

FIBI011b-R4

Meadow Brook

Belmont Ave

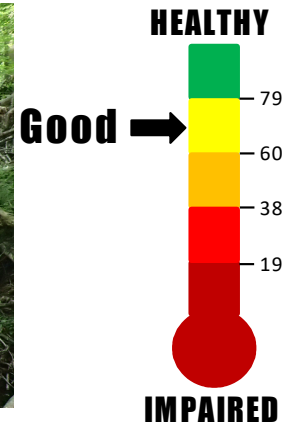
Municipality: WANAQUE BORO

County: Passaic

Drainage Area (sq miles): 6

Sample Date: 6 /8 /2018

Site Type: Fixed



IBI Metrics

Metric 1-%Rheophilic Richness	52.32
Metric 2-%Cold Non-tolerant Coolwater	93.09
Metric 3-%Generalist Richness	56.43
Metric 4-Tolerance Index	85.57
Metric 5-%Lithophilic Richness	57.95
Metric 6-%Cyprinidae	86.78
Metric 7-%Dominant 3 Taxa	54.60
Metric 8-%Benthic Insectivore Richness	26.49

Field Chemistry

Air Temp (°C)	22.8
Water Temperature (°C)	15.34
Dissolved Oxygen (mg/L)	8.7
% Saturation	86.1
pH	6.82
Conductivity (µS/cm)	398.4
Total Kjeldahl (mg/L)	0.25
Total Phosphorus (mg/L)	0.03
Nitrate/Nitrite (mg/L)	0.92

Northern Fish IBI Score (0-100): 64.15

IBI Rating: Good

High Gradient Habitat Score (0-200): 136

Habitat Rating: Suboptimal

Summary: FIBI011a Meadow Brook has not been sampled since 2010. 2018 sampling was conducted downstream of Belmont Ave., while sampling in previous years had been conducted on the upstream side of the road. The overall habitat score, substrate, available fish habitat, and overall IBI score were better at the 2018 downstream location. Despite the improvements, no wild brown trout were collected in 2018 compared to 2010 in which 145 wild brown trout were collected in the upstream stretch. The cause of the brown trout loss is unclear.

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Common Name	Scientific Name	Abundance
Creek Chub	<i>Semotilus atromaculatus</i>	145
Blacknose Dace	<i>Rhinichthys atratulus</i>	124
Tessellated Darter	<i>Etheostoma olmstedi</i>	37
Fallfish	<i>Semotilus corporalis</i>	12
White Sucker	<i>Catostomus commersonii</i>	11
Chain Pickerel	<i>Esox niger</i>	2
Eastern Mudminnow	<i>Umbra pygmaea</i>	2
American Eel	<i>Anguilla rostrata</i>	1
Bluegill	<i>Lepomis macrochirus</i>	1
Common Shiner	<i>Luxilus cornutus</i>	1