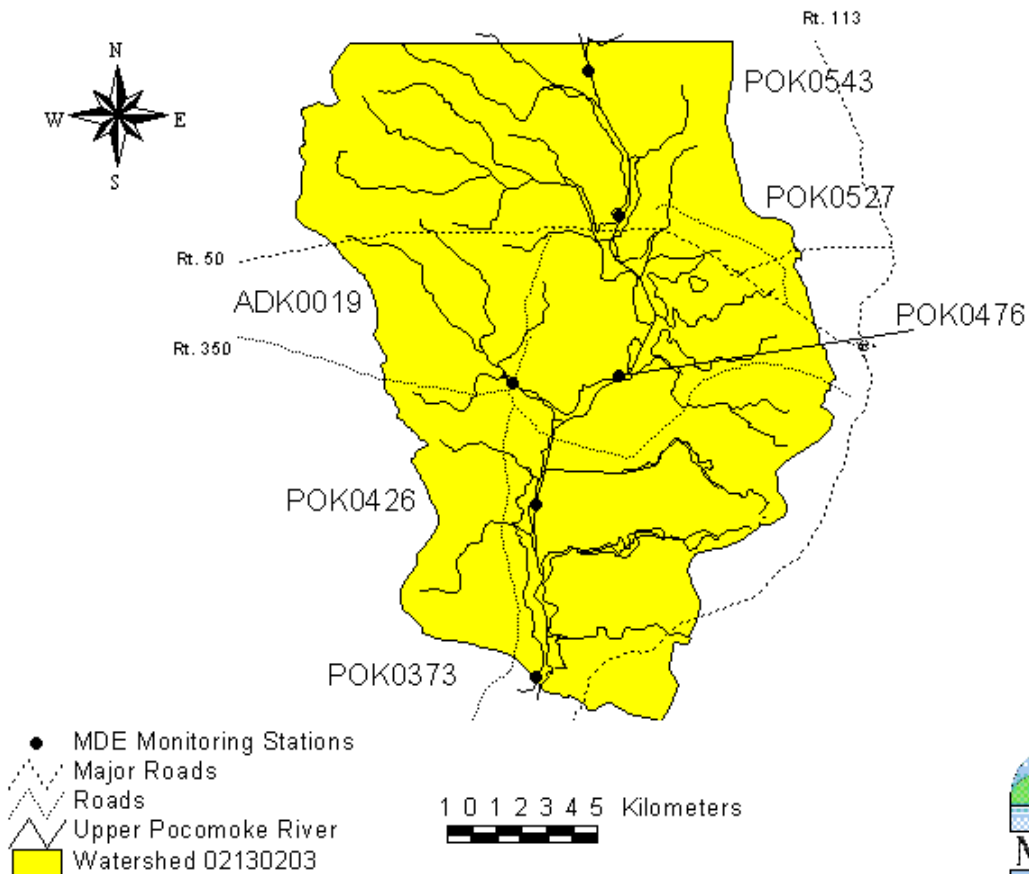
× 23-Jul-97
□ 06-Aug-97
△ 20-Aug-97
◇ 16-Sep-97
○ 09-Jul-98

# Upper Pocomoke River Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Lower Eastern Shore Watershed

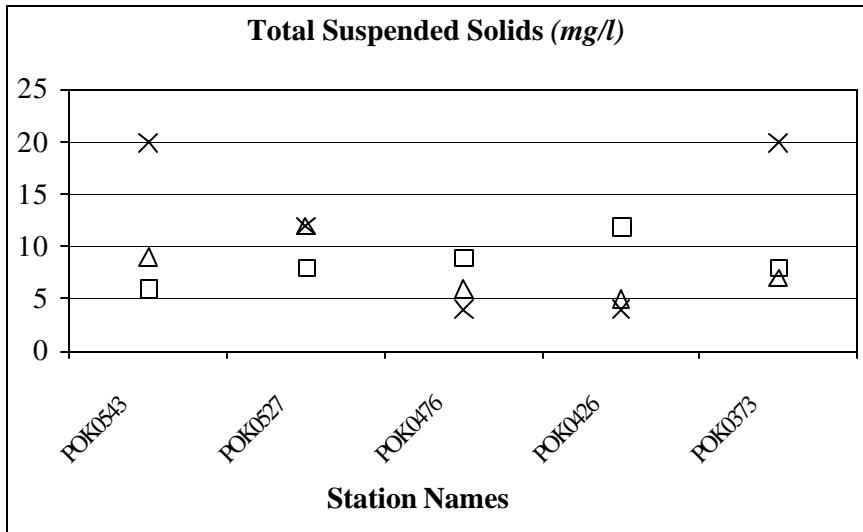
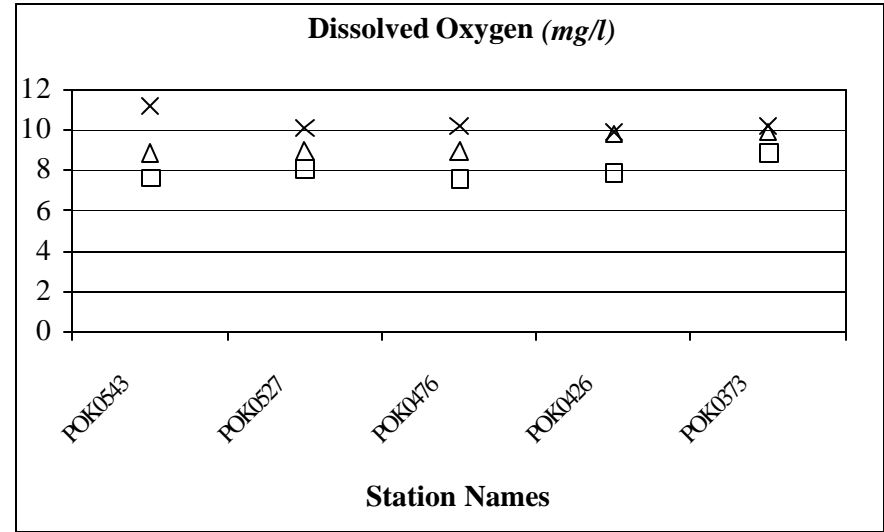
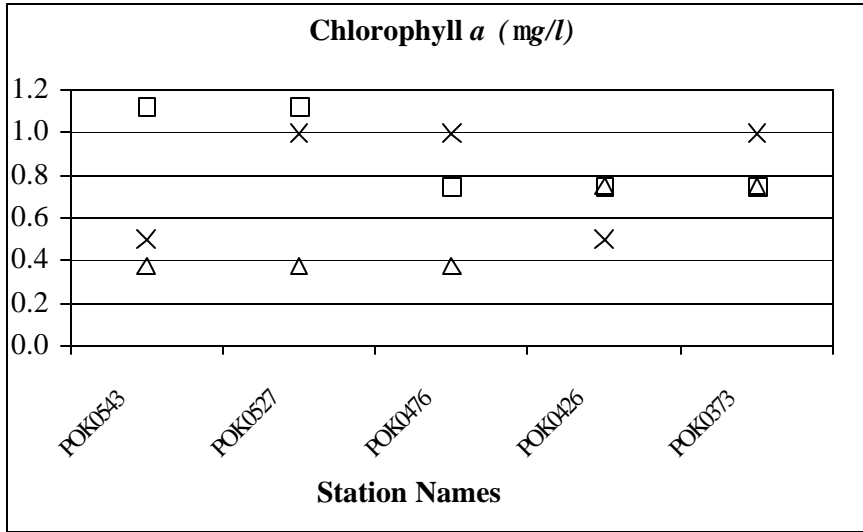


Location of Upper Pocomoke  
Drainage Basin



**Upper Pocomoke River Mainstem**  
High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



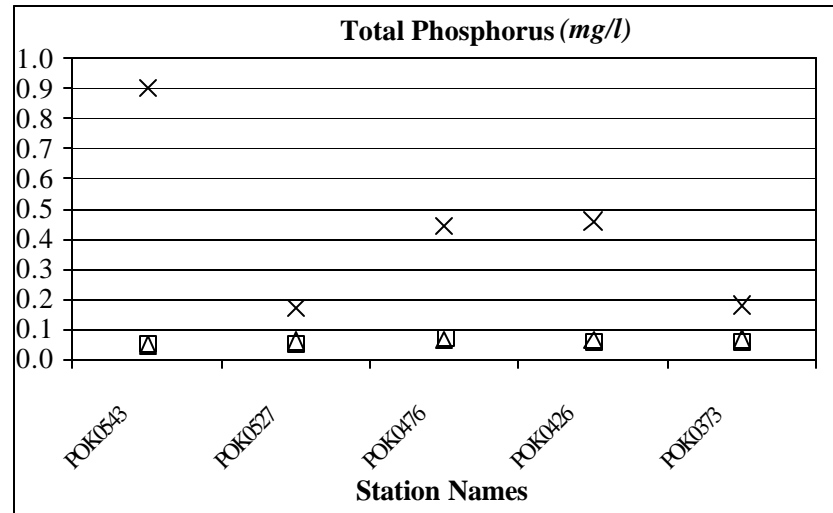
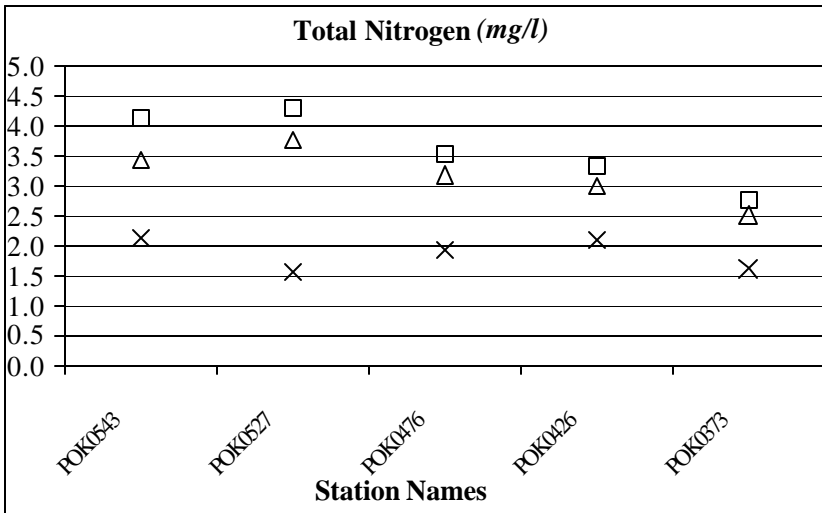
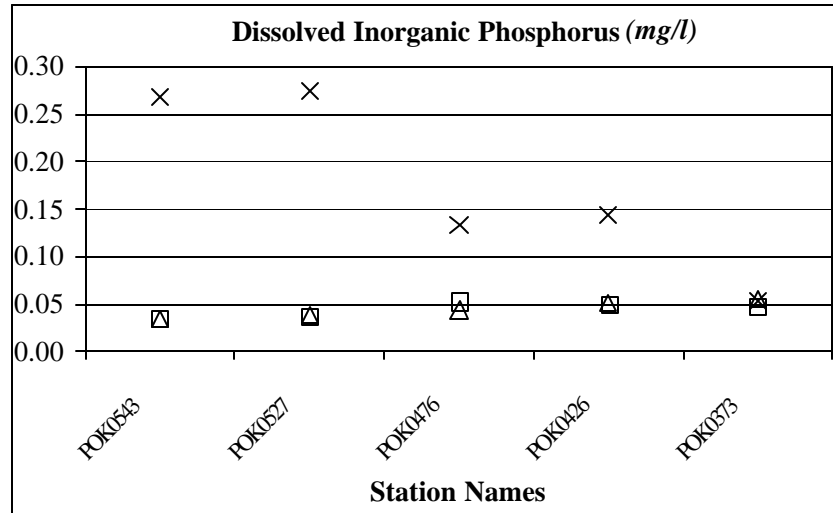
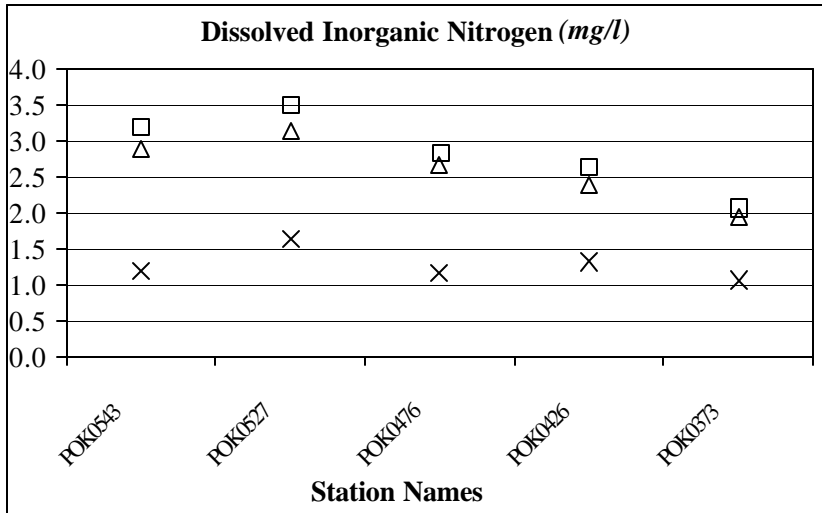
× 05-Feb-98

□ 03-Mar-98

△ 18-Mar-98

**Upper Pocomoke River Mainstem**  
High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



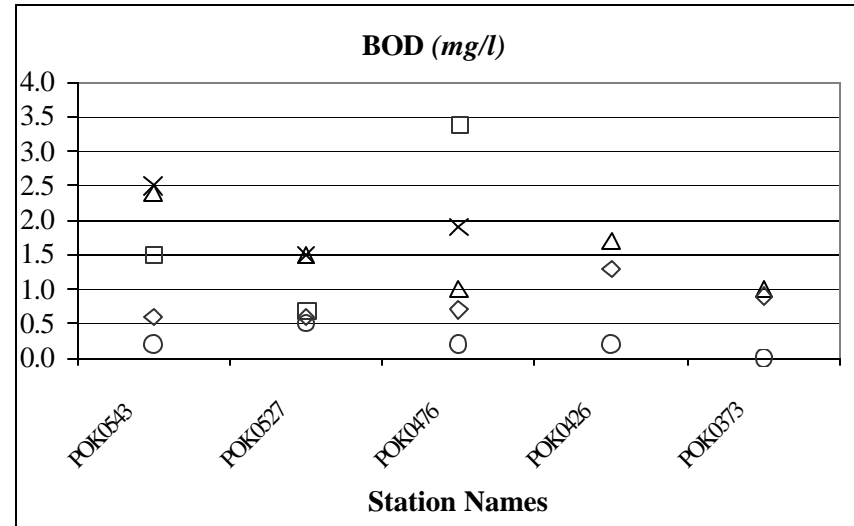
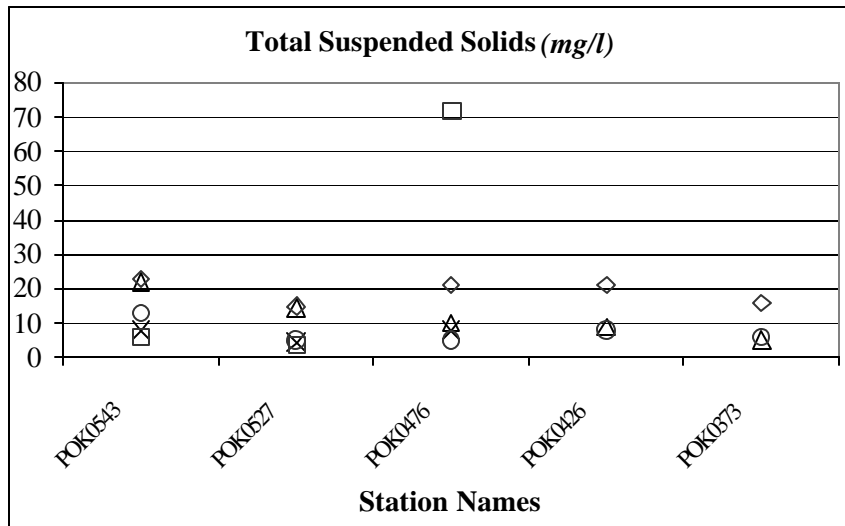
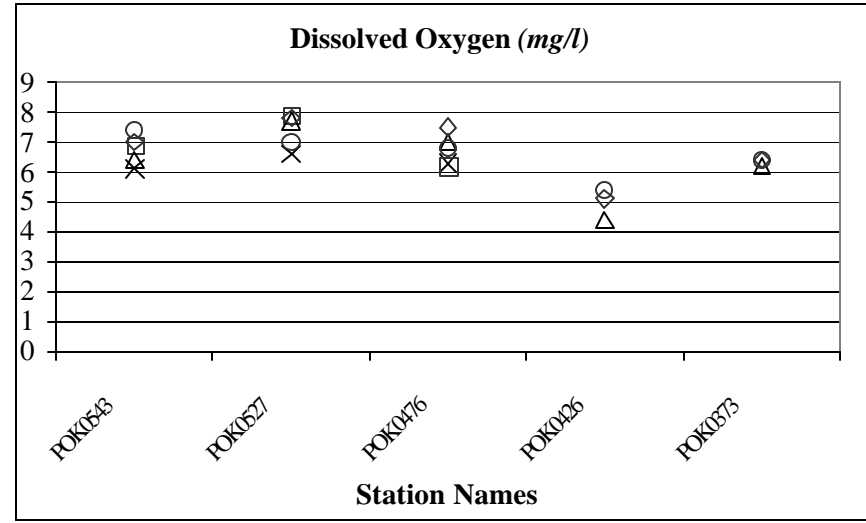
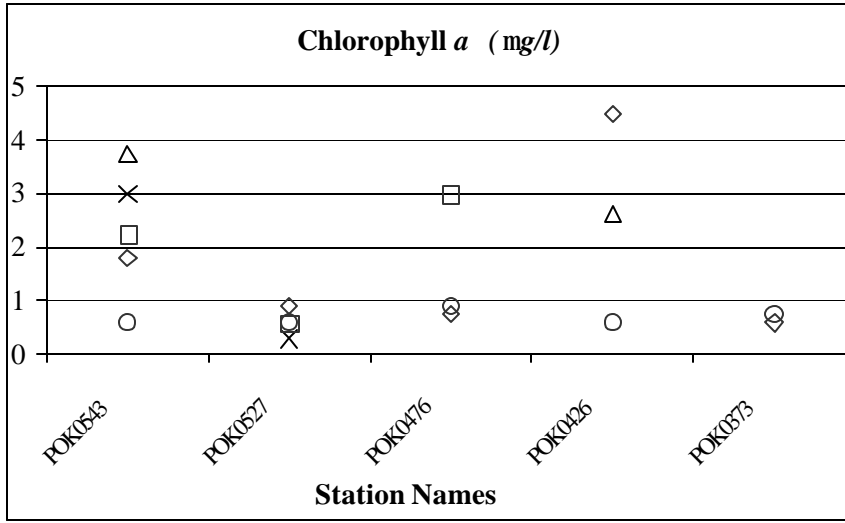
× 05-Feb-98      □ 03-Mar-98      Δ 18-Mar-98



### Upper Pocomoke River Mainstem

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

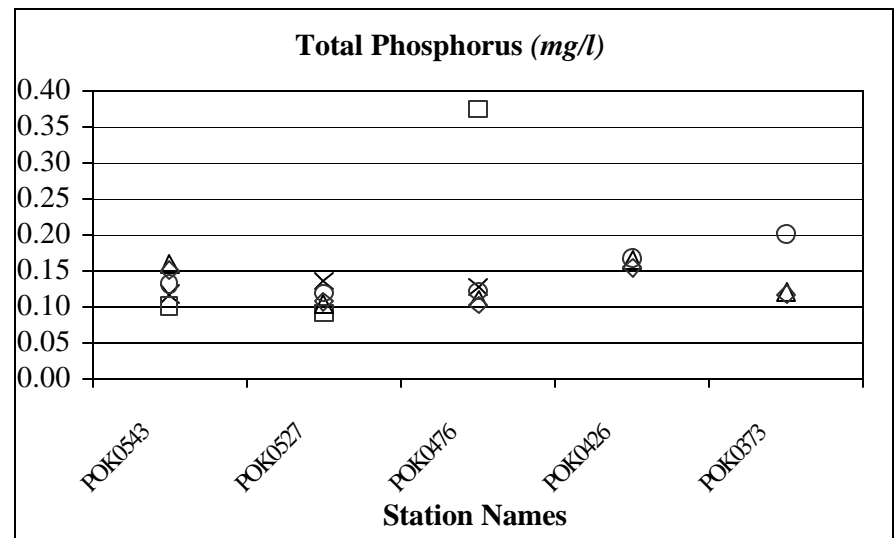
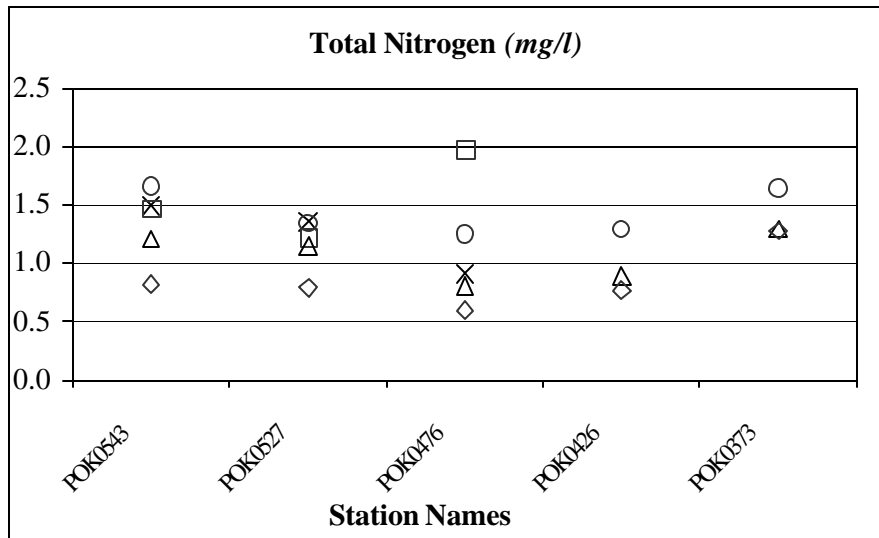
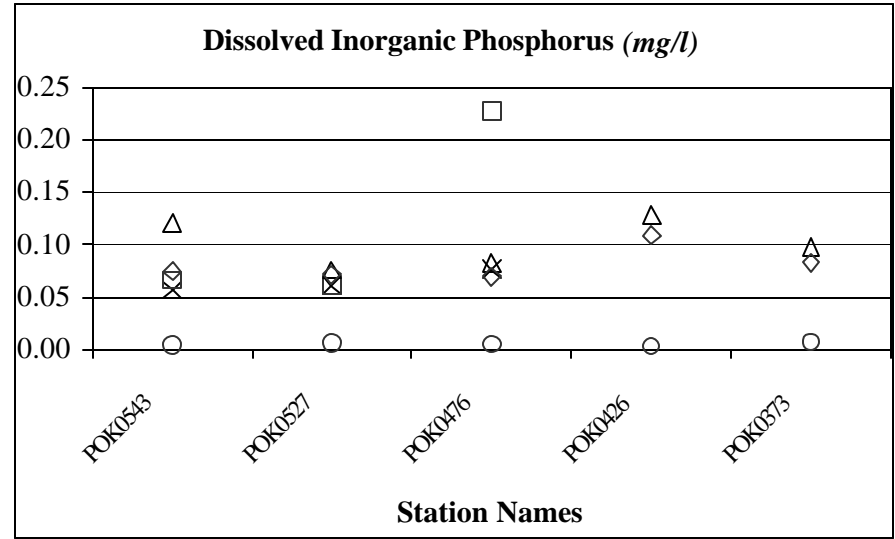
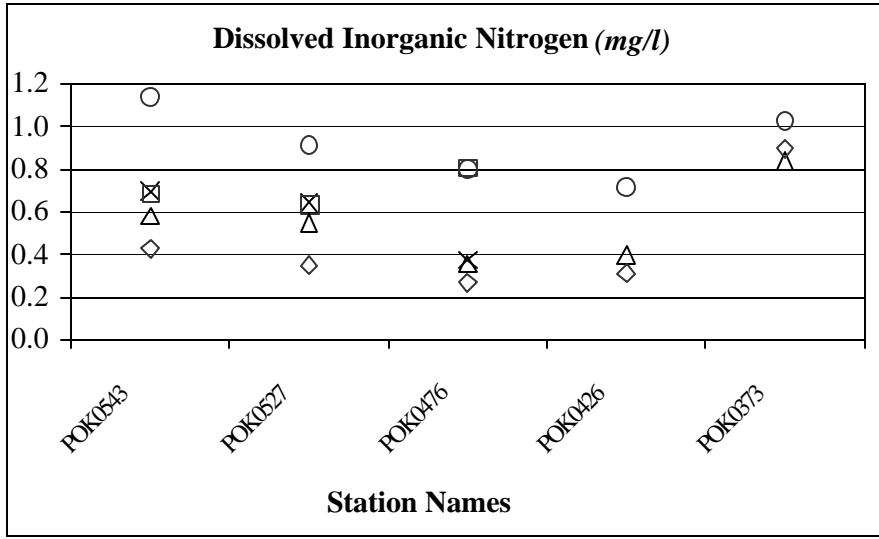


× 23-Jul-97    □ 06-Aug-97    Δ 20-Aug-97    ◇ 16-Sep-97    ○ 09-Jul-98

### Upper Pocomoke River Mainstem

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

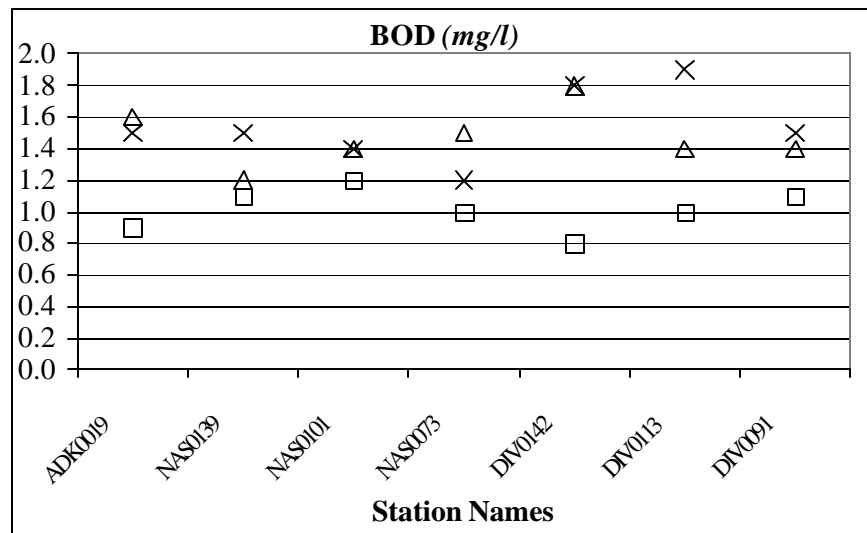
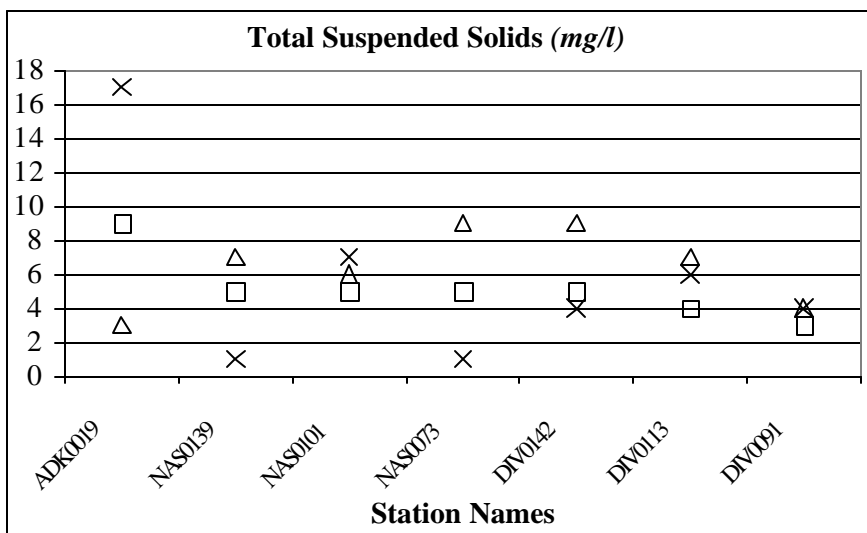
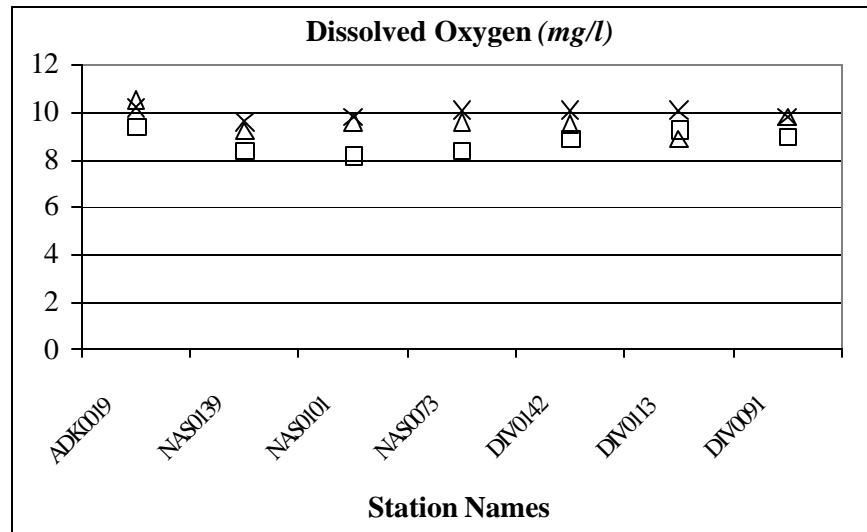
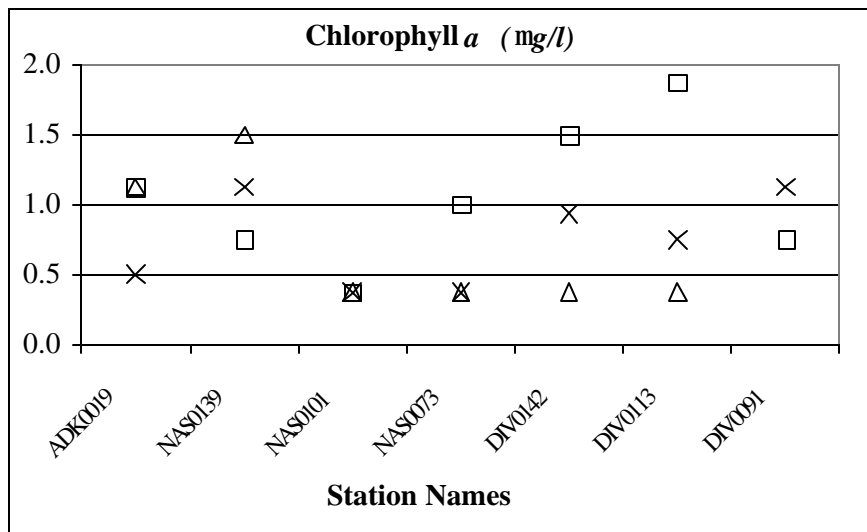


× 23-Jul-97
□ 06-Aug-97
△ 20-Aug-97
◇ 16-Sep-97
○ 09-Jul-98

**Pocomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

High Flow Conditions (January - May)

Stations are grouped by tributaries and presented from left to right in downstream to upstream order



× 05-Feb-98

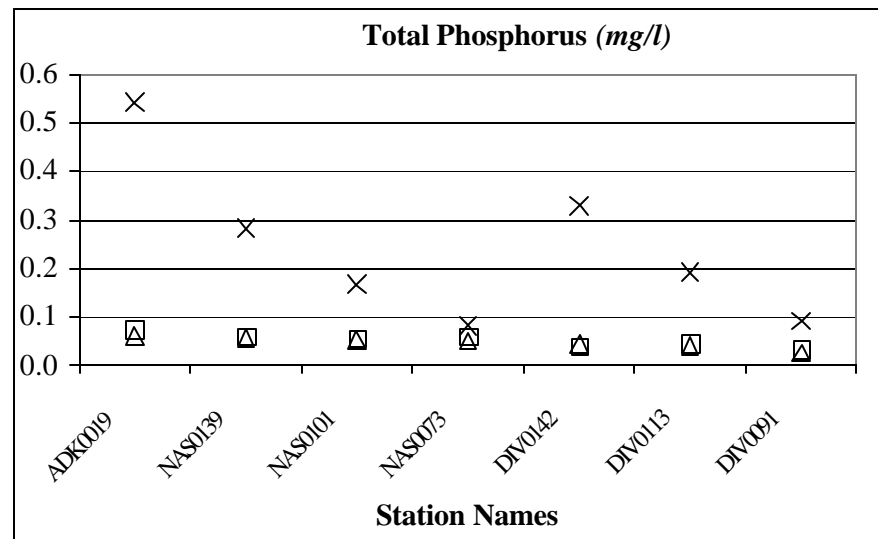
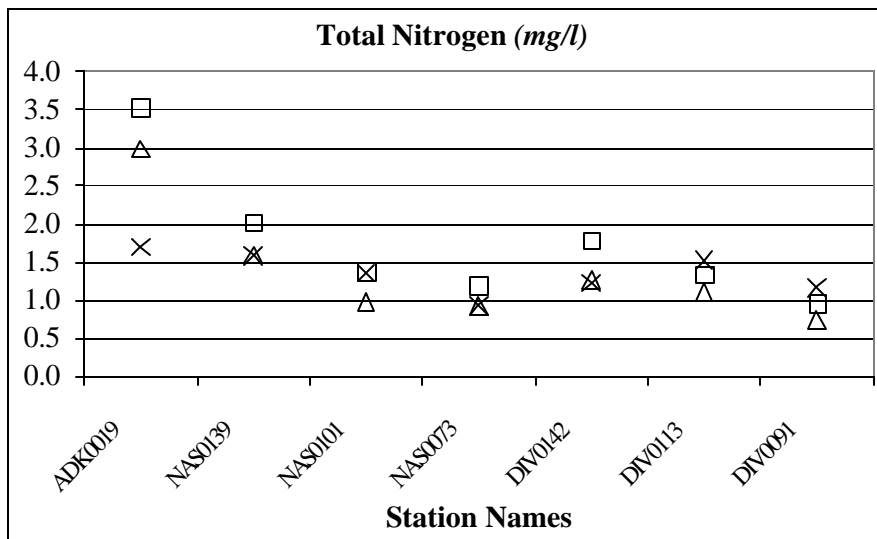
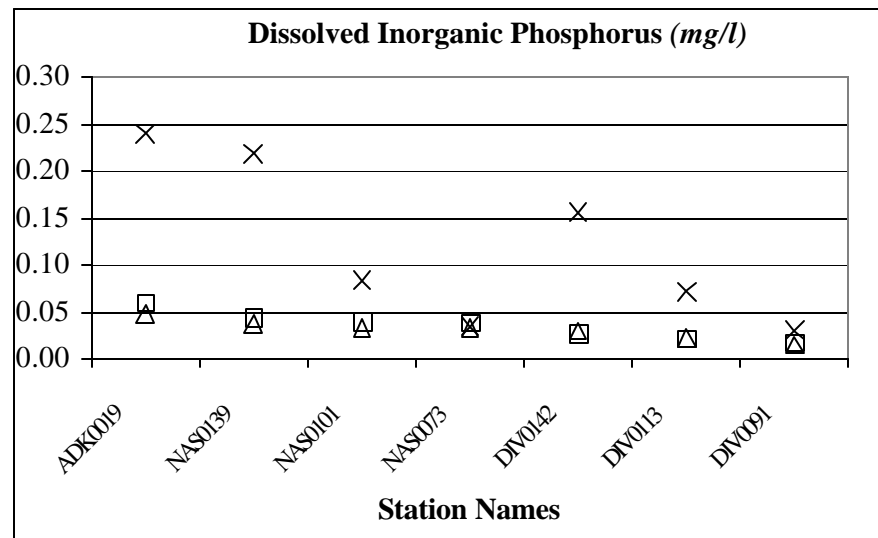
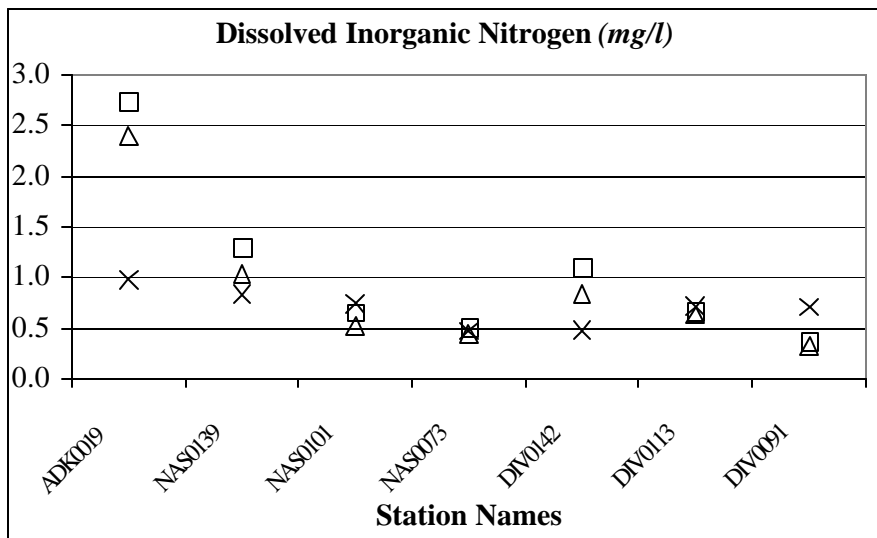
□ 03-Mar-98

△ 18-Mar-98

### Pocomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)

High Flow Conditions (January - May)

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× 05-Feb-98

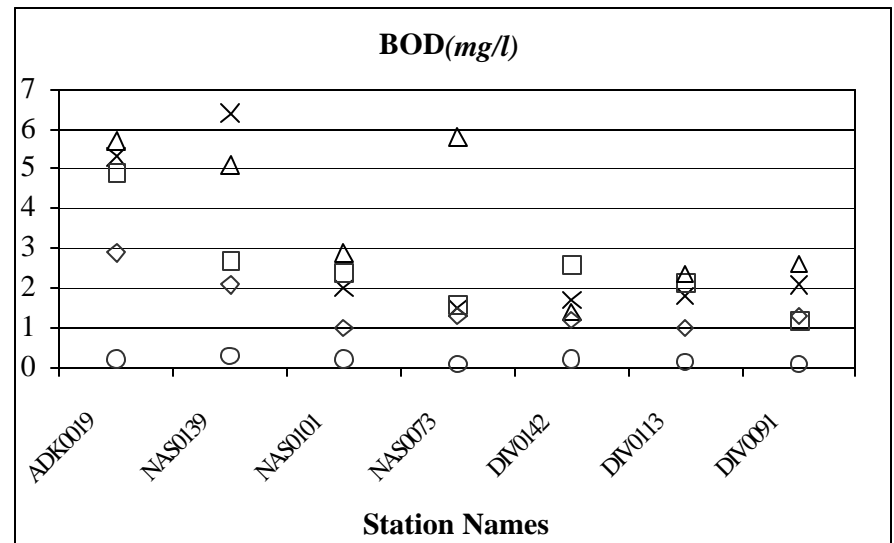
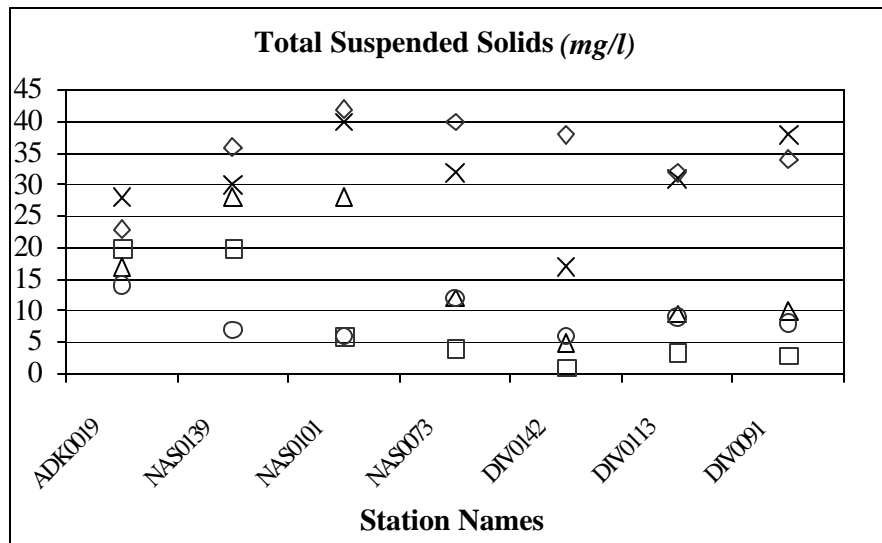
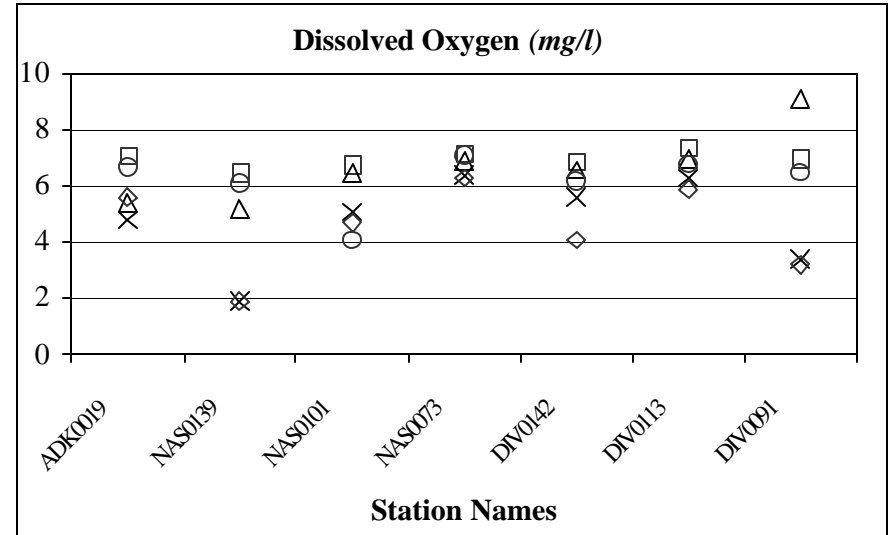
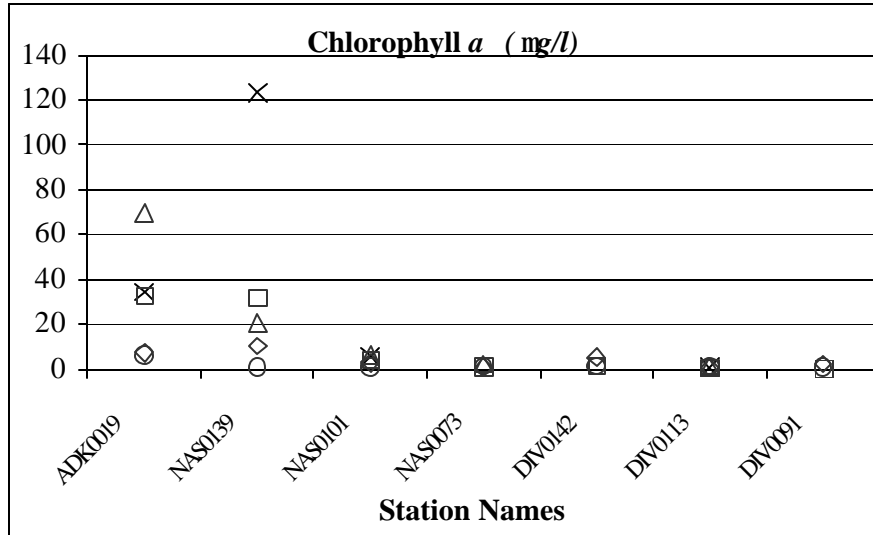
□ 03-Mar-98

△ 18-Mar-98

**Pokomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

Low Flow Conditions (July - October)

Stations are grouped by tributaries and are presented left to right in downstream to upstream order



× 23-Jul-97

□ 06-Aug-97

△ 20-Aug-97

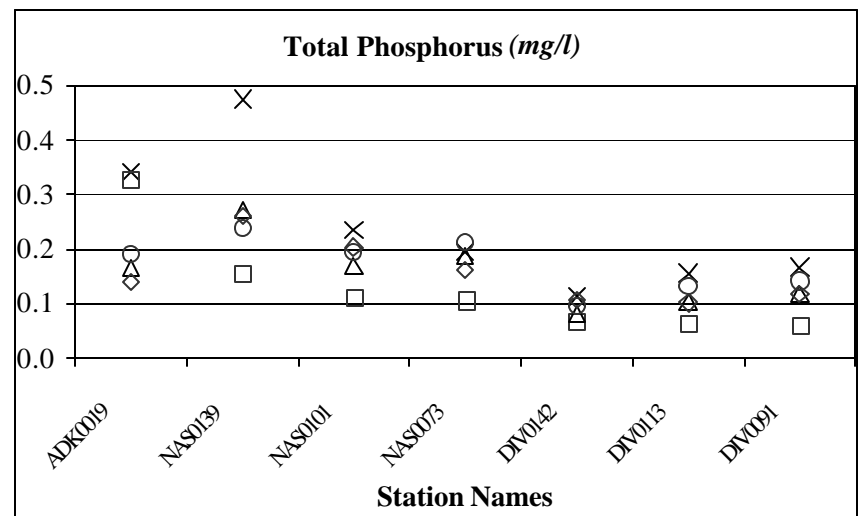
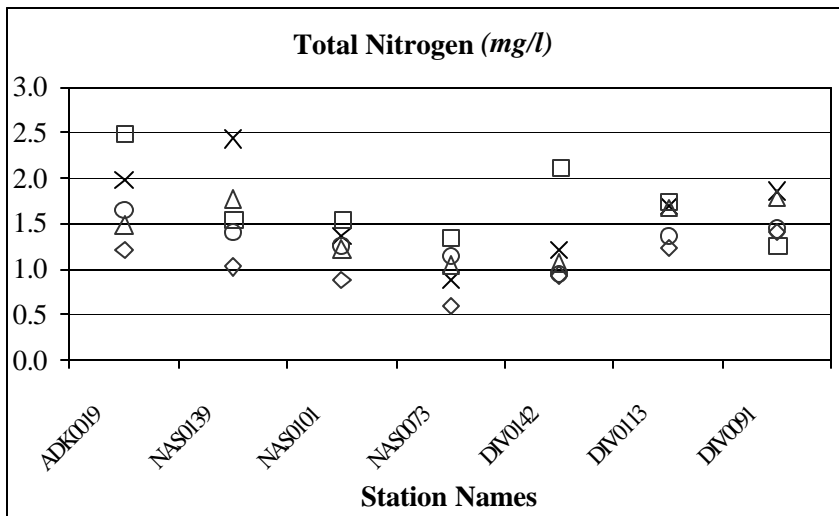
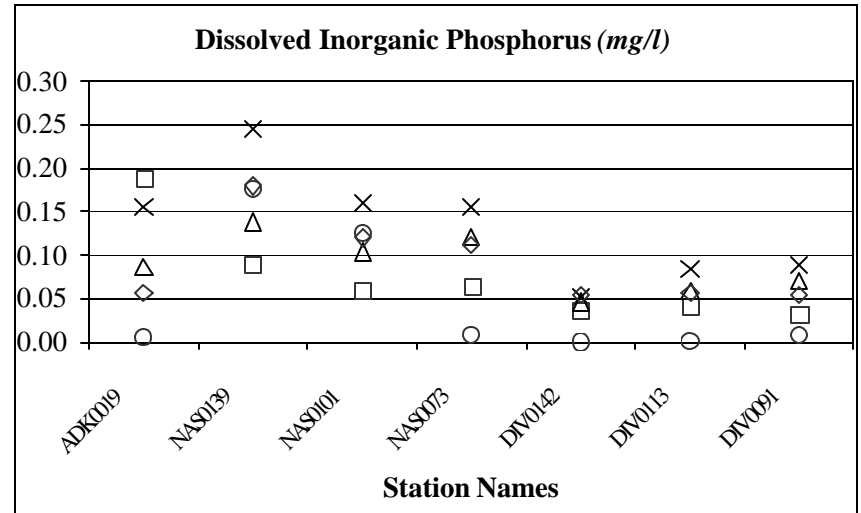
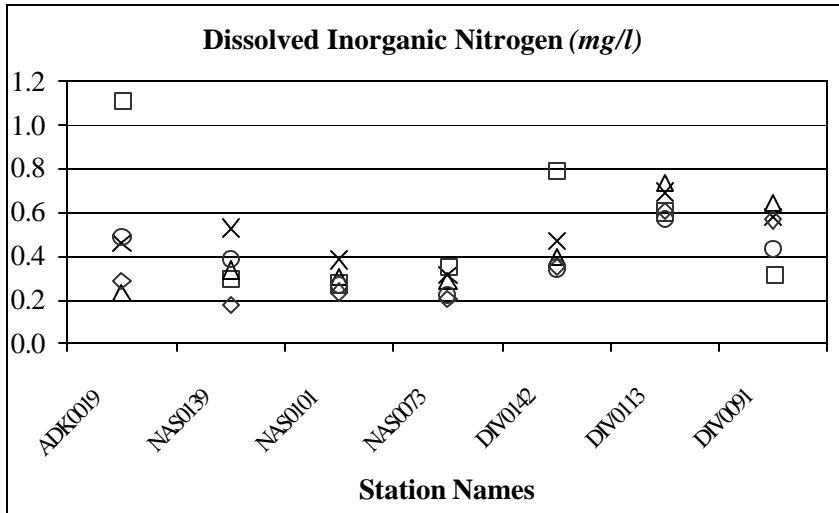
◇ 16-Sep-97

○ 09-Jul-98

**Pokomoke River Tributaries (Adkins Race, Nassawango Creek, and Dividing Creek)**

Low Flow Conditions (July - October)

Stations are grouped by tributaries and are presented left to right in downstream to upstream order



× 23-Jul-97    □ 06-Aug-97    △ 20-Aug-97    ◇ 16-Sep-97    ○ 09-Jul-98

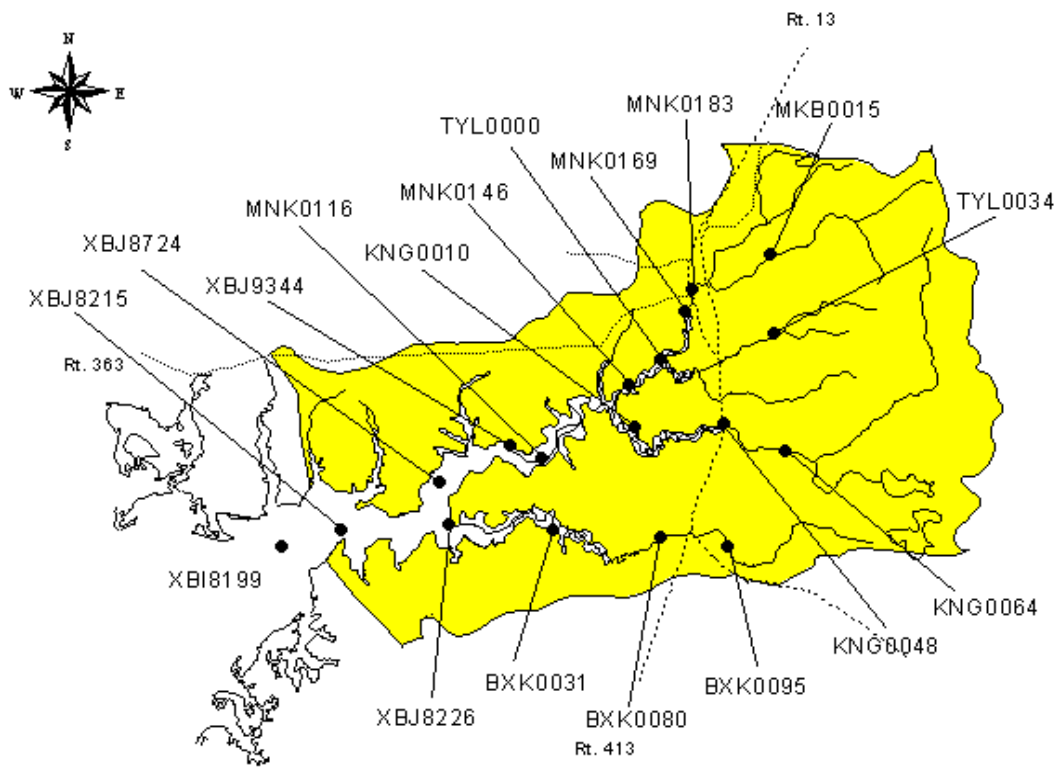
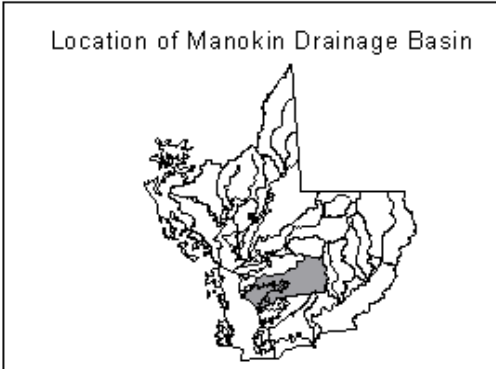
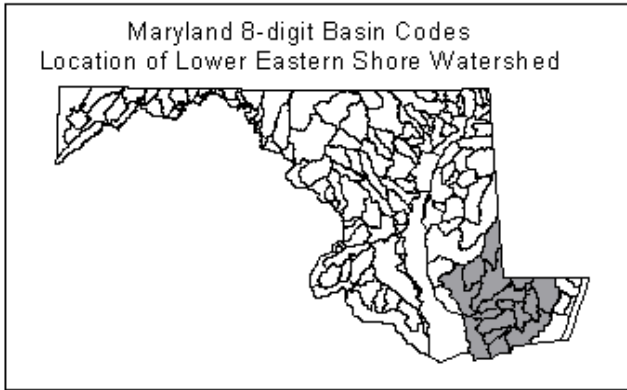
POKOMOKE RIVER  
STATION LIST

| Station Code                    | Lat/Long              | Description                                                           |
|---------------------------------|-----------------------|-----------------------------------------------------------------------|
| <b><u>Pocomoke River:</u></b>   |                       |                                                                       |
| XAK7010                         | 37°56.895' 75°38.923' | At buoy "M" SSE of Williams PT.                                       |
| POK0014                         | 37°58.871' 75°38.251' | Off ramp at Shelltown.                                                |
| POK0057                         | 38°00.661' 75°37.901' | 0.5 miles upstream of silo at Cedar Hall.                             |
| POK0087                         | 38°02.375' 75°39.649' | Off ramp at town of Rehobeth.                                         |
| POK0164                         | 38°04.291' 75°34.588' | At water tower below railroad bridge 1.8 miles from Puncheon Landing. |
| POK0187                         | 38°05.08' 75°33.24'   | Upriver of Town Branch and launch ramp.                               |
| POK0232                         | 38°07.26' 75°29.70'   | At Milburn Landing.                                                   |
| POK0270                         | 38°08.74' 75°27.00'   | Mouth of Corkers Creek, below Shad Landing.                           |
| POK0296                         | 38°09.52' 75°25.36'   | Mouth of Nassawango Creek.                                            |
| POK0312                         | 38°10.42' 75°24.30'   | Off Snow Hill sewage treatment plant.                                 |
| POK0373                         | 38°13.412' 75°21.761' | At Porters Crossing Road.                                             |
| POK0426                         | 38°19.936' 75°19.536' | At Whiton Crossing Road.                                              |
| POK0476                         | 38°19.937' 75°19.537' | At Purnell Road crossing.                                             |
| POK0527                         | 38°23.350' 75°19.526' | At Md. Rt. 346 road crossing (USGS gage).                             |
| POK0543                         | 38°26.343' 75°19.689' | At Sheppards Road crossing.                                           |
| <b><u>Dividing Creek:</u></b>   |                       |                                                                       |
| DIV0091                         | 38°09.731' 75°33.123' | At Fleming Mill Pond Road crossing.                                   |
| DIV0113                         | 38°11.209' 75°33.201' | At Five Bridges Road crossing.                                        |
| DIV0142                         | 38°13.279' 75°34.619' | At Meadow Bridge Rd. crossing.                                        |
| <b><u>Nassawango Creek:</u></b> |                       |                                                                       |
| NAS0073                         | 38°13.751' 75°28.300' | At Rt. 12 road crossing. (USGS Gage)                                  |
| NAS0101                         | 38°15.709' 75°27.793' | At Mt. Olive Church Road crossing.                                    |
| NAS0139                         | 38°18.506' 75°28.042' | At Johnson Road crossing.                                             |

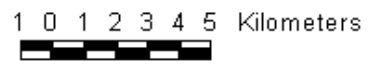
| Station Code        | Lat/Long              | Description                                         |
|---------------------|-----------------------|-----------------------------------------------------|
| <i>Adkins Race:</i> |                       |                                                     |
| ADK0019             | 38°19.862' 75°22.452' | At Willards Whiton Road crossing below Adkins Pond. |



# Manokin River Monitoring Stations

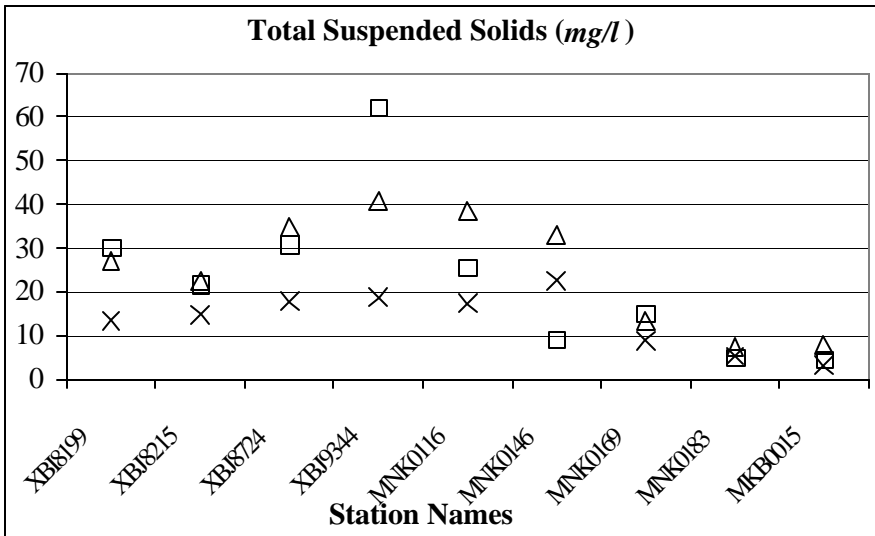
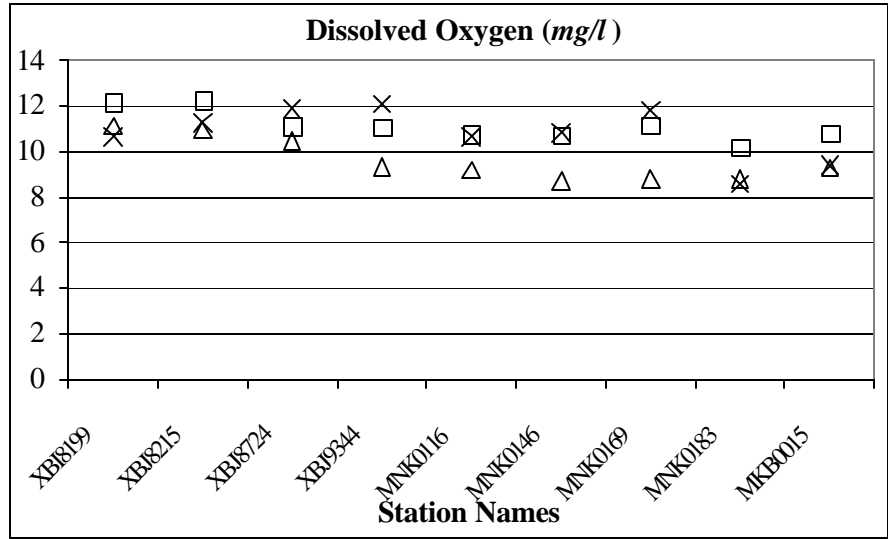
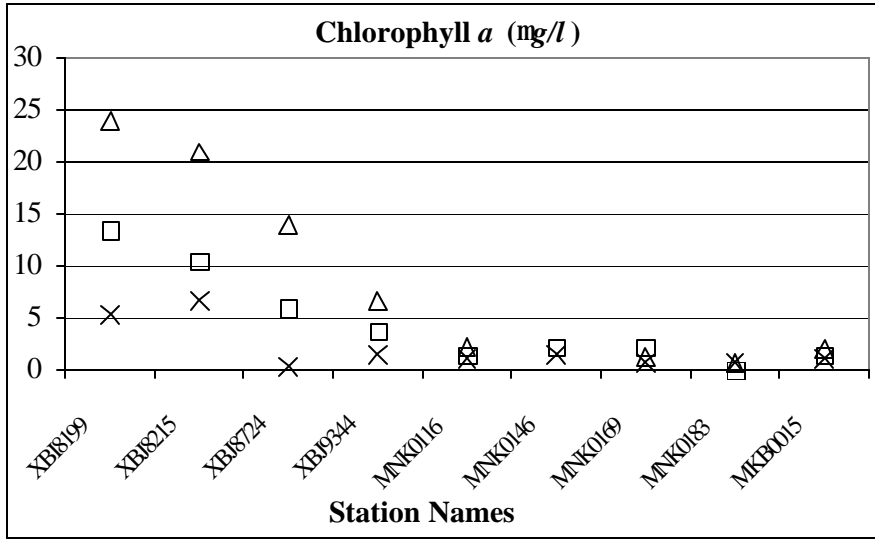


- MDE Monitoring Stations
- - - Major Roads
- - - Roads
- △ Manokin River
- Watershedmano.shp



**Manokin River Mainstem**  
High Flow Conditions (January-May)

Stations are presented from left to right in downstream to upstream order

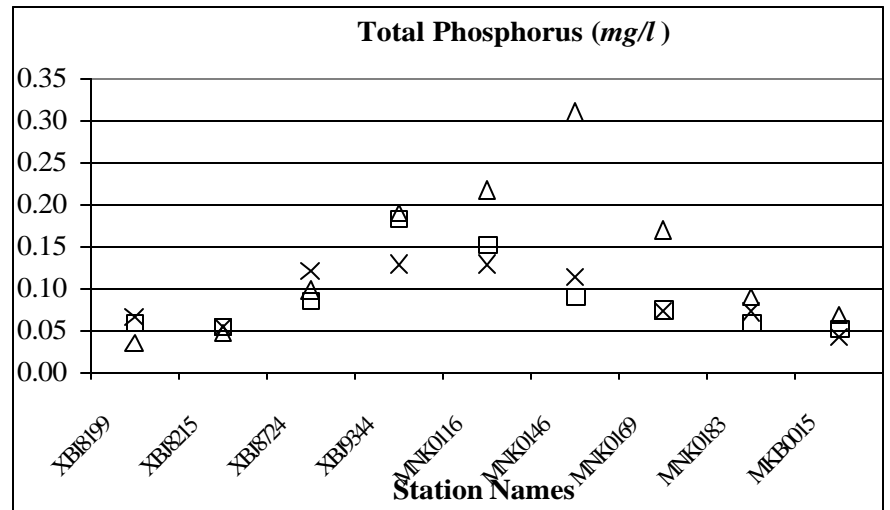
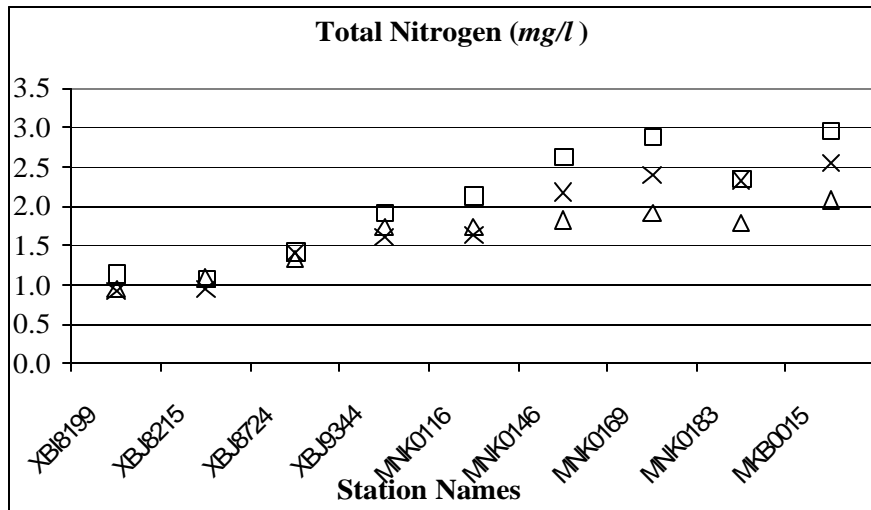
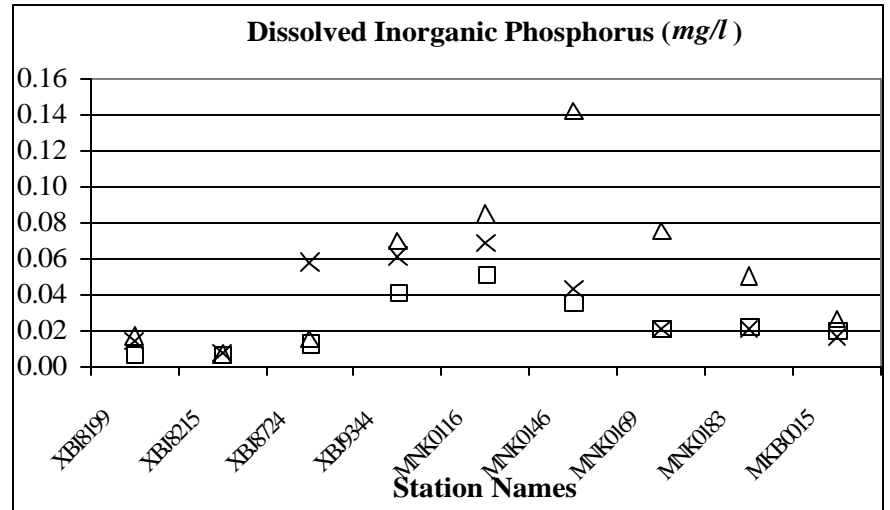
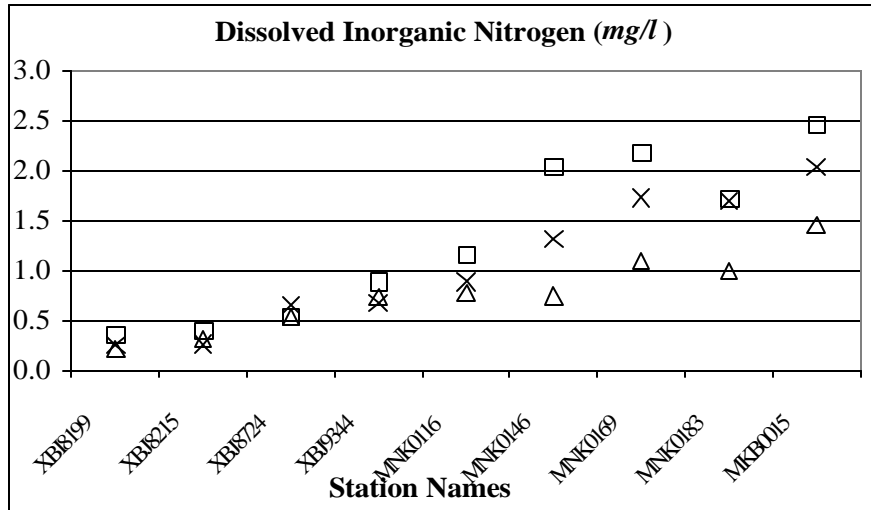


× 10-Feb-98
□ 16-Mar-98
△ 23-Mar-98

**Manokin River Mainstem**

High Flow Conditions (January-May)

Stations are presented from left to right in downstream to upstream order

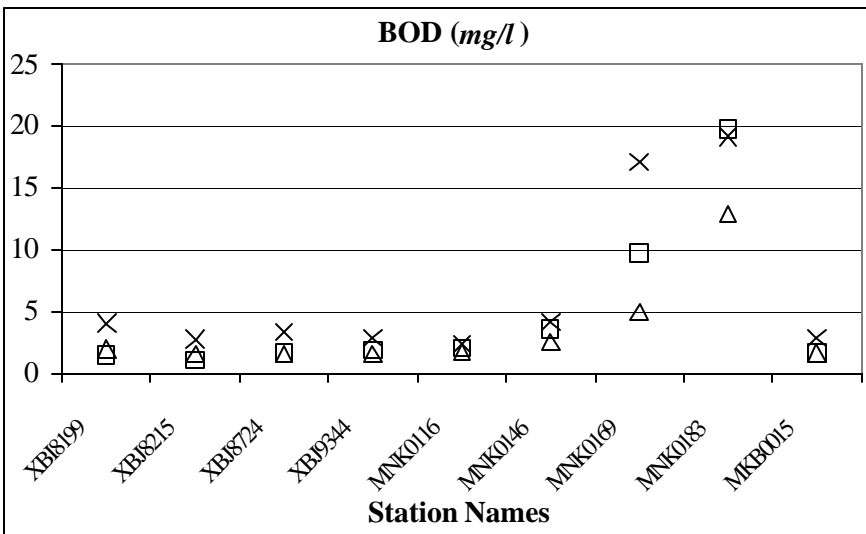
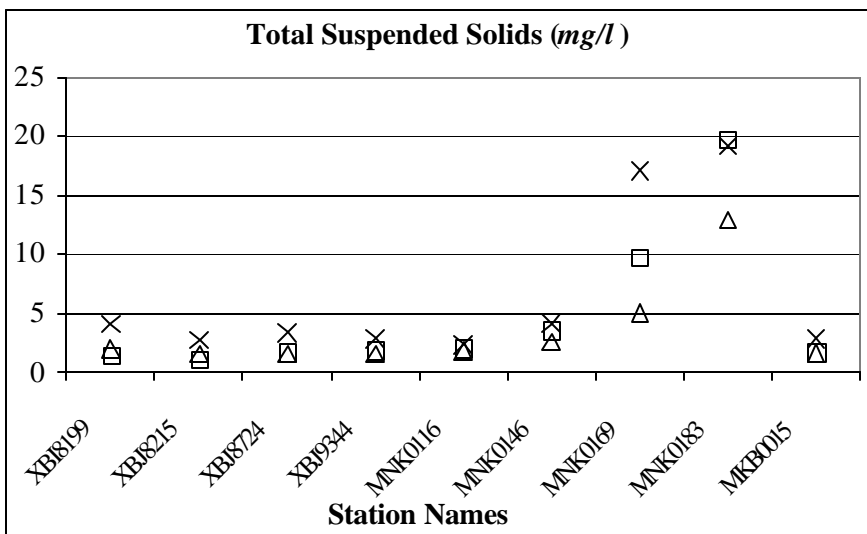
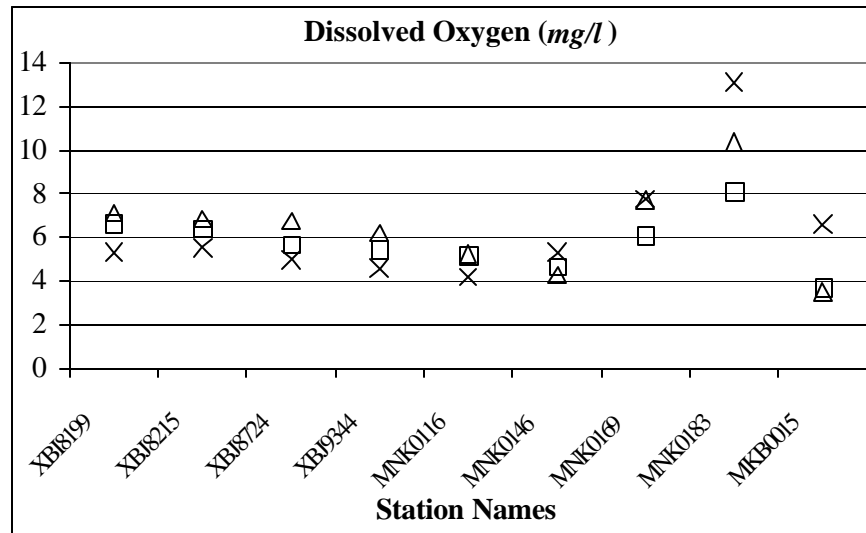
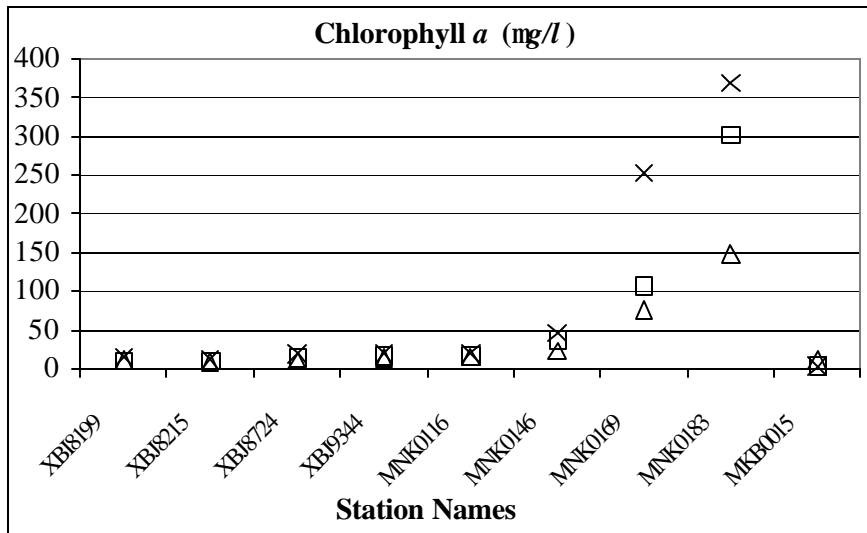


× 10-Feb-98      □ 16-Mar-98      Δ 23-Mar-98

### Manokin River Mainstem

Low Flow Conditions ( July - October)

Stations are presented from left to right in downstream to upstream order



x 22-Jul-98

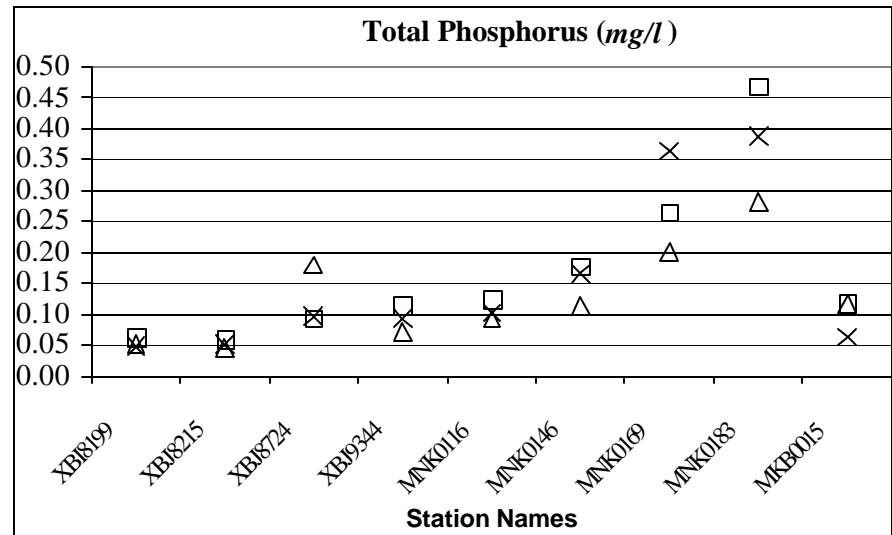
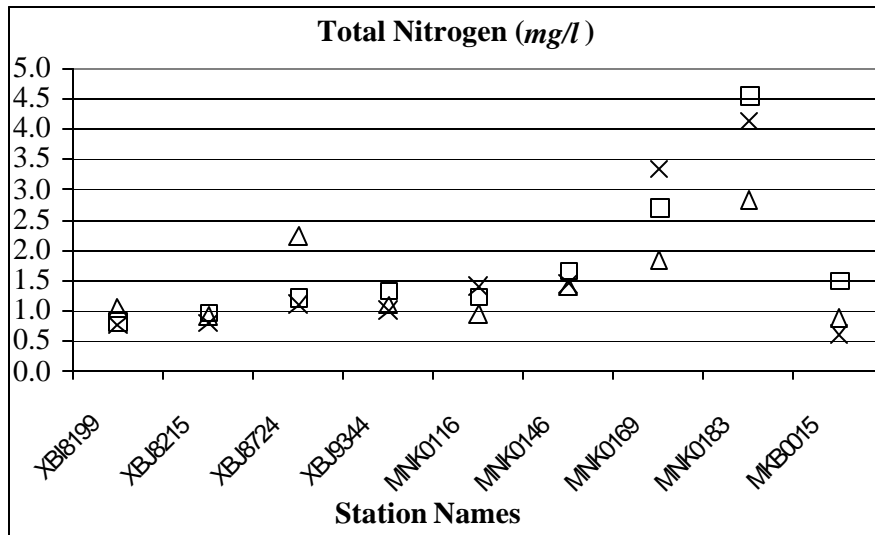
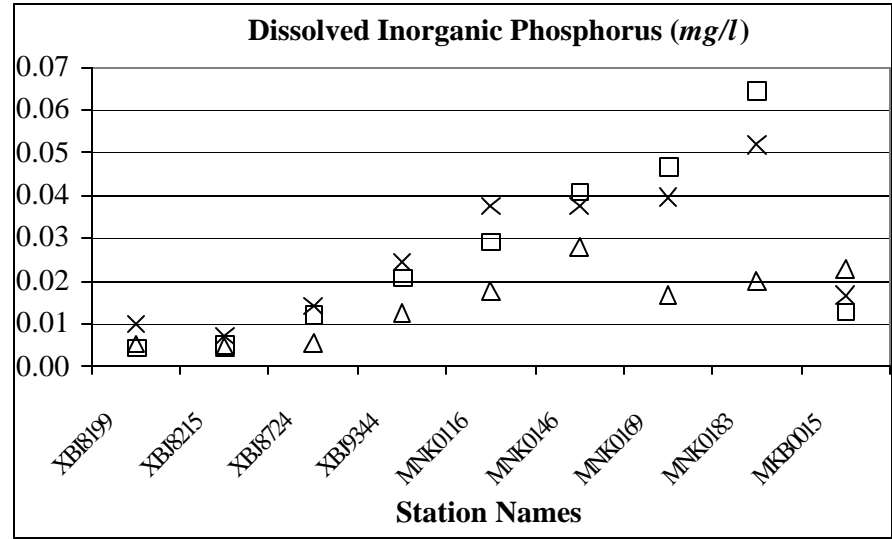
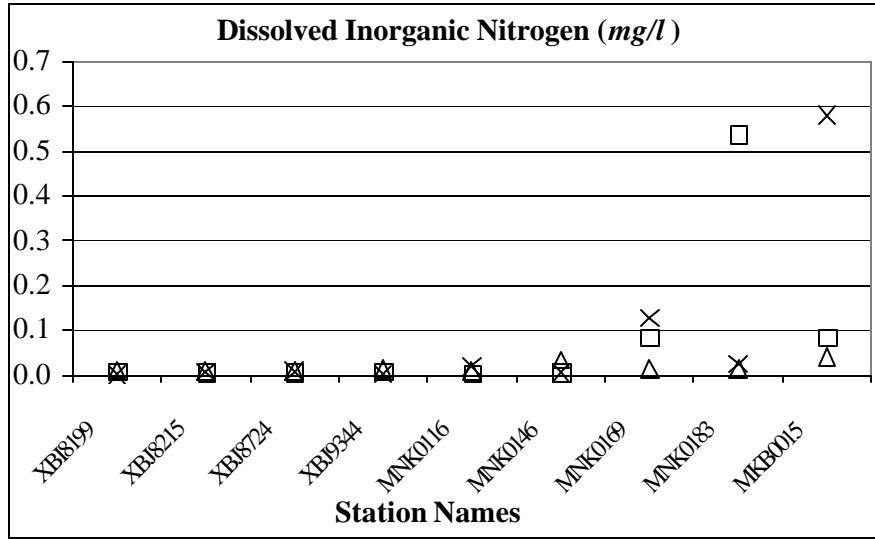
□ 19-Aug-98

△ 16-Sep-98

### Manokin River Mainstem

Low Flow Conditions ( July - October)

Stations are presented from left to right in downstream to upstream order



x 22-Jul-98

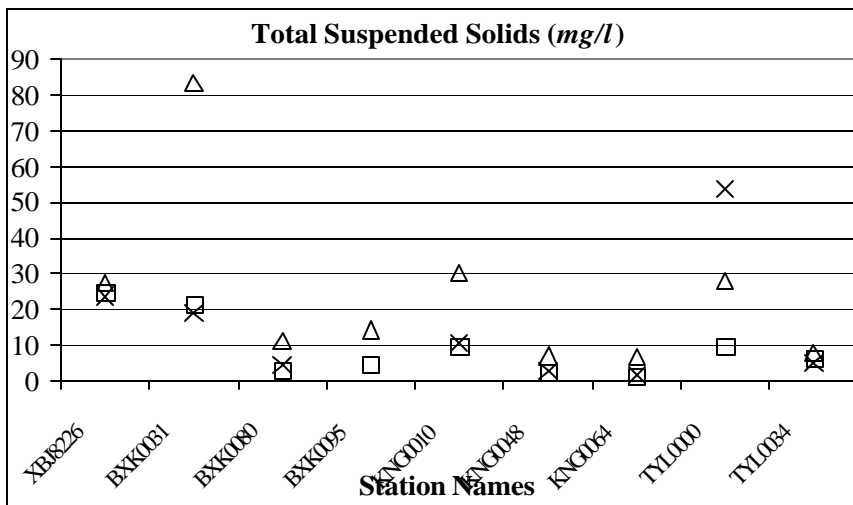
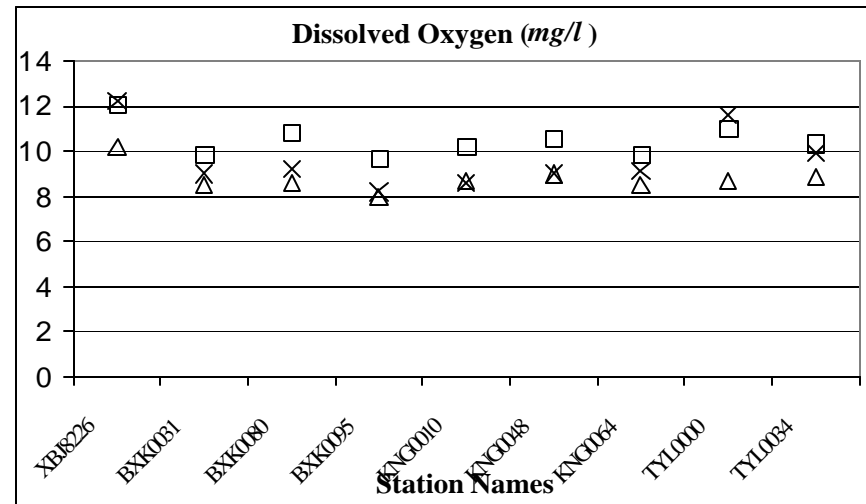
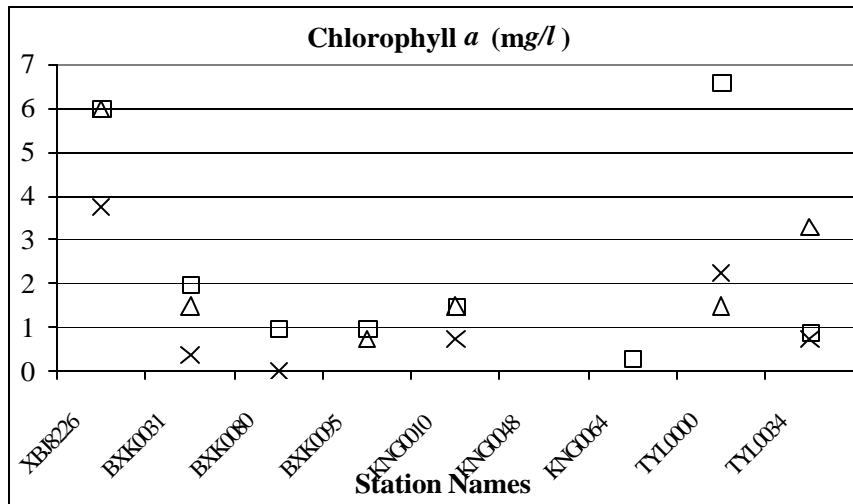
□ 19-Aug-98

△ 16-Sep-98

**Manokin River Tributaries (Back Creek, Kings Creek, and Taylor Branch)**

High Flow Conditions (January-May)

Stations are grouped by tributaries and stations are presented from left to right in downstream to upstream order

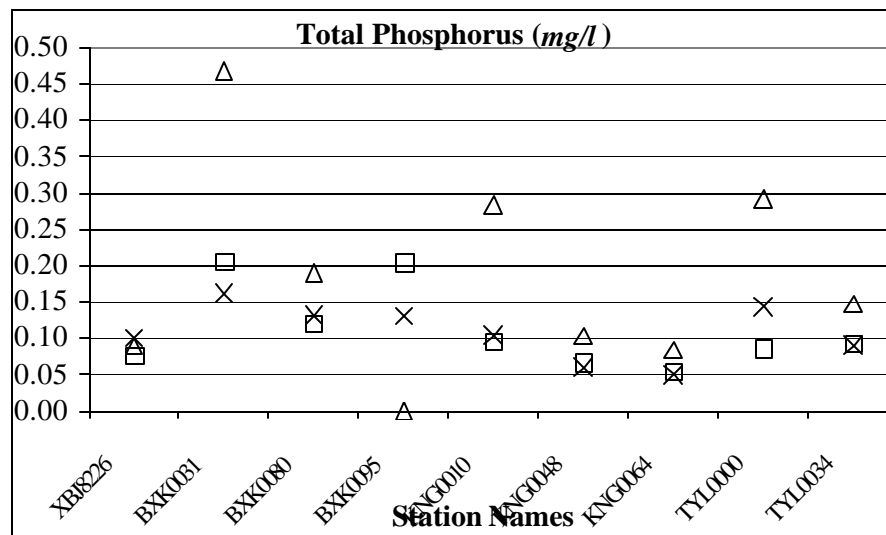
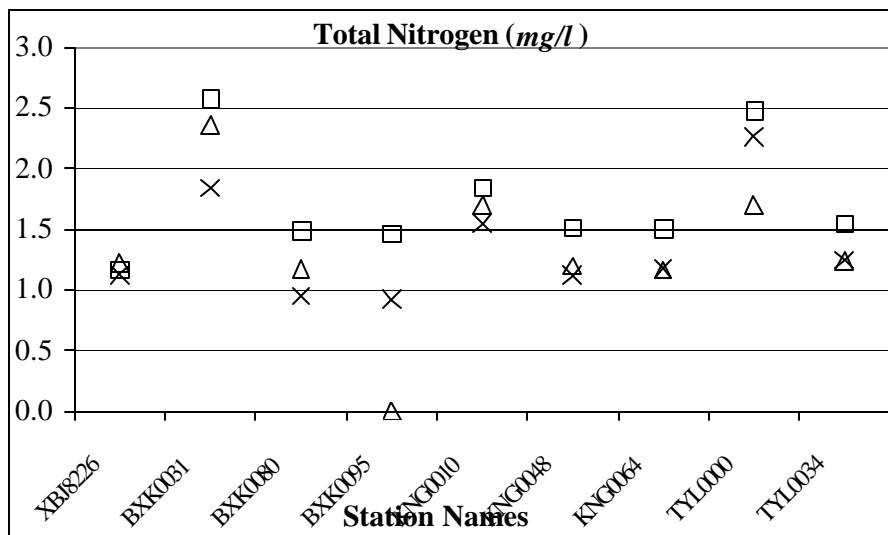
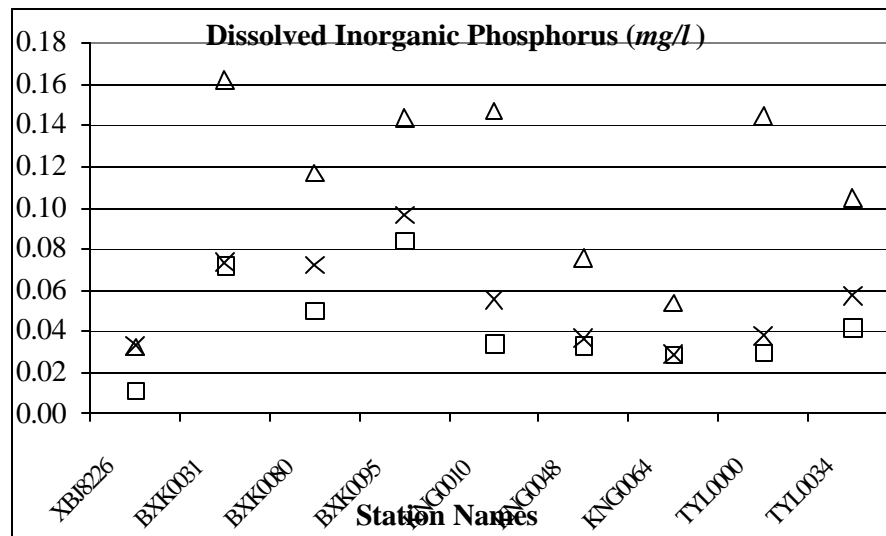
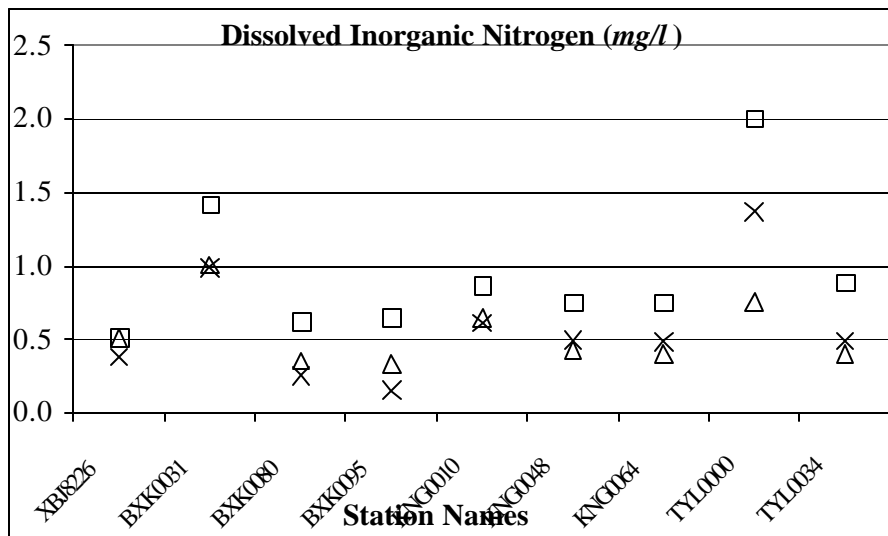


× 10-Feb-98      □ 16-Mar-98      △ 23-Mar-98

## Manokin River Tributaries (Back Creek, Kings Creek, and Taylor Branch)

High Flow Conditions (January-May)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order



× 10-Feb-98

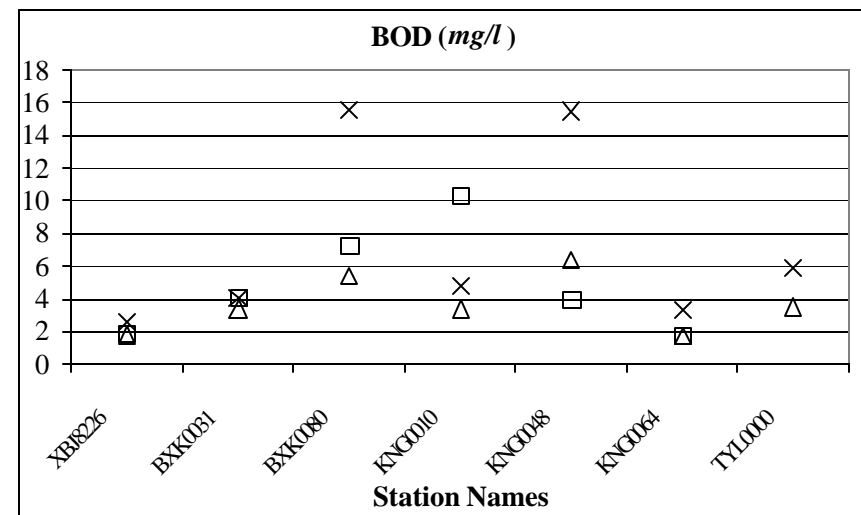
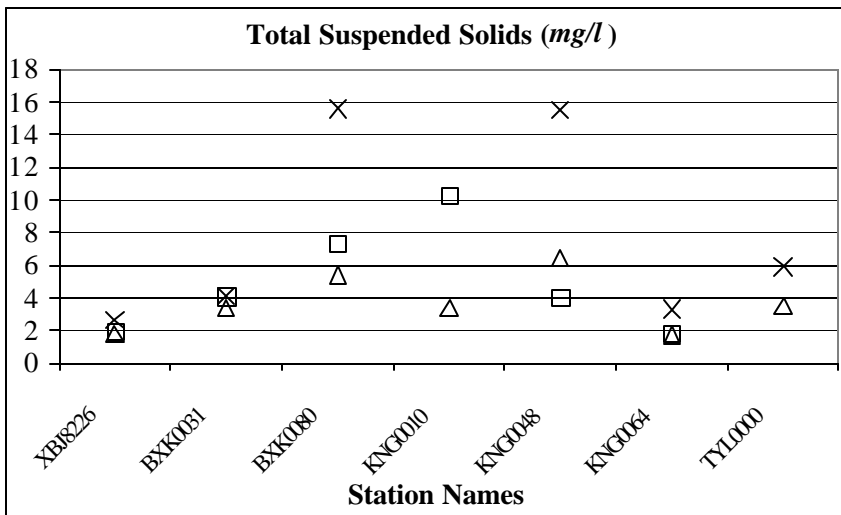
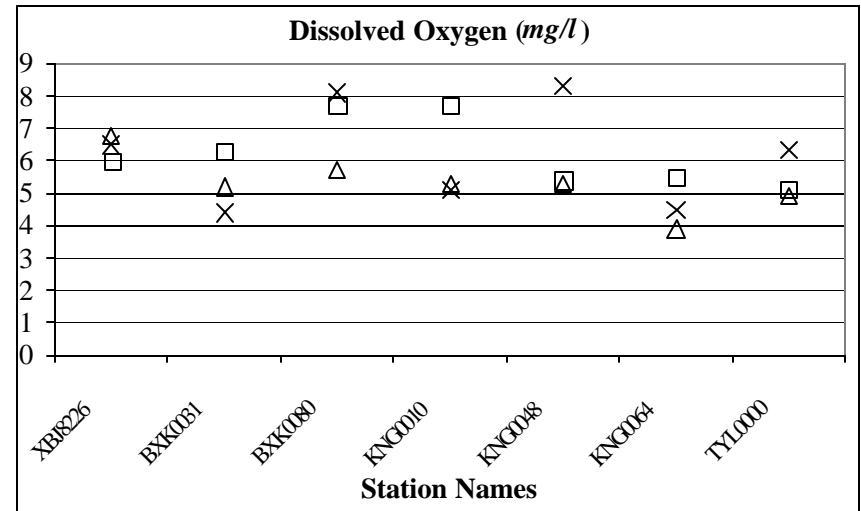
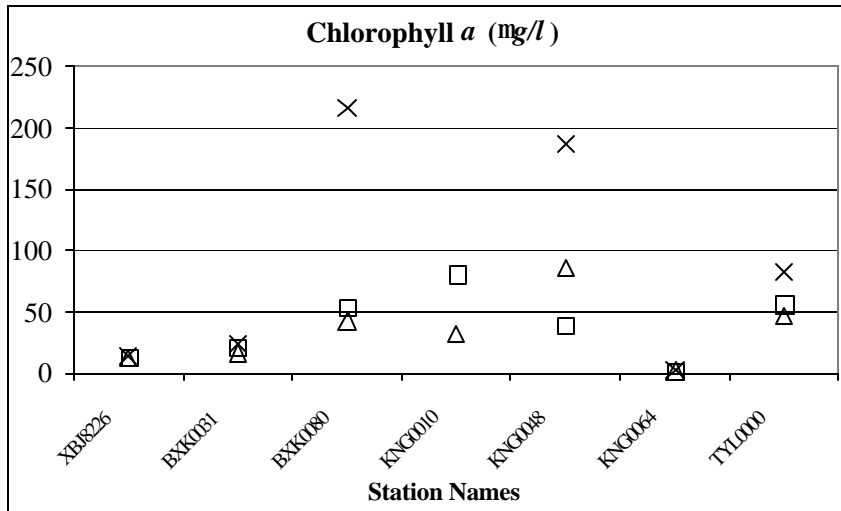
□ 16-Mar-98

△ 23-Mar-98

### Manokin River Tributaries (Back Creek, Kings Creek, and Taylor Branch)

Low Flow Conditions ( July - October)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order



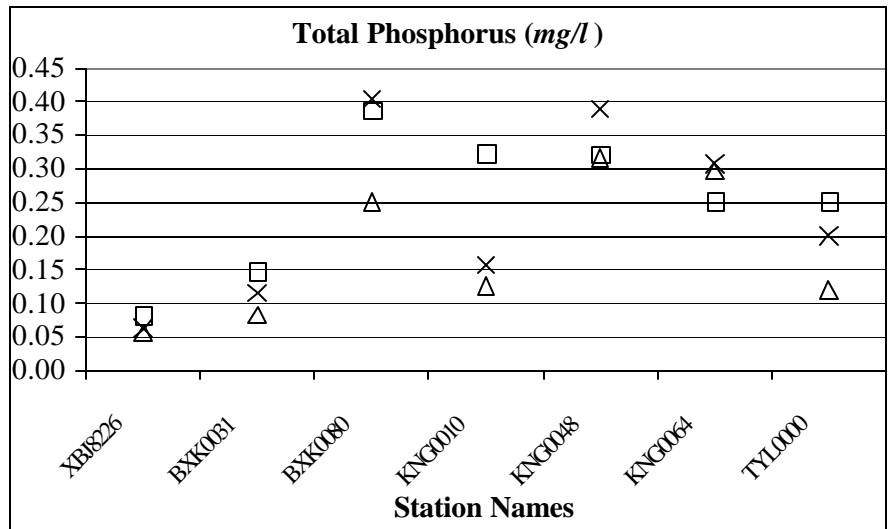
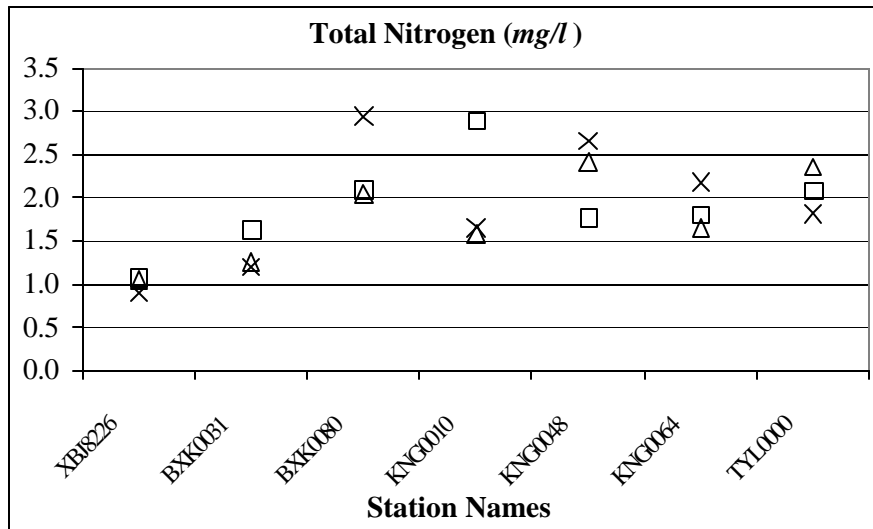
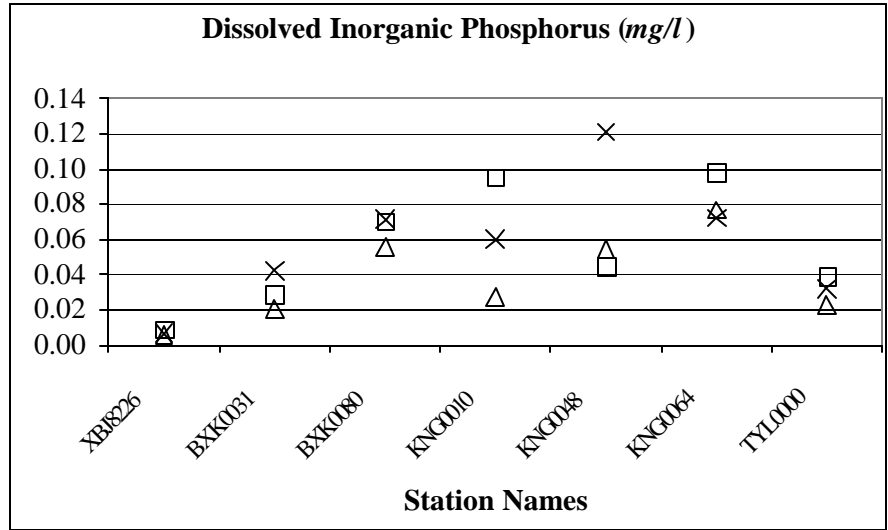
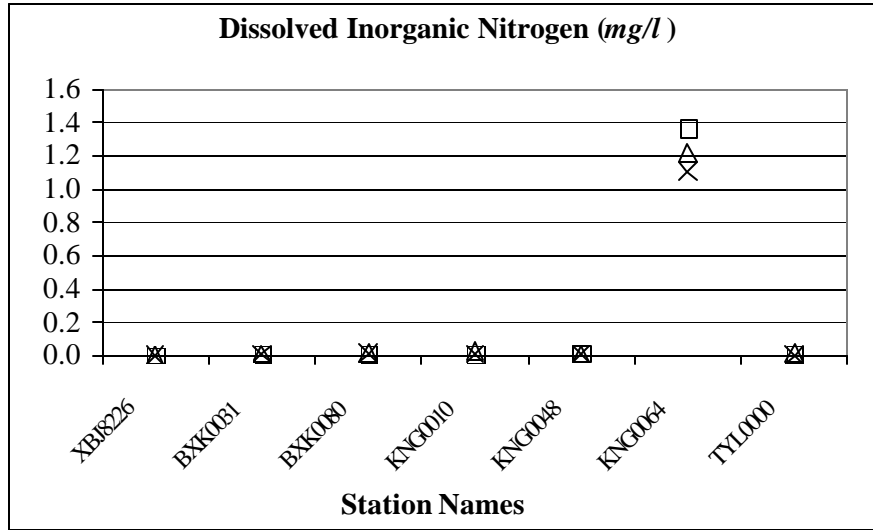
× 22-Jul-98      □ 19-Aug-98      △ 16-Sep-98



### Manokin River Tributaries (Back Creek, Kings Creek, and Taylor Branch)

Low Flow Conditions ( July - October)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order



× 22-Jul-98

□ 19-Aug-98

△ 16-Sep-98

MANOKIN  
STATION LIST

| Station Code                 | Lat/ Long             | Description                                                           |
|------------------------------|-----------------------|-----------------------------------------------------------------------|
| <b><u>Manokin River:</u></b> |                       |                                                                       |
| XBI8199*                     | 38°08.390' 75°50.088' | 800 yds. West of Cormal Pt., mid-channel. Depth-2m.                   |
| XBJ8215*                     | 38°08.187' 75°49.591' | At buoy R "8", on line from Locust Pt. and Cormal Pt. Depth-3m.       |
| XBJ8724*                     | 38°09.398' 75°46.674' | 500 yds. West off Revels Pt., mid-channel..                           |
| XBJ9344*                     | 38°09.357' 75°45.855' | Off Top Pt. (Rockpile), upstream of Clarence Barnes Rd., mid-channel. |
| MNK0116*                     | 38°09.740' 75°44.926' | 800 yds. up river from power cables, mid-channel off white house.     |
| MNK0146*                     | 38°10.629' 75°43.367' | Off Nelson pier, mid-channel.                                         |
| MNK0169*                     | 38°11.884' 75°42.124' | Near Princess Anne WWTP discharge Pt.                                 |
| MNK0183                      | 38°12.261' 75°41.956' | At Business Rt. 13 crossing.                                          |
| <b><i>Back Creek:</i></b>    |                       |                                                                       |
| XBJ8226*                     | 38°08.259' 75°47.598' | East of Raccoon Pt., mid-channel.                                     |
| BXK0031                      | 38°08.131' 75°45.074' | At Millard Long Rd. crossing.                                         |
| BXK0080                      | 38°07.994' 75°42.716' | At Sign Post Rd. crossing.                                            |
| BXK0095                      | 38°07.794' 75°41.275' | At Old Princess Anne Rd crossing.                                     |
| <b><i>Kings Creek:</i></b>   |                       |                                                                       |
| KNG0010                      | 38°09.893' 75°43.223' | At Stewart Neck Rd. crossing.                                         |
| KNG0048                      | 38°09.922' 75°41.335' | At Rt. 13 crossing.                                                   |
| KNG0064                      | 38°09.438' 75°39.993' | At Arden Station Rd. crossing.                                        |
| <b><i>Taylor Branch:</i></b> |                       |                                                                       |
| TYL0000*                     | 38°11.060' 75°42.660' | At Taylor Branch, mid-channel.                                        |
| TYL0034                      | 38°11.464' 75°40.207' | At McCormick Swamp Rd. crossing.                                      |
| MKB0015                      | 38°12.849' 75°40.279' | At gage house.                                                        |

# Nanticoke River Area

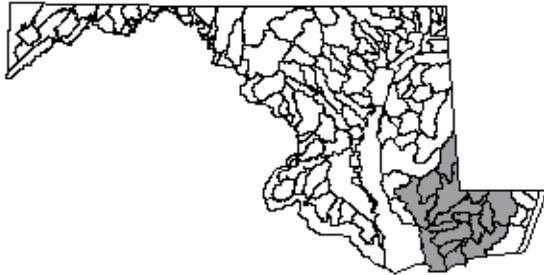
**Lower Wicomico River Area, Wicomico Creek Drainage, Wicomico River**

**Marshyhope Creek**

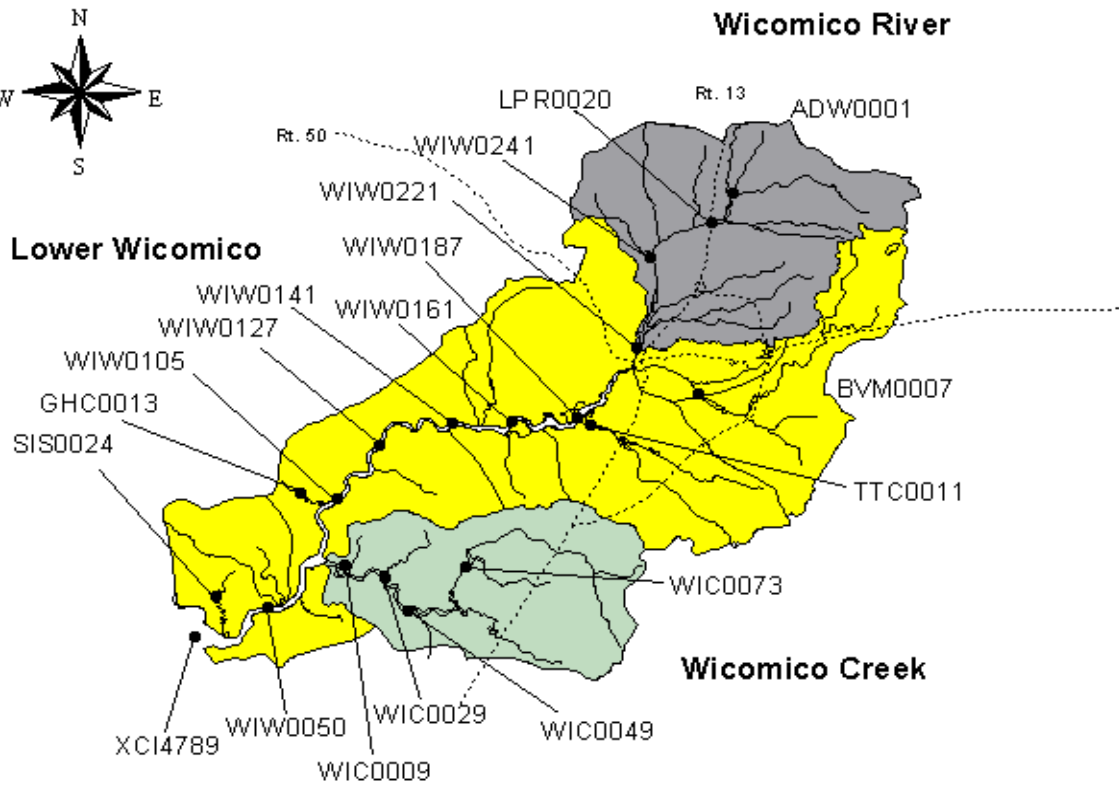
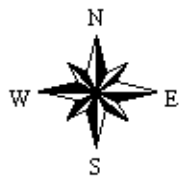
**Transquaking River**

# Wicomico Creek, Wicomico River and Lower Wicomico Monitoring Stations

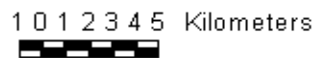
Maryland 8-digit Basin Codes  
Location of Lower Eastern Shore Watershed



Location of Wicomico Drainage Basin



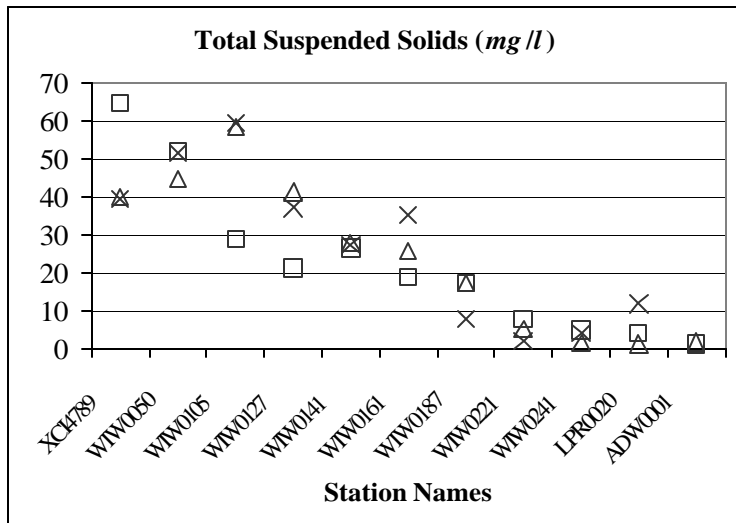
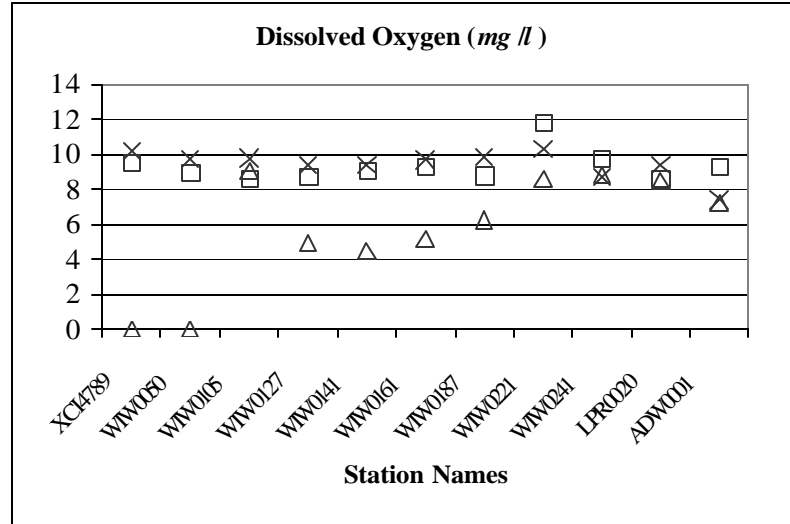
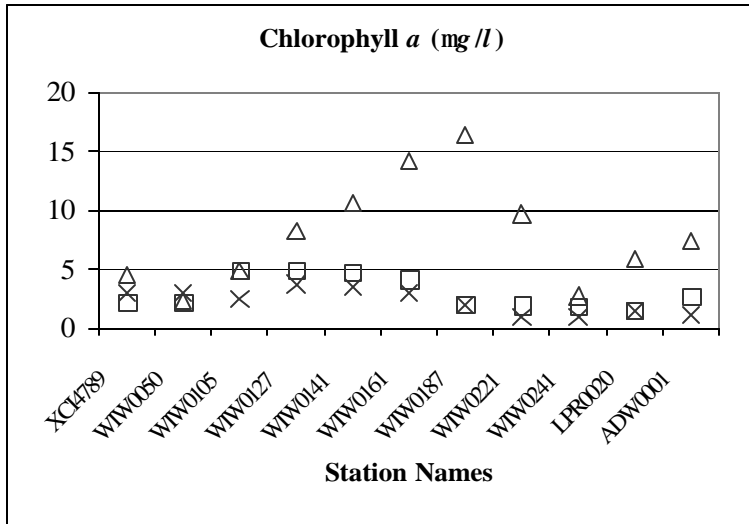
- MDE Monitoring Stations
- Major Roads
- Wicomico River
- Watershed 02130303
- Watershed 02130304
- Watershed 02130301



**Wicomico River Mainstem**

High Flow Condition ( January-May)

Stations are presented from left to right in downstream to upstream order

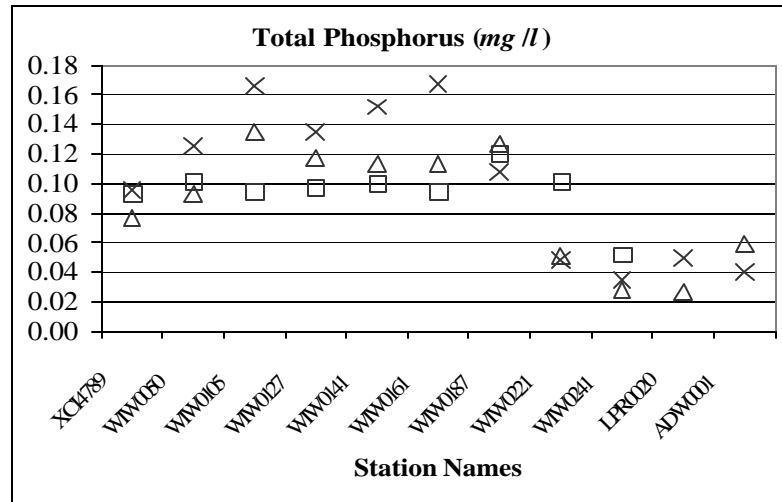
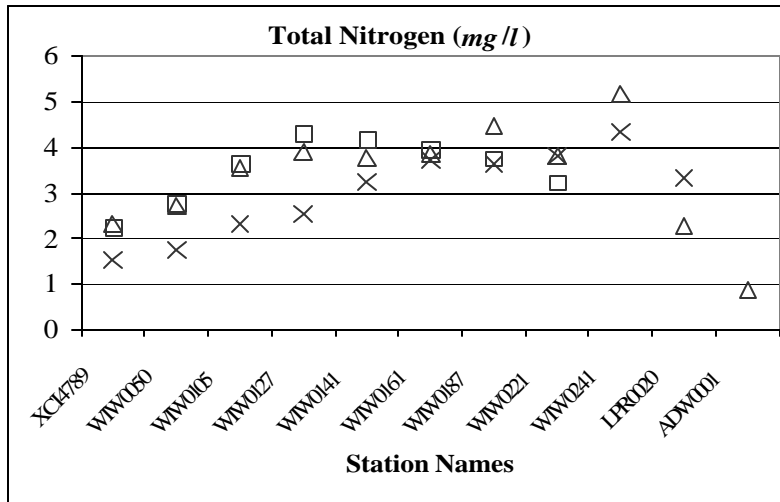
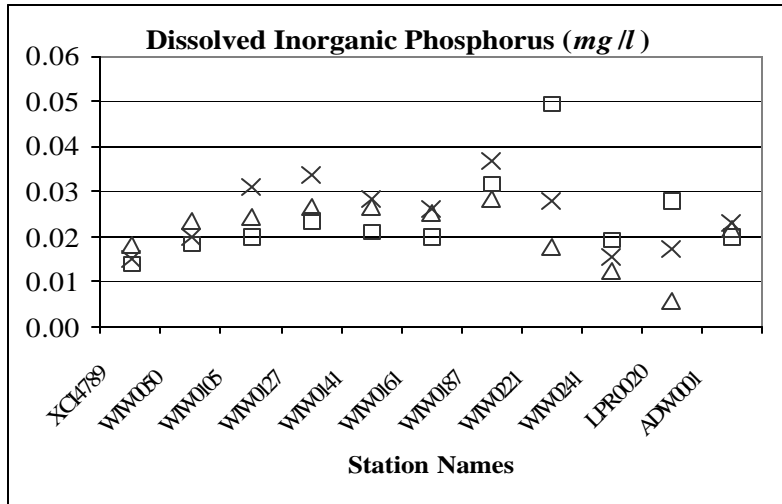
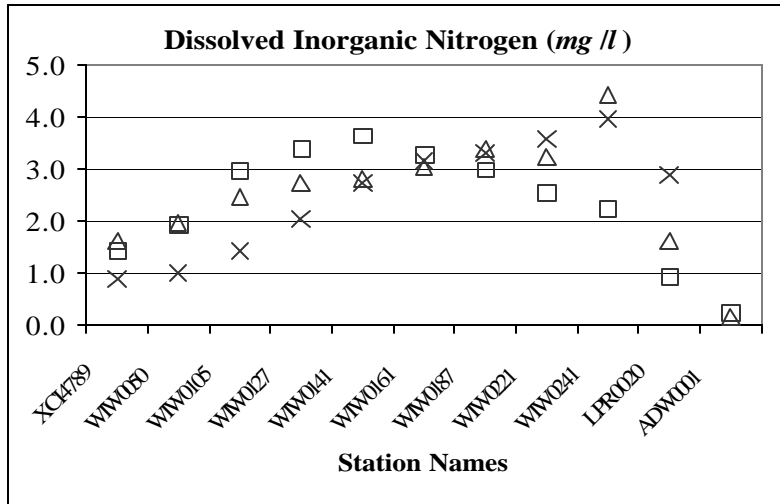


x 18-Feb-98      11-Mar-98      Δ 1-Apr-98

### Wicomico River Mainstem

High Flow Condition ( January-May)

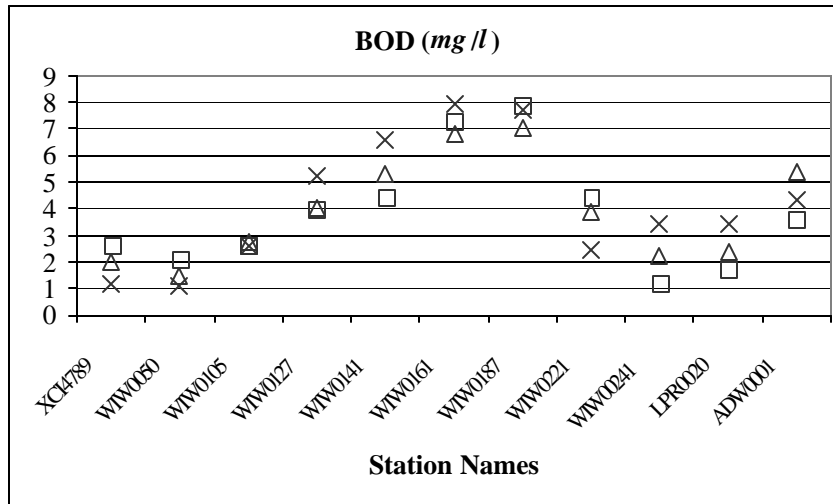
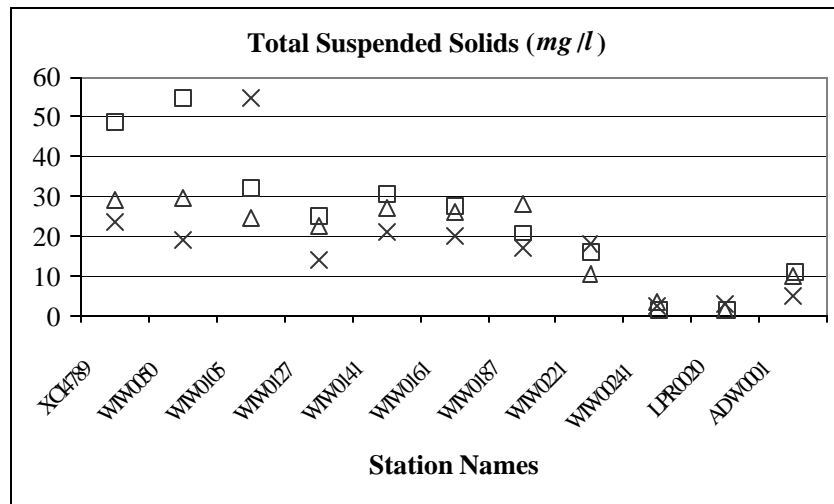
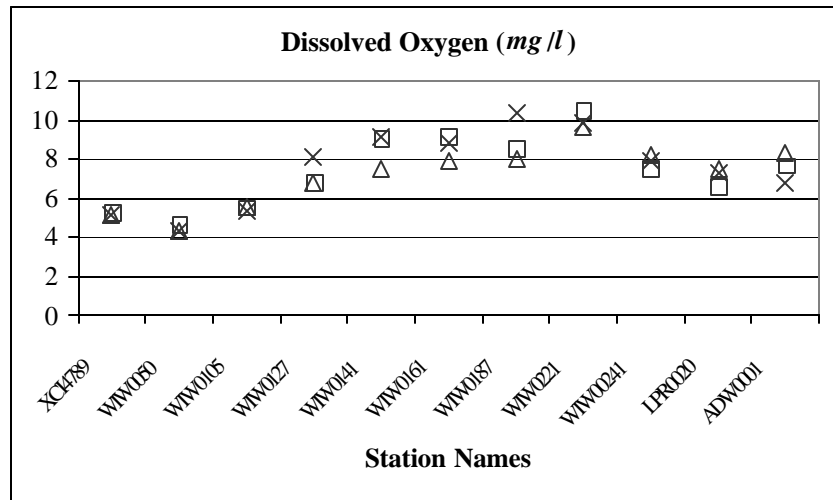
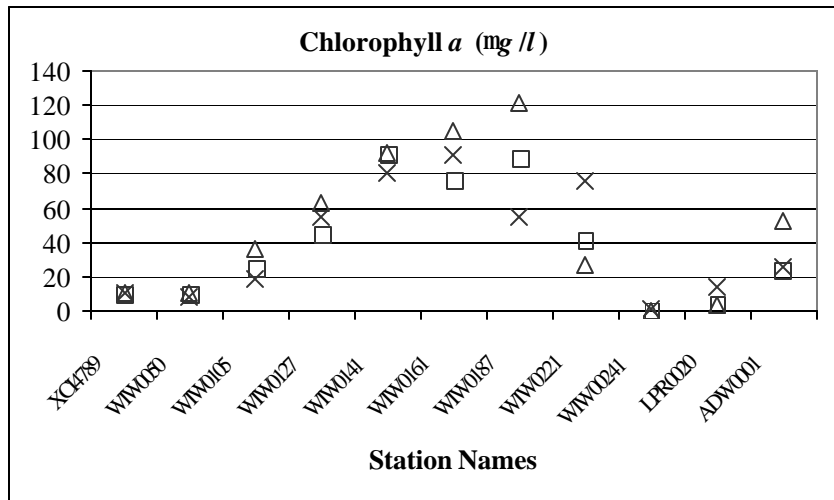
Stations are presented from left to right in downstream to upstream order



x 18-Feb-98      11-Mar-98      Δ 1-Apr-98

**Wicomico River Mainstem**  
 Low Flow Condition ( July-October)

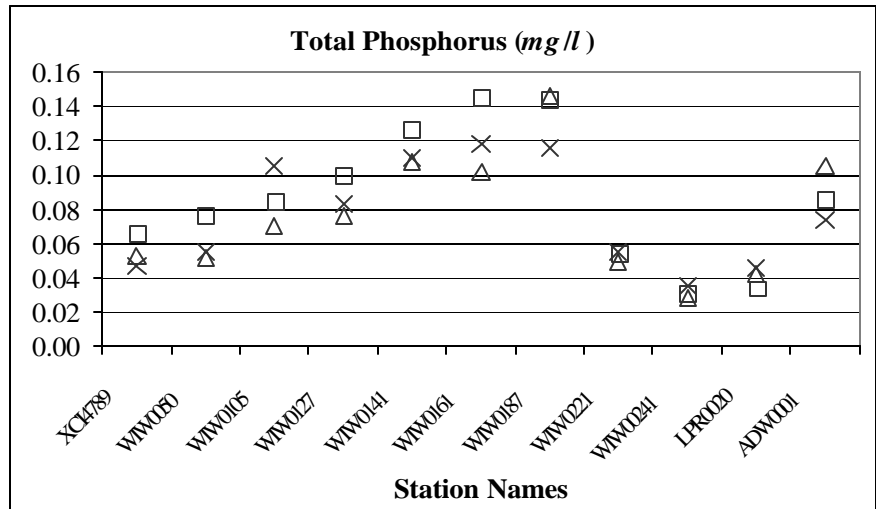
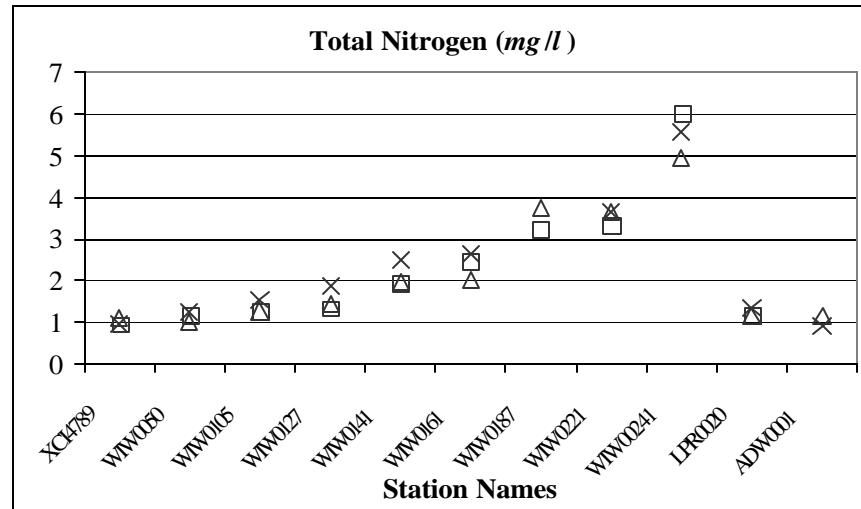
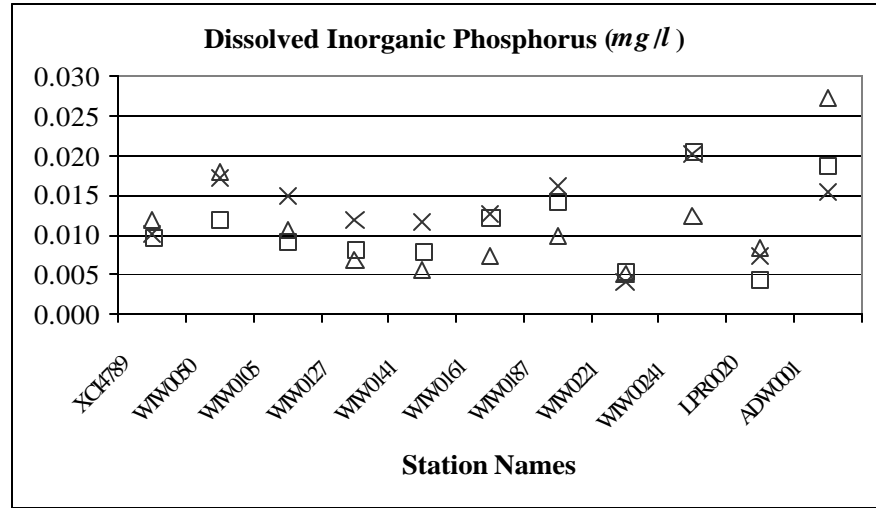
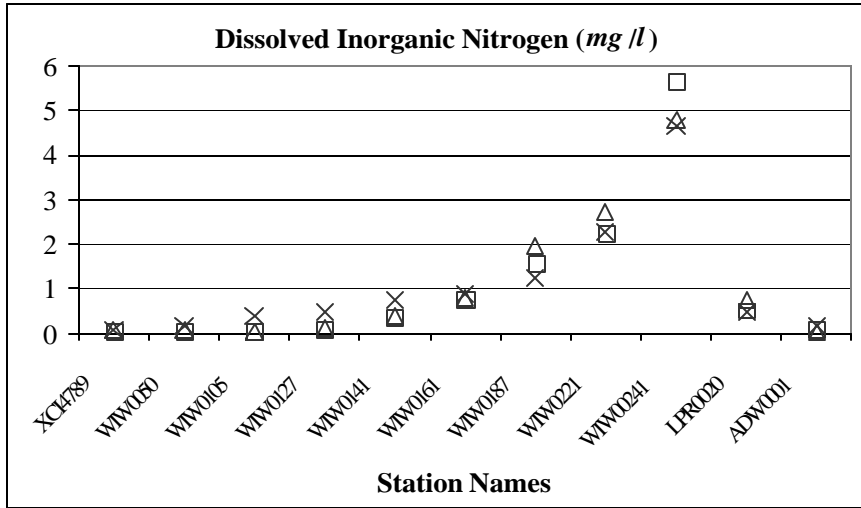
Stations are presented from left to right in downstream to upstream order



× 28-Jul-98
□ 24-Aug-98
△ 22-Sep-98

**Wicomico River Mainstem**  
 Low Flow Condition ( July-October)

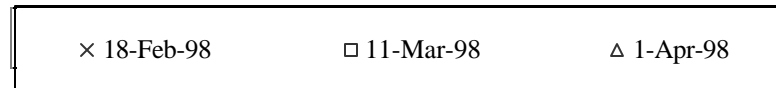
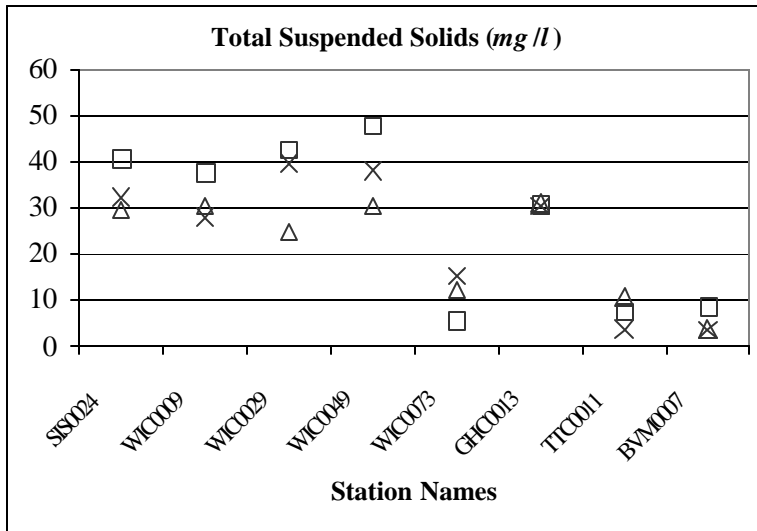
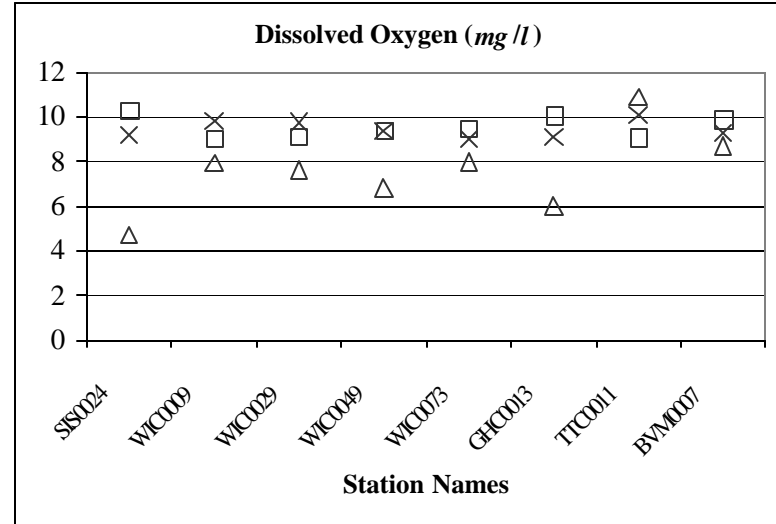
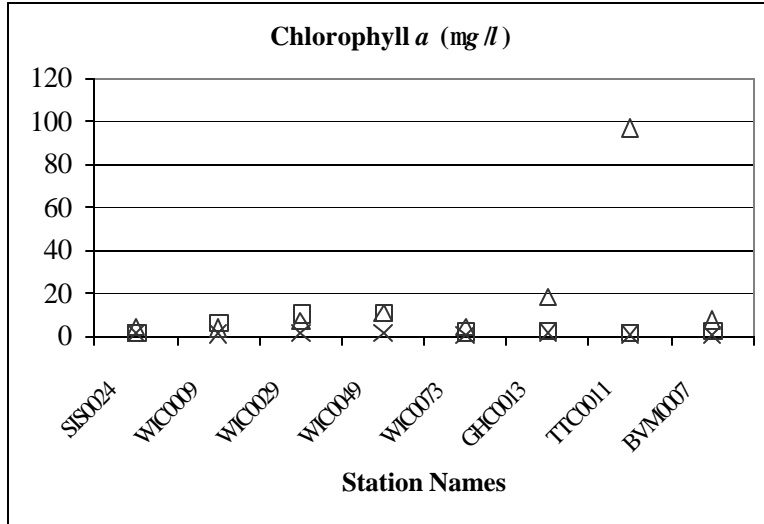
Stations are presented from left to right in downstream to upstream order





**Wicomico River Tributaries (Shiles Creek, Wicomico Creek, Green Hill Creek, Tony Tank Creek, Beaverdam Creek)**  
 High Flow Condition ( January-May )

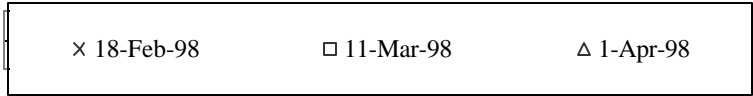
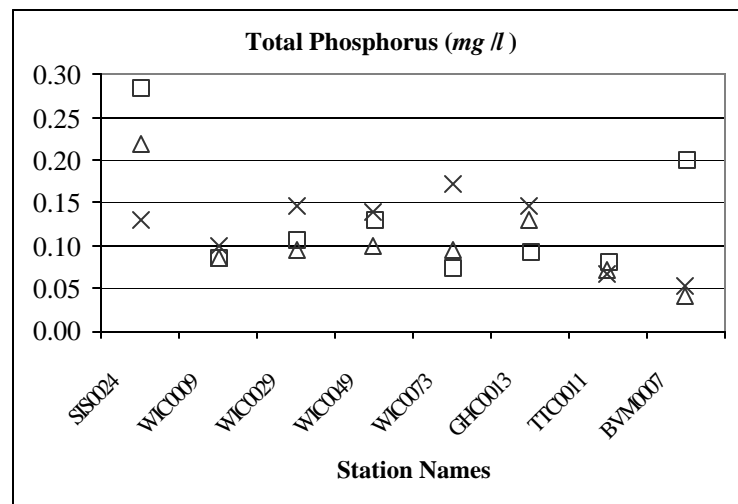
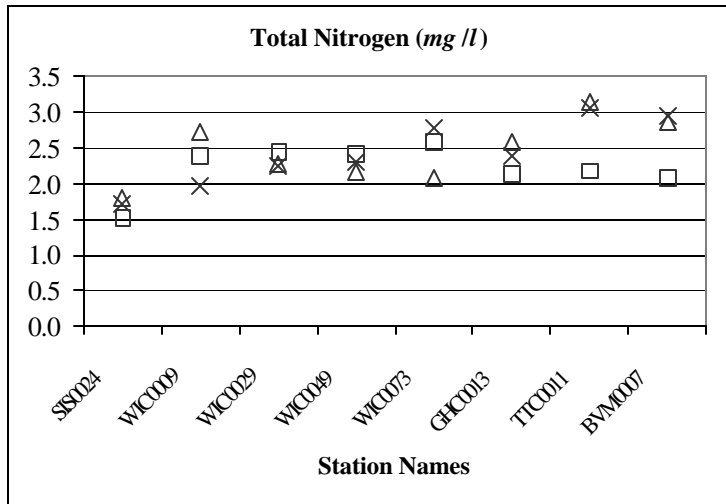
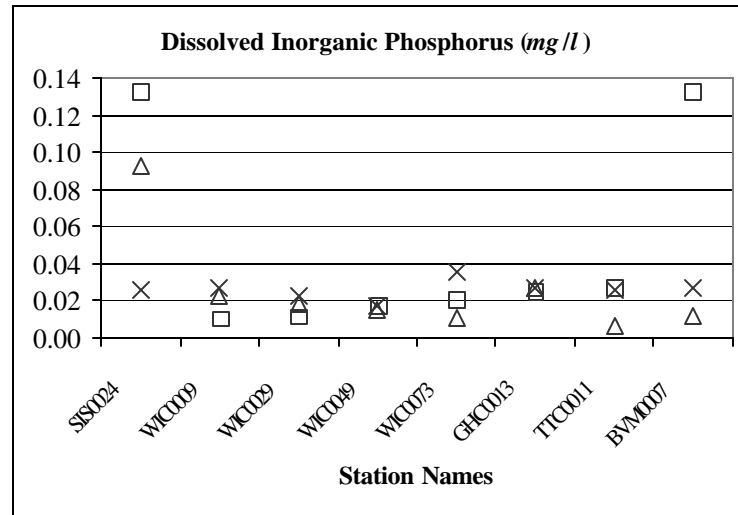
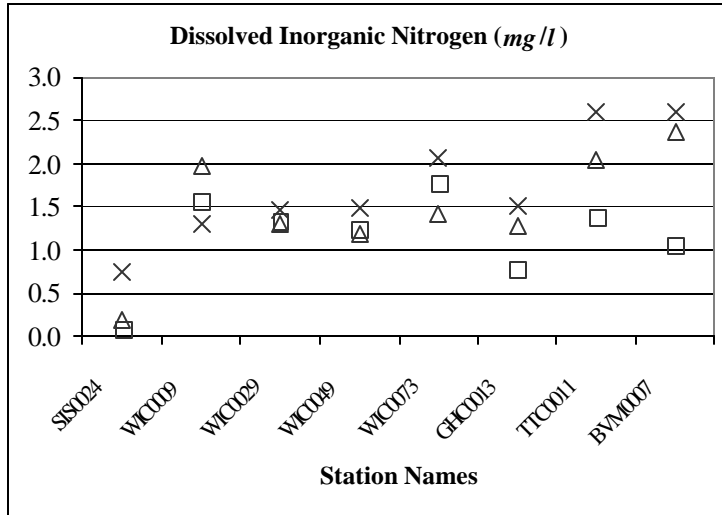
Stations are presented from left to right in downstream to upstream order



**Wicomico River Tributaries (Shiles Creek, Wicomico Creek, Green Hill Creek, Tony Tank Creek, Beaverdam Creek)**

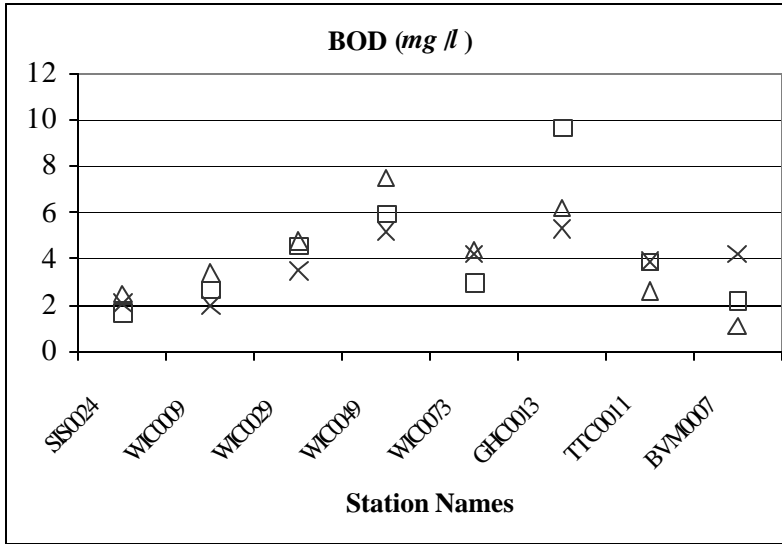
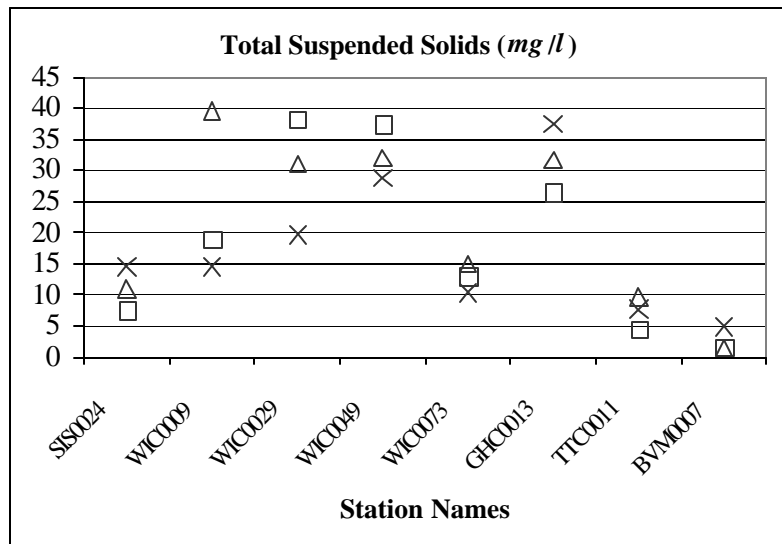
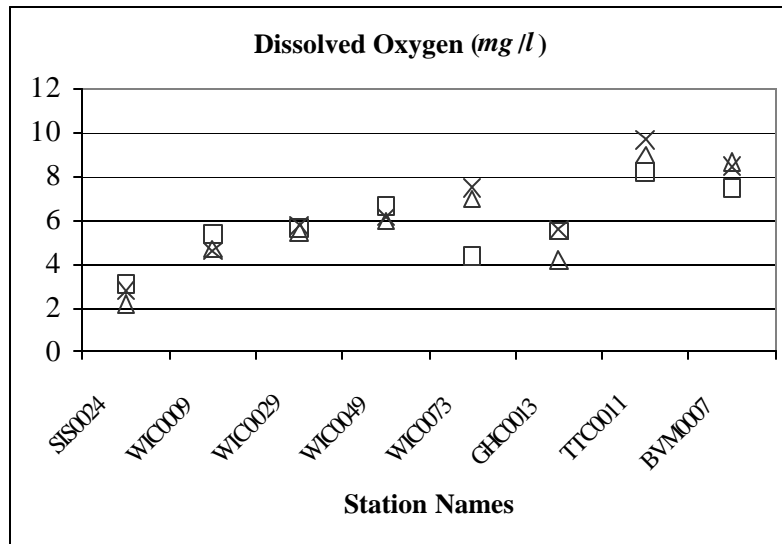
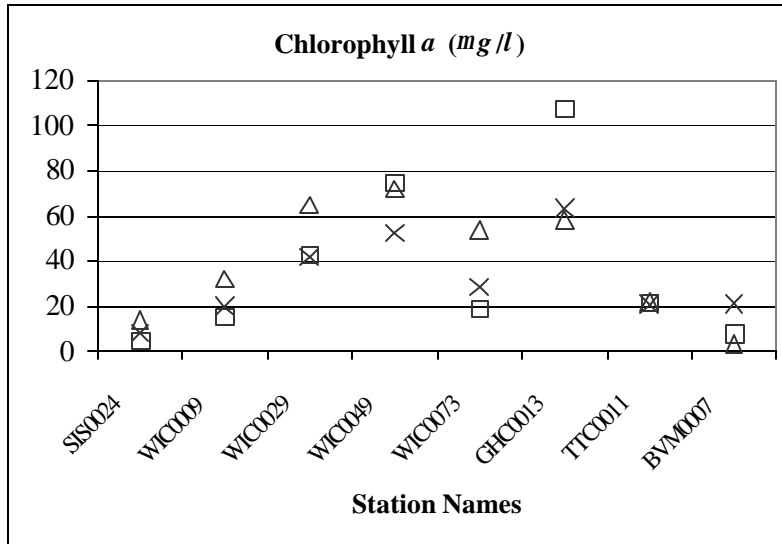
High Flow Condition ( January-May )

Stations are presented from left to right in downstream to upstream order



**Wicomico River Tributaries (Shiles Creek, Wicomico Creek, Green Hill Creek, Tony Tank Creek, Beaverdam Creek)**  
 Low Flow Condition ( July-October )

Stations are presented from left to right in downstream to upstream order

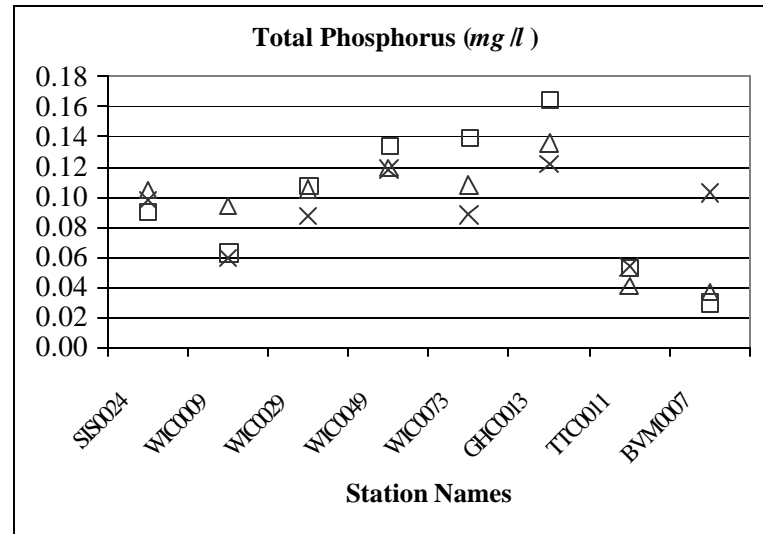
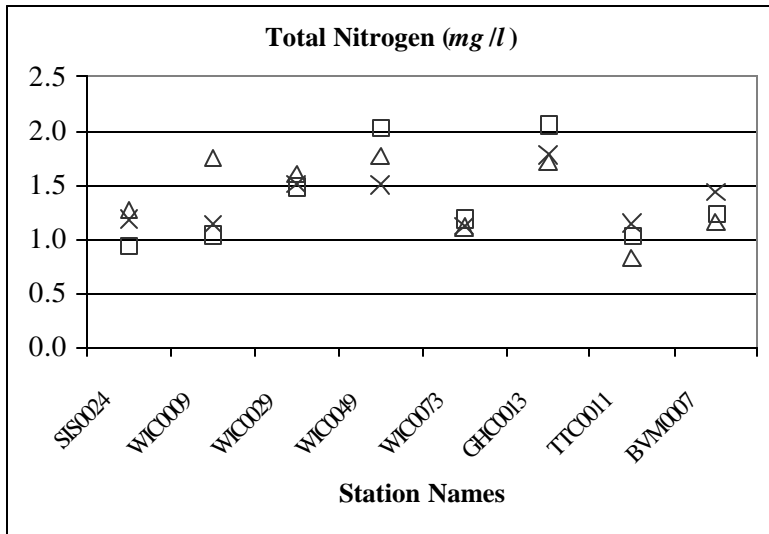
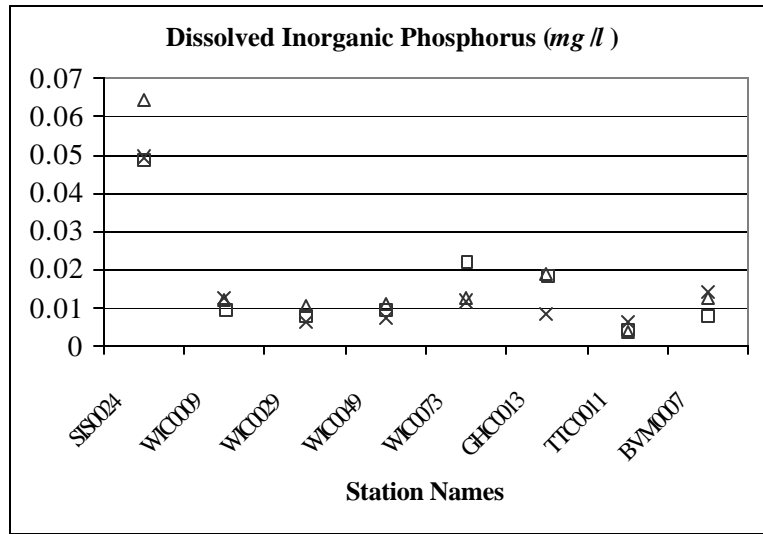
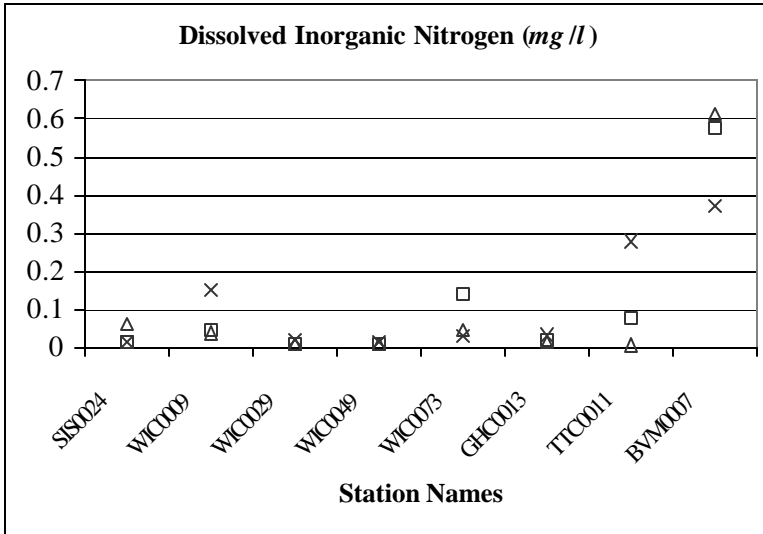


x 28-Jul-98      24-Aug-98      Δ 22-Sept-98

**Wicomico River Tributaries (Shiles Creek, Wicomico Creek, Green Hill Creek, Tony Tank Creek, Beaverdam Creek)**

Low Flow Conditions (July-October)

Stations are presented from left to right in downstream to upstream order



x 28-Jul-98      24-Aug-98      Δ 22-Sept-98

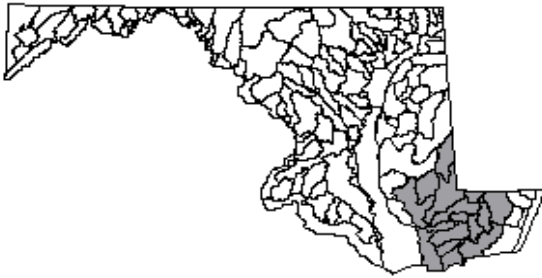
WICOMICO  
STATION LIST

| Station Code                        | Lat/Long              | Description                                                           |
|-------------------------------------|-----------------------|-----------------------------------------------------------------------|
| <b><u>Lower Wicomico River:</u></b> |                       |                                                                       |
| XCI4789*                            | 38°15.503' 75°49.466' | 1000 yds. NE of Websters Cove, at red FL "17".                        |
| WIW0050*                            | 38°16.060' 75°47.235' | At Whitehaven Rd. (Rt.352)                                            |
| WIW0105*                            | 38°18.689' 75°45.131' | At Pea Hill, due north of Collins Wharf. In channel at marker "33".   |
| WIW0127*                            | 38°20.006' 75°43.835' | Just off Greenhill Country Club at Cox Landing.                       |
| WIW0141*                            | 38°20.552' 75°41.657' | At Upper Ferry Rd. crossing, SE of Catchpenny.                        |
| WIW0161*                            | 38°20.545' 75°39.895' | At Patricks Landing, due north of Sabers Cr. at buoy Fl "45".         |
| WIW0187*                            | 38°20.610' 75°37.992' | Off Shad Pt., Gumby Landing at buoy Fl. "53".                         |
| WIW0221                             | 38°22.295' 75°36.135' | Discharge of Johnson Pond at its control structure.                   |
| WIW0241                             | 38°24.528' 75°35.695' | At Naylor Mill Rd. crossing, below Demar's effluent discharge.        |
| <b><u>Greenhill Creek:</u></b>      |                       |                                                                       |
| GHC0013                             | 38°18.860' 75°46.221' | Tidal waters of creek at Whitehaven Rd. (Rt.352).                     |
| <b><u>Beaverdam Creek:</u></b>      |                       |                                                                       |
| BVM0007                             | 38°21.168' 75°34.359' | Discharge of Shumaker Pond at weir. At Shumaker Rd. crossing.         |
| <b><u>Tony Tank Creek</u></b>       |                       |                                                                       |
| TTC0011                             | 38°20.498' 75°37.574' | Tidal confluence of creek and Wicomico R., at River Rd.               |
| <b><u>Shiles Creek:</u></b>         |                       |                                                                       |
| SIS0024                             | 38°16.325' 75°48.802' | Tidal waters of Shiles Cr. at Messick Rd.                             |
| <b><u>Wicomico Creek:</u></b>       |                       |                                                                       |
| WIC0009*                            | 38°17.077' 75°44.904' | At Redden Ferry Rd. crossing.                                         |
| WIC0029*                            | 38°16.734' 75°43.740' | At Wagner Landing, 0.2 miles upstream of Back Cr.                     |
| WIC0049*                            | 38°15.940' 75°43.075' | At Polk Landing. 4.9 miles from mouth of creek.                       |
| WIC0073                             | 38°16.975' 75°41.339' | Impound spillage of Allen Pond to head of tidal creek.                |
| <b><u>Wicomico River:</u></b>       |                       |                                                                       |
| <b><u>Leonard Mill Pond:</u></b>    |                       |                                                                       |
| LPR0020                             | 38°25.397' 75°33.957' | Impoundment spillage of pond at Rt. 13.                               |
| <b><u>Andrews Branch:</u></b>       |                       |                                                                       |
| ADW0001                             | 38°26.089' 75°33.196' | At entry to Leonard Mill Pond, south of Delmar, at Leonard Mill Park. |

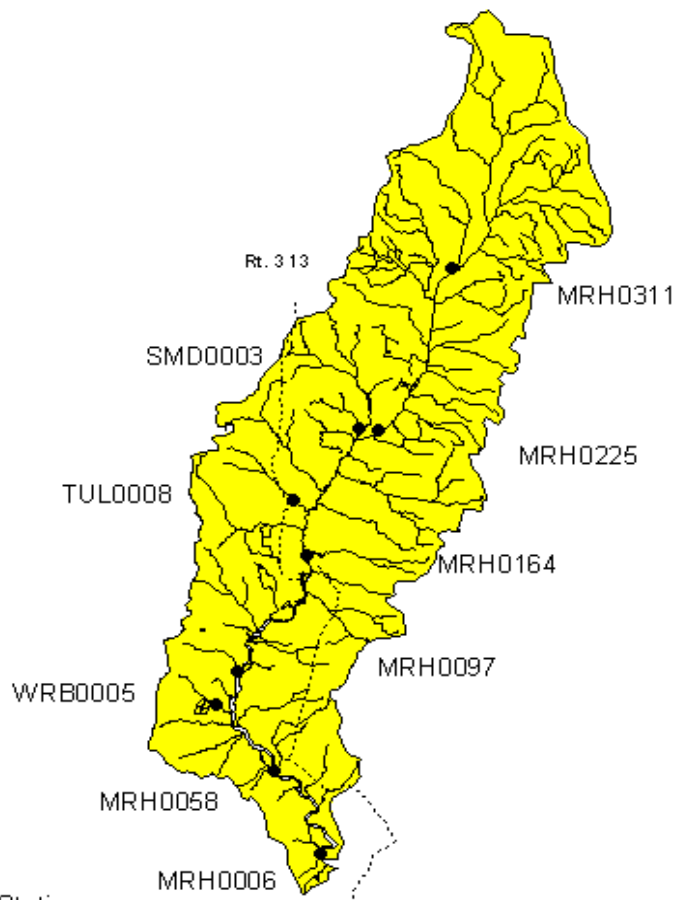
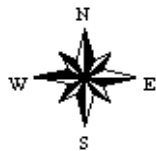
\* Boat stations

# Marshyhope Creek Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Lower Eastern Shore Watershed



Location of Marshyhope Drainage Basin



- MDE Monitoring Stations
- Major Roads
- △ Marshyhope Creek
- Watershed 02130306

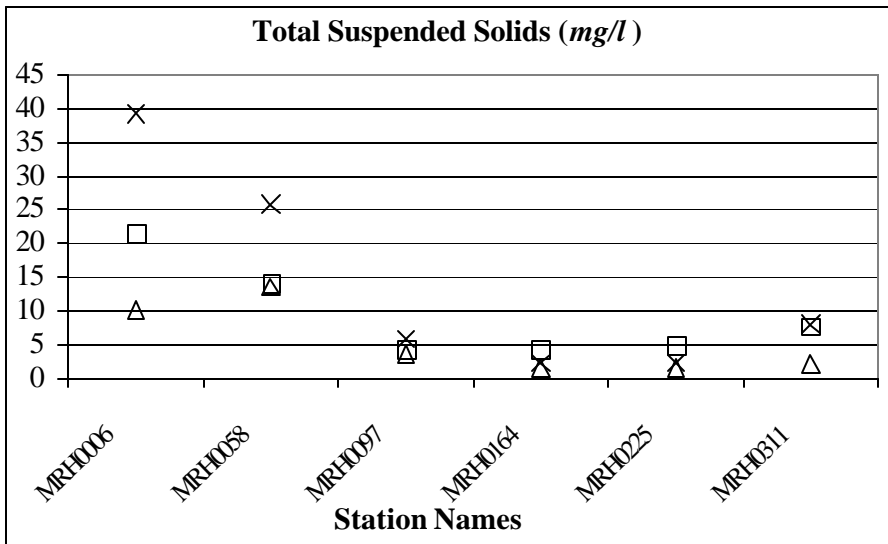
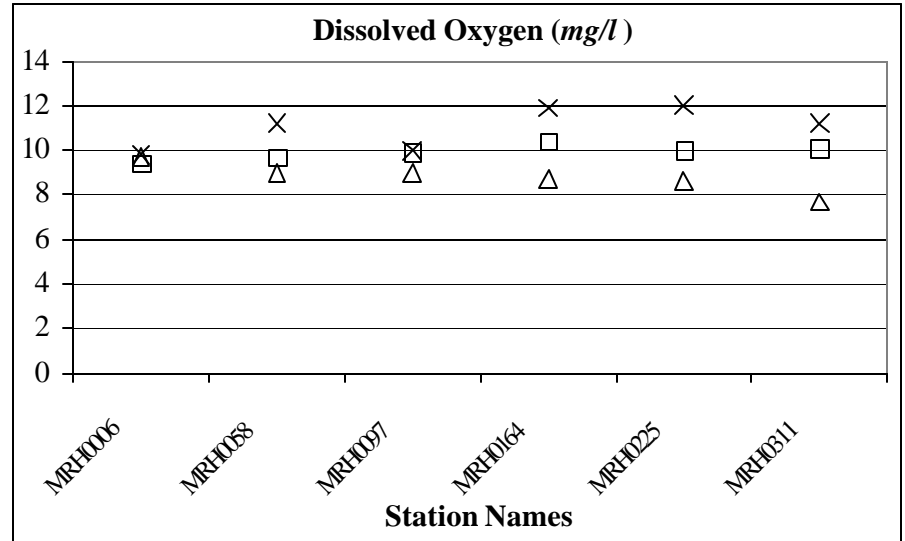
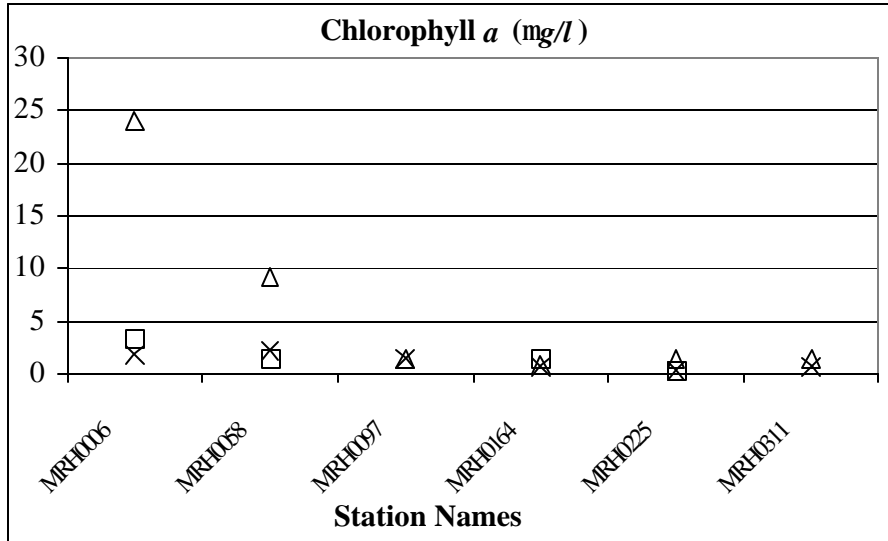
1012345 Kilometers



### Marshyhope Creek Mainstem

High Flow Conditions (Jan-May)

Stations are presented from left to right in downstream to upstream order



× 16-Feb-98

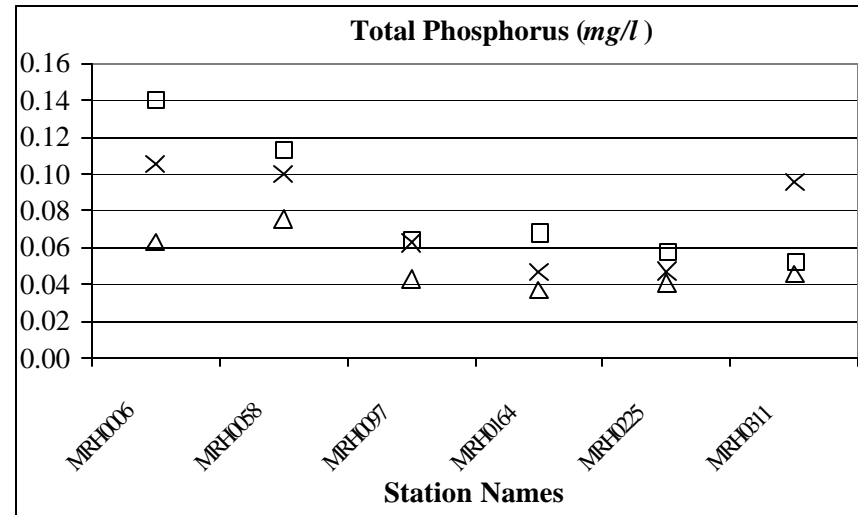
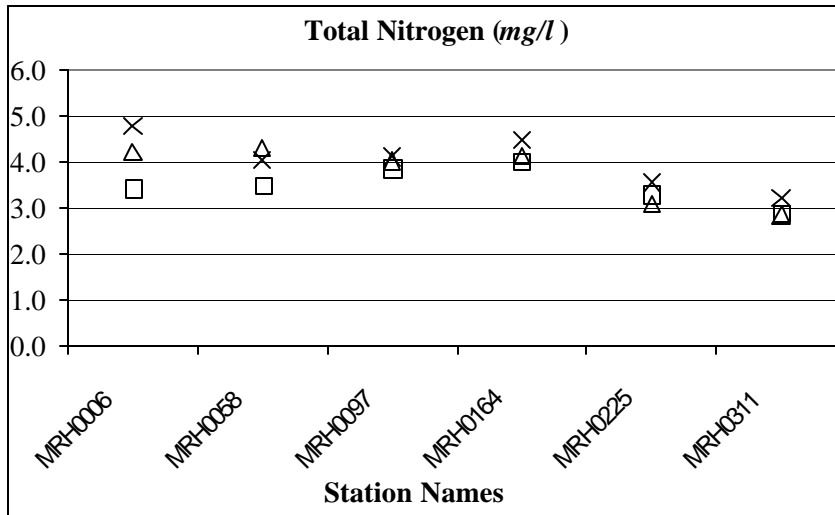
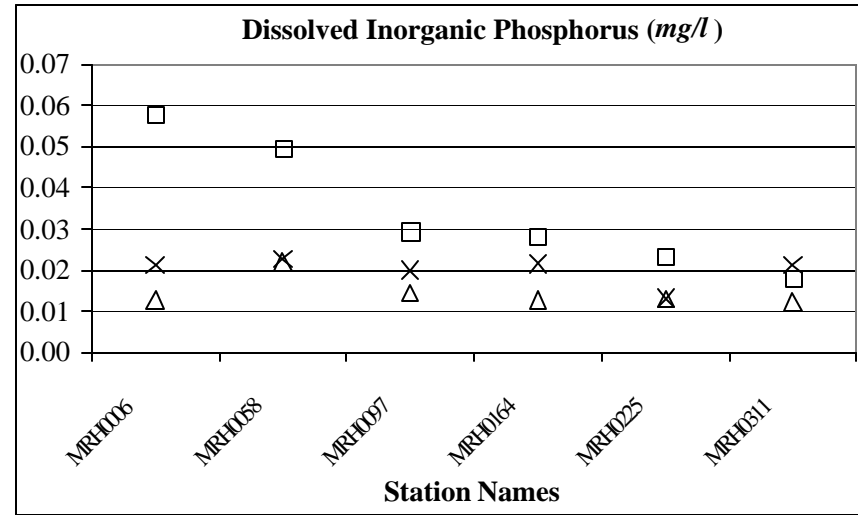
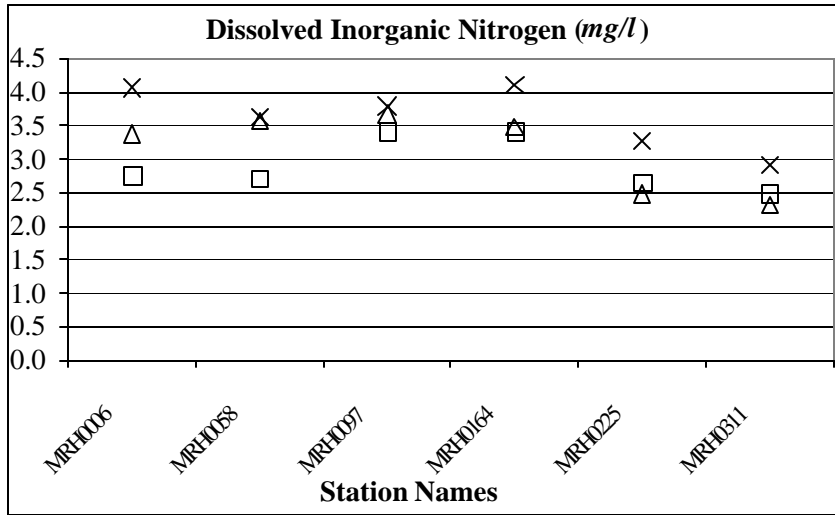
□ 25-Mar-98

Δ 08-Apr-98

### Marshyhope Creek Mainstem

High Flow Conditions (Jan-May)

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× 16-Feb-98

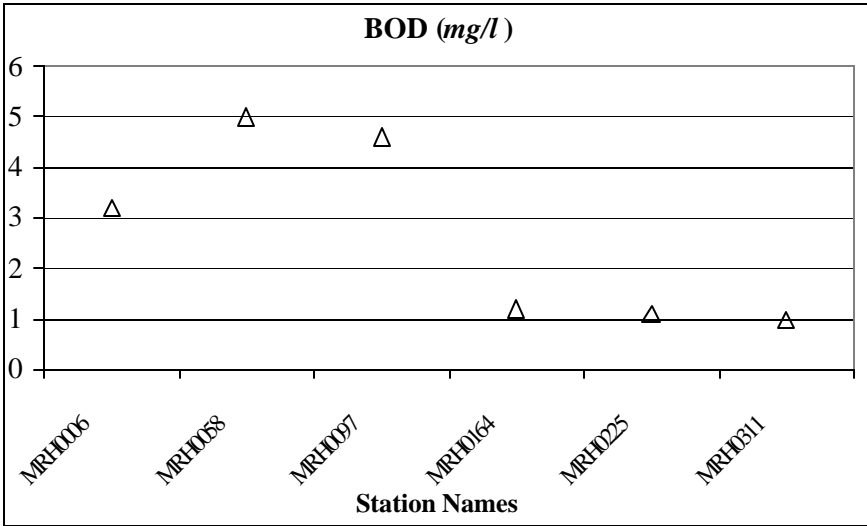
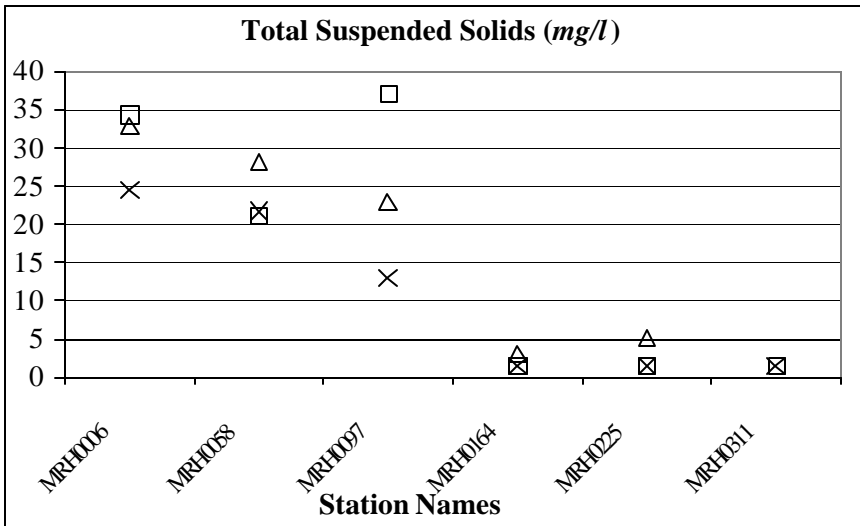
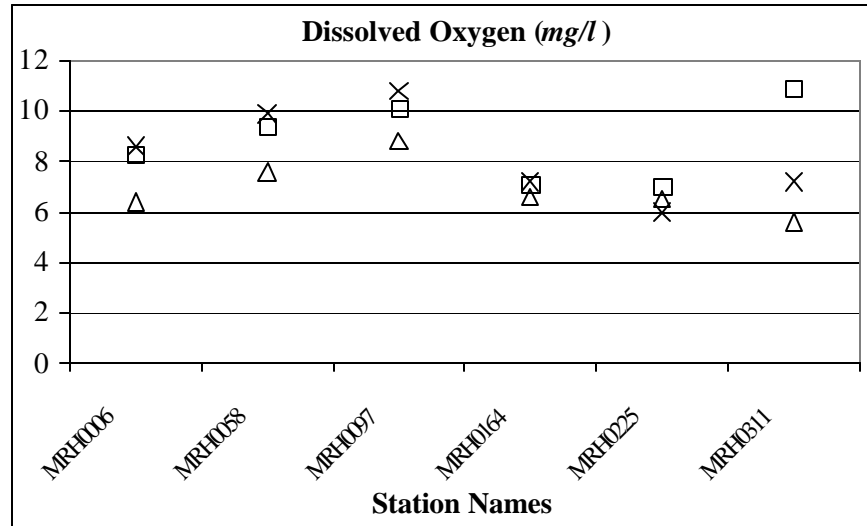
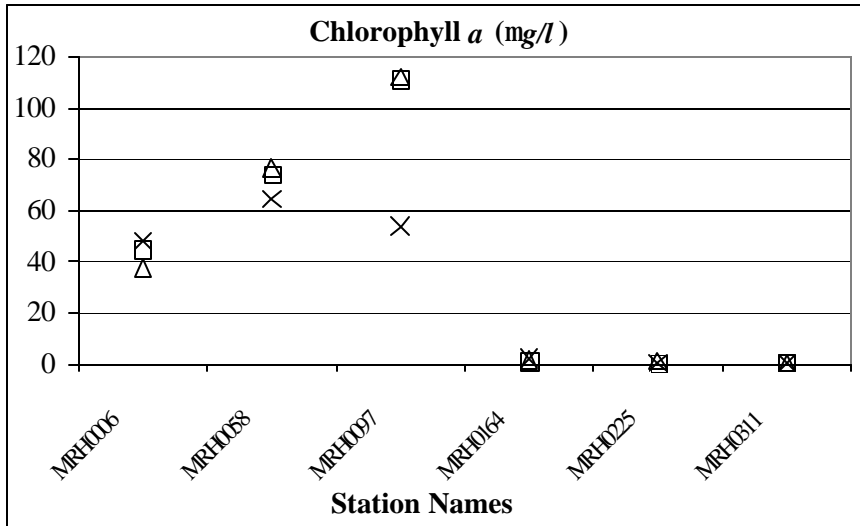
□ 25-Mar-98

△ 08-Apr-98



**Marshyhope Creek Mainstem**  
 Low Flow Conditions (July-October)

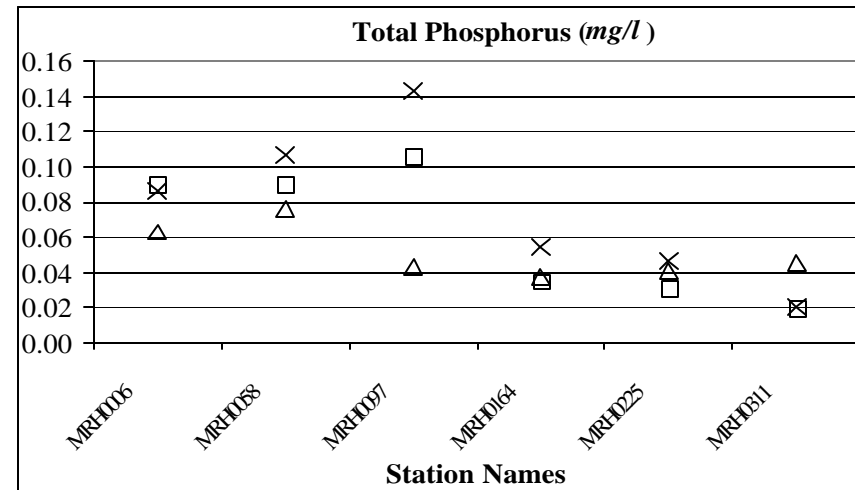
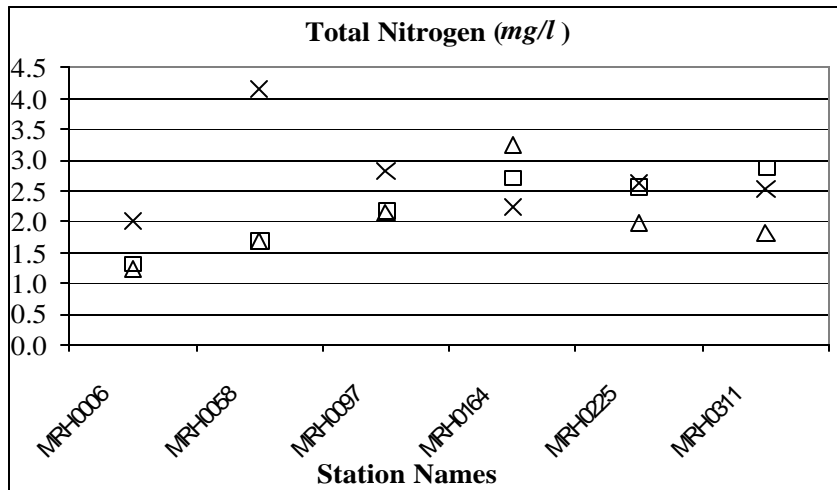
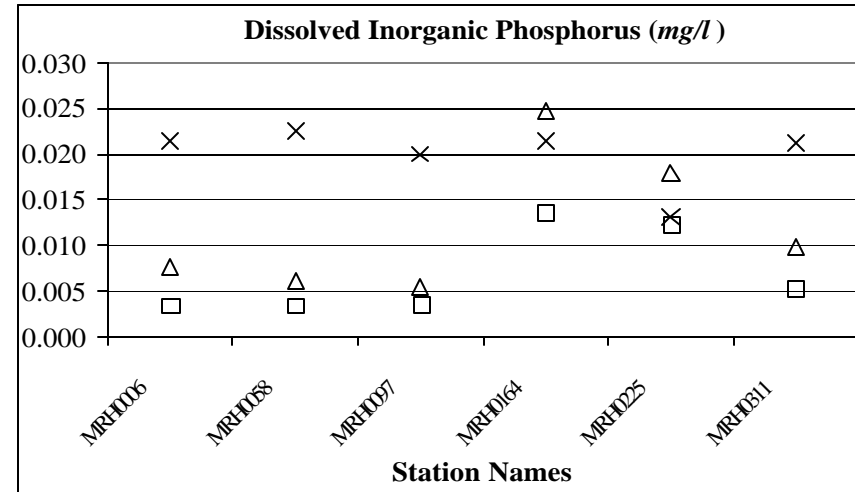
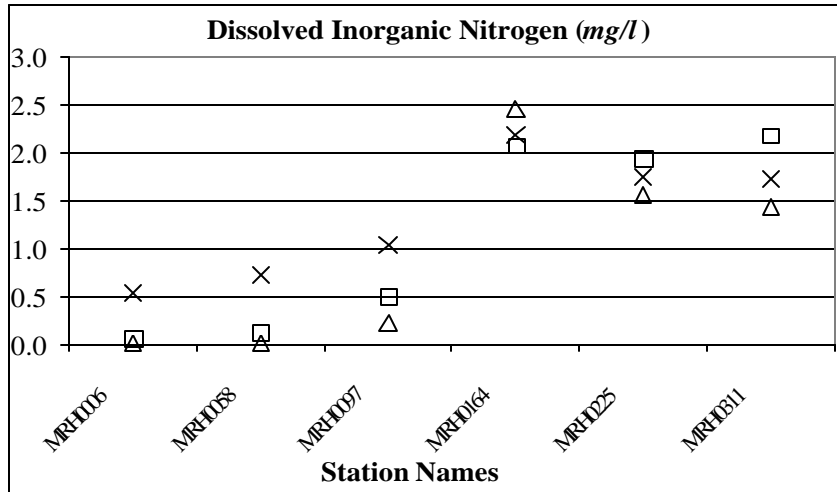
Stations are presented from left to right in downstream to upstream order



× 15-Jul-98
□ 05-Aug-98
△ 09-Sep-98

**Marshyhope Creek Mainstem**  
 Low Flow Conditions (July-October)

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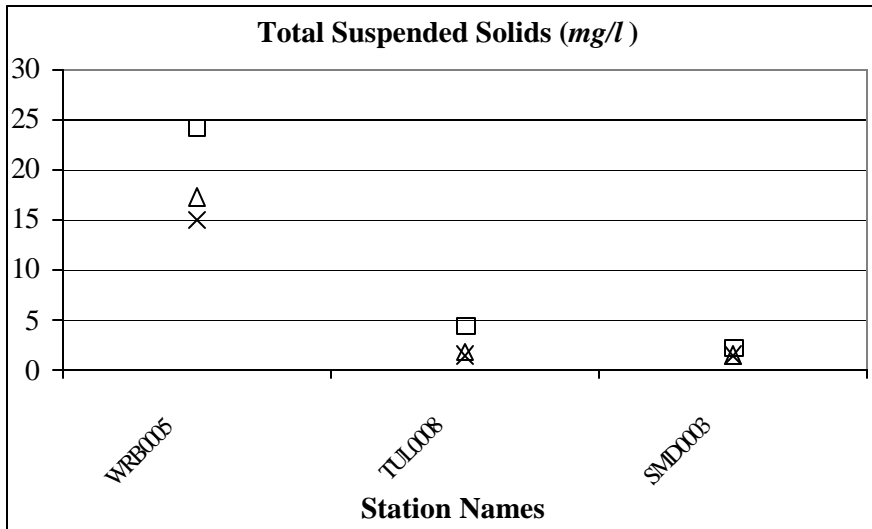
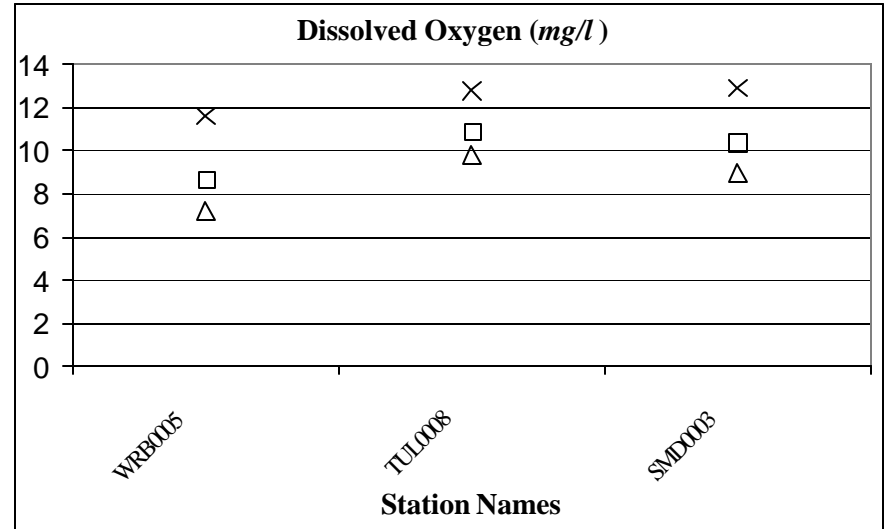
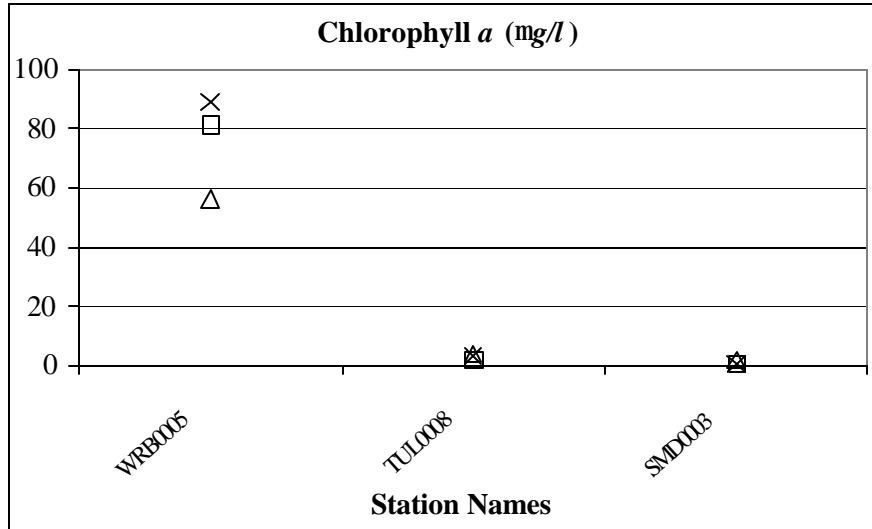


× 15-Jul-98
□ 05-Aug-98
△ 09-Sep-98

**Marshyhope Creek Tributaries (Wrights Branch, Tull Branch, and Unnamed Creek)**

High Flow Conditions (Jan-May)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order

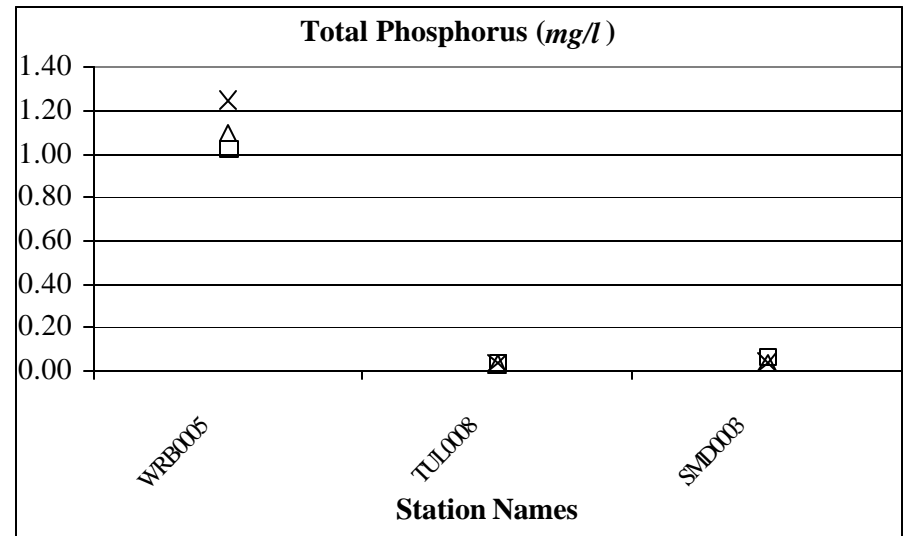
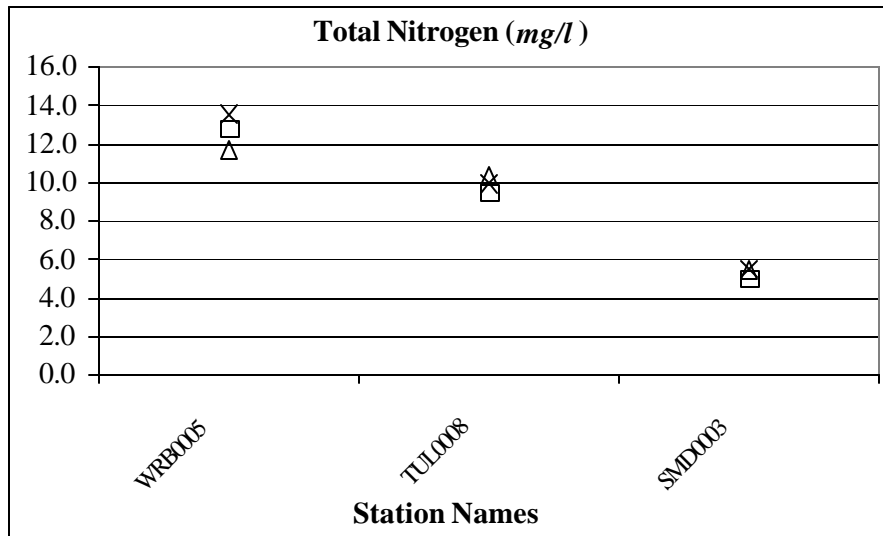
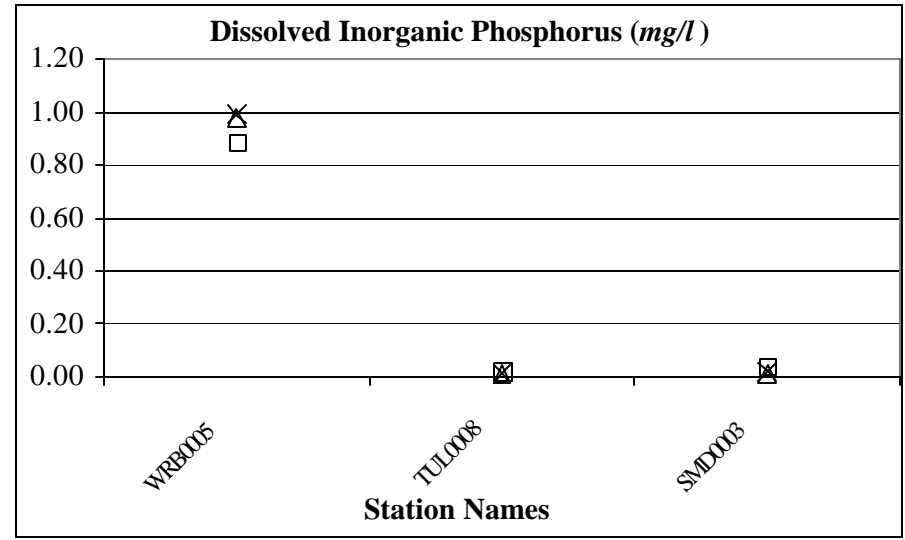
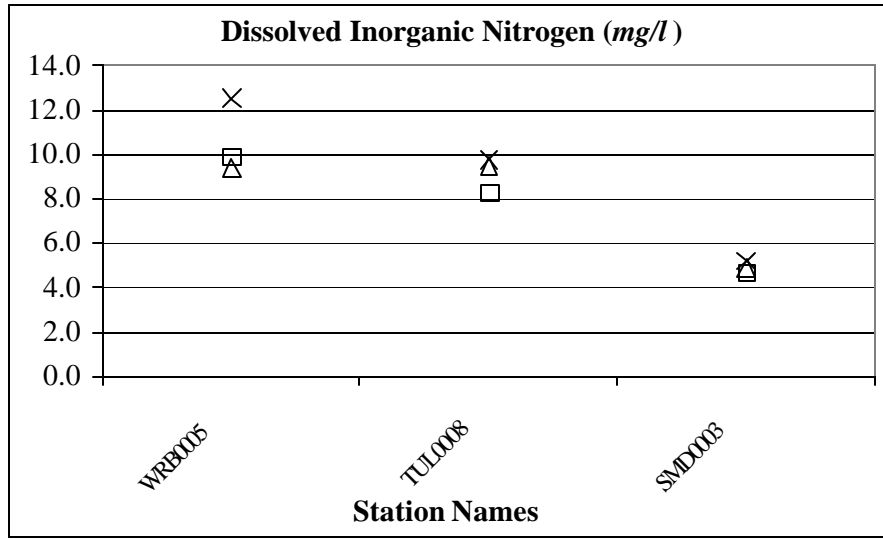


× 16-Feb-98      □ 25-Mar-98      Δ 08-Apr-98

### Marshyhope Creek Tributaries (Wrights Branch, Tull Branch, and Unnamed Creek)

High Flow Conditions (Jan-May)

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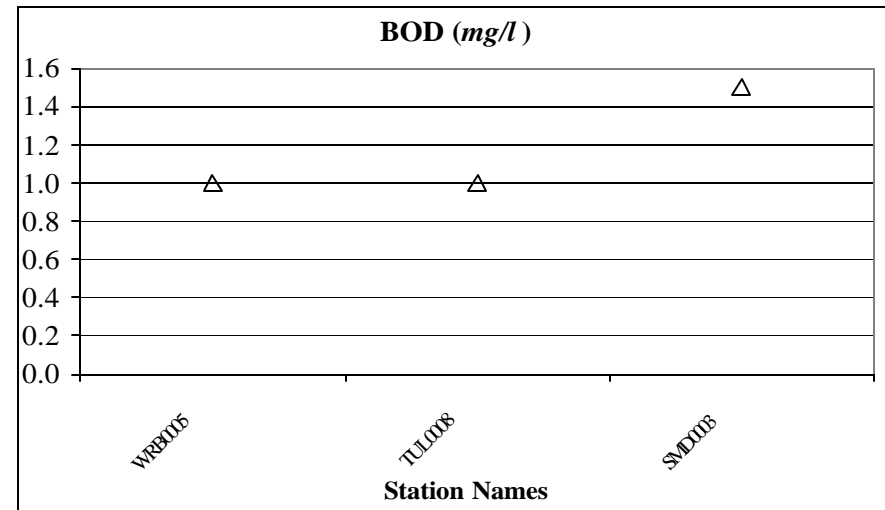
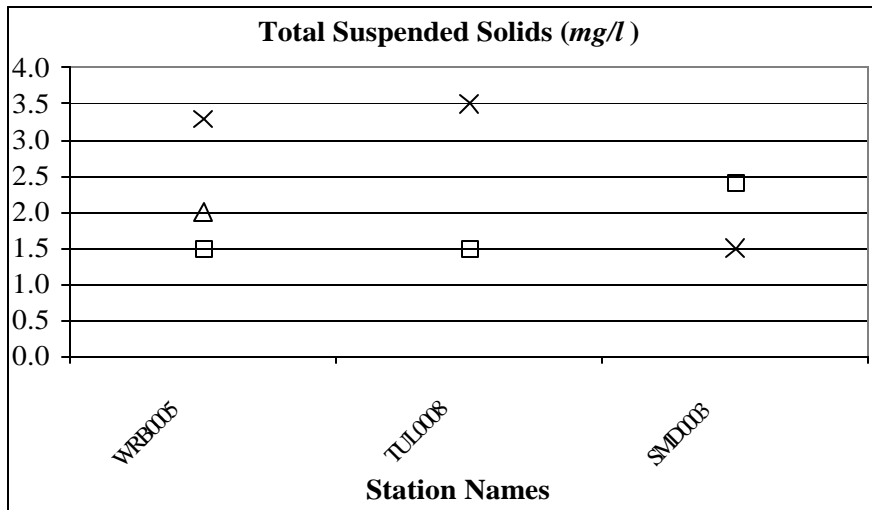
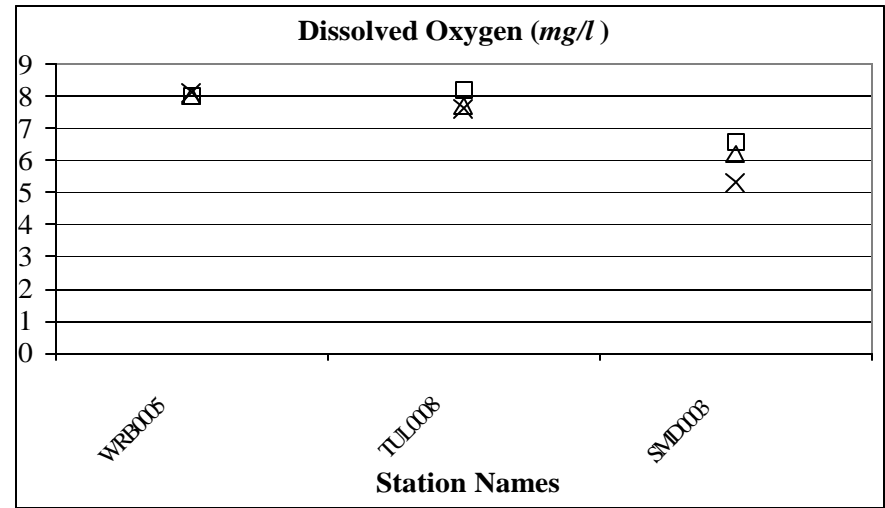
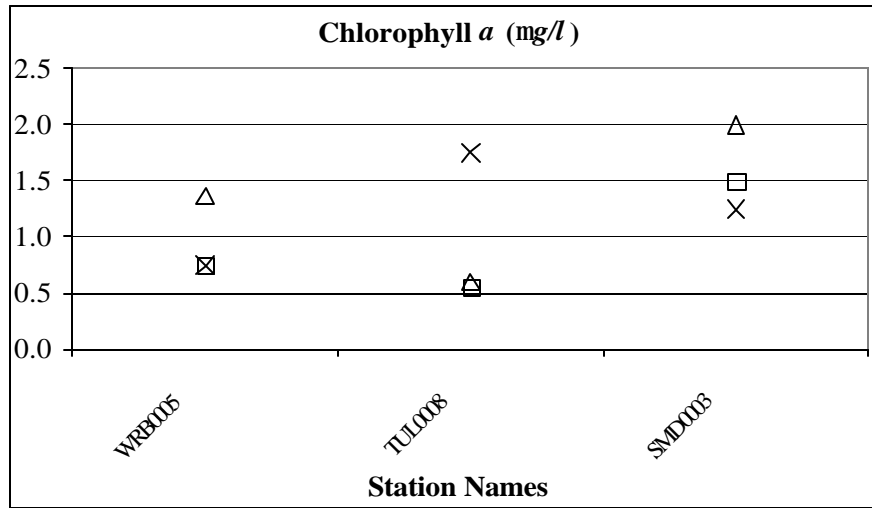


× 16-Feb-98      □ 25-Mar-98      △ 08-Apr-98

**Marshyhope Creek Tributaries (Wrights Branch, Tull Branch, and Unnamed Creek)**

Low Flow Conditions (July-October)

Stations are grouped by tributaries and stations are presented from left to right in downstream to upstream order

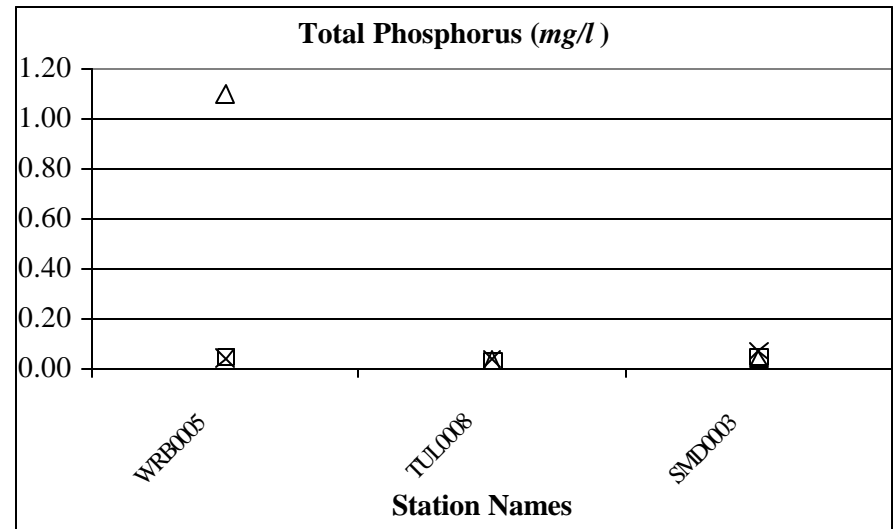
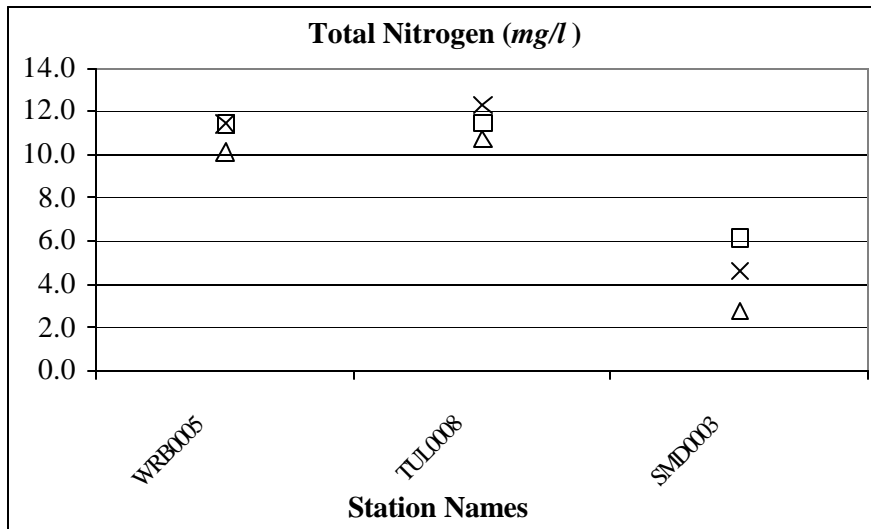
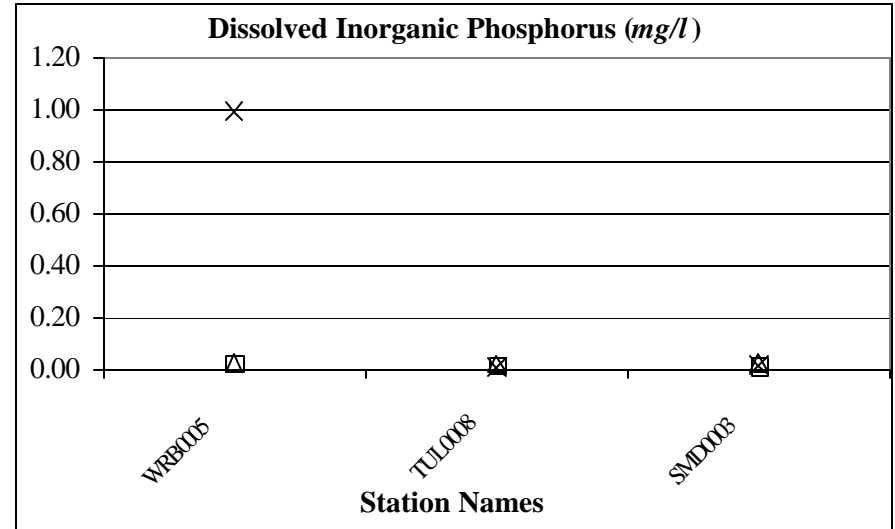
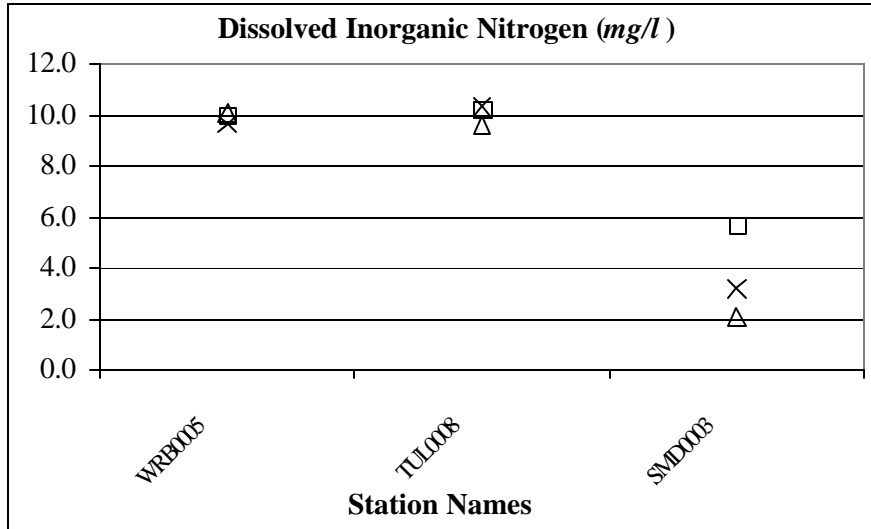


× 15-Jul-98      □ 05-Aug-98      △ 09-Sep-98

**Marshyhope Creek Tributaries (Wrights Branch, Tull Branch, and Unnamed Creek)**

Low Flow Conditions (July-October)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order

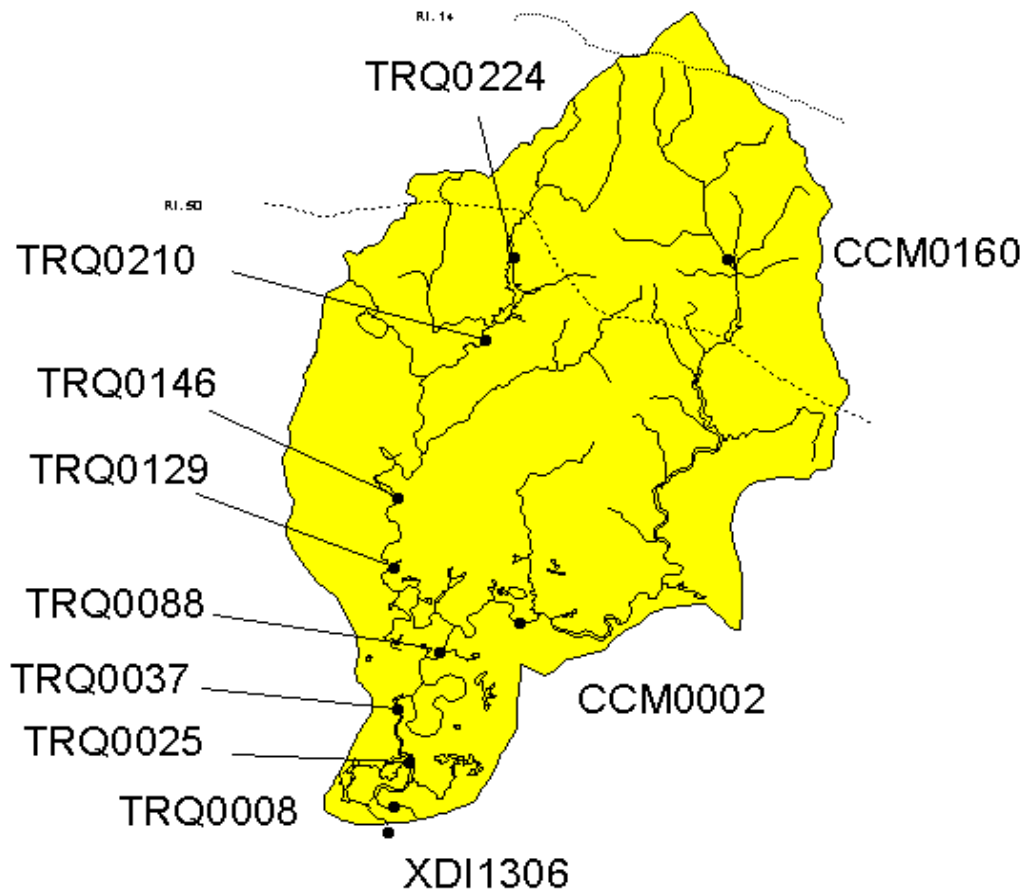
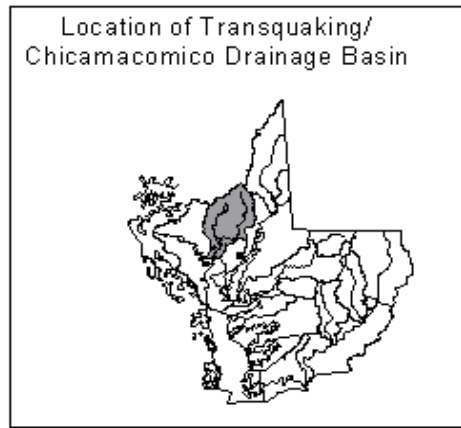
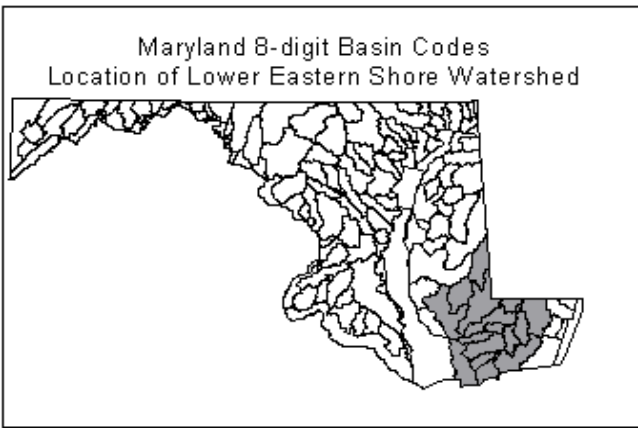


X 15-Jul-98      □ 05-Aug-98      Δ 09-Sep-98

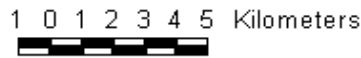
MARSHYHOPE CREEK  
STATION LIST

| Station Code                    | Lat/Long              | Description                                               |
|---------------------------------|-----------------------|-----------------------------------------------------------|
| <b><u>Marshyhope Creek:</u></b> |                       |                                                           |
| MRH0006                         | 38°31.852' 75°45.998' | At Walnut Landing, 0.5 miles from mouth.                  |
| MRH0058                         | 38°34.624' 75°47.672' | At Md. Rt. 14 bridge crossing at Brookville.              |
| MRH0097                         | 38°37.848' 75°49.051' | At Harrison Ferry Rd. crossing.                           |
| MRH0164                         | 38°41.663' 75°46.334' | Central Ave. (Md. Rt. 306) crossing, at Federalsburg.     |
| MRH0225                         | 38°45.730' 75°43.377' | At Noble Rd. crossing (Del. RD 572).                      |
| MRH0311                         | 38°50.987' 75°40.418' | At Fisher Br. Rd. crossing in Delaware. (USGS gage house) |
| <b><u>Wrights Branch:</u></b>   |                       |                                                           |
| WRB0005                         | 38°36.823' 75°49.940' | At Palmers Mill Rd. crossing.                             |
| <b><u>Tull Branch:</u></b>      |                       |                                                           |
| TUL0008                         | 38°43.500' 75°46.763' | Long Swamp Rd. crossing.                                  |
| <b><u>Smithville Ditch:</u></b> |                       |                                                           |
| SMD0003                         | 38°45.789' 75°44.201' | At Bloomery Rd. crossing.                                 |

# Transquaking/Chicamacomico Monitoring Stations



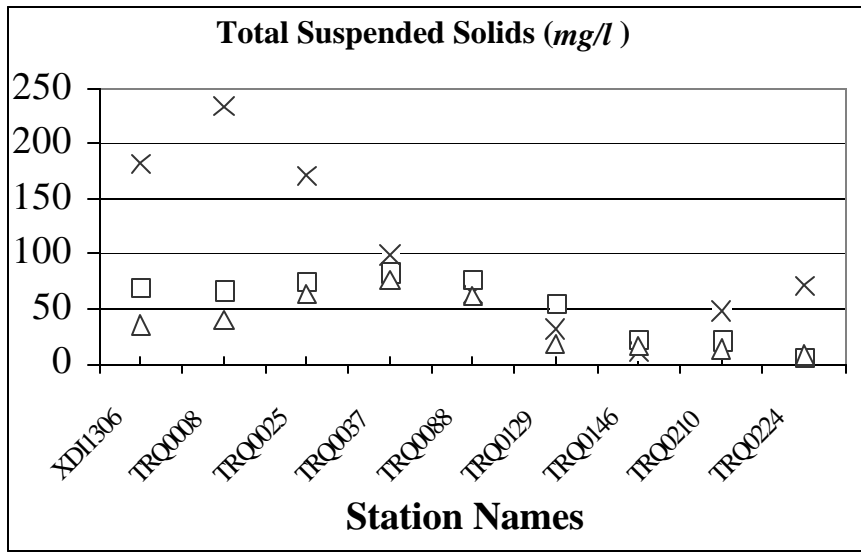
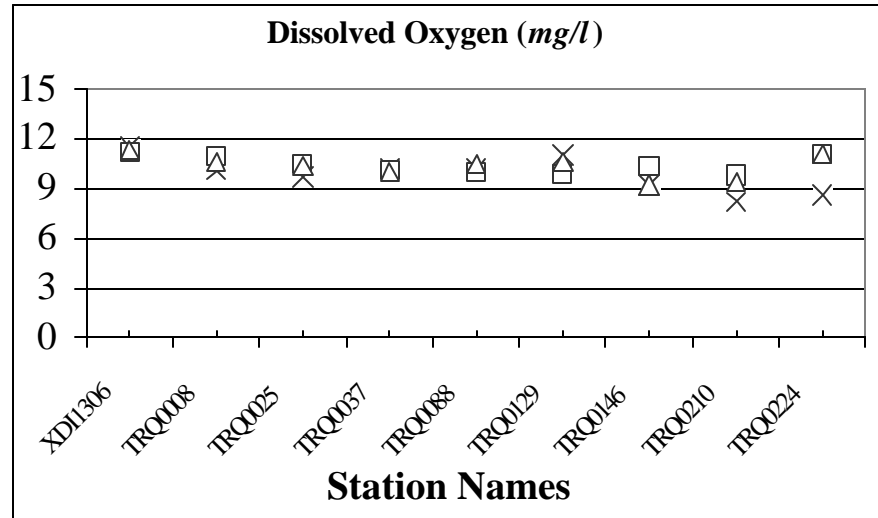
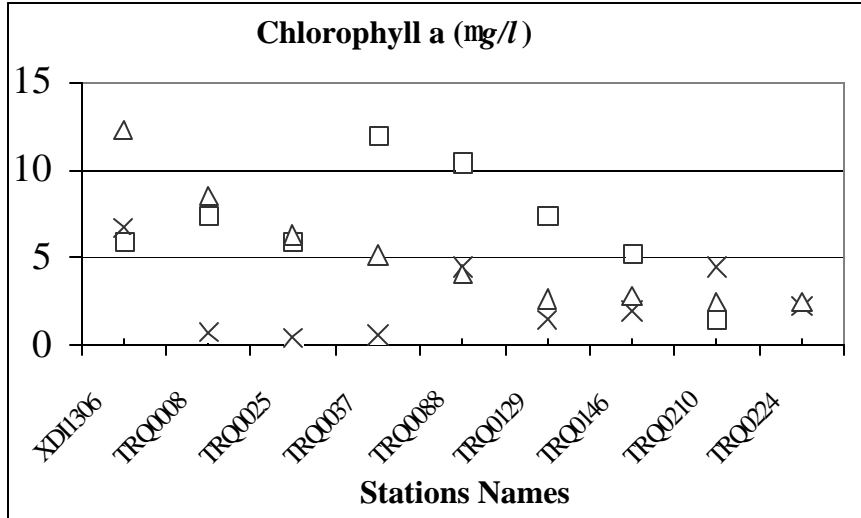
- Chico\_tmdl.shp
- MDE Monitoring Stations
- Major Roads
- Roads
- Transquaking River
- Watershed 02130308





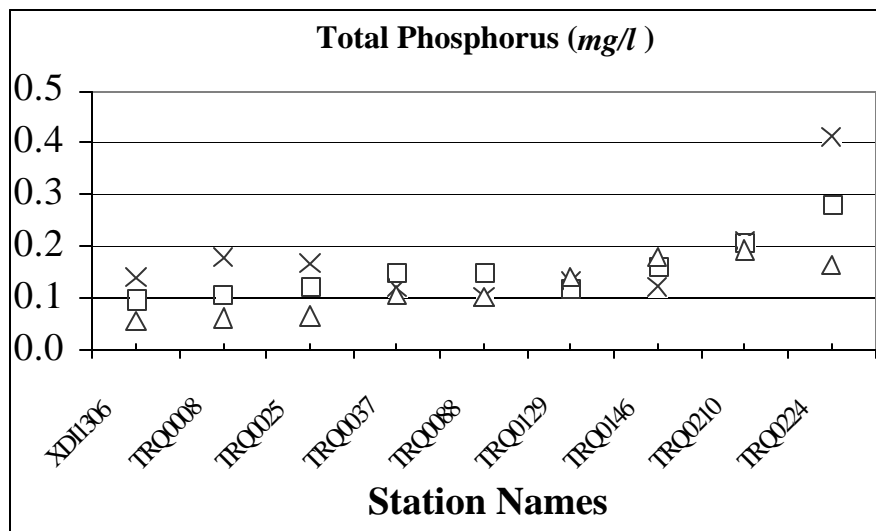
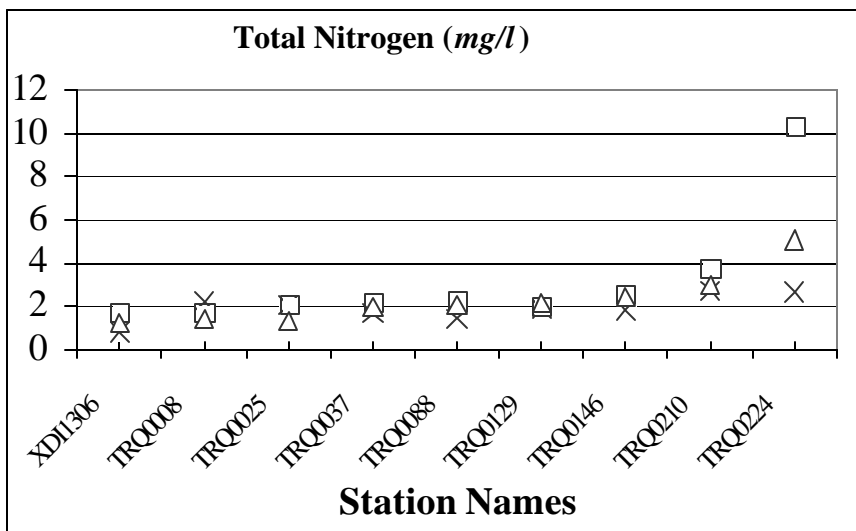
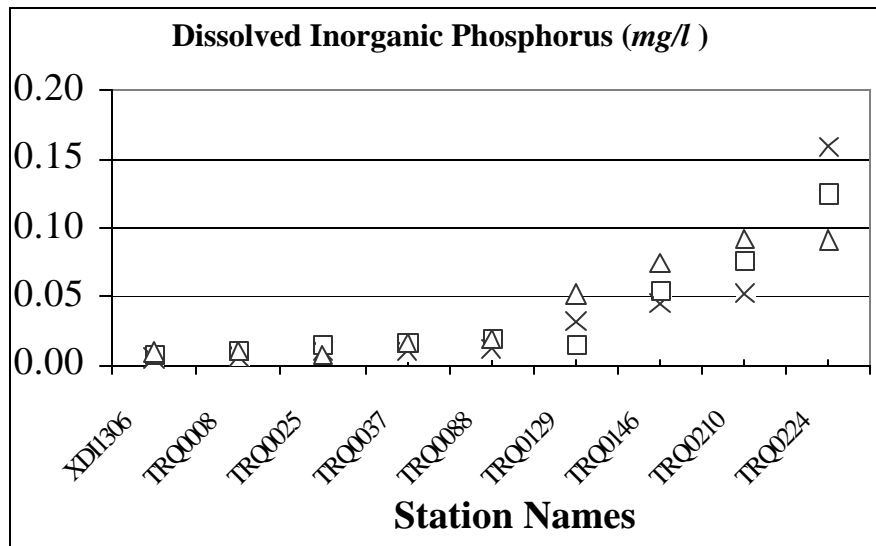
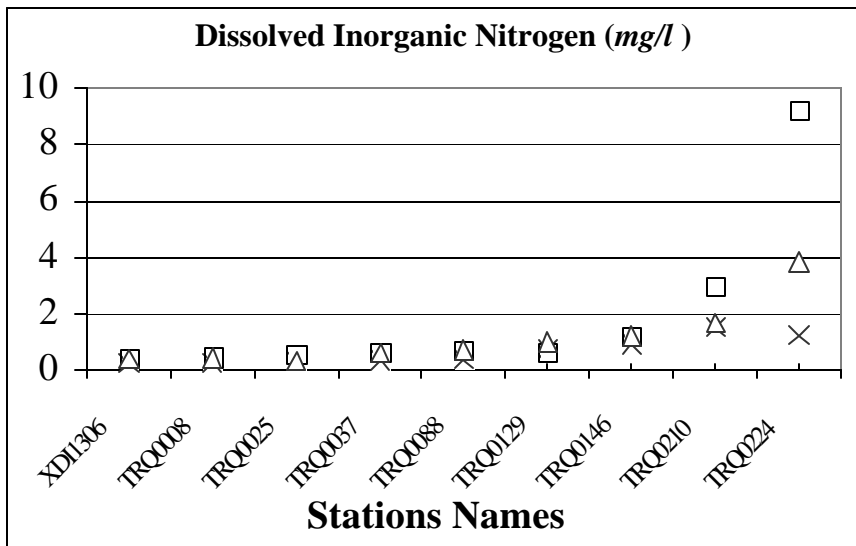
**Transquaking River**  
High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



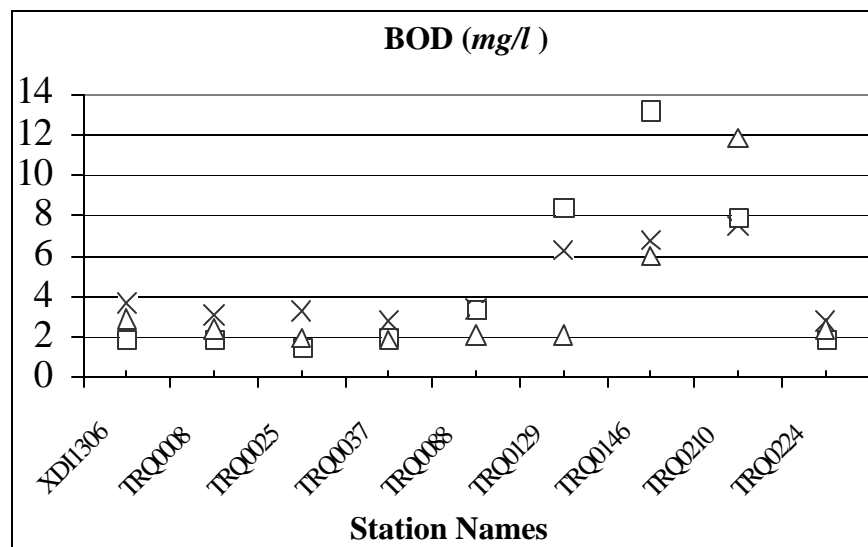
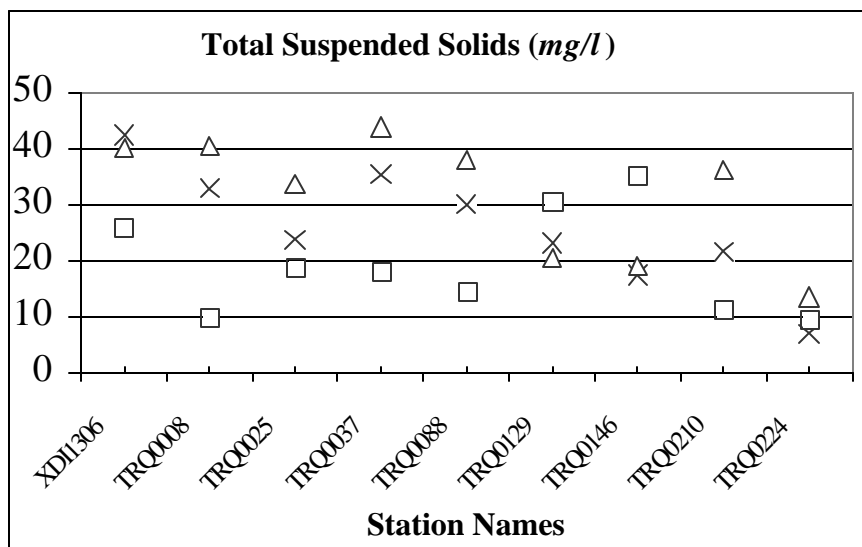
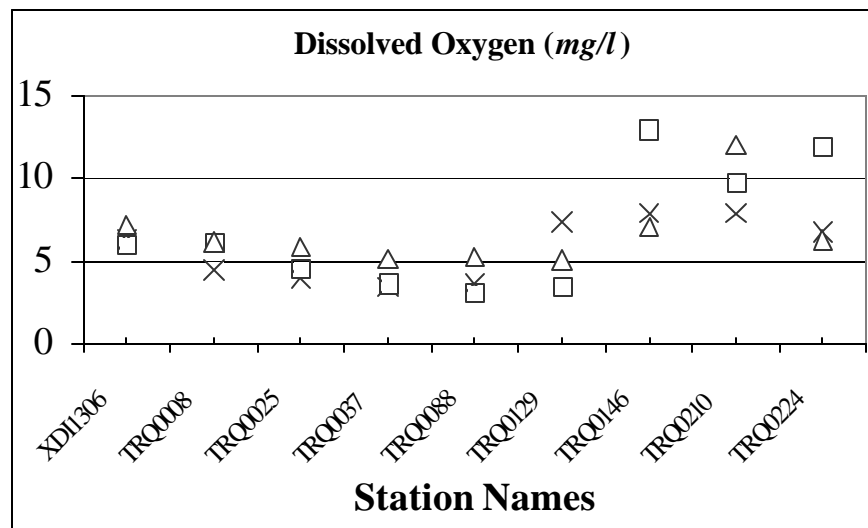
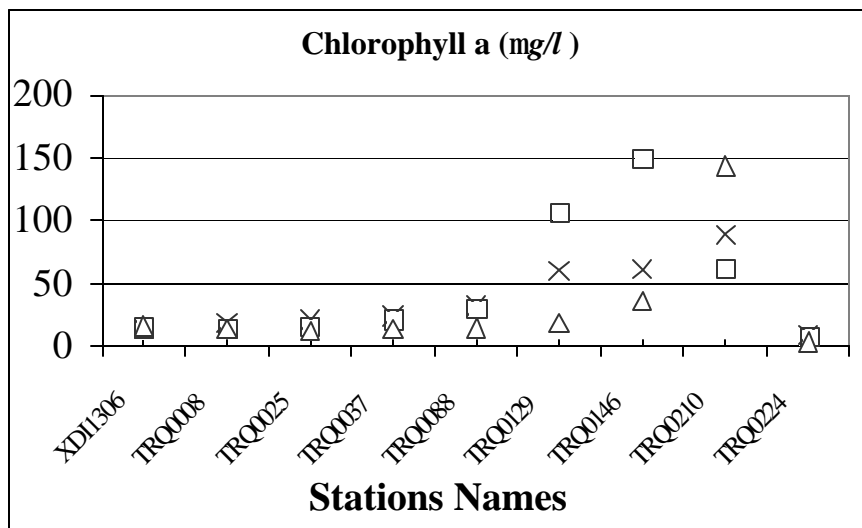
x 12-Feb-98      „ 16-Mar-98      Δ 23-Mar-98

**Transquaking River**  
 High Flow Conditions (January - May)  
 Stations are presented from left to right in downstream to upstream order



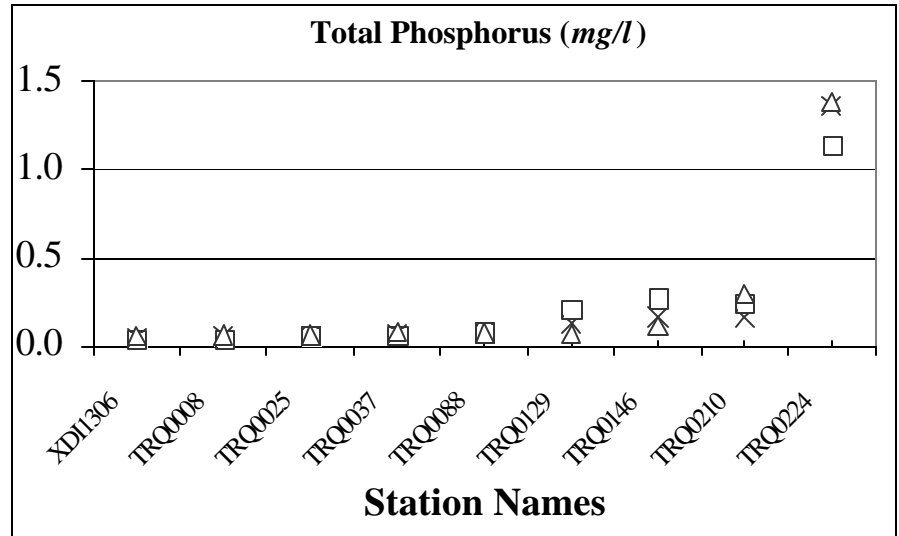
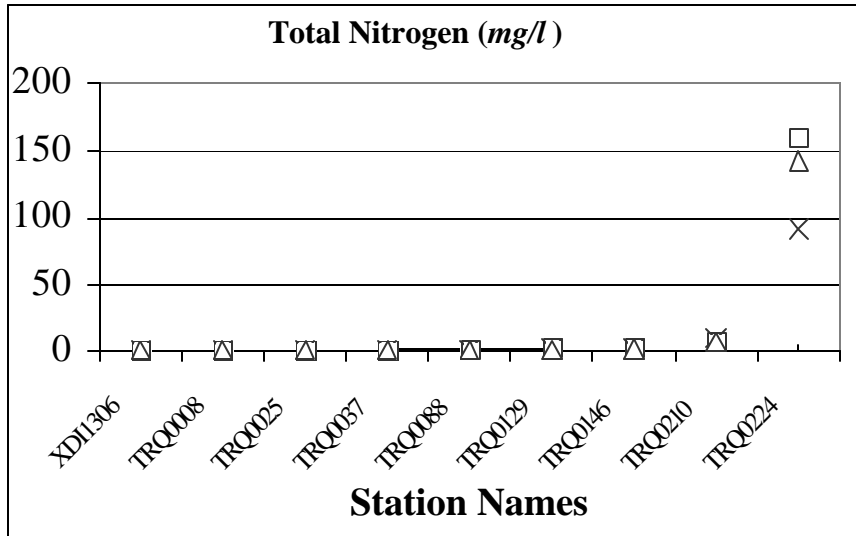
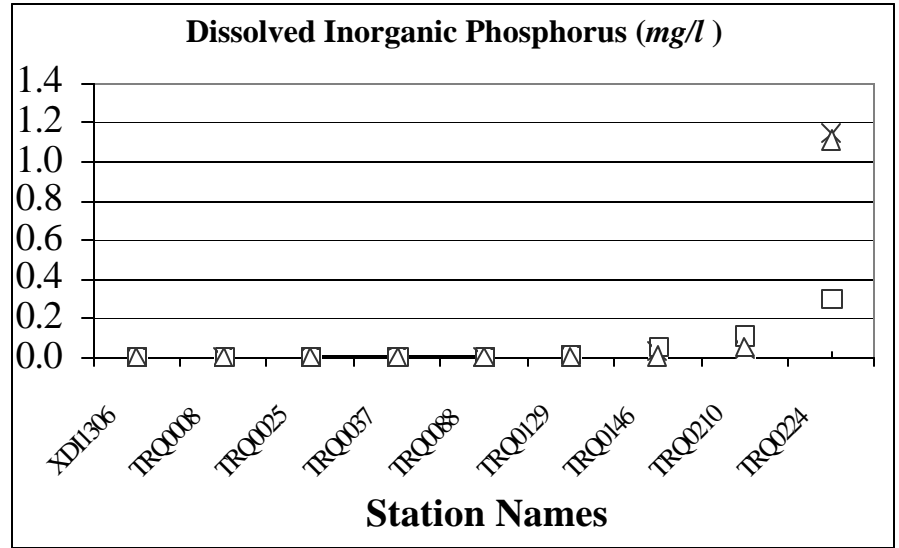
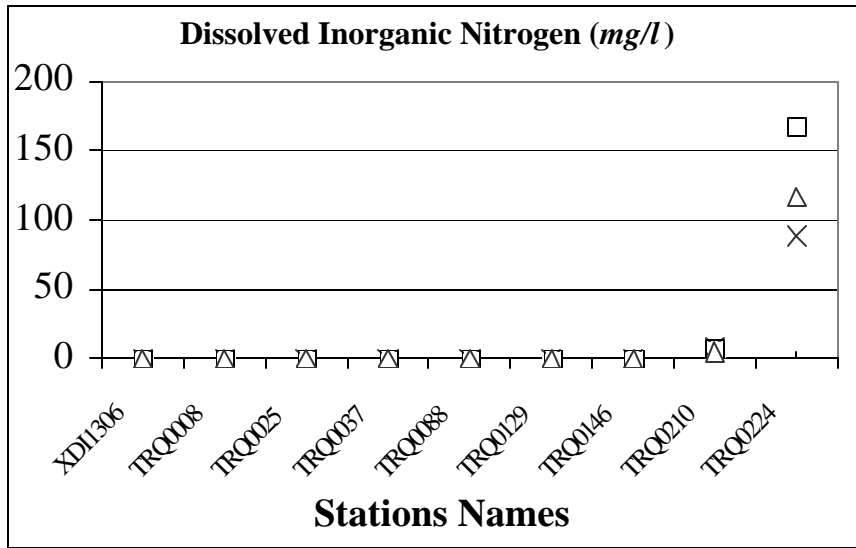
x 12-Feb-98      □ 16-Mar-98      Δ 23-Mar-98

**Transquaking River**  
 Low Flow Conditions (July - October)  
 Stations are from left to right in downstream to upstream order



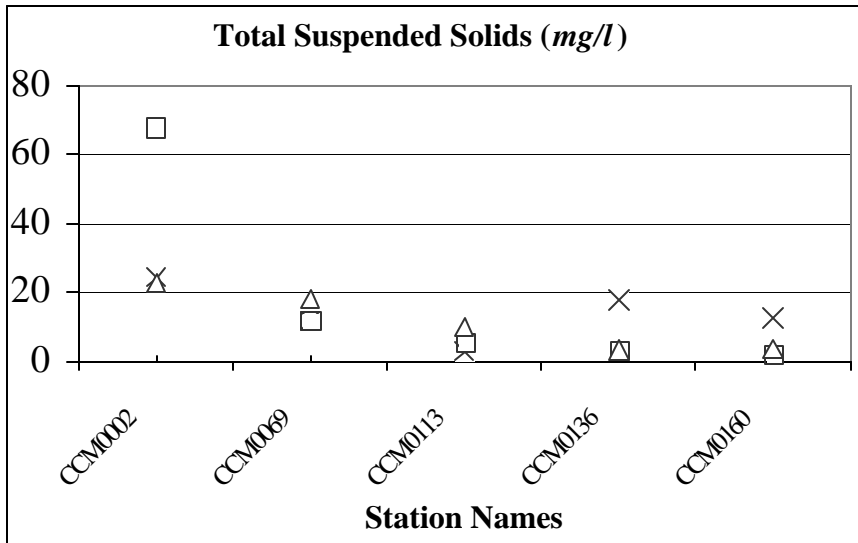
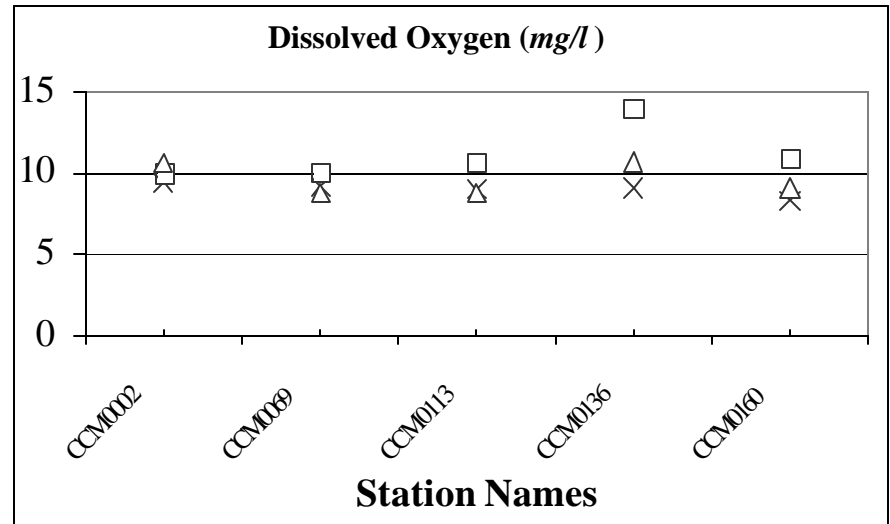
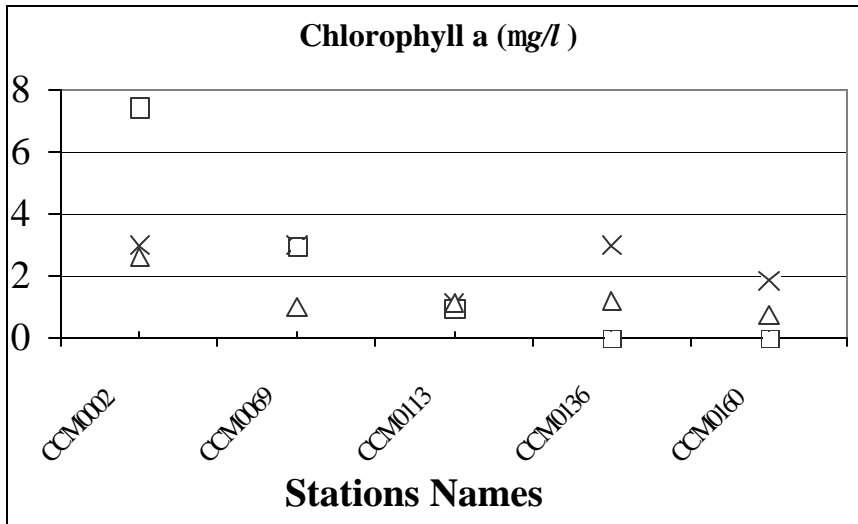
x 21-Jul-98      18-Aug-98      △ 15-Sep-98

**Transquaking River**  
 Low Flow Conditions (July - October)  
 Stations are presented from left to right in downstream to upstream order



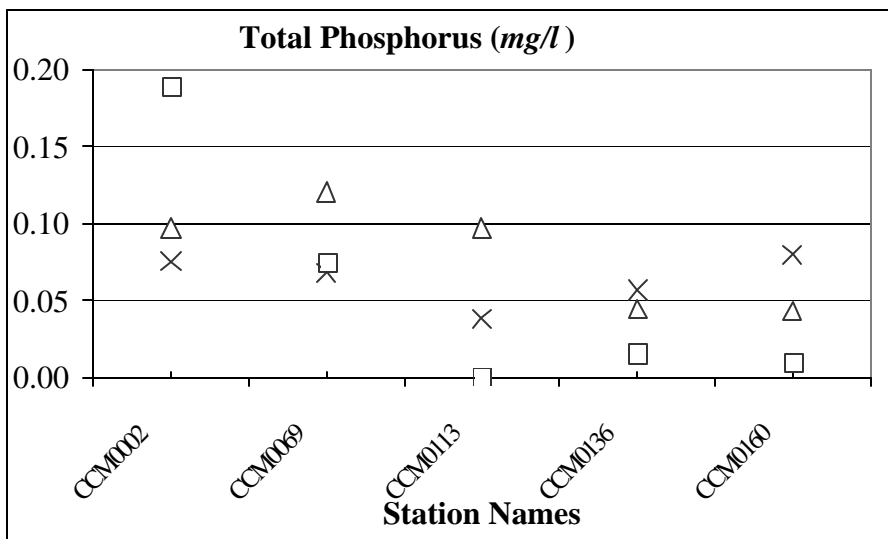
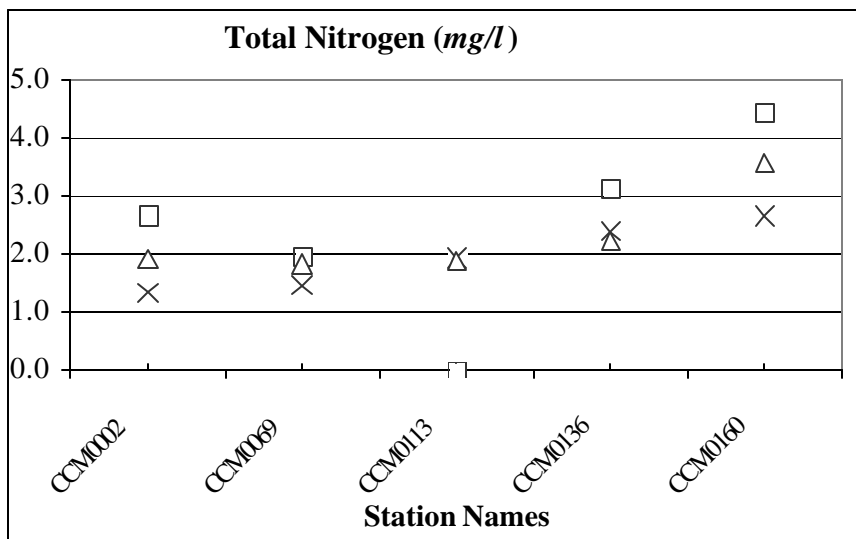
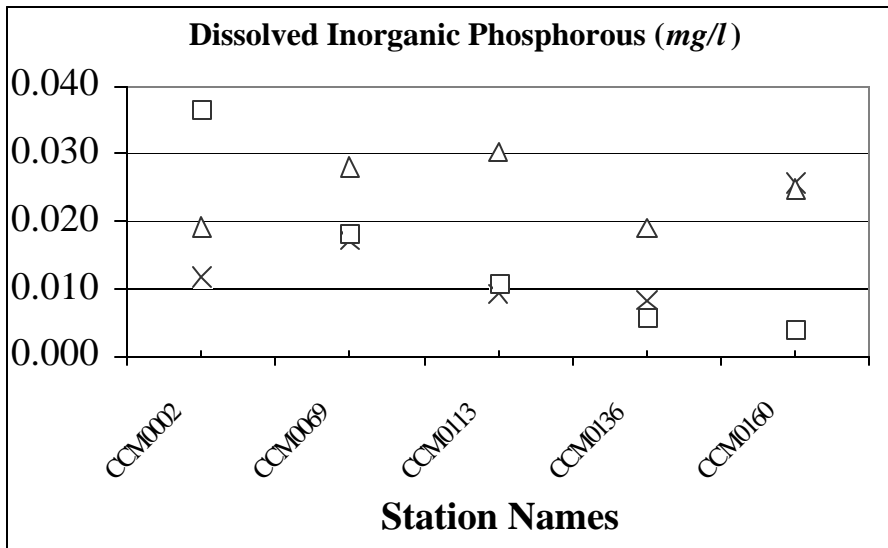
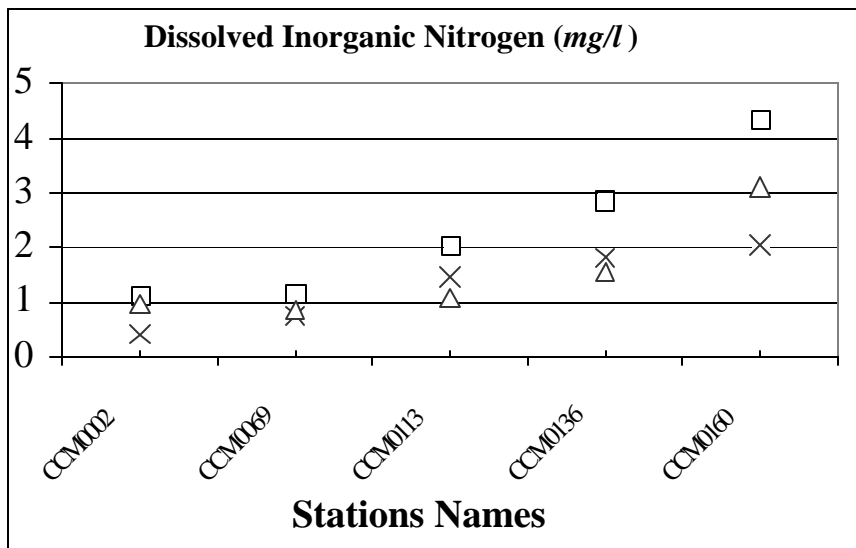
x 21-Jul-98      △ 18-Aug-98      □ 15-Sep-98

**Chicamacomico River**  
 High Flow Conditions (January - May)  
 Stations are presented from left to right in downstream to upstream order



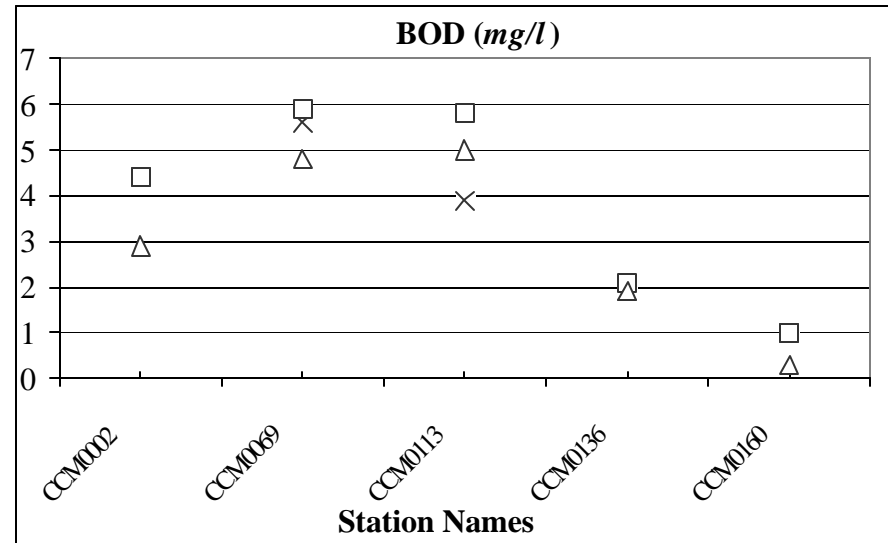
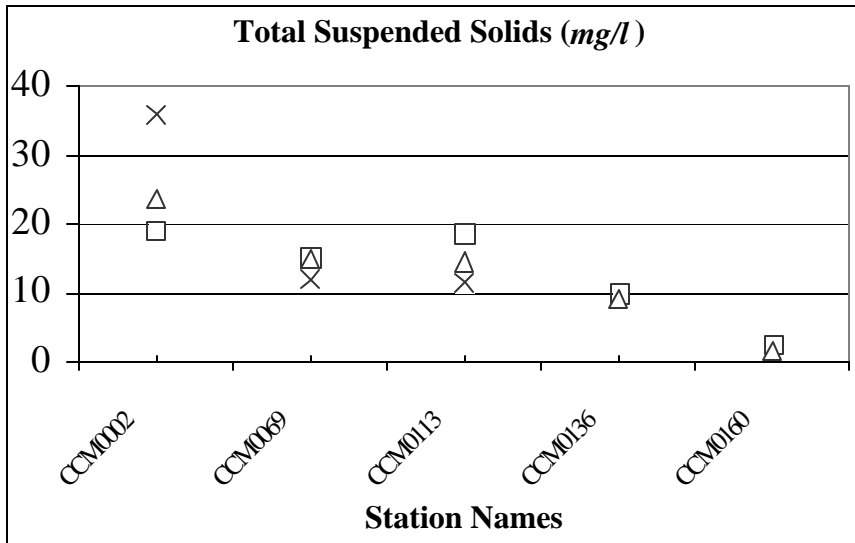
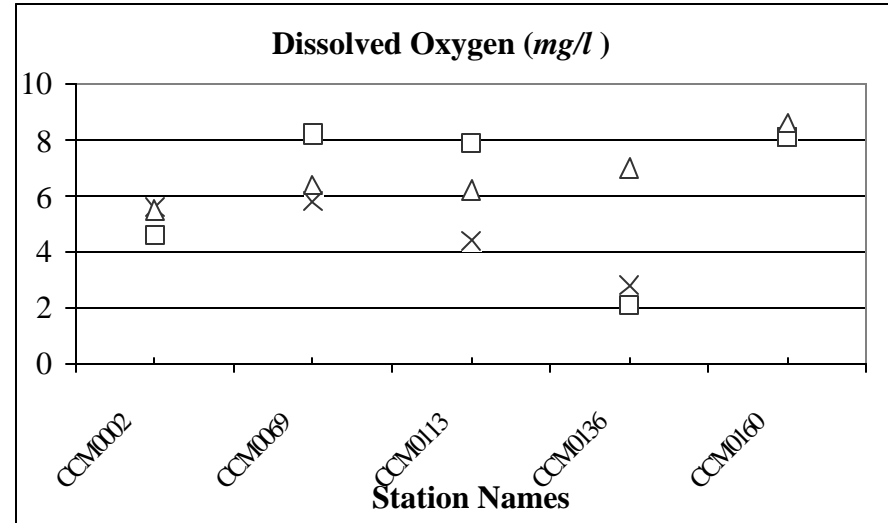
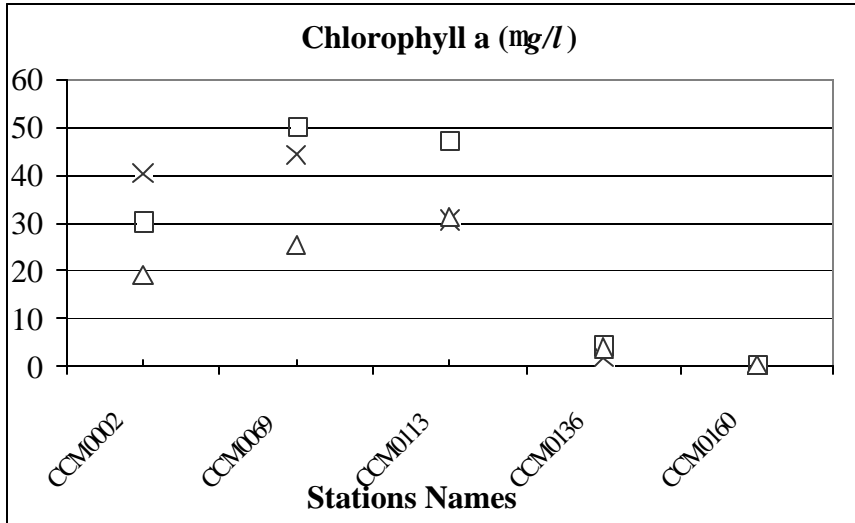
x 12-Feb-98      „ 16-Mar-98      Δ 23-Mar-98

**Chicamacomico River**  
 High Flow Conditions (January - May)  
 Stations are from presented left to right in downstream to upstream order



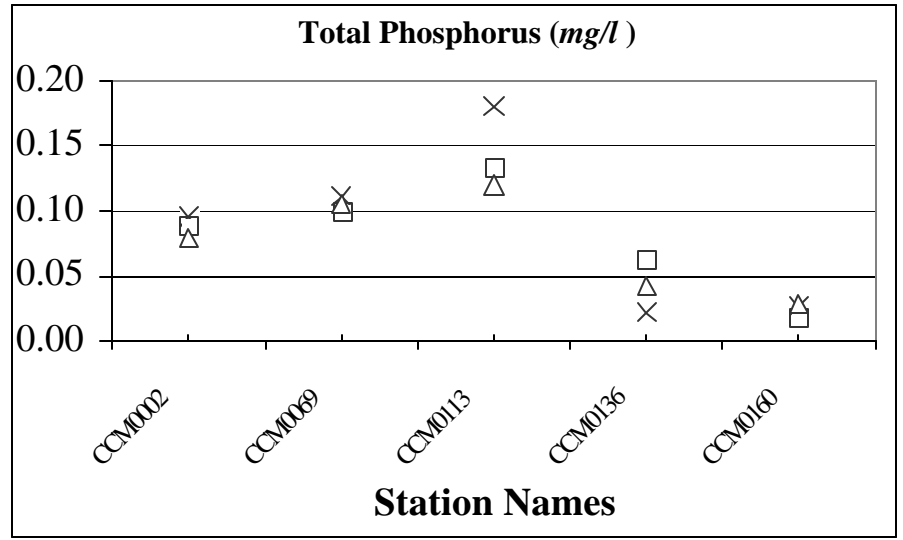
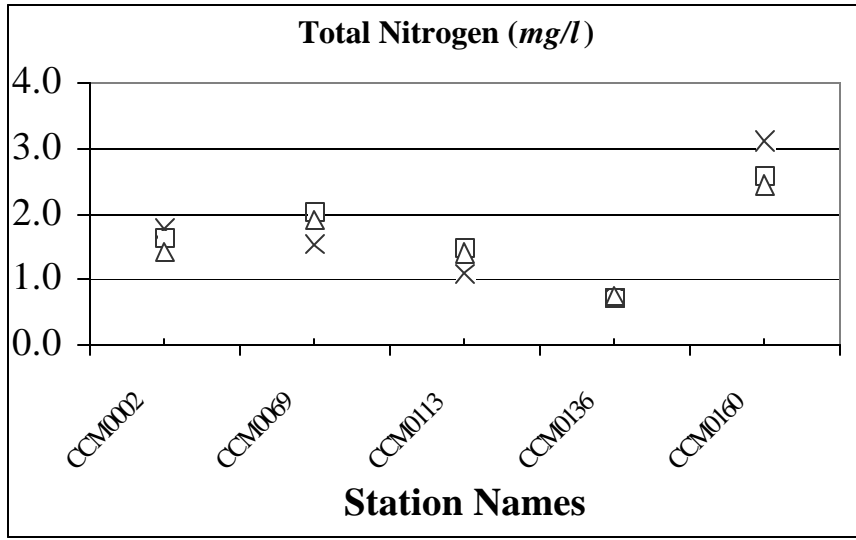
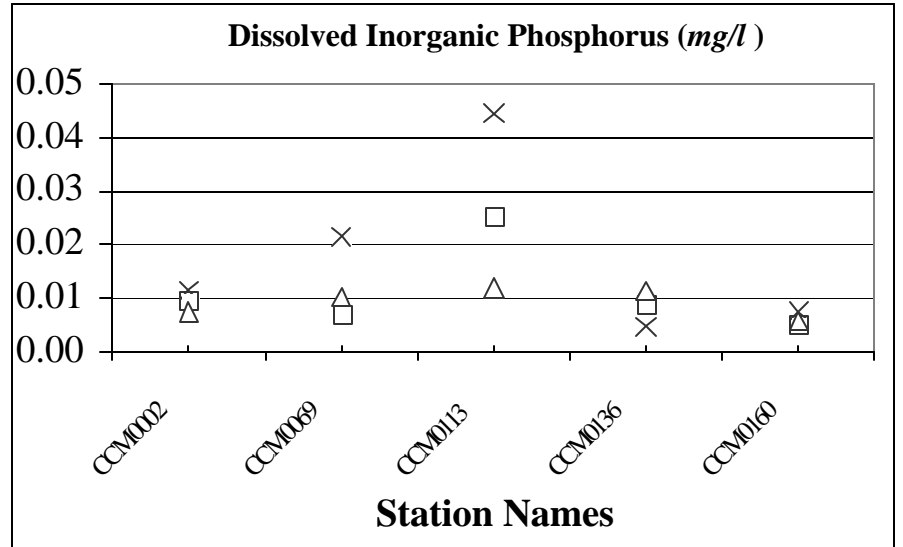
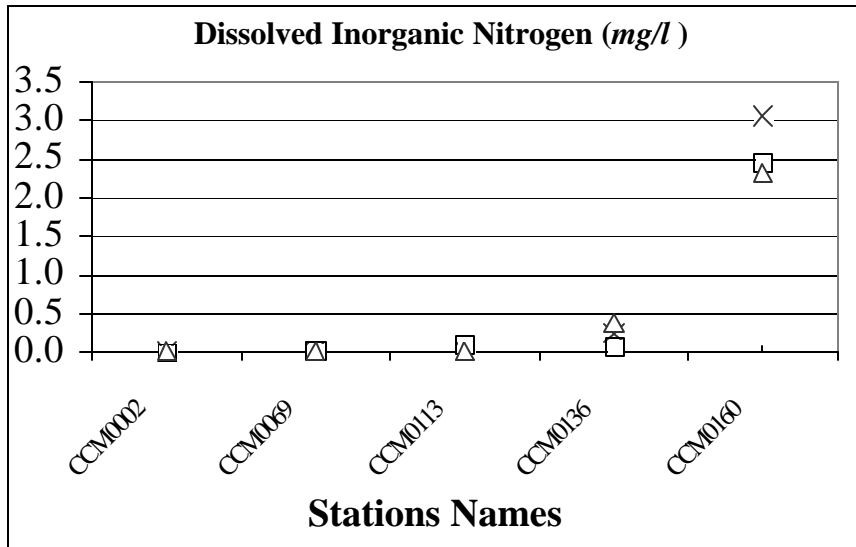
x 12-Feb-98      Δ 16-Mar-98      □ 23-Mar-98

**Chicamacomico River**  
 Low Flow Conditions (July - October)  
 Stations are presented from left to right in downstream to upstream order



x 21-Jul-98      18-Aug-98      Δ 15-Sep-98

**Chicamacomico River**  
 Low Flow Conditions (July - October)  
 Stations are presented from left to right in downstream to upstream order



x 21-Jul-98      18-Aug-98      Δ 15-Sep-98



TRANSQUAKING/CHICAMACOMICO  
STATION LIST

| Station Code                       | Lat/Long              | Description                                                             |
|------------------------------------|-----------------------|-------------------------------------------------------------------------|
| <b><u>Transquaking River:</u></b>  |                       |                                                                         |
| XDI1306*                           | 38°11.882' 75°42.124' | Tidal Fishing Bay, 1500 yds. east of Blackwater Pt.                     |
| TRQ0008*                           | 38°22.159' 75°00.604' | .8 miles from mouth of Fishing Bay proper, where river narrows sharply. |
| TRQ0025*                           | 38°23.082' 75°59.782' | ½ mile upstream of confluence of Doctors Cr.                            |
| TRQ0037*                           | 38°23.701' 75°00.089' | ½ mile downstream of canal confluence.                                  |
| TRQ0088*                           | 38°24.987' 75°59.575' | At Bestpitch Ferry Rd. bridge in Fishing Bay WMA.                       |
| TRQ0129*                           | 38°26.605' 76°00.423' | 3 miles upstream of Chicamacomico confluence.                           |
| TRQ0146                            | 38°27.948' 76°00.020' | At DeCoursey Bridge crossing, NE of Bucktown.                           |
| TRQ0210                            | 38°30.763' 75°58.110' | At Drawbridge Rd. crossing, south of Linkwood.                          |
| TRQ0224                            | 38°32.224' 75°57.474' | At Linkwood Rd. crossing, at Higgins Mill Pond.                         |
| <b><u>Chicamacomico River:</u></b> |                       |                                                                         |
| CCM0002*                           | 38°25.703' 75°57.438' | At Brickhouse Landing, 2 miles above Transquaking River.                |
| CCM0069                            | 38°26.535' 75°54.252' | Tidal, at Drawbridge Rd. crossing.                                      |
| CCM0113                            | 38°28.899' 75°53.034' | Tidal, at New Bridge Rd. crossing.                                      |
| CCM0136                            | 38°30.902' 75°52.775' | Where Rt. 50 crosses river, below Big Mill Pond.                        |
| CCM0160                            | 38°32.143' 75°52.738' | At Maiden Forest Rd. crossing, above Big Mill Pond.                     |

\*Boat stations

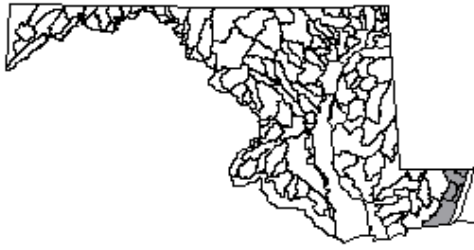
# Coastal Bays Region

## Coastal Bays Area

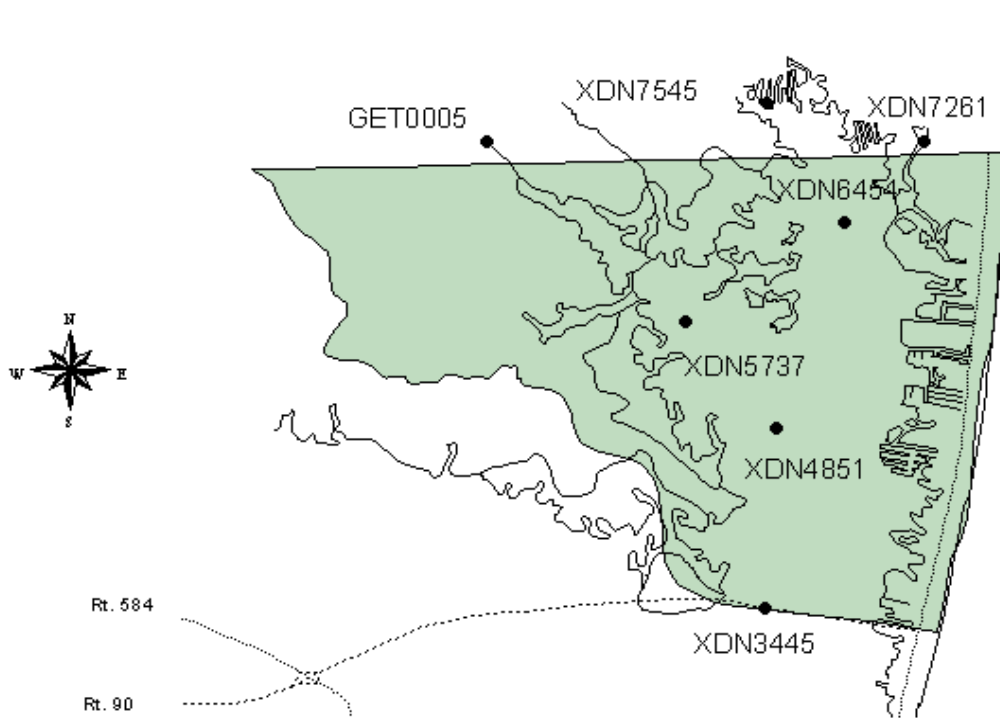
**Assawoman Bay Drainage  
Isle of Wight Bay Drainage  
Sinepuxent Bay Drainage  
Newport Bay Drainage  
Chincoteague Bay Drainage**

# Assawoman Bay Monitoring Stations

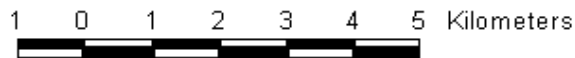
Maryland 8-digit Basin Codes  
Location of Coastal Bays Watershed



Location of Assawoman Bay  
Drainage Basin



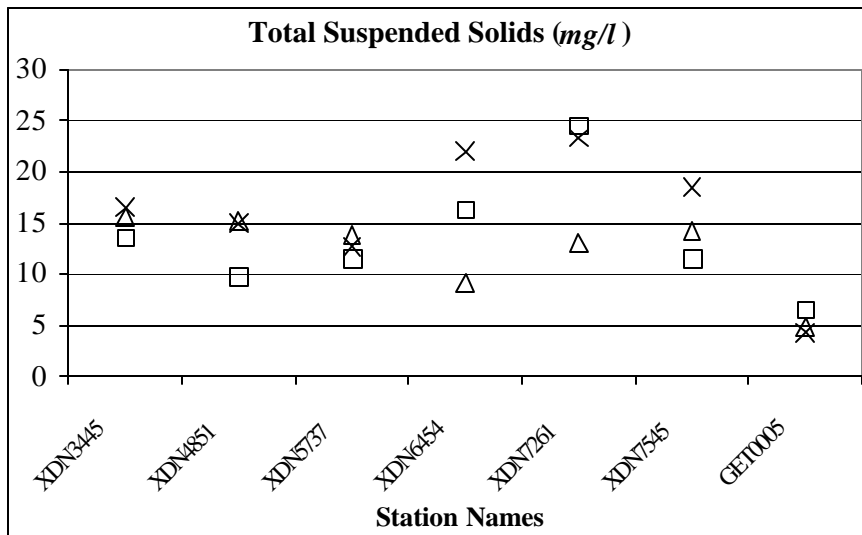
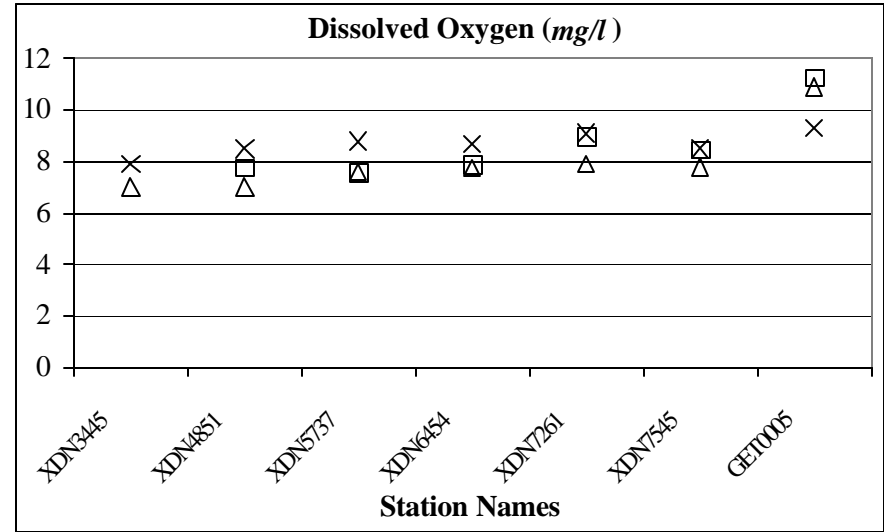
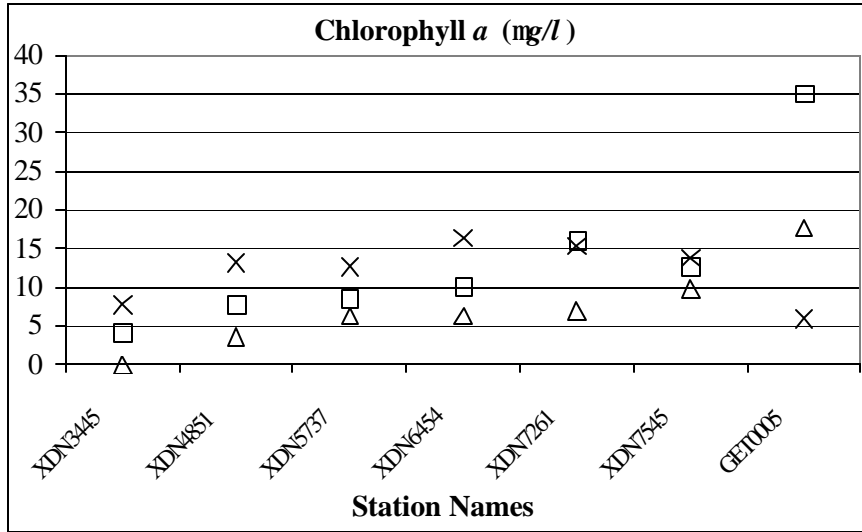
- MDE Monitoring Stations
- Major Roads
- Roads
- ▲ Assawoman Bay
- Watershed 02130102



### Assawoman Bay

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



× 14-Apr-98

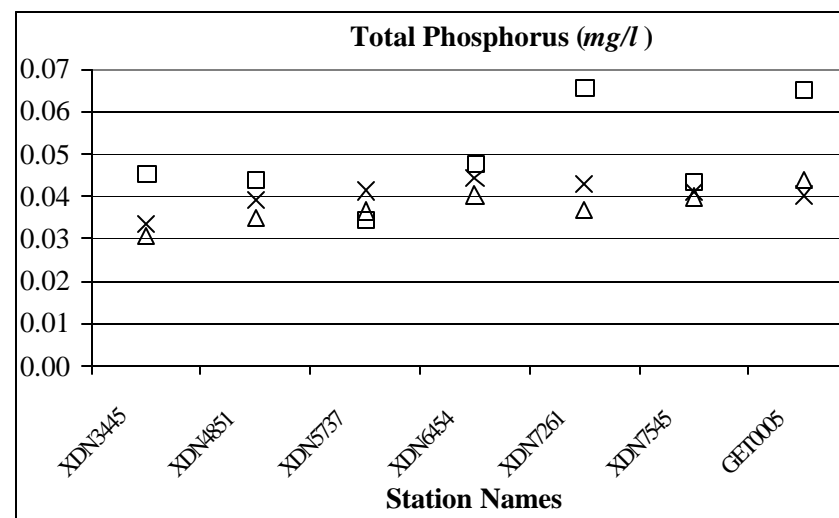
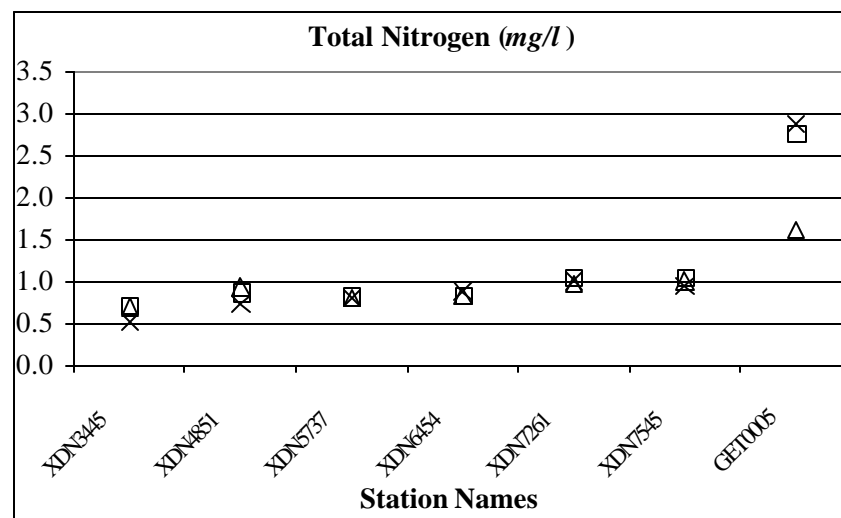
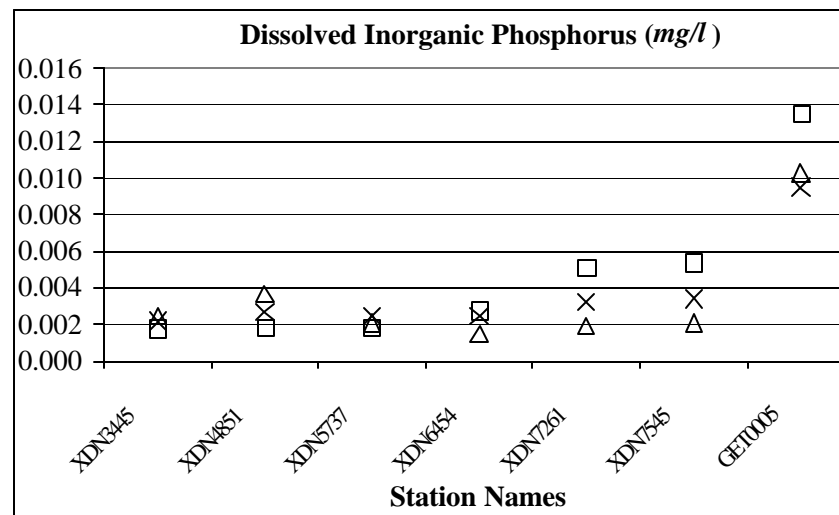
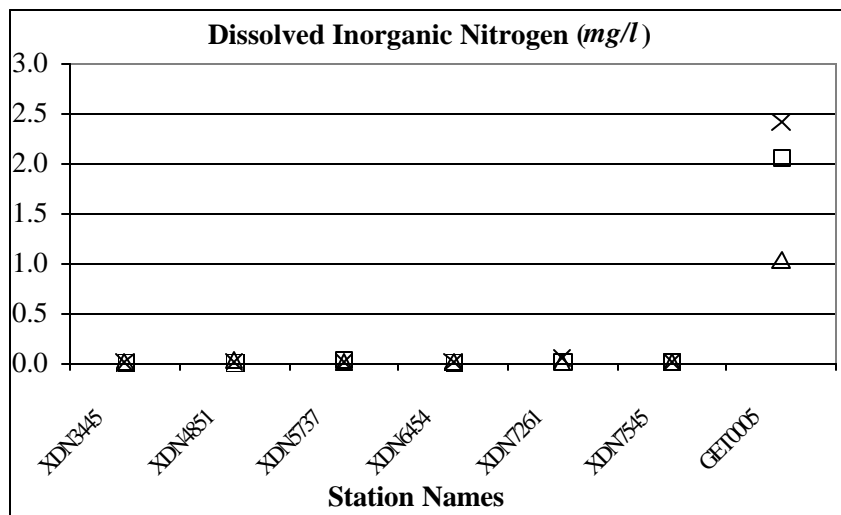
□ 21-Apr-98

Δ 28-Apr-98

### Assawoman Bay

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

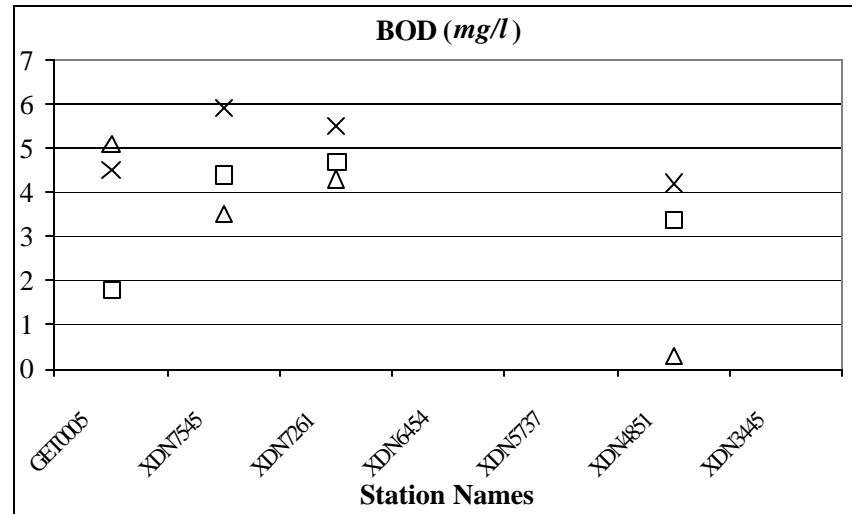
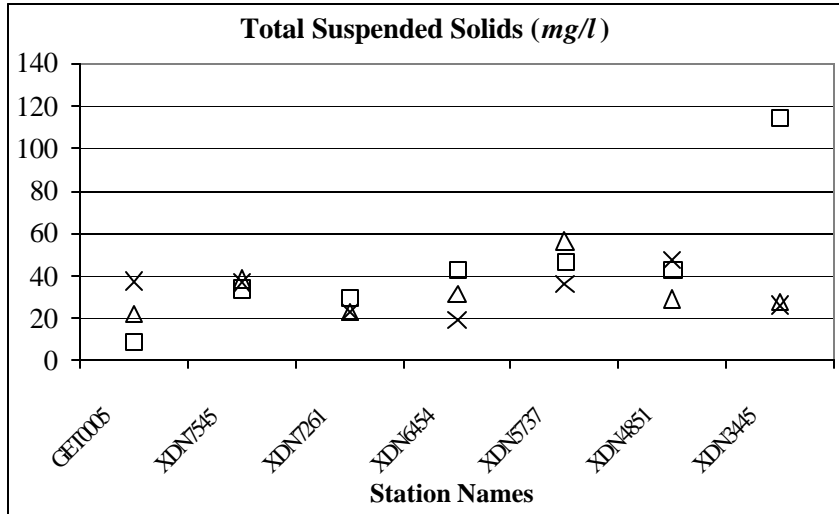
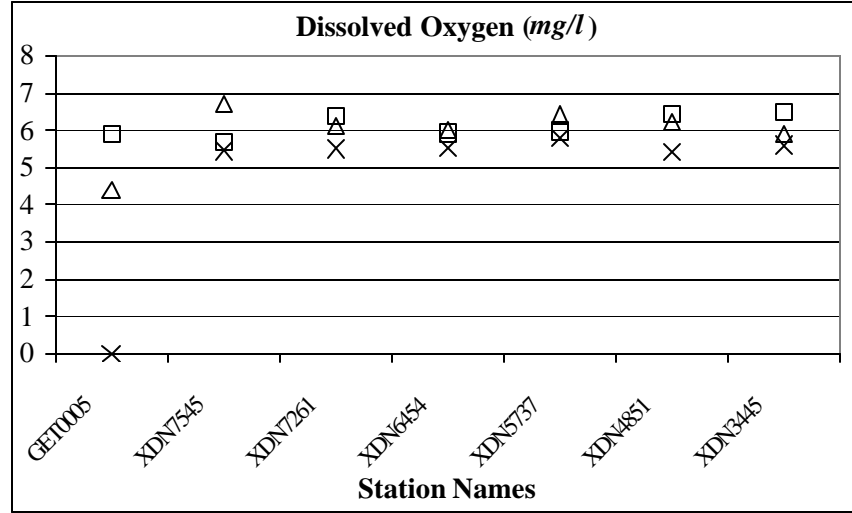
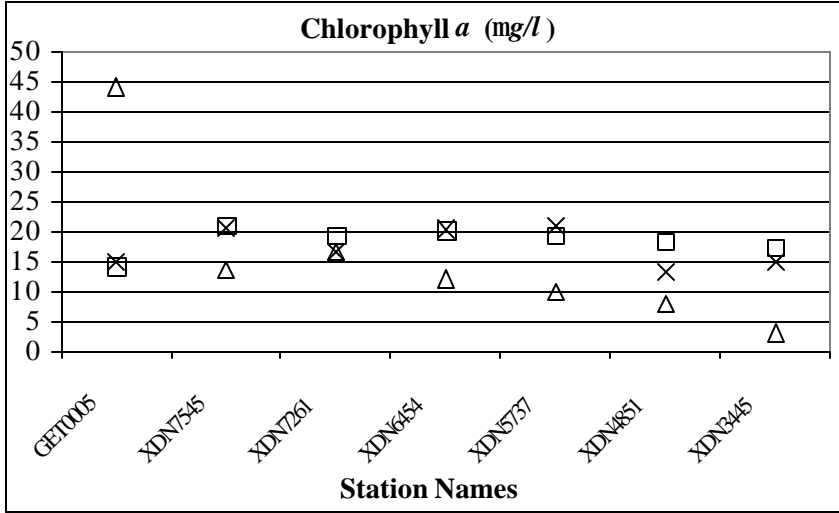


× 14-Apr-98      □ 21-Apr-98      Δ 28-Apr-98

**Assawoman Bay**

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

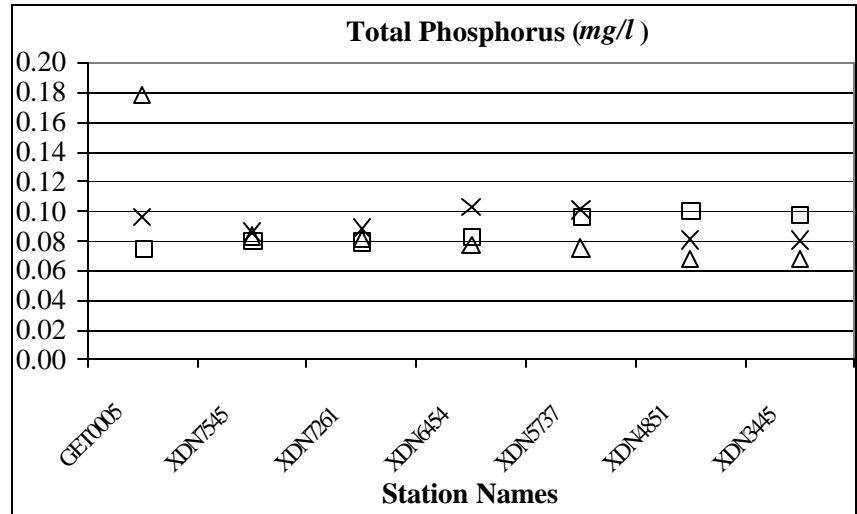
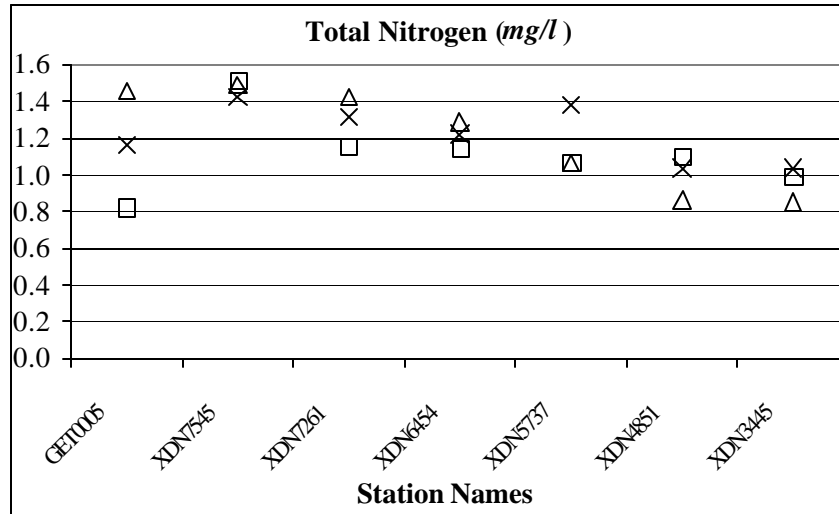
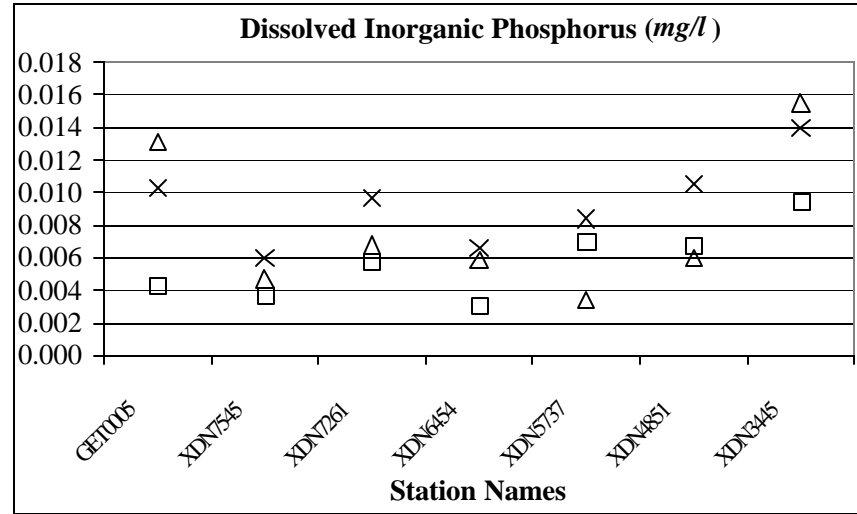
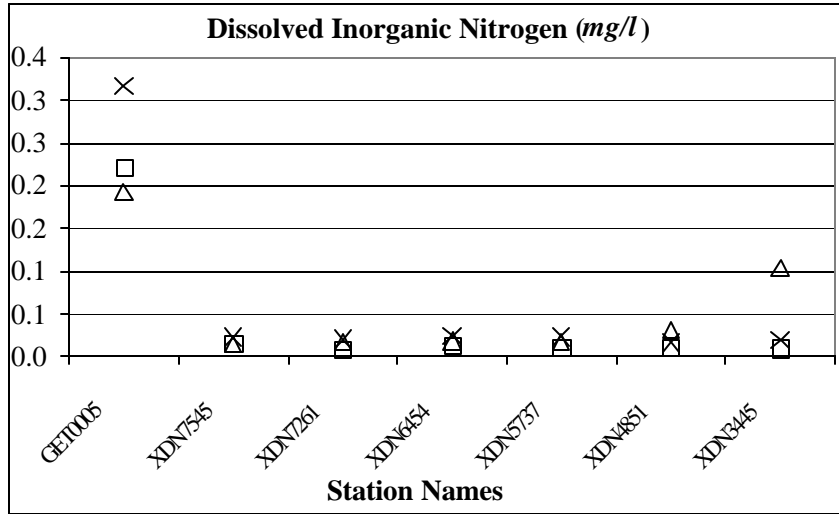


× 11-Aug-98      □ 01-Sep-98      △ 29-Sep-98

### Assawoman Bay

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order



× 11-Aug-98      □ 01-Sep-98      △ 29-Sep-98



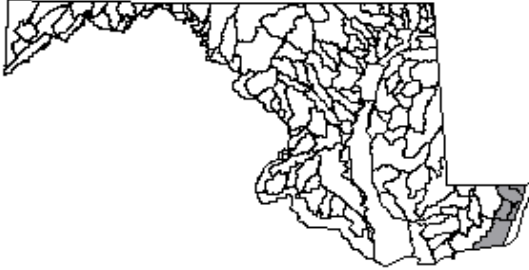
ISLE OF WIGHT BAY AND ASSAWOMAN  
STATION LIST

| Station Code                         | Lat/Long              | Description                                                                                        |
|--------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------|
| <i><b>Isle of Wight Bay:</b></i>     |                       |                                                                                                    |
| XDN0146                              | 38°20.054' 75°05.386' | 100 yds. north of Rt. 50 bridge in channel adjacent to waterfront bar.                             |
| XDN2438                              | 38°21.273' 75°05.345' | Mid-channel at red daymarker "8".                                                                  |
| XDN2340                              | 38°22.400' 75°06.150' | Mid-bay, 1000 yds. west of daymarker "14".                                                         |
| XDN3445                              | 38°23.348' 75°05.521' | Mid-channel under Rt. 90 bridge crossing of Assawomen Bay.                                         |
| XDN4851                              | 38°24.800' 75°05.400' | NNW of Devil Island by 0.3 miles. Between silo on west shore and pyramid condos on barrier island. |
| XDN5737<br>(UC-7)                    | 38°25.700' 75°06.300' | Midway between pt. with green house and pt. due north of silo.                                     |
| XDN6454                              | 38°26.500' 75°04.650' | ~ 0.5 miles east of Johns Hammock Island and 0.5 miles west of trailer park.                       |
| TUV0011                              | 38°21.510' 75°07.886' | Confluence of Turville Cr. and Herring Cr.                                                         |
| TUV0034                              | 38°21.521' 75°10.127' | Rt. 586 (Ocean Downs Rd.) crossing.                                                                |
| HEC0012                              | 38°20.375' 75°07.812' | Rt. 50 crossing, downstream side of bridge.                                                        |
| MKL0010                              | 38°22.353' 75°08.068' | One mile upstream from the mouth of creek.                                                         |
| <i><b>St. Martin River:</b></i>      |                       |                                                                                                    |
| XDN3527                              | 38°23.451' 75°07.288' | Mouth of river at Rt. 90 crossing.                                                                 |
| XDN3724                              | 38°24.162' 75°08.563' | Mid-channel NNE of Margots Island.                                                                 |
| XDN4118                              | 38°24.354' 75°08.971' | Mid-channel off Hen and Chicken Islands.                                                           |
| XDN4506                              | 38°24.653' 75°09.722' | 200 yds. SSW of Hasty Pt.; at edge of 4 ft. contour.                                               |
| <i><b>Shingle Landing Prog:</b></i>  |                       |                                                                                                    |
| SPR0002                              | 38°24.405' 75°10.509' | Between Spring Br. and Piney Island, near northern shore of island.                                |
| <i><b>(South) Church Branch:</b></i> |                       |                                                                                                    |
| SBR0022                              | 38°23.697' 75°12.341' | At Rt. 113 road crossing.                                                                          |

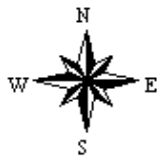
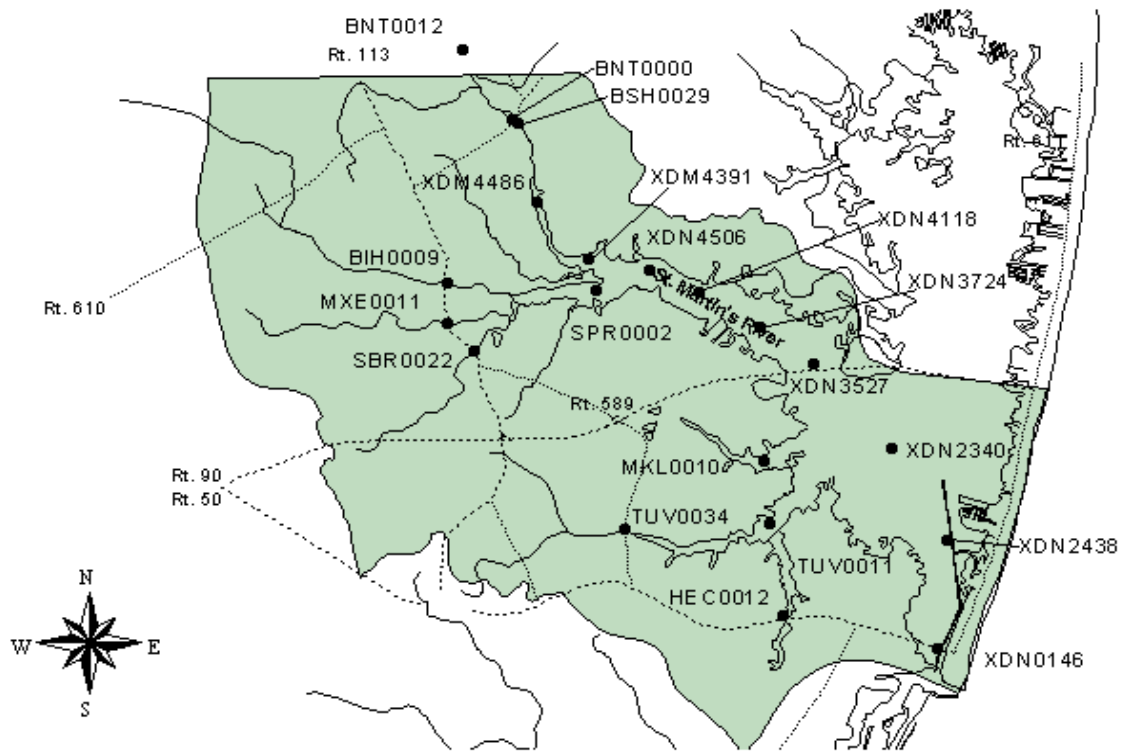
| Station Code                                                 | Lat/Long              | Description                                             |
|--------------------------------------------------------------|-----------------------|---------------------------------------------------------|
| <i>Middle Branch:</i>                                        |                       |                                                         |
| MXE0011                                                      | 38°24.048' 75°12.720' | At Rt. 113 road crossing.                               |
| BIH0009                                                      | 38°24.532' 75°12.728' | At Rt. 113 road crossing.                               |
| <i>Bishopville Prong:</i>                                    |                       |                                                         |
| XDM4391                                                      | 38°24.827' 75°10.631' | Mid-channel 300 yds. upstream from mouth of Perkins Cr. |
| XDM4486                                                      | 38°25.497' 75°11.333' | Mid-channel off Day Rd.                                 |
| BSH0029                                                      | 38°26.477' 75°11.589' | Approx. 200 yds. below dam behind white house.          |
| <i>Buntings Branch:</i>                                      |                       |                                                         |
| BNT0000                                                      | 38°26.535' 75°11.671' | Bishopville Pond behind dam; sample at west side.       |
| BNT0012                                                      | 38°27.360' 75°12.420' | Rt. 54 crossing in Delaware.                            |
| <b><u>Assawoman Bay:</u></b>                                 |                       |                                                         |
| <i>Georgetown Branch:</i>                                    |                       |                                                         |
| GET0005                                                      | 38°27.231' 75°08.281' | Selby Rd. crossing in Delaware.                         |
| <i>Roy Creek:</i>                                            |                       |                                                         |
| XDN7545                                                      | 38°27.488' 75°05.420' | Mid-channel off Keen- Wik subdivision.                  |
| <i>The Ditch between Assawoman and Little Assawoman Bay:</i> |                       |                                                         |
| XDN7261                                                      | 38°27.166' 75°03.831' | Rt. 54 crossing of “the Ditch”.                         |

# Isle of Wight Bay Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Coastal Bays Watershed



Location of Isle of Wight Drainage Basin



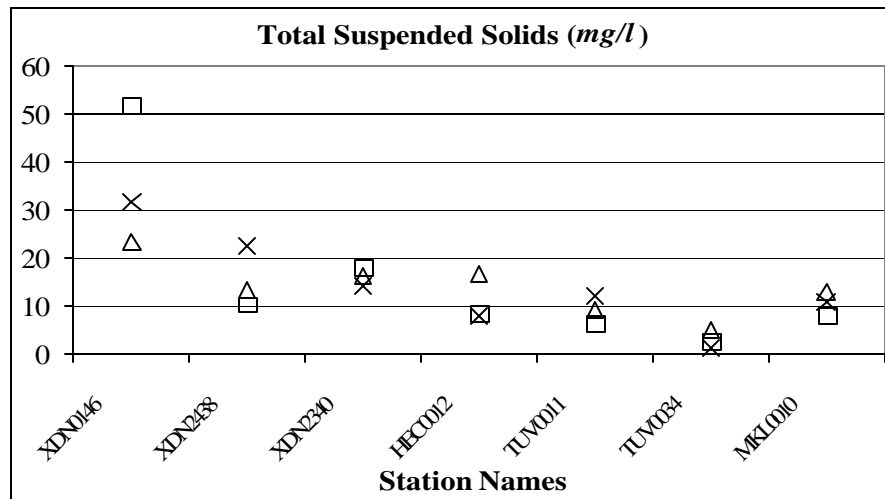
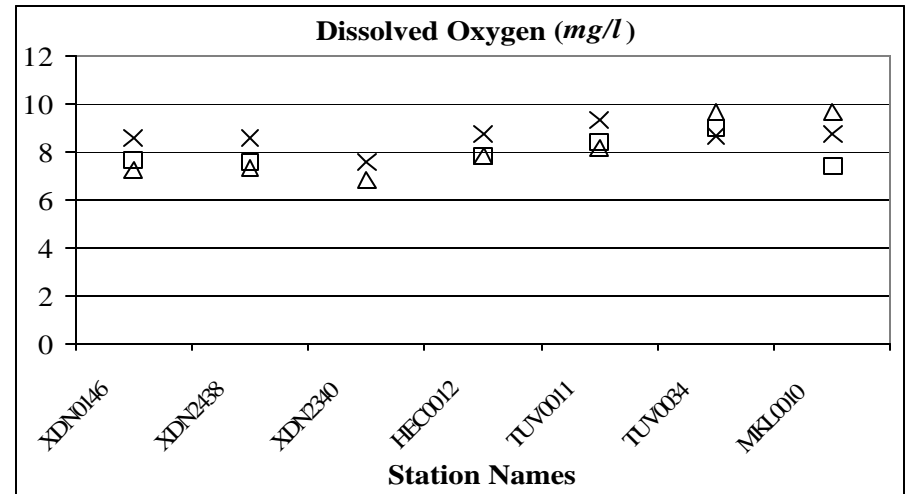
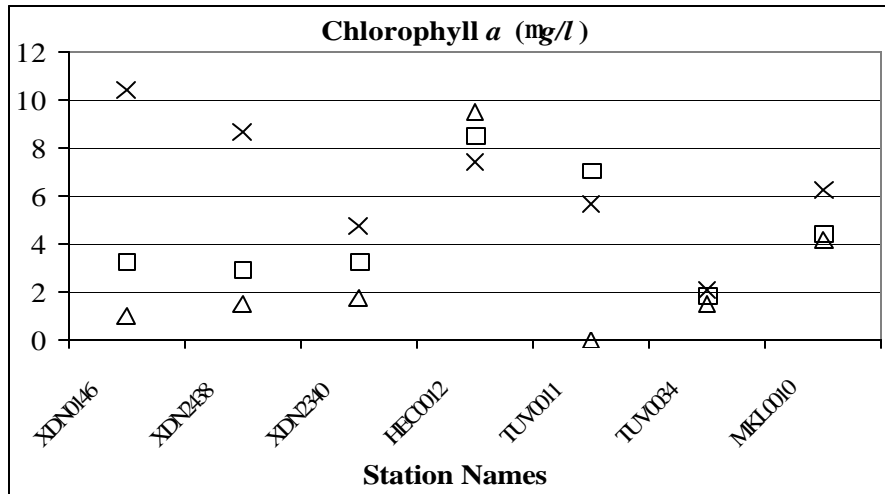
- MDE Monitoring Stations
- Major Roads
- Roads
- ▭ Isle of Wight Bay
- ▭ Watershed 02130103

1 0 1 2 3 4 5 Kilometers



**Isle of Wight Bay and Tributaries**  
**High Flow Conditions (January - May)**

Stations are presented from left to right in downstream to upstream order

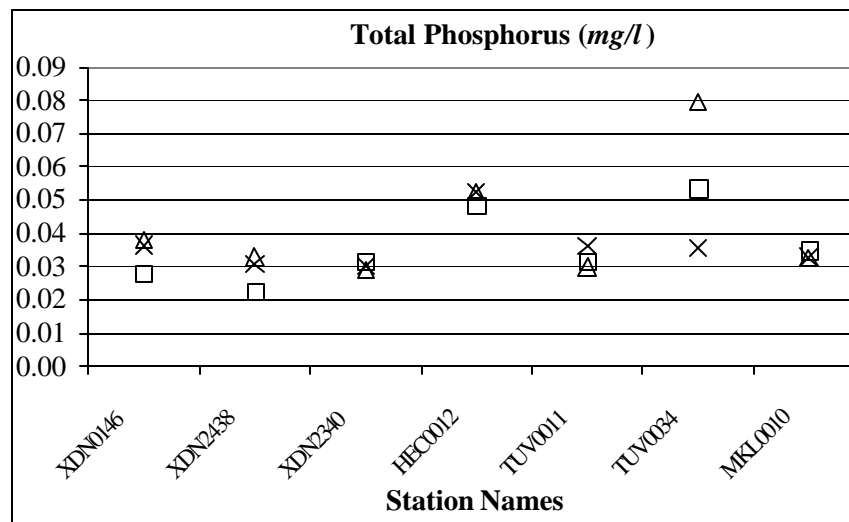
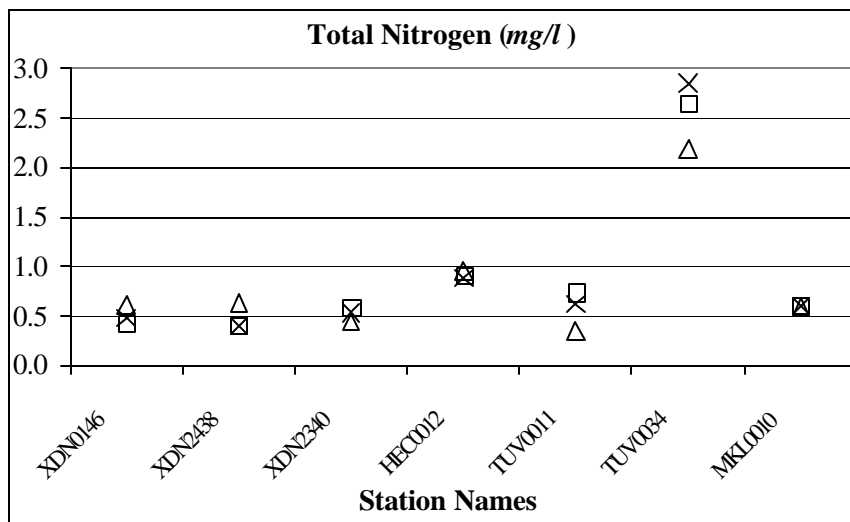
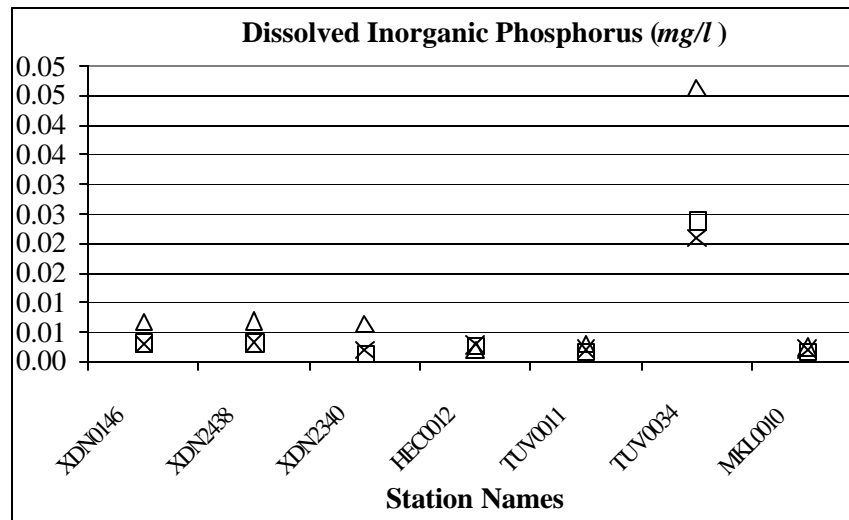
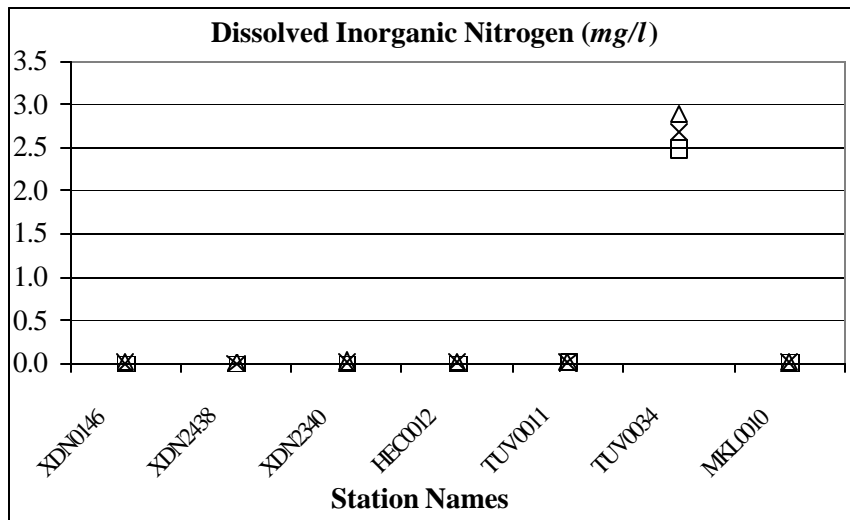


× 14-Apr-98
□ 21-Apr-98
Δ 28-Apr-98

### Isle of Wight Bay and Tributaries

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



× 14-Apr-98

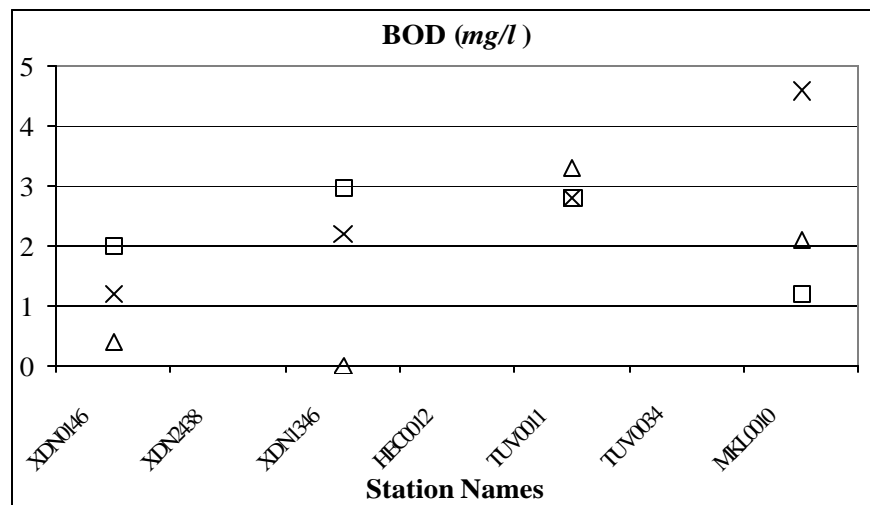
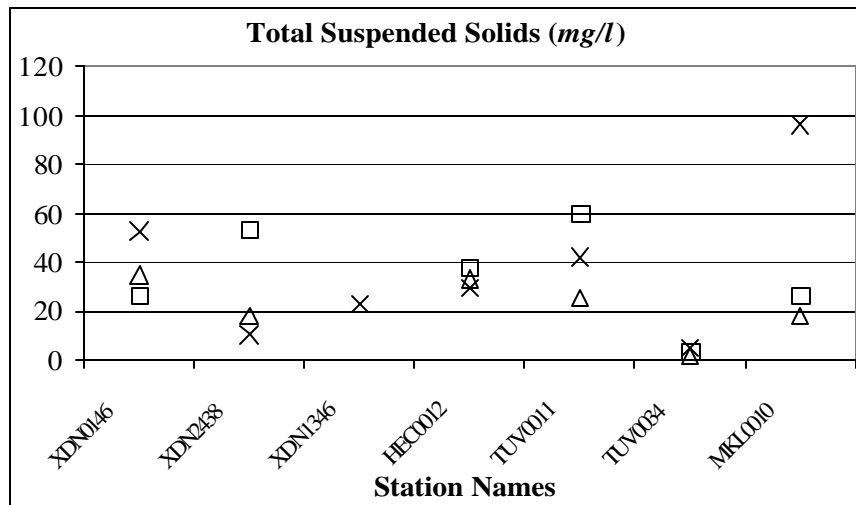
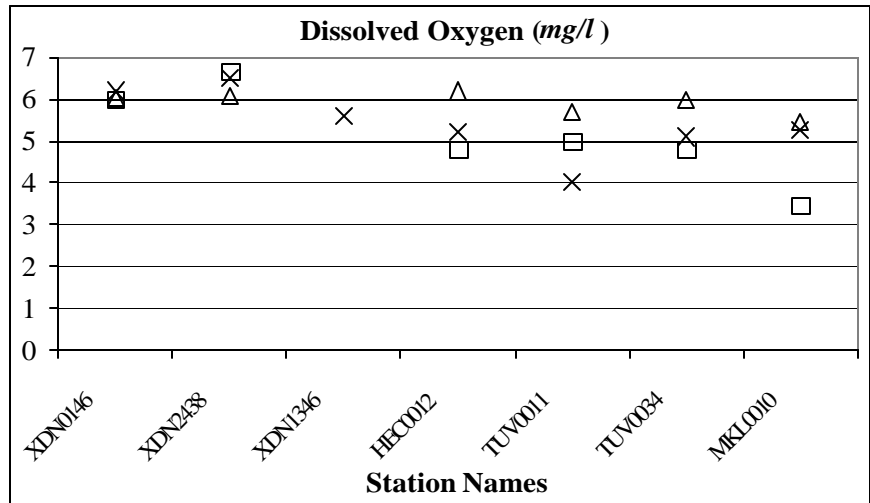
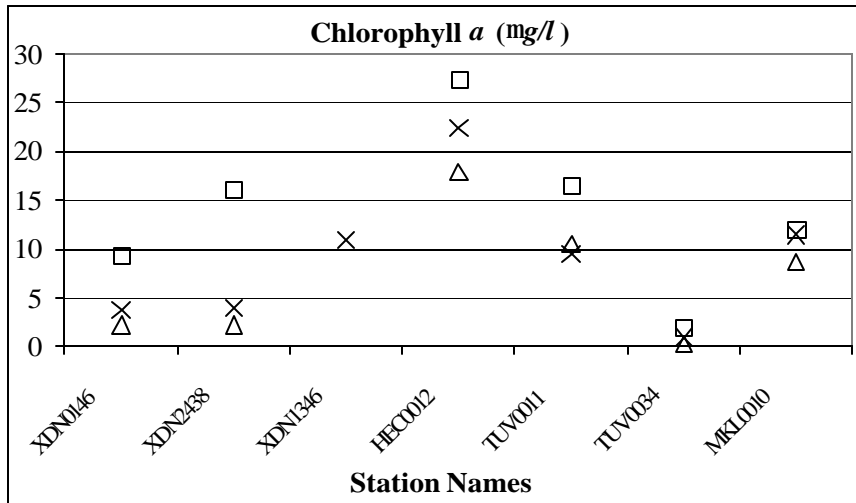
□ 21-Apr-98

△ 28-Apr-98

### Isle of Wight Bay and Tributaries

Low Flow Conditions (July-October)

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× 11-Aug-98

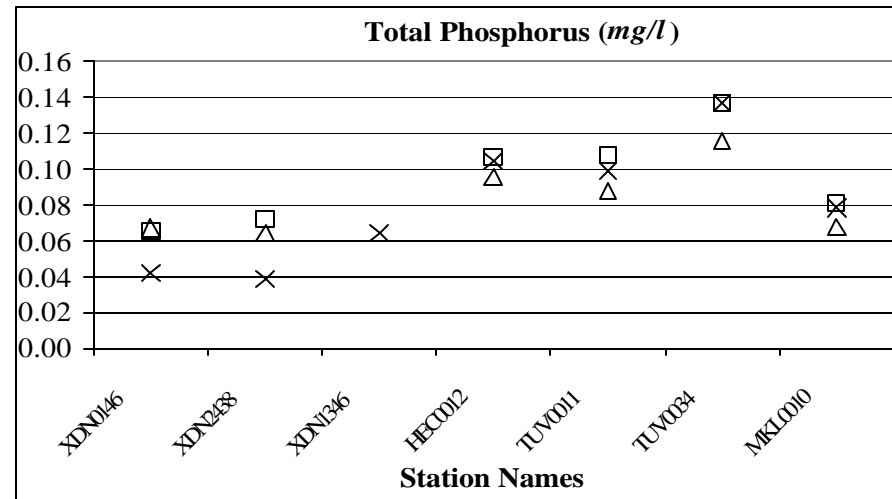
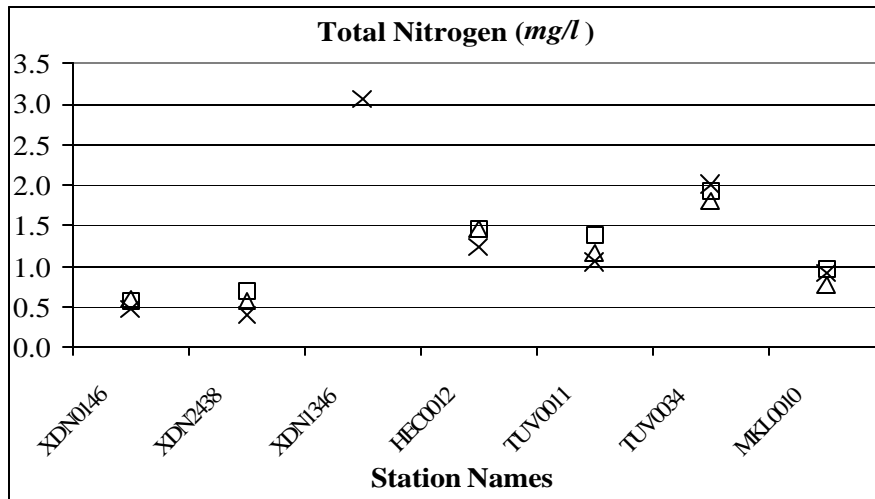
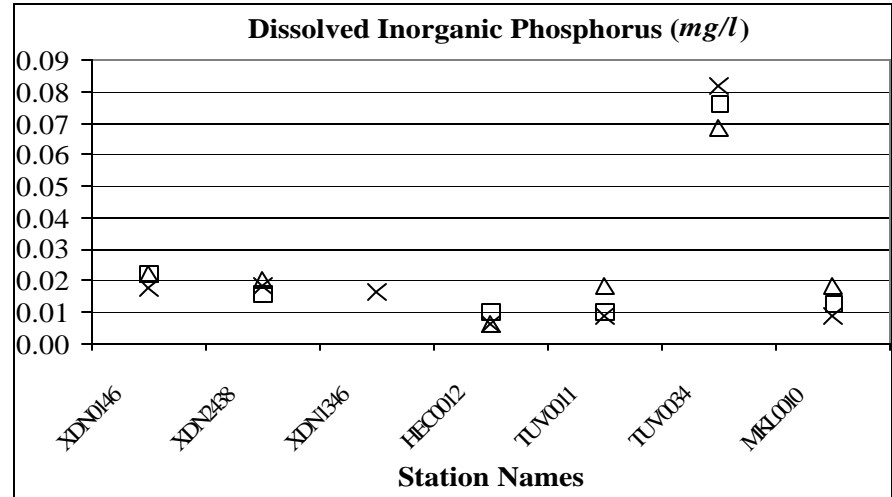
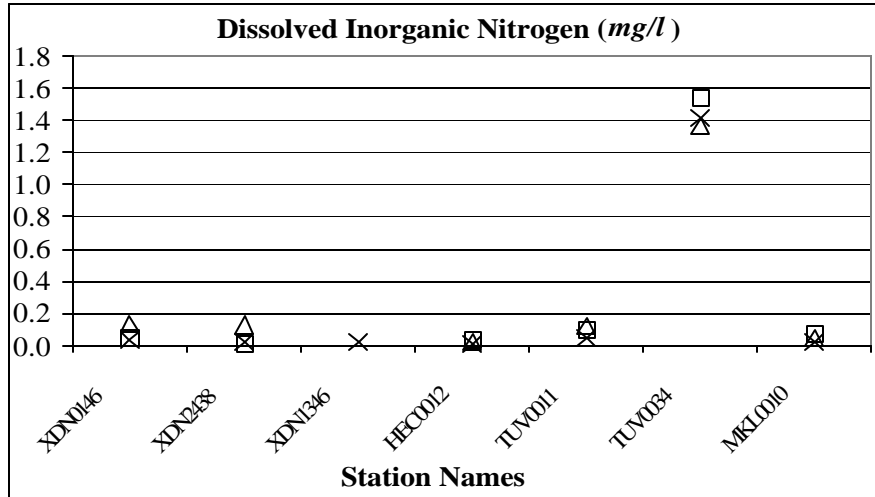
□ 01-Sep-98

△ 29-Sep-98

### Isle of Wight Bay and Tributaries

Low Flow Conditions (July-October)

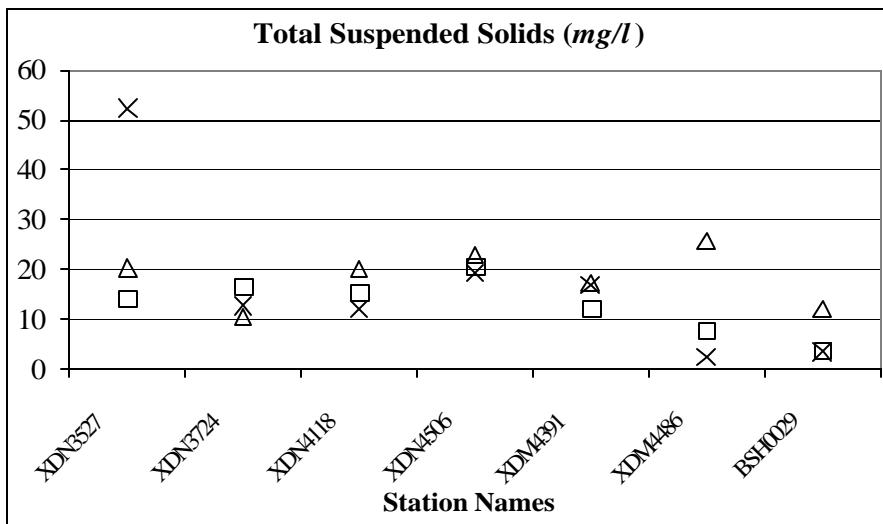
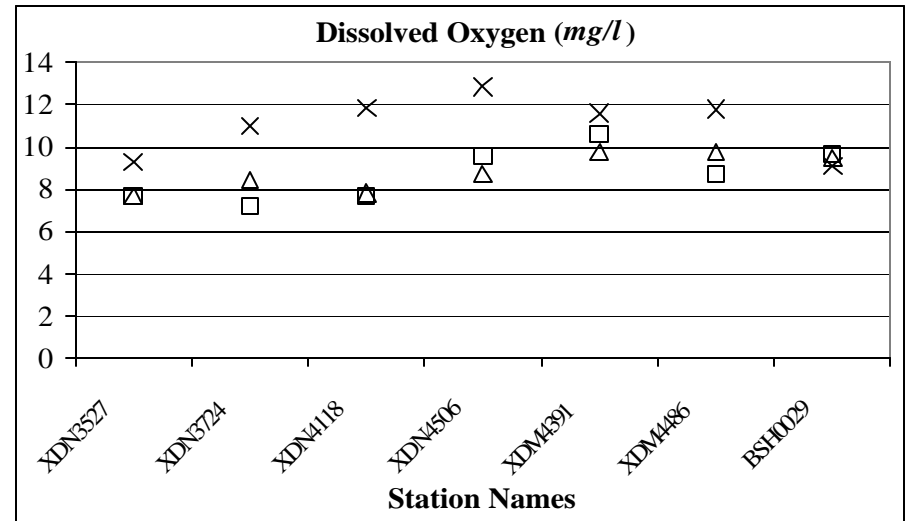
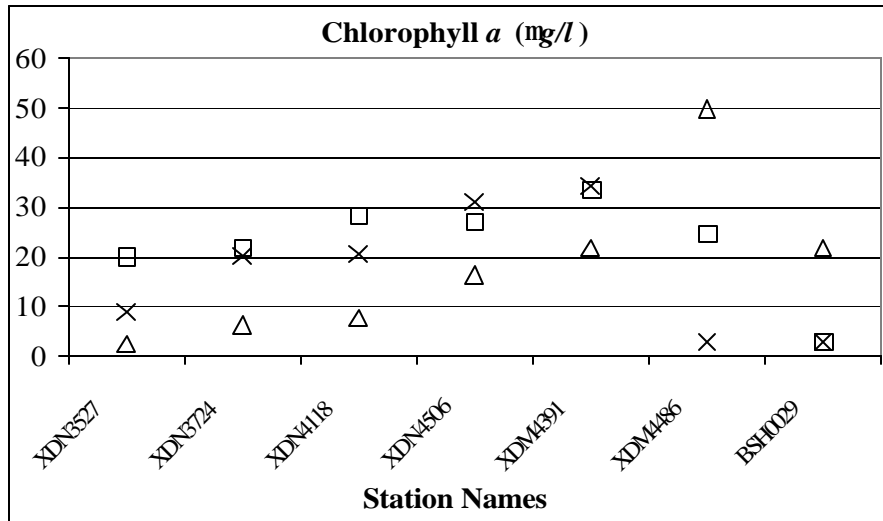
Stations are presented from left to right in downstream to upstream order



× 11-Aug-98      □ 01-Sep-98      △ 29-Sep-98

**Isle of Wight Bay (St. Martin River)**  
 High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



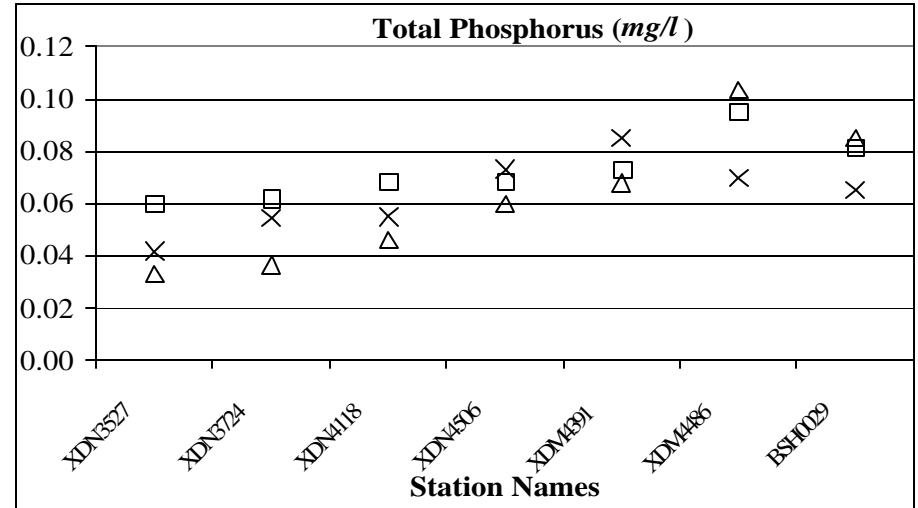
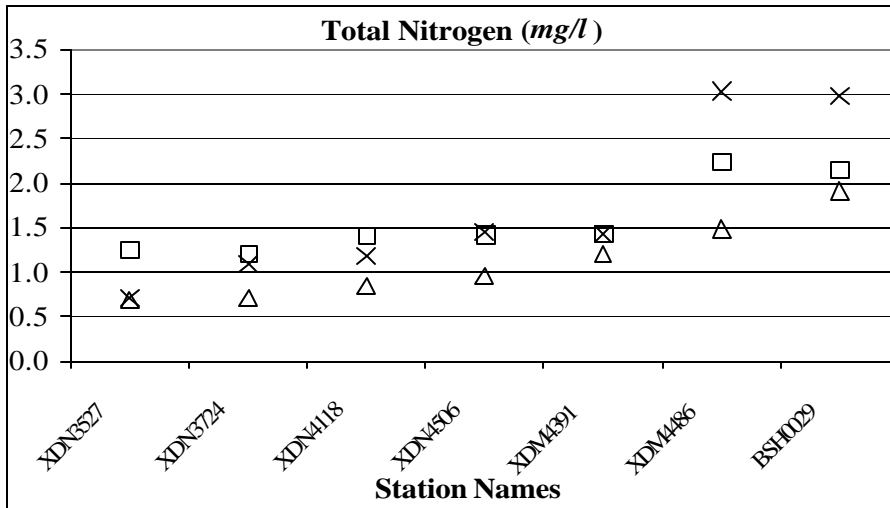
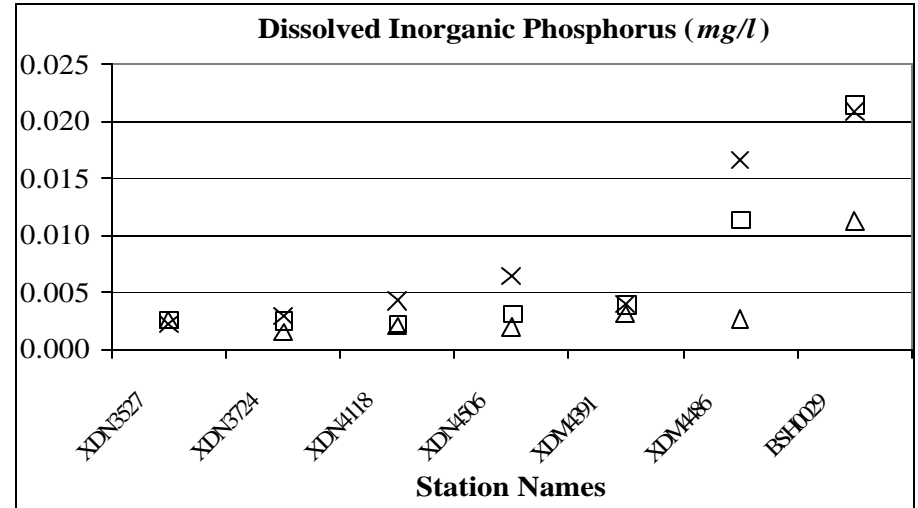
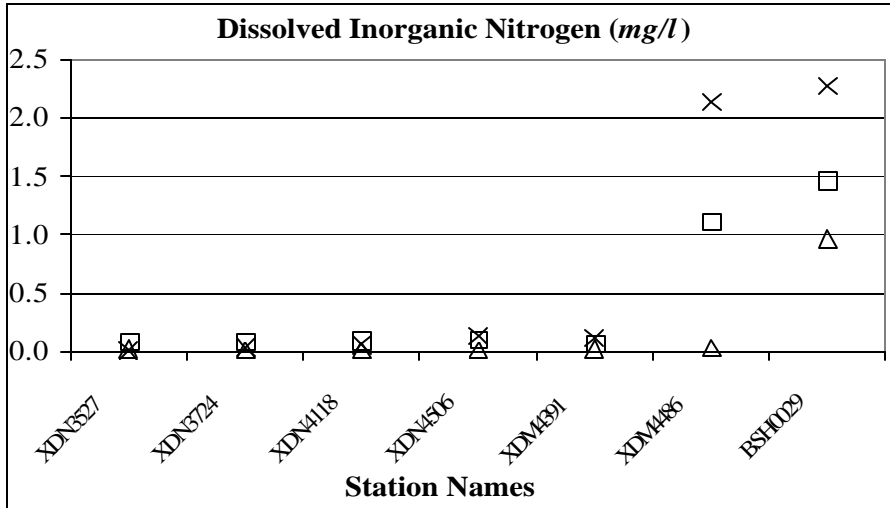
× 14-Apr-98
□ 21-Apr-98
△ 28-Apr-98



**Isle of Wight Bay (St. Martin River)**

High Flow Conditions (January - May)

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× 14-Apr-98

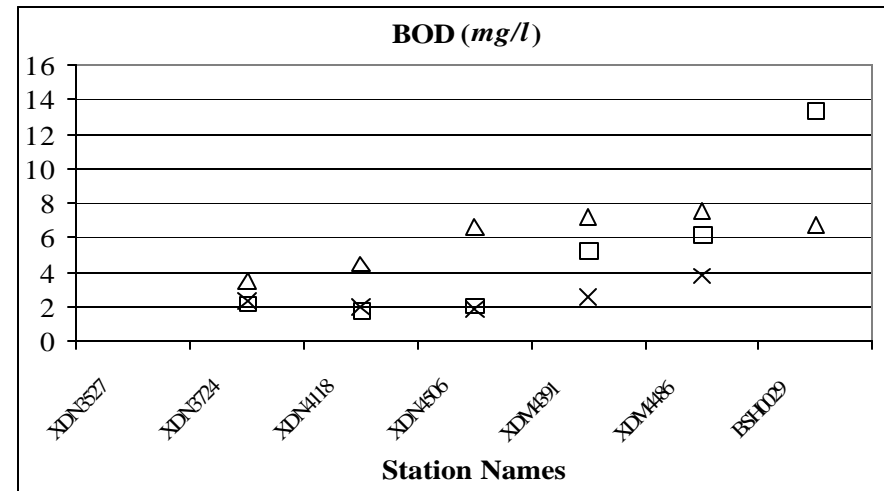
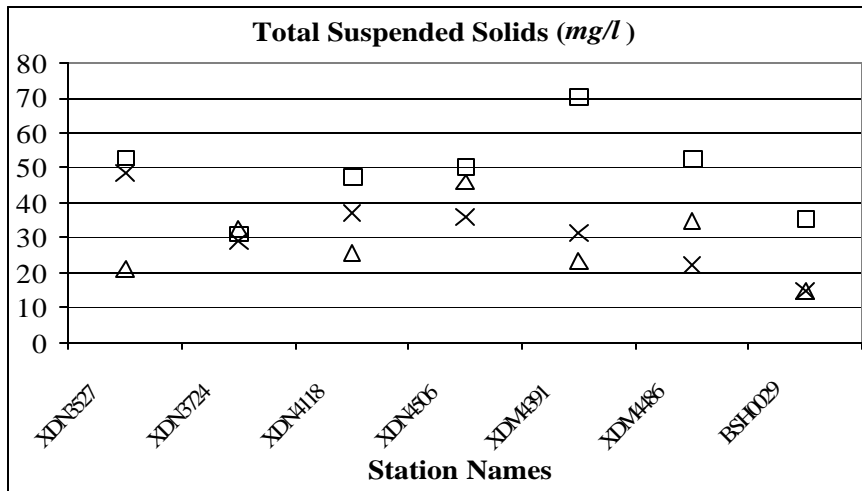
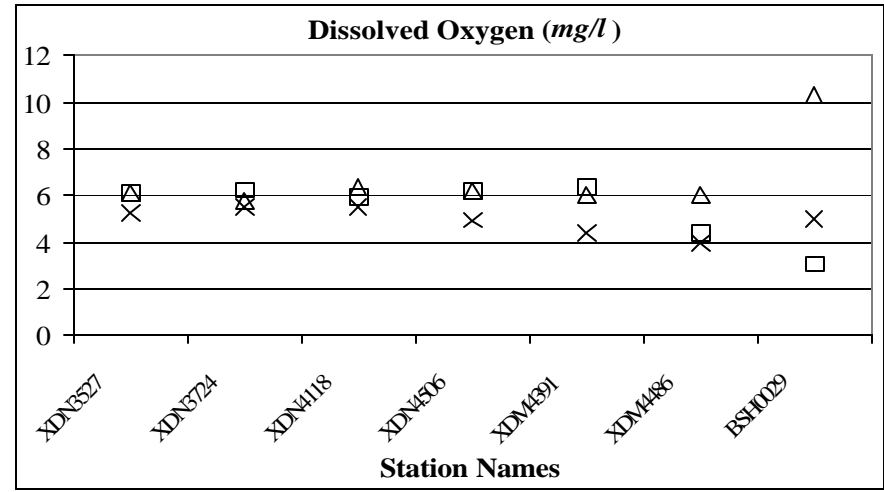
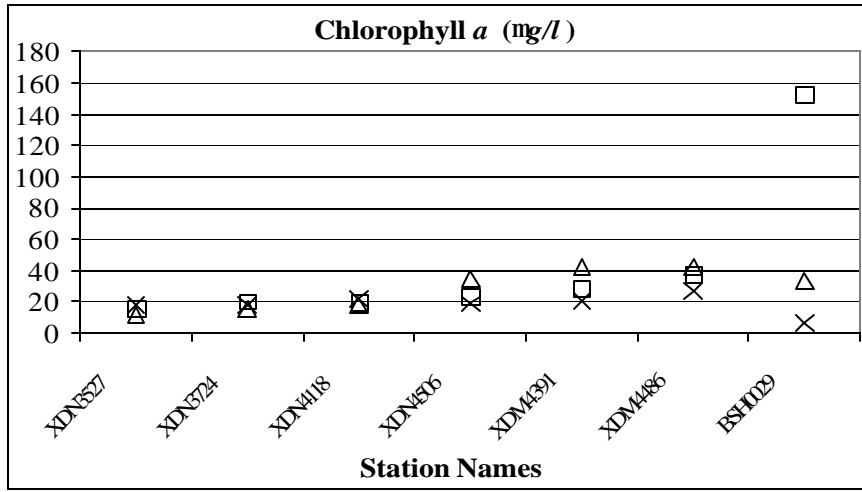
□ 21-Apr-98

△ 28-Apr-98

**Isle of Wight Bay (St. Martin River)**

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

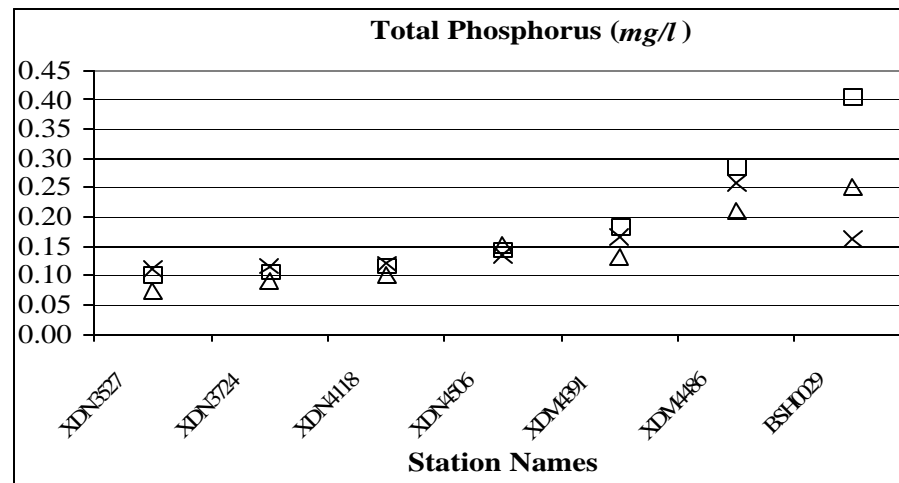
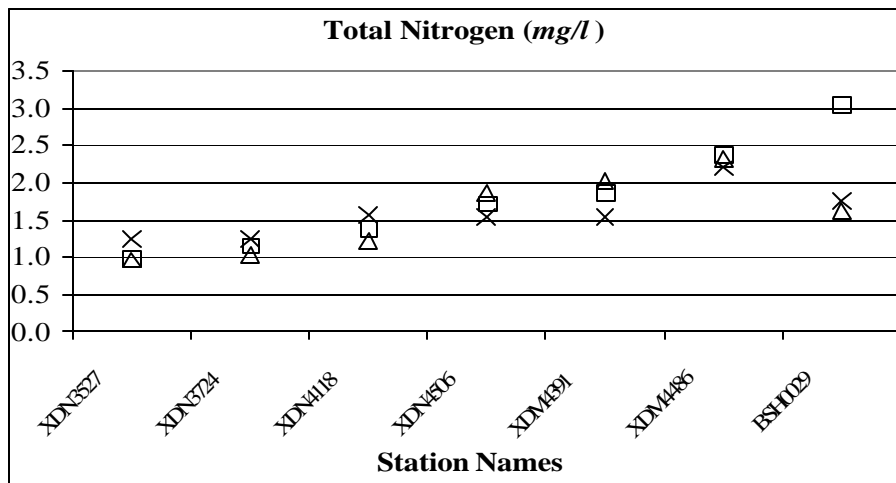
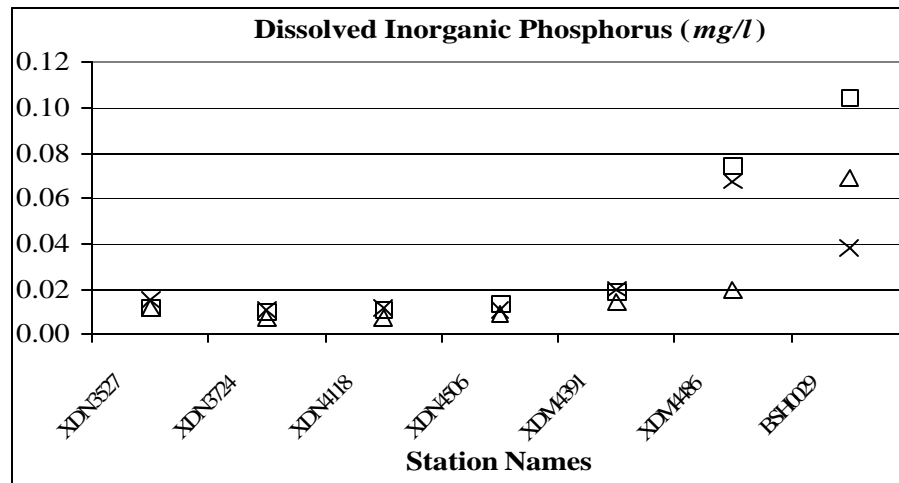
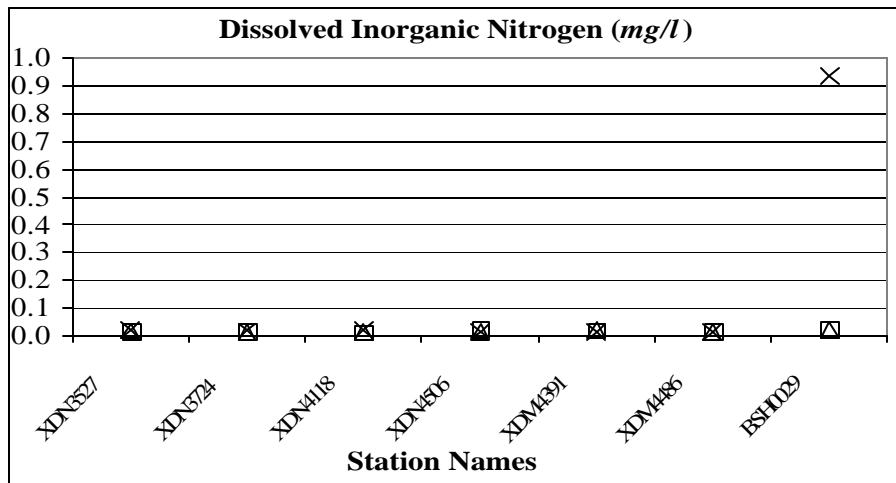


× 11-Aug-98      □ 01-Sep-98      △ 29-Sep-98

**Isle of Wight Bay (St. Martin River)**

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

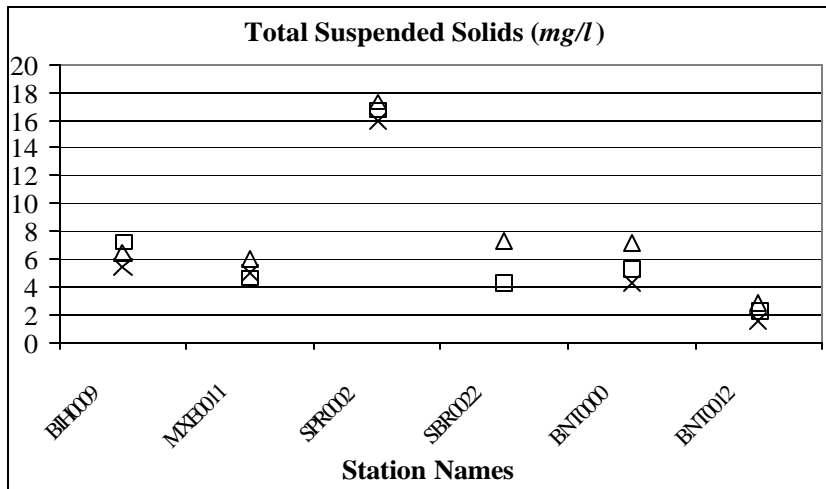
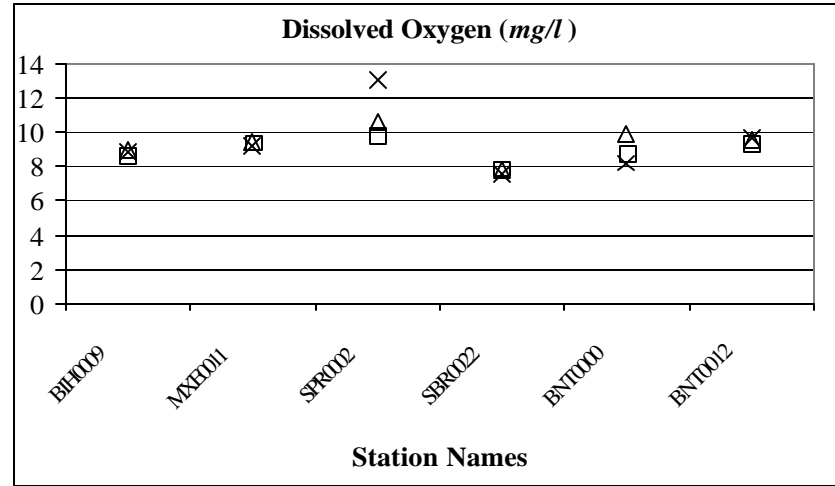
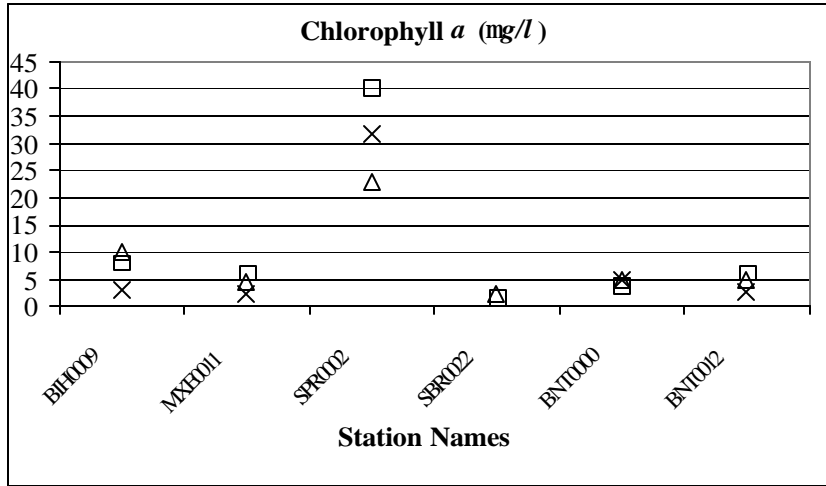


× 11-Aug-98      □ 01-Sep-98      △ 29-Sep-98

**Isle of Wight Bay (Tributaries to St. Martin River)**

High Flow Conditions (January - May)

Stations are grouped by tributaries and stations are presented from left to right in downstream to upstream order

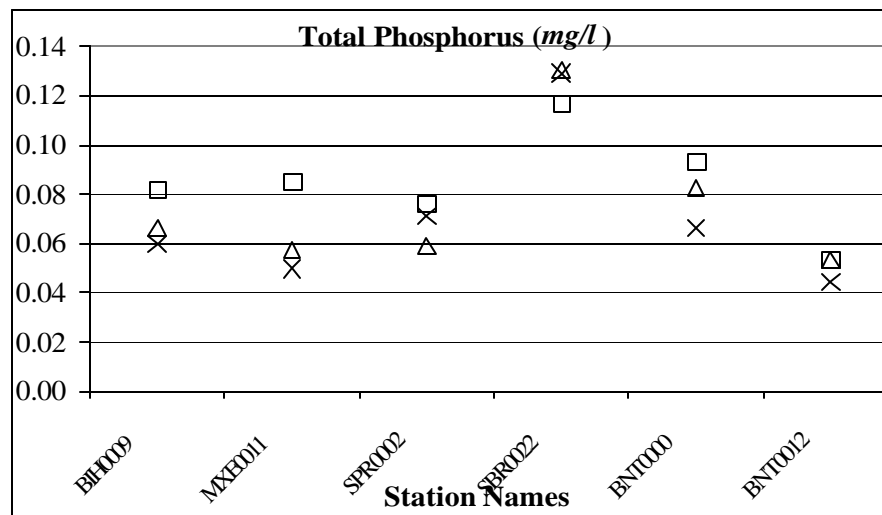
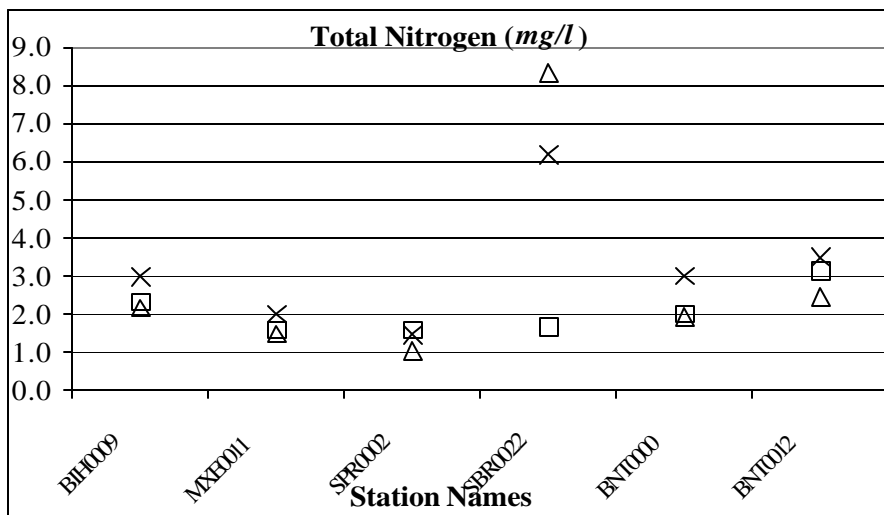
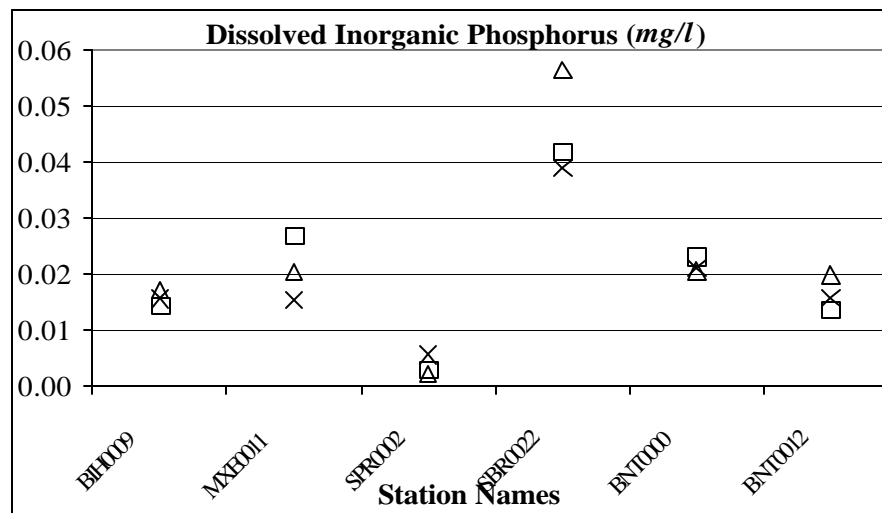
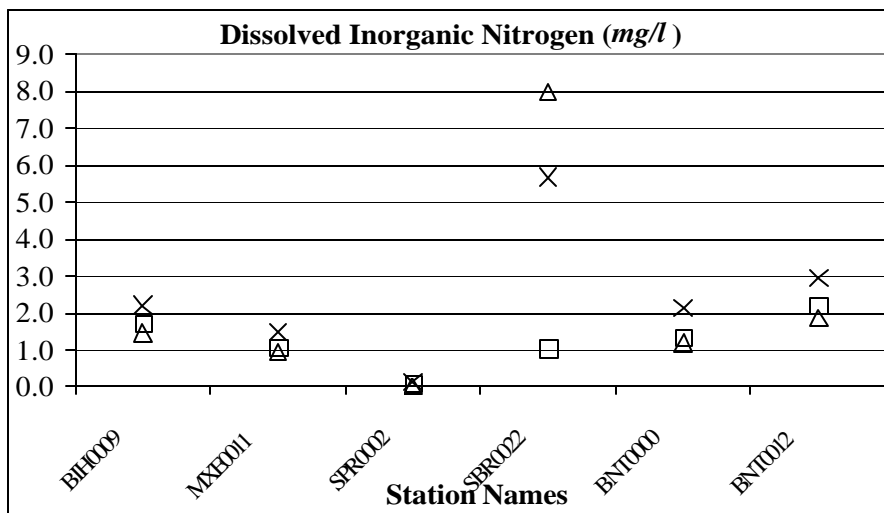


× 14-Apr-98      □ 21-Apr-98      △ 28-Apr-98

### Isle of Wight Bay (Tributaries to St. Martin River)

High Flow Conditions (January - May)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order

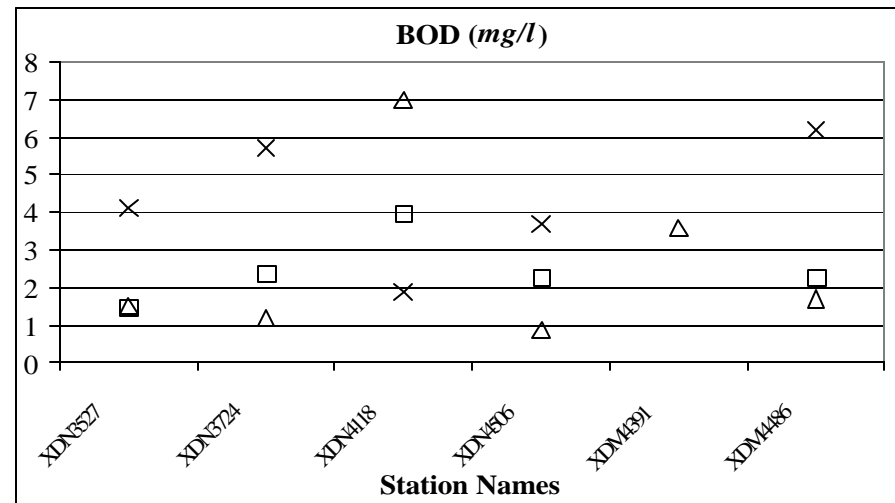
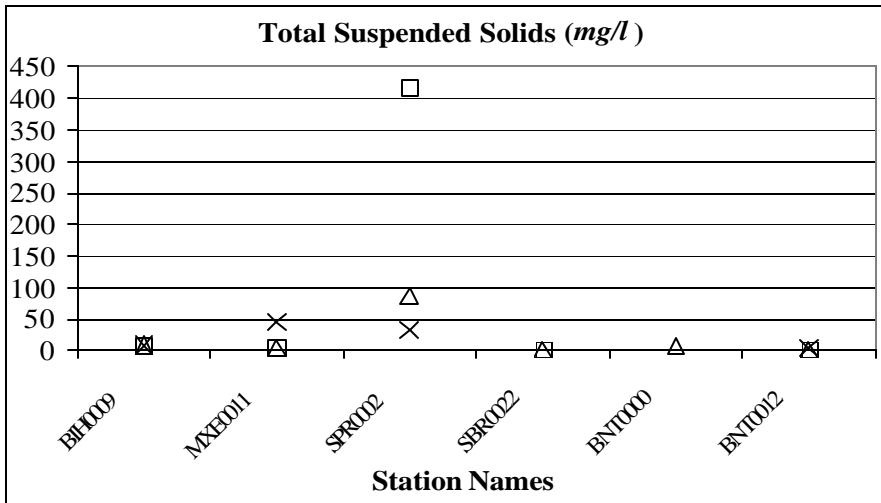
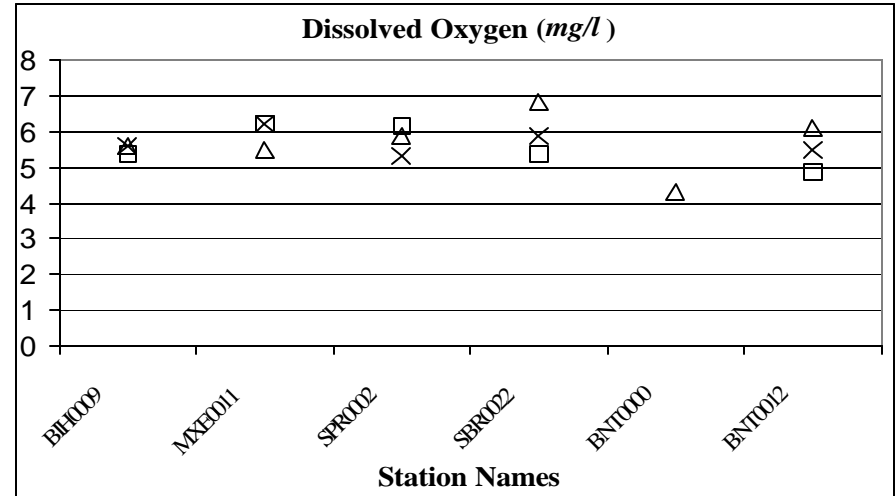
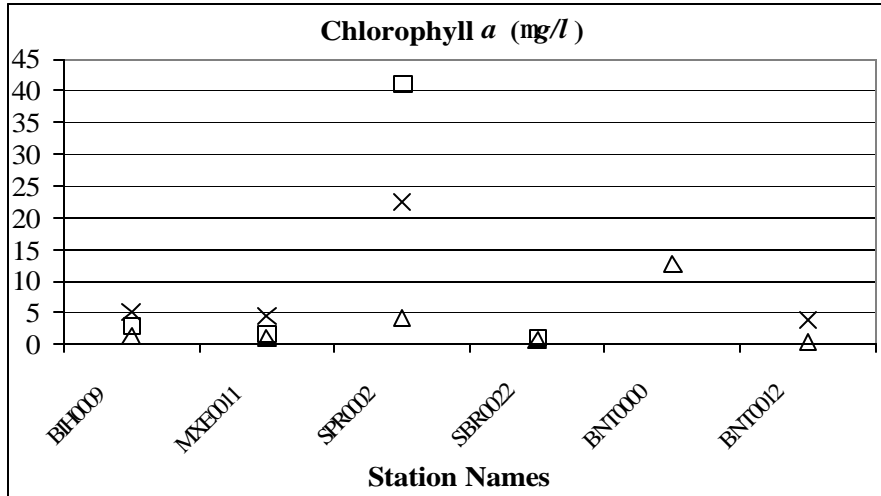


× 14-Apr-98      □ 21-Apr-98      △ 28-Apr-98

**Isle of Wight Bay (Tributaries to St. Martin River)**

Low Flow Conditions (July - October)

Stations are grouped by tributaries and stations are presented from left to right in downstream to upstream order



× 11-Aug-98

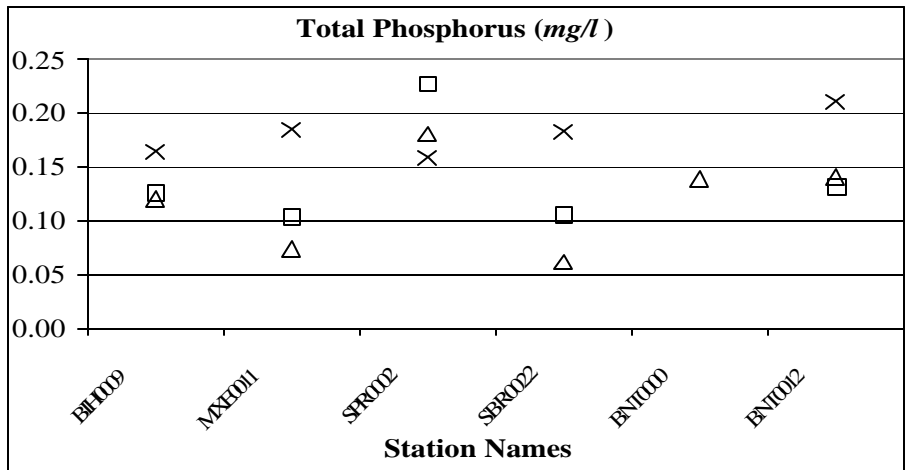
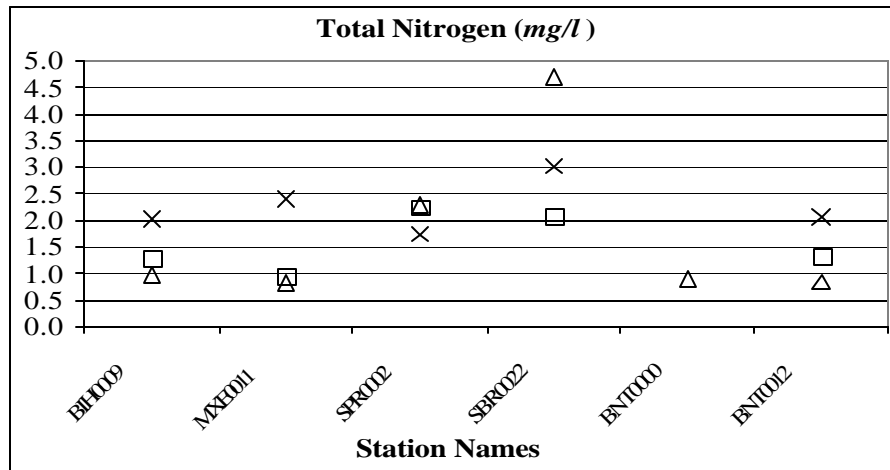
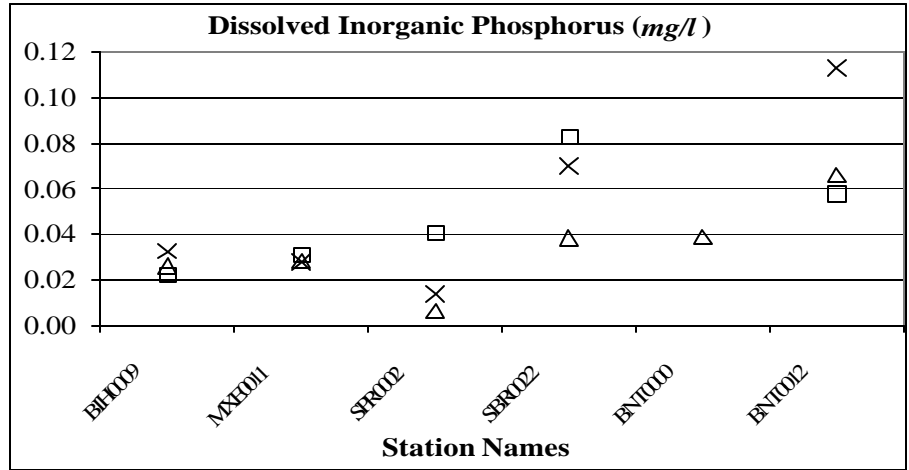
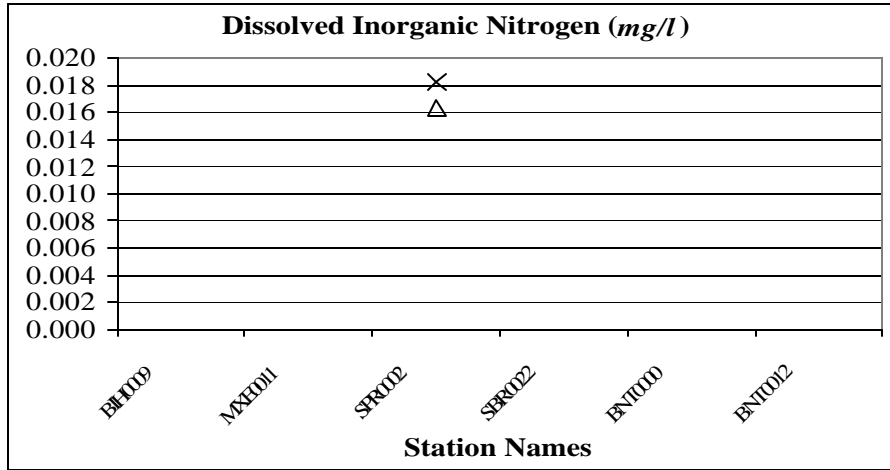
□ 01-Sep-98

△ 29-Sep-98

**Isle of Wight Bay (Tributaries to St. Martin River)**

Low Flow Conditions (July - October)

Stations are grouped by tributaries and Stations are presented from left to right in downstream to upstream order



× 11-Aug-98

□ 01-Sep-98

Δ 29-Sep-98

ISLE OF WIGHT BAY AND ASSAWOMAN  
STATION LIST

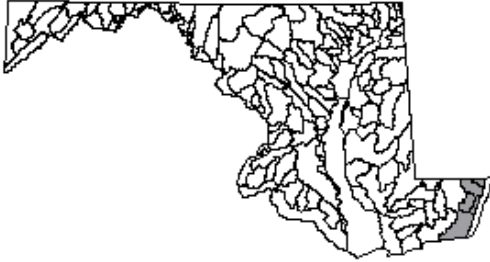
| Station Code                  | Lat/Long              | Description                                                                                        |
|-------------------------------|-----------------------|----------------------------------------------------------------------------------------------------|
| <i>Isle of Wight Bay:</i>     |                       |                                                                                                    |
| XDN0146                       | 38°20.054' 75°05.386' | 100 yds. north of Rt. 50 bridge in channel adjacent to waterfront bar.                             |
| XDN2438                       | 38°21.273' 75°05.345' | Mid-channel at red daymarker "8".                                                                  |
| XDN2340                       | 38°22.400' 75°06.150' | Mid-bay, 1000 yds. west of daymarker "14".                                                         |
| XDN3445                       | 38°23.348' 75°05.521' | Mid-channel under Rt. 90 bridge crossing of Assawomen Bay.                                         |
| XDN4851                       | 38°24.800' 75°05.400' | NNW of Devil Island by 0.3 miles. Between silo on west shore and pyramid condos on barrier island. |
| XDN5737<br>(UC-7)             | 38°25.700' 75°06.300' | Midway between pt. with green house and pt. due north of silo.                                     |
| XDN6454                       | 38°26.500' 75°04.650' | ~ 0.5 miles east of Johns Hammock Island and 0.5 miles west of trailer park.                       |
| TUV0011                       | 38°21.510' 75°07.886' | Confluence of Turville Cr. and Herring Cr.                                                         |
| TUV0034                       | 38°21.521' 75°10.127' | Rt. 586 (Ocean Downs Rd.) crossing.                                                                |
| HEC0012                       | 38°20.375' 75°07.812' | Rt. 50 crossing, downstream side of bridge.                                                        |
| MKL0010                       | 38°22.353' 75°08.068' | One mile upstream from the mouth of creek.                                                         |
| <i>St. Martin River:</i>      |                       |                                                                                                    |
| XDN3527                       | 38°23.451' 75°07.288' | Mouth of river at Rt. 90 crossing.                                                                 |
| XDN3724                       | 38°24.162' 75°08.563' | Mid-channel NNE of Margots Island.                                                                 |
| XDN4118                       | 38°24.354' 75°08.971' | Mid-channel off Hen and Chicken Islands.                                                           |
| XDN4506                       | 38°24.653' 75°09.722' | 200 yds. SSW of Hasty Pt.; at edge of 4 ft. contour.                                               |
| <i>Shingle Landing Prog:</i>  |                       |                                                                                                    |
| SPR0002                       | 38°24.405' 75°10.509' | Between Spring Br. and Piney Island, near northern shore of island.                                |
| <i>(South) Church Branch:</i> |                       |                                                                                                    |
| SBR0022                       | 38°23.697' 75°12.341' | At Rt. 113 road crossing.                                                                          |



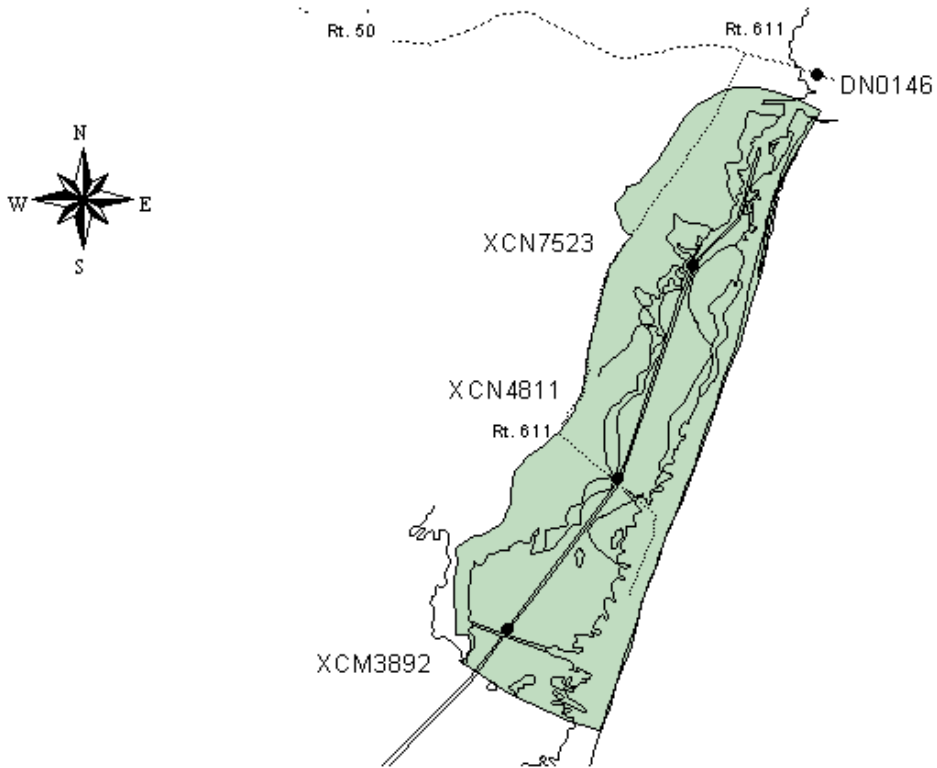
| Station Code                                                 | Lat/Long              | Description                                             |
|--------------------------------------------------------------|-----------------------|---------------------------------------------------------|
| <i>Middle Branch:</i>                                        |                       |                                                         |
| MXE0011                                                      | 38°24.048' 75°12.720' | At Rt. 113 road crossing.                               |
| BIH0009                                                      | 38°24.532' 75°12.728' | At Rt. 113 road crossing.                               |
| <i>Bishopville Prong:</i>                                    |                       |                                                         |
| XDM4391                                                      | 38°24.827' 75°10.631' | Mid-channel 300 yds. upstream from mouth of Perkins Cr. |
| XDM4486                                                      | 38°25.497' 75°11.333' | Mid-channel off Day Rd.                                 |
| BSH0029                                                      | 38°26.477' 75°11.589' | Approx. 200 yds. below dam behind white house.          |
| <i>Buntings Branch:</i>                                      |                       |                                                         |
| BNT0000                                                      | 38°26.535' 75°11.671' | Bishopville Pond behind dam; sample at west side.       |
| BNT0012                                                      | 38°27.360' 75°12.420' | Rt. 54 crossing in Delaware.                            |
| <i>Assawoman Bay:</i>                                        |                       |                                                         |
| <i>Georgetown Branch:</i>                                    |                       |                                                         |
| GET0005                                                      | 38°27.231' 75°08.281' | Selby Rd. crossing in Delaware.                         |
| <i>Roy Creek:</i>                                            |                       |                                                         |
| XDN7545                                                      | 38°27.488' 75°05.420' | Mid-channel off Keen-Wik subdivision.                   |
| <i>The Ditch between Assawoman and Little Assawoman Bay:</i> |                       |                                                         |
| XDN7261                                                      | 38°27.166' 75°03.831' | Rt. 54 crossing of "the Ditch".                         |

# Sinepuxent Bay Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Coastal Bays Watershed



Location of Sinepuxent Bay  
Drainage Basin



- MDE Monitoring Stations
- Major Roads
- Roads
- △ Sinepuxent Bay
- Watershed 02130104

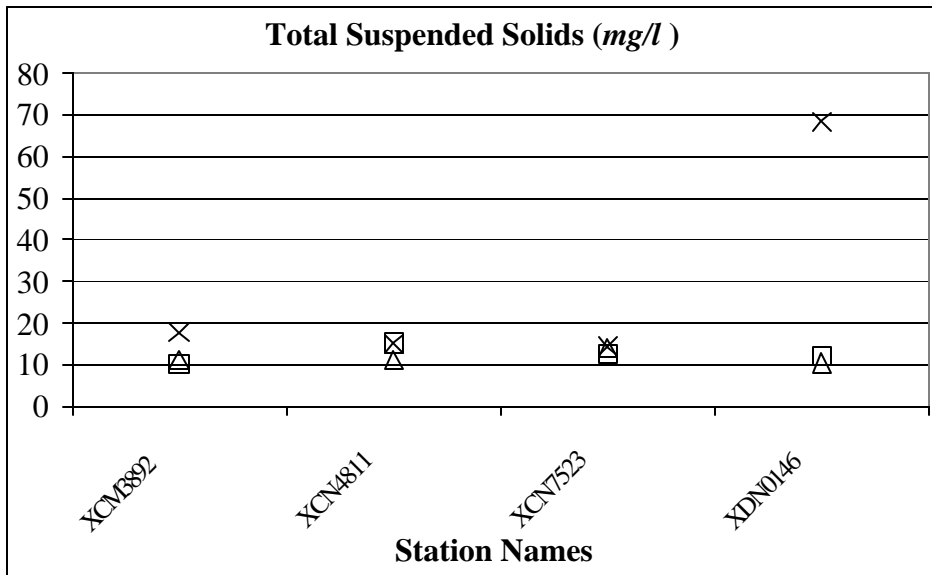
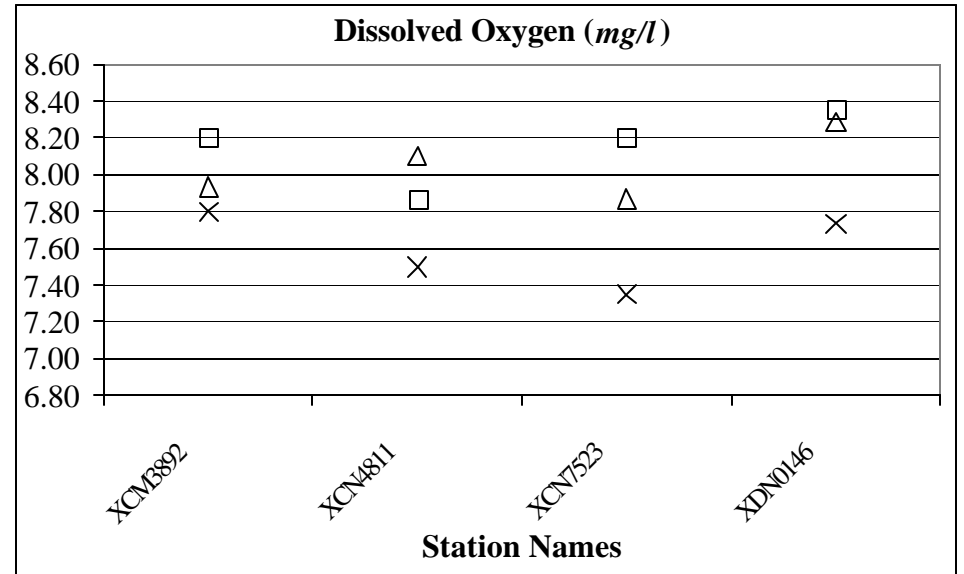
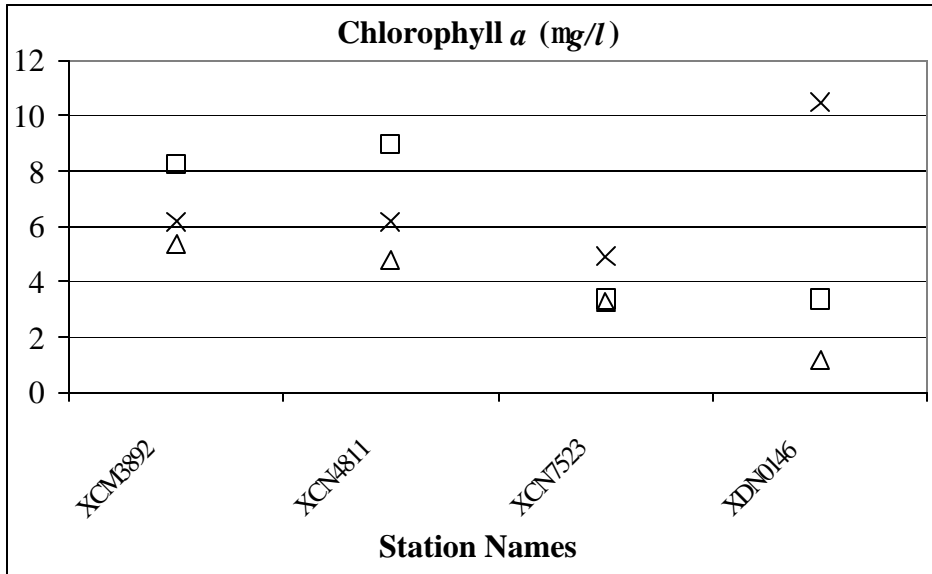
1 0 1 2 3 4 5 Kilometers



# Sinepuxent Bay

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order



× 15-Apr-98

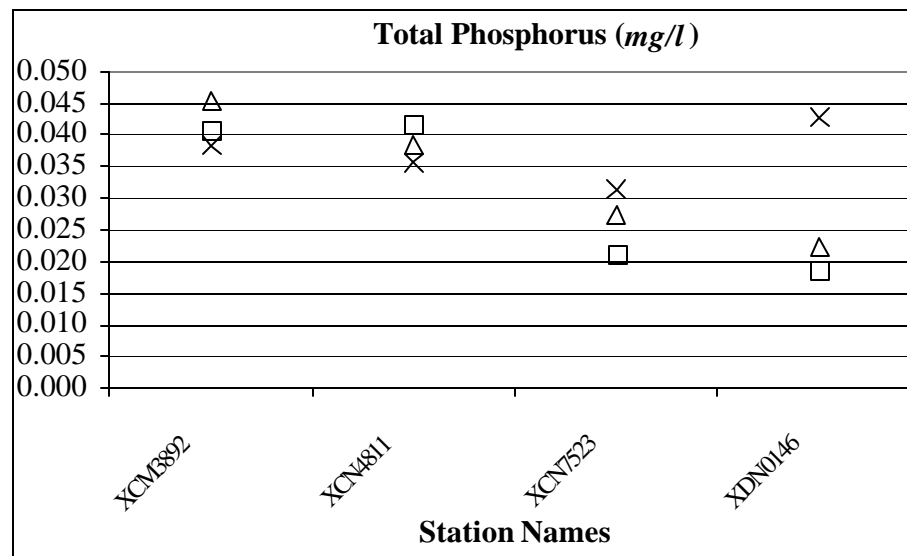
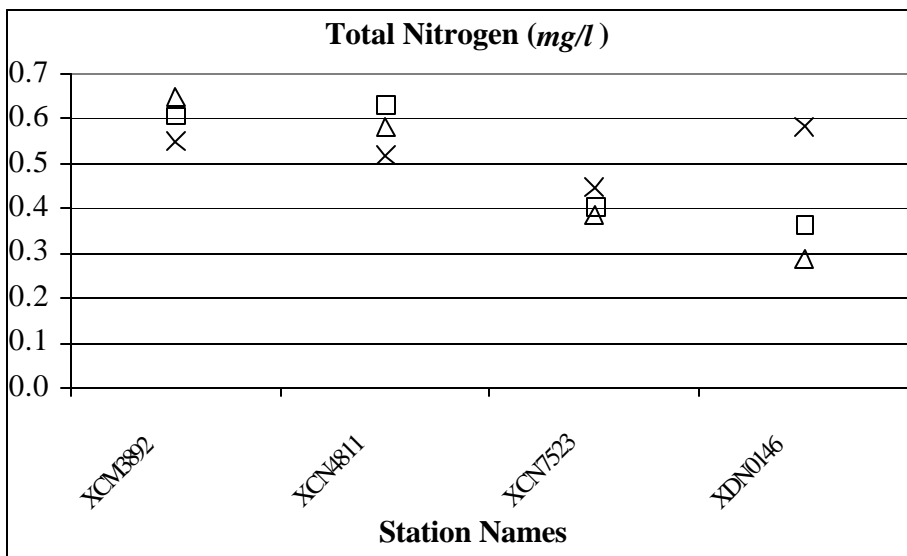
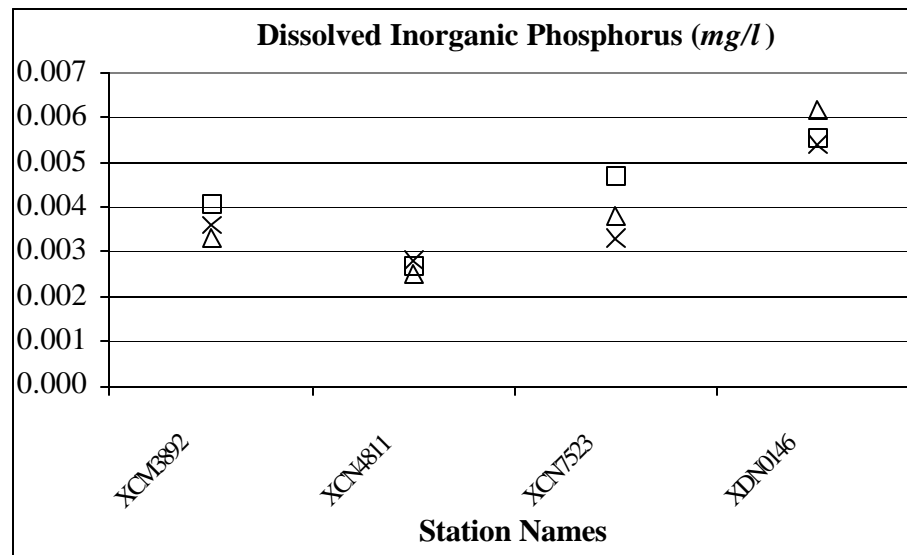
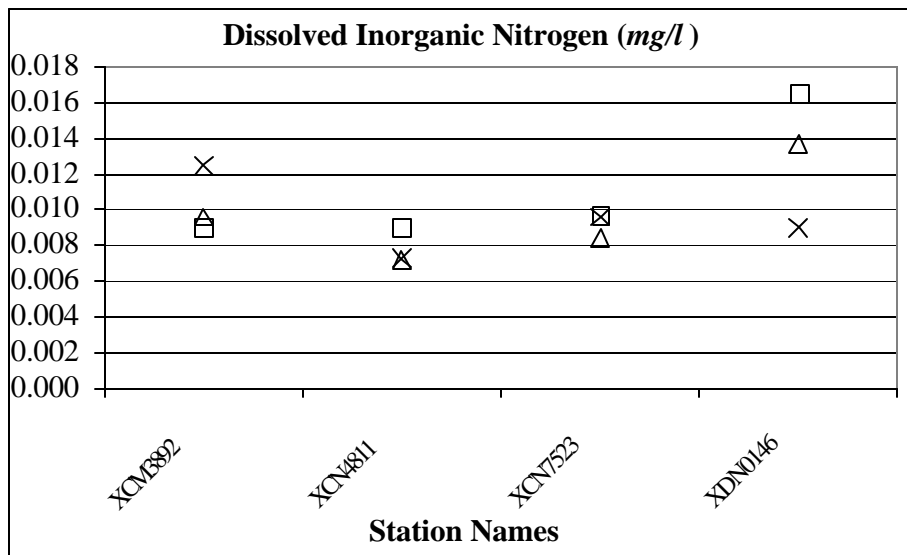
□ 22-Apr-98

△ 29-Apr-98

### Sinepuxent Bay

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

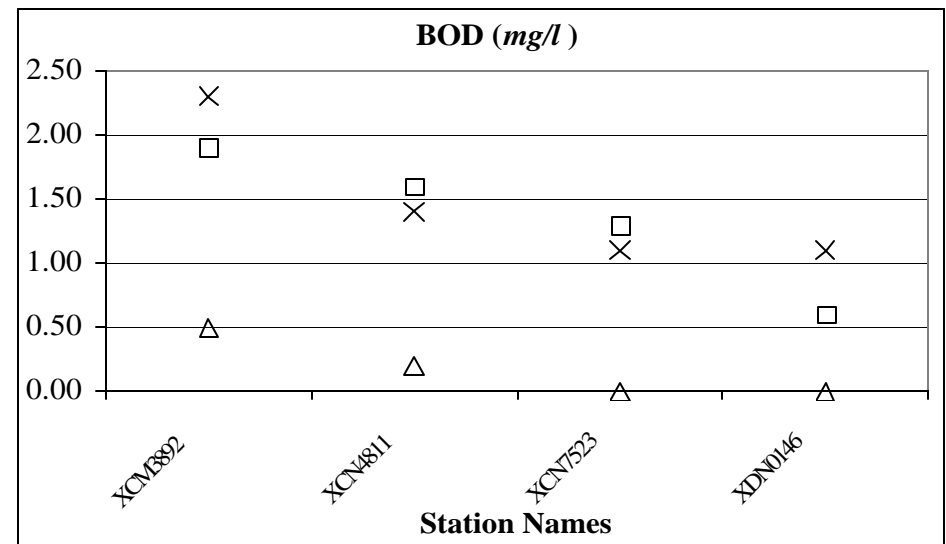
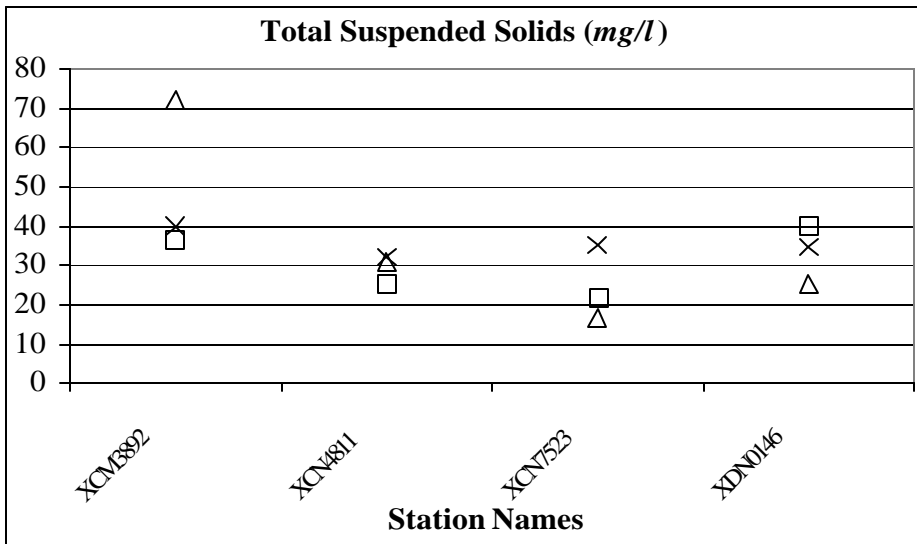
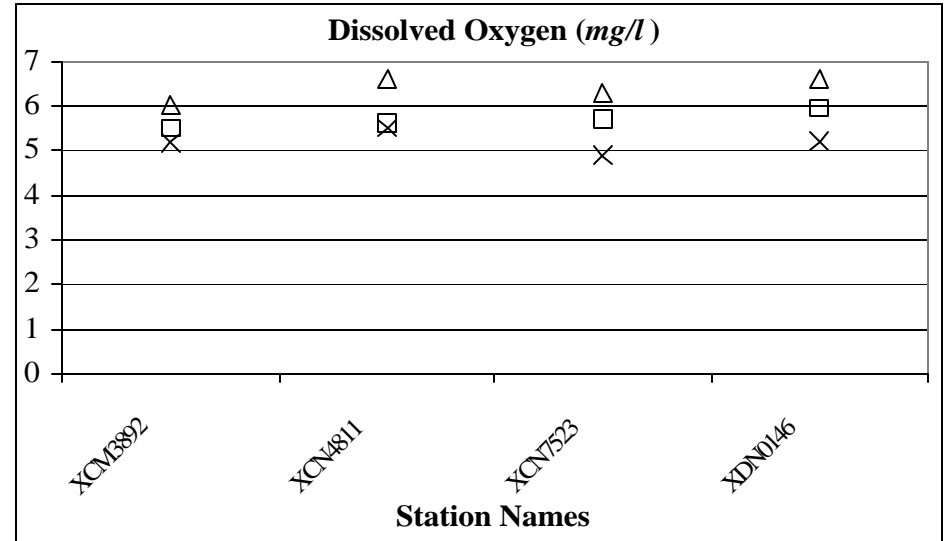
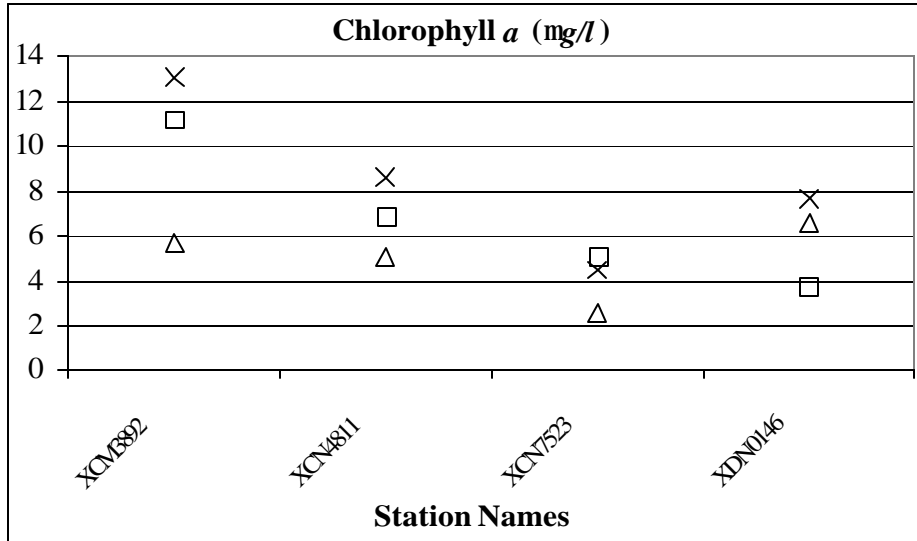


× 15-Apr-98      □ 22-Apr-98      △ 29-Apr-98

### Sinepuxent Bay

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order

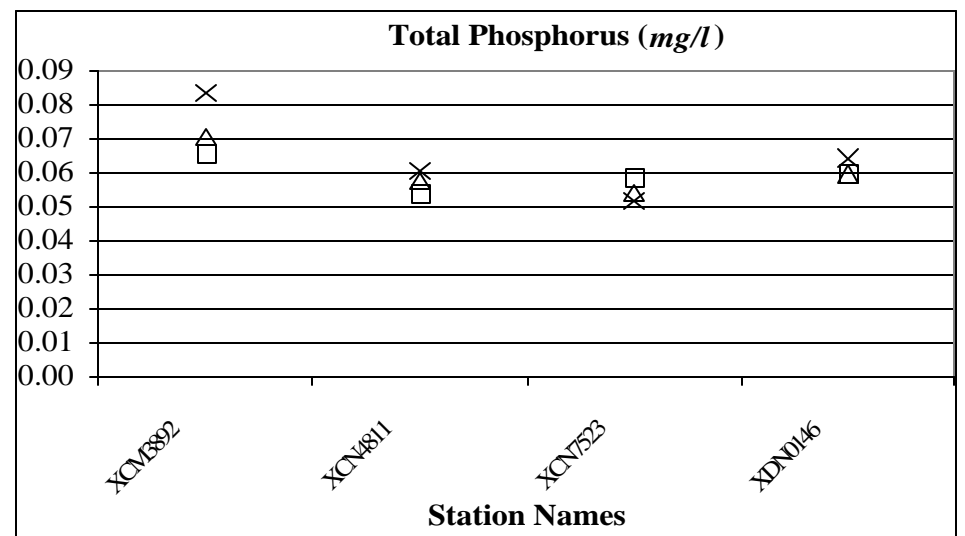
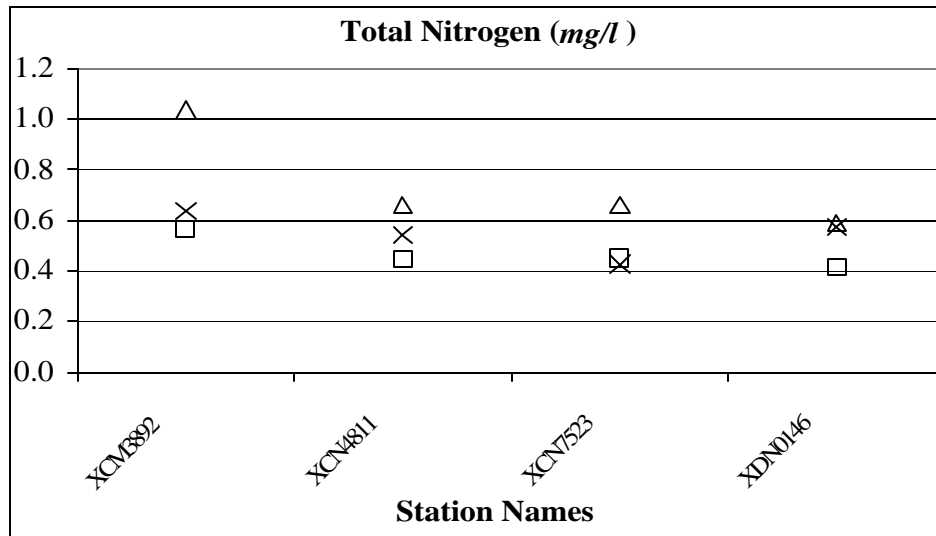
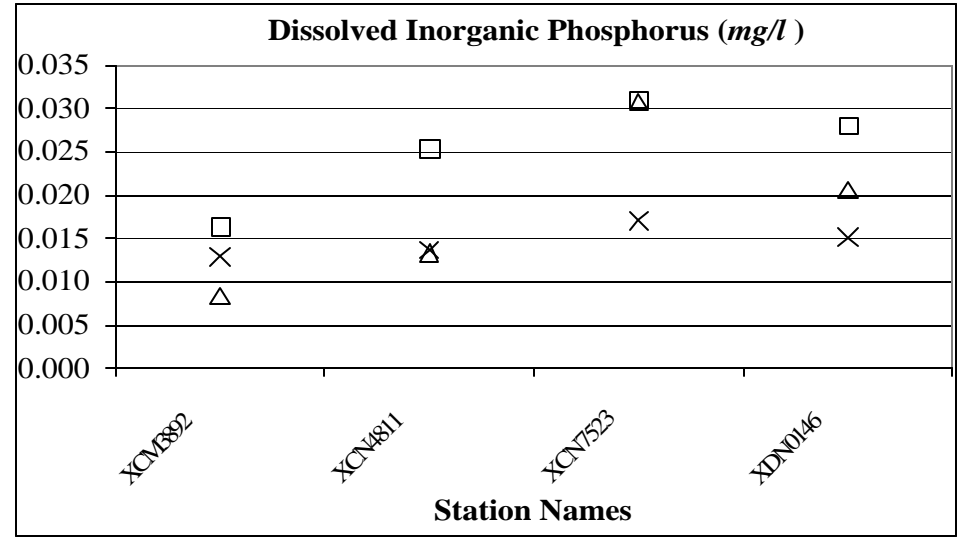
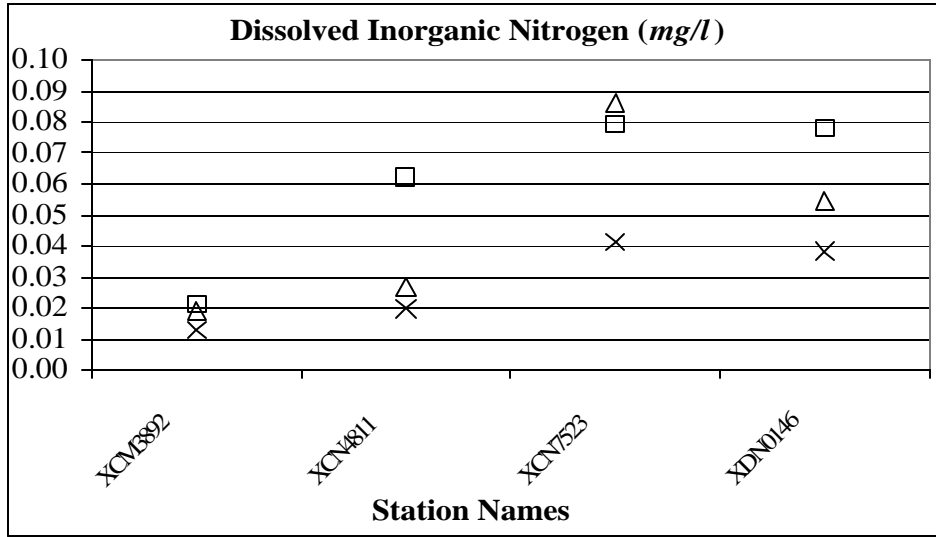


× 12-Aug-98
□ 02-Sep-98
△ 30-Sep-98

### Sinepuxent Bay

Low Flow Conditions (July - October)

Stations are presented from left to right in downstream to upstream order



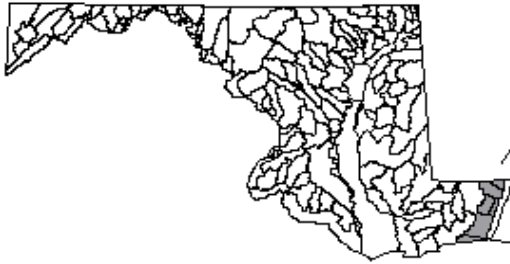
× 12-Aug-98

□ 02-Sep-98

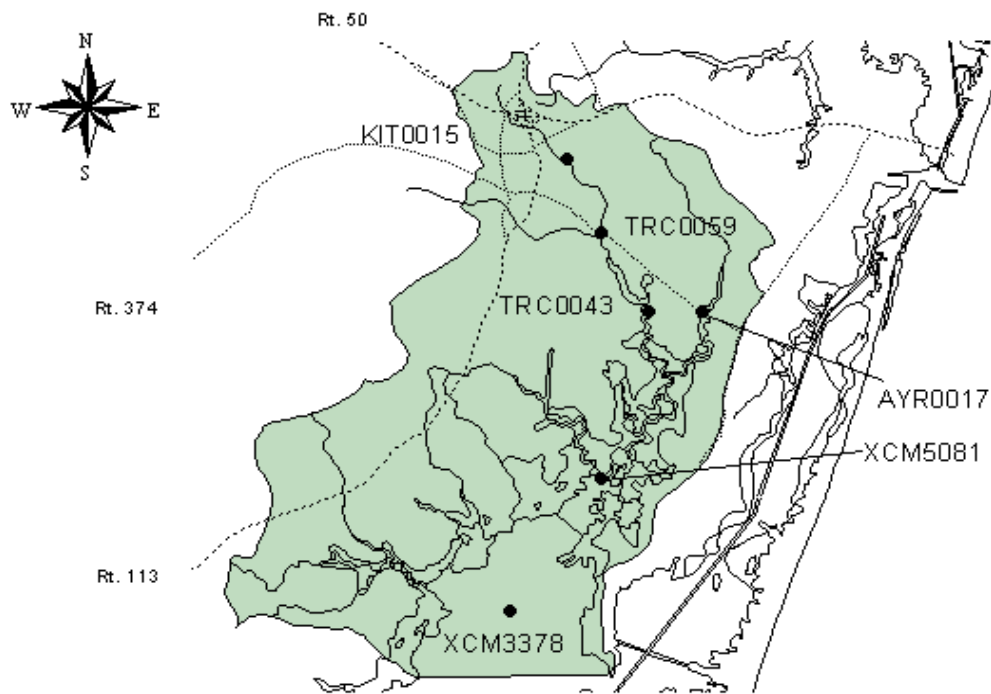
△ 30-Sep-98

# Newport Bay Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Coastal Bays Watershed



Location of Newport Bay Drainage Basin

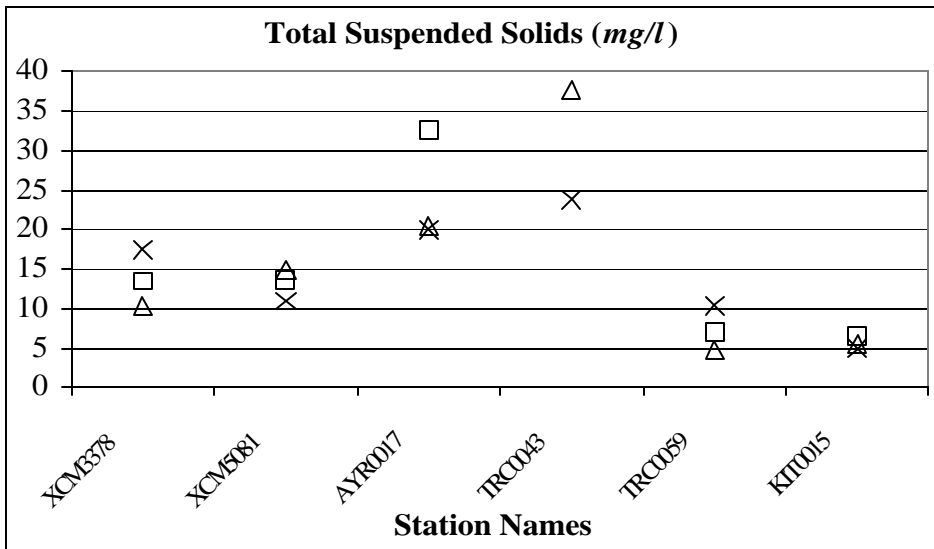
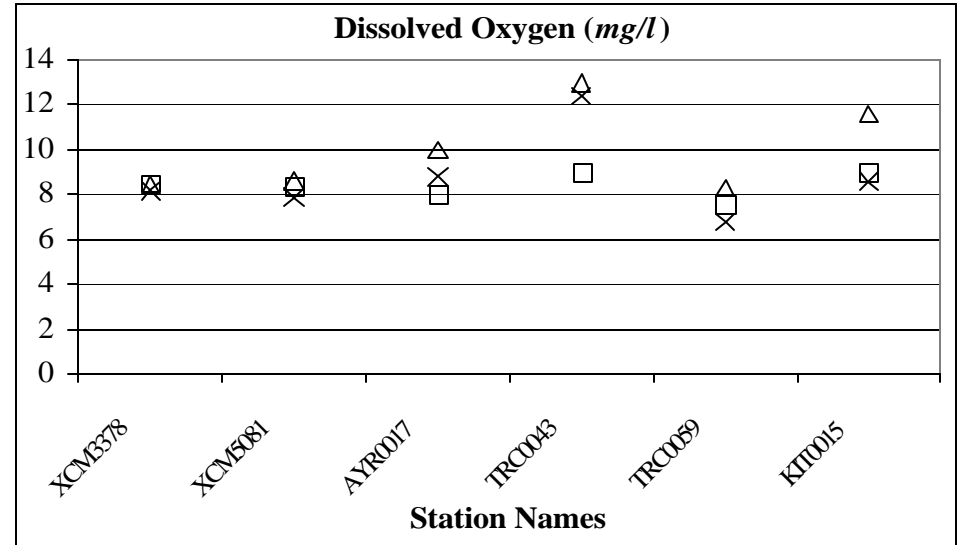
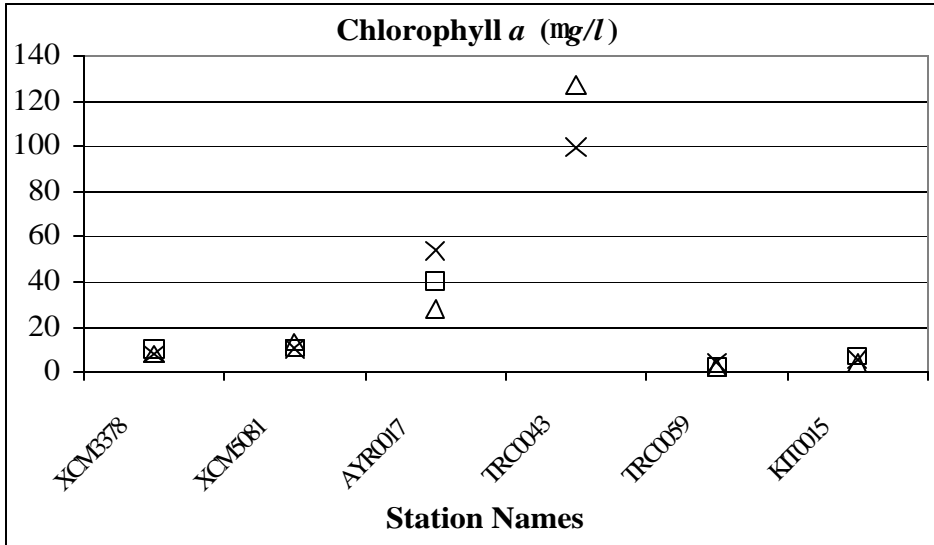


- MDE Monitoring Stations
- Major Roads
- Roads
- Newport Bay
- Watershed 02130105



**Newport Bay and Tributaries**  
**High Flow Conditions (January - May)**

Stations are presented from left to right in downstream to upstream order

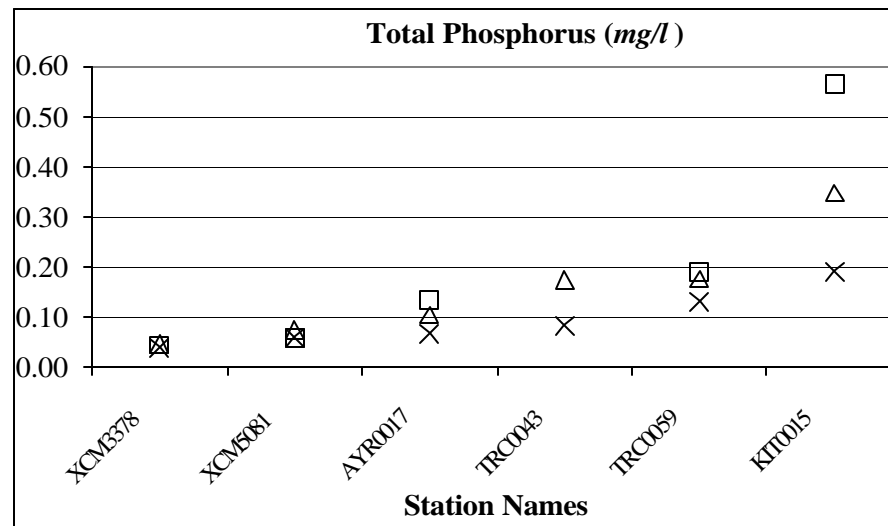
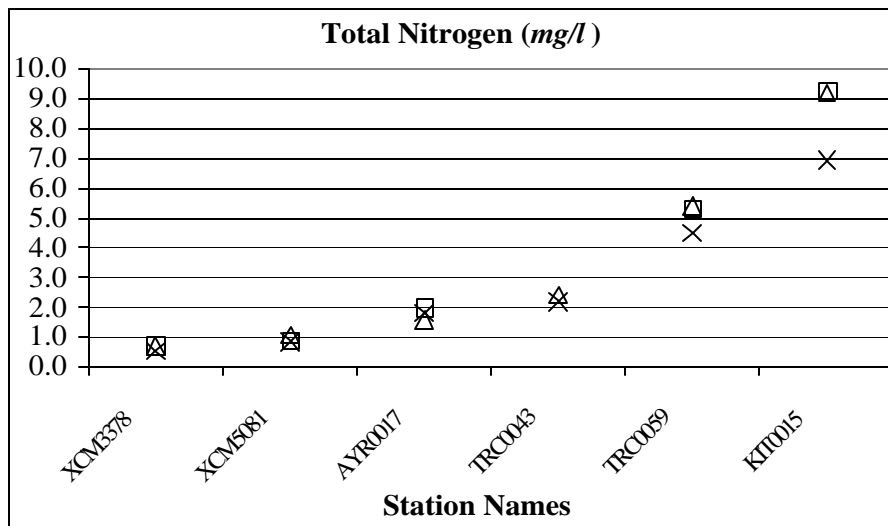
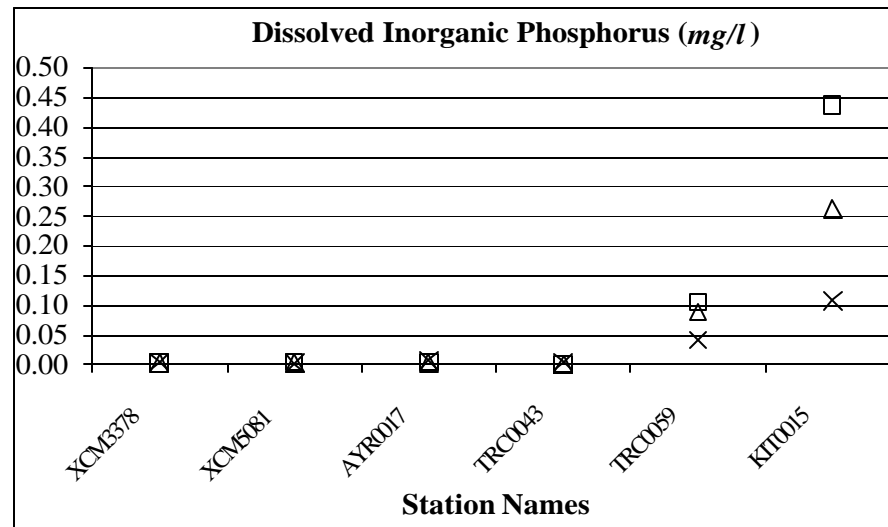
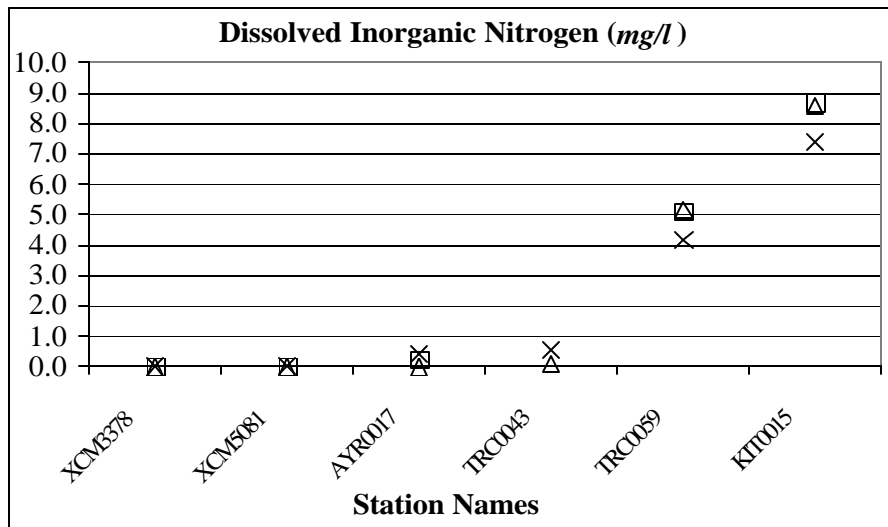


× 15-Apr-98
□ 22-Apr-98
△ 29-Apr-98



**Newport Bay and Tributaries**  
High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

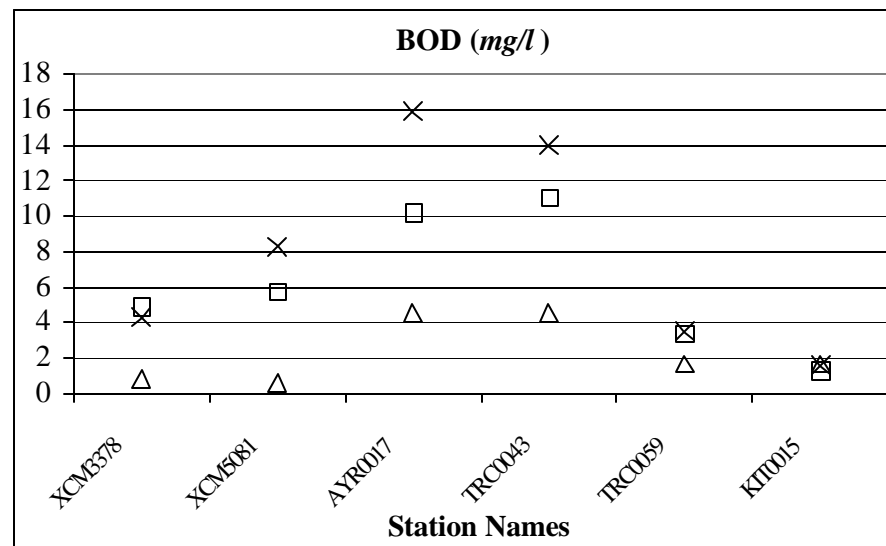
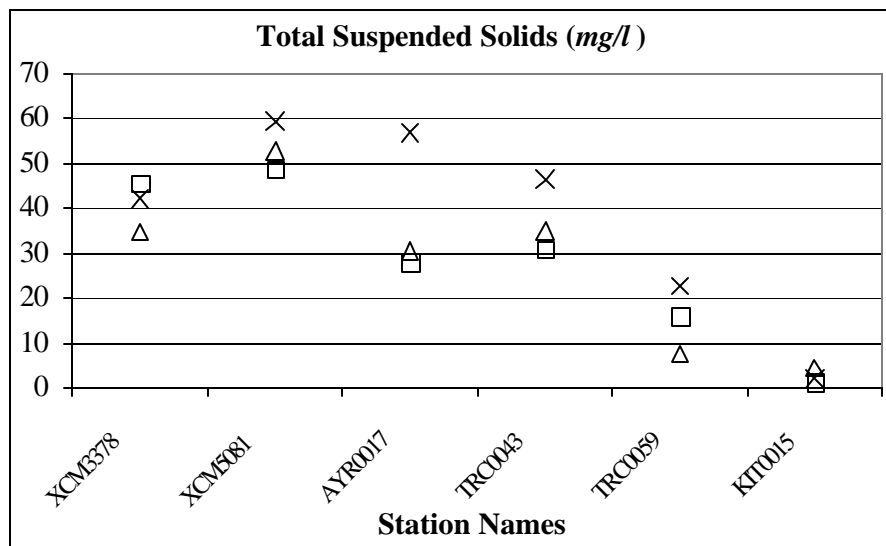
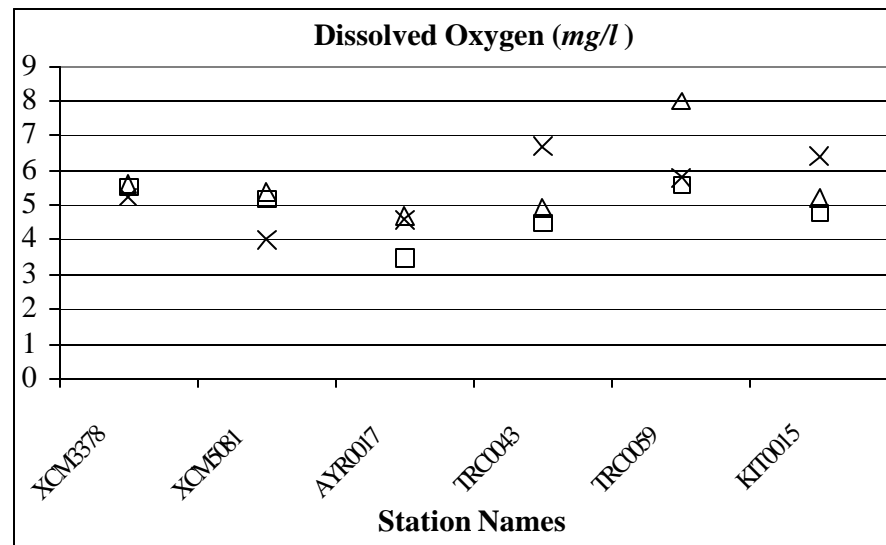
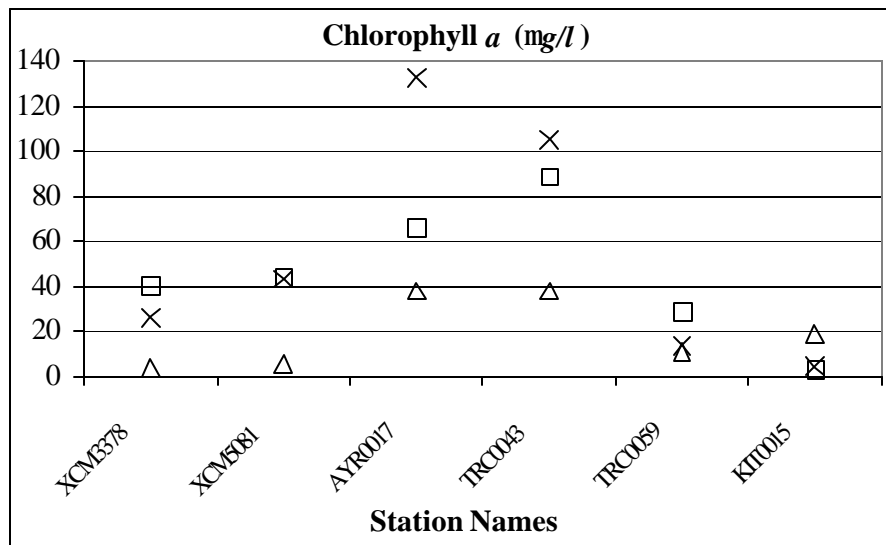


× 15-Apr-98      □ 22-Apr-98      △ 29-Apr-98

## Newport Bay and Tributaries

Low Flow Conditions (July - October)

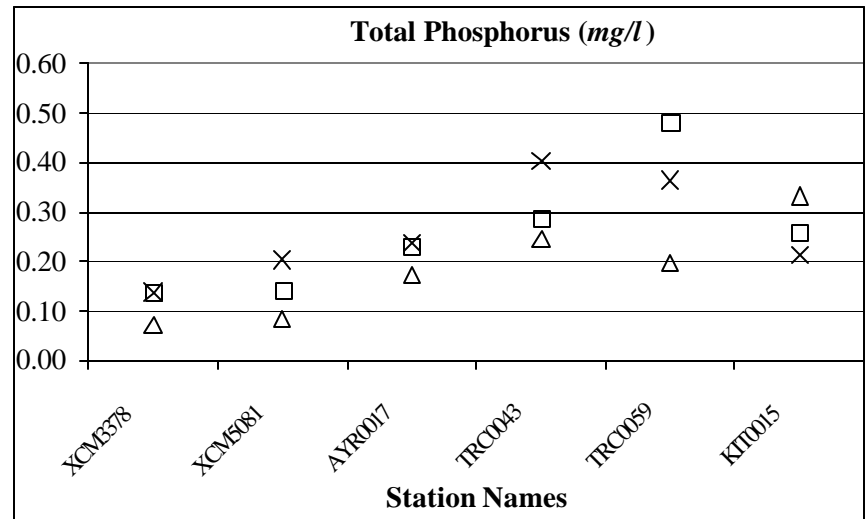
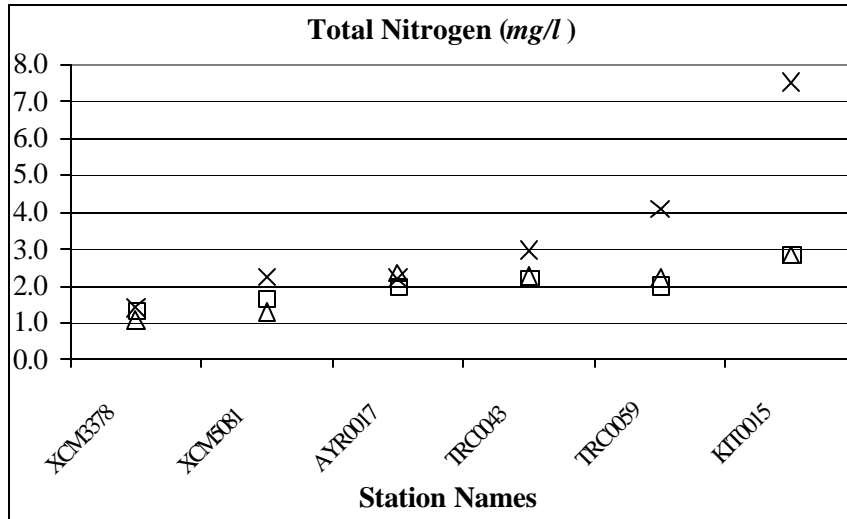
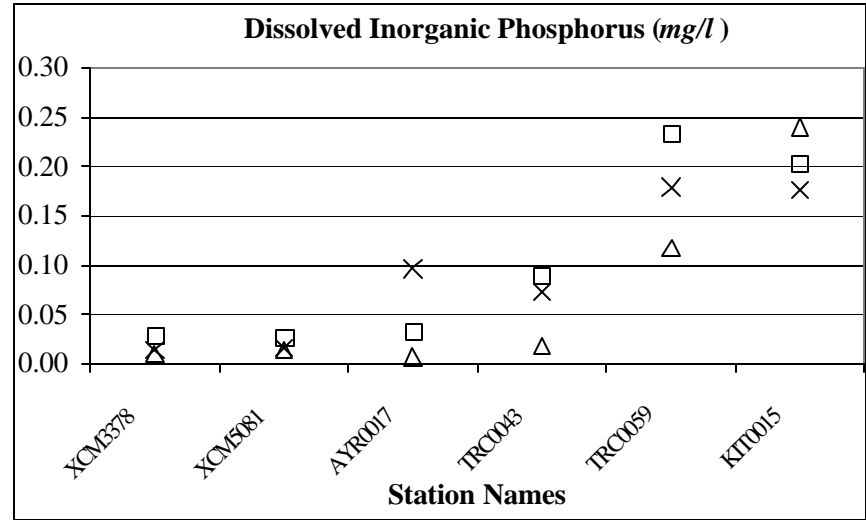
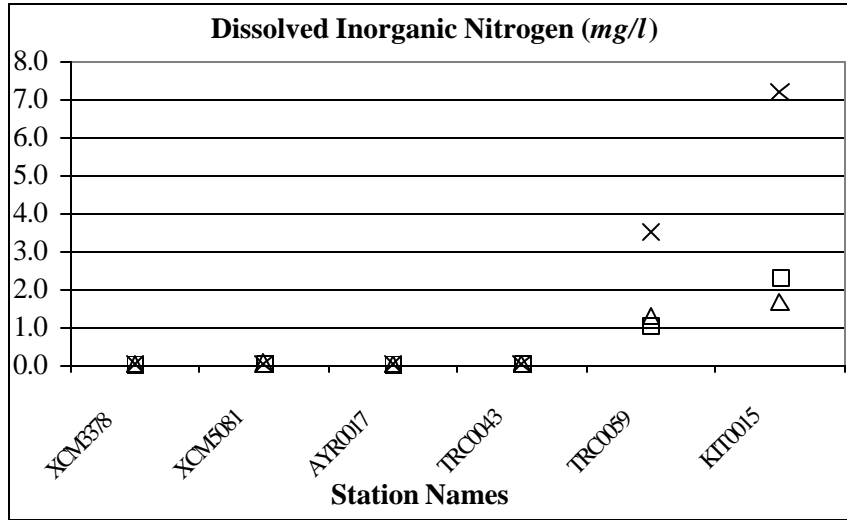
Stations are presented from left to right in downstream to upstream order



× 12-Aug-98      □ 02-Sep-98      Δ 30-Sep-98

**Newport Bay and Tributaries**  
 Low Flow Conditions (July - October)

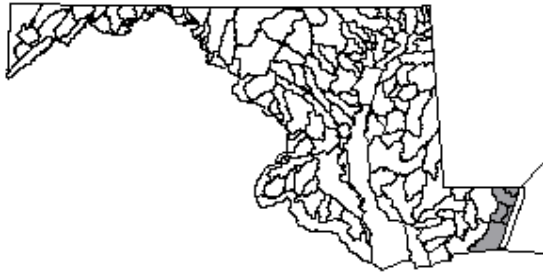
Stations are presented from left to right in downstream to upstream order



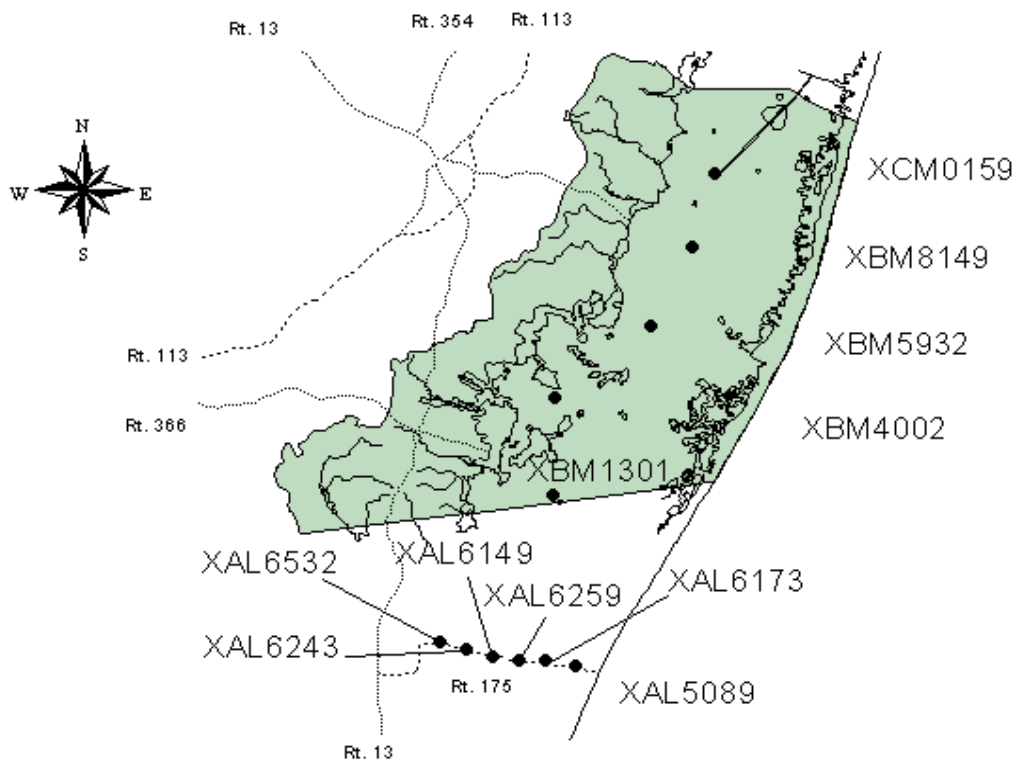
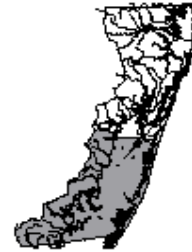
× 12-Aug-98
□ 02-Sep-98
△ 30-Sep-98

# Chincoteague Bay Monitoring Stations

Maryland 8-digit Basin Codes  
Location of Coastal Bays Watershed



Location of Chincoteague Bay  
Drainage Basin



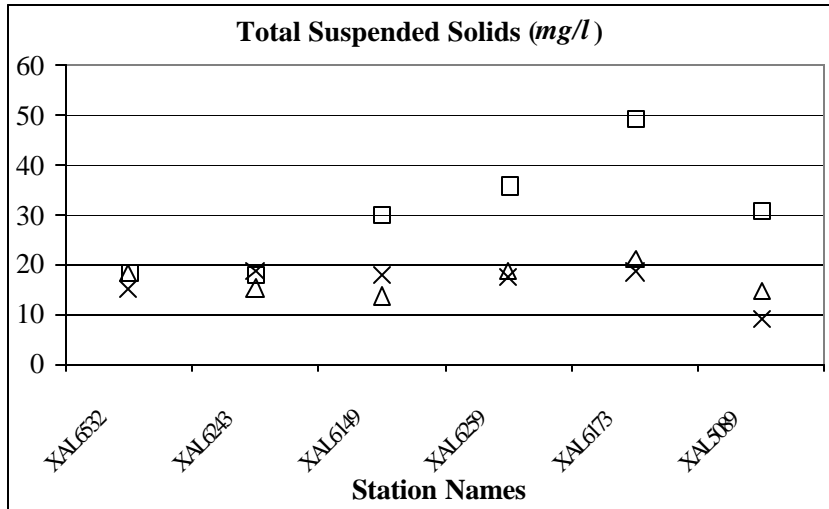
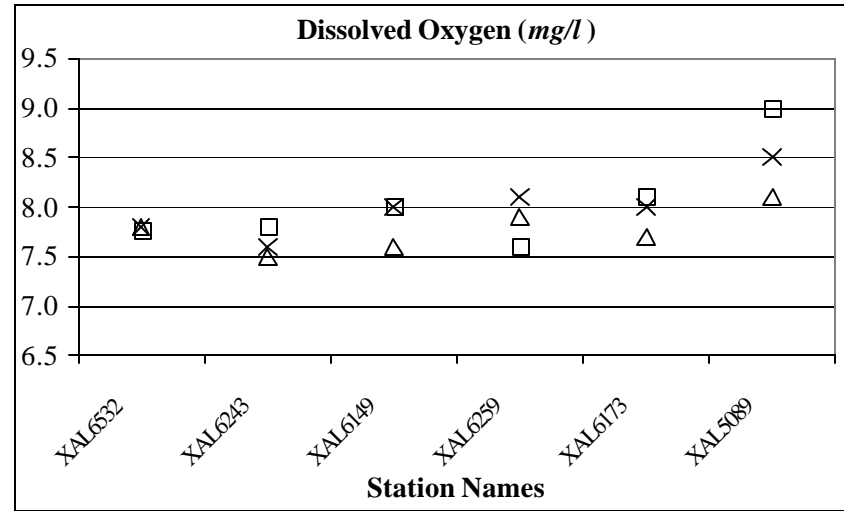
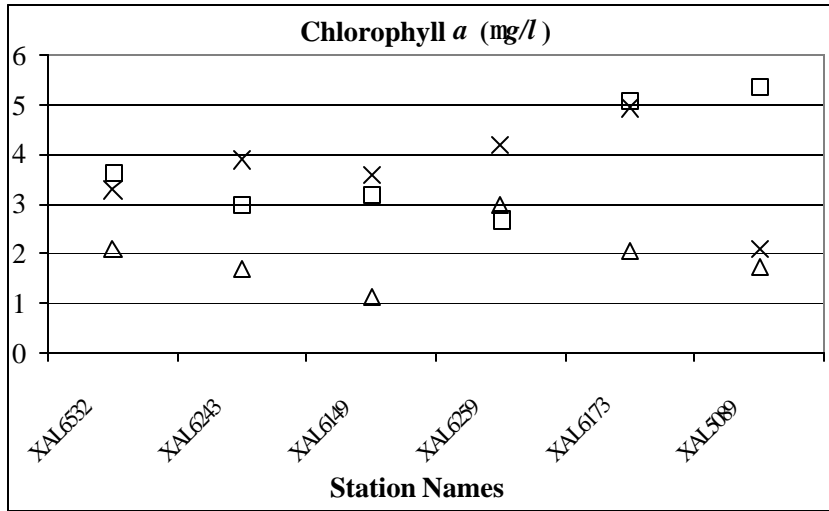
- MDE Monitoring Stations
- Major Roads
- Roads
- △ Chincoteague Bay
- Watershed 02130106

10 1 2 3 4 5 Kilometers



**Chincoteague Bay, Virginia**  
High Flow Conditions (January - May)

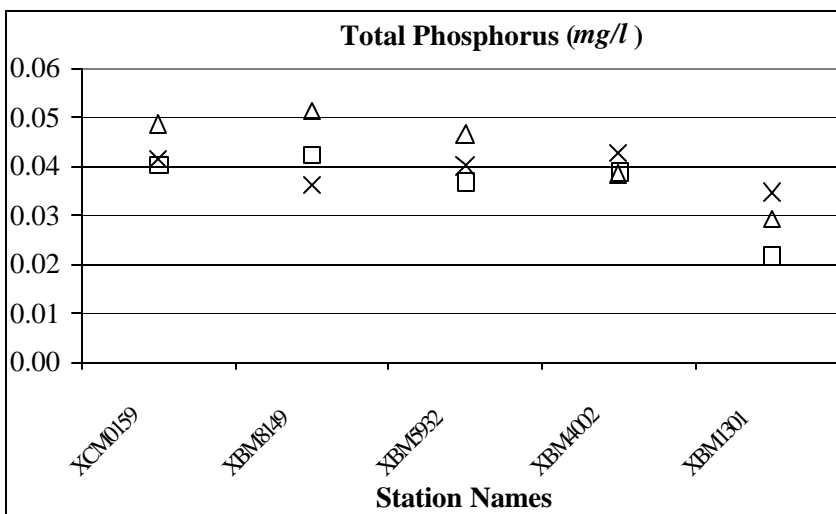
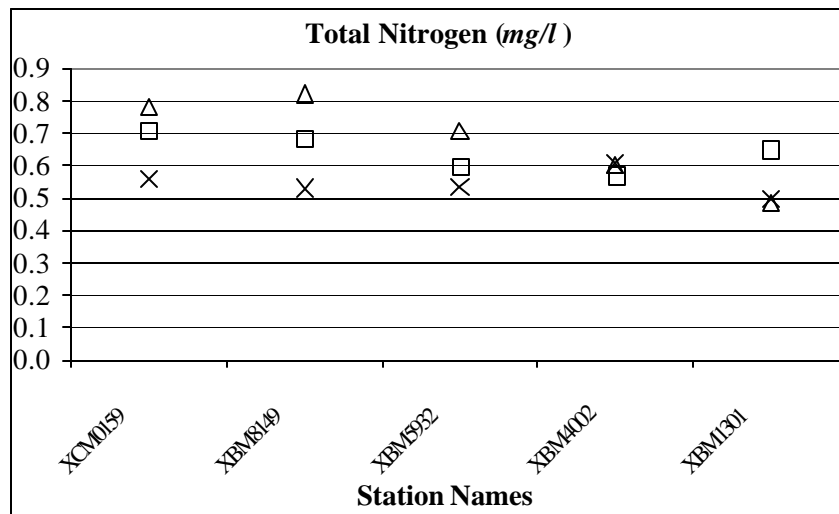
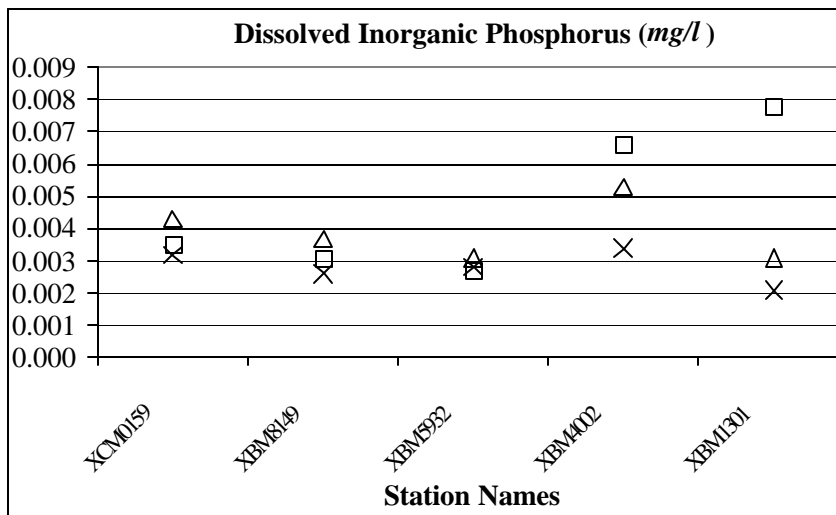
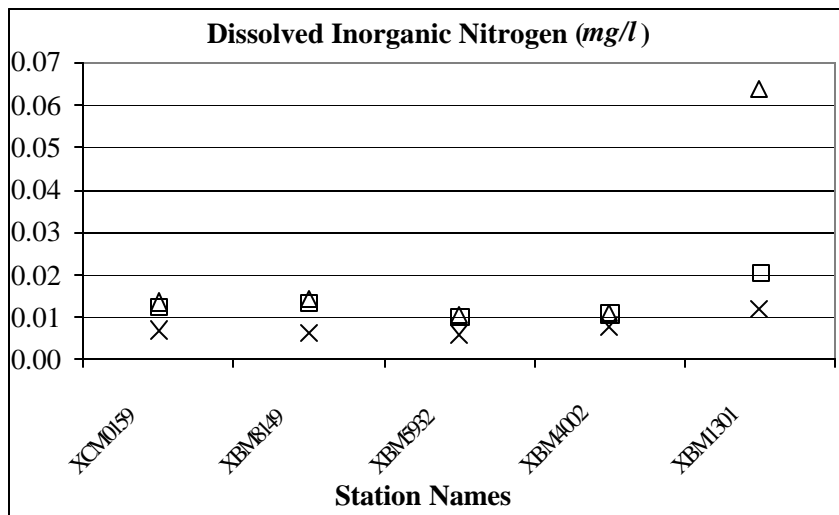
Stations are presented from left to right in downstream to upstream order



× 15-Apr-98
□ 22-Apr-98
Δ 29-Apr-98

**Chincoteague Bay, Maryland**  
High Flow Conditions (January - May)

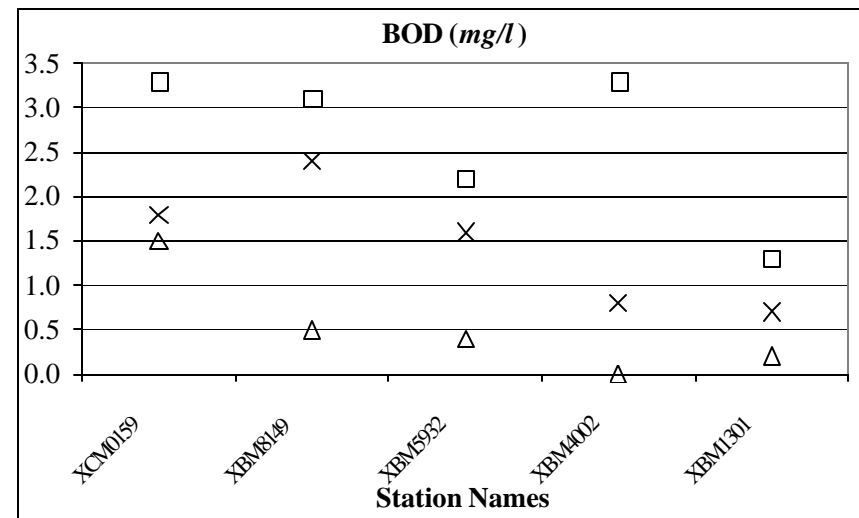
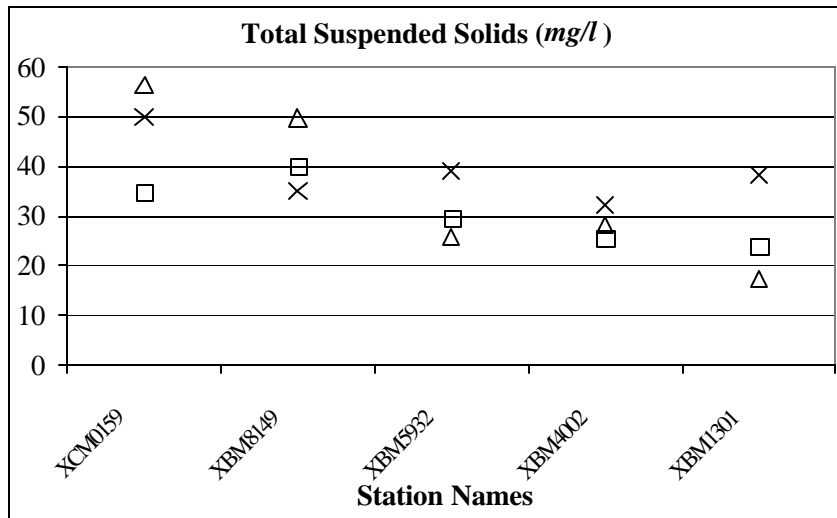
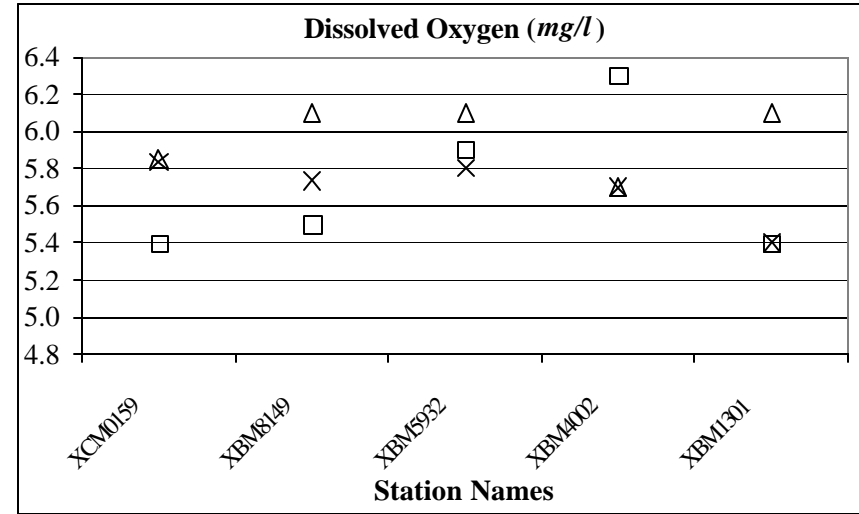
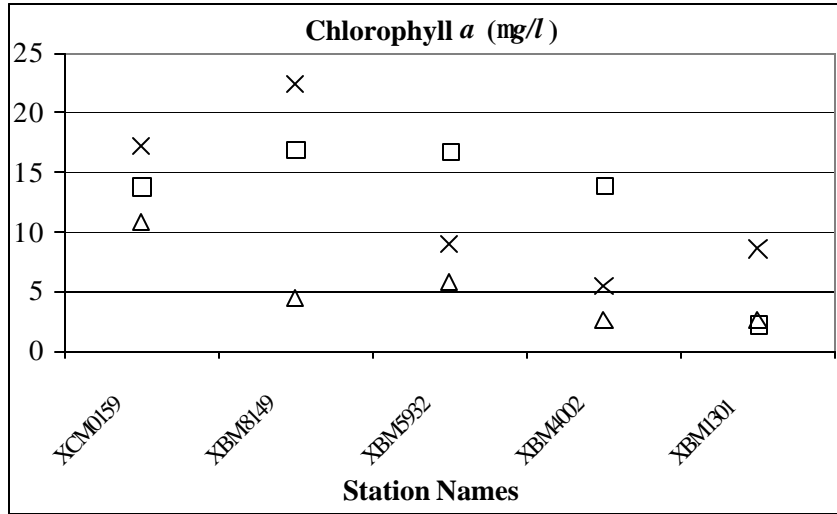
Stations are presented from left to right in downstream to upstream order



× 15-Apr-98
□ 22-Apr-98
Δ 29-Apr-98

**Chincoteague Bay, Maryland**  
 Low Flow Conditions (July-October)

Stations are presented from left to right in downstream to upstream order

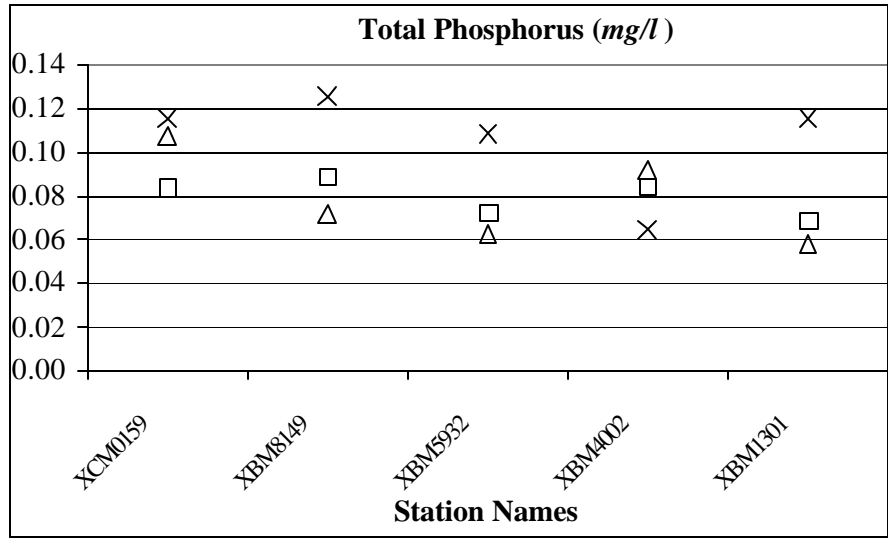
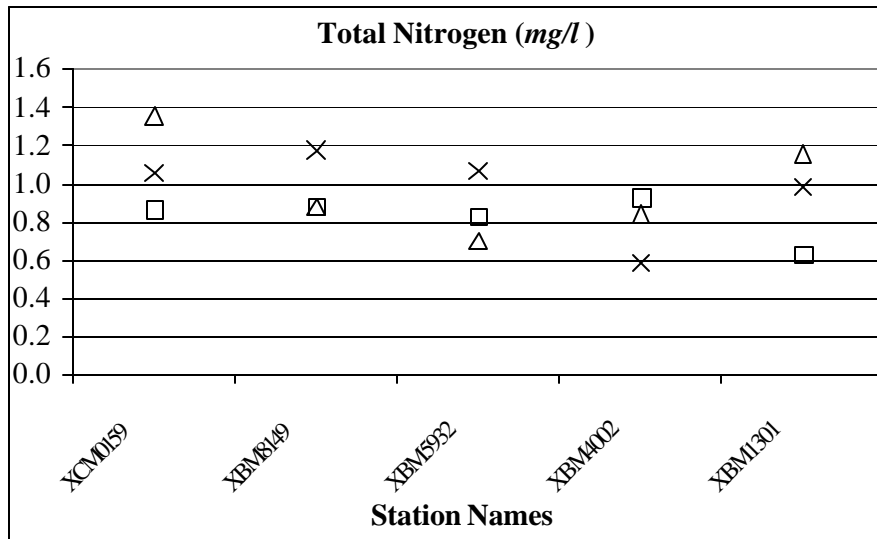
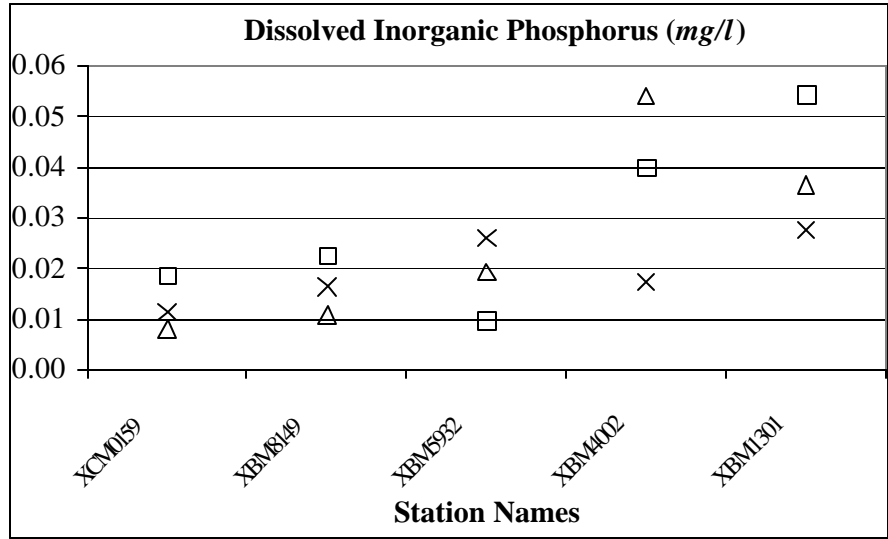
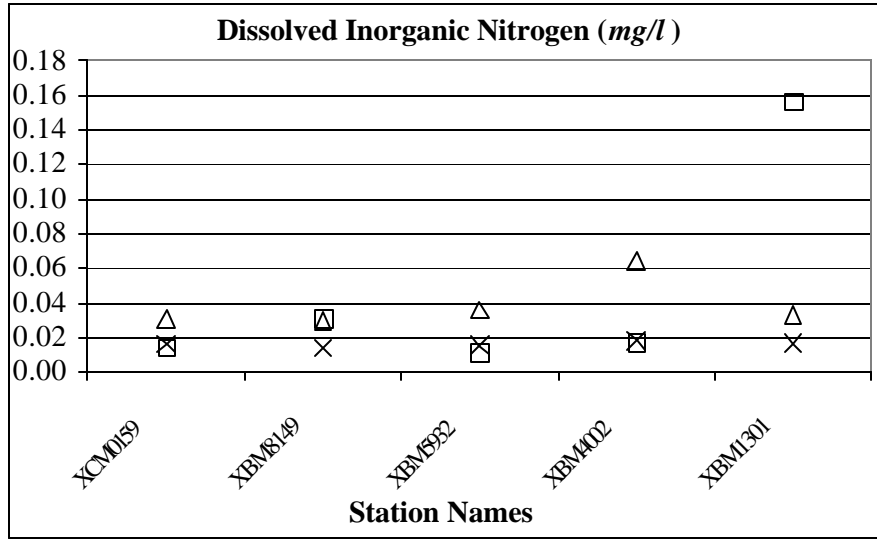


× 12-Aug-98
□ 02-Sep-98
△ 30-Sep-98

### Chincoteague Bay, Maryland

Low Flow Conditions (July -October)

Stations are presented from left to right in downstream to upstream order



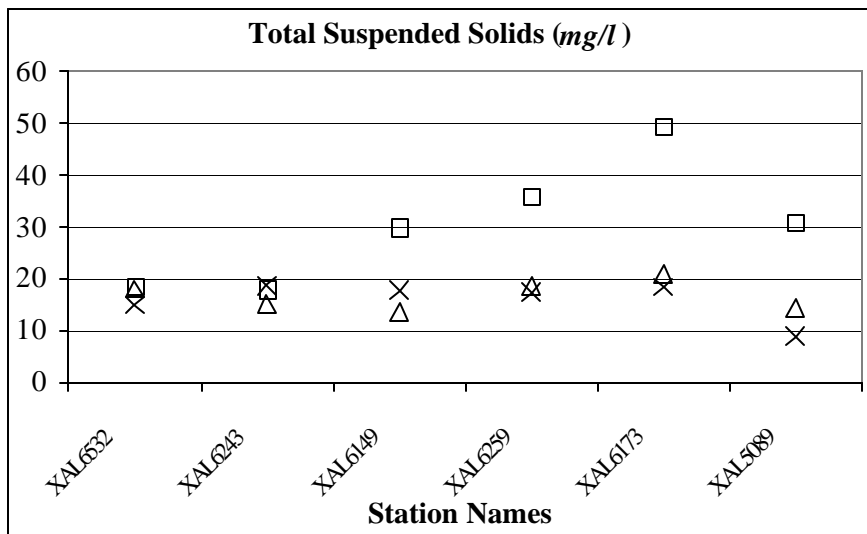
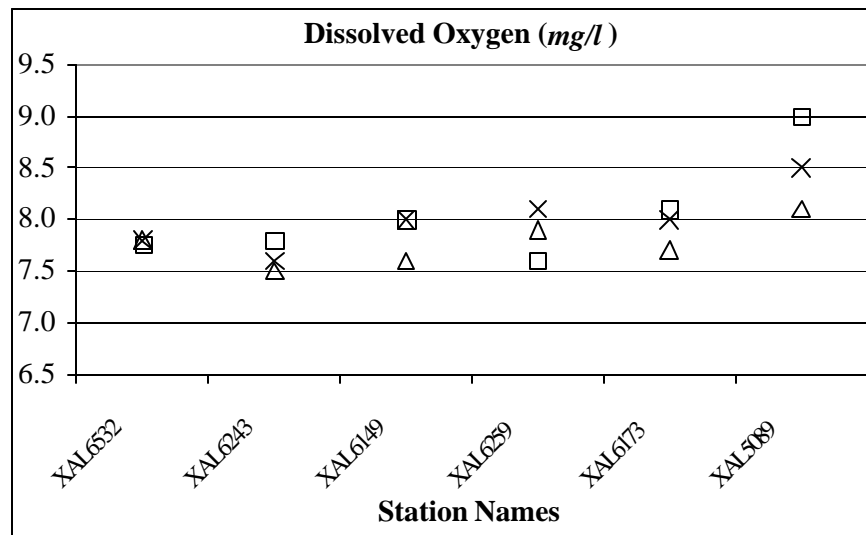
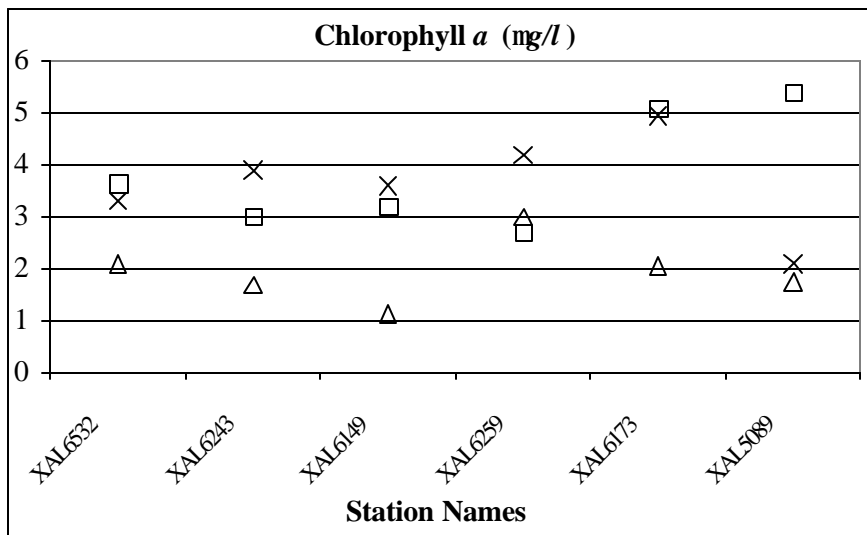
× 12-Aug-98      □ 02-Sep-98      △ 30-Sep-98



### Chincoteague Bay, Virginia

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

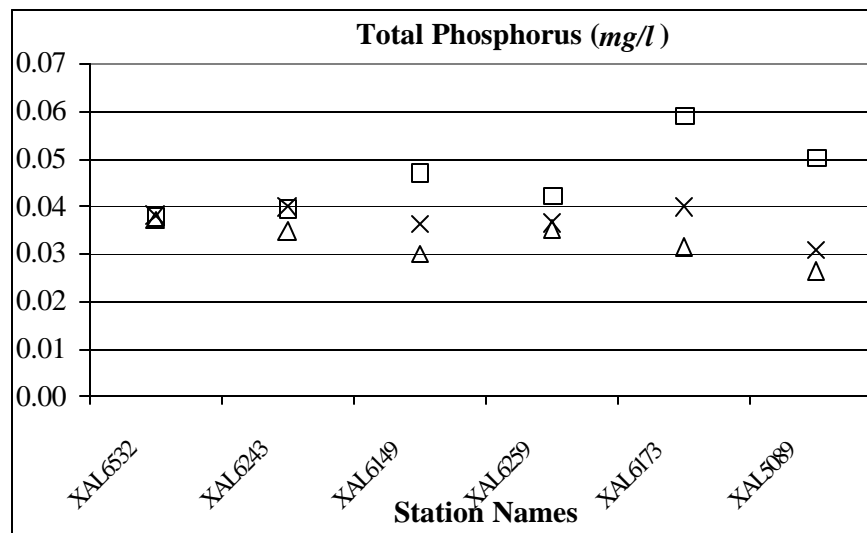
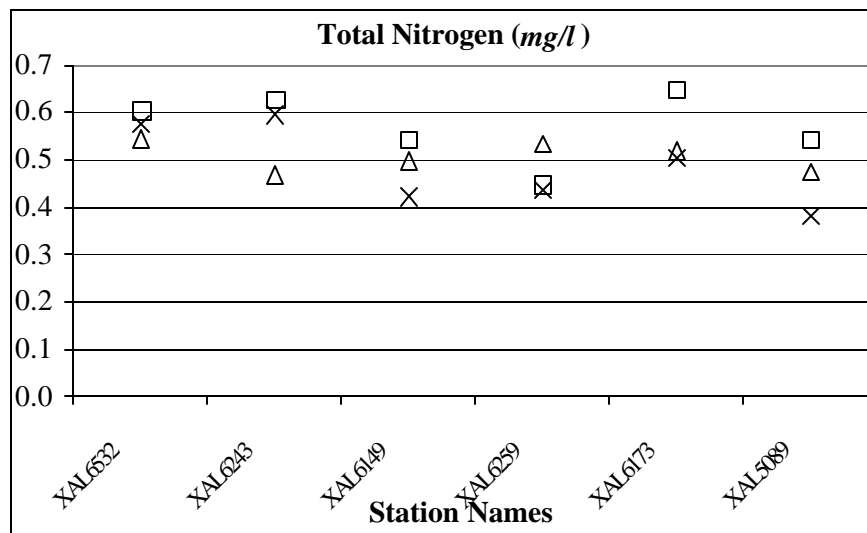
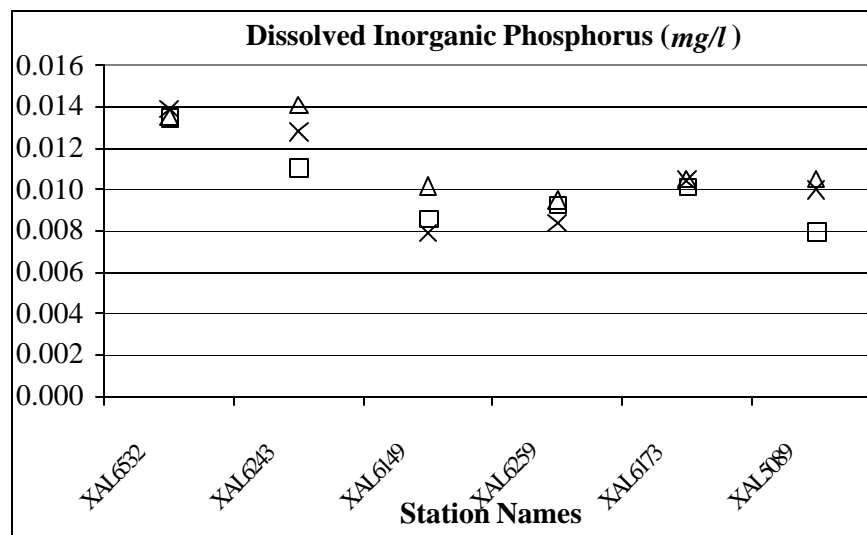
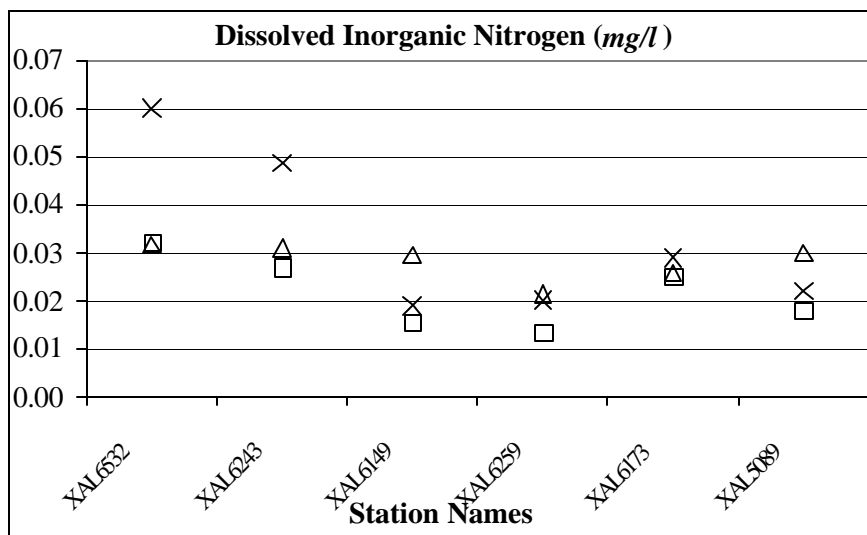


× 15-Apr-98      □ 22-Apr-98      △ 29-Apr-98

### Chincoteague Bay, Virginia

High Flow Conditions (January - May)

Stations are presented from left to right in downstream to upstream order

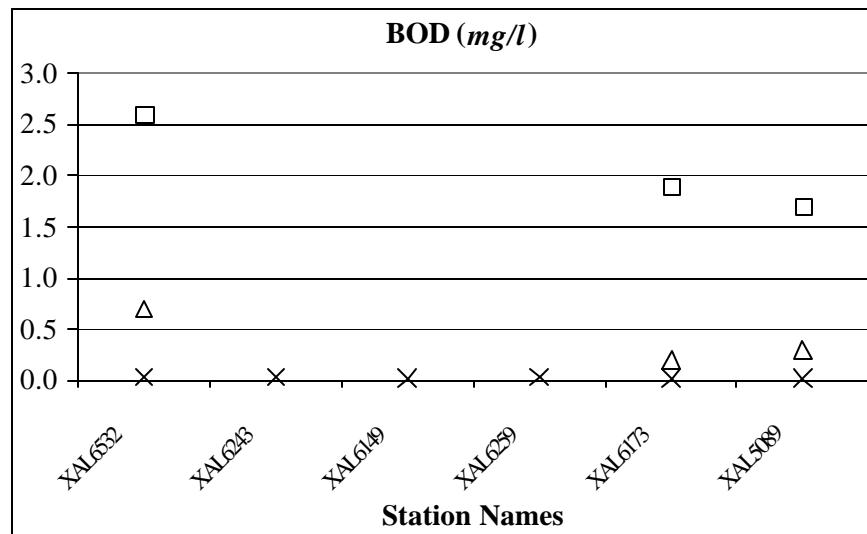
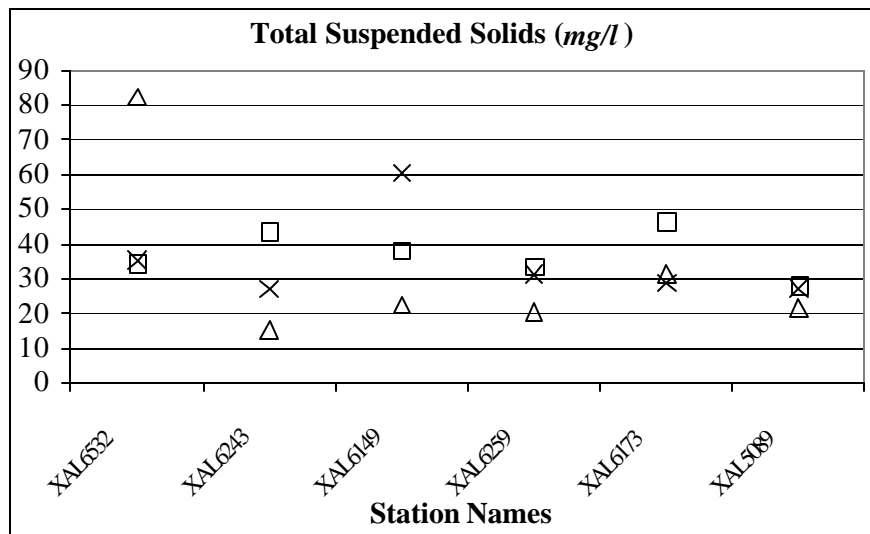
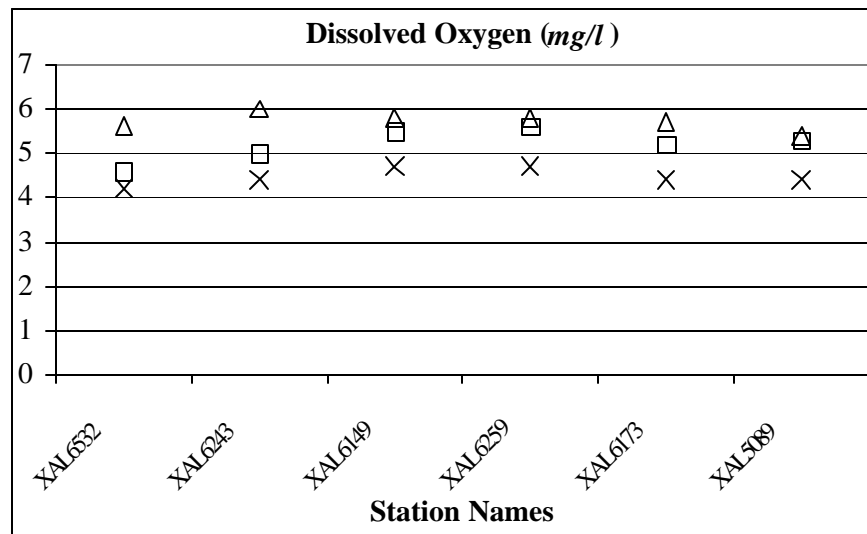
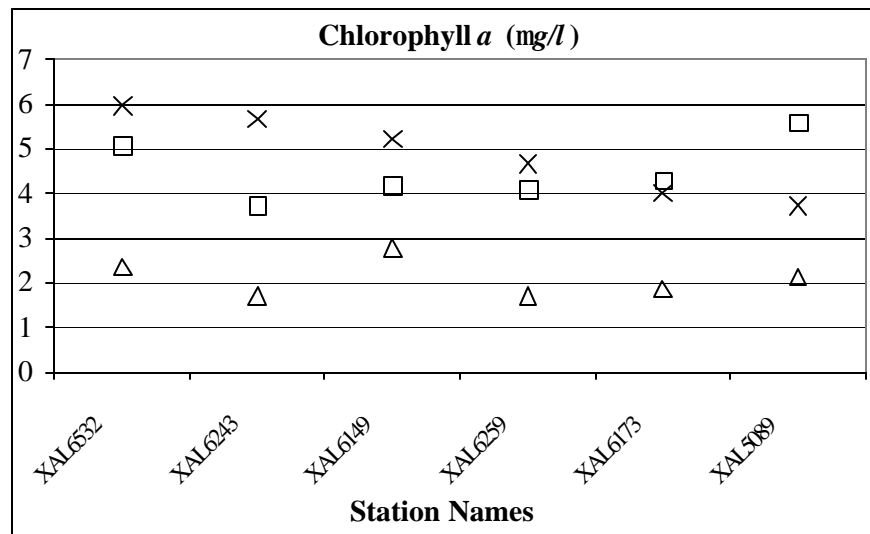


× 15-Apr-98      □ 22-Apr-98      △ 29-Apr-98

### Chincoteague Bay, Virginia

Low Flow Conditions (July-October)

Stations are presented from left to right in downstream to upstream order

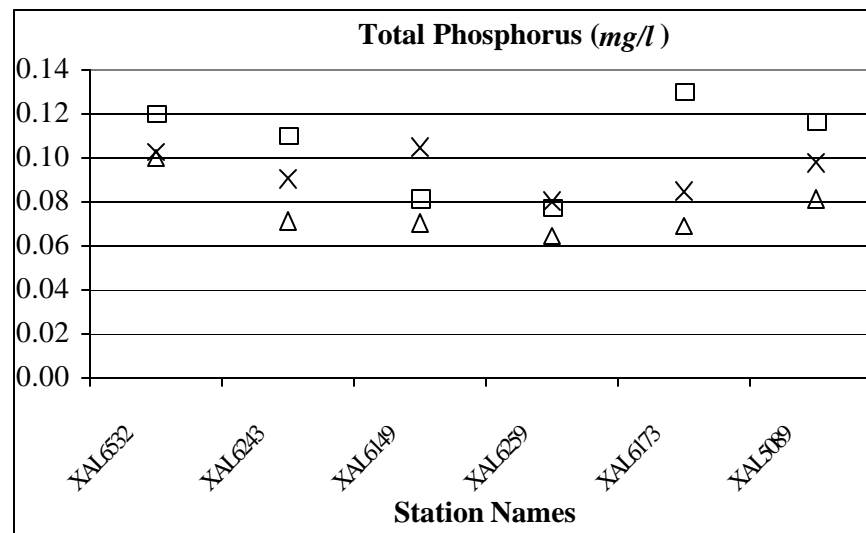
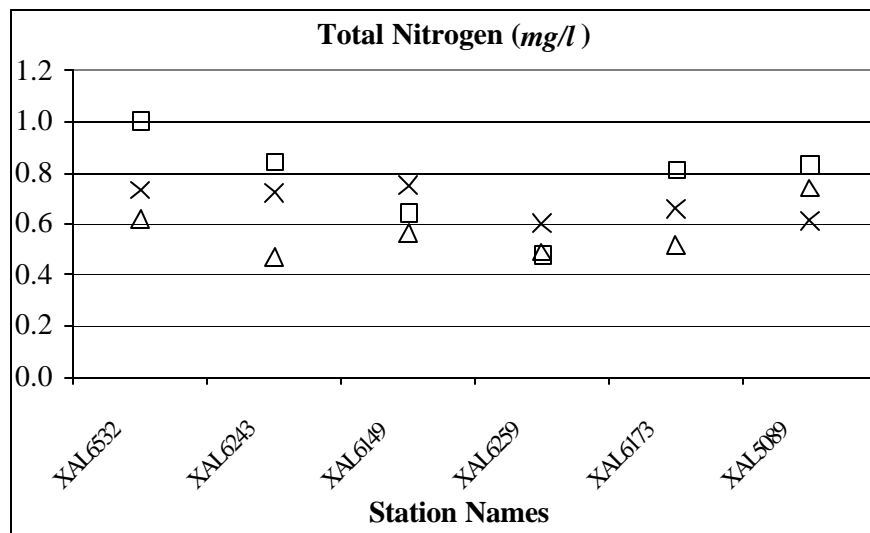
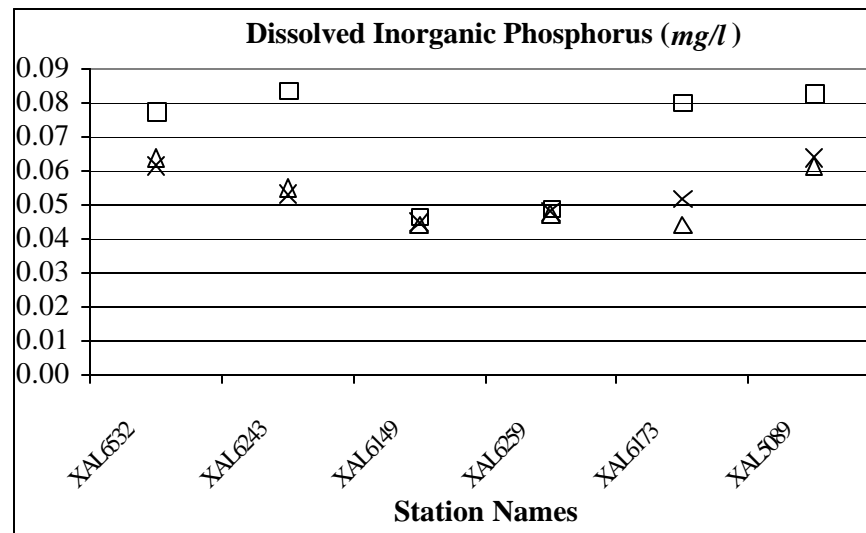
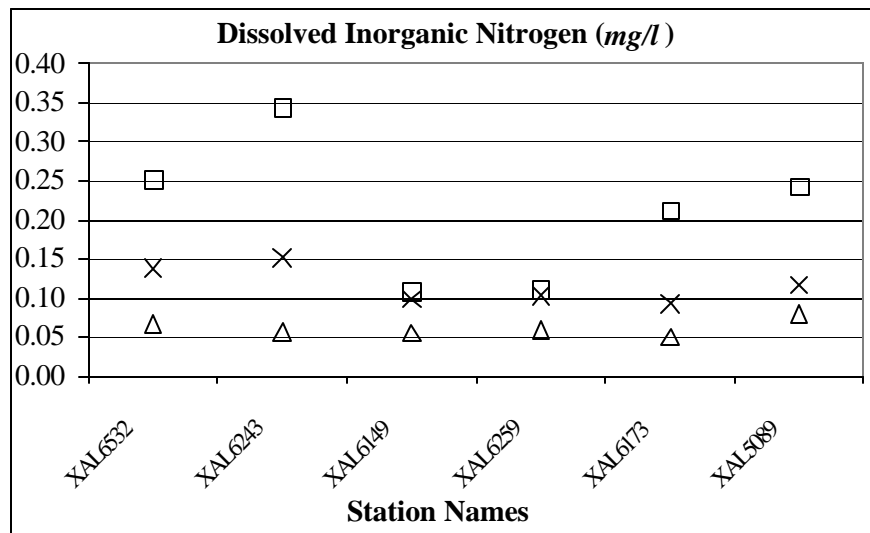


× 12-Aug-98      □ 02-Sep-98      △ 30-Sep-98

### Chincoteague Bay, Virginia

Low Flow Conditions (July-October)

Stations are presented from left to right in downstream to upstream order



x 12-Aug-98

□ 02-Sep-98

△ 30-Sep-98

SINEPUXENT BAY, NEWPORT BAY AND CHINCOTEAGUE BAY  
STATION LIST

| Station code                        | Lat/Long              | Description                                                                       |
|-------------------------------------|-----------------------|-----------------------------------------------------------------------------------|
| <b><u>Sinepuxent Bay:</u></b>       |                       |                                                                                   |
| XDN0146                             | 38°20.054' 75°05.386' | 100 yds. North of Rt. 50 bridge in channel adjacent to waterfront bar.            |
| XCN7523                             | 38°17.524' 75°07.657' | At buoy "G-11A"; mid-channel.                                                     |
| XCN4811                             | 38°14.775' 75°08.982' | Mid-channel at Assateague Island bridge, buoy "19".                               |
| XCM3892                             | 38°12.850' 75°10.824' | At buoy "N-28"; mid-channel.                                                      |
| <b><u>Newport Bay:</u></b>          |                       |                                                                                   |
| XCM3378                             | 38°13.400' 75°13.400' | Mid-bay; 1 mile east of Out Pt.                                                   |
| XCM5081                             | 38°15.250' 75°11.600' | Mouth of Greys Inlet.                                                             |
| <b><u>Newport Bay Drainage:</u></b> |                       |                                                                                   |
| TRC0043                             | 38°17.662' 75°10.669' | Trappe Creek at end of Dinges Rd..                                                |
| TRC0059                             | 38°18.881' 75°11.484' | Trappe Creek at Rt. 376 crossing, east of Berlin.                                 |
| KIT0015                             | 38°19.875' 75°12.077' | Kitts Branch at Flower St. road crossing..                                        |
| AYR0017                             | 38°17.697' 75°09.758' | Ayer Creek at Rt. 376 road crossing.                                              |
| <b><u>Chincoteague Bay:</u></b>     |                       |                                                                                   |
| XCM0159                             | 38°10.094' 75°14.213' | At Fl. Buoy "39", 1.2 miles east of Ricks Pt.                                     |
| XBM8149                             | 38°05.918' 75°16.515' | Mid-bay 1.2 miles south of Robins Marsh at daymarker "R-28".                      |
| XBM5932                             | 38°08.117' 75°15.062' | At Fl. "R-24", 1 mile east of Martin Pt.                                          |
| XBM1301                             | 38°01.287' 75°19.989' | Md.-Va. border at daymarker "R-18".                                               |
| <b><u>Johnson Bay:</u></b>          |                       |                                                                                   |
| XBM4002                             | 38°04.021' 75°19.862' | At flashing daymarker "1", south of Tizzard Island.                               |
| <b><u>Chincoteague Inlet:</u></b>   |                       |                                                                                   |
| XAL6532                             | 37°56.514' 75°26.806' | Mosquito Cr. Bridge.                                                              |
| XAL6243                             | 37°56.249' 75°25.659' | Cockle Cr. At Rt. 175 bridge.                                                     |
| XAL6149                             | 37°56.102' 75°24.987' | Queen Sound Channel at Va. Rt. 175 bridge.                                        |
| XAL6259                             | 37°56.215' 75°24.056' | From bridge over Wire Narrows.                                                    |
| XAL6173                             | 37°56.137' 75°22.758' | Chincoteague/Black Narrows Channel at Va. Rt. 175 bridge; sample eastern channel. |
| XAL5089                             | 37°55.115' 75°21.068' | Assateague Channel Toll bridge.                                                   |