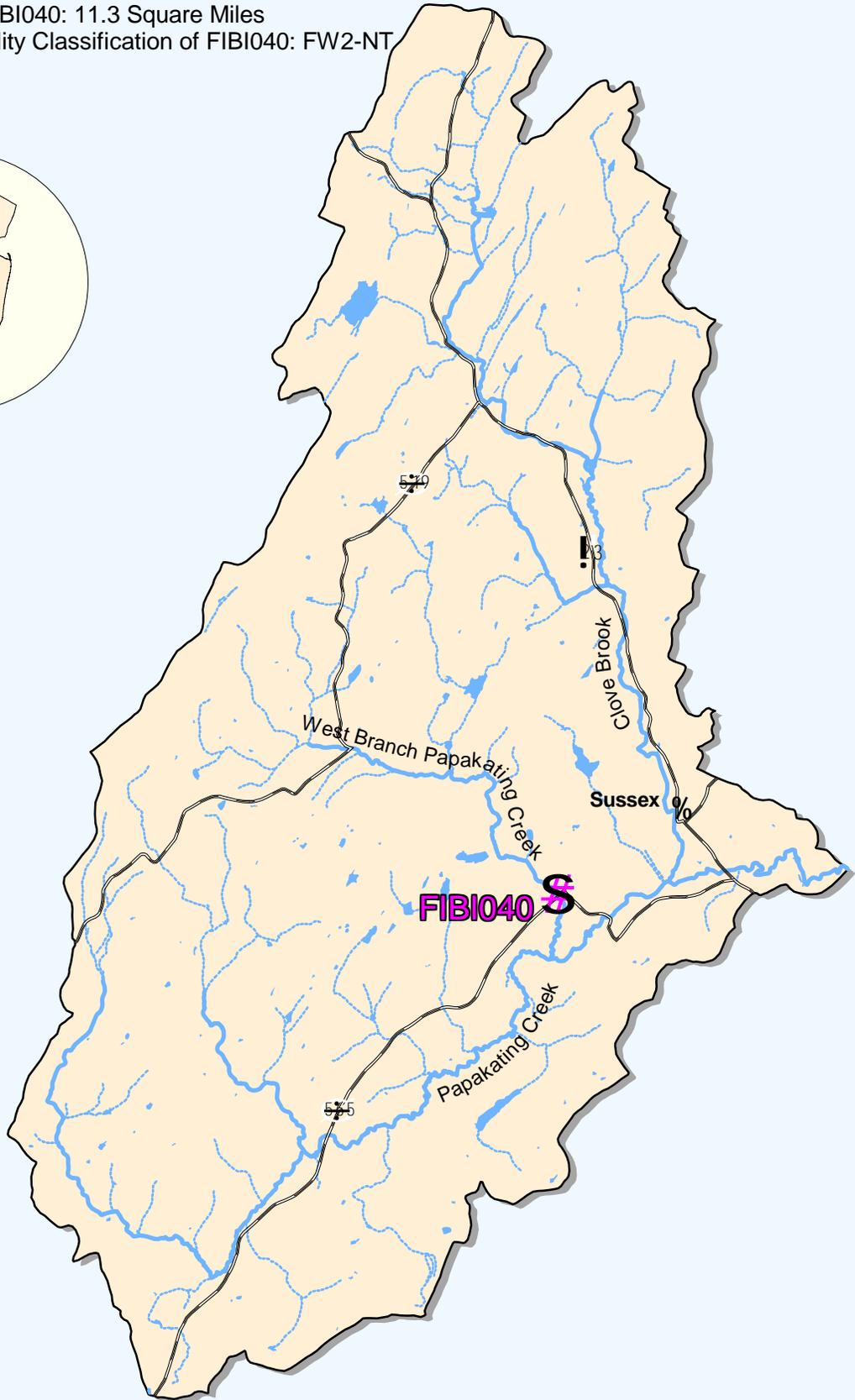
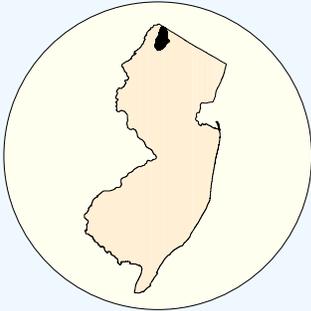


West Branch Papakating Creek - FIBI040

Drainage Area of FIBI040: 11.3 Square Miles

Surface Water Quality Classification of FIBI040: FW2-NT



FIBI Sampling Location

Small Streams (1st and 2nd Order)

Large Streams (3rd Order and Above)



0 1 2 3 Miles



FIBI040 - W Branch Papakating Cr. @ Rt 565
Date Sampled - 8/21/2001

Excellent Good Fair Poor

	Score
# of Fish Species	5
# of Benthic Insectivorous Species (BI)	5
# of Trout and Centrarchid Species (trout, bass, sunfish, crappie)	5
# of Intolerant Species (IS)	5
Proportion of Individuals as White Suckers	3
Proportion of Individuals as Generalists (carp, creek chub, banded killifish, goldfish, fathead minnow, green sunfish)	5
Proportion of Individuals as Insectivorous Cyprinids (I and BI)	5
Proportion of Individuals as Trout	
OR	
Proportion of Individuals as Piscivores (Excluding American Eel)*	3
Number of Individuals in Sample	5
Proportion of Individuals w/disease/anomalies (excluding blackspot)	5
Total	46

Stream Rating

45-50	Excellent
37-44	Good
29-36	Fair
10-28	Poor

FIBI040
WEST BRANCH PAPA KATING CREEK
CR 565
Wantage Twp., Sussex Co.



CR 628

CR 639

CR 565

0 0.1 Miles



LEGEND	
#	Start
#	Finish
—	Segment Sampled
Ⓜ	Direction of Flow



FIBI040 - W Branch Papakating Cr. @ Rt 565
Date Sampled - 8/21/2001

Excellent Good Fair Poor

	Score
# of Fish Species	5
# of Benthic Insectivorous Species (BI)	5
# of Trout and Centrarchid Species (trout, bass, sunfish, crappie)	5
# of Intolerant Species (IS)	5
Proportion of Individuals as White Suckers	3
Proportion of Individuals as Generalists (carp, creek chub, banded killifish, goldfish, fathead minnow, green sunfish)	5
Proportion of Individuals as Insectivorous Cyprinids (I and BI)	5
Proportion of Individuals as Trout	
OR	
Proportion of Individuals as Piscivores (Excluding American Eel)*	3
Number of Individuals in Sample	5
Proportion of Individuals w/disease/anomalies (excluding blackspot)	5
Total	46

Stream Rating

45-50	Excellent
37-44	Good
29-36	Fair
10-28	Poor

HABITAT ASSESSMENT FOR HIGH GRADIENT STREAMS **W. Branch Papakating Creek (FIBI040) -8/21/01**

	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). SCORE 13	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 SCORE 13	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) SCORE 12	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	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. SCORE 12	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 Water reaches base of both lower banks, and minimal amount of channel substrate is exposed. SCORE 14	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
6. Channel Alteration Channelization or dredging absent or minimal; stream with normal pattern. SCORE 12	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. SCORE 13	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. SCORE 6 (LB) SCORE 8 (RB)	Left Bank 10 9 Right Bank 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0
9. Bank Vegetative Protection (score each bank) SCORE 7 (LB) SCORE 7 (RB)	Left Bank 10 9 Right Bank 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0
10. Riparian Vegetative Zone Width (score each bank riparian zone) SCORE 3 (LB) SCORE 5 (RB)	Left Bank 10 9 Right Bank 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0

HABITAT SCORE

125

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

FIBI040 08/21/01

WEST BRANCH PAPA KATING CREEK

LISTED IN ORDER OF ABUNDANCE FOUND

COMMON NAME	SCIENTIFIC NAME	# FOUND	SIZE RANGE (INCHES)
Longnose Dace	<i>Rhinichthys cataractae</i>	256	
White Sucker*	<i>Catostomus commersoni</i>	149	
Creek Chub	<i>Semotilus atromaculatus</i>	129	
Blacknose Dace	<i>Rhinichthys atratulus</i>	103	
Pumpkinseed*	<i>Lepomis gibbosus</i>	69	2.0 - 3.1
Common Shiner	<i>Luxilus cornutus</i>	62	
Tessellated Darter	<i>Etheostoma olmstedii</i>	42	
Redfin Pickerel*	<i>Esox americanus americanus</i>	19	3.1 - 7.1
Bluegill*	<i>Lepomis macrochirus</i>	8	2.6 - 2.8
Golden Shiner	<i>Notemigonus crysoleucas</i>	4	
Brook Trout*	<i>Salvelinus fontinalis</i>	3	11.8 - 12.8
Redbreast Sunfish*	<i>Lepomis auritus</i>	2	3.7 - 4.3
Largemouth Bass*	<i>Micropterus salmoides</i>	2	3.7 - 4.3
Cutlips Minnow	<i>Exoglossum maxillingua</i>	2	
Banded Killifish	<i>Fundulus diaphanus</i>	1	

* Regulated as a fishable species under current New Jersey Fish and Wildlife codes

FIGURE 1.1 (Not to Scale)
Species Identified at West Branch Papakating Creek (FIBI040)



Brook Trout



Common Shiner



White Sucker



Blacknose Dace



Creek Chub



Pumpkinseed

FIGURE 1.1 (Not to Scale)
Species Identified at West Branch Papakating Creek (FIBI040)

Jenkins & Burkhead



Redfin Pickerel

John Scarola



Bluegill

Jenkins & Burkhead



Cutlips Minnow

John Scarola



Golden Shiner

Shute



Longnose Dace

John Scarola



Tesselated Darter

FIGURE 1.1 (Not to Scale)
Species Identified at West Branch Papakating Creek (FIBI040)

AFS



Largemouth Bass

John Scarola



Redbreast Sunfish

John Scarola



Banded Killifish