Nanticoke Creek Watershed
(0205010301)

<table>
<thead>
<tr>
<th>Water Index Number</th>
<th>Waterbody Segment</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR- 28</td>
<td>Nanticoke Creek, Lower, and tribs (0603-0045)</td>
<td>NoKnownImpct</td>
</tr>
<tr>
<td>SR- 28</td>
<td>Nanticoke Creek, Middle, and tribs (0603-0004)</td>
<td>Need Verific</td>
</tr>
<tr>
<td>SR- 28</td>
<td>Nanticoke Creek, Upper, and tribs (0603-0046)</td>
<td>UnAssessed</td>
</tr>
<tr>
<td>SR- 28- 2-P21</td>
<td>Bosket Lake (0603-0050)</td>
<td>UnAssessed</td>
</tr>
</tbody>
</table>
Nanticoke Creek, Lower, and tribs (0603-0045) NoKnownImpct

Waterbody Location Information

<table>
<thead>
<tr>
<th>Water Index No.</th>
<th>Drain Basin:</th>
</tr>
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<tbody>
<tr>
<td>SR-28</td>
<td>Susquehanna River</td>
</tr>
<tr>
<td>Hydro Unit Code</td>
<td>LowSusquehanna-Owego</td>
</tr>
<tr>
<td>02050103/060</td>
<td></td>
</tr>
<tr>
<td>Str Class:</td>
<td>C</td>
</tr>
<tr>
<td>Reg/County:</td>
<td>7/Broome Co. (4) ...</td>
</tr>
<tr>
<td>Waterbody Type:</td>
<td>River (Low Flow)</td>
</tr>
<tr>
<td>Waterbody Size:</td>
<td>21.7 Miles</td>
</tr>
<tr>
<td>Quad Map:</td>
<td>ENDICOTT (M-16-3) ...</td>
</tr>
<tr>
<td>Seg Description:stream and tribs, from mouth to Union Center</td>
<td></td>
</tr>
</tbody>
</table>

Water Quality Problem/Issue Information

Use(s) Impacted Severity Problem Documentation

**NO USE IMPAIRMENT**

Type of Pollutant(s)

- Known: - - -
- Suspected: - - -
- Possible: - - -

Source(s) of Pollutant(s)

- Known: - - -
- Suspected: - - -
- Possible: - - -

Resolution/Management Information

<table>
<thead>
<tr>
<th>Issue Resolvability:</th>
<th>Resolution Potential:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 (No Known Use Impairment)</td>
<td>n/a</td>
</tr>
<tr>
<td>Verification Status:</td>
<td>(Not Applicable for Selected RESOLVABILITY)</td>
</tr>
<tr>
<td>Lead Agency/Office:</td>
<td>n/a</td>
</tr>
<tr>
<td>TMDL/303d Status:</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Further Details

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Nanticoke Creek in Endicott, Broome County, (at Route 17C) was conducted in 2003 and 2004. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions, indicating very good water quality. Water column sampling revealed iron to be a parameter of concern, however, iron is considered to be naturally occurring and not a source of water quality impacts. Sediment screening for acute toxicity indicated a possibility of slight sediment toxicity but while sediment sampling revealed some contaminants at low levels but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrates were not collected at this site for chemical analysis. Toxicity testing using water from this location showed no significant mortality or reproductive effects on the test organism. Based on the consensus of these established assessment methods, overall water quality at this site shows that aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAR/RIBS, August 2009)
A biological (macroinvertebrate) assessment of a Nanticoke Creek trib, Bradley Creek (-6), in Union Center (at Bradley Creek Road) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported.

(DEC/DOW, BWAM/SBU, January 2009)

A biological (macroinvertebrate) assessment of another Nanticoke Creek trib, Crocker Creek (-8), in Union Center (at Route 86) was conducted as part of the RIBS biological screening effort in 2003. Sampling results also indicated non-impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported.

(DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the portion of the stream and all tribs from the mouth to/including Crocker Creek (-8) in Union Center. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Bradley Creek (-6) and Crocker Creek (-8), are also Class C. Middle/Upper Nanticoke Creek are listed separately.
Nanticoke Creek, Middle, and tribs (0603-0004) Need Verification

Waterbody Location Information

Water Index No: SR-28
Hydro Unit Code: 02050103/060 Str Class: C
Waterbody Type: River (Low Flow)
Waterbody Size: 22.4 Miles
Seg Description: stream and tribs, from Union Center to Mainer

Drain Basin: Susquehanna River
Reg/County: 7/Broome Co. (4)...
Quad Map: MAINE (M-16-2)...

Water Quality Problem/Issue Information

Use(s) Impacted Severity Problem Documentation
Aquatic Life Stressed Possible
Habitat/Hydrology Stressed Possible

Type of Pollutant(s)
Known: - - -
Suspected: SILT/SEDIMENT, Nutrients
Possible: Water Level/Flow, Thermal Changes

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE, CONSTRUCTION (resident.develop.), STREAMBANK EROSION
Possible: Urban/Storm Runoff

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/BWAM
TMDL/303d Status: n/a
Resolution Potential: Medium

Further Details

Overview
Aquatic life support in this portion of Nanticoke Creek may experience minor impacts due to silt/sedimentation from streambank erosion and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Ketchumville Branch, a trib to Nanticoke Creek, in Maine (at Bailey Hollow Road) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to natural conditions with evidence of some silt/sedimentation influences. Aquatic life support is considered to be fully supported in the stream. Although this trib is considered somewhat representative of water quality in the larger segment, sampling of Nanticoke Creek in the lower portion of this reach is recommended in order to verify conditions. (DEC/DOW, BWAM/SBU, January 2009)
Previous Assessment
Concerns were raised in previous (1996) assessments regarding high gradient streams and "flashy" runoff events that result in significant sediment load to the stream. These conditions are to some degree the result of natural topography, but various nonpoint source activities (residential development, agricultural, etc) have been identified as possible sources that may exacerbate impacts. (DEC/DOW, BWAM/WQAS, June 2009)

Segment Description
This segment includes the portion of the stream and all tributaries from Crocker Creek (-8) in Union Center to/including Ketchumville Branch (-13) in Maine. The waters of this portion of the stream are Class C,C(T). Tributaries to this reach/segment, including Ketchumville Branch (-13), are also Class C,C(T). Lower/Upper Nanticoke Creek are listed separately.