

# FIBI438-R1

## Primrose Brook Tributary

Jockey Hollow Road

Municipality: Harding

County: Morris

Drainage Area (sq miles): 0.6

Sample Date: 6/3/2015

Site Type: Sentinel, RMN



|   |        |
|---|--------|
| Metric 1 - Number of intolerant vertebrate species            | 100.00 |
| Metric 2 - Proportion of vertebrate species as top carnivores | 87.72  |
| Metric 3 -Percent tolerant fish                               | 100.00 |
| Metric 4 -Proportion of total richness as native              | 90.00  |
| Metric 5 -Percent native crayfish                             | 100.00 |
| Metric 6 -Brook trout density                                 | 100.00 |

|                         |       |
|-------------------------|-------|
| Air Temperature (°C)    | 17.3  |
| Water Temperature (°C)  | 12.83 |
| Dissolved Oxygen (mg/L) | 10.02 |
| % Saturation            | 95.6  |
| pH                      | 7.22  |
| Conductivity (uS/cm)    | 105.3 |

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***Headwaters IBI Score (0-100): 96.29***

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***IBI Rating: Excellent***

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***High Gradient Habitat Score (0-200): 174***

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***Habitat Rating: Optimal***

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**Summary:** FIBI438 is a site within the United States Environmental Protection Agency's Regional Monitoring Network(RMN) to evaluate changes in air and water temperature as well as changes in the stream's biota at least disturbed sites. Primrose Brook is also a sentinel site which is sampled every three years for Headwaters IBI monitoring. This site contains a very high density of slimy sculpin, as well as several other sensitive fish, crayfish and salamanders. This site is the highest scoring (96.29) site in the HIBI network to date. Primrose Brook is located in a forested area and protected within the Morristown National Historical Park.

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| <b>Common Name</b>            | <b>Scientific Name</b>            | <b>Abundance</b> |
|-------------------------------|-----------------------------------|------------------|
| Slimy Sculpin                 | <i>Cottus cognatus</i>            | 364              |
| Brook Trout                   | <i>Salvelinus fontinalis</i>      | 84               |
| Blacknose Dace                | <i>Rhinichthys atratulus</i>      | 51               |
| Northern Two-lined Salamander | <i>Eurycea bislineata</i>         | 39               |
| Common Crayfish               | <i>Cambarus bartonii bartonii</i> | 30               |
| Creek Chub                    | <i>Semotilus atromaculatus</i>    | 16               |
| Northern Dusky Salamander     | <i>Desmognathus fuscus</i>        | 4                |
| Brown Trout                   | <i>Salmo trutta</i>               | 3                |
| Northern Red Salamander       | <i>Pseudotriton ruber ruber</i>   | 2                |
| Pickerel Frog                 | <i>Lithobates palustris</i>       | 1                |