

Boggy Creek

STREAM HABITAT ASSESSMENT, STREAM CONDITIONS INDEX, RAPID PERIPHYTON SURVEY AND WATER QUALITY

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Methods

STUDY AREA ANALYISIS

The watershed containing the stream being assessed was analyzed using ESRI ArcGIS Pro. Using this software with 2023 Hillsborough County aerial, 2020 Land Use/ Land Cover (LULC) and Waterbody ID (WBID) layers courtesy of the Florida Department of Environmental Protection (FDEP). The Landscape Development Intensity Index (LDI) was calculated for the 100 meter buffer around the stream from the sampling site to 10km upstream. From FDEP (https://floridadep.gov/dear/bioassessment/content/bioassessment-ldi-hdg-bcg) "The Landscape Development Intensity index (LDI) is an estimate of how much humans have altered an area of interest around a waterbody. Various land use types (low density residential, row crops, industrial and natural) are assigned coefficients of land use intensity based on estimates of the amount of human energy that is put into those land use types."

The LDI is calculated by multiplying each land use coefficient by the percentage of the area of interest occupied by that land use, and then summing the results. The FDEP uses the LDI as a tool to estimate potential land use impacts on streams, lakes, and wetlands. LDI values less than two (≤ 2) can be considered minimally disturbed." In the Florida framework, the maximum LDI index score is approximately 42.

HABITAT AND VEGETATION ASSESSMENT

For small streams that are not easily navigated by Jonboat for bathymetric mapping and vegetation analysis, Hillsborough County requested the implementation of the FDEP methods for Stream and River Habitat Assessment (FT 3100) (http://www.dep.state.fl.us/water/sas/sop/sops.htm) using forms FD 9000-3, FD 9000-4 and FD 9000-5, Rapid Periphyton Survey (FS 7230) using form FD 9000-25 and Linear Stream Vegetation Survey (FS 7320) using form FD 9000-32. These methods were utilized on one sampling location on each stream, typically near access points along roadways.

Stream and River Habitat Assessment per FT3100 receives a score calculated in Form FD 9000-5. This score results from the ranking of the primary habitat components (substrate diversity, substrate availability, water velocity and habitat smothering) and secondary habitat components (Artificial channelization, bank stability, riparian buffer zone width and riparian zone vegetation quality). The maximum score possible in this method is a 160.

Two metrics are utilized in the Linear Vegetation Survey (LVS). The Mean Coefficient of Conservatism (CoC) applies a score of 0-10 to each species based on its ecological tolerances and fidelity to pre-settlement conditions. Species with higher scores show a high fidelity to native, undisturbed habitats and are typically sensitive to alterations. Available CoC scores can be obtained from Table LVI 1000-1 from the Florida Department of Environmental Protection at: http://www.dep.state.fl.us/water/sas/sop/sops.htm. The Percent Florida Exotic Pest Plant Council (% FLEPPC) metric calculates the percent invasive exotics as the number of occurrences of FLEPPC Category I or II in the 100 m reach divided by the total number of taxa occurrences in the 100 m reach. The FLEPPC list can be found in FDEP LVI 1000-1.

STREAM CONDITION INDEX ASSESSMENT

The Stream Condition Index (SCI) was sampled and calculated per DEP SOP SCI 1000. The SCI consists of collecting macroinvertebrates via 20 D-frame dipnet sweeps (0.5 m in length) in the most productive habitats in a 100 m reach of stream. The organisms are sub-sampled, and identified to the lowest practical taxonomic level. The SCI is composed of ten metrics, eight of which decrease in response to human disturbance, with two metrics (% very tolerant and % dominant) increasing in response to human disturbance. According to DEP SOP SCI 1000, the SCI scores greater than 35 are considered healthy. Proposed biological health assessment criteria state that a WBID is considered to meet designated uses if the average of the two most recent SCI scores is 40 or higher and neither of the most recent of those scores is less than 35.

WATER QUALITY ASSESSMENT

Physical water quality samples were taken using a Eureka Manta Sub-2 multiprobe pre and post calibrated daily. Measurements taken with this device include: depth, conductivity, pH, Dissolved Oxygen (mg/l and % Saturation) and salinity. Chemical water parameters were collected and preserved on ice by USF Water Institute staff and analyzed at the Hillsborough County Public Utilities Laboratory. Analysis include; Chlorophyll (a, b, c, t and corrected), Alkalinity, Color, E. Coli, Enterococci, Ammonia, Nitrates/Nitrites, Total Phosphorous, Kjeldahl Nitrogen and Total Nitrogen. Results will be discussed in the Florida Department of Environmental Protection's Numeric Nutrient Criteria framework and combined with the monthly sampling from the Hillsborough County Environmental Protection Commission Monthly sampling data.

Study Area

Boggy Creek is located in south central Hillsborough County in the Hillsborough Bay Watershed. Its headwaters are located east of Balm Boyette Road and the CSX Railroad in Hillsborough County. The outfall of Boggy Creek is in Bell Creek. The assessment of Boggy Creek was conducted east of Bergstrom Bay Dr on March 12, 2025 at that time, the water levels were normal for the dry season. The Boggy Creek WBID covers 5.36 square miles (2,640 acres) and the 100-meter buffer around the stream is dominated by forest/natural (66.9%), agricultural (27.7%) and residential (4.7%) land uses. The resulting calculated landscape development intensity index score was a 2.11.

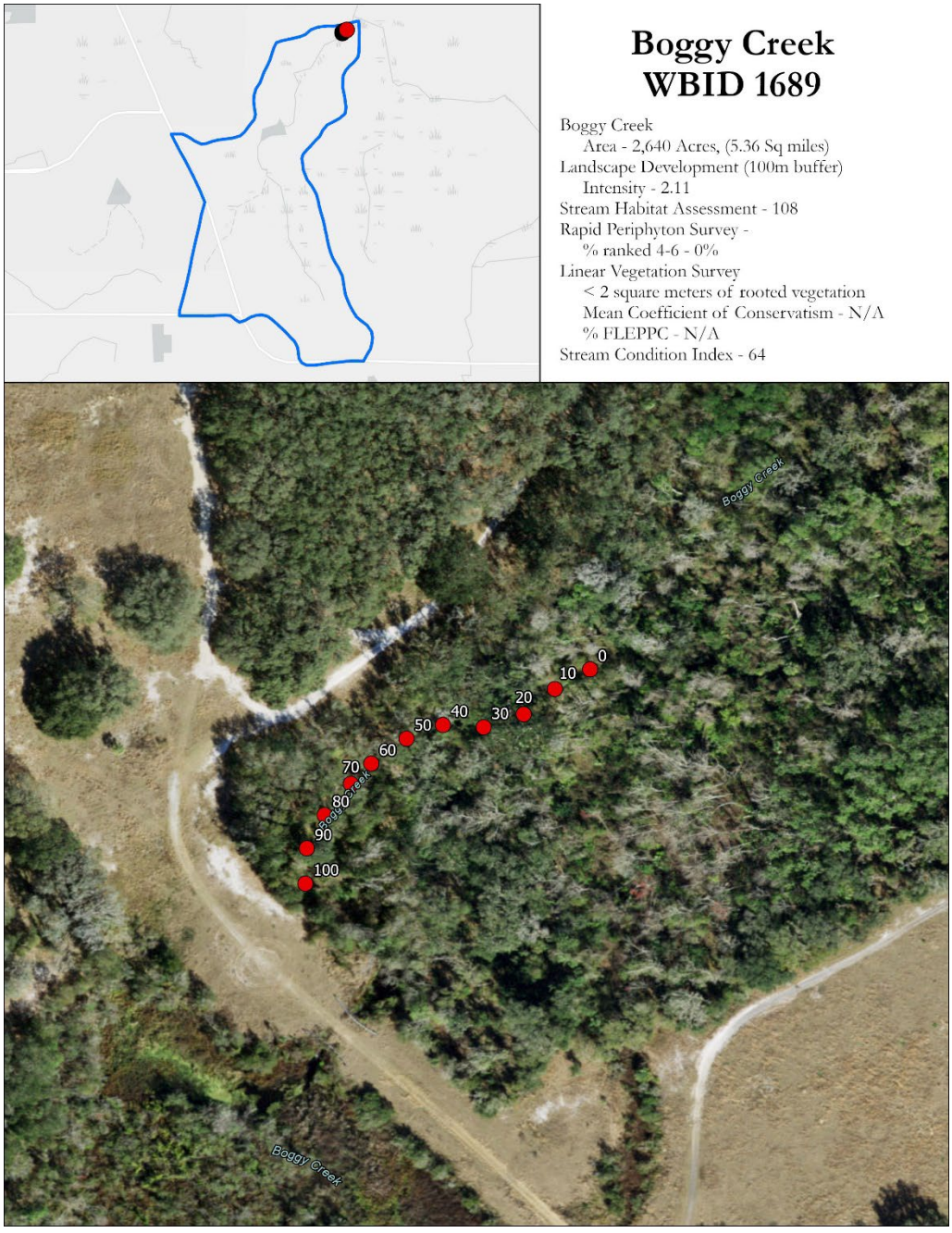

Figure 1 2025 Boggy Creek Study Area Map



Figure 2 Photograph of the Boggy Creek Sample Site showing the typical shoreline and normal water conditions.

Habitat and Vegetation Assessment

The region of Boggy Creek where the assessment was conducted is east of Bergstrom Bay Drive. The region was moderately shaded with a mean canopy cover measurement of 73.2%. Boggy Creek averaged 0.2 meters in depth and approximately 3.6 meters wide with a flow of 0.12 m/s.

The primary habitat components of the FDEP Habitat Assessment focus on in-water habitat. The primary habitat components score in the suboptimal category for Water Velocity (0.12 m/s) and Habitat Smothering (adequate number of stable pools but > 25% of habitats affected by sand/silt/algae). Substrate Diversity (two major productive habitats (fine roots, snags) was scored in the marginal category. Substrate Availability was scored as poor for having major productive habitats in only 4.2% of the stream. Minor habitats included leaf, submersed aquatic vegetation and sand deposits. The total score for the primary habitat components was 36 out of 80.

The secondary habitat components of the FDEP Habitat Assessment focus on the surrounding features of the stream. The secondary habitat components scored in the optimal category for Artificial Channelization for having good natural sinuosity, Bank stability for both banks met all 3 measures of bank stability and Riparian buffer zone width for both banks with greater than 18 meters of buffer. Riparian zone vegetation quality scored in the suboptimal category due to moderate increases in non-native species. The secondary components received a score of 72 out of 80. The resulting FDEP Habitat Assessment score was 108.

Table 1 Scoring Summary for the Stream Habitat Assessment

Metric	Score
Primary Habitat Components	
Substrate Diversity	8
Substrate Availability	4
Water Velocity	11
Habitat Smothering	13
Primary Score	**36**
Secondary Habitat Components	
Artificial Channelization	19
Bank Stability - Right Bank	9
Bank Stability - Left Bank	9
Riparian Buffer Zone Width - Right Bank	9
Riparian Buffer Zone Width - Left Bank	10
Riparian Zone Vegetation Quality - Right Bank	8
Riparian Zone Vegetation Quality - Left Bank	8
Secondary Score	**72**
Habitat Assessment Score	**108**

Periphyton was encountered during 1 of the 99 samples taken during the Rapid Periphyton Survey. The one sample with periphyton present was ranked 6 for being >10 cm in length. The tree canopy in the assessment area averaged 73.2%. These results do not indicate an excess of periphyton present in the stream as a result of an imbalance of nutrients.

The FDEP Linear Vegetation Survey encountered less than two square meters of rooted herbaceous vegetation in Boggy Creek at the time of the assessment.

Table 2 Linear Vegetation Survey Results – Boggy Creek

Taxa Name	C of C Score	Sample Site										Total Occurrences
		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Less than 2 square meters of vegetation.												



Figure 3 The majority of the Boggy Creek sample site was surrounded by natural riparian floodplain and uplands



Figure 4 Fine roots and snag habitats were the most commonly occurring productive habitats in Boggy Creek.

Stream Condition Index

The analysis of the SCI sample involves splitting the sample into 2 aliquots for analysis. The SCI metrics are then calculated on each aliquot separately. The final SCI score is an average of the two scores. The SCI score for Boggy Creek was 64 out of a possible 100 points, corresponding with a "Category 1 - Healthy" designation, with the expected community of a healthy stream with some alterations from the expected community of an exceptional stream. Both of the 2025 sub samples featured high total ephemeroptera, percent filter feeders, percent tanytarsini and percent very tolerant individuals. In addition, sample A had high scores for percent dominance. Low scores were observed for total trichoptera and total long-lived taxa in both samples. The full results of the SCI sampling are shown in Table 3 (Sample A) and Table 4 (Sample B) for Boggy Creek.

Table 2 SCI metric summaries for Boggy Creek Sample A (top) and Sample B (bottom)

SCI Metric	Raw Totals	SCI scores	Adjusted SCI scores
Total Taxa	26.00	4.58	4.58
Total Ephemeroptera	5.00	10.00	10.00
Total Trichoptera	1.00	1.43	1.43
% Filter Feeders	39.94	9.12	9.12
Total Clingers	4.00	5.71	5.71
Total Long-lived Taxa	0.00	0.00	0.00
% Dominance	18.24	9.15	9.15
% Tanytarsini	18.87	8.79	8.79
Total Sensitive Taxa	2.00	2.86	2.86
% Very Tolerant Individuals	1.89	9.10	9.10

SCI Sum	60.75
Final SCI score	67.50

SCI Metric	Raw Totals	SCI scores	Adjusted SCI scores
Total Taxa	22.00	2.92	2.92
Total Ephemeroptera	4.00	8.00	8.00
Total Trichoptera	1.00	1.43	1.43
% Filter Feeders	43.14	9.87	9.87
Total Clingers	3.00	4.29	4.29
Total Long-lived Taxa	0.00	0.00	0.00
% Dominance	26.14	7.57	7.57
% Tanytarsini	17.65	8.60	8.60
Total Sensitive Taxa	2.00	2.86	2.86
% Very Tolerant Individuals	1.96	9.04	9.04

SCI Sum	54.57
Final SCI score	60.63

Table 3 SCI full results for Sample A

Stream Condition Index Results for Boggy Creek SCIA

Phylum	Subphylum	Class	Subclass	Order	Family	Taxa	Abundance	Collapsed Abundance	Taxa Presence	Ephemeroptera Taxa	Trichoptera Taxa	50% Filterer	100% Filterer	Clinger Taxa	Long-lived Taxa	Dominant Taxa	Tanytarsini	Sensitive Taxa	Very Tolerant Individuals
Nemertea		Hoplonemertea		Monostilifera	Prostomatidae	*Prostoma* spp.	1	1	1	0	0	0	0	0	0		0	0	1
Annelida		Clitellata	Oligochaeta	Tubificida	Naididae	*Slavina appendiculata*	1	1	1	0	0	0	0	0	0		0	0	0
Mollusca		Gastropoda				Gastropoda spp.	1		0	0	0	0	0	0	0		0	0	0
Mollusca		Gastropoda	Caenogastropoda		Thiaridae	*Melanoides tuberculata*	1	2	1	0	0	0	0	0	0		0	0	2
Mollusca		Bivalvia	Autobranchia	Sphaeriida	Sphaeriidae	Sphaeriidae spp.	1	1	1	0	0	0	1	0	0		0	0	0
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyalellidae	*Hyalella* spp.	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Caenidae	*Caenis* spp.	3		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Caenidae	*Caenis diminuta*	3	6	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Procloeon viridoculare*	1	1	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Labiobaetis frondalis*	1	1	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Labiobaetis propinquus*	2	2	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Acerpenna pygmaea*	7	7	1	1	0	0	0	0	0		0	1	0
Arthropoda	Hexapoda	Insecta	Pterygota	Odonata	Coenagrionidae	Coenagrionidae spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Odonata	Coenagrionidae	*Argia* spp.	2	3	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Trichoptera	Hydropsychidae	Hydropsychidae spp.	11		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Trichoptera	Hydropsychidae	*Cheumatopsyche* spp.	18	29	1	0	1	0	29	1	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	*Dubiraphia* spp.	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	*Stenelmis* spp.	1	1	1	0	0	0	0	1	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	*Microcylloepus* spp.	19	19	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera		Diptera spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	Chironomidae spp.	9		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Pentaneura inconspicua*	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	Tanytarsini spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Tanytarsus* spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Tanytarsus* sp. L complex	1	2	1	0	0	1	0	0	0		2	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Polypedilum halterale* group	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Polypedilum scalaenum* group	5	6	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Polypedilum flavum*	21	25	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Rheotanytarsus* spp.	19	23	1	0	0	0	23	1	0		23	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Stenochironomus* spp.	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Paratanytarsus dissimilis*	4	5	1	0	0	2.5	0	0	0		5	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Cricotopus* or *Orthocladius*	7	8	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Simuliidae	*Simulium* spp.	7	7	1	0	0	0	7	1	0		0	1	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Ceratopogonidae	*Atrichopogon* spp.	4	4	1	0	0	0	0	0	0		0	0	0

Table 4 SCI full results for Sample B

Stream Condition Index Results for Boggy Creek SCIB

Phylum	Subphylum	Class	Subclass	Order	Family	Taxa	Abundance	Collapsed Abundance	Taxa Presence	Ephemeroptera Taxa	Trichoptera Taxa	50% Filterer	100% Filterer	Clinger Taxa	Long-lived Taxa	Dominant Taxa	Tanytarsini	Sensitive Taxa	Very Tolerant Individuals
Mollusca		Gastropoda	Heterobranchia	Hygrophila	Planorbidae	*Laevapex fuscus*	1	1	1	0	0	0	0	0	0		0	0	1
Mollusca		Gastropoda	Caenogastropoda		Thiaridae	*Melanoides tuberculata*	2	2	1	0	0	0	0	0	0		0	0	2
Mollusca		Bivalvia	Autobranchia	Sphaeriida	Sphaeriidae	Sphaeriidae spp.	1	1	1	0	0	0	1	0	0		0	0	0
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda		Senticaudata spp.	2		0	0	0	0	0	0	0		0	0	0
Arthropoda	Crustacea	Malacostraca	Eumalacostraca	Amphipoda	Hyalellidae	*Hyalella* spp.	4	6	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	Baetidae spp.	2	2	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Labiobaetis frondalis*	1	1	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Labiobaetis propinquus*	1	1	1	1	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Ephemeroptera	Baetidae	*Acerpenna pygmaea*	6	6	1	1	0	0	0	0	0		0	1	0
Arthropoda	Hexapoda	Insecta	Pterygota	Trichoptera	Hydropsychidae	Hydropsychidae spp.	12		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Trichoptera	Hydropsychidae	*Cheumatopsyche* spp.	28	40	1	0	1	0	40	1	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	Elmidae spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	*Dubiraphia* spp.	2	2	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Coleoptera	Elmidae	*Microcylloepus* spp.	18	19	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera		Diptera spp.	1		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	Chironomidae spp.	2		0	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Pentaneura inconspicua*	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Tanytarsus* sp. T	3	3	1	0	0	1.5	0	0	0		3	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Polypedilum scalaenum* group	5	5	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Polypedilum flavum*	23	25	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Rheotanytarsus* spp.	14	15	1	0	0	0	15	1	0		15	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Tribelos fuscicorne*	1	1	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Stenochironomus* spp.	2	2	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Paratanytarsus dissimilis*	9	9	1	0	0	4.5	0	0	0		9	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Chironomidae	*Cricotopus* or *Orthocladius*	6	6	1	0	0	0	0	0	0		0	0	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Simuliidae	*Simulium* spp.	4	4	1	0	0	0	4	1	0		0	1	0
Arthropoda	Hexapoda	Insecta	Pterygota	Diptera	Ceratopogonidae	*Atrichopogon* spp.	1	1	1	0	0	0	0	0	0		0	0	0

Water Quality Assessment

Long-term water quality data is not available for Boggy Creek. The data that is available was collected by the Hillsborough County Environmental Services Division between 4/17/2025 and 9/18/2025. The 2025 USF Water Institute Assessment values fall within the range of the previous data collections. Table 6 provides a summary of the Physical/Chemical conditions recorded at the site.

Table 6 Boggy Creek Physical Water Quality (Field) from 3/12/2025

WATER QUALITY	Depth (m)	Temp (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (µmhos/cm)	Salinity (PPT)	SECCHI (m)
Top:	**0.25**	**19.9**	**6.45**	**6.45**	**70.45**	**170**	**0.08**	**0.25**
Mid:								
Bottom:								

x	VOB
Total Depth	
0.25	

The chemical water quality analysis for Boggy Creek is shown in Table 7 with geometric mean values for the 2025 dataset for available parameters. To calculate numeric nutrient criteria values there must be at least 4 samples during each year for the past three years. Numeric nutrient criteria cannot be applied due to insufficient data availability.

The available 2025 data for Total Phosphorus consists of six samples, all of which were reported as being below the methods detection limit of 0.068 mg/L. This value is well below the numeric nutrient criteria for the region of 0.49 mg/L.

Total Nitrogen data availability contained six samples in 2025. These values were below the nutrient region threshold developed by FDEP of 1.65 mg/L. The 2025 total nitrogen data had a geometric mean value of 0.46 mg/L.

Chlorophyll-a corrected values fall below the site specific evaluation range of 3.2 µg/L to 20 µg/l for the 2025 data with a geometric mean value of 2.9 µg/L. Assuming these conditions are typical of the site the assessment indicates conditions reflecting a balance in flora.

An elevated biomass of the bacterial parameters was observed in the 2025 dataset with Escherichia Coli having a geometric mean 126 colonies/100 ml, 502 colonies/100 ml for Enterococci. Both bacteria parameters are heavily skewed by the 9/18/2025 sample where each is noted as being >2,419.60 colonies/100 ml. Further bacterial monitoring should be conducted at the site to determine the source and frequency of the elevated bacterial values.

Table 7 Boggy Creek Water Quality (Laboratory)

Parameter	2022	2023	2024	2025	Period of Record	Units
E. Coli	N/A	N/A	N/A	126	N/A	#/100 ml
Enterococci	N/A	N/A	N/A	502	N/A	#/100 ml
Chlorophyll-a	N/A	N/A	N/A	3.0	N/A	µg/L
Chlorophyll-b	N/A	N/A	N/A	2.8	N/A	µg/L
Chlorophyll-c	N/A	N/A	N/A	2.73	N/A	µg/L
Chlorophyll-a Corrected	N/A	N/A	N/A	2.9	N/A	µg/L
Ammonia	N/A	N/A	N/A	<0.073	N/A	mg/L
Kjeldahl Nitrogen	N/A	N/A	N/A	0.460	N/A	mg/L
Total Nitrogen	N/A	N/A	N/A	0.460	N/A	mg/L
Nitrates/Nitrites	N/A	N/A	N/A	<0.043	N/A	mg/L
Total Phosphorus	N/A	N/A	N/A	<0.068	N/A	mg/L

Conclusion

Boggy Creek east of Bergstrom Bay Drive is located in a mixture of natural, residential and agricultural land uses. At the time of the habitat assessment, the water levels were normal for the dry season. The 100-meter region where the assessment was conducted was characterized by a natural channel with stable banks and minor alterations to the vegetation community. Snag and fine roots were the most common productive habitat present. The Habit Assessment resulted in a suboptimal score of 108. Disruption to the vegetation community was not assessed in the results of the Linear Vegetation Survey due to less than two square meters of rooted vegetation present in the currently wet portion of the stream. Boggy Creek did meet the metrics for the rapid periphyton survey with 1% of samples being ranked between 4 and 6. The recent water quality record for Boggy Creek showed concentrations of Chlorophyll-a corrected, Total Phosphorous and Total Nitrogen below the FDEP thresholds, however the available is insufficient for calculation. The results of the SCI sampling indicate that the stream is "healthy" based on the macroinvertebrate community. Table 8 summarizes the results of nutrient sampling, floristic sampling, habitat assessment and SCI.

Table 8 Summary of Water Quality, Floristic Surveys and Habitat Assessments

Measure		Boggy Creek	2022	2023	2024	Threshold
Total Phosphorous (mg/l)			N/A	N/A	N/A	< 0.49
Total Nitrogen (mg/l)			N/A	N/A	N/A	< 1.65
RPS (% Rank 4-6)		1%				< 25%
LVS	**Avg C of C**	<2 meters				≥ 2.5
	FLEPPC %	<2 meters				< 25%
Chlorophyll-a Corrected (µg/l)			N/A	N/A	N/A	< 20 µg/l
Habitat Assessment		108				> 34
SCI		64				> 34