

# FIBI072-R3

## Middle Brook

Talmage Avenue

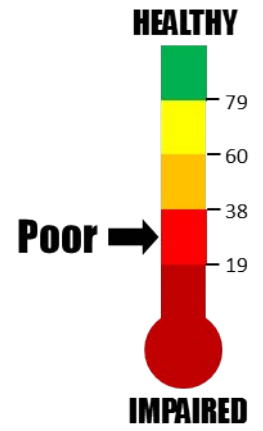
Municipality: Bound Brook Boro

County: Somerset

Drainage Area (sq miles): 17

Sample Date: 06/27/2014

Site Type: Fixed



### IBI Metrics

Metric 1-%Rheophilic Richness	33.10
Metric 2-%Cold Non-tolerant Coolwater	9.92
Metric 3-%Generalist Richness	51.13
Metric 4-Tolerance Index	46.97
Metric 5-%Lithophilic Richness	38.13
Metric 6-%Cyprinidae	3.65
Metric 7-%Dominant 3 Taxa	20.34
Metric 8-%Benthic Insectivore Richness	41.83

### Field Chemistry

Air Temp (°C)	33.5
Water Temperature (°C)	23.95
Dissolved Oxygen (mg/L)	10.38
% Saturation	120.1
pH	6.36
Conductivity (µS/cm)	410

***Northern Fish IBI Score (0-100): 30.63***

***IBI Rating: Poor***

***High Gradient Habitat Score (0-200): 91***

***Habitat Rating: Marginal***

**Summary:** FIBI072 lacks a riparian buffer and bank vegetation and as a result the stream has over 50% open canopy allowing excessive light penetration which can warm the stream and cause heavy periphyton growth. The two metrics which scored the lowest are indicators of elevated water temperatures (%Cold Non-tolerant Coolwater) and substrate/riffle habitat impairments (%Cyprinidae). Overall 8 minnow taxa were collected, but the combined relative abundance was low. The water temperature measured in late June was the second highest temperature recorded at any FIBI station in 2014.

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## **Middle Brook**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Abundance</b>
Redbreast Sunfish	<i>Lepomis auritus</i>	425
American Eel	<i>Anguilla rostrata</i>	276
Banded Killifish	<i>Fundulus diaphanus</i>	66
Tessellated Darter	<i>Etheostoma olmstedii</i>	54
White Sucker	<i>Catostomus commersoni</i>	41
Blacknose Dace	<i>Rhinichthys atratulus</i>	36
Common Shiner	<i>Luxilus cornutus</i>	14
Creek Chub	<i>Semotilus atromaculatus</i>	8
Pumpkinseed	<i>Lepomis gibbosus</i>	8
Bluegill	<i>Lepomis macrochirus</i>	7
Longnose Dace	<i>Rhinichthys cataractae</i>	7
Green Sunfish	<i>Lepomis cyanellus</i>	6
Swallowtail Shiner	<i>Notropis procne</i>	5
Largemouth Bass	<i>Micropterus salmoides</i>	4
Spottail Shiner	<i>Notropis hudsonius</i>	2
Margined Madtom	<i>Noturus insignis</i>	2
Yellow Bullhead	<i>Ameiurus natalis</i>	2
Eastern Silvery Minnow	<i>Hybognathus regius</i>	1
Golden Shiner	<i>Notemigonus crysoleucas</i>	1