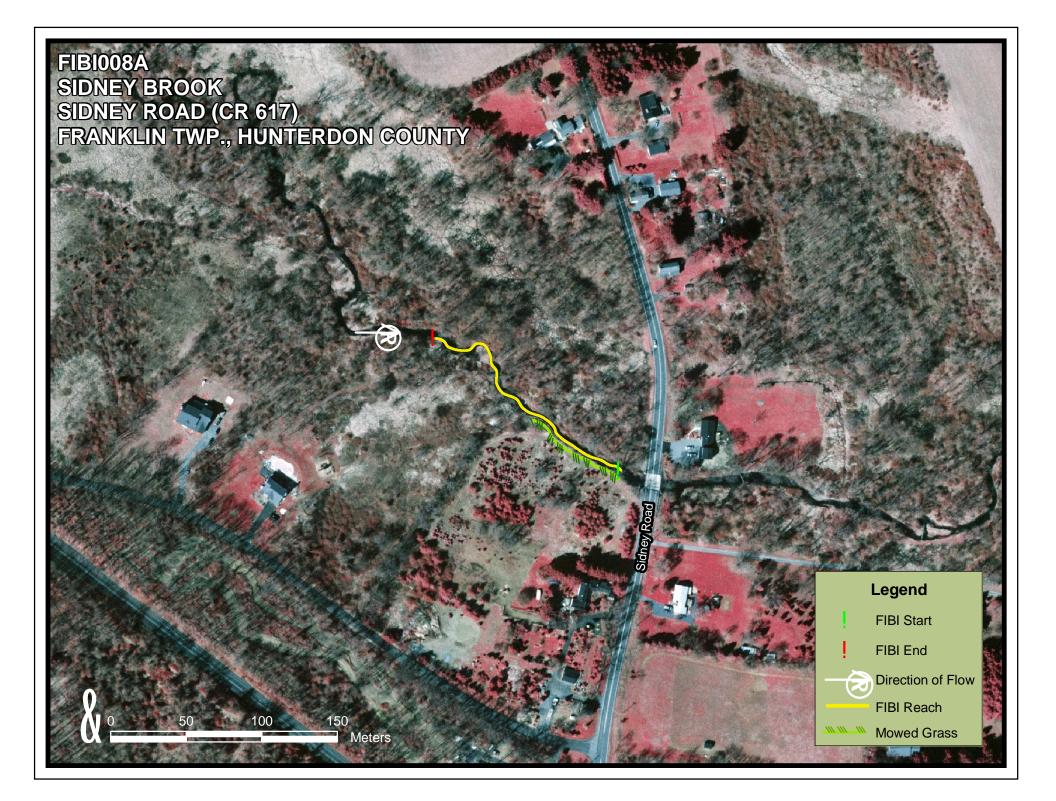


SUMMARY OF RESULTS - FIBI008a



 Stream Name: Sampling Date: Sampling Location: Municipality County: Watershed Management Area: Contributing Drainage Area (Sq. Mi.): Electrofishing Gear: FIBI Score and Rating: Habitat Score Rating: Habitat Score Rating: Fishable Species Present: Relevant AMNET¹ Station Data: Proximity of FIBI station to AMNET station: AMNET Rating: Stream Chemistries: Dissolved Oxygen (mg/l) Temperature ⁰C. pH Conductivity (µmhos/cm) 	Sidney Brook 7/27/2005 Sidney Rd. (CR 617) Franklin Twp. Hunterdon 8 5.2 2 Backpacks Round 1 Excellent (46); Round 2 Good (44) Round 1 Optimal (164); Round 2 Optimal (160) Yes AN0324a 2004 – Non-Impaired 7.24 22.8 7.70 275
14. Length of Stream Sampled:	150m Clear
15. Water Clarity:16. Average Open Forest Canopy:	27.3%
17. Discharge:	1.6 cfs
18. Substrate:	39% Gravel/Sand, 45% Cobble, 5% Boulder, 10% Silt, 1% Concrete
19. Habitat:	35% Riffle, 40% Run, 25% Pool
20. Snags:	Yes
21. Periphyton:22. Submerged Aquatic Vegetation	Moderate Yes
23. Outfalls:	None
24. Number of Fish Species Identified:	17
25. Total Number of Fish Collected:	1179
26. Number of Fish With Anomalies:27. Other Observations:	5

¹ AMNET is the acronym for the DEP's ambient benthic macroinvertebrate monitoring network – a series of 820 monitoring stations located throughout the state's waterways that collects data on the health of bottom dwelling stream fauna which in turn is used to assess general water quality



FIBI008a-Sidney Brook @ Sidney Rd Date Sampled - 7/27/2005	Excellent Good	Fair	Poor
# of Fish Species		Score 5	
# of Benthic Insectivorous Species (BI) (excluding White Suckers and Bullheads)		5	
# of Trout and Centrarchid Species (excluding Green Sunfish and Bluegill)		5	
# of Intolerant Species (IS)		5	
Proportion of Tolerant Individuals		3	
Proportion of Individuals as Generalists		3	
Proportion of Individuals as Insectivorous Cy	prinids	5	
Proportion of Individuals as Trout OR	*whichever gives better score		
Proportion of Individuals as Piscivores (exclu	uding American Eel)*	3	
# of Individuals in Sample (excluding Tolerant Species)		5	
Proportion of Individuals w/disease/anomalie (excluding blackspot)	25	5	
Total		44	

<u>Stream</u>	Rating
45-50	Excellent
37-44	Good
29-36	Fair
10-28	Poor

HABITAT ASSESSMENT FOR HIGH GRADIENT STREAMS

Sidney Brook (FIBI008a) - 7/27/05

		Condition	Category	
	Optimal	Suboptimal	Marginal	Poor
1. Epifaunal Substrate /Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
SCORE 18	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regimes	All 4 velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (slow is <0.3 m/s, deep is >0.5 m) 20 19 18 17 16	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow- shallow are missing, score low).	Dominated by 1 velocity / depth regime (usually slow-deep).
SCORE 15		15 14 13 12 11		5 4 3 2 1 0
4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% (<20% for low-gradient streams) of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% (20-50% for low-gradient) of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% (50- 80% for low-gradient) of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% (80% for low-gradient) of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE 13	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status SCORE 18	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed. 20 19 18 17 16	Water fills >75% of the available channel; or <25% of channel substrate is exposed. 15 14 13 12 11	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed. 10 9 8 7 6	Very little water in channel and mostly present as standing pools.
	Channelization or dredging	Some channelization present,	Channelization may be extensive;	Banks shored with gabion or
6. Channel Alteration	absent or minimal; stream with normal pattern.	usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	cement; over 80% of the stream reach channelized and disrupted. In stream habitat greatly altered or removed entirely.
SCORE 19	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.
SCORE 18	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability (score each bank) Note: determine left or right side by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60- 100% of bank has erosional scars.
SCORE 7 (LB) SCORE 8 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
9. Bank Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, under story shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
SCORE 10 (LB) SCORE 9 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.
SCORE 10 (LB) SCORE 4 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

habitat score 160

HABITAT SCORES	VALUE
OPTIMAL	160 – 200
SUB-OPTIMAL	110 - 159
MARGINAL	60 - 109
POOR	< 60

FIBI008a-R2 Sidney Brook (Grandin Stream)

07/27/2005

Common Name	Scientific Name	Abundance	Size Range (inches)
White Sucker	Catostomus commersoni	250	-
Blacknose Dace	Rhinichthys atratulus	236	-
Common Shiner	Luxilus cornutus	158	-
Longnose Dace	Rhinichthys cataractae	152	-
Fallfish	Semotilus corporalis	101	-
Tessellated Darter	Etheostoma olmstedi	96	-
Spottail Shiner	Notropis hudsonius	45	-
Creek Chub	Semotilus atromaculatus	35	-
Green Sunfish	Lepomis cyanellus	30	2.1 - 4.9
Largemouth Bass	Micropterus salmoides	23	1.8 - 6.7
Bluegill	Lepomis macrochirus	18	1.5 - 3.2
American Eel	Anguilla rostrata	15	-
Redbreast Sunfish	Lepomis auritus	8	2.0 - 4.8
Margined Madtom	Noturus insignis	4	-
Brown Trout	Salmo trutta	4	8.1 - 9.1
Pumpkinseed	Lepomis gibbosus	3	3.2 - 3.6
Satinfin Shiner	Cyprinella analostana	1	-

Species Identified at Sidney Brook (FIBI008a) (Not to Scale)



White Sucker



Longnose Dace



Brown Trout



Common Shiner



Creek Chub



Blacknose Dace

Species Identified at Sidney Brook (FIBI008a) (Not to Scale)



Bluegill Sunfish



Satinfin Shiner



Pumpkinseed Sunfish



Fallfish



American Eel



Largemouth Bass

Species Identified at Sidney Brook (FIBI008a) (Not to Scale)



Green Sunfish



Tessellated Darter



Spottail Shiner



Margined Madtom



Redbreast Sunfish