

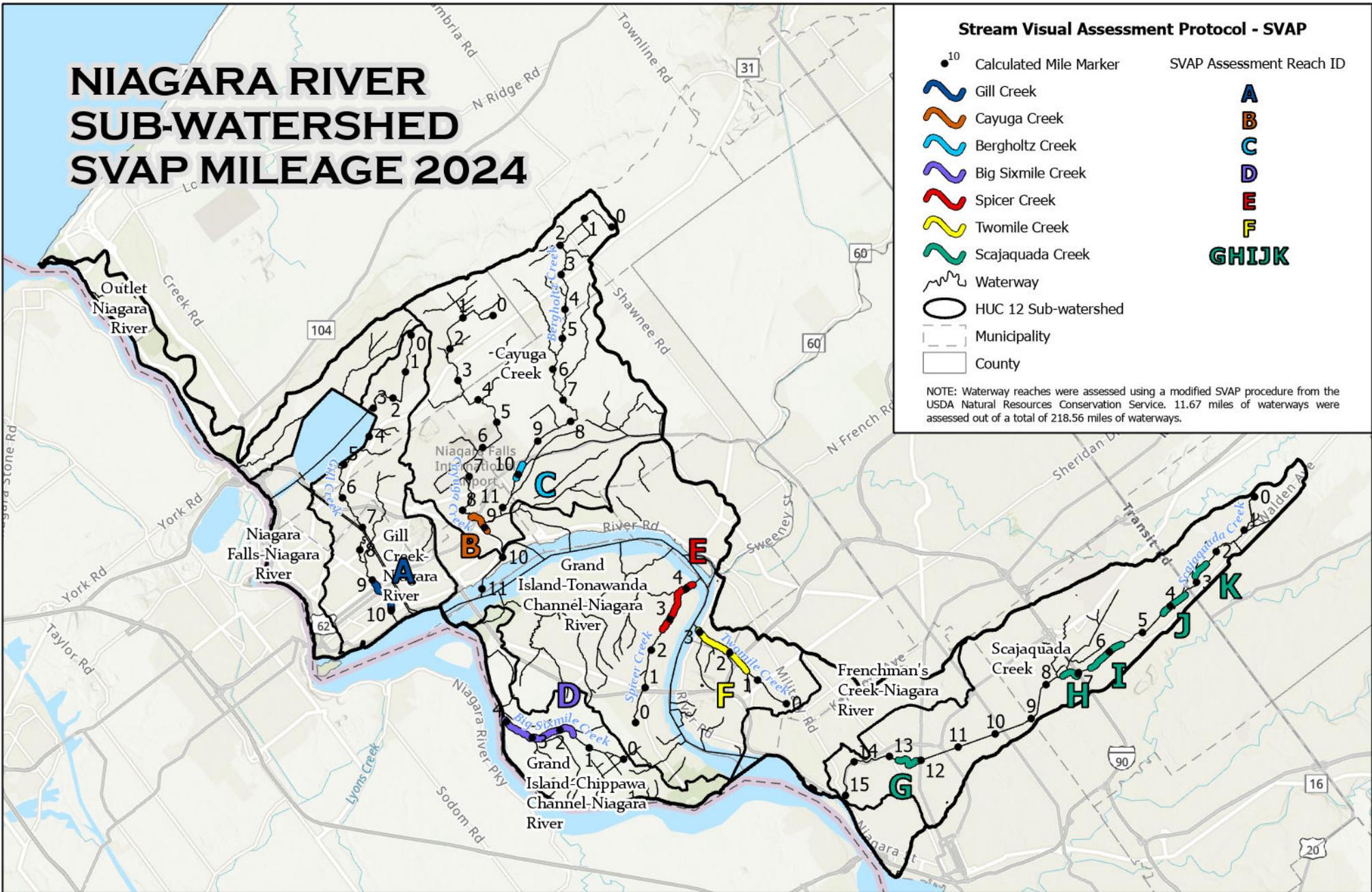
# NIAGARA RIVER SUB-WATERSHED SVAP MILEAGE 2024

## Stream Visual Assessment Protocol - SVAP

- <sup>10</sup> Calculated Mile Marker
- SVAP Assessment Reach ID
- Gill Creek
- Cayuga Creek
- Bergholtz Creek
- Big Sixmile Creek
- Spicer Creek
- Twomile Creek
- Scajaquada Creek
- Waterway
- HUC 12 Sub-watershed
- Municipality
- County

- A**
- B**
- C**
- D**
- E**
- F**
- G**
- H**
- I**
- J**
- K**

NOTE: Waterway reaches were assessed using a modified SVAP procedure from the USDA Natural Resources Conservation Service. 11.67 miles of waterways were assessed out of a total of 218.56 miles of waterways.



**Department of State**

This map was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund.

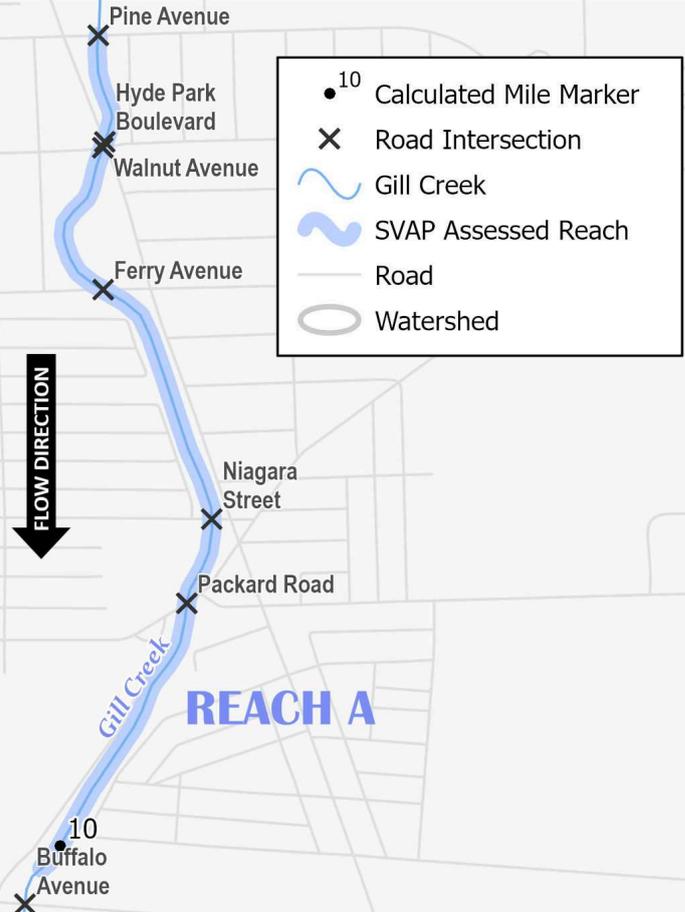
Esri, NASA, NGA, USGSEsri, Airbus DS, N Robinson, NCEAS, NLS, OS, NMA, Geodata stylisen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



# GILL CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH A

AVERAGE OVERALL SVAP RATING: **4.7**



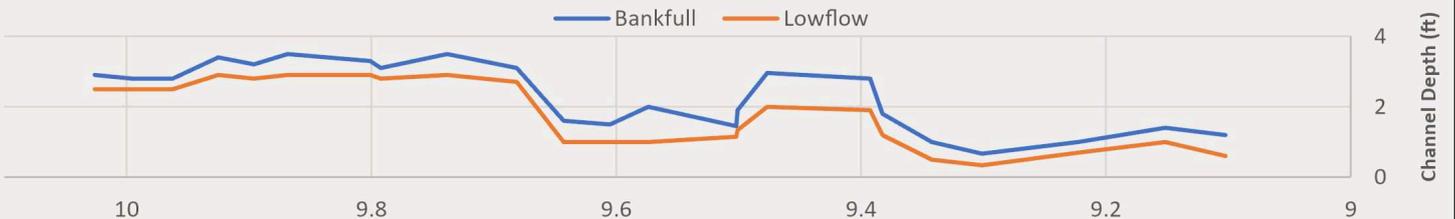
## Elevation Profile

Substrate: ◆ Cobble ◆ Silt/Clay



## REACH A

## Channel Depth



## Channel Width



← FLOW DIRECTION Creek Mile (10.03 at Tailwater, 9.10 at Headwater) FLOW DIRECTION →

# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

## REACH A

### Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre



### Stream Bank Hardening

■ No ■ Yes



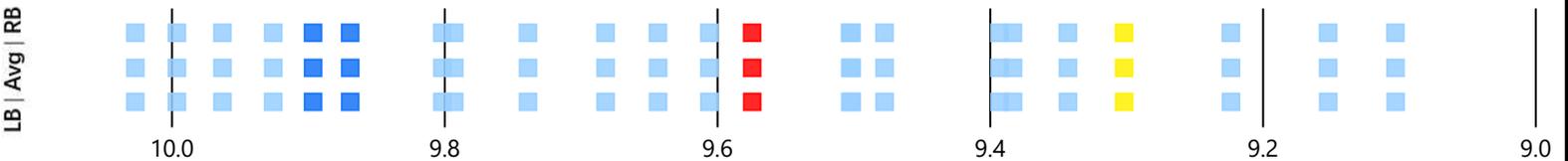
### Aggradation/Incision

■ Aggradation ▲ Incision



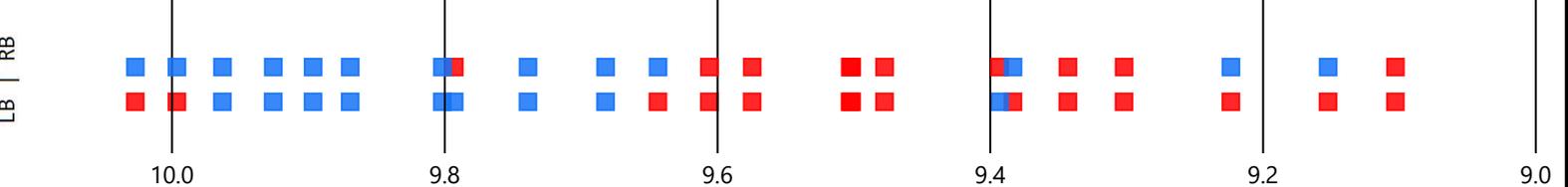
### Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



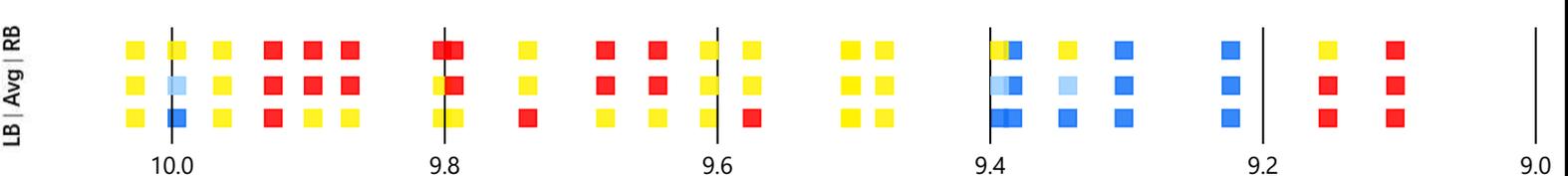
### Bank Condition

■ Hardened Structure ■ Natural



### Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



FLOW DIRECTION ← **Creek Mile (10.03 at Tailwater, 9.10 at Headwater)** → FLOW DIRECTION

REACH A

Water Appearance

Score Good Mediocre Poor



Nutrient Enrichment

Moderate Severe

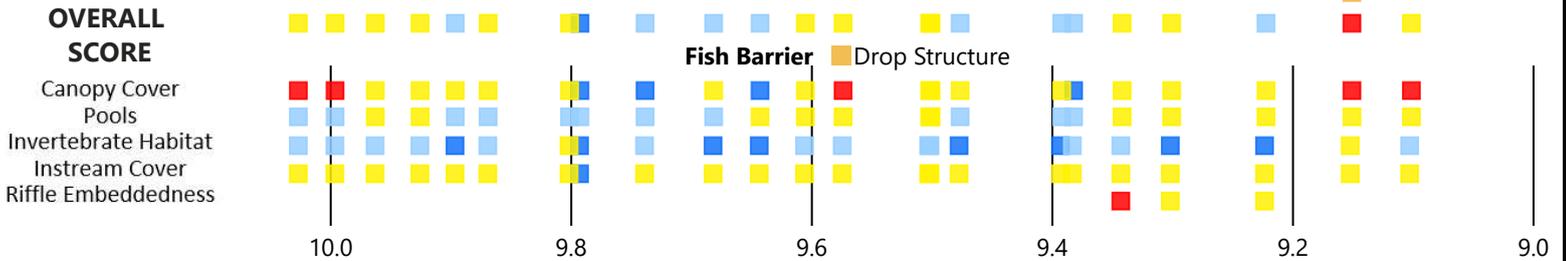
Notes Algal Growth Both Dense Aquatic Plant Beds



Fish Habitat

Score Excellent Good Mediocre Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



Manure Presence

None



Invasive Species

Japanese Knotweed



Aquatic Vegetation

Both Emergent Submerged



OVERALL SVAP RATING

GILL CREEK

Score Good Mediocre

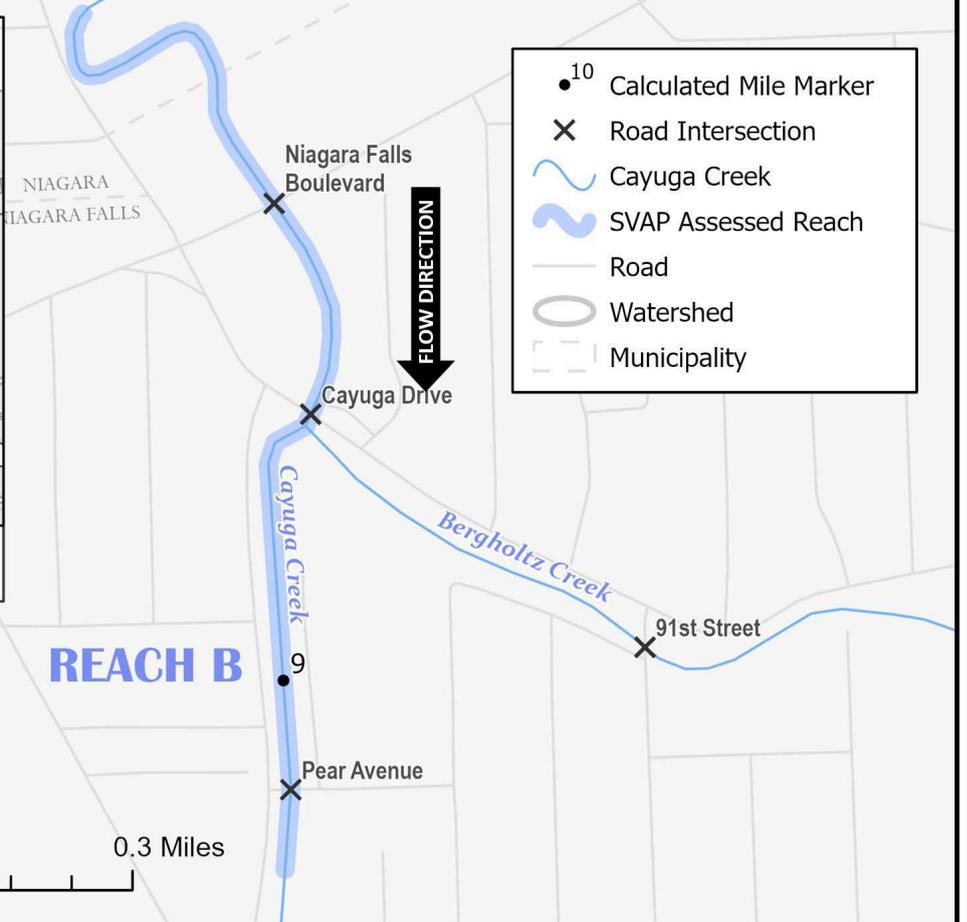
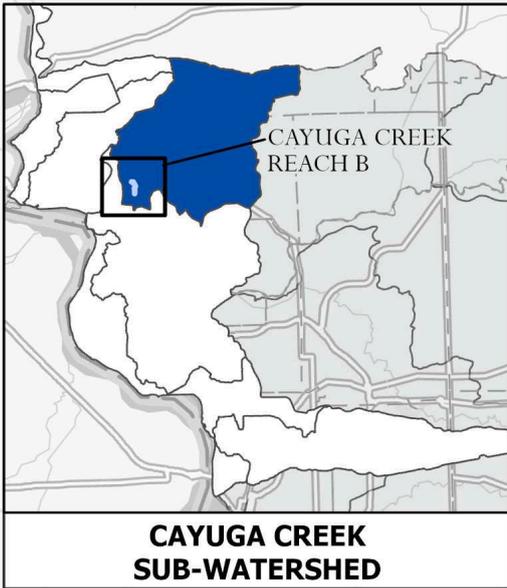


← FLOW DIRECTION Creek Mile (10.03 at Tailwater, 9.10 at Headwater) ← FLOW DIRECTION

# CAYUGA CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH B

AVERAGE OVERALL SVAP RATING: **5.1**



## Elevation Profile Substrate ◆ Silt/Clay

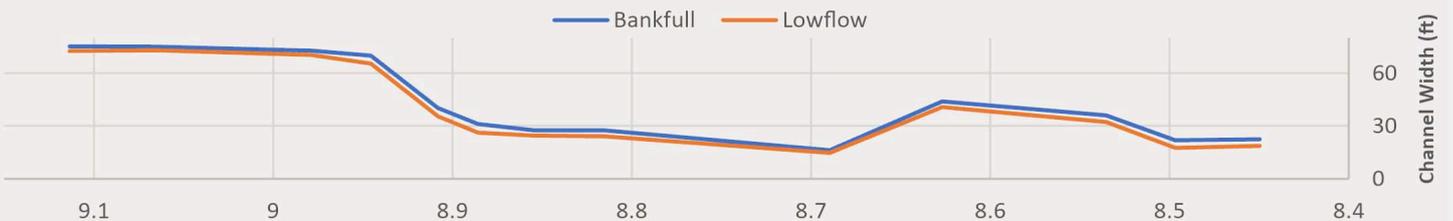


## REACH B

## Channel Depth



## Channel Width



← FLOW DIRECTION

Creek Mile (9.11 at Tailwater, 8.45 at Headwater)

← FLOW DIRECTION

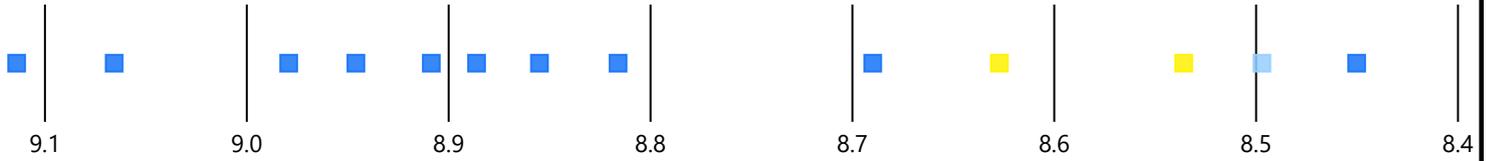
# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH B

## Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre



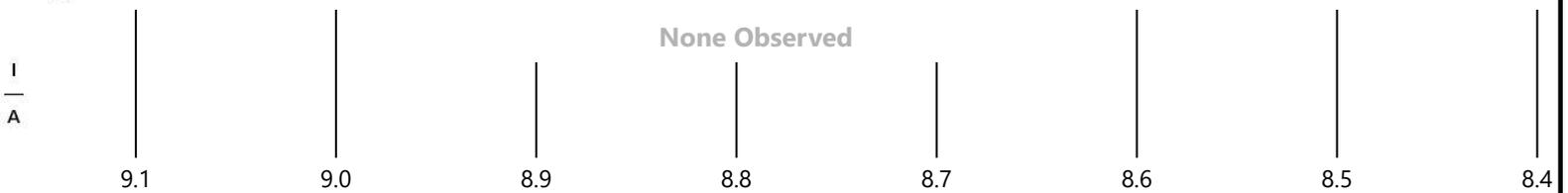
## Stream Bank Hardening

■ No ■ Yes



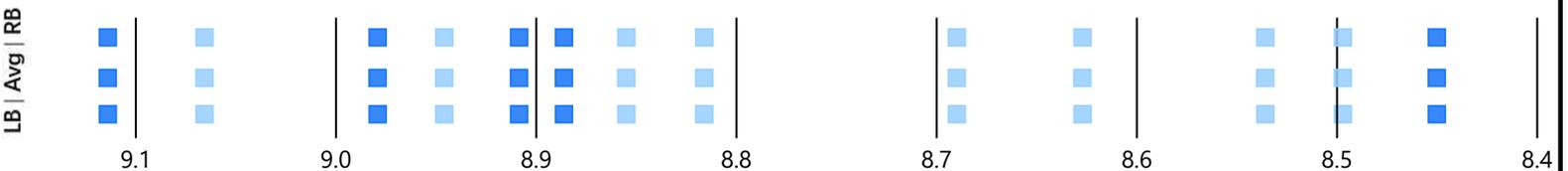
## Aggradation/Incision

■ Aggradation ▲ Incision



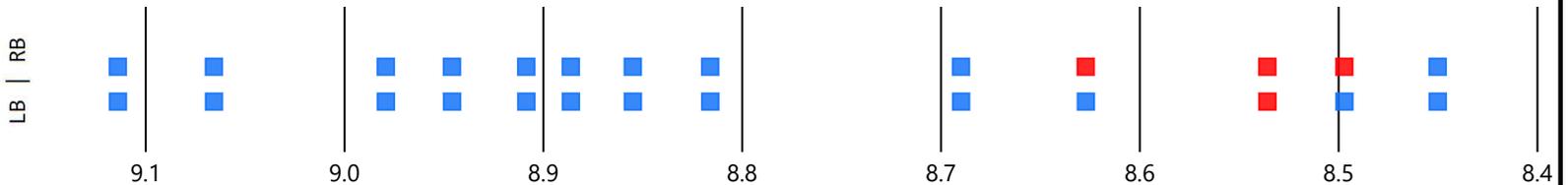
## Bank Stability

Score ■ Excellent ■ Good



## Bank Condition

■ Hardened Structure ■ Natural



## Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



← FLOW DIRECTION
Creek Mile ( 9.11 at Tailwater, 8.45 at Headwater)
← FLOW DIRECTION

REACH B

Water Appearance

Score ■ Mediocre ■ Poor



Nutrient Enrichment

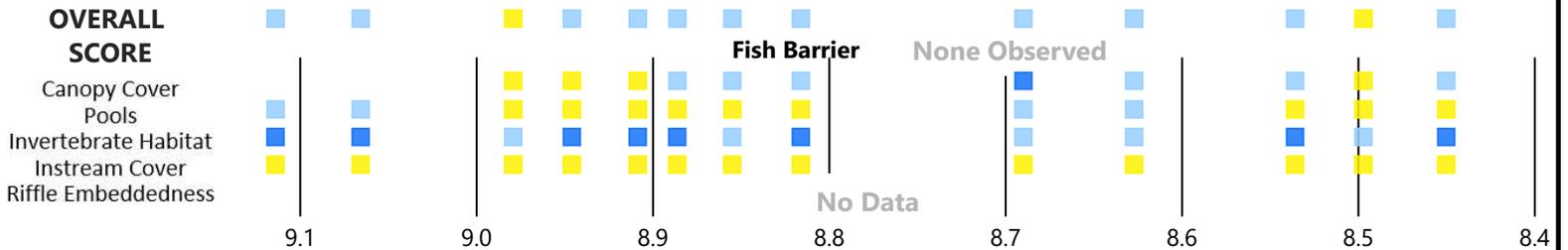
Score ■ Moderate ■ Severe



Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



Manure Presence

Score ■ None



Invasive Species

Score ● Japanese Knotweed



Aquatic Vegetation

Score ■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

CAYUGA CREEK

Score ■ Good ■ Mediocre

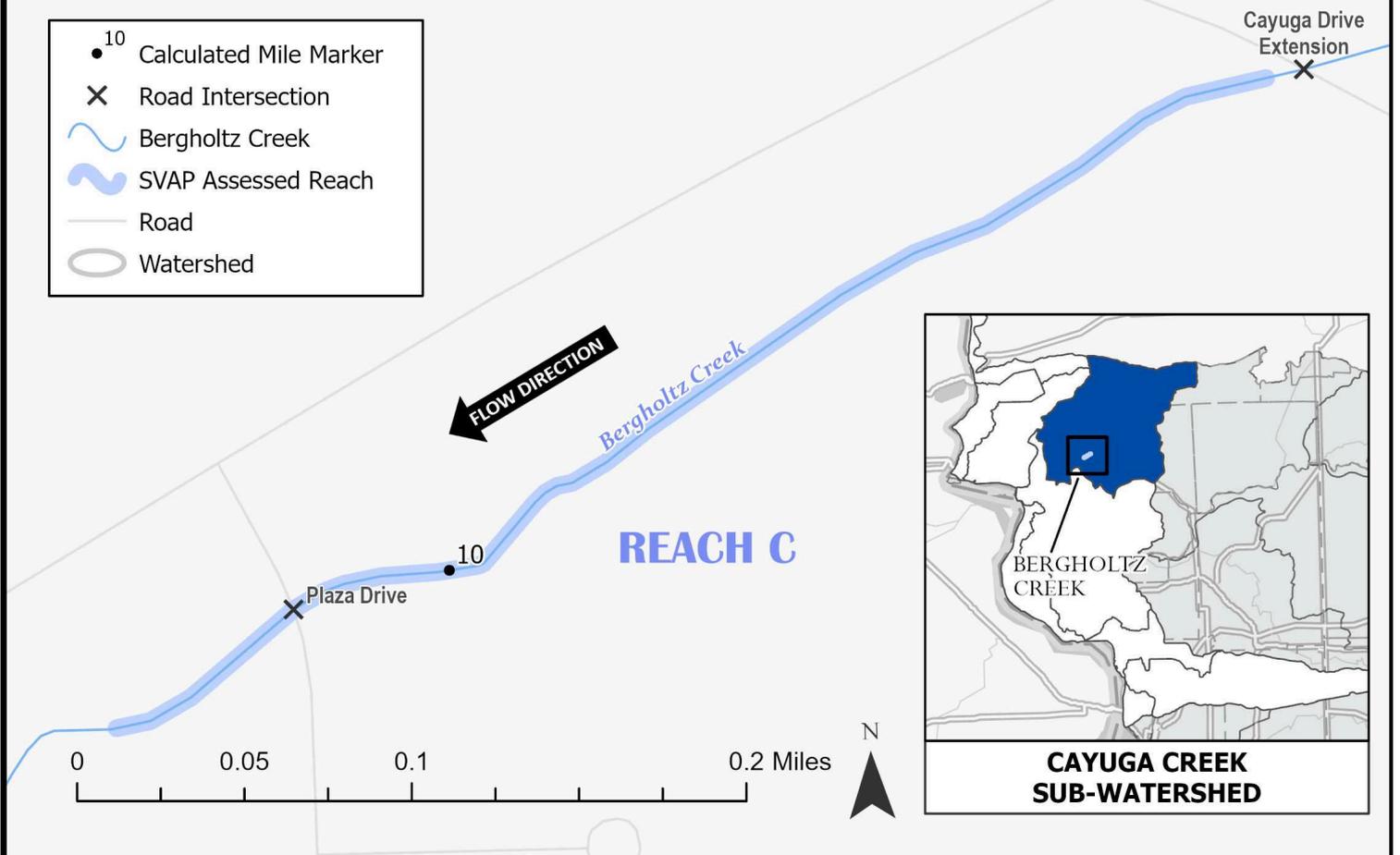


# BERGHOLTZ CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH C

AVERAGE OVERALL SVAP RATING: **4.6**

- <sup>10</sup> Calculated Mile Marker
- ✕ Road Intersection
- ~ Bergholtz Creek
- ~ SVAP Assessed Reach
- Road
- Watershed



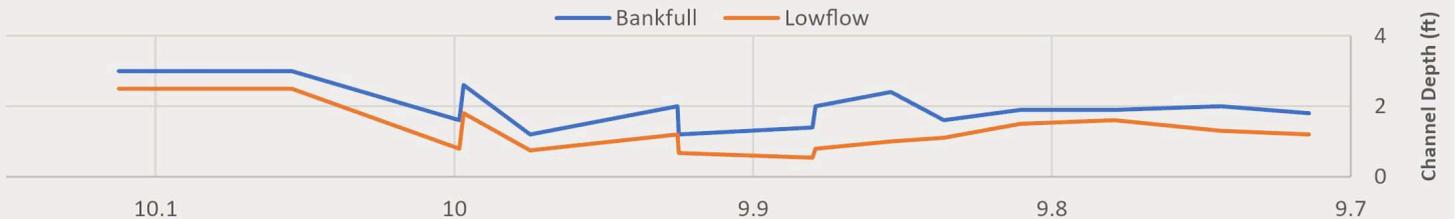
## Elevation Profile

Substrate ◆ Cobble ◆ Gravel ◆ Silt/Clay

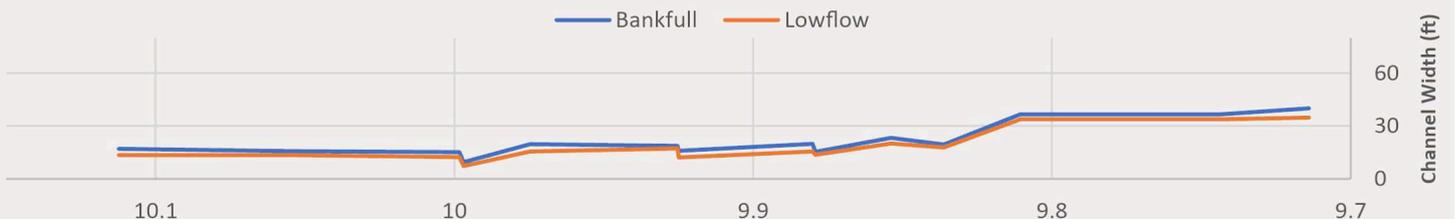


## REACH C

## Channel Depth



## Channel Width



← FLOW DIRECTION Creek Mile (10.11 at Tailwater, 9.71 at Headwater) ← FLOW DIRECTION

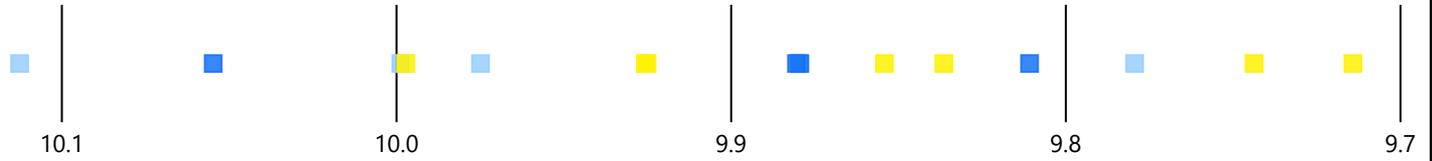
# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH C

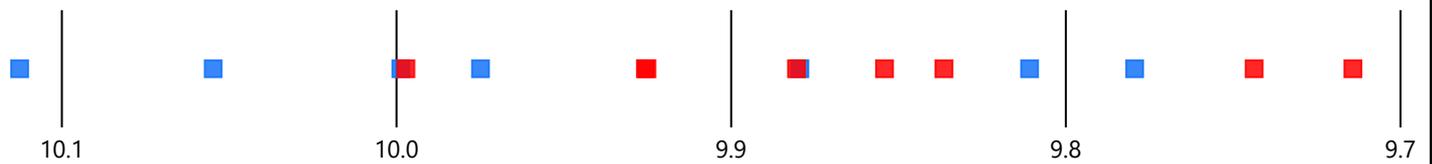
## Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre



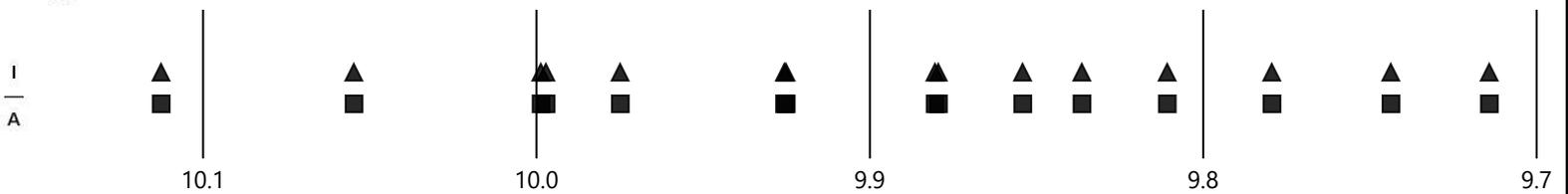
## Stream Bank Hardening

■ No ■ Yes



## Aggradation/Incision

■ Aggradation ▲ Incision



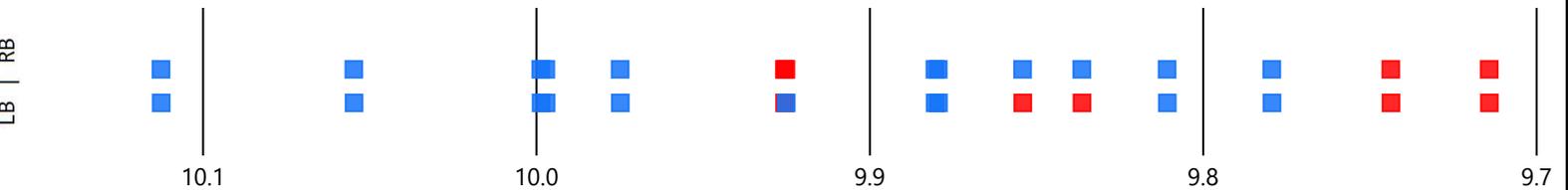
## Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



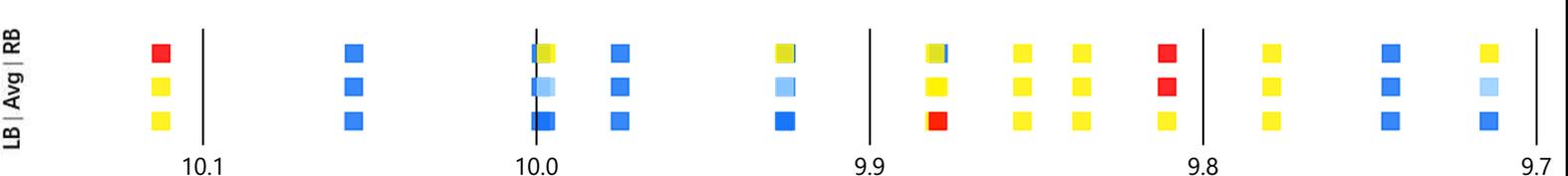
## Bank Condition

■ Hardened Structure ■ Natural



## Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



← FLOW DIRECTION Creek Mile ( 10.11 at Tailwater, 9.71 at Headwater) ← FLOW DIRECTION

REACH C

Water Appearance

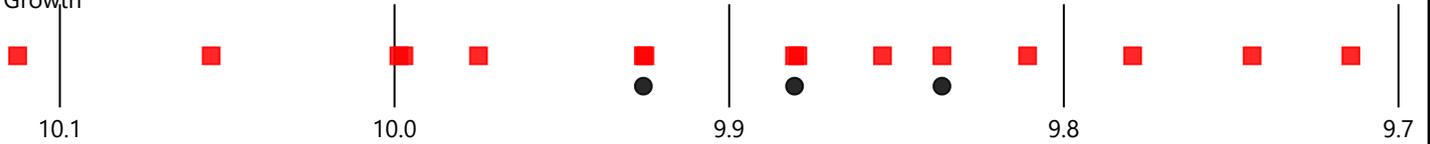
Score ■ Mediocre ■ Poor



Nutrient Enrichment

■ Severe

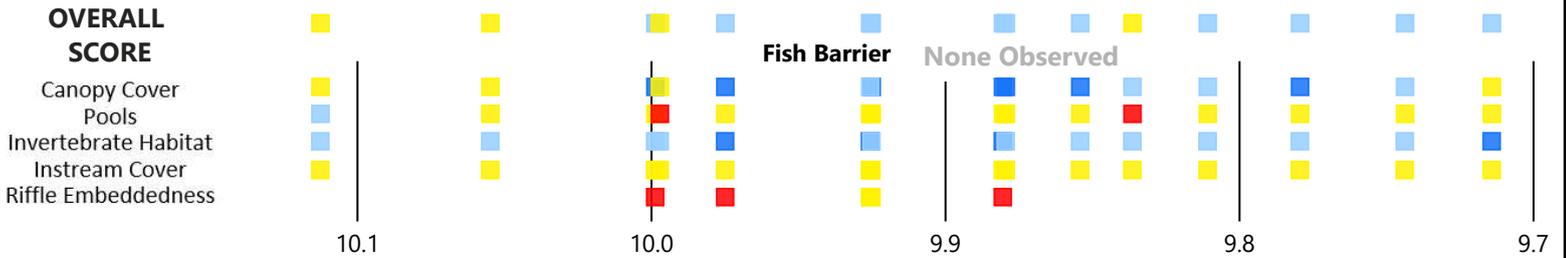
Notes ● Algal Growth



Fish Habitat

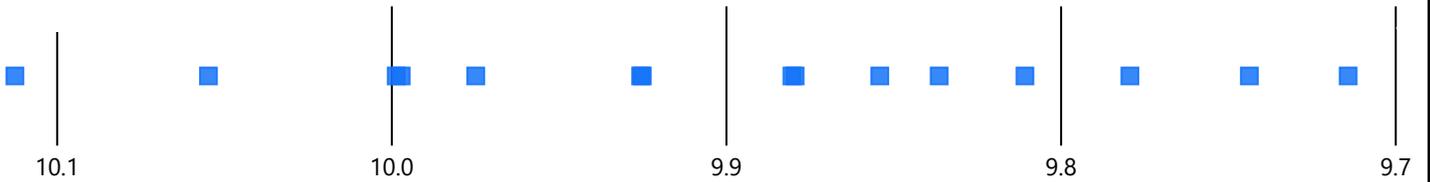
Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



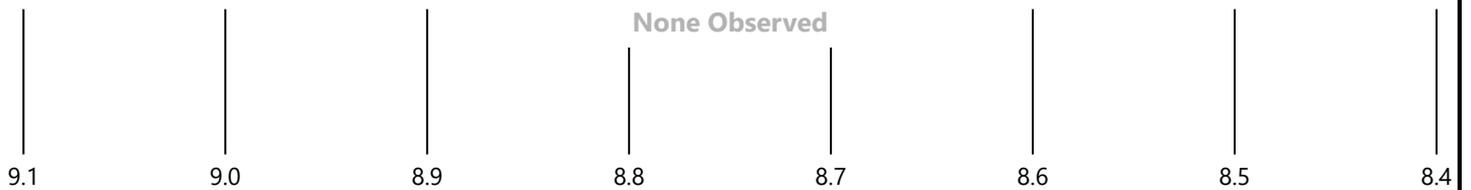
Manure Presence

■ None



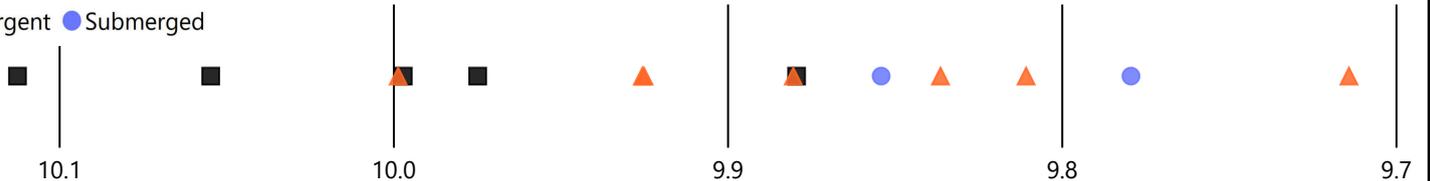
Invasive Species

None Observed



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

BERGHOLTZ CREEK

Score ■ Good ■ Mediocre

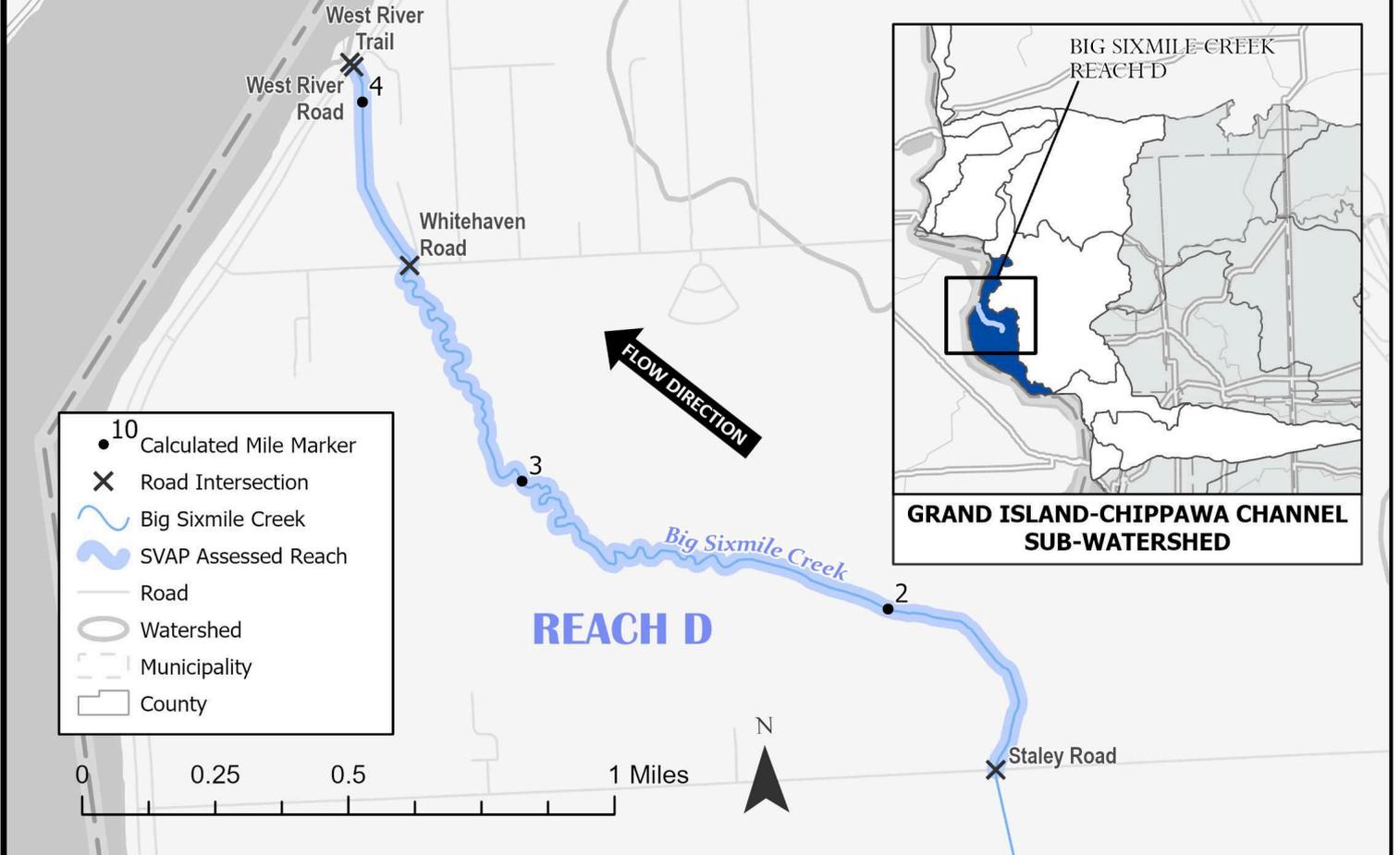


← FLOW DIRECTION Creek Mile (10.11 at Tailwater, 9.71 at Headwater) ← FLOW DIRECTION

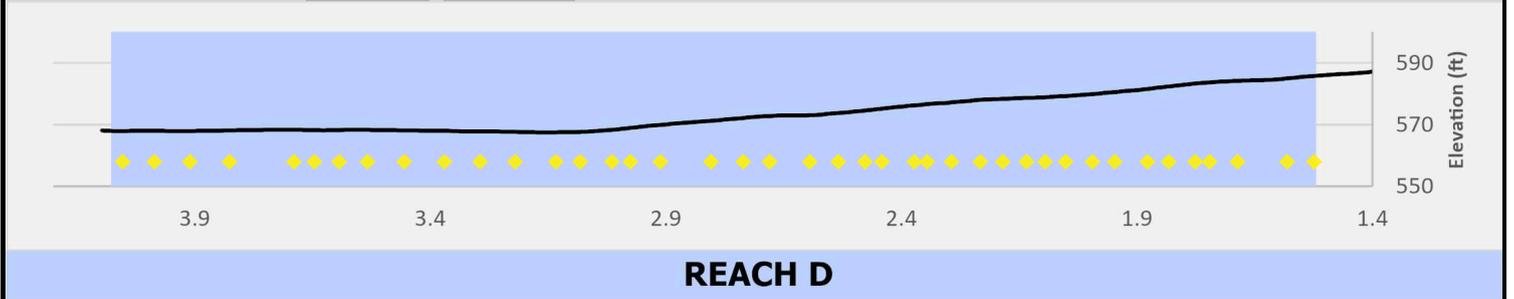
# BIG SIXMILE CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH D

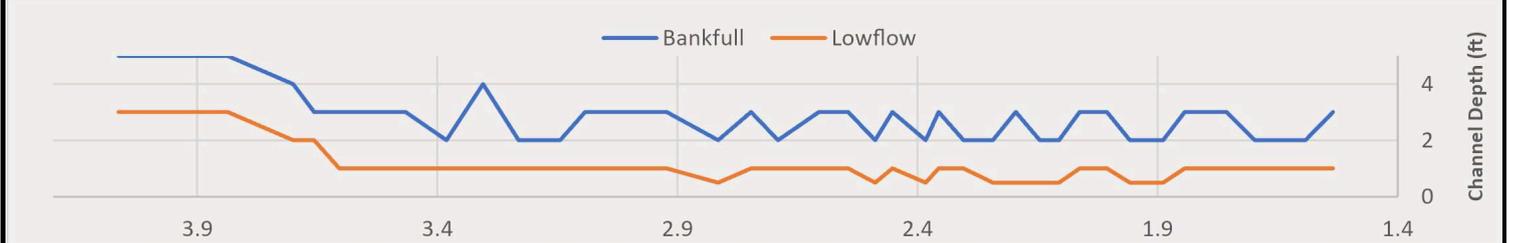
AVERAGE OVERALL SVAP RATING: **6.6**



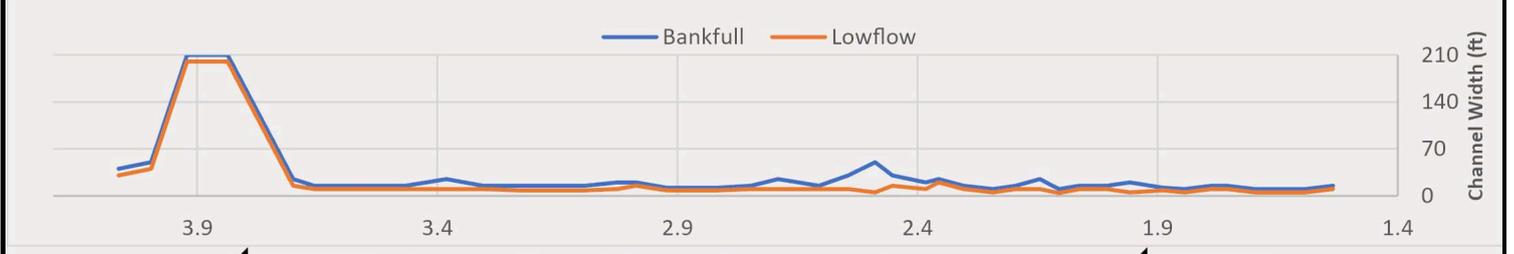
## Elevation Profile Substrate ◆ Silt/Clay



## Channel Depth



## Channel Width



← FLOW DIRECTION
**Creek Mile (4.06 at Tailwater, 1.53 at Headwater)**
← FLOW DIRECTION

# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH D

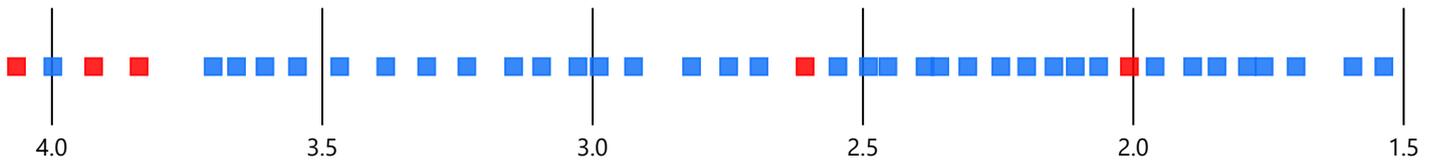
## Channel Conditions

Score ■ Excellent



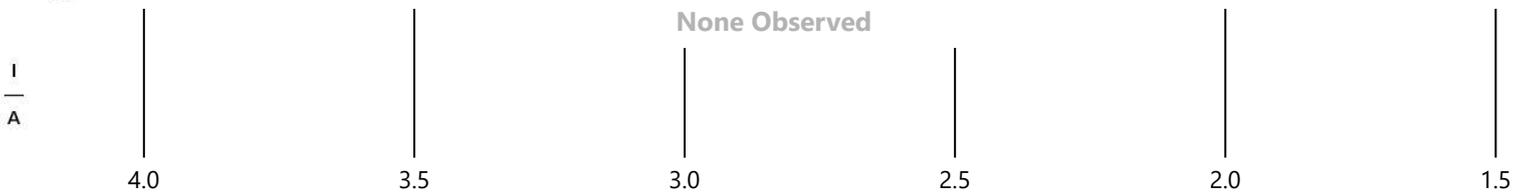
## Stream Bank Hardening

■ No ■ Yes



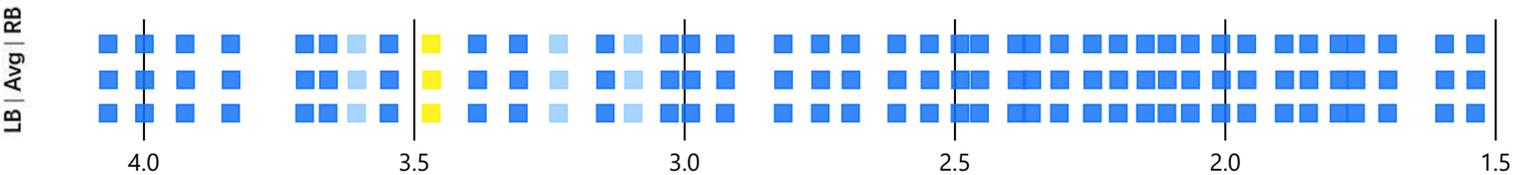
## Aggradation/Incision

■ Aggradation ▲ Incision



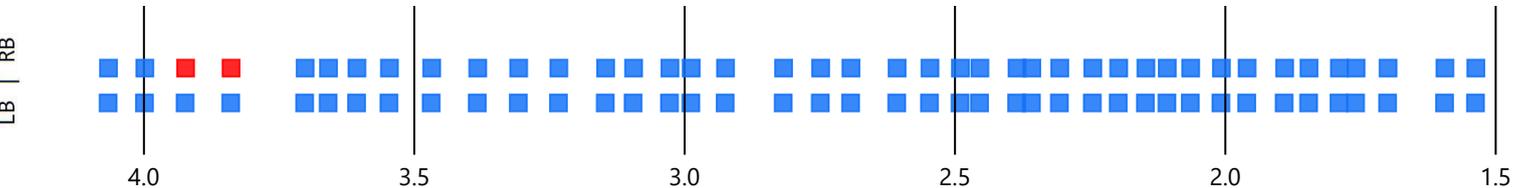
## Bank Stability

Score ■ Excellent ■ Good ■ Mediocre



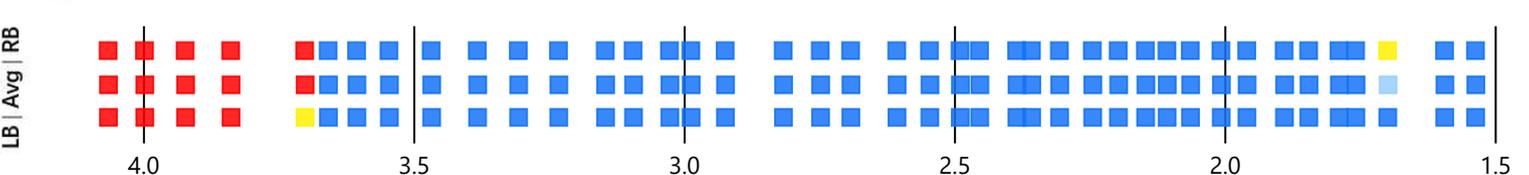
## Bank Condition

■ Hardened Structure ■ Natural



## Riparian Zone

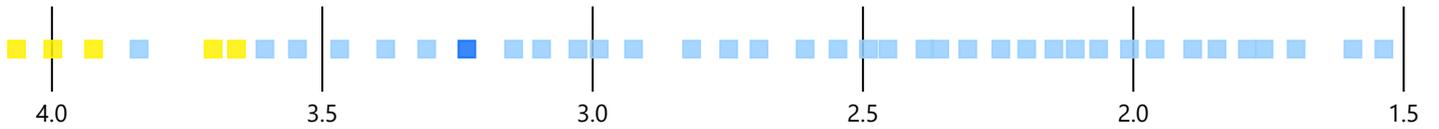
Score ■ Excellent ■ Good ■ Mediocre ■ Poor



REACH D

Water Appearance

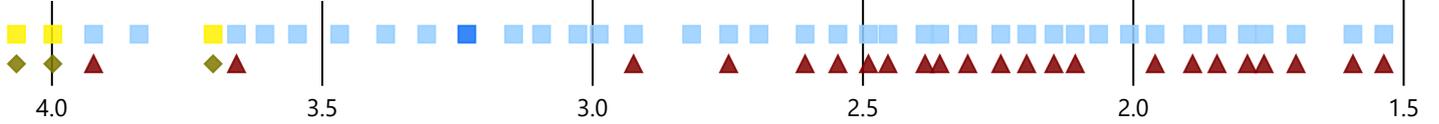
Score ■ Excellent ■ Good ■ Mediocre



Nutrient Enrichment

■ Low ■ Mild ■ Moderate

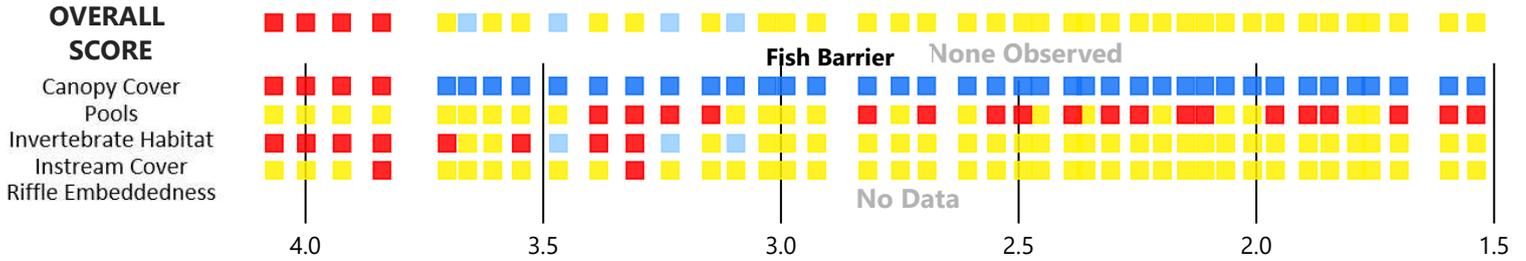
Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



Fish Habitat

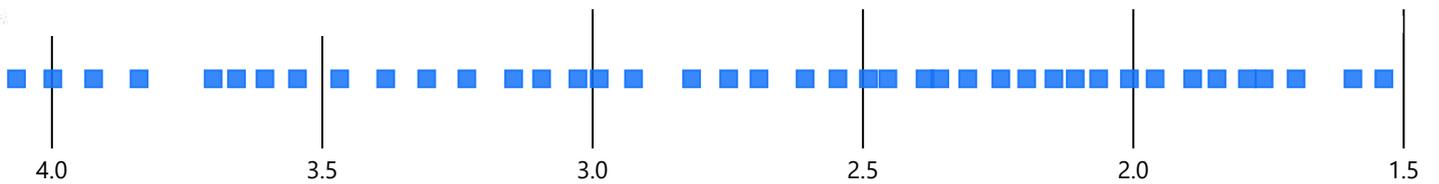
Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



Manure Presence

■ None



Invasive Species

None Observed



Aquatic Vegetation

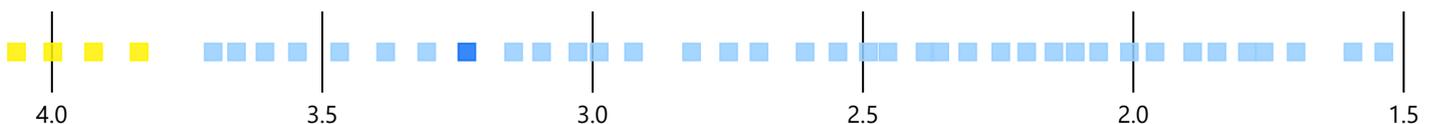
■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

BIG SIXMILE CREEK

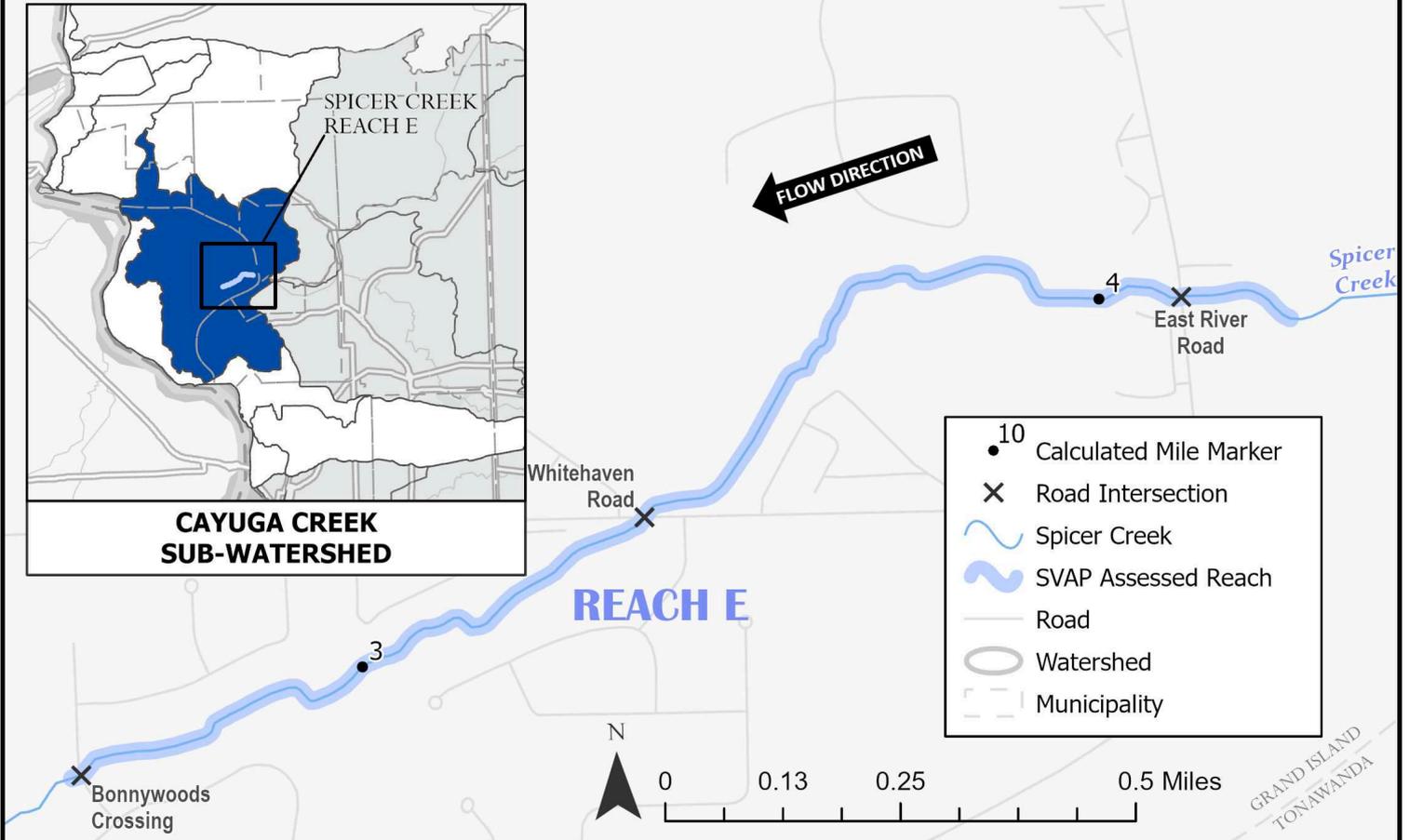
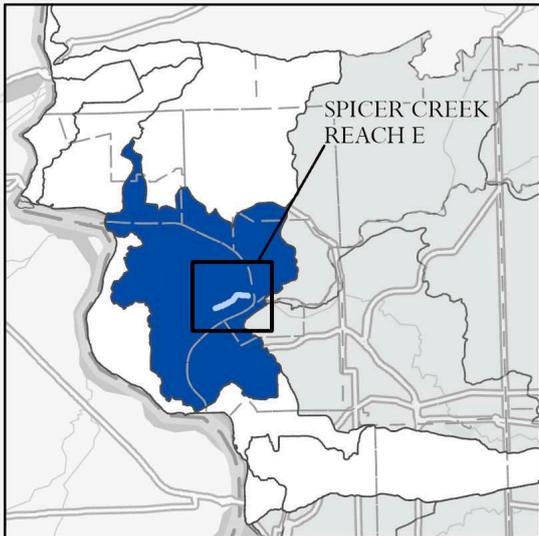
Score ■ Excellent ■ Good ■ Mediocre



# SPICER CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH E

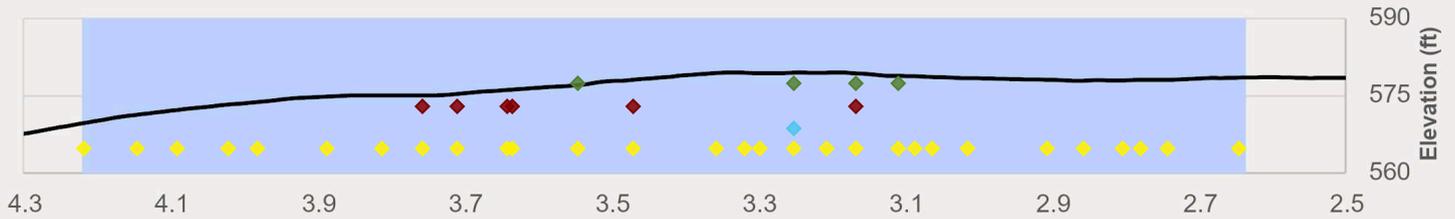
AVERAGE OVERALL SVAP RATING: **6.4**



- 10 Calculated Mile Marker
- ✕ Road Intersection
- ~ Spicer Creek
- ~ SVAP Assessed Reach
- Road
- Watershed
- - Municipality

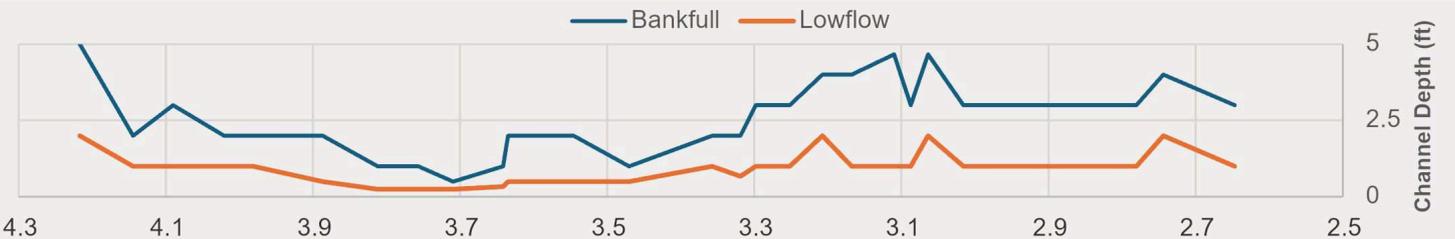
## Elevation Profile

Substrate: ◆ Cobble ◆ Gravel ◆ Sand ◆ Silt/Clay

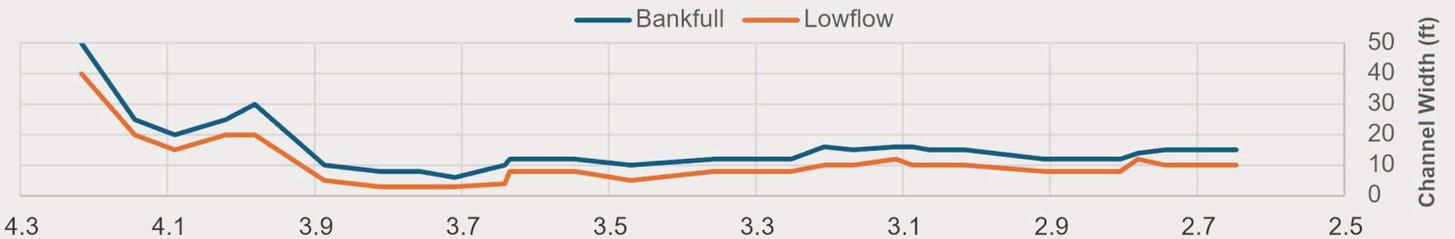


## REACH E

## Channel Depth



## Channel Width



← FLOW DIRECTION

Creek Mile (4.22 at Tailwater, 2.65 at Headwater)

← FLOW DIRECTION

# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

## REACH E

### Channel Conditions

Score ■ Excellent ■ Good



### Stream Bank Hardening

■ No ■ Yes



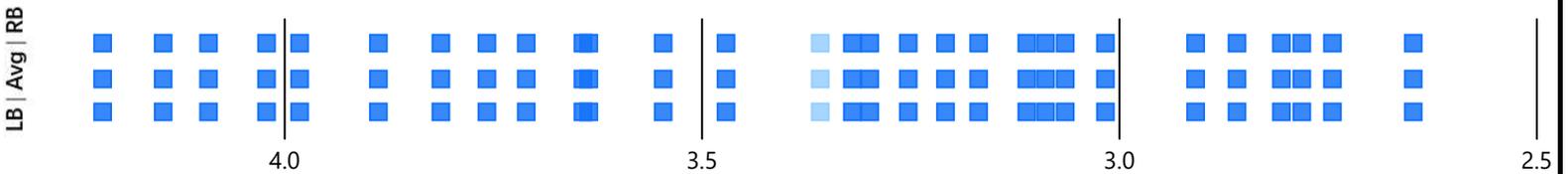
### Aggradation/Incision

■ Aggradation ▲ Incision



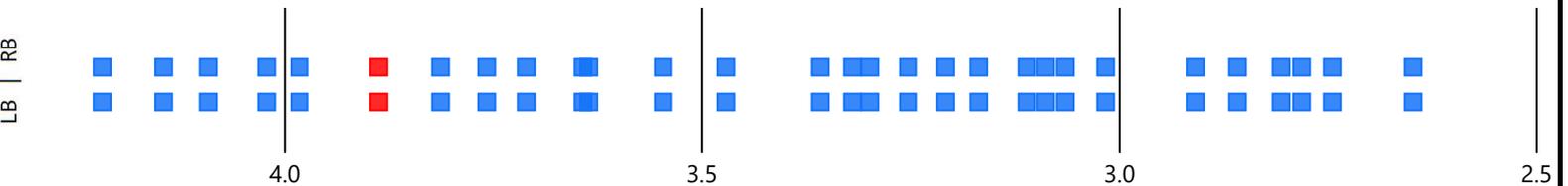
### Bank Stability

Score ■ Excellent ■ Good



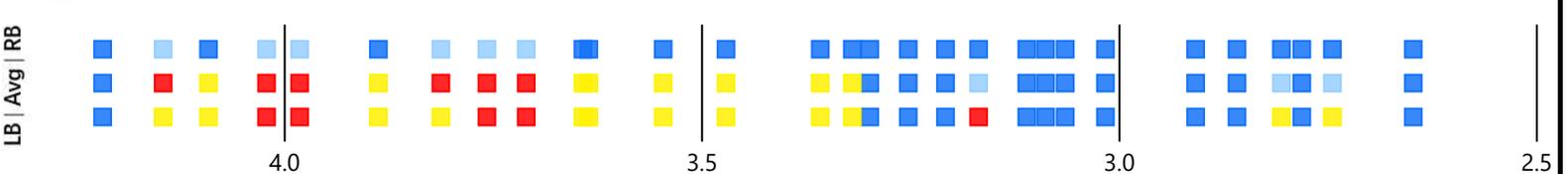
### Bank Condition

■ Hardened Structure ■ Natural



### Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



REACH E

Water Appearance

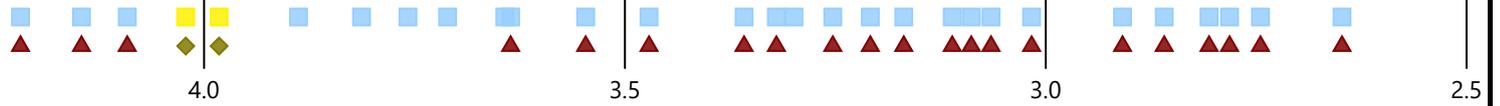
Score ■ Excellent ■ Good ■ Mediocre



Nutrient Enrichment

■ Mild ■ Moderate

Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



Manure Presence

■ None



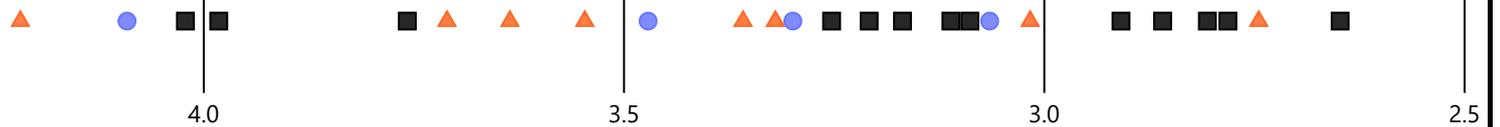
Invasive Species

None Observed



Aquatic Vegetation

■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

SPICER CREEK

Score ■ Good ■ Mediocre

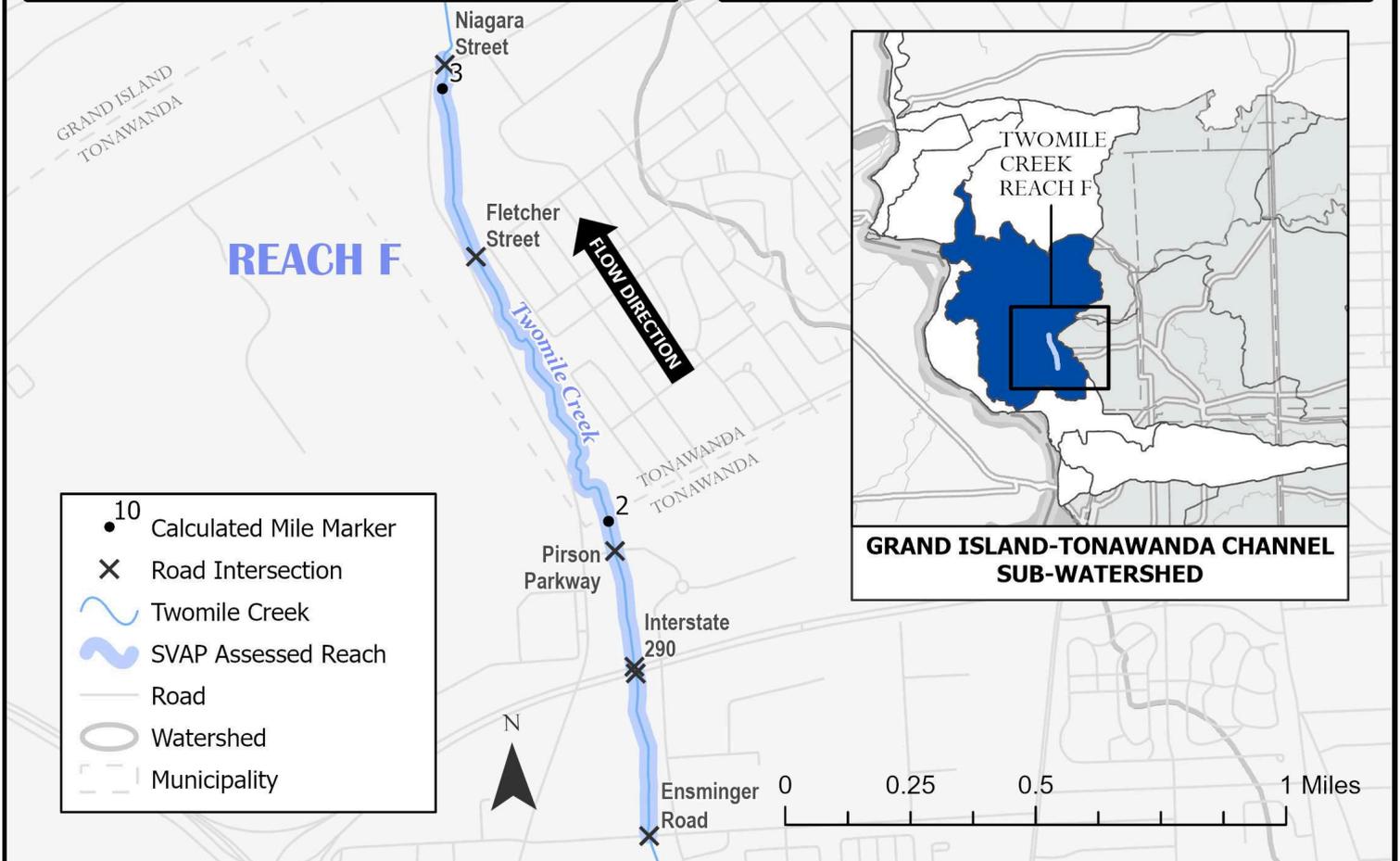


← FLOW DIRECTION Creek Mile (4.22 at Tailwater, 2.65 at Headwater) ← FLOW DIRECTION

# TWOMILE CREEK

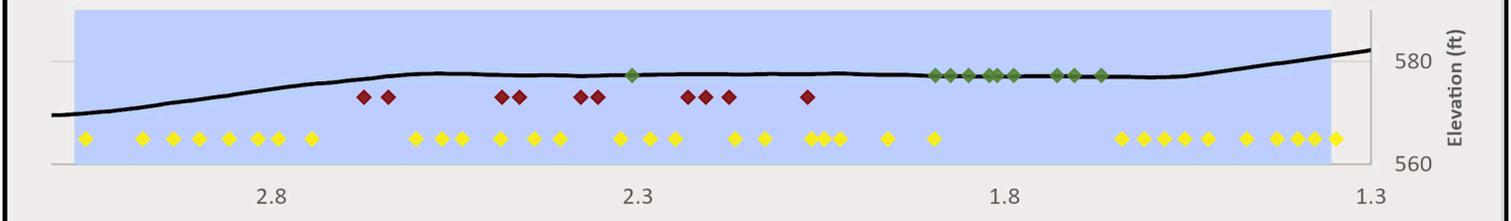
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH F

AVERAGE OVERALL SVAP RATING: **4.6**



## Elevation Profile Substrate

◆ Cobble ◆ Gravel ◆ Silt/Clay



## REACH F

## Channel Depth



## Channel Width



← FLOW DIRECTION Creek Mile (3.05 at Tailwater, 1.36 at Headwater) → FLOW DIRECTION

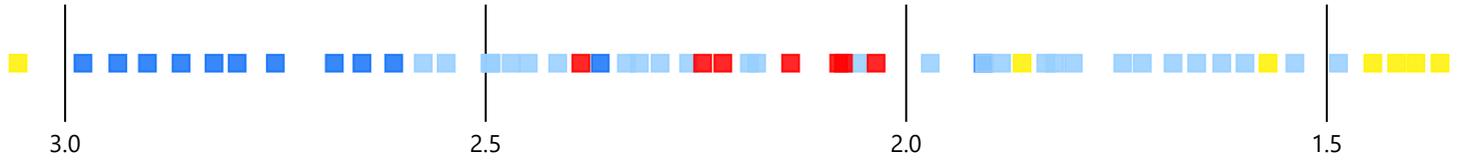
# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH F

## Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



## Stream Bank Hardening

■ No ■ Yes



## Aggradation/Incision

■ Aggradation ▲ Incision



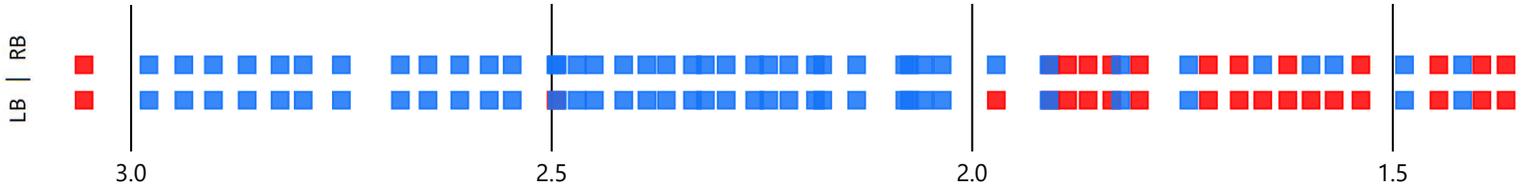
## Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



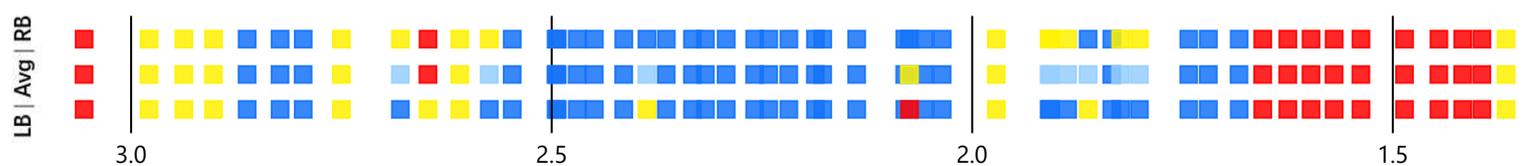
## Bank Condition

■ Hardened Structure ■ Natural



## Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

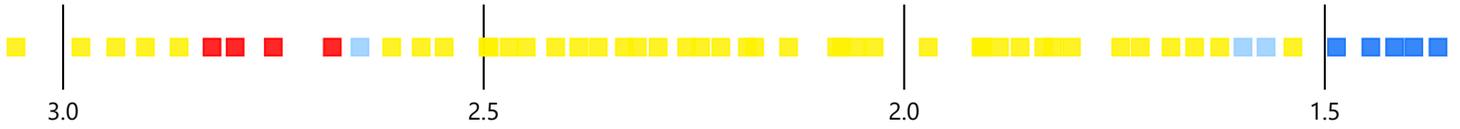


← FLOW DIRECTION Creek Mile (3.05 at Tailwater, 1.36 at Headwater) ← FLOW DIRECTION

REACH F

Water Appearance

Score ■ Excellent ■ Good ■ Mediocre ■ Poor



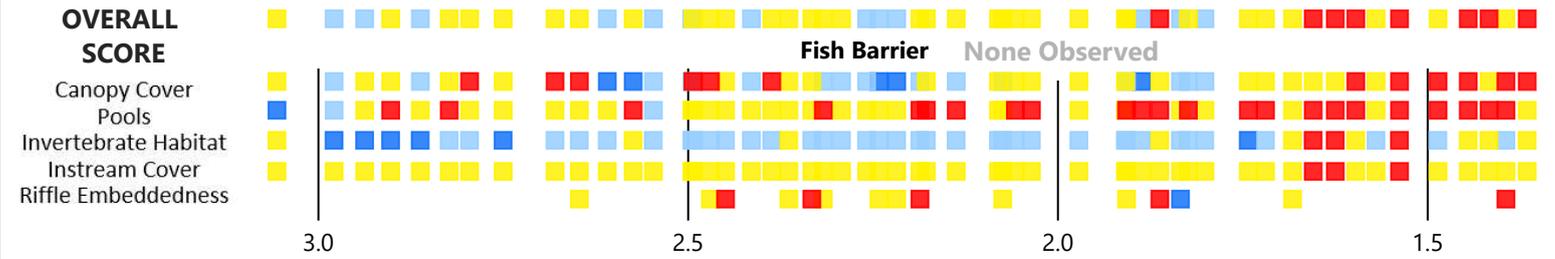
Nutrient Enrichment

■ Mild ■ Moderate ■ Severe  
 Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Bed



Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor *Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.*



Manure Presence

■ None



Invasive Species

● Japanese Knotweed



Aquatic Vegetation

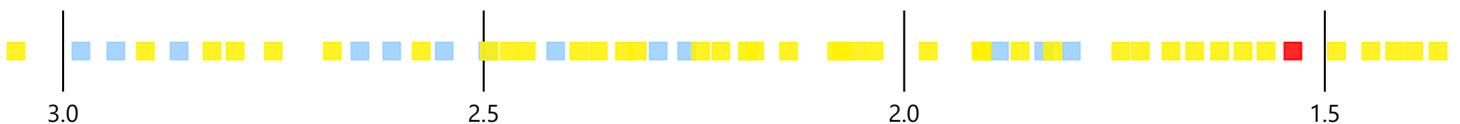
■ Both ▲ Emergent ● Submerged



OVERALL SVAP RATING

TWOMILE CREEK

Score ■ Good ■ Mediocre ■ Poor

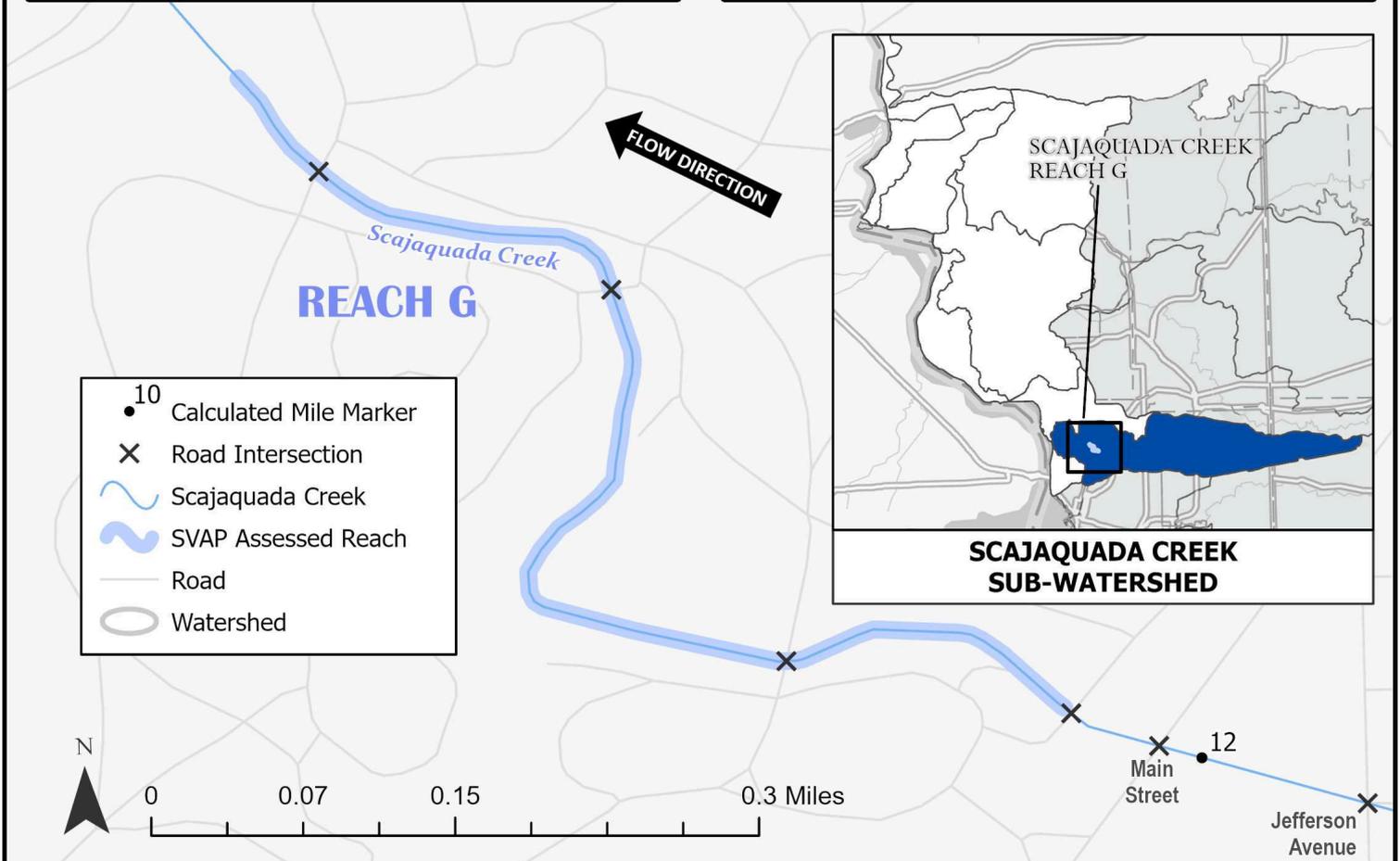


← FLOW DIRECTION Creek Mile (3.05 at Tailwater, 1.36 at Headwater) ← FLOW DIRECTION

# SCAJAQUADA CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH G

AVERAGE OVERALL SVAP RATING: **4.2**

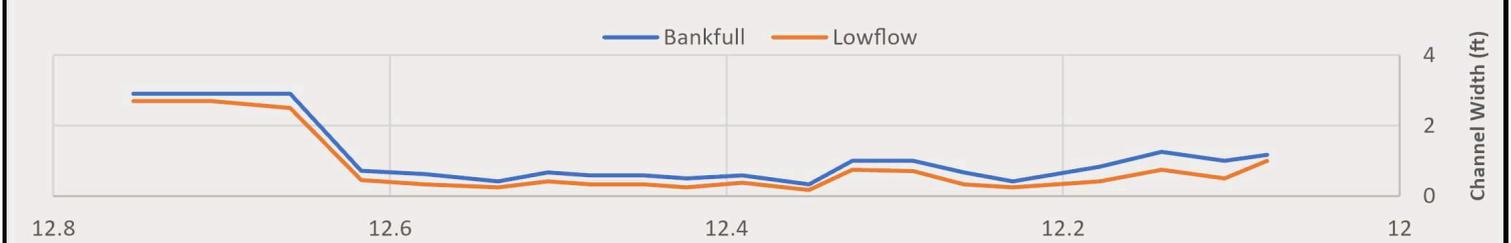


## Elevation Profile Substrate

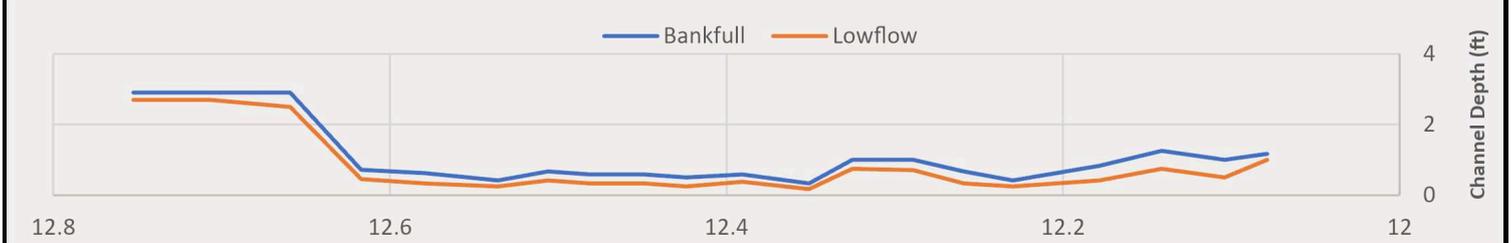


### REACH G

## Channel Depth



## Channel Width



← FLOW DIRECTION Creek Mile (12.75 at Tailwater, 12.08 at Headwater) FLOW DIRECTION →

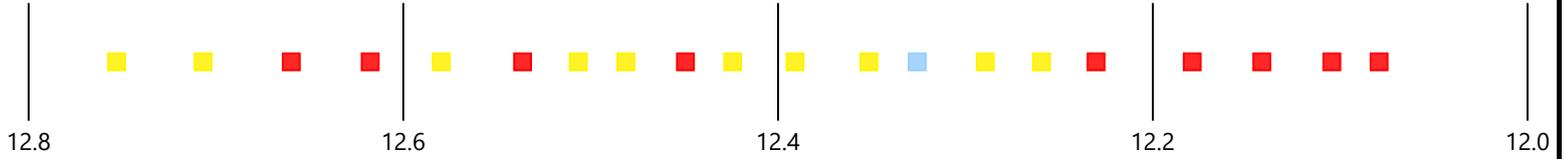
# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

REACH G

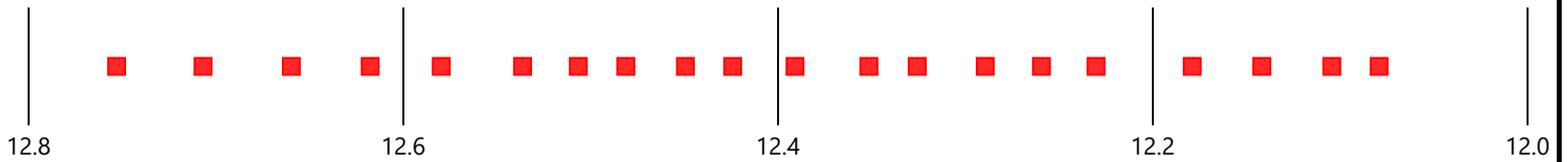
## Channel Conditions

Score ■ Good ■ Mediocre ■ Poor



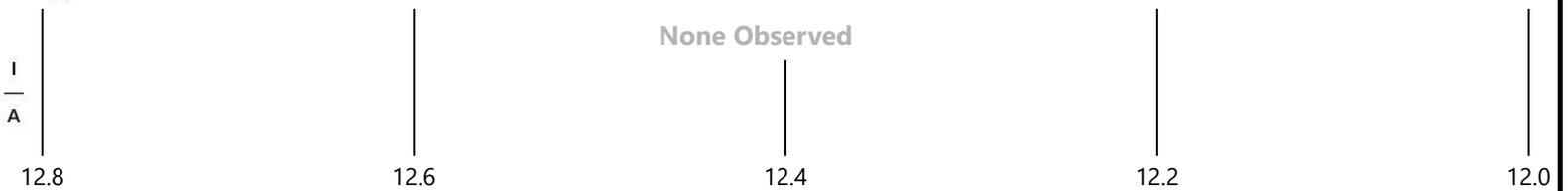
## Stream Bank Hardening

■ Yes



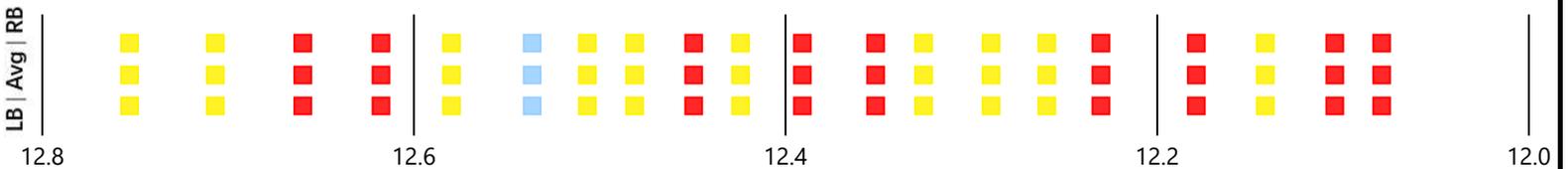
## Aggradation/Incision

■ Aggradation ▲ Incision



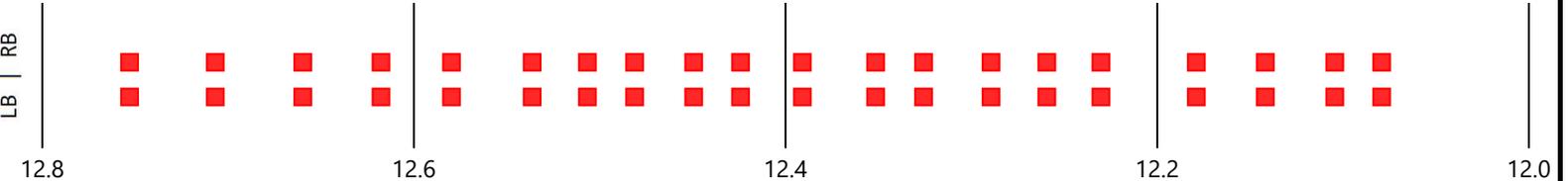
## Bank Stability

Score ■ Good ■ Mediocre ■ Poor



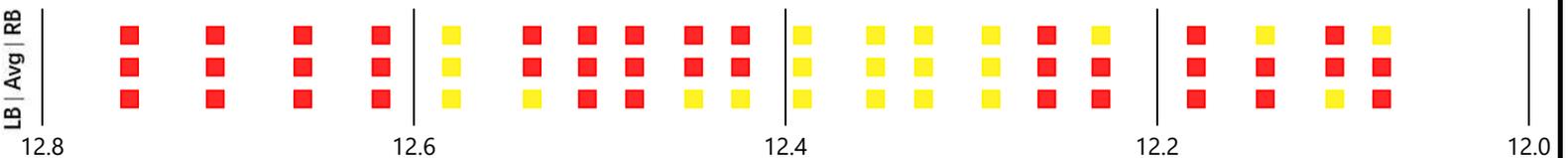
## Bank Condition

■ Hardened Structure ■ Natural



## Riparian Zone

Score ■ Mediocre ■ Poor



← FLOW DIRECTION Creek Mile (12.75 at Tailwater, 12.08 at Headwater) ← FLOW DIRECTION

REACH G

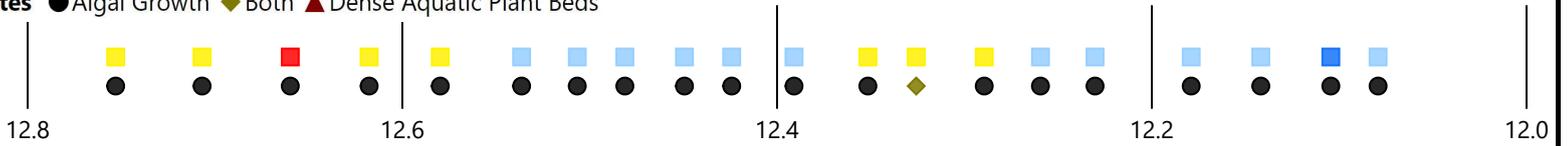
Water Appearance

Score ■ Excellent ■ Good ■ Poor



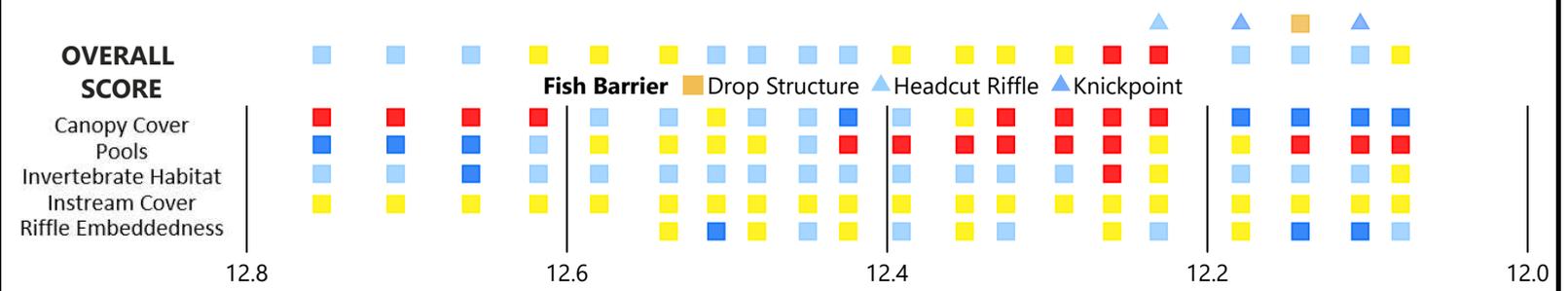
Nutrient Enrichment

Low ■ Mild ■ Moderate ■ Severe ■  
 Notes ● Algal Growth ◆ Both ▲ Dense Aquatic Plant Beds



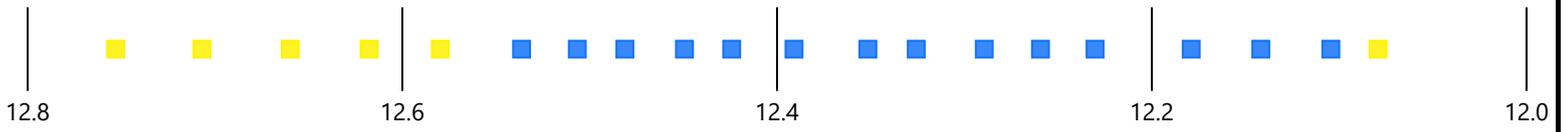
Fish Habitat

Score ■ Excellent ■ Good ■ Mediocre ■ Poor *Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.*



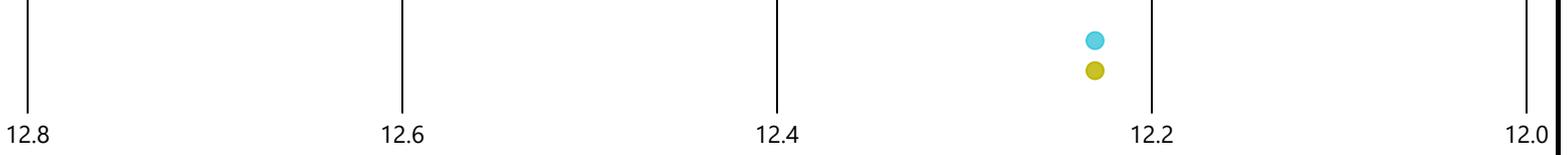
Manure Presence

Manure Present ■ None ■



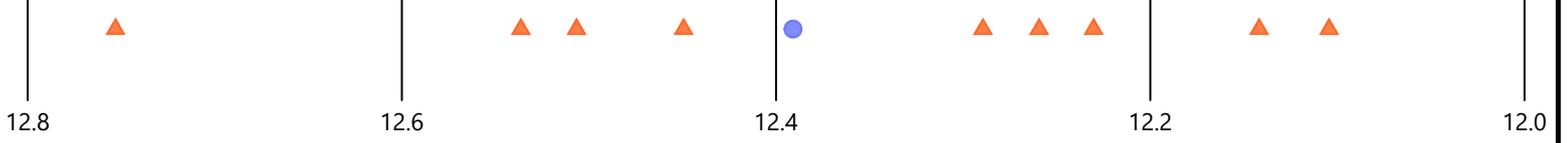
Invasive Species

Japanese Knotweed ● Yellow Flag Iris ●



Aquatic Vegetation

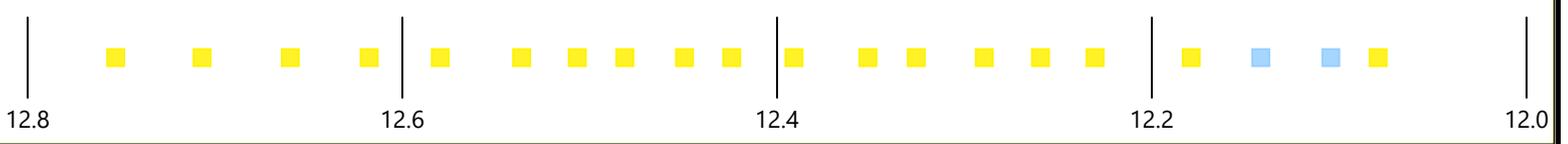
Both ■ Emergent ▲ Submerged ●



OVERALL SVAP RATING

SCAJAQUADA CREEK

Score ■ Good ■ Mediocre



← FLOW DIRECTION Creek Mile (12.75 at Tailwater, 12.08 at Headwater) FLOW DIRECTION ←

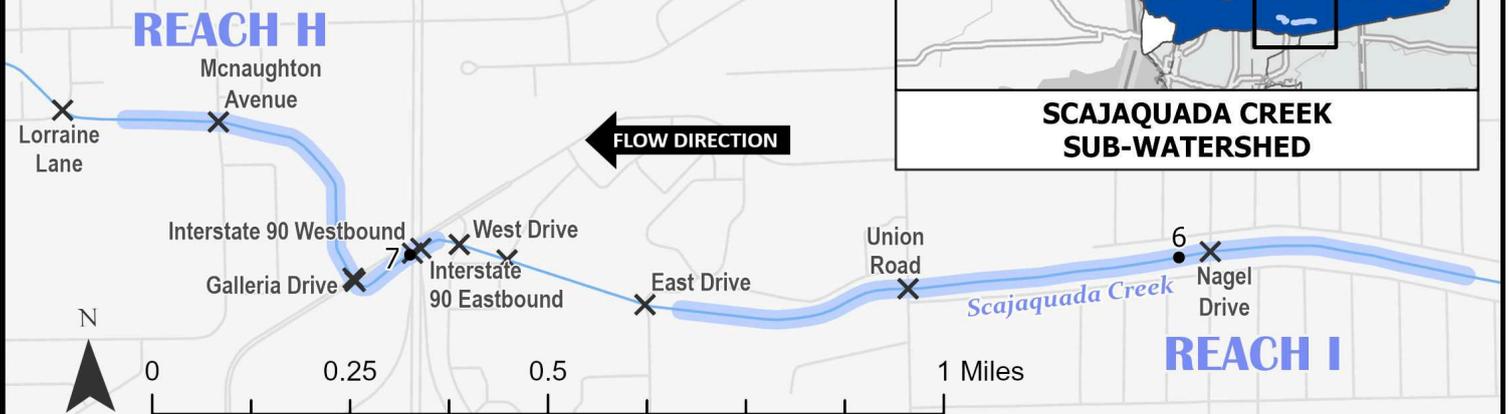
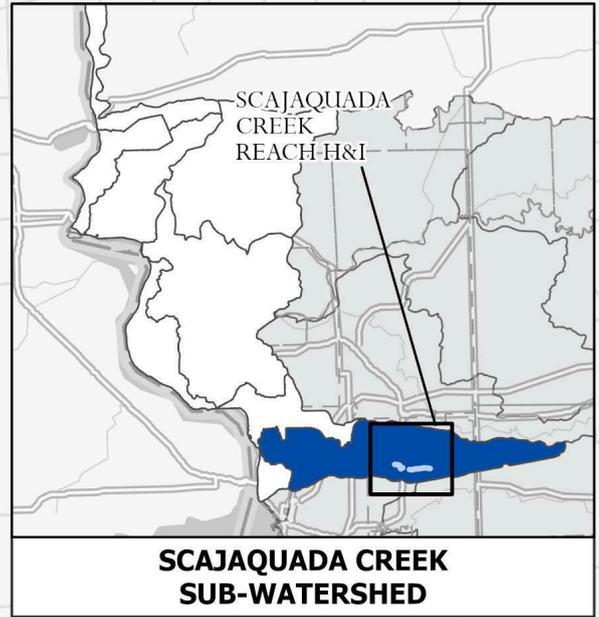
# SCAJAQUADA CREEK

STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH H&I

AVERAGE OVERALL SVAP RATING

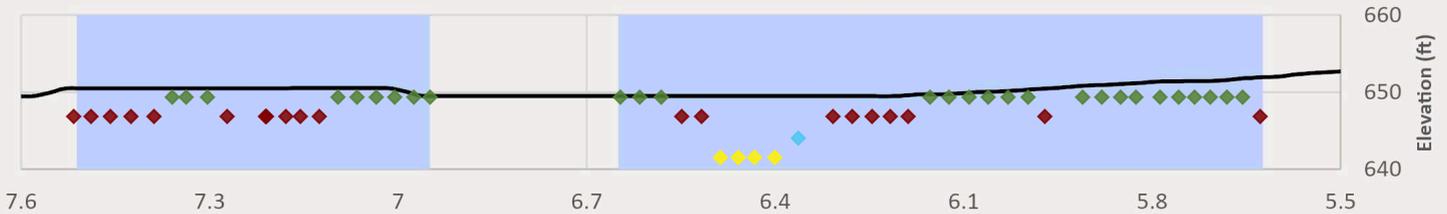
REACH H: **5.3** REACH I: **5.8**

- 10 Calculated Mile Marker
- ✕ Road Intersection
- ~ Scajaquada Creek
- ~ SVAP Assessed Reach
- Road
- Watershed



## Elevation Profile

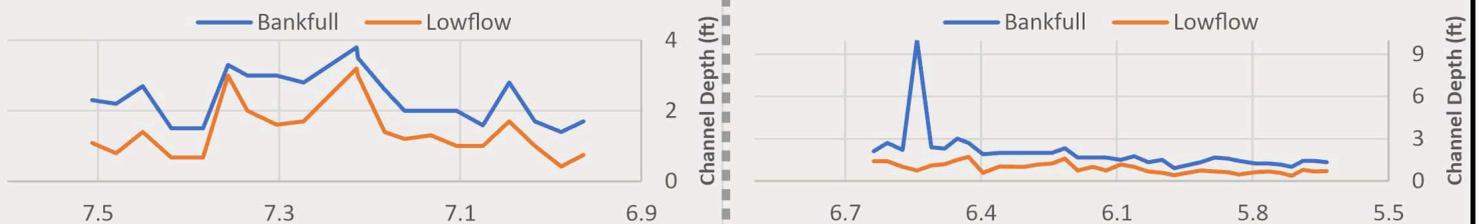
Substrate ● Cobble ● Gravel ● Sand ● Silt/Clay



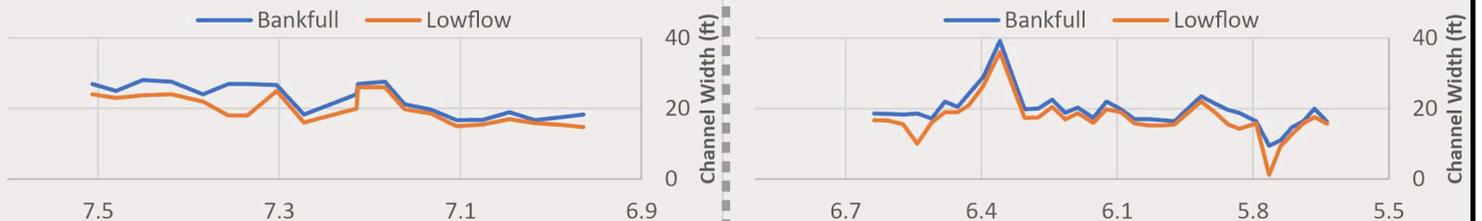
### REACH H

### REACH I

## Channel Depth



## Channel Width



FLOW DIRECTION Creek Mile (Reach H: 7.51 at Tailwater, 6.96 at Headwater; Reach I: 6.64 at Tailwater, 5.64 at Headwater) FLOW DIRECTION

# Classification Scheme for SVAP Parameters

Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

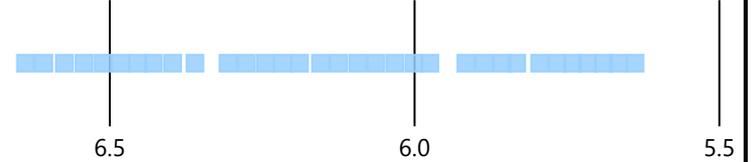
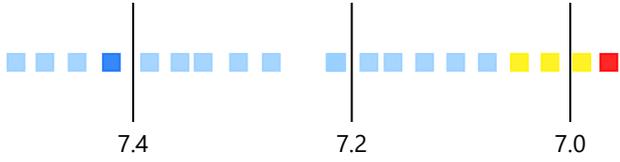
## REACH H

## REACH I

### Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

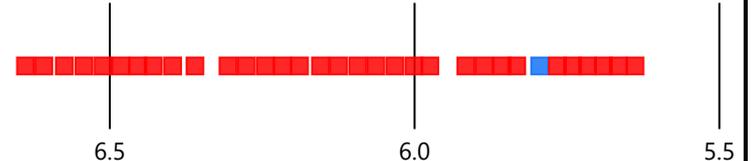
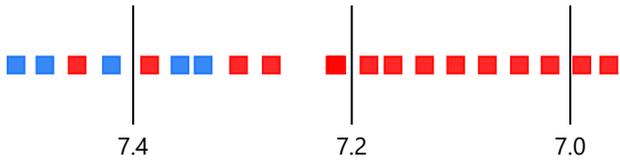
Score ■ Good



### Stream Bank Hardening

■ No ■ Yes

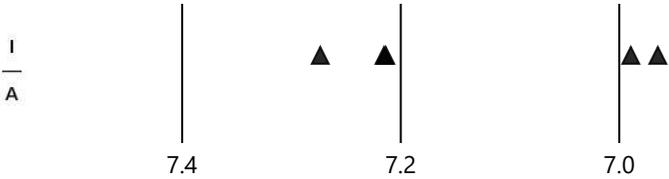
■ No ■ Yes



### Aggradation/Incision

■ Aggradation ▲ Incision

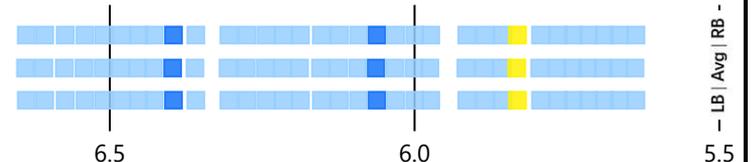
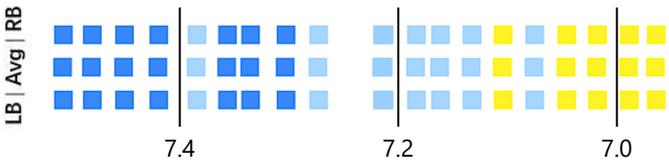
■ Aggradation ▲ Incision



### Bank Stability

Score ■ Excellent ■ Good ■ Mediocre

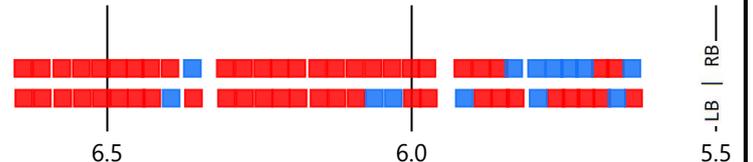
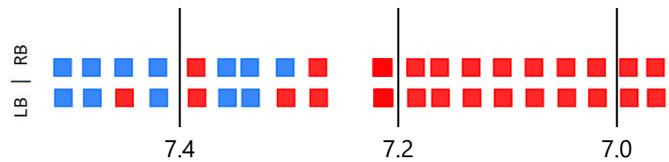
Score ■ Excellent ■ Good ■ Mediocre



### Bank Condition

■ Hardened Structure ■ Natural

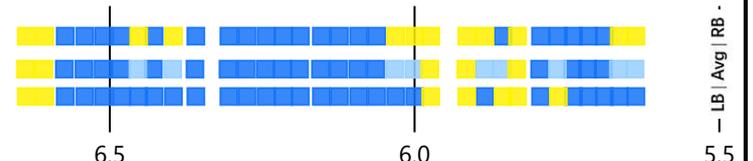
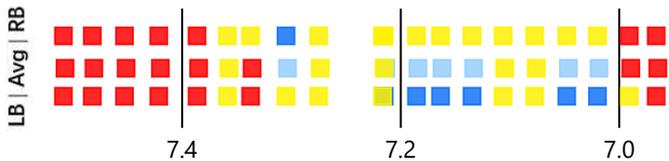
■ Hardened Structure ■ Natural



### Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Score ■ Excellent ■ Good ■ Mediocre

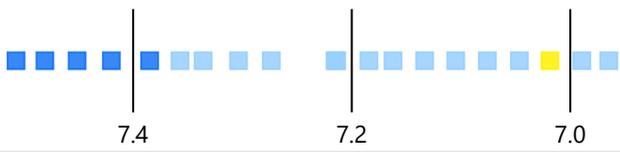


REACH H

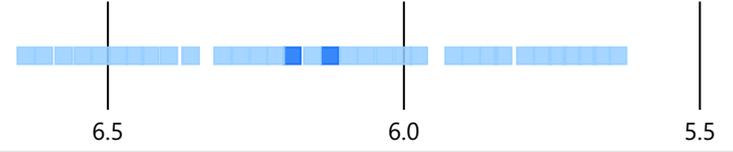
REACH I

Water Appearance

Score Excellent Good Mediocre



Score Excellent Good



Nutrient Enrichment

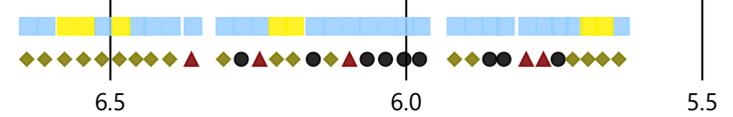
Mild Moderate

NE Notes: Algal Growth Both Dense Aquatic Plant Beds



Mild Moderate

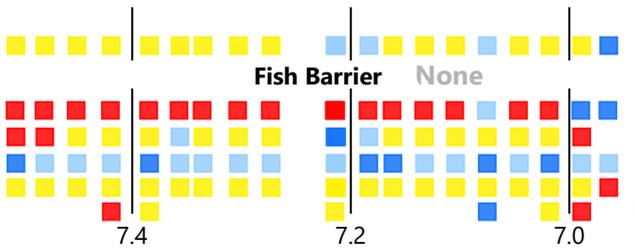
NE Notes: Algal Growth Both Dense Aquatic Plant Beds



Fish Habitat

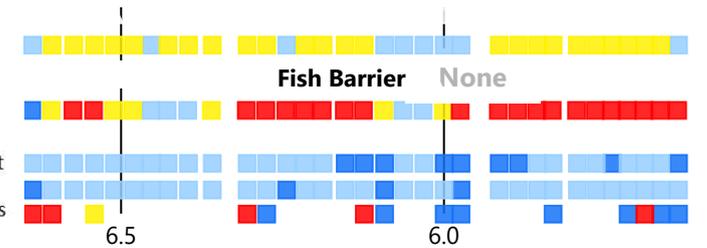
Score Excellent Good Mediocre Poor

Note: Overall Score of Fish Habitat was calculated by averaging scores for the five variables shown below.



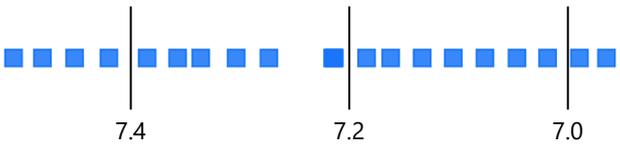
OVERALL SCORE

Canopy Cover Pools Invertebrate Habitat Instream Cover Riffle Embeddedness

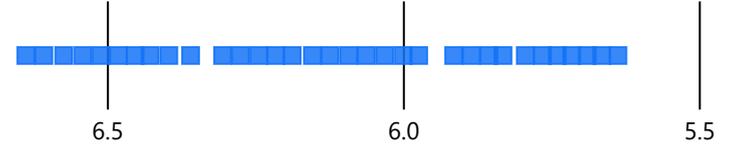


Manure Presence

None

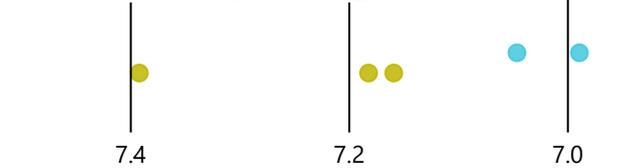


None

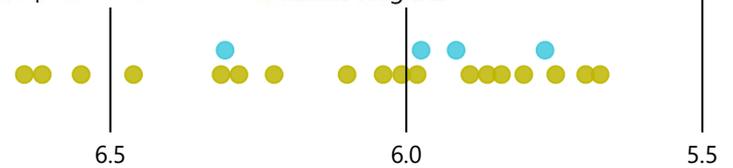


Invasive Species

Japanese Knotweed Yellow Flag Iris

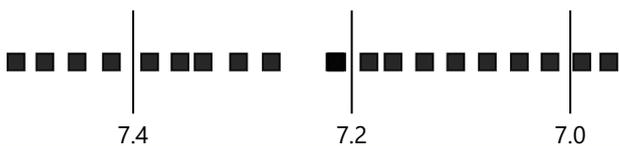


Japanese Knotweed Yellow Flag Iris

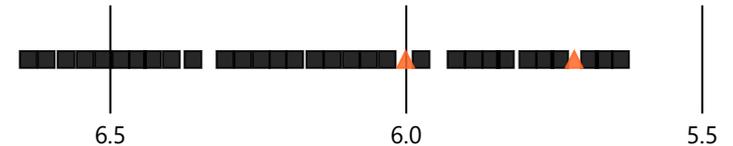


Aquatic Vegetation

Both Emergent Submerged



Both Emergent Submerged

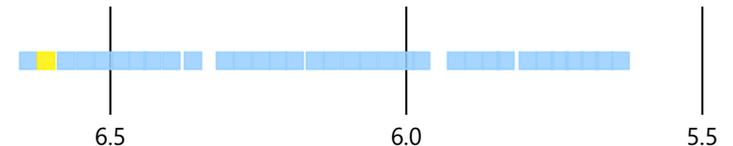
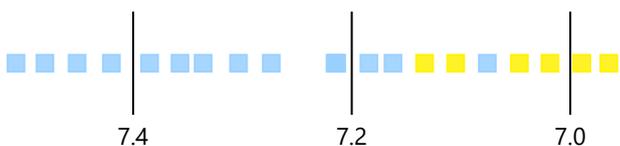


OVERALL SVAP RATING

SCAJAQUADA CREEK

Score Good Mediocre

Score Good Mediocre

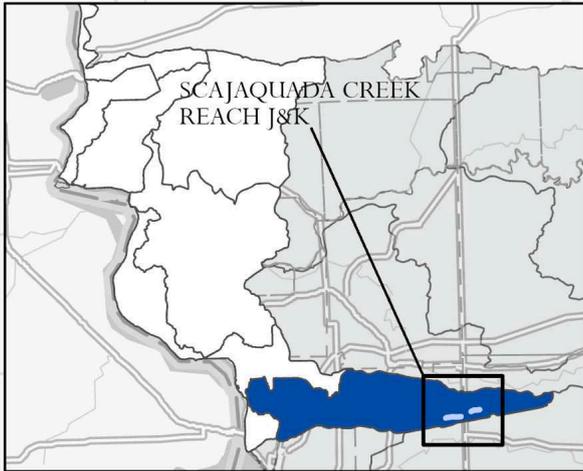


# SCAJAQUADA CREEK

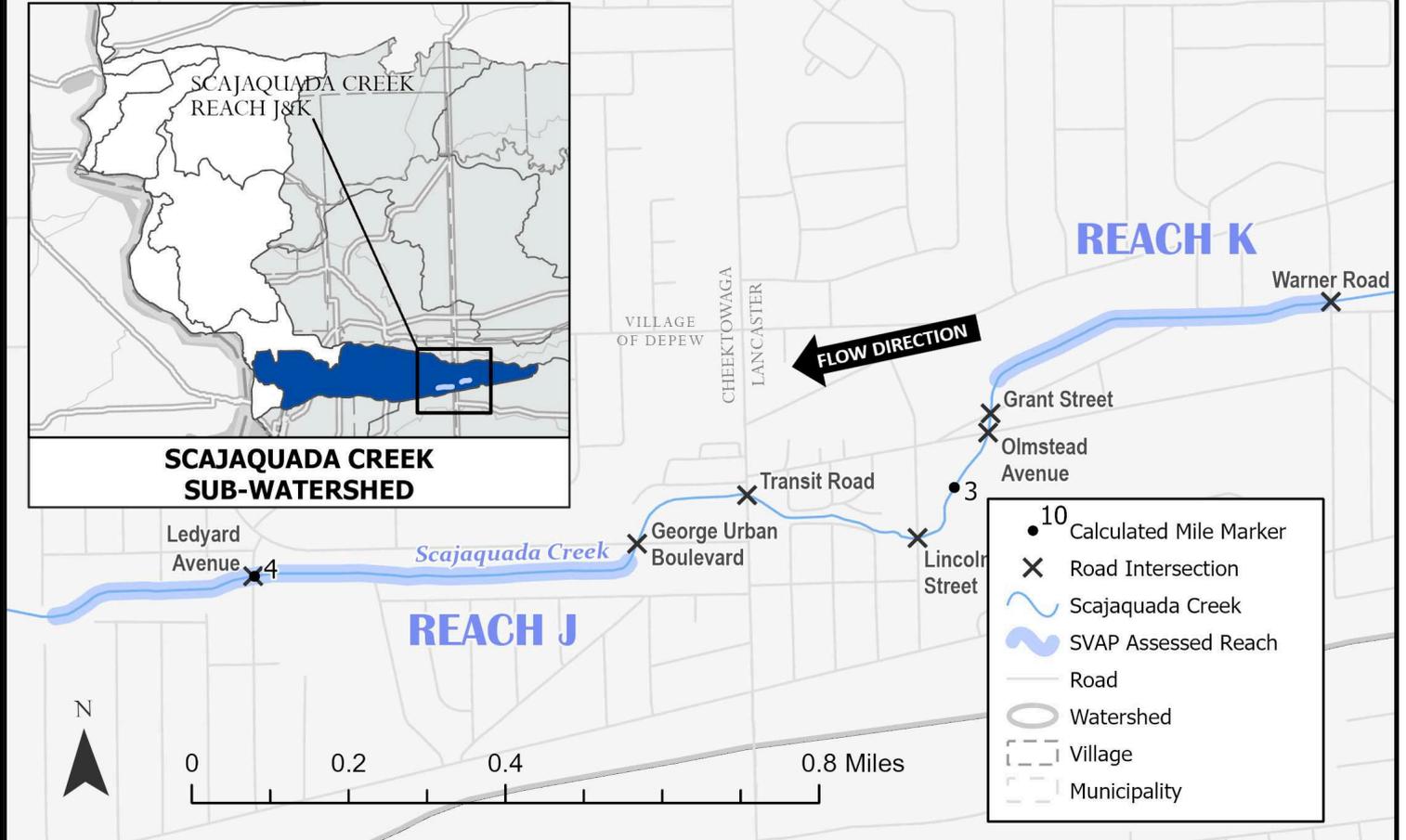
STREAM VISUAL ASSESSMENT PROTOCOL (SVAP) RESULTS FOR REACH J&K

AVERAGE OVERALL SVAP RATING

REACH J: **5.6** REACH K: **6.3**

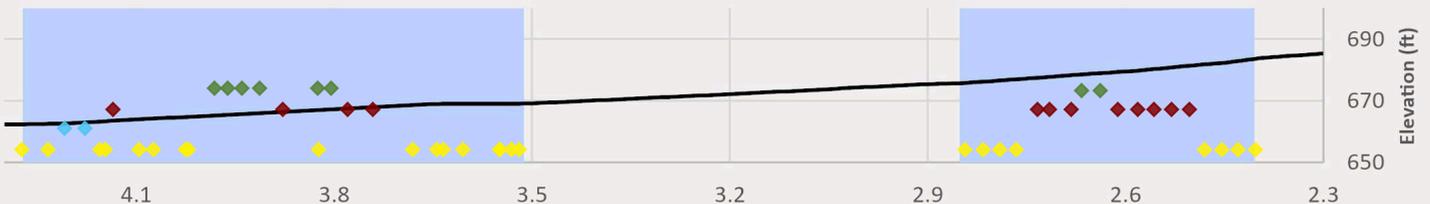


SCAJAQUADA CREEK SUB-WATERSHED



## Elevation Profile

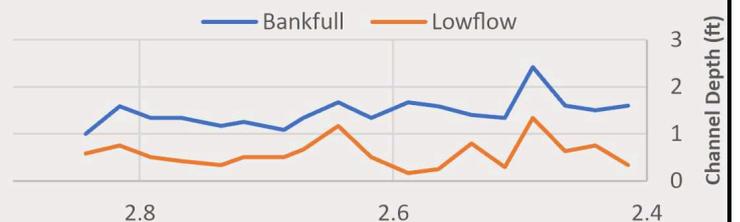
Substrate: ◆ Cobble ◆ Gravel ◆ Sand ◆ Silt/Clay



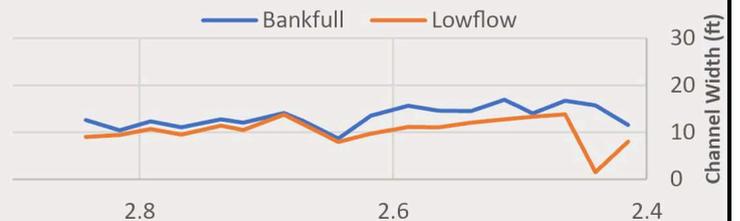
### REACH J

### REACH K

## Channel Depth



## Channel Width



← FLOW DIRECTION Creek Mile (Reach J: 4.26 at Tailwater, 3.52 at Headwater; Reach K: 2.84 at Tailwater, 2.41 at Headwater) FLOW DIRECTION →

# Classification Scheme for SVAP Parameters

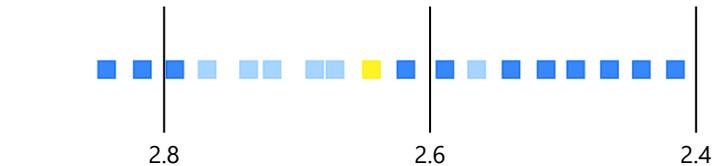
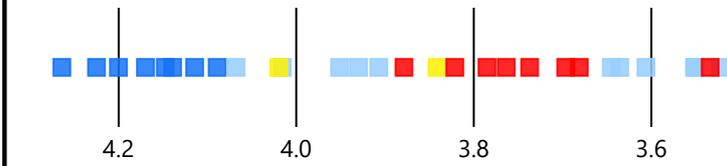
Color Classification				
SVAP Score (0-10)	0 - 2.5	2.6 - 5	5.1 - 7.5	7.6 - 10

## REACH J REACH K

### Channel Conditions

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

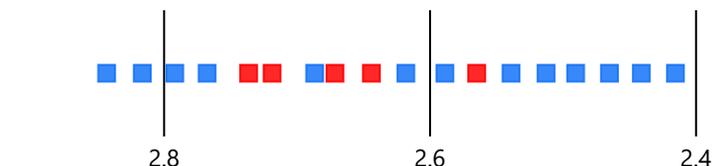
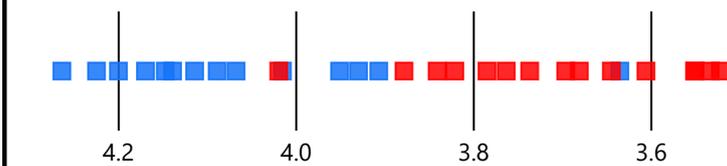
Score ■ Excellent ■ Good ■ Mediocre



### Stream Bank Hardening

■ No ■ Yes

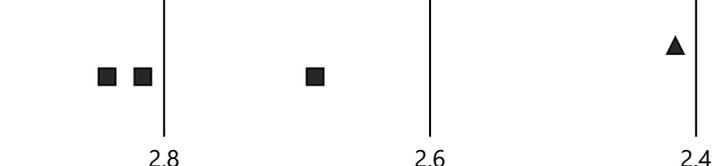
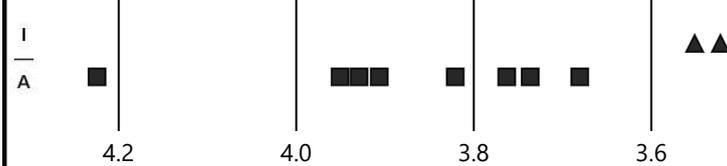
■ No ■ Yes



### Aggradation/Incision

■ Aggradation ▲ Incision

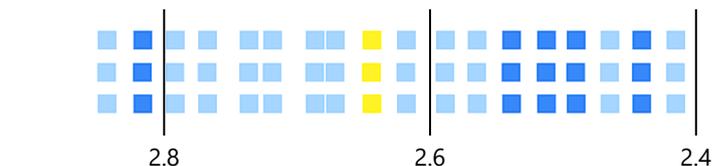
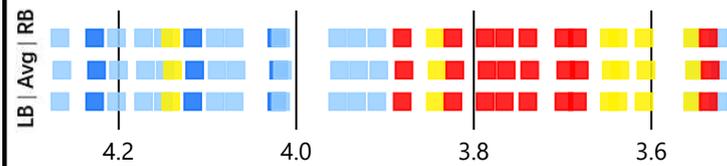
■ Aggradation ▲ Incision



### Bank Stability

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

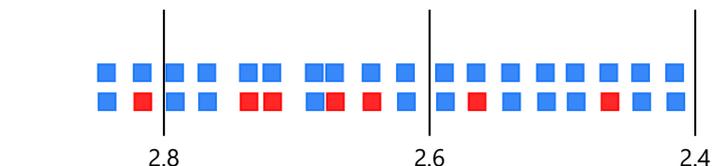
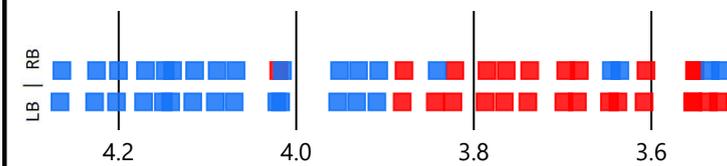
Score ■ Excellent ■ Good ■ Mediocre



### Bank Condition

■ Hardened Structure ■ Natural

■ Hardened Structure ■ Natural



### Riparian Zone

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

Score ■ Excellent ■ Good ■ Mediocre ■ Poor

