

# Waterbody Inventory for Ramapo/Hackensack River Watershed

Water Index Number	Waterbody Segment	Category
<b>Hackensack River Watershed</b>		
NJ- 1 (portion 1)	Hackensack River/Lake Tappan (1501-0008)	Need Verific
NJ- 1 (portion 2)	Hackensack River, Lower, and minor tribs (1501-0026)	Impaired Seg
NJ- 1 (portion 3)/P977a	DeForest Lake (1501-0007)	MinorImpacts
NJ- 1- 4	Nauraushaun Brook, Lower, and tribs (1501-0010)	Impaired Seg
NJ- 1- 4	Nauraushaun Brook, Upper, and tribs (1501-0028)	UnAssessed
NJ- 1/P977a-	Minor Tribs to DeForest Lake (1501-0029)	Impaired Seg
NJ- 1/P977a-12	West Br.Hackensack, Upper, and tribs (1501-0009)	Impaired Seg
NJ- 1/P977a-12-P982b	Lake Lucille (1501-0017)	Need Verific
NJ- 1/P977a-13	East Br.Hackensack, Upper, and tribs (1501-0030)	UnAssessed
NJ- 1/P977a-13-P984,P984a	Congers Lake, Swartout Lake (1501-0019)	Impaired Seg
NJ- 1/P977a-13-P985	Rockland Lake (1501-0021)	UnAssessed
<b>Tribes to New Jersey, Hackensack River to Mahwah River</b>		
NJ- 1a thru e	Minor Tribs to New Jersey (1501-0032)	UnAssessed
NJ- 2 thru 4	Minor Tribs to New Jersey (1501-0014)	UnAssessed
NJ- 5	Pascack Brook and tribs, within NYS (1501-0015)	Impaired Seg
NJ- 6 thru 8	Saddle River and tribs (1501-0033)	MinorImpacts
NJ- 8-P995b	Lake Antrim/Island Lake (1501-0034)	UnAssessed
<b>Mahwah River Watershed</b>		
NJ-11	Mahwah River, Lower, and tribs (1501-0011)	MinorImpacts
NJ-11	Mahwah River, Upper, and tribs (1501-0035)	UnAssessed
<b>Ramapo River Watershed</b>		
NJ-12	Ramapo River, Lower, and minor tribs (1501-0012)	MinorImpacts
NJ-12	Ramapo River, Middle, and tribs (1501-0036)	MinorImpacts
NJ-12	Ramapo River, Upper, and tribs (1501-0037)	Need Verific
NJ-12- 5- 1a- 1-P1001,P1001a	Cranberry Pond, Potake Lake (1501-0038)	UnAssessed
NJ-12- 6	Stony Brook and tribs (1501-0039)	NoKnownImpct
NJ-12- 6- 3- P1002b,P1002d	Lake Wanoksink, Pine Meadow Lake (1501-0040)	UnAssessed
NJ-12- 6-P1002e	Lake Sebago (1501-0041)	UnAssessed
NJ-12- 6-P1002e-	Tribs to Lake Sebago (1501-0042)	UnAssessed
NJ-12- 6-P1002e..P1002e	Lake Askoti (1501-0043)	UnAssessed
NJ-12- 6-P1002e..P1002f	Lake Skemonto (1501-0044)	UnAssessed
NJ-12- 6-P1002e..P1003	Lake Kanawauke (1501-0045)	UnAssessed
NJ-12- 6-P1002e..P1003b	Little Long Pond (1501-0046)	UnAssessed
NJ-12- 6-P1002e..P1003d	Lake Skannatati (1501-0047)	UnAssessed
NJ-12-10-P1004	Mountain Lake (1501-0048)	UnAssessed
NJ-12-15-P1005	We Wah Lake (1501-0049)	UnAssessed

# ...Ramapo/Hackensack River Watershed

Water Index Number	Waterbody Segment	Category
<b>Ramapo River Watershed (con't)</b>		
NJ-12-15-P1007	Tuxedo Lake (1501-0050)	Threat(Poss)
NJ-12-17-P1008	Little Dam Lake (1501-0051)	UnAssessed
NJ-12-17-P1008- 3-P1009b	Lake Winape (1501-0052)	UnAssessed
NJ-12-17-P1008..P1010,P1010b	Mombasha Lake, Kloibers Pond (1501-0002)	MinorImpacts
NJ-12-18-P1011	Lake Stahahe (1501-0053)	Threat(Poss)
NJ-12-20-P1014	Echo Lake (1501-0054)	NoKnownImpct
NJ-12-20-P1014..P1014a,P1014b	Lake Cohasset, Upper Cohasset Lake (1501-0055)	UnAssessed
NJ-12-20-P1014..P1015	Cranberry Lake (1501-0056)	UnAssessed
NJ-12-20-P1014..P1016	Forest Lake (1501-0057)	UnAssessed
NJ-12-20-P1014..P1016a	Island Pond (1501-0058)	UnAssessed
NJ-12-23-P1016h,P1016k	Shadowmere Lake, Blythea Lake (1501-0059)	UnAssessed
NJ-12-23-P1016i	Lake Sapphire (1501-0060)	UnAssessed
NJ-12-25- 4-P1017d	Coronet Lake (1501-0061)	UnAssessed
NJ-12-P1019	Monroe Pond (1501-0062)	UnAssessed
NJ-12-P1021	Round Lake (1501-0063)	UnAssessed
<b>Tribs to New Jersey Ramapo River to/including Greenwood Lake</b>		
NJ-13	Ringwood River and tribs (1501-0064)	UnAssessed
NJ-13- 2	Trib of Sterling Forest Lake (1501-0065)	UnAssessed
NJ-13- 2-P1021c	Sterling Forest Lake (1501-0066)	UnAssessed
NJ-13- 2-P1022	Little Cedar Lake (1501-0067)	UnAssessed
NJ-13-P1025	Sterling Lake (1501-0068)	NoKnownImpct
NJ-14 thru 15	Jenning Creek and tribs (1501-0069)	UnAssessed
NJ-P1026	Greenwood Lake (1501-0001)	Impaired Seg
NJ-P1026-	Tribs to Greenwood Lake (1501-0070)	UnAssessed

# Hackensack River/Lake Tappan ( 1501-0008)

Need Verific

## Waterbody Location Information

Revised: 07/14/2008

**Water Index No:** NJ- 1 (portion 1)      **Drain Basin:** Hackensack-Ramapo Rivers  
**Hydro Unit Code:** 02030103/160      **Str Class:** A  
**Waterbody Type:** Lake      **Reg/County:** 3/Rockland Co. (44)  
**Waterbody Size:** 251.8 Acres      **Quad Map:** NYACK (Q-25-4)  
**Seg Description:** entire lake, within NYS

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Possible: OTHER POLLUTANTS, Nutrients

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF  
Possible: Streambank Erosion

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 1 (Waterbody Nominated, Problem Not Verified)  
**Lead Agency/Office:** DOW/Reg3      **Resolution Potential:** Medium  
**TMDL/303d Status:** n/a

## Further Details

### Overview

Water supply uses of Lake Tappan are thought to be threatened due to the considerable amount of urban, residential and commercial development in the watershed, resulting nonpoint source runoff and possible other discharges.

### NYSDOH Source Waters Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. Lake Tappan serves as a source water reservoir for the United Water of New Jersey water supply. Although a NYSDOH assessment was not completed for Lake Tappan, an assessment was conducted for upstream water supply reservoirs. These assessments found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)

### Segment Description

This segment includes the portion of Lake Tappan in New York State.

# Hackensack River, Lower, and minor tribs (1501-0026) Impaired Seg

## Waterbody Location Information

Revised: 07/01/2008

**Water Index No:** NJ- 1 (portion 2)      **Drain Basin:** Hackensack-Ramapo Rivers  
**Hydro Unit Code:** 02030103/160      **Str Class:** A  
**Waterbody Type:** River      **Reg/County:** 3/Rockland Co. (44)  
**Waterbody Size:** 17.2 Miles      **Quad Map:** NYACK (Q-25-4)  
**Seg Description:** stream and select tribs, from Lake Tappan to West Nyack

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known

### Type of Pollutant(s)

Known: ---  
Suspected: UNKNOWN TOXICITY, D.O./Oxygen Demand, Nutrients, Silt/Sediment  
Possible: ---

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF, Industrial, Municipal  
Possible: ---

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 2 (Problem Verified, Cause Unknown)  
**Lead Agency/Office:** DOW/Reg3      **Resolution Potential:** Medium  
**TMDL/303d Status:** 3b\*

## Further Details

### Overview

Aquatic life and recreational uses in this portion of the Hackensack River are impaired by unspecified pollutants attributed to municipal/industrial inputs and urban/stormwater runoff. Water supply uses of the river are also considered to be threatened due to the considerable amount of residential development, resulting nonpoint source runoff and possible other discharges.

### Water Quality Sampling

A biological (macroinvertebrate) assessment of the Hackensack River in West Nyack (at Route 15) was conducted in 2002. Sampling results indicated moderately impacted water quality conditions. Biological communities were dominated by facultative caddisflies and midges. Impact Source Determination indicated municipal/industrial influences were the likely source of the impacts. (DEC/DOW, BWAM/SBU, June 2005)

### NYSDOH Source Waters Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding

possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. Drinking water supplies in this waterbody include the Nyack Village Water Supply. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)

#### Section 303d Listing

The Hackensack River not is currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2010 List. Due to the unknown nature of the specific pollutants causing the impairment, it is recommended that the listing be added to Part 3b, as a waterbody for which TMDL development is deferred pending the verification of the pollutant/cause. (DEC/DOW, BWAM/WQAS, June 2008)

#### Segment Description

This segment includes the portion of the stream and selected/smaller tribs from Lake Tappan at the New Jersey border to DeForest Lake in West Nyack. The waters of this portion of the stream are Class A. Tribs to this reach/segment are Class A,AA(T) and C,C(T). Nauraushaun Brook (-4) is listed separately.

# DeForest Lake (1501-0007)

# MinorImpacts

## Waterbody Location Information

Revised: 07/01/2008

**Water Index No:** NJ- 1 (portion 3)/P977a  
**Hydro Unit Code:** 02030103/160      **Str Class:** A  
**Waterbody Type:** Lake  
**Waterbody Size:** 720.1 Acres  
**Seg Description:** entire lake

**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Rockland Co. (44)  
**Quad Map:** HAVERSTRAW (Q-25-1)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Stressed	Suspected

### Type of Pollutant(s)

Known: ---  
Suspected: NUTRIENTS, SILT/SEDIMENT  
Possible: Pathogens, Salts

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF, Streambank Erosion  
Possible: ---

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 4 (Source Identified, Strategy Needed)  
**Lead Agency/Office:** ext/WQCC  
**TMDL/303d Status:** n/a

**Resolution Potential:** Medium

## Further Details

### Overview

Water supply use of Lake DeForest are thought to experience threats from various pollutants attributed to urban/stormwater runoff and other nonpoint sources.

### NYSDOH Source Waters Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. Drinking water supplies in this waterbody includes the United Water NY water supply. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)



possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. Drinking water supplies fed by this waterbody include the Nyack Village Water Supply. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)

#### Section 303d Listing

Nauraushaun Brook not is currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2010 List. Due to the unknown nature of the specific pollutants causing the impairment, it is recommended that the listing be added to Part 3b, as a waterbody for which TMDL development is deferred pending the verification of the pollutant/cause. (DEC/DOW, BWAM/WQAS, June 2008)

#### Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Sickletown/Blauvelt Road in Nauraushaun. The waters of this portion of the stream are Class A. Upper Nauraushaun Brook is listed separately.



possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. Drinking water supplies fed by this waterbody include the United Water NY Water Supply. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)

#### Section 303d Listing

The waters of this minor tribs segment are not currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2010 List. Due to the unknown nature of the specific pollutants causing the impairment, it is recommended that the listing be added to Part 3b, as a waterbody for which TMDL development is deferred pending the verification of the pollutant/cause. (DEC/DOW, BWAM/WQAS, June 2008)

#### Segment Description

This segment includes the total length of selected/smaller tribs to DeForest Lake. Tribs within this segment, including Lower West Branch Hackensack River (-12) and Lower East Branch Hackensack River (-13), are primarily Class A,A(T). Upper West and East Branches Hackensack River are listed separately.

# West Br.Hackensack, Upper, and tribs (1501-0009)

Impaired Seg

## Waterbody Location Information

Revised: 07/01/2008

**Water Index No:** NJ- 1/P977a-12  
**Hydro Unit Code:** 02030103/160      **Str Class:** C(T)  
**Waterbody Type:** River  
**Waterbody Size:** 26.0 Miles  
**Seg Description:** stream and tribs, above Centenary  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Rockland Co. (44)  
**Quad Map:** HAVERSTRAW (Q-25-1)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known

### Type of Pollutant(s)

Known: ---  
Suspected: UNKNOWN TOXICITY, D.O./Oxygen Demand, Nutrients, Silt/Sediment  
Possible: ---

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF, Industrial, Municipal  
Possible: ---

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 2 (Problem Verified, Cause Unknown)  
**Lead Agency/Office:** DOW/Reg3      **Resolution Potential:** Medium  
**TMDL/303d Status:** 3b\*

## Further Details

### Overview

Aquatic life and recreational uses in the West Branch Hackensack River are impaired by unspecified pollutants attributed to municipal/industrial inputs and urban/stormwater runoff.

### Water Quality Sampling

A biological (macroinvertebrate) assessment of the West Branch Hackensack River just below this segment in Centenary (at Old Route 304) was conducted in 2002. Sampling results indicated moderately impacted water quality conditions. Biological communities were dominated by facultative caddisflies and midges. Impact Source Determination indicated municipal/industrial influences were the likely source of the impacts. (DEC/DOW, BWAM/SBU, June 2005)

### NYSDOH Source Waters Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do

not address the safety or quality of treated finished potable tap water. Though not a Class A water, this waterbody feeds the United Water NY Water Supply. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of residential land in the assessment area results in elevated potential for pathogens, turbidity, nutrients (and DBP precursors) and pesticides. (NYSDOH, Source Water Assessment Program, 2005)

#### Section 303d Listing

The West Branch Hackensack River not is currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2010 List. Due to the unknown nature of the specific pollutants causing the impairment, it is recommended that the listing be added to Part 3b, as a waterbody for which TMDL development is deferred pending the verification of the pollutant/cause. (DEC/DOW, BWAM/WQAS, June 2008)

#### Segment Description

This segment includes the portion of the stream and all tribs above/including unnamed trib (-3) in Centenary. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment are Class C,C(T). Lower West Branch Hackensack is listed with Tribs to DeForest Lake.

# Lake Lucille (1501-0017)

Need Verific

## Waterbody Location Information

Revised: 07/02/2008

<b>Water Index No:</b>	NJ- 1/P977a-12-P982b	<b>Drain Basin:</b>	Hackensack-Ramapo Rivers
<b>Hydro Unit Code:</b>	02030103/160	<b>Str Class:</b>	B
<b>Waterbody Type:</b>	Lake	<b>Reg/County:</b>	3/Rockland Co. (44)
<b>Waterbody Size:</b>	13.3 Acres	<b>Quad Map:</b>	HAVERSTRAW (Q-25-1)
<b>Seg Description:</b>	entire lake		

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Possible
Recreation	Stressed	Possible

### Type of Pollutant(s)

Known: ---  
 Suspected: ALGAL/WEED GROWTH (aquatic vegetation), Nutrients, Silt/Sediment  
 Possible: ---

### Source(s) of Pollutant(s)

Known: ---  
 Suspected: ON-SITE/SEPTIC SYST, URBAN/STORM RUNOFF  
 Possible: Other Source (Waterfowl)

## Resolution/Management Information

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

## Further Details

### Overview

Public bathing and recreational uses in Lake Lucille may experience impacts from algal blooms and excessive aquatic weed growth. Excessive nutrient loadings failing and/or inadequate on-site septic systems serving lake shore camps and year-round residences and runoff from urban/suburban development in the watershed are likely contributors to impacts in the lake. Waterfowl (geese) are another possible source of pollutants.

### Water Quality Sampling

Sampling of the lake through the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) was conducted until 1990. Results appear to support that eutrophic conditions occurred in the lake. However additional more recent sampling is recommended in order to verify current conditions. (DEC/DOW, BWAM/CSLAP, May 2008)

### Lake Uses

This lake waterbody is designated class B, suitable for use as a public bathing beach, general recreation and aquatic life support, but not as a water supply. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate

contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

# Congers Lake, Swartout Lake (1501-0019)

Impaired Seg

## Waterbody Location Information

Revised: 07/14/2008

**Water Index No:** NJ- 1/P977a-13-P984,P984a      **Drain Basin:** Hackensack-Ramapo Rivers  
**Hydro Unit Code:** 02030103/160      **Str Class:** B  
**Waterbody Type:** Lake      **Reg/County:** 3/Rockland Co. (44)  
**Waterbody Size:** 158.6 Acres      **Quad Map:** HAVERSTRAW (Q-25-1)  
**Seg Description:** total area of both lakes

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
Aquatic Life	Stressed	Suspected
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

### Type of Pollutant(s)

Known: ALGAL/WEED GROWTH (vegetation,eutrophication), NUTRIENTS (phosphorus)  
Suspected: Silt/Sediment  
Possible: D.O./Oxygen Demand

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Habitat Modification  
Possible: Agriculture

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 4 (Source Identified, Strategy Needed)  
**Lead Agency/Office:** DOW/Reg3      **Resolution Potential:** Medium  
**TMDL/303d Status:** n/a->1\*

## Further Details

### Overview

Public bathing and other recreational uses in Congers and Swartout Lakes are impaired by aquatic weed and algal growth, the result of high nutrient (phosphorus) concentrations and other eutrophic conditions in the lake. Lake clarity is quite limited and silt/sediment loadings are also a concern. Urban runoff and other nonpoint sources are the most significant contributors to the water quality impacts.

### Water Quality Sampling

Both Congers and Swartout Lakes were sampled as part of the NYSDEC Lake Classification and Inventory (LCI) Program in 2003. Results of this sampling indicate that the lakes are best characterized as eutrophic, or highly productive. Average phosphorus levels (120-140 ug/l) in the lakes easily exceed the state guidance values indicating impacted/stressed recreational uses (20 ug/l). Corresponding transparency measurements were less than one meter, failing to meet what is the recommended minimum for swimming beaches. Urban/stormwater runoff in this highly developed urban/suburban watershed are thought to be a significant source of nutrient and silt/sediment loadings. Some of the

remaining agriculture operations in the watershed may also contribute to the water quality impacts on the lake. Outflow from the lakes feed Lake DeForest, a significant reservoir water supply for the county. (DEC/DOW, BWAM/WQMS, October 2005)

#### Lake Uses

This lake waterbody is designated class B, suitable for use as a public bathing beach, general recreation and aquatic life support, but not as a water supply. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

#### Section 303d Listing

Conger and Swartout Lakes are not currently included on the NYS 2006 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2008 List. It is recommended that the listing for pathogens also be added to Part 1 of the List as Waterbody Requiring TMDL Development (or other strategy to attain water quality standards).

#### Segment Description

Congers Lake its the larger of the two lakes; it is about 3 times the size of Swartout Lake.

# Pascack Brook and tribs, within NYS (1501-0015)

Impaired Seg

## Waterbody Location Information

Revised: 07/01/2008

<b>Water Index No:</b> NJ- 5	<b>Drain Basin:</b> Hackensack-Ramapo Rivers
<b>Hydro Unit Code:</b> 02030103/160	<b>Str Class:</b> C*
<b>Waterbody Type:</b> River	<b>Reg/County:</b> 3/Rockland Co. (44)
<b>Waterbody Size:</b> 16.2 Miles	<b>Quad Map:</b> PARK RIDGE, NJ (Q-24-3)
<b>Seg Description:</b> entire stream and tribs	

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known

### Type of Pollutant(s)

Known: ---  
 Suspected: SILT/SEDIMENT, UNKNOWN TOXICITY, D.O./Oxygen Demand, Nutrients  
 Possible: ---

### Source(s) of Pollutant(s)

Known: ---  
 Suspected: URBAN/STORM RUNOFF, Industrial, Municipal  
 Possible: ---

## Resolution/Management Information

<b>Issue Resolvability:</b> 1 (Needs Verification/Study (see STATUS))	
<b>Verification Status:</b> 2 (Problem Verified, Cause Unknown)	
<b>Lead Agency/Office:</b> DOW/Reg3	<b>Resolution Potential:</b> Medium
<b>TMDL/303d Status:</b> 3b*	

## Further Details

### Overview

Aquatic life and recreational uses in Pascack Brook are impaired by unspecified pollutants attributed to municipal/industrial inputs and urban/stormwater runoff.

### Water Quality Sampling

A biological (macroinvertebrate) assessment of Pascack Brook in Pearl River (at West Washington Street) was conducted in 2002. Sampling results indicated moderately impacted water quality conditions. Biological communities were dominated by facultative filter-feeding caddisflies and species richness was low. Impact Source Determination indicated municipal/industrial influences were the likely source of the impacts. (DEC/DOW, BWAM/SBU, June 2005)

### Section 303d Listing

Pascack Brook not is currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2010 List. Due to the unknown nature of the specific pollutants causing the impairment, it is recommended that the listing be added to Part 3b, as a waterbody for which TMDL development is deferred pending the verification of the pollutant/cause. (DEC/DOW, BWAM/WQAS,

June 2008)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are primarily Class C,C(T), with the lower 100 feet designated Class A. Tribs to this reach/segment are also/primarily Class C.

# Saddle River and tribs (1501-0033)

# MinorImpacts

## Waterbody Location Information

Revised: 06/23/2008

**Water Index No:** NJ- 6 thru 8  
**Hydro Unit Code:** 02030103/130      **Str Class:** C\*  
**Waterbody Type:** River  
**Waterbody Size:** 13.0 Miles  
**Seg Description:** entire stream and tribs, within NYS

**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Rockland Co. (44)  
**Quad Map:** PARK RIDGE, NJ (Q-24-3)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known

### Type of Pollutant(s)

Known: - - -  
Suspected: NUTRIENTS  
Possible: D.O./Oxygen Demand

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: MUNICIPAL, URBAN/STORM RUNOFF  
Possible: Other Sanitary Disch

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 3 (Cause Identified, Source Unknown)  
**Lead Agency/Office:** ext/WQCC      **Resolution Potential:** Medium  
**TMDL/303d Status:** n/a

## Further Details

### Overview

Aquatic life in Saddle River is known to experience minor impacts. These impacts are thought to be the result of nutrient loadings and other pollutants from municipal/industrial inputs and nonpoint urban runoff.

### Water Quality Sampling

A biological (macroinvertebrate) assessment of Saddle River just across the state line in Upper Saddle River, New Jersey (at Lake Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. The fauna was heavily dominated by facultative filter-feeding midges and caddisflies. Municipal/industrial sources were identified as the most likely influence on the sample. (DEC/DOW, BWAM/SBU, June 2005)

### Segment Description

This segment includes the length of Pine Brook (-6), Saddle River (-7) and West Branch Saddle River (-8), within NYS, and all tribs. The waters of the stream are primarily Class C, with the lower 100 feet designated Class A(TS). Tribs to this reach/segment are also primarily Class C.

# Mahwah River, Lower, and tribs (1501-0011)

# MinorImpacts

## Waterbody Location Information

Revised: 07/01/2008

**Water Index No:** NJ-11  
**Hydro Unit Code:** 02030103/090      **Str Class:** A  
**Waterbody Type:** River  
**Waterbody Size:** 13.4 Miles  
**Seg Description:** stream and tribs, from state line to Monfello  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Rockland Co. (44)  
**Quad Map:** RAMSEY, NJ (Q-24-4)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

### Type of Pollutant(s)

Known: ---  
Suspected: NUTRIENTS, Silt/Sediment  
Possible: D.O./Oxygen Demand, Pathogens, Salts

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF  
Possible: ---

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 4 (Source Identified, Strategy Needed)  
**Lead Agency/Office:** ext/WQCC  
**TMDL/303d Status:** n/a  
**Resolution Potential:** Medium

## Further Details

### Overview

Aquatic life and recreational uses in the Mahwah River are known to experience impacts from unspecified pollutants attributed to municipal/industrial inputs and urban/stormwater runoff. Water supply uses of the river are also considered to be threatened due to the considerable amount of residential development, resulting nonpoint source runoff and possible other discharges.

### Water Quality Sampling

A biological (macroinvertebrate) assessment of the Mahwah River in Antrim (at Montebello Road) was conducted in 2002. Sampling results indicated Slightly impacted water quality conditions. Biological communities were dominated by facultative midges, although hellgrammites were also numerous. Impact Source Determination indicated nonpoint nutrient enrichment was the likely source of the impacts. High measurements of specific conductance were also noted, likely reflecting urban/stormwater runoff. (DEC/DOW, BWAM/SBU, June 2005)

#### Segment Description

This segment includes the portion of the stream and all tribs from the state line to/including unnamed tribs (-5) in Montebello. The waters of this portion of the stream are Class A. Tribs to this reach/segment are Class B and C,C(T). Upper Mahwah River is listed separately.



metals and PAHs to be exceeding the Threshold Effects levels. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Based on the consensus of these established assessment methods, overall water quality at this site is considered to support aquatic life, but is thought to be stressed. Water supply uses are also considered to be supported but stressed. (DEC/DOW, BWAM/RIBS, January 2005)

A biological (macroinvertebrate) assessment of the Ramapo River at this site was also conducted in 2002 during the Biological Screening effort in the basin. Sampling results also indicated slightly impacted water quality conditions, however nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2005)

#### Drinking Water Supply

Water supply uses of the Ramapo River experience impacts and threats due to various activities in the watershed. The Ramapo feeds a significant water supply reservoir just downstream of the state border in New Jersey. There are also some concerns about potential impacts on groundwater quality in the watershed. A number of public water supply wells serving the Village of Suffern are located near the river. The Ramapo/Mahwah Aquifer has been designated a "primary aquifer" by NYSDEC. (DEC/DOW, BWRM, January 2008)

#### Previous Sampling

Since the mid 1980s, biological (macroinvertebrate) assessments of the Ramapo have shown steady improvement in water quality in the river attributed to upgrades at the Orange County Sewer District #1 WWTP in Harriman. However the most recent sampling (in 1998) still revealed a minor and short-lived impact on the river below the WWTP to Arden. A measurable impact was also noted above the treatment plant; possible sources include urban runoff in Monroe, golf course runoff, and other upstream point discharges. The lower reach of the river (from Tuxedo Park to Hillburn shows slightly impacted conditions and appears primarily influenced by siltation and nutrient enrichment. (Ramapo River Biological Assessment Report, Bode et al, DEC/DOW BWAR, September 1998)

Past industrial discharges of metals and toxics that are now found in stream sediments are also a concern. One such discharge is paint sludge found in the Torne Brook, from the Ford Motor Company operations at a former plant in Mahwah that operated from 1955 to 1980. In addition The 96-acre Ramapo Town Landfill located along the Ramapo River and Torne Brook is designated a federal (ID no: NYD000511493) and state Superfund site (Site ID: 34-4-004). Substances reportedly disposed of at the landfill include industrial sludge and other wastes from a pharmaceutical company, sewage sludge, municipal refuse, asbestos, construction and demolition debris, yard debris, paint sludge and liquid wastes from a paper company. A leachate collection and treatment system was constructed in the 1980s and regular monitoring to assess possible impacts to surface or groundwater are in place. (DEC/DER, Environmental Site remediation Database, June 2008)

#### Segment Description

This segment includes the portion of the stream and select/smaller tribs from the New Jersey state line to/including Parker Cabin Hollow Creek (-14). The waters of this portion of the stream are Class A,A(T). Tribs to this reach/segment, including Torne Brook (-3), Black Ash Creek (-12) and Parker Cabin Hollow Creek (-14), are Class A,B and C,C(T). Stony Brook (-6) and Middle/Upper Ramapo River are listed separately.

# Ramapo River, Middle, and tribs (1501-0036)

# MinorImpacts

## Waterbody Location Information

Revised: 07/02/2008

**Water Index No:** NJ-12  
**Hydro Unit Code:** 02030103/080      **Str Class:** A(T)  
**Waterbody Type:** River  
**Waterbody Size:** 60.6 Miles  
**Seg Description:** stream and tribs, from Tuxedo Park to Newburg Jct

**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Orange Co. (36)  
**Quad Map:** MONROE (P-24-4)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Known
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)  
Suspected: Silt/Sediment  
Possible: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Municipal  
Possible: - - -

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 4 (Source Identified, Strategy Needed)  
**Lead Agency/Office:** ext/WQCC  
**TMDL/303d Status:** n/a

**Resolution Potential:** Medium

## Further Details

### Overview

Aquatic life and recreational use in this portion of the Ramapo River are known to experience minor impacts due to nutrients, siltation and other pollutants from upstream wastewater discharges, urban/stormwater runoff and other nonpoint sources. Water supply uses are also considered to be threatened by these same pollutants.

### Water Quality Sampling

A biological (macroinvertebrate) survey of the Ramapo River at multiple site from Hillburn to Harriman was conducted in 1998. Sampling results indicated water quality to be slightly impacted at the one site in this reach (in Arden) and at a site below the reach (in Tuxedo Park). The nutrient biotic evaluation determined these effects on the fauna to be minor, and aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2005)

Since the mid 1980s, biological (macroinvertebrate) assessments of the Ramapo have shown steady improvement in water quality in the river attributed to upgrades at the Orange County Sewer District #1 WWTP in Harriman. However the most recent sampling (in 1998) still revealed a minor and short-lived impact on the river below the WWTP to Arden.

A measurable impact was also noted above the treatment plant; possible sources include urban runoff in Monroe, golf course runoff, and other upstream point discharges. The lower reach of the river (from Tuxedo Park to Hillburn shows slightly impacted conditions and appears primarily influenced by siltation and nutrient enrichment. (Ramapo River Biological Assessment Report, Bode et al, DEC/DOW BWAR, September 1998)

#### Drinking Water Supply

Water supply uses of the Ramapo River experience impacts and threats due to various activities in the watershed. The Ramapo feeds a significant water supply reservoir just downstream of the state border in New Jersey. There are also some concerns about potential impacts on groundwater quality in the watershed. A number of public water supply wells serving the Village of Suffern are located near the river. The Ramapo/Mahwah Aquifer has been designated a "primary aquifer" by NYSDEC. (DEC/DOW, BWRM, January 2008)

#### Segment Description

This segment includes the portion of the stream and all tribs from Parker Cabin Hollow Brook (-14) to Sapphire Lake Outlet (-23). The waters of this portion of the stream are Class A(T). Tribs to this reach/segment, including Warwick Brook (-15), Indian Kill Brook (-16), Stahahe Brook (-18), are Class A,B and C,C(T). Lower/Upper Ramapo River are listed separately.

# Ramapo River, Upper, and tribs (1501-0037)

Need Verific

## Waterbody Location Information

Revised: 07/02/2008

**Water Index No:** NJ-12  
**Hydro Unit Code:** 02030103/080      **Str Class:** B  
**Waterbody Type:** River  
**Waterbody Size:** 26.6 Miles  
**Seg Description:** stream and tribs, above Newburg Jct  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Orange Co. (36)  
**Quad Map:** MONROE (P-24-4)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Suspected

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)  
Suspected: D.O./Oxygen Demand, Silt/Sediment  
Possible: ---

### Source(s) of Pollutant(s)

Known: MUNICIPAL (Orange County SD#1), URBAN/STORM RUNOFF  
Suspected: ---  
Possible: ---

## Resolution/Management Information

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

## Further Details

### Overview

Aquatic life and recreational use in this portion of the Ramapo River are known to experience minor impacts due to nutrients, siltation and other pollutants from municipal wastewater discharges, urban/stormwater runoff and other nonpoint sources. It is possible these impact rise to the level of impairment, however additional monitoring to verify current conditions in the stream is recommended.

### Water Quality Sampling

A biological (macroinvertebrate) survey of the Ramapo River at multiple site from Hillburn to Harriman was conducted in 1998. Sampling results in this reach indicated water quality to be moderately impacted. Impact Source Determination suggests multiple municipal/industrial sources and the likely cause of impacts. These could include urban/stormwater runoff, golf course runoff and other nonpoint sources. Previous sampling along this reach were also thought to be influenced by impoundment effects. Impacts from the Orange County Sewer District #1 WWTP are evident below Harriman, but these effects appear to be minor and short-lived. The nutrient biotic evaluation determined these effects on the fauna to be minor, and aquatic life support is considered to be fully supported in the stream. (Ramapo River Biological Assessment Report, Bode et al, DEC/DOW BWAR, September 1998)

### Section 303d Listing

This portion of the Ramapo River not is currently included on the NYS 2008 Section 303(d) List of Impaired Waters. It is possible that impacts to the stream rise to the level of impairment and warrant inclusion on the List. However the most current water quality data is ten years old and additional monitoring to verify current conditions in the stream is necessary to make a listing determination. (DEC/DOW, BWAM/WQAS, June 2008)

### Segment Description

This segment includes the portion of the stream and all tribs above Sapphire Lake Outlet (-23). The waters of this portion of the stream are Class C unnamed pond (P1016m), Class B to Monroe Pond (P1019) and Class C for the remainder of the reach. Tribs to this reach/segment are Class C,C(T). Lower/Middle Ramapo River are listed separately.

# Stony Brook and tribs (1501-0039)

NoKnownImpct

## Waterbody Location Information

Revised: 06/23/2008

**Water Index No:** NJ-12- 6  
**Hydro Unit Code:** 02030103/080      **Str Class:** C(T)\*  
**Waterbody Type:** River  
**Waterbody Size:** 18.4 Miles  
**Seg Description:** entire stream and tribs  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Rockland Co. (44)  
**Quad Map:** SLOATSBURG (Q-24-1)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Resolution/Management Information

**Issue Resolvability:** 8 (No Known Use Impairment)  
**Verification Status:** (Not Applicable for Selected RESOLVABILITY)  
**Lead Agency/Office:** n/a      **Resolution Potential:** n/a  
**TMDL/303d Status:** n/a

## Further Details

### Water Quality Sampling

A biological (macroinvertebrate) assessment of Stony Brook in Sloatsburg (at Seven Lakes Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The fauna was dominated by clean-water mayflies, with stoneflies, caddisflies and dragon flies also present. (DEC/DOW, BWAM/SBU, June 2005)

### Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are primarily Call C(T), with small portions (below the dam near unnamed trib (-1) and above Diamond Creek (-5)) designated Class B. Tribs to this reach/segment, including Spring Brook (-2), Pine Meadow Brook (-3) and Diamond Creek (-5), are Class B and C(T).

# Tuxedo Lake (1501-0050)

**Threat(Poss)**

## Waterbody Location Information

Revised: 07/14/2008

<b>Water Index No:</b> NJ-12-15-P1007	<b>Drain Basin:</b> Hackensack-Ramapo Rivers
<b>Hydro Unit Code:</b> 02030103/080	<b>Str Class:</b> AA(T)
<b>Waterbody Type:</b> Lake	<b>Reg/County:</b> 3/Orange Co. (36)
<b>Waterbody Size:</b> 290.9 Acres	<b>Quad Map:</b> SLOATSBURG (Q-24-1)
<b>Seg Description:</b> entire lake	

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

<b>Use(s) Impacted</b> Water Supply	<b>Severity</b> Threatened	<b>Problem Documentation</b> Possible
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### Type of Pollutant(s)

Known: ---  
 Suspected: ---  
 Possible: OTHER POLLUTANTS

### Source(s) of Pollutant(s)

Known: ---  
 Suspected: ---  
 Possible: OTHER SOURCE (unspecified)

## Resolution/Management Information

<b>Issue Resolvability:</b> 3 (Strategy Being Implemented)	
<b>Verification Status:</b> 5 (Management Strategy has been Developed)	
<b>Lead Agency/Office:</b> ext/WQCC	<b>Resolution Potential:</b> High
<b>TMDL/303d Status:</b> n/a	

## Further Details

### Overview

Water supply use of Tuxedo Lake may experience threats from various pollutants attributed to urban/stormwater runoff and other nonpoint sources.

### NYSDOH Source Water Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. This water supply reservoir provides water to Tuxedo Park Village. This assessment found a moderate susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. Non-sanitary wastewater discharges may contribute to contamination, but there are no noteworthy contamination threats associated with other discrete contaminant sources. (NYSDOH, Source Water Assessment Program, 2005)

### Drinking Water Protection

The designation of this waterbody as a threatened water is reflective of a need to protect its particular resource value, rather than specifically identified threats. Although there are no specific water quality impacts, the segment is considered a highly valued water resource due to its [drinking water supply classification as a AA(T) water. The inclusion of this waterbody on the DEC/DOW Priority Waterbodies List as a Threatened water is a reflection of the particular resource value reflected in this designation and the need to provide additional protection, rather than any specifically identified threats.

# Mombasha Lake, Kloibers Pond (1501-0002)

# Minor Impacts

## Waterbody Location Information

Revised: 07/11/2008

**Water Index No:** NJ-12-17-P1008..P1010,P1010b  
**Hydro Unit Code:** 02030103/080      **Str Class:** A  
**Waterbody Type:** Lake  
**Waterbody Size:** 335.0 Acres  
**Seg Description:** total area of both lakes  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Orange Co. (36)  
**Quad Map:** MONROE (P-24-4)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected

### Type of Pollutant(s)

Known: - - -  
Suspected: NUTRIENTS (phosphorus), Silt/Sediment  
Possible: Pathogens, Salts

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: URBAN/STORM RUNOFF, On-Site/Septic Syst  
Possible: Deicing (stor/appl), Streambank Erosion

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 4 (Source Identified, Strategy Needed)  
**Lead Agency/Office:** ext/WQCC  
**TMDL/303d Status:** n/a  
**Resolution Potential:** Medium

## Further Details

### Overview

Recreational uses in Mombasha Lake are thought to experience minor impacts/threats due to nutrient loads and other pollutants from various nonpoint sources.

### Water Quality Sampling

Mombasha Lake was sampled as part of the NYSDEC Lake Classification and Inventory (LCI) Program in 2003. Results of this sampling indicate that the lake is best characterized as mesoeutrophic, or moderately to highly productive. Average phosphorus levels in the lake for the sampling period (26 ug/l) slightly exceeded the state guidance values indicating impacted/stressed recreational uses (20 ug/l). Corresponding transparency measurements typically meet what is the recommended minimum for swimming beaches. Potential sources of pollutants include runoff from urban/suburban development, failing and/or inadequate on-site septic systems serving lake shore residences, and other nonpoint sources. These sources may also contribute pathogens to the lake, however sampling to investigate this possibility has not been conducted. (DEC/DOW, BWAM/CSLAP, October 2005)

### Drinking Water Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply sources. This information - which is contained in SWAP assessment reports - assists in the oversight and protection of public water systems. It is important to note that SWAP assessments evaluate the potential for untreated drinking water sources to be impacted by contamination. These assessments do not address the safety or quality of treated finished potable tap water. Drinking water supplies taken from this waterbody include the Village of Monroe. This assessment found no significant sources of contamination in this watershed and the overall susceptibility of this watershed to potential sources of contamination was found to be low. (NYSDOH, Source Water Assessment Program, 2005)

### Segment Description

Mombasha Lake comprises most (96%) of the lake area of this segment; Kloibers Pond is less than 10 acres.

# Lake Stahahe (1501-0053)

Threat(Poss)

## Waterbody Location Information

Revised: 07/14/2008

<b>Water Index No:</b>	NJ-12-18-P1011	<b>Drain Basin:</b>	Hackensack-Ramapo Rivers
<b>Hydro Unit Code:</b>	02030103/080	<b>Str Class:</b>	A
<b>Waterbody Type:</b>	Lake	<b>Reg/County:</b>	3/Orange Co. (36)
<b>Waterbody Size:</b>	88.1 Acres	<b>Quad Map:</b>	SLOATSBURG (Q-24-1)
<b>Seg Description:</b>	entire lake		

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

<b>Use(s) Impacted</b>	<b>Severity</b>	<b>Problem Documentation</b>
Water Supply	Threatened	Possible

### Type of Pollutant(s)

Known: ---  
 Suspected: ---  
 Possible: OTHER POLLUTANTS (unspecified), Pathogens

### Source(s) of Pollutant(s)

Known: ---  
 Suspected: ---  
 Possible: MUNICIPAL, OTHER SOURCE (unspecified), Private/Comm/Inst

## Resolution/Management Information

<b>Issue Resolvability:</b>	3 (Strategy Being Implemented)	
<b>Verification Status:</b>	5 (Management Strategy has been Developed)	
<b>Lead Agency/Office:</b>	ext/WQCC	<b>Resolution Potential:</b> High
<b>TMDL/303d Status:</b>	n/a	

## Further Details

### Overview

Water supply use of Lake Stahahe is thought to experience threats from various pollutants attributed to wastewater discharges, urban/stormwater runoff and other nonpoint sources.

### NYSDOH Source Water Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. This assessment found an elevated susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. There is also a moderate density of sanitary wastewater discharges which results in elevated susceptibility for numerous contaminant categories. In addition, it is appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to further raise the potential for contamination (NYSDOH, Source Water Assessment Program, 2005)

# Echo Lake (1501-0054)

NoKnownImpct

## Waterbody Location Information

Revised: 07/14/2008

**Water Index No:** NJ-12-20-P1014  
**Hydro Unit Code:** 02030103/080      **Str Class:** A  
**Waterbody Type:** Lake  
**Waterbody Size:** 17.9 Acres  
**Seg Description:** entire lake  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Orange Co. (36)  
**Quad Map:** MONROE (P-24-4)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Resolution/Management Information

**Issue Resolvability:** 8 (No Known Use Impairment)  
**Verification Status:** (Not Applicable for Selected RESOLVABILITY)  
**Lead Agency/Office:** n/a      **Resolution Potential:** n/a  
**TMDL/303d Status:** n/a

## Further Details

### NYSDOH Source Water Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. This assessment found a moderate potential risks to drinking water quality. Land cover within the assessment area does not increase the susceptibility ratings (to contamination). Permitted discharges do not represent an important risk to drinking water quality. There are no noteworthy contamination risks associated with other discrete contaminant sources. Additional sources of potential contamination include septic tanks and oil tanks (NYSDOH, Source Water Assessment Program, 2005)

# Sterling Lake (1501-0068)

NoKnownImpct

## Waterbody Location Information

Revised: 07/14/2008

<b>Water Index No:</b> NJ-13-P1025	<b>Drain Basin:</b> Hackensack-Ramapo Rivers
<b>Hydro Unit Code:</b> 02030103/060	<b>Str Class:</b> A
<b>Waterbody Type:</b> Lake	<b>Reg/County:</b> 3/Orange Co. (36)
<b>Waterbody Size:</b> 293.7 Acres	<b>Quad Map:</b> GREENWOOD LAKE (Q-23-2)
<b>Seg Description:</b> entire lake	

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Resolution/Management Information

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

## Further Details

### NYSDOH Source Water Assessment

The NYSDOH Source Water Assessment Program (SWAP) compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination. These reports do not address the safety or quality of treated finished potable tap water. This water supply reservoir provides water to Sterling Lake. Based on the analysis of available information, this drinking water source does not have an elevated susceptibility to contamination. There are no regulated facilities within this watershed and the corresponding land cover does not pose any substantial risks to the source water quality. (NYSDOH, Source Water Assessment Program, 2005)

# Greenwood Lake (1501-0001)

# Impaired Seg

## Waterbody Location Information

Revised: 07/01/2008

**Water Index No:** NJ-P1026  
**Hydro Unit Code:** 02030103/060      **Str Class:** A(T)?  
**Waterbody Type:** Lake  
**Waterbody Size:** 1074.7 Acres  
**Seg Description:** entire lake, within NYS  
**Drain Basin:** Hackensack-Ramapo Rivers  
**Reg/County:** 3/Orange Co. (36)  
**Quad Map:** GREENWOOD LAKE (Q-23-2)

## Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

### Type of Pollutant(s)

Known: ALGAL/WEED GROWTH (algal blooms, vegetation), NUTRIENTS (phosphorus)  
 Suspected: Silt/Sediment  
 Possible: ---

### Source(s) of Pollutant(s)

Known: ON-SITE/SEPTIC SYST, OTHER SOURCE (nutrient recycling), URBAN/STORM RUNOFF  
 Suspected: ---  
 Possible: ---

## Resolution/Management Information

**Issue Resolvability:** 3 (Strategy Being Implemented)  
**Verification Status:** 5 (Management Strategy has been Developed)  
**Lead Agency/Office:** ext/WQCC      **Resolution Potential:** Medium  
**TMDL/303d Status:** 4a (TMDL Complete, Being Implemented, Not Listed)

## Further Details

### Overview

Recreational uses in Greenwood Lake are impaired by are impaired by algal blooms and excessive aquatic weed growth, the result of elevated phosphorus loadings. The sources of these loads include nonpoint urban/stormwater runoff, residential on-site wastewater treatment systems and in lake recycling of nutrients.

### Water Quality Sampling

Various water quality studies have been conducted on the lake. These studies show that the annual in-lake concentration of phosphorus between 1981 and 2001 ranged from about 20 to 40 ug/l, with an average concentration of 32 ug/l of total phosphorus. These results compare well with the results of a modeling effort conducted by NJDEP to support TMDL development for the lake. Additional monitoring to evaluate the contributions of various sources to nutrient loads in the lake is continuing. (Greenwood Lake TMDL, DEC/DOW, BWAM/WQMS, September 2005)

### Water Quality Management

Complementary Section 319(h) Nonpoint Source Grants in New York and New Jersey were funded in 2004 develop and

implement a Lake Characterization and Restoration Plan for Greenwood Lake. The grant will provide monitoring data for the development of a Phase II TMDL, prioritization of stormwater issues on a sub-watershed basis, and in-the-ground installation of stormwater BMPs based on the prioritization. The effort will also provide refined source estimates based on the monitoring, reduction efficiencies, and address the ecological nuances of the shallow NJ portion of the lake and the deeper NY portion. (DEC/DOW, BWAM/WQMS, September 2005)

#### Section 303d Listing

Greenwood Lake was included on the NYS 2004 Section 303(d) List of Impaired Waters. However a TMDL was established for the lake in September 2005 and the lake was delisted during development of the 2008 Section 303(d) List. (DEC/DOW, BWAM/WQAS, May 2006)

#### Segment Description

This segment includes the northern portion of the lake that lies within New York State. This represents about 57% of the 1,884 acre lake, the remainder of the lake lies in New Jersey.

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