



## West Branch French Creek Watershed (0501000401)

Water Index Number	Waterbody Segment	Category
Pa-81	French Creek, Lower, and minor tribs (0202-0015)	Minor Impacts
Pa-81	French Creek, Middle, and minor tribs (0202-0063)	Minor Impacts
Pa-81	French Creek, Upper, and tribs (0202-0064)	UnAssessed
Pa-81- 7	Beaver Meadow Brook and tribs (0202-0065)	UnAssessed
Pa-81-10	Black Brook and tribs (0202-0066)	Need Verification
Pa-81-16,17	South Parks/Parks Brook, and tribs (0202-0067)	UnAssessed
Pa-81-25	Alder Bottom Creek and tribs (0202-0068)	UnAssessed
Pa-81-26	Mansion Creek and tribs (0202-0069)	UnAssessed
Pa-82,83	Minor Tribs to Pennsylvania (0202-0070)	UnAssessed
Pa-84	West Branch French Creek and tribs (0202-0071)	UnAssessed
Pa-84- 2-P153	Findley Lake (0202-0004)	Impaired

# French Creek, Lower, and Minor Tribs (0202-0015)

# Minor Impacts

## Waterbody Location Information

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Revised: 07/01/2014

**Water Index No:** Pa-81  
**Unit Code:** 0501000401      **Class:** A  
**Water Type/Size:** River      32.1 Miles  
**Description:** stream and selected tribs, fr PA line to French Creek

**Drain Basin:** Allegheny River  
French Creek  
**Reg/County:** 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Known
Fish Consumption	Unassessed	-

### Conditions Evaluated

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)  
Suspected: Pesticides  
Unconfirmed: - - -

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

Known: AGRICULTURE  
Suspected: - - -  
Unconfirmed: - - -

## Management Information

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**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## Further Details

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### Overview

Lower French Creek is assessed as having minor impacts due to aquatic life that is known to be stressed by nutrients from nonpoint agricultural runoff. Pesticides may also be contributing to the impacts.

### Use Assessment

Lower French Creek is a Class A waterbody, suitable for use as a water supply and public bathing beach, as well as for general recreation and support of aquatic life.

Aquatic life is considered to be supported but stressed, based on biological sampling of the stream. This

sampling can also be used to infer that there is minor impact to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

#### Water Quality Information

A biological (macroinvertebrate) assessment of French Creek in French Creek (Marvin Road) was conducted as part of the RIBS biological screening effort in 2011. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. Aquatic life is supported. Evaluation of both in-stream and riparian habitat reflect conditions minimally influenced by human disturbance. Habitat does not limit the survival of aquatic life. (DEC/DOW, BWAM/SBU, July 2014)

Biological assessment of French Creek in Marvin (at Gilmore Road) found slightly impacted water quality conditions in 2001. A multiple-site survey of French Creek in 1996 found water quality ranged from non to slightly impacted at 4 sites (including 2 in this reach). Water quality appeared to be influenced by upstream land use, with hilly, non-agricultural drainage resulting in nonimpacted conditions, while more agricultural watersheds result in slight impacts. (DEC/DOW, BWAM/SBU, June 2005)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of nutrients and pesticides in the waterbody is agricultural nonpoint source runoff. (DEC/DOW, BWAM/SBU, July 2014)

#### Management Action

No specific management actions have been identified for this waterbody.

#### Section 303(d) Listing

Lower French Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM/WQAS, July 2014)

#### Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the PA state line mouth to unnamed trib -13 near French Creek. The waters of this portion of the stream are Class C from the mouth to trib Black Brook (-10), Class B from Black Brook to unnamed trib (-11), Class C from unnamed trib -11 to unnamed trib -12, and Class A from unnamed trib -12 to unnamed trib -13. Tribs to this reach/segment, including Herrick Creek (-2), are also/primarily Class C; with some waters designated Class B. Beaver Meadow Brook (-7) and Black Brook (-10) are listed separately.

# French Creek, Middle, and Minor Tribs (0202-0063)

# Minor Impacts

## Waterbody Location Information

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Revised: 07/01/2014

**Water Index No:** Pa-81  
**Unit Code:** 0501000401      **Class:** C  
**Water Type/Size:** River      57.8 Miles  
**Description:** stream and selected tribs, fr French Creek to Sherman

**Drain Basin:** Allegheny River  
French Creek  
**Reg/County:** 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Known
Fish Consumption	Unassessed	-

### Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Good

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)  
Suspected: Pesticides  
Unconfirmed: - - -

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

Known: AGRICULTURE  
Suspected: - - -  
Unconfirmed: - - -

## Management Information

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**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## FurtherDetails

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### Overview

Middle French Creek is assessed as having minor impacts due to aquatic life that is known to be stressed by nutrients from nonpoint agricultural runoff. Pesticides may also be contributing to the impacts.

### Use Assessment

Middle French Creek is a Class C waterbody, suitable for general recreation and support of aquatic life, but not for use as a water supply or public bathing beach.

Aquatic life is considered to be supported but stressed, based on biological sampling of the stream. This

sampling can also be used to infer that there is minor impact to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

#### Water Quality Information

A biological (macroinvertebrate) assessment of French Creek in Marks Corners (at Marks Road) was conducted as part of a nutrient study in 2008. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. Aquatic life is supported. Chemical sampling revealed elevated levels of nutrients, with phosphorus concentration typical of stressed waters. Information on the habitat condition and any resulting influence on biology is not available. Biological sampling conducted during the RIBS biological screening effort in 2006 found significantly better water quality, however it is not clear whether water quality has since declined or if the 2006 sample was anomalous. (DEC/DOW, BWAM/SBU, July 2014)

A multiple-site survey of French Creek in 1996 found water quality ranged from non to slightly impacted at 4 sites (including 2 in this reach). Water quality appeared to be influenced by upstream land use, with hilly, non-agricultural drainage resulting in nonimpacted conditions, while more agricultural watersheds result in slight impacts. (DEC/DOW, BWAM/SBU, June 2005)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of nutrients and pesticides in the waterbody is agricultural nonpoint source runoff. (DEC/DOW, BWAM/SBU, July 2014)

#### Management Action

No specific management actions have been identified for this waterbody.

#### Section 303(d) Listing

Middle French Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM/WQAS, July 2014)

#### Segment Description

This segment includes the portion of the stream and selected/smaller tribs from unnamed trib -13 near French Creek to P152 near Sherman. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also primarily Class C; with some waters designated Class B. An unnamed trib and Parks Creek (-16 and -17), Alder Bottom Creek (-25) and Mansion Creek (-26) are listed separately.

# French Creek, Upper, and Minor Tribs (0202-0064)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b> Pa-81	<b>Drain Basin:</b> Allegheny River
<b>Unit Code:</b> 0501000401	<b>Class:</b> B
<b>Water Type/Size:</b> River 26.5 Miles	<b>Reg/County:</b> 9/Chautauqua Co. ( 7)
<b>Description:</b> stream and tribs, above Sherman	

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Unconfirmed: ---

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

Known: ---  
Suspected: ---  
Unconfirmed: ---

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the portion of the stream and all tribs above unnamed pond (P152) near Sherman. The waters of this portion of the stream are Class B. Tribs to this reach/segment, including Myrick Creek (-31) and Crosscut Creek (-32), are primarily Class C,C(T); with some waters designated Class B.

# Beaver Meadow Brook and tribs (0202-0065)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b>	Pa-81- 7	<b>Drain Basin:</b>	Allegheny River
<b>Unit Code:</b>	0501000401	<b>Class:</b>	B
<b>Water Type/Size:</b>	River		31.3 Miles
<b>Description:</b>	entire stream and tribs		<b>Reg/County:</b> 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Unconfirmed: ---

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

Known: ---  
Suspected: ---  
Unconfirmed: ---

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class B. Tribs to this reach/segment, including Cutting Brook (-1), are Class C.

# Black Brook and tribs (0202-0066)

# Minor Impacts

## Waterbody Location Information

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Revised: 12/21/2014

<b>Water Index No:</b>	Pa-81-10	<b>Drain Basin:</b>	Allegheny River
<b>Unit Code:</b>	0501000401	<b>Class:</b>	B
<b>Water Type/Size:</b>	River		7.2 Miles
<b>Description:</b>	entire stream and tribs		<b>Reg/County:</b> 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Impaired	Suspected
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Good

### Type of Pollutant(s)

Known:	---
Suspected:	CHLORINE
Unconfirmed:	---

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

Known:	---
Suspected:	---
Unconfirmed:	PRIV/COMM/INST DISCH (Ski Resort)

## Management Information

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<b>Management Status:</b>	Verification of Problem Severity Needed
<b>Lead Agency/Office:</b>	DOW/BWAM
<b>IR/305(b) Code:</b>	Water with Insufficient Data (IR Category 3)

## Further Details

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Black Brook is assessed as having minor impacts due to aquatic life that is known to be at least stressed and may be impaired by unconfirmed pollutants. Wastewater and/or toxic inputs from an area ski resort are possible causes of impact/impairment. Additional monitoring to verify the magnitude of the water quality impact/impairment and sources is necessary.

### Use Assessment

Black Brook is a Class B waterbody, suitable for public bathing beach, general recreation and support of aquatic life, but not as a water supply.

Aquatic life is known to be stressed and biological sampling of the stream suggests impacts may rise to the level

of impaired. However this evaluation is based on a single sample, and additional sampling in a separate year is necessary to confirm an impairment. (DEC, DOW, BWAM, July 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

#### Water Quality Information

A biological (macroinvertebrate) assessment of Black Brook in Clymer (at Conway Road) was conducted as part of the RIBS biological screening effort in 2006. Sampling results indicated moderately impacted (impaired) water quality. The macroinvertebrate community was altered from natural conditions and reflected poor water quality. Many species indicative of good water quality are missing, and the contribution of major taxonomic groups reflects an unbalanced community. Information on the habitat condition and any resulting influence on biology is not available. (DEC/DOW, BWAM/SBU, July 2014)

#### Source Assessment

Specific sources of pollutants to this waterbody have not been identified. Biological sampling suggests communities may have been affected by municipal or toxic inputs. The sampling was conducted below a wastewater treatment plant for a ski area (Peek 'n Peak) that was subsequently upgraded to address issues with chlorination and dechlorination. The upgrade was completed in September 2011. Follow-up sampling should be conducted to determine if the upgrade has resolved the impacts to the stream. (DEC/DOW, BWAM and Reg 9, July 2014)

#### Management Action

No specific management actions have been identified for waterbody, beyond the previously completed plant upgrade at the ski resort. Follow-up sampling is needed to verify current conditions. (DEC/DOW, BWAM and Region 9, October 2014)

#### Section 303(d) Listing

Black Brook is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. However this updated assessment suggests it may be appropriate to include this waterbody on the next List, pending additional sampling to verify an impairment. (DEC/DOW, BWAM, July 2014)

#### Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class B. Tribs to this reach/segment are also Class B.

# South Parks/Parks Brooks, and tribs (0202-0067)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b>	Pa-16, 17	<b>Drain Basin:</b>	Allegheny River
<b>Unit Code:</b>	0501000401	<b>Class:</b>	B
<b>Water Type/Size:</b>	River		10.4 Miles
<b>Description:</b>	total length of both stream and tribs		
		<b>Reg/County:</b>	9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Unconfirmed: ---

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

Known: ---  
Suspected: ---  
Unconfirmed: ---

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the total length of both South Parks Brook (-16), and Parks Brook (-17) and all tribs to these streams. The waters of these streams and their tribs are Class B.

# Alder Bottom Creek and tribs (0202-0068)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b>	Pa-81-25	<b>Drain Basin:</b>	Allegheny River
<b>Unit Code:</b>	0501000401	<b>Class:</b>	C
<b>Water Type/Size:</b>	River		French Creek
<b>Description:</b>	entire stream and tribs	<b>Reg/County:</b>	9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	N/A	
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Unconfirmed: ---

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

Known: ---  
Suspected: ---  
Unconfirmed: ---

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

**Segment Description** This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including Perkins Creek (-3), are Class C,C(T).

# Mansion Creek and tribs (0202-0069)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b>	Pa-81-26	<b>Drain Basin:</b>	Allegheny River
<b>Unit Code:</b>	0501000401	<b>Class:</b>	B
<b>Water Type/Size:</b>	River		4.8 Miles
<b>Description:</b>	entire stream and tribs		<b>Reg/County:</b> 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

### Type of Pollutant(s)

Known: ---  
Suspected: ---  
Unconfirmed: ---

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

Known: ---  
Suspected: ---  
Unconfirmed: ---

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class B. Tribs to this reach/segment are also Class B.

# Minor Tribes to Pennsylvania (0202-0070)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

**Water Index No:** Pa-82, 83      **Drain Basin:** Allegheny River  
**Unit Code:** 0501000401      **Class:** C(T)\*      French Creek  
**Water Type/Size:** River      8.5 Miles      **Reg/County:** 9/Chautauqua Co. ( 7)  
**Description:** total length of selected/smaller tribes to PA

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	N/A	
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

### Type of Pollutant(s)

Known:      - - -  
Suspected:      - - -  
Unconfirmed:      - - -

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

Known:      - - -  
Suspected:      - - -  
Unconfirmed:      - - -

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the total length of selected/smaller tribes flowing into Pennsylvania. Tribes within this segment, including Darrow Brook, are primarily Class C(T); with some waters designated Class B.

# West Branch French Creek and tribs (0202-0071)

Unassessed

## Waterbody Location Information

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Revised: 07/01/2014

<b>Water Index No:</b> Pa-84	<b>Drain Basin:</b> Allegheny River
<b>Unit Code:</b> 0501000401 <b>Class:</b> C	French Creek
<b>Water Type/Size:</b> River      41.5 Miles	<b>Reg/County:</b> 9/Chautauqua Co. ( 7)
<b>Description:</b> entire stream and tribs, w/in NYS	

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	
Public Bathing	N/A	
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known:      - - -  
Suspected:      - - -  
Unconfirmed:      - - -

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

Known:      - - -  
Suspected:      - - -  
Unconfirmed:      - - -

## Management Information

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**Management Status:** Unassessed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water with Insufficient Data (IR Category 3)

## Further Details

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### Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

### Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Findlay Lake Outlet (-2), are Class C.

# Findley Lake (0202-0004)

**Impaired**

## Waterbody Location Information

Revised: 02/26/2014

**Water Index No:** Pa-84- 2-P153  
**Unit Code:** 0501000401      **Class:** B  
**Water Type/Size:** Lake      307.1 Acres  
**Description:** entire lake

**Drain Basin:** Allegheny River  
French Creek  
**Reg/County:** 9/Chautauqua Co. ( 7)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Poor

### Type of Pollutant(s)

Known: ALGAL/PLANT GROWTH (native), HARMFUL ALGAL BLOOMS, NUTRIENTS (Phosphorus), D.O./OXYGEN DEMAND,  
Suspected: Aquatic Invasive Species  
Unconfirmed: - - -

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

Known: AGRICULTURE, ONSITE/SEPTIC SYSTEMS  
Suspected: Habitat Alteration  
Unconfirmed: - - -

## Management Information

**Management Status:** Strategy Implementation Scheduled/Underway **Lead**  
**Agency/Office:** DOW/Reg9  
**IR/305(b) Code:** Impaired Water,TMDL Completed (IR Category 4a)

## Further Details

### Overview

Findley Lake is assessed as an impaired waterbody due to recreation uses that are known to be impaired by nutrients (phosphorus), excessive algae, poor water clarity, and shoreline harmful algal blooms from onsite/septic systems and agricultural sources. Public bathing use is also impacted by these conditions, although additional monitoring is necessary to determine if the use is impaired. The aesthetic condition of the lake and associated recreational activities are also affected by excessive aquatic vegetation and the presence of invasive plants. It is frequently reported by the public that the lake “looks bad.”

## Use Assessment

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.

Recreation use is considered to be impaired by elevated nutrients (phosphorus), excessive algae, poor water clarity, and shoreline harmful algal blooms. Additional bacteriological sampling is needed to evaluate pathogen levels and the impact on public bathing (swimming) use. Conditions suggest at least stresses to public bathing. Non-contact recreation (boating, fishing) is also affected by excessive aquatic vegetation and the presence of invasive plant growth (Eurasian watermilfoil, curly leafed pondweed). Aesthetic conditions of the lake are considered to be poor due to excessive algae, shoreline algal blooms and excessive aquatic vegetation. It is frequent reported by citizen volunteers that the lake "looks bad." (DEC/DOW, BWAM/CSLAP, July 2013)

There are no known restrictions to aquatic life. Concerns have been noted regarding hypolimnetic oxygen depletion impacts on aquatic life support, however tiger muskie and walleye have been stocked by NYSDEC, and the lake provides a good smallmouth bass and largemouth bass fishery. (DEC/DFWMR, Region 9, January 2007)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water quality monitoring by NYSDEC lakes programs focuses primarily on the 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 are not usually collected as part of these monitoring programs. Monitoring to assess public bathing use and assessments of restrictions on fish consumption are generally the responsibility of state and/or local health departments.

## Water Quality Information

Findley Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1986 and continuing through 2012. CSLAP reports are issued annually and are available on the DEC and NYSFOLA websites. These data indicate that the lake continues to be best characterized as eutrophic, or highly productive. Phosphorus levels in the lake typically exceed both the state guidance values of 20 ug/l, as well as the assessment criteria for chlorophyll a, indicative of high algae levels. Lake clarity is often restricted, with water transparency less than what is minimally recommended for swimming beaches. Nutrient (phosphorus and ammonia) levels at the lake bottom are usually elevated suggesting the bottom waters are poorly oxygenated and contribute to increases in surface water nutrient levels throughout the summer. This deepwater oxygen deficit was recorded in the lake at least back to the 1930s. Readings of pH typically fall within the state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/CSLAP, July 2013)

The Lake experiences summer algal blooms and shows a high susceptibility for harmful algal blooms (HABs). High levels of blue green algae have been found in the open water and extremely high blue green algae concentrations in shoreline blooms have been noted. Analysis of shoreline algal blooms indicates algal toxin levels exceeding the criteria for public bathing, although open water levels were below this threshold. Cyanobacteria also suggest some threat to pets that come into contact with the water. (DEC/DOW, BWAM/CSLAP, July 2013)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates the recreational suitability of the lake to be somewhat unfavorable. The lake is described most frequently as "slightly" impacted for most recreational uses, and occasionally described as "substantially"

impacted. These impacts were often associated with excessive algae or poor water clarity, and somewhat less frequently with excessive weeds. Aquatic plants are dominated by a mix of native and non-native species (though invasives may be on the decline) and have been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, July 2013)

#### Source Assessment

Evaluation of sources of nutrient (phosphorus) loading to the Lake and estimates of the corresponding loads of each were conducted as part of the 2008 TMDL for Phosphorus in Findley Lake. The TMDL identified contributions from residential onsite wastewater treatment (septic) systems and nonpoint source runoff from agricultural activities (primarily cropland production) as the primary sources. Loading from groundwater transport of nutrients was also noted. Internal loading (nutrient recycling) was not considered in the development of the TMDL due to lack of data to confirm internal loading contribution. However, the TMDL acknowledged the need for additional monitoring to determine if phosphorus migrates from the hypolimnion to the epilimnion, and if phosphorus release from sediment plays a significant role in phosphorus loading in Findley Lake. (DEC/DOW, BWM, TMDL for Phosphorus for Findley Lake, September 2008)

#### Management Action

A TMDL for addressing phosphorus loadings to the Lake was completed in 2008 and is currently being implemented. The TMDL includes specific management strategies to address residential septic systems, agricultural runoff, and urban stormwater management. (DEC/DOW, BWRM, TMDL for Phosphorus for Findley Lake, September 2008)

Findley Lake is served by the Findley Lake Watershed Foundation. The lake association is involved in a variety of lake management activities focused on water level control, shoreline stabilization, aquatic vegetation control (weed harvesting) and maintenance of navigation buoys. The Findley Lake Watershed Foundation maintains a website at <http://www.flwf.org/>.

#### 303(d) Listing Information

Findley Lake is not included on Section 303(d) List. The Lake was added to the List in 2004 due to impairments from phosphorus and low dissolved oxygen. The Lake was subsequently delisted in 2008 due to the completion of a TMDL to address phosphorus and resulting low dissolved oxygen. Note that delisting the waterbody due to the completion of a TMDL does not necessarily mean impaired uses have been restored. (DEC/DOW, BWAM, July 2013)

#### Segment Description

This segment includes the entire area of the lake.