FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

BASIN MANAGEMENT ACTION PLAN FIELD SHEET

January 2022

Meter Passed End of Day CCV [Yes] / No

WIN Station Name: LONG BRANCH AT 07 MI DS OF CR 13 **Date:** 3/27/2024

WIN/Field ID: G2CE0036 **WBID:** 3030 **ENR:** - **Latitude:** 28.53508

County: ORANGE **Org ID:** 21FLCEN **Longitude:** -81.10941

Receiving Body of Water: Econlockhatchee River **RQ-** 2024-03-25-06

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Leif Boman		x		x	x
[x] Katie March	x	x		x	x
[x] Victoria Schwartz	x		x		
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [x] Syringe
- [x] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Secchi

Secchi Equipment ID: Knothead

Collection Method

- [x] **Wading**
- [ ] **From Shore**
- [ ] **Other** _____
- [ ] **Canoe/Kayak**
- [ ] **Electric Motor**
- [ ] **Gasoline Motor**

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# CRAW DADDY

Photos: YES **Flow:** FLOW **Tide:**

Tide Times: High: Low:

Biological Samples Collected: [ ] None [x] HA [x] SCI [x] RPS [ ] Algae ID [ ] LVS [ ] LVI Other:

SBIO ID Numbers: VISIT ID: 89023 RPS: 10298 2478108

Notes:

OVERCAST. RETRIEVED CM DEPLOYED SONDE - SLIMJIM / SCI COLLECTION TIME: 1130

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** _____ (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: EST **Time:** 1120 **Field ID:** FB_03272024 (Blank Type_DDMMYYYY)

DI Source: Lab sink **Location:** Truck near site

DI Type: Field Blank **Equipment ID:** _____

DI Container (Name/ID): Butter Baby **DI Container Type:** Carboy

LIMS EVENT ID: CEN-DIST-2024-03-28-01 **WIN Import ID:** 48913

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 6/11/24 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** VLS 6/13/24 (Initials/Date)

Scan/Save Field Sheets KWM 6/26/24 (Initials/Date) **Migrate Data to WIN:** KWM 6/26/24 (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

RQ-2024-03-25-06
Customer: CEN-DIST
Project ID: BASIN MANAGEMENT ACTION PLAN

Collected By: Leif Boman, Katie March
Field Report Prepared By: Leif Boman
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G2CE0036

Location: LONG BRANCH AT 07 MI DS OF CR 13

Comments: BOD sample(s) submitted to contract laboratory.

Matrix: Fresh

(Check one) ☒ GRAB ☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
	1100 EST	4.38	49.1	20.9	7.09	0.1	0.2 ☒ VOB (S)	0.2	370.2	0.18
3/27/2024							Central Lab please use top row for login purposes			
	EST									

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H_2SO_4*	☒ <2	1	A
	Lot # SA3340020 **Exp:** 12/11/2024				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO_3*	☐ <2	1	A
	Lot # NA3193130 **Exp:** 07/27/2024				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 17769663	**Syringe Lot#**	3066762		
Biochemical Oxygen Demand (BP-1L)	**BODTEST** OV-BODUNIN	X	ICE		
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC **Formalin Lot #** 9.750623WB	☒ Formalin		2	B
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		1	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	MCAA Exp. Date		
Pesticides (BG-500ML) (BG-1L)	x W-E8321-DI x WE8321-MS x W-PSNP-TQ W-CT-CI-R; W-PCL-TQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution) X W-TR-SQ-R; W-PCB-TQ-R	☒ Ice	MCAA Lot#	5	A
Phytoplankton/Periphyton	DTY-QN-C PKD-QN-BV	☐ Ice			

Name: Leif Boman, Katie March

Signature: Victoria Schwartz

Date: 03/27/2024

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

RQ- 2024-03-25-06 **Collected By:** Leif Boman, Katie March

Customer: WQAP **Field Report Prepared By:** Leif Boman, Katie March

Project ID: SMP **Sampling Agency:** FDEP

BLANK

FieldID: FB_03272024

Comments:

Matrix: Field Blank (Check one) ☐ COMPOSITE ☒ GRAB

Date	Time	DI Source: Lab sink
3/27/2024	1120 EST	

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	☐ <2	1	C
	Lot # SA3340020 **Exp:** 12/11/2024				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO3	☐ <2	1	C
	Lot # NA3193130 **Exp:** 07/27/2024				
Filtered Nutrients (P125ML)	☒ W-PO4-F Filter ☒ Field Filtered 0.45 µm	☒ Ice		1	C
	Filter Lot # 17769663				
	Syringe Lot # 3066762				
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-IC / TDS	☒ Ice		1	C
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	MCAA Exp. Date		
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-Cl-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☒ W-TR-SQ-R ☐ W-PCB-TQ-R	☒ Ice	MCAA Lot#	3	C

Name: Leif Boman, Katie March

Signature:

Date: 03/27/2024

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
		62CE0036	3/27/24	Econ River
REMARKS:	COUNTY: Orange	LOCATION: Long Branch		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 10	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 8	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat ≈ 9% 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 13	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 13 Primary Score 44	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components **Artificial Channelization** 20	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 10 Left Bank 10 Secondary Score 80	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

124 **TOTAL SCORE**

Date: 3/27/24	Analyst: Katie Marsh, Leif Bowman, Victoria Schwartz	Signature: K Marsh, [illegible]

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID _____ LATITUDE _____

COUNTY Orange STORET # 62E0036 LONGITUDE _____

DATE 3/27/24 TIME _____ SAMPLING AGENCY _____

SITE NAME Long Branch

FIELD ID/NAME _____ RECEIVING BODY OF WATER Eno River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
100							

Landscape Development Intensity Index (LDI): _____

Local Watershed Erosion (select one): ☐ None ☑ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☑ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank: >18 Right Bank: >18

Hydrologic Modification Score (per FT 3101): _____

High Water Mark: 1.82 (m) (above present water level) + 0.2 (present depth) = 1.24 (above bed)

Artificially Impounded: ☐ Yes ☑ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect: 1.7 m wide

_____ m/s	0.17 m/s	_____ m/s
_____ m deep	0.2 m deep	_____ m deep

Artificially Channelized: ☑ No ☐ Mostly recovered, more sinuous ☐ Some recovery ☐ Recent, severe

Canopy Cover %: ☐ Open ☐ Lightly Shaded (11-45%) ☑ Heavily Shaded ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils: ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors: ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____

Smothering of Substrates

Sand Smothering:	☑ None	☐ Slight	☐ Moderate	☐ Severe
Silt Smothering:	☐ None	☐ Slight	☑ Moderate	☑ Severe
Algae Smothering:	☐ None	☐ Slight	☑ Moderate	☑ Severe

SUBSTRATE TYPE

Assessment Tool: ☑ SCI ☑ RPS ☐ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)		7	
Undercut Banks / Roots		7	
Leaf Packs or Mat			
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....		6	
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)
Top:	0.1	20.9	7.09	4.38	49.1	370.2	0.18
Mid:							
Bottom							

SECCHI (M): _____ ☑ VOB

TOTAL DEPTH: 0.2

Meter ID: Crew Daddy

Water Odors Normal ☑ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☑ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☑ Yes ☐ No

Sample Preserved? ☑ Yes ☐ No

Lot Number: _____ Exp: _____

Color Tannic ☑ Green (Algae) ☐ Clear ☐ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☑ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Clarity Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque ☐

System Type: Stream ☑ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ _____

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☑	☐
Fish:	☐	☐	☑	☐
Aquatic Plants:	☑	☐	☐	☐
Iron/Sulfur Bacteria:	☑	☐	☐	☐

AMBIENT FIELD CONDITIONS / NOTES:

More smothering of snags & roots than usual, but habitat still quite productive

☑ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM: Katie March, Leif Boman, Victoria Schwartz

SIGNATURE: K March DATE: 3/27/24

62-160.800, F.A.C.

Revision Date: January 2017

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Long Branch | Date: 3/27/24 | County: Orange | Storet Number: 62LE003K

Analyst: Katie March | Signature: KMarch

Comments: <2m² veg, no LVS

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

Long Branch BMAP

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Investigators: Victoria Schwartz, KM, LB

County: Orange

STORET Station Number: WIN GRLE0036

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	3		
	2	3		
	3	N		
	4	N		
	5	N		86
	6	N		
	7	N		
	8	N		
	9	N		
10	1	3		
	2	N		
	3	N		
	4	N		
	5	N		95
	6	N		
	7	N		
	8	3		
	9	(4)		
20	1	3		
	2	N		
	3	N		
	4	N		
	5	(5)		76
	6	N		
	7	N		
	8	(4)		
	9	3		
30	1	|		
	2	|		
	3	|		
	4	|		
	5	N		74
	6	|		
	7	|		
	8	|		
	9	|		
40	1	3		
	2	N		
	3	N		
	4	N		
	5	N		87
	6	N		
	7	3		
	8	N		
	9	(4)		
50	1	|		
	2	|		
	3	|		
	4	|		
	5	N		91
	6	|		
	7	|		
	8	|		
	9	|		

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	|		
	2	|		
	3	|		
	4	|		
	5	N		78
	6	|		
	7	|		
	8	|		
	9	|		
70	1	|		
	2	|		
	3	|		
	4	|		
	5	N		64
	6	|		
	7	|		
	8	|		
	9	|		
80	1	N		
	2	N		
	3	N		
	4	N		
	5	N		62
	6	N		
	7	N		
	8	(4)		
	9	3		
90	1	(4)		
	2	N		
	3	N		
	4	N		
	5	N		78
	6	N		
	7	N		
	8	N		
	9	3		
100	1	N		
	2	N		
	3	3		
	4	3		
	5	N		
	6	N		
	7	(4)		
	8	N		
	9	(4)		

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

Secchi depth	0.2 (NOS)
Estimated?	

# points ranked 4-6	8
total points assessed	99
% points ranked 4-6	

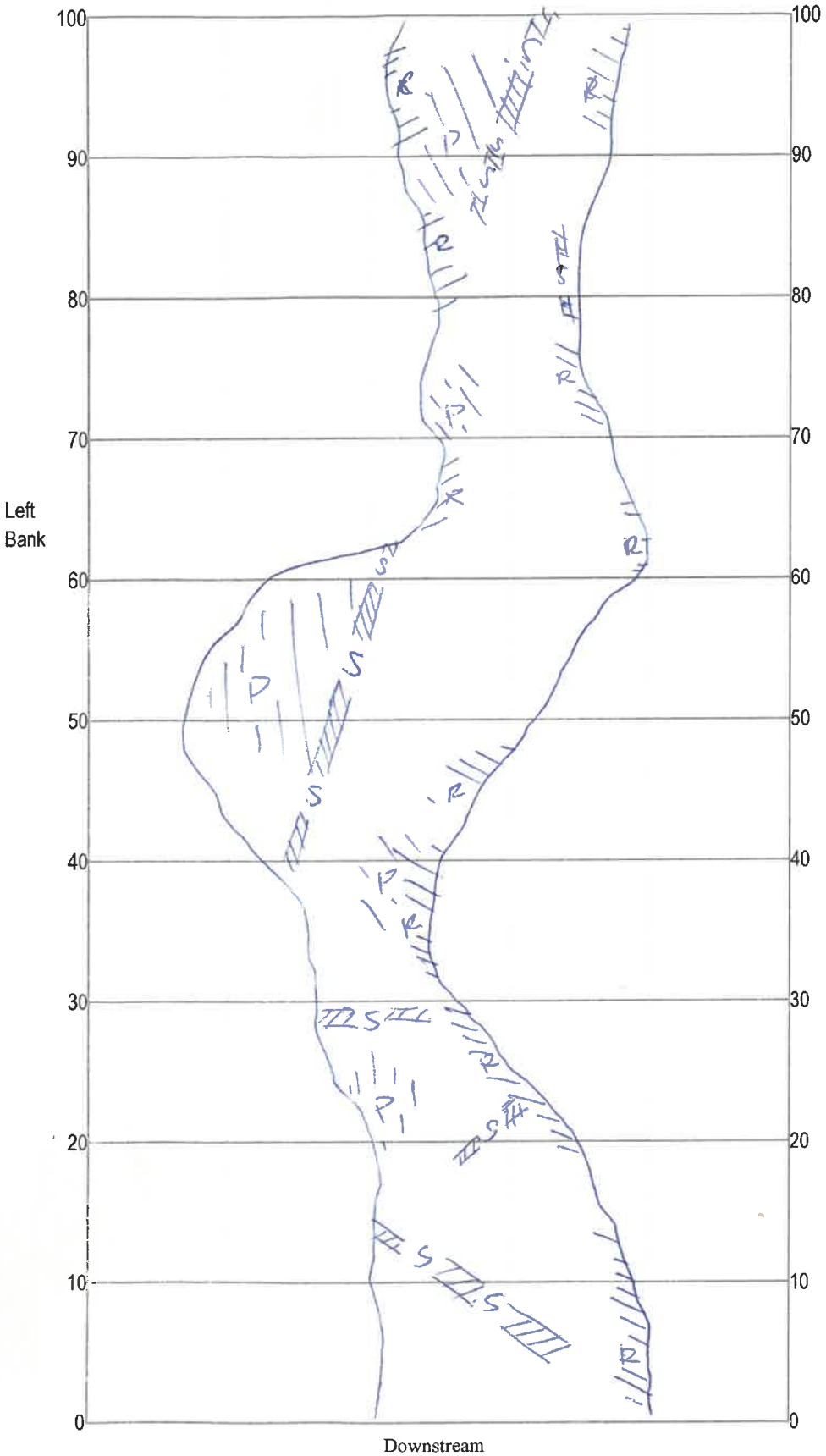
Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓
RQ-	

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

Benthic algae!

- Periphyton on roots + snags
  - ↳ Silt smothered
- Water level low exposing some roots/snags/periphyton

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

Location: Long Branch

Date: 03/27/24

Sampler: Leif Boman, Katie Mann, Victoria Stewart

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance.	%
S Snags	56.25
R Roots/undercut banks	43.75
Leaf Packs (or mats)	
Aquatic Macrophytes	
P Pools	total # observed = 5
	# range expected = 5-10

Average width 1.7 m

Average depth .2 m

Velocity measured at 0, 50, 100 meter mark.

WQ & chemistry taken at 0 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes: