

Request Number: RQ-2019-06-24-60
Algal Bloom Response - SWD

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: WQAP
Project ID: BLOOM-RESP

Requester: John Watts
Collected By: M. Bearden

Field Report Prepared By: M. Bearden
Sampling Agency: SWD ROC

Location	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 6/27/19 Time 1010	Eastern ☒ Central	Composite end Date	Time	Bottle Group(s) (See pg 2)
Field	Site Name: Tidewater Preserve Lock - Manatee River	Matrix (type, e.g., Salt, Fresh, etc)				
WIN/	Date: 06/27/2019	Temp (C) 31.09	pH 9.13	Sample Depth 0.3	Sp. Conductance (umho/cm) 24789	C, D
Lat/lon	☐ dms	☐ dd ☐ dms	Salinity (ppt) 14.90	Comments		
Location	Site Name: Manatee River - Near Redfish Point	Matrix (type, e.g., Salt, Fresh, etc)				
Field ID	Date: 06/27/2019	Temp (C) 31.35	pH 8.91	Sample Depth 0.3	Sp. Conductance (umho/cm) 26795	A, B, C, D
WIN/ST		Temp (C) 31.35	pH 8.91	Sample Depth 0.3	Sp. Conductance (umho/cm) 26795	
Latitude	☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) 16.29	Comments		
Location	Site Name: Braden River Mouth @ 64	Matrix (type, e.g., Salt, Fresh, etc)				
Field	Date: 06/27/2019	Temp (C) 31.89	pH 8.90	Sample Depth 0.3	Sp. Conductance (umho/cm) 30165	A, B, C, D
WIN/		Temp (C) 31.89	pH 8.90	Sample Depth 0.3	Sp. Conductance (umho/cm) 30165	
Lat/lon	☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) 18.48	Comments		
Location	Site Name: Braden River - Near 14th Ave E	Matrix (type, e.g., Salt, Fresh, etc)				
Field	Date: 06/27/2019	Temp (C) 33.47	pH 9.47	Sample Depth 0.3	Sp. Conductance (umho/cm) 19698	C, D
WIN		Temp (C) 33.47	pH 9.47	Sample Depth 0.3	Sp. Conductance (umho/cm) 19698	
Lat/lon	☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) 18.47	Comments		
Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time	

Group: A	Bottle Type:	PT-50ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
BLOOM-ID							
Group: B	Bottle Type:	BG-250ML-WDMTH	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
W-MCYST-AA							
Group: C	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
CHLSUITE-W							
Group: C	Bottle Type:	P-500ML	# of Bottles: 6	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	5
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
Group: C	Bottle Type:	P-125ML	# of Bottles: 6	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	5
W-PO4-F							
Group: D	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	Lugols	Enter Number of Bottles Sent to Lab	56
DTY-QN-C							
PKD-QN-C							

Group: A	Bottle Type:	PT-50ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
	BLOOM-ID						
Group: B	Bottle Type:	BG-250ML-WDMT H	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
	W-MCYST-AA						
Group: C	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
	CHLSUITE-W						
Group: C	Bottle Type:	P-500ML	# of Bottles: 6	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	5
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
Group: C	Bottle Type:	P-125ML	# of Bottles: 6	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	5
	W-PO4-F						
Group: D	Bottle Type:	BP-1L	# of Bottles: 6	Preservative:	Lugols	Enter Number of Bottles Sent to Lab	86
	DTY-QN-C						
	PKD-QN-C						

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2017
Author: C. Swanson and J. Walter:
AB-17-1.10

Site Name: Tidewater Preserve Lock - Manatee River

Date: 06/27/2019

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY Manatee River		DATE (M/D/YY): 06/27/19	TIME: (AM) 1010	Case ID#:
COUNTY: Manatee	LOCATION: Tidewater Preserve Lock River		NEAREST TOWN/CITY: Bradenton	
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow- ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: DEP Lab		Photos Taken: ☒ yes ☐ no
Sample collection method: Single Grab: ☒ Grab Composite: ☐ Depth integrated composite: ☐				
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐				
Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☒ Toxin: ☒				
Estimated size of bloom: Throughout River		Impounded: ☒ yes ☐ no		
Lake/Estuary Typical depth 20 m deep		Stream/River/Canal ☐ m wide		
Inflows: ☐ yes ☐ no		Typical Transect ☐ m deep 2.0 m deep ☐ m deep		
Outflows: ☐ yes ☐ no		Water velocity ☐ m/s ☐ m/s ☐ m/s		
		Left bank Middle Right bank		

Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐		
Description of Bloom/	Latitude Degrees Minutes Seconds	Longitude Degrees Minutes Seconds
Present Weather conditions		

Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)

Last rain event

Sketch bloom area on the attached map. Indicate wind direction.

Rainfall amount

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	DO (%):	SA (ppt)	Secchi (m)
Top	0.3	31.09	9.13	8.45	226-24789	219.4	14.90	0.2
Mid-depth								
Bottom	1.5	31.07	8.79	0.46	27343	7.3	16.68	
System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☒ Other: ☐								
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐								
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐								
Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☒ Opaque: ☐								
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐								
Notes					Abundance: Absent Rare Common Abundant			
					Periphyton ☒ ☐ ☐ ☐			
					Fish ☐ ☒ ☐ ☐			
					Aquatic Macrophytes ☒ ☐ ☐ ☐			
					Iron/sulfur Bacteria ☒ ☐ ☐ ☐			

VISIT TEAM:

AGENCY:

SWDOC

8040

Hannah Sprinkle Hughes
Matt Bearden

Contains: 1:1 H2SO4
Lot No.: SA8344070
Expires: 12/10/19
See Safety Data Sheet (SDS)

Contains: 1:1 H2SO4
Lot No.: SA8344070
Expires: 12/10/19
See Safety Data Sheet (SDS)

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2017
Author: C. Swanson and J. Walters
AB-17-1.10

Site Name: Manatee River - Near Redfish Point
Date: 06/27/2019

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY <u>Manatee River</u>		DATE (M/D/YY): <u>06/27/19</u>	TIME: (AM) <u>1035</u>	Case ID#:
COUNTY: <u>Manatee</u>		LOCATION: <u>Manatee River - Near Redfish Point</u>		NEAREST TOWN/CITY: <u>Ellenton</u>
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow-up ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: <u>DEP labs</u>		Photos Taken: ☒ yes ☐ no
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐				
Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☒ Toxin: ☒				
Estimated size of bloom: <u>Throughout River</u>		Impounded: ☐ yes ☒ no		
Lake/Estuary Typical depth ☐ m deep		Stream/River/Canal ☐ m wide		
Inflows: ☐ yes ☐ no		Typical Transect ☐ m deep <u>1.0</u> m deep ☐ m deep		
Outflows: ☐ yes ☐ no		Water velocity ☐ m/s ☐ m/s ☐ m/s		
		Left bank Middle Right bank		

Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐
Description of Bloom/ Latitude Degrees Minutes Seconds Longitude Degrees Minutes Seconds
Present Weather conditions
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map) Last rain event
Sketch bloom area on the attached map. Indicate wind direction. Rainfall amount

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Saltptr.	DO _o /%	Secchi (m)
Top	<u>0.3</u>	<u>31.35</u>	<u>8.91</u>	<u>8.23</u>	<u>26795</u>	<u>16.29</u>	<u>117.9</u>	<u>0.2</u>
Mid-depth								
Bottom								

System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☐ Other: ☒ <u>River</u>	
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐	
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐	
Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☒ Opaque: ☐	
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐	
Notes	Abundance: Periphyton ☒ Absent ☐ Rare ☐ Common ☐ Abundant ☐ Fish ☐ Aquatic Macrophytes ☒ Iron/sulfur Bacteria ☒

VISIT TEAM:	AGENCY: <u>SWROC</u> <u>8040</u>
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Contains: 1:1 H2SO4
Lot No.: SA8344070
Expires: 12/10/19
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Lot No.: SA8344070
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See Safety Data Sheet (SDS)

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2
Author: C. Swanson and J. Wal
AB-17-1.10

Site Name: Braden River Mouth @ 64
Date: 06/27/2019

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY Braden River (AS) Manatee River		DATE (M/D/YY): 06/27/2019	TIME: (AM) 1125	Case ID#:				
COUNTY: Manatee	LOCATION: Braden River Mouth @ 64	NEAREST TOWN/CITY: Ellenton MB						
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow- ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: DEP Lab	Photos Taken: ☒ yes ☐ no					
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐								
Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☒ Toxin: ☒								
Estimated size of bloom: Throughout River		Impounded: ☐ yes ☒ no	Stream/River/Canal ☐ m wide					
Lake/Estuary Typical depth ☐ m deep	Inflows: ☐ yes ☐ no	Typical Transect ☐ m deep	3.2 m deep	☐ m deep				
Outflows: ☐ yes ☐ no	Water velocity ☐ m/s	☐ m/s	☐ m/s	☐ m/s				
Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐								
Description of Bloom/ Latitude ☐ Degrees ☐ Minutes ☐ Seconds Longitude ☐ Degrees ☐ Minutes ☐ Seconds								
Present Weather conditions								
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)								
Sketch bloom area on the attached map. Indicate wind direction.								
Last rain event								
Rainfall amount								
WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	Sal. ppt.	DO %	Secchi (m)
Top	0.3	31.89	8.90	9.14	30165	18.48	140.8	0.1
Mid-depth								
Bottom	2.7	31.69	8.83	8.17	31349	19.40	123.5	
System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☐ Other: ☒ RIVER								
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐								
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐								
Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☒								
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐								
Notes								
Abundance: Absent Rare Common Abundant								
Periphyton ☒ ☐ ☐ ☐								
Fish ☒ ☐ ☐ ☐								
Aquatic Macrophytes ☒ ☐ ☐ ☐								
Iron/sulfur Bacteria ☒ ☐ ☐ ☐								

VISIT TEAM:

AGENCY:

SWPOC

8040

Hannan Sprinkle Hgules
Matt Bearden

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Expires: 12/10/19
See Safety Data Sheet (SDS)

Effective Date: 11/30/2017
Review/Revision Date: 11/28/
Author: C. Swanson and J. W.
AB-17-1.10

Site Name: Leona Ave Canal- Near Ellenton
Date: 06/27/2019

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY <i>Canal to Manatee River - Leona Ave</i>		DATE (M/D/YY): <i>6/27/19</i>	TIME: (AM) <i>1220</i>	Case ID#:
COUNTY: <i>Manatee</i>	LOCATION: <i>Leona Ave Canal - Near Ellenton</i>		NEAREST TOWN/CITY: <i>Ellenton</i>	
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow-up ☒	Samples collected: ☒ yes ☐ no <i>FDGP Tally</i>	Samples submitted to:	Photos Taken: ☒ yes ☐ no	
Sample collection method: Single Grab: ☒ Grab Composite: ☐ Depth integrated composite: ☐				
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☒ Tissue: ☐				
Algal ID & enumeration: ☒ Nutrients: ☐ Chl-a: ☒ AGP: ☐ Turbidity: ☒ Toxin: ☐				
Estimated size of bloom: <i>River wide</i>		Impounded: ☒ yes ☐ no	Stream/River/Canal m wide	
Lake/Estuary Typical depth m deep	Inflows: ☐ yes ☒ no	Typical Transect m deep <i>1.6</i> m deep m deep		
Outflows: ☐ yes ☐ no	Water velocity m/s m/s m/s			
		Left bank Middle Right bank		

Canopy Cover: Open: ☒ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐
Description of Bloom/ Latitude Degrees Minutes Seconds Longitude Degrees Minutes Seconds
Present Weather conditions <i>90's</i>
Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)
Sketch bloom area on the attached map. Indicate wind direction.
Last rain event
Rainfall amount

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):	DO %	Sal	Secchi (m)
Top	<i>0.3</i>	<i>31.30</i>	<i>8.91</i>	<i>9.77</i>	<i>29701</i>	<i>150.1</i>	<i>18.30</i>	<i>0.2</i>
Mid-depth	<i>1.1</i>	<i>30.90</i>	<i>7.63</i>	<i>1.07</i>	<i>29531</i>	<i>15.9</i>	<i>18.13</i>	
Bottom								
System Type: Stream: ☐ (1st - 2nd order 3rd - 4th order) 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☐ Other: ☒ <i>Canal</i>								
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐								
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐								
Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☒ Opaque: ☐								
Bloom Color (check box): Green: ☒ Red: ☐ Brown: ☐ Other: ☐								
Notes								
Abundance: Absent Rare Common Abundant								
Periphyton ☐ ☒ ☐ ☒								
Fish ☐ ☒ ☐ ☐								
Aquatic Macrophytes ☐ ☒ ☐ ☐								
Iron/sulfur Bacteria ☒ ☐ ☐ ☐								

VISIT TEAM:	AGENCY:
<i>Matthew Bearden - MTT B</i>	
<i>Hannah Sprinkle</i>	

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