MINUTES
WEST CHARLOTTE STORMWATER UTILITY
MUNICIPAL SERVICE BENEFIT UNIT (MSBU)

ADVISORY BOARD REGULAR MEETING
WEDNESDAY, DECEMBER 13, 2023

1:33 p.m. – 2:50 p.m.
Mac V. Horton West County Annex, Room 120
6868 San Casa Drive, Englewood, Florida

Members Present:	Hank Killion, Vice Chair
	Mario Audia
	John House
	Geoffrey Norton
Members Absent:	Benjamin Sinclair, Chair
County Staff:	Kellie Stewart, Community Liaison
	Brandon Moody, Water Quality Manager
	Jessica Reynolds, Senior Administrative Assistant
Guests:	None

Call to Order / Roll Call:
The meeting was called to order at 1:33 p.m. A roll call was taken, and a quorum was present.

Changes to the Agenda / Motion to Approve Changes:
None

Citizen Input on Agenda Items (3 Minute Limit):
None

Approval of Minutes:
The August 23, 2023, minutes were unanimously approved as written.

Unfinished Business:

a) Canal Sediment Removal Program – Sioux Waterway / Private vs. County-Owned Plats for Oyster Creek: The Advisory Board conversed on privately owned versus county-owned canals that extend to the intercoastal, as well as dredging costs. Mr. Moody pointed out that the existing canal sediment removal program does not encompass the Sioux Waterway. However, talks have been held regarding its potential inclusion, pending budget considerations. He also addressed issues related to the platting structure, ownership of waters, and the procedure for debris removal in non-navigable waterways across the county. Specifically, he detailed the necessity of obtaining a permit from the Southwest Florida Water Management District (SWFMD) for debris removal activities in the Oyster Creek area. The discussion further touched upon topics such as easement access, state-owned waters, water flow, and navigability within the Oyster Creek area. Ms. Stewart briefly outlined the process of establishing a waterway MSBU to tackle dredging concerns and expressed the intention to verify the details with internal staff.

b) Lemon Bay Isles / Fish Gates: Ms. Stewart provided an update on the fish gates project and informed that the bidding process concluded at 2:00 p.m. on December 13, 2023. She clarified that the permanent repairs for the fish gates involve the removal of damaged structures and the furnish and installation of fish barriers at three existing weir locations on the Rotonda River Waterway. She reiterated the decision made in the previous meeting, emphasizing that the staff does not intend to pursue fish gates at the two lakes in Lemon Bay Isles due to concerns related to maintenance and flooding. The discussion extended to include Mr. Moody's ongoing

efforts to address water quality within Lemon Bay Isles. Mr. Killion raised a question regarding whether the repairs for the fish gates would be funded by the Federal Emergency Management Agency (FEMA).

New Business:

a) Financial Reports: The fiscal year (FY) 2024-2025 adopted budget, quarter three and four activity maintenance and actual expenditure reports, were provided for review. The Advisory Board continued conversation on the MSBU rates, pipe lining, the canal sediment removal program, and reserves.

Citizen Input on MSBU Items (3 Minute Limit):

None

Advisory Board Open Discussion:

Mr. Moody reviewed the Charlotte Harbor National Estuary Program (CHNEP) water quality lab reports. Conversation followed about water quality within Amberjack Creek and the west branch of Coral Creek. Mr. Moody reviewed the Florida Department of Environmental Protection (FDEP) waterbody impairment information and showed a presentation on water quality status and updates with the Advisory Board – see attached. Discussion continued.

Schedule Meetings / Items for Next Agenda:

Ms. Stewart discussed the 2024 meeting dates. Mr. Norton motioned to approve the 2024 meeting schedule. It was seconded and unanimously approved. Future meetings are scheduled for 9:30 a.m. at the West County Annex Conference Room as follows:

- Wednesday, January 24, 2024
- Wednesday, March 13, 2024 – Location change: Centennial Park Recreation Center (1120 Centennial Boulevard, Port Charlotte)
- Wednesday, July 24, 2024
- Wednesday, October 2, 2024

The meeting adjourned at 2:50 p.m.

Submitted by Kellie Stewart
Public Works Department

Chair Signature

1/18/23
Date

CHARLOTTE COUNTY
FLORIDA

West Charlotte Stormwater Utility
Municipal Service Benefit Unit
Regular Meeting

Advisory Board Attendance
1:30 p.m., Wednesday, December 13, 2023

Location: West County Annex
6868 San Casa Drive, Punta Gorda, FL 33950

INFORMATION SUPPLIED ON THIS FORM BECOMES PUBLIC RECORD

NAME (please print)	Email Address	Phone Number
Kellie Stewart	Kellie.Stewart@charlottecountyfl.gov	941.575.3613
Hank Killion	s.killione@comcast.net	697-3453
Geoff Norris	oilsactually@gmail	941-525-8102
Mario Audia	Maudia@audiaconstructioninc.com	313-350-0318
John House	drabode@aol.com	(941) 697-8030

AGENDA

WEST CHARLOTTE STORMWATER UTILITY
MUNICIPAL SERVICE BENEFIT UNIT (MSBU)

ADVISORY BOARD REGULAR MEETING
WEDNESDAY, DECEMBER 13, 2023

1:30 p.m., Mac V. Horton, West County Annex, Room 120
6868 San Casa Drive, Englewood, Florida

BOARD MEMBERS: Benjamin Sinclair, Chair
Hank Killion, Vice Chair
Mario Audia
John House
Geoffrey Norton

COUNTY STAFF: Kellie Stewart, Community Liaison

PURPOSE: Regular Meeting

1. Call to Order / Roll Call
2. Changes to the Agenda
3. Citizen Input on Agenda Items (3 Minute Limit)
4. Approval of Minutes: August 23, 2023
5. Unfinished Business
    a. Canal Sediment Removal Program – Sioux Waterway / Private vs. County-Owned Plats for Oyster Creek
    b. Lemon Bay Isles / Fish Gates
6. New Business
    a. Financial Reports
7. Citizen Input on MSBU Items (3 Minute Limit)
8. Advisory Board Open Discussion
9. Meeting Schedule / Items for Next Agenda
10. Motion to Adjourn

MINUTES
WEST CHARLOTTE STORMWATER UTILITY
MUNICIPAL SERVICE BENEFIT UNIT (MSBU)

ADVISORY BOARD REGULAR MEETING
WEDNESDAY, AUGUST 23, 2023

9:31 a.m. – 11:16 a.m.
Mac V. Horton West County Annex, Room 120
6868 San Casa Drive, Englewood, Florida

Members Present:	Benjamin Sinclair, Chair
	Hank Killion, Vice Chair
	Mario Audia
	John House
	Geoffrey Norton
Members Absent:	None
County Staff:	Kellie Stewart, Community Liaison
	Karlene McDonald, Operations Supervisor
	Karen Bliss, Projects Manager
	Brandon Moody, Water Quality Manager
Guests:	None

Call to Order / Roll Call:
The meeting was called to order at 9:31 a.m. A roll call was taken, and a quorum was present.

Changes to the Agenda / Motion to Approve Changes:
None

Citizen Input on Agenda Items (3 Minute Limit):
None

Approval of Minutes:
The draft minutes from May 10, 2023, were approved as written. Mr. Killion abstained from voting due to his absence.

Unfinished Business:
a) NPDES Presentation: Ms. Bliss presented the National Pollutant Discharge Elimination System (NPDES) Stormwater Management Program and discussion ensued.
b) Water Quality/Canal Sediment Removal Program: Mr. Moody spoke about the First Budget Public Hearing scheduled for Sept. 7, 2023, and the proposed rate assessments for the West Charlotte Stormwater Utility MSBU. He explained the allocations and reductions of the One Charlotte One Water program from $125,000 to $97,108, and the postponement of the Canal Sediment Removal Program until fiscal year (FY) 2026. Mr. Killion inquired on the cost associated with sampling. Mr. Moody advised the cost reduction will allow him to continue his current sampling workload. Discussion followed on impacts of the budget reduction, future source tracking, educational programs, and University of Florida programs.
c) Lemon Bay Isles/Fish Gates: Ms. Bliss relayed that staff does not want to pursue fish gates at the two lakes in Lemon Bay Isles due to maintenance/flooding issues, as they are prone to blockages, and this is the sole outlet for drainage east of Flamingo Drive; discussion proceeded on alternative aquatic weed treatments. Ms. Bliss advised she is working on fish gate repairs for three weirs: two in Rotonda and one in Buck Creek.

New Business:

a) Financial Reports: The fiscal year (FY) 2023 quarter three actual expenditure and FY23 quarter two activity reports were provided for review. The Advisory Board inquired about pipe lining. Ms. McDonald reviewed the pipe lining work area on Antilla Drive and advised the final invoice has not been paid yet due to the contractor completing final restorations. Ms. McDonald explained the difference between stormwater and road/bridge pipes, and clarified the breakdown of the quarterly activity reports.

Citizen Input on MSBU Items (3 Minute Limit):

None

Advisory Board Open Discussion:

Mr. Sinclair inquired about the Sioux Waterway not draining underneath SR-776. Ms. Stewart advised the concern will be addressed with Florida Department of Transportation/Webber Services.

Schedule Meetings / Items for Next Agenda:

Ms. Stewart discussed the 2024 meeting dates. Future meetings are scheduled at the West County Annex Conference Room as follows:

- Wednesday, November 15, 2023, 9:30 a.m.

The meeting adjourned at 11:16 a.m.

Submitted by Kellie Stewart
Public Works Department

_____ _____

Chair Signature Date

West Charlotte Stormwater District MSBU

2 Year Budget

FY2024 & FY2025

Estimated Acres and Cost per Acre

	FY2024	FY2025
Vacant		
Estimated Acres	13,035.111	$ 13,035.11
Cost per Acre	$ 103.10	$ 103.10
Occupied		
Estimated Acres	10,888.306	$ 10,888.31
Cost per Acre	$ 103.10	$ 103.10
Current FY23 Vacant Rate	**$ 45.46**	
Current FY23 Occupied Rate	**$ 50.00**	
Current Maximum Rate	**$ 125.00**	

	Adopted Budget FY2024	Approved Budget FY2025
Beginning Balance	$ 4,215,325	$ 3,534,204
Revenues		
Assessments & Earnings		
Assessments	2,466,505	2,466,505
Interest	14,754	12,370
Less 5% Reserve - FS 129.01(2)b	(124,063)	(123,944)
Grant & Subsidy Revenue		
State Grant-P/E Strmwtr Mgmt	-	-
Grants from Oth Govts-SWFWMD	-	-
Loans & Borrowing		
Total Revenue	$ 2,357,196	$ 2,354,931
Expenditures		
Contract Services		
Engineering	-	-
Other Professional Srvs	-	-
Other Contractual Srvs	75,000	20,000
Concrete Flatwork	5,000	5,000
Drainage	-	-
Sod Installed	-	-
ROW Reclamation	-	-
Specialty Mowing	30,320	31,230
Contract Services; other		
Pipe Lining	1,000,000	1,000,000
Water Quality Monitoring	127,559	127,559
Public Works Services		
Equip Repl Charges-PubWrks	344,117	344,117
Operating Exp-PubWrks	547,358	547,358
Road & Bridge Materials	332,142	335,876

	Adopted Budget FY2024	Approved Budget FY2025
Internal Charges		
Central/Indirect Srvs	15,663	16,446
Purchased Services		
Postage	-	-
Admin Srvs-PubWrks	-	-
Personal Srvs-InterDept	-	-
Reimb-Aquatic Weed Chrgs	325,000	325,000
Printing & Binding	-	-
Advertising-Legal	-	-
Fees-Landfill	1,500	1,500
Collection Fee-Tax Collector	49,331	49,331
Materials and Supplies		
Educational Expenses	-	-
Capital Outlay		
Land Acquisition	-	-
ROW Acquisition	-	-
Imprv-Other Than Bldgs	-	-
Debt Services		
Principal	-	-
Interest	-	-
Other Debt Service Costs	-	-
Project Costs		
Natl Pollution Discharge Elimination		
Engineering	16,667	16,667
Construction	-	-
Labor	25,001	25,001
Canal Sediment Removal-West County		
Engineering	-	-
Construction	-	-
Labor	-	-
TMDL (Total Max. Daily Load Program)		
Engineering	133,334	-
Construction	-	-
Labor	5,325	-
SGC WW Lock Repair		
Engineering	5,000	5,000
Construction	-	-
Labor	-	-
Total Expenditures	3,038,317	2,850,085
Reserves (Ending Fund Balance)	$ 3,534,204	$ 3,039,050
Reserve %	*53.8%*	*51.6%*

Version Date 9/21/2023

FY2024 Capital Improvements Budget / FY 2024 - FY 2029 Project Detail — **Project No. c390202**

GENERAL PROJECT DATA:		Status	In Progress
Project Title:	National Pollution Discharge Elimination Pgm		
Functional Area:	Stormwater Management		
Department:	Public Works\Engineering		
Location:	Stormwater MSBUs, County Wide		

CONCURRENCY REQUIREMENTS:	(Y/N)
Does project add new capacity?	No
Is project required to maintain level of service:	
- Within 5 years? List project in CIE	No
- From 6 to 10 years? Monitor Annually	No

PROJECT NEED CRITERIA		PROJECT SCHEDULE	FY24 1 2 3 4	FY25 1 2 3 4	FY26 1 2 3 4	FY27 1 2 3 4	FY28 1 2 3 4	FY29 1 2 3 4
Safety		Desgn/Arch						
Mandate	X	Land/ROW						
Replace		Construct						
Maint	X	Equipment						

PROJECT DESCRIPTION:

Continue to implement the National Pollution Discharge Elimination System (NPDES) Phase II permit for Charlotte County. The permit includes coordination with Florida Department of Transportation.

Funding is split equally between Mid Charlotte, South Charlotte, and West Charlotte Stormwater Units.

PROJECT RATIONALE (Include Additional LOS Detail, if necessary):

As required by the Environmental Protection Agency (EPA), operators of storm sewer systems are required to implement programs and practices to control polluted stormwater runoff. This project is to reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on unregulated sources of stormwater into Charlotte Harbor.

Charlotte County received the first 5-year permit in 2003. The most recent renewal of the permit was received in January 2018 and is in effect until December 31, 2022. Minimum project requirements are public education and outreach, public participation/involvement, construction site runoff control and pollution prevention.

OPERATING BUDGET IMPACT:

There are no additional operating impacts associated with this project.

			Calc. for FY24										
	Prior Actual	Est FY23	Orig. FY24	Est c/o to FY24	New $ FY24	FY24	FY25	FY26	FY27	FY28	FY29	FUTURE	Total
EXPENDITURE PLAN (000'S)													
Design/Arch/Eng	501		50	10	-10	50	50	50	50	50	50		801
Land (or ROW)													
Construction	26			-2	8	6							32
Internal Costs	1,078	23	75	-3	3	75	75	75	75	75	75		1,550
Equipment													
Interest													
Other Fees & Costs													
Total Project Cost	1,605	23	125	5	1	131	125	125	125	125	125		2,384
FUNDING PLAN (000'S)													
MSBU/TU Assessments	1,600	23	125		6	131	125	125	125	125	125		2,379
Grants	5			4	-4								5
Total Funding	1,605	23	125	5	1	131	125	125	125	125	125		2,384
LOAN REPAYMENT SCHEDULE (000'S)													
Total Loan Repayment													
ANNUAL OPERATING BUDGET IMPACT (000'S)													
Personal Svc.													
Non-personal													
Capital													
Total Operating													

FY2024 Capital Improvements Budget / FY 2024 - FY 2029 Project Detail — **Project No. c392002**

GENERAL PROJECT DATA: Status In Progress

Project Title: Canal Sediment Removal-West County

Functional Area: Stormwater

Department: Public Works/Engineering

Location: West County

CONCURRENCY REQUIREMENTS	(Y/N)
Does project add new capacity?	Yes/No
Is project required to maintain level of service:	
- Within 5 years? List project in CIE	Yes/No
- From 6 to 10 years? Monitor Annually	Yes/No

PROJECT NEED CRITERIA	
Safety	
Mandate	
Replace	
Growth	

PROJECT SCHEDULE	FY24	FY25	FY26	FY27	FY28	FY29
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Desgn/Arch						
Land/ROW						
Construct						
Equipment						

PROJECT DESCRIPTION:

This project will provide for the engineering design and construction for the sediment removal, nutrient removal and vegetation removal in order to maintain positive drainage in the West County upland canals.

Funding is provided from the West County Stormwater Unit. Annual allocation of $620,000 continues into the future.

OPERATING BUDGET IMPACT:

There are no additional operating impacts associated with this project.

PROJECT RATIONALE (Include Additional LOS Detail, if necessary):

The canals included in this project were originally dredged approximately 60 years ago. Over the years, sediment has built up in the canals which contain nutrients that degrade the water quality as well as take up vital storage for stormwater runoff. This project will regrade the canals to their original design capacity and it is anticipated that by removing the nutrient rich sediment will improve water quality. The County is working with the FDEP in order to use this project to mitigate for any future TMDL that might be imposed upon these canals.

REPLACEMENT COUNTY PROPERTY NO.:

	Prior Actual	Est FY23	Calc. for FY24: Orig. FY24	Est c/o to FY24	New $ FY24	FY24	FY25	FY26	FY27	FY28	FY29	FUTURE	Total
EXPENDITURE PLAN (000'S)													
Design/Arch/Eng	12	0.35	100	98	-198			100	100	100	100		412
Land (or ROW)													
Construction			500	500	-1,000			500	500	500	500		2,000
Internal Costs	12	1	20	18	-38			20	20	20	20		92
Equipment													
Interest													
Other Fees & Costs													
Total Project Cost	23	1	620	616	-1,236			620	620	620	620		2,504
FUNDING PLAN (000'S)													
MSBU/TU Assessments	23	0.86	620	616	-1,236			620	620	620	620		2,504
Total Funding	23	0.86	620	616	-1,236			620	620	620	620		2,504
LOAN REPAYMENT SCHEDULE (000'S)													
Total Loan Repayment													
ANNUAL OPERATING BUDGET IMPACT (000'S)													
Personal Svc.													
Non-personal													
Capital													
Total Operating													

Proposed Canals:
Claremont WW
Butterford WW
Newgate WW
Blueberry Lake
March WW
Seamist WW
Memorial WW
Mighty Rotonda River
Rotonda Canals

FY2024 Capital Improvements Budget / FY 2024 - FY 2029 Project Detail — **Project No. c390305**

GENERAL PROJECT DATA:		Status In Progress
Project Title:	Total Maximum Daily Load Program	
Functional Area:	Stormwater Management	
Department:	Public Works\Engineering	
Location:	Stormwater MSBUs, County Wide	

CONCURRENCY REQUIREMENTS:	(Y/N)
Does project add new capacity?	No
Is project required to maintain level of service:	
- Within 5 years? List project in CIE	No
- From 6 to 10 years? Monitor Annually	No

PROJECT NEED CRITERIA	
Safety	
Mandate	X
Replace	
Growth	

PROJECT SCHEDULE	FY24 1 2 3 4	FY25 1 2 3 4	FY26 1 2 3 4	FY27 1 2 3 4	FY28 1 2 3 4	FY29 1 2 3 4
Desgn/Arch						
Land/ROW						
Construct						
Equipment						

PROJECT DESCRIPTION:

The objective of the TMDL initiative is to develop water quality based controls to reduce pollution from both point and non-point sources and to restore and maintain the quality of water resources in designated areas identified by EPA/FDEP. The Engineering Consultant will address EPA and/or DEP requirements pertaining to initial development of this program. This work may include but not be limited to: modeling of pollutant loadings at locations designated by EPA and/or DEP and recommendations to address any mandated stormwater management projects.

Funding is split equally between Mid Charlotte, South Charlotte, and West Charlotte Stormwater Units.

OPERATING BUDGET IMPACT:

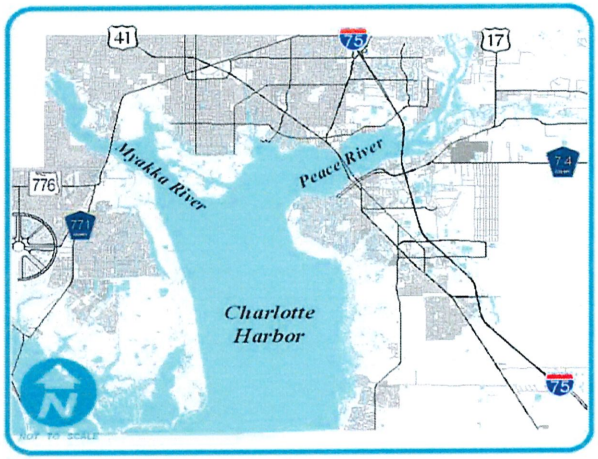
There are no additional operating impacts associated with this project.

PROJECT RATIONALE (Include Additional LOS Detail, if necessary):

The Environmental Protection Agency (EPA) is requiring all states to identify those waters within its boundaries not meeting water quality standards applicable to the waters' designated uses. In Florida, this program is being initiated/implemented by the Florida Department of Environmental Protection (FDEP). Possible water bodies affected by this program in Charlotte County are Charlotte Harbor and the Peace and Myakka Rivers. This project is to initiate efforts to address water quality issues that may be derived as this initiative by EPA and FDEP progresses.

REPLACEMENT COUNTY PROPERTY NO.:

	Prior Actual	Est FY23	Calc. for FY24 Orig. FY24	Calc. for FY24 Est c/o to FY24	Calc. for FY24 New $ FY24	FY24	FY25	FY26	FY27	FY28	FY29	FUTURE	Total
EXPENDITURE PLAN (000'S)													
Design/Arch/Eng	5			400		400							405
Land (or ROW)													
Construction													
Internal Costs	30			16		16							46
Equipment													
Interest													
Other Fees & Costs													
Total Project Cost	35			416		416							451
FUNDING PLAN (000'S)													
MSBU/TU Assessments	35			416		416							451
Total Funding	35			416		416							451
LOAN REPAYMENT SCHEDULE (000'S)													
Total Loan Repayment													
ANNUAL OPERATING BUDGET IMPACT (000'S)													
Personal Svc.													
Non-personal													
Capital													
Total Operating													



West Charlotte Stormwater MSBU

Fund Financial Report

Oct. 1, 2022 - Sept. 30, 2023

Unaudited as of 9.30.23

	Actual FY2022	Adopted Budget FY2023	YTD Actual FY2023	Projected FY2023
Beginning Balance	$6,386,782	$4,019,077	$6,370,252	$6,370,252
Revenues				
Assessments & Earnings	1,053,445	1,099,680	1,400,852	1,400,852
Grant & Subsidy Revenue	-	-	-	-
Loans & Borrowing	-	-	-	-
Total Revenue	$1,053,445	$1,099,680	$1,400,852	$1,400,852
Expenditures				
Contract Services	89,065	72,201	161,205	161,205
Pipe Lining	93,061	1,750,000	143,296	143,296
Water Quality	38,529	107,309	142,669	142,669
Public Works Services	434,504	798,106	32,375	32,375
Internal Charges	18,248	16,534	16,534	16,534
Purchased Services	325,364	249,503	329,803	329,803
Materials and Supplies	-	-	-	-
Capital Outlay	-	-	-	-
Debt Services	-	-	-	-
	-	-	-	-
Project Costs				
Nat'l Pollution Discharge Elimination	55,008	45,001	22,881	22,881
Total Maximum Daily Load Program	-	138,657	-	-
Canal Sediment Removal-West County	11,697	620,393	2,263	2,263
South Gulf Cove WW Lock Split Funded	4,500	5,000	-	-
Total Expenditures	$1,069,975	$3,802,704	$851,026	$851,026
Reserves (Ending Fund Balance)	$6,370,252	$1,316,053	$6,920,078	$6,920,078
Reserve %	*85.6%*	*25.7%*	*89.0%*	*89.0%*

Date Prepared: 10/26/2023

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	7891	Contracted - Landscaping		08/31/2023	0.00	0.00	0.00	0.00	1,360.00		1,360.00
	7891	Contracted - Landscaping		07/12/2023	0.50	42.73	0.00	1.96	0.00		44.69
			Contract Inspection Total		0.50	42.73	0.00	1.96	0.00		44.69
	Work Order 7891 Total		**7082 PINEDALE DR, PORT CHARLOTTE, 33981**		0.50	42.73	0.00	1.96	1,360.00	2.00	1,404.69
#20-127 TREE TRIMMING AND REMOVAL – ANNUAL CONTRACT											
		Contracted - Landscaping Total			0.50	42.73	0.00	1.96	1,360.00	2.00	1,404.69
	11773	Contracted Pipe Lining		07/25/2023	1.00	85.45	0.00	3.92	0.00		89.37
	11773	Contracted Pipe Lining		08/01/2023	1.00	85.45	0.00	3.92	0.00		89.37
	11773	Contracted Pipe Lining		08/15/2023	1.00	85.45	0.00	3.92	0.00		89.37
	11773	Contracted Pipe Lining		08/17/2023	1.00	85.45	0.00	3.92	0.00		89.37
	11773	Contracted Pipe Lining		08/21/2023	1.25	106.81	0.00	4.90	0.00		111.71
	11773	Contracted Pipe Lining		08/28/2023	1.00	85.45	0.00	3.92	0.00		89.37
	11773	Contracted Pipe Lining		09/12/2023	0.50	42.73	0.00	1.96	0.00		44.69
			Contract Inspection Total		6.75	576.79	0.00	26.46	0.00		603.25
	11773	Contracted Pipe Lining		07/18/2023	0.50	42.73	0.00	0.00	0.00		42.73
	11773	Contracted Pipe Lining		08/14/2023	0.25	21.36	0.00	0.00	0.00		21.36
	11773	Contracted Pipe Lining		08/23/2023	0.50	42.73	0.00	0.00	0.00		42.73
			Contract Management Total		1.25	106.81	0.00	0.00	0.00		106.82
	Work Order 11773 Total		**219 ANTILLA DR**		8.00	683.60	0.00	26.46	0.00	0.00	710.07
#22-547 FY23 Stormwater Collection System Rehab											
	13095	Contracted Pipe Lining		07/25/2023	0.50	42.72	0.00	1.96	0.00		44.69
			Contract Inspection Total		0.50	42.72	0.00	1.96	0.00		44.69

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	13095	Contracted Pipe Lining		08/14/2023	0.50	42.72	0.00	0.00	0.00		42.73
	13095	Contracted Pipe Lining		08/21/2023	0.25	21.36	0.00	0.00	0.00		21.36
			Contract Management Total		0.75	64.09	0.00	0.00	0.00		64.09
	Work Order 13095 Total		**12901 GASPARILLA RD, PLACIDA, 33946**		1.25	106.81	0.00	1.96	0.00	0.00	108.78
#22-547	**FY23 Stormwater Collection System Rehab**										
		Contracted Pipe Lining Total			9.25	790.41	0.00	28.42	0.00	0.00	818.85
	12363	GIS Update		07/31/2023	0.25	18.24	0.00	0.00	0.00		18.24
	Work Order 12363 Total				0.25	18.24	0.00	0.00	0.00	2.00	18.24
	13097	GIS Update		07/31/2023	0.50	36.47	0.00	0.00	0.00		36.47
	Work Order 13097 Total		**12901 Gasparilla Rd**		0.50	36.47	0.00	0.00	0.00	3.00	36.47
		GIS Update Total			0.75	54.70	0.00	0.00	0.00	5.00	54.71
	4025	Investigation		08/21/2023	0.10	7.48	0.00	0.39	0.00		7.87
	Work Order 4025 Total		**5496 CALLAWAY ST, PORT CHARLOTTE, 33981**		0.10	7.48	0.00	0.39	0.00	1.00	7.87
	4258	Investigation		08/18/2023	0.30	22.43	0.00	1.18	0.00		23.61
	Work Order 4258 Total		**12127 KINGSBURY AVE, PORT CHARLOTTE, 33981**		0.30	22.43	0.00	1.18	0.00	1.00	23.61
	5208	Investigation		09/01/2023	0.10	7.12	0.00	0.37	0.00		7.50
	Work Order 5208 Total		**10162 BARKER AVE, ENGLEWOOD, 34224**		0.10	7.12	0.00	0.37	0.00	1.00	7.50

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	5494	Investigation		09/01/2023	0.25	18.70	0.00	0.98	0.00		19.68
	Work Order 5494 Total		**5378 KENNEL ST, PORT CHARLOTTE, 33981**		0.25	18.70	0.00	0.98	0.00	1.00	19.68
	5629	Investigation		09/01/2023	0.20	14.96	0.00	0.78	0.00		15.74
	Work Order 5629 Total		**KEWANEE LN, PORT CHARLOTTE, 33981**		0.20	14.96	0.00	0.78	0.00	1.00	15.74
	6766	Investigation		07/27/2023	0.15	11.22	0.00	0.59	0.00		11.81
	Work Order 6766 Total		**7176 BROOKHAVEN TER**		0.15	11.22	0.00	0.59	0.00	1.00	11.81
	6815	Investigation		07/27/2023	0.21	16.02	0.00	0.84	0.00		16.86
	Work Order 6815 Total		**7160 BROOKHAVEN TER, ENGLEWOOD, 34224**		0.21	16.02	0.00	0.84	0.00	1.00	16.86
	14852	Investigation		08/11/2023	0.23	17.00	0.00	0.89	0.00		17.89
	Work Order 14852 Total		**7229 STRAWBERRY ST, ENGLEWOOD, 34224**		0.23	17.00	0.00	0.89	0.00	1.00	17.89
	15847	Investigation		09/07/2023	1.00	74.78	0.00	3.92	0.00		78.70
	Work Order 15847 Total		**7385 TEABERRY ST**		1.00	74.78	0.00	3.92	0.00	1.00	78.70
	16672	Investigation		09/19/2023	1.50	112.17	0.00	5.88	0.00		118.05
	Work Order 16672 Total		**13405 GREENCASTLE AVE**		1.50	112.17	0.00	5.88	0.00	1.00	118.05

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	16981	Investigation		09/28/2023	1.00	74.78	0.00	3.92	0.00		78.70
	Work Order 16981 Total		**THORMAN RD & S MCCALL RD**		1.00	74.78	0.00	3.92	0.00	1.00	78.70
		Investigation Total			5.04	376.65	0.00	19.74	0.00	11.00	396.40
	12605	Major Outfall Maintenance - Menzi		07/17/2023	3.00	218.82	0.00	77.01	0.00		295.83
	12605	Major Outfall Maintenance - Menzi		09/05/2023	12.00	887.06	0.00	587.64	0.00		1,474.70
	Work Order 12605 Total		**PROSPECT AVE, ENGLEWOOD, 34224**		15.00	1,105.88	0.00	664.65	0.00	13,331.00	1,770.53
	15748	Major Outfall Maintenance - Menzi		09/06/2023	12.00	887.06	0.00	587.64	0.00		1,474.70
	Work Order 15748 Total		**9028 WILLMINGTON BLVD, ENGLEWOOD, 34224**		12.00	887.06	0.00	587.64	0.00	5,000.00	1,474.70
		Major Outfall Maintenance - Menzi Total			27.00	1,992.94	0.00	1,252.29	0.00	18,331.00	3,245.23
	6155	MSBU Administrative Work		08/23/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/24/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/25/2023	1.50	109.41	0.00	0.00	0.00		109.41
	6155	MSBU Administrative Work		08/30/2023	1.00	72.94	0.00	0.00	0.00		72.94
			MSBU Minutes Total		3.50	255.29	0.00	0.00	0.00		255.29
	6155	MSBU Administrative Work		07/26/2023	0.25	27.64	0.00	0.00	0.00		27.64
	6155	MSBU Administrative Work		07/27/2023	0.25	27.64	0.00	0.00	0.00		27.64
	6155	MSBU Administrative Work		07/28/2023	0.25	27.64	0.00	0.00	0.00		27.64
	6155	MSBU Administrative Work		08/01/2023	0.25	18.24	0.00	0.00	0.00		18.24

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	6155	MSBU Administrative Work		08/03/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/08/2023	0.25	18.24	0.00	0.00	0.00		18.24
	6155	MSBU Administrative Work		08/10/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		08/11/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/15/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/16/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/17/2023	0.25	18.24	0.00	0.00	0.00		18.24
	6155	MSBU Administrative Work		08/18/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		08/22/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		08/23/2023	1.00	72.94	0.00	0.00	0.00		72.94
	6155	MSBU Administrative Work		08/24/2023	1.25	91.18	0.00	0.00	0.00		91.18
	6155	MSBU Administrative Work		08/25/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		08/30/2023	1.00	72.94	0.00	0.00	0.00		72.94
	6155	MSBU Administrative Work		08/31/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		09/01/2023	0.25	18.24	0.00	0.00	0.00		18.24
	6155	MSBU Administrative Work		09/06/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		09/07/2023	0.25	18.24	0.00	0.00	0.00		18.24
	6155	MSBU Administrative Work		09/12/2023	0.25	18.24	0.00	0.00	0.00		18.24
	6155	MSBU Administrative Work		09/13/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		09/14/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		09/19/2023	0.50	36.47	0.00	0.00	0.00		36.47
	6155	MSBU Administrative Work		09/20/2023	0.75	54.71	0.00	0.00	0.00		54.71
	6155	MSBU Administrative Work		09/22/2023	0.75	54.71	0.00	0.00	0.00		54.71

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	6155	MSBU Administrative Work		09/26/2023	0.50	36.47	0.00	0.00	0.00		36.47
			Administrative Time Total		15.25	1,140.56	0.00	0.00	0.00		1,140.62
	6155	MSBU Administrative Work		08/23/2023	3.75	273.53	0.00	0.00	0.00		273.53
			MSBU Meeting Total		3.75	273.53	0.00	0.00	0.00		273.53
	6155	MSBU Administrative Work		08/23/2023	2.00	170.90	0.00	0.00	0.00		170.90
	Work Order 6155 Total				24.50	1,840.27	0.00	0.00	0.00	0.00	1,840.34
		MSBU Administrative Work Total			24.50	1,840.27	0.00	0.00	0.00	0.00	1,840.34
	2820	Project Management		07/11/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		07/12/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		07/13/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		07/14/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		07/20/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		07/21/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		07/25/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		07/26/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		07/27/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		07/28/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		08/01/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		08/02/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		08/22/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		08/24/2023	1.00	85.45	0.00	0.00	0.00		85.45

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	2820	Project Management		08/25/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		09/01/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/06/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/07/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/08/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/13/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/14/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/15/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/20/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2820	Project Management		09/21/2023	2.00	170.90	0.00	0.00	0.00		170.90
	2820	Project Management		09/22/2023	1.00	85.45	0.00	0.00	0.00		85.45
	Work Order 2820 Total				35.00	2,990.75	0.00	0.00	0.00	0.00	2,990.75
c390202 - National Pollution Discharge Elimination											
	2833	Project Management		07/18/2023	1.00	85.45	0.00	0.00	0.00		85.45
	2833	Project Management		07/19/2023	2.00	170.90	0.00	0.00	0.00		170.90
	Work Order 2833 Total				3.00	256.35	0.00	0.00	0.00	0.00	256.35
c392002 - Canal Sediment Removal - West County											
	3854	Project Management		07/13/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/14/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/18/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/19/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/20/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/21/2023	0.25	21.36	0.00	0.98	0.00		22.34

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	3854	Project Management		07/25/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/26/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/27/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		07/28/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/02/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/03/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/04/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/08/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/09/2023	0.50	42.30	0.00	1.94	0.00		44.24
	3854	Project Management		08/10/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/11/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/15/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/16/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/17/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/18/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/22/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/23/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/24/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/25/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		08/31/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/01/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/06/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/07/2023	0.25	21.36	0.00	0.98	0.00		22.34

West Charlotte Storm Water Utility Unit

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
	3854	Project Management		09/12/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/13/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/14/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/15/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/19/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/20/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/21/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/22/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/26/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/27/2023	0.25	21.36	0.00	0.98	0.00		22.34
	3854	Project Management		09/29/2023	0.25	21.36	0.00	0.98	0.00		22.34
			Project Inspection Total		10.25	875.44	0.00	40.16	0.00		915.50
	3854	Project Management		07/11/2023	0.00	0.00	0.00	0.00	2,453.00		2,453.00
	3854	Project Management		08/29/2023	0.00	0.00	0.00	0.00	2,453.00		2,453.00
	3854	Project Management		09/21/2023	0.00	0.00	0.00	0.00	2,453.00		2,453.00
	3854	Project Management		09/29/2023	0.00	0.00	0.00	0.00	2,453.00		2,453.00
	Work Order 3854 Total		**West County Landscape Maintenance**		10.25	875.44	0.00	40.16	9,812.00	0.00	10,727.50
#21-054 Landscape Maintenance ROW - West County											
		Project Management Total			48.25	4,122.54	0.00	40.16	9,812.00	0.00	13,974.60
	13274	Sidelot Outfall Maintenance		09/07/2023	3.00	218.82	0.00	173.94	0.00		392.76
	Work Order 13274 Total		**9249 CLEWISTON TER, Englewood, 34224**		3.00	218.82	0.00	173.94	0.00	15,000.00	392.76

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
Sidelot Outfall Maintenance Total					3.00	218.82	0.00	173.94	0.00	15,000.00	392.76
West Charlotte Storm Water Utility Unit Total					118.28	9,439.06	0.00	1,516.51	11,172.00		22,127.58

Project	WO Number	WO Description	Location	Date Worked	Labor Hours	Labor Cost	Materials Cost	Equip. Cost	Contractor Cost	Work Accomp	Total Cost
			Grand totals for all MSBUs reported		118.28	9,439.06	0.00	1,516.51	11,172.00		22,127.58

FDOH Certification #E84167

BENCHMARK EnviroAnalytical, Inc.

ANALYTICAL TEST REPORT

THESE RESULTS MEET NELAC STANDARDS

Submission Number : 23100492

Charlotte County Public Works
410 Taylor St, Unit 104
Punta Gorda, FL 33950

Joanne Vernon P.E.

Project Name : CHARLOTTE HARBOR/LEMON BAY FWC
Date Received : 10/10/2023
Time Received : 14:22

Submission Number: 23100492
Sample Number: 001
Sample Description: 735504 Surf

Sample Date: 10/09/2023
Sample Time: 08:50
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.7	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.456	MG/L	0.032	0.128	350.1	10/11/2023 16:34	LK
TOTAL KJELDAHL NITROGEN	0.777	MG/L	0.05	0.20	351.2	10/20/2023 16:15	LL/JA
ORTHO PHOSPHORUS AS P	0.102	MG/L	0.002	0.008	365.3	10/10/2023 20:56	JS
TOTAL PHOSPHORUS AS P	0.208	MG/L	0.008	0.032	365.3	10/18/2023 19:07	JS
CHLOROPHYLL A, CORRECTED	1.14	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	24.9	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.16	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	5.99	MG/L	1.36	5.44	SM5310B	10/16/2023 18:27	KT
NITRATE+NITRITE AS N	0.023 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:48	LK
TOTAL NITROGEN	0.800	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:15	LL/JA/LK

Submission Number: 23100492
Sample Number: 002
Sample Description: 735138 Surf

Sample Date: 10/09/2023
Sample Time: 09:04
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.1	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.404	MG/L	0.032	0.128	350.1	10/11/2023 16:36	LK
TOTAL KJELDAHL NITROGEN	0.704	MG/L	0.05	0.20	351.2	10/20/2023 16:16	LL/JA
ORTHO PHOSPHORUS AS P	0.086	MG/L	0.002	0.008	365.3	10/10/2023 21:00	JS
TOTAL PHOSPHORUS AS P	0.125	MG/L	0.008	0.032	365.3	10/18/2023 19:08	JS
CHLOROPHYLL A, CORRECTED	2.13	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	24.6	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR

1711 12th Street East * Palmetto, FL 34221 * Phone (941) 723-9986 * Fax (941) 723-6061

COLOR PH	8.30	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	5.99	MG/L	1.36	5.44	SM5310B	10/17/2023 09:26	KT
NITRATE+NITRITE AS N	0.021 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:51	LK
TOTAL NITROGEN	0.725	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:16	LL/JA/LK

Submission Number: 23100492
Sample Number: 003
Sample Description: 735512 Surf
Sample Date: 10/09/2023
Sample Time: 09:59
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.9	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.515	MG/L	0.032	0.128	350.1	10/11/2023 16:38	LK
TOTAL KJELDAHL NITROGEN	0.815	MG/L	0.05	0.20	351.2	10/20/2023 16:17	LL/JA
ORTHO PHOSPHORUS AS P	0.137	MG/L	0.002	0.008	365.3	10/10/2023 21:01	JS
TOTAL PHOSPHORUS AS P	0.219	MG/L	0.008	0.032	365.3	10/19/2023 15:41	JS
CHLOROPHYLL A, CORRECTED	1.29	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	24.8	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.17	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	5.37 I	MG/L	1.36	5.44	SM5310B	10/17/2023 01:23	KT
NITRATE+NITRITE AS N	0.019 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:52	LK
TOTAL NITROGEN	0.834	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:17	LL/JA/LK

Submission Number: 23100492
Sample Number: 004
Sample Description: 735146 Surf
Sample Date: 10/09/2023
Sample Time: 10:24
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.0	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.658	MG/L	0.032	0.128	350.1	10/11/2023 16:40	LK
TOTAL KJELDAHL NITROGEN	0.703	MG/L	0.05	0.20	351.2	10/20/2023 16:19	LL/JA
ORTHO PHOSPHORUS AS P	0.105	MG/L	0.002	0.008	365.3	10/10/2023 21:03	JS
TOTAL PHOSPHORUS AS P	0.127	MG/L	0.008	0.032	365.3	10/18/2023 19:10	JS
CHLOROPHYLL A, CORRECTED	1.27	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	20.6	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.11	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	3.88 I	MG/L	1.36	5.44	SM5310B	10/17/2023 01:50	KT
NITRATE+NITRITE AS N	0.026	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:52	LK
TOTAL NITROGEN	0.729	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:19	LL/JA/LK

Submission Number: 23100492
Sample Number: 005
Sample Description: 735144 Surf

Sample Date: 10/09/2023
Sample Time: 10:43
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.4	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.516	MG/L	0.032	0.128	350.1	10/11/2023 16:42	LK
TOTAL KJELDAHL NITROGEN	0.858	MG/L	0.05	0.20	351.2	10/20/2023 16:20	LL/JA
ORTHO PHOSPHORUS AS P	0.102	MG/L	0.002	0.008	365.3	10/10/2023 21:04	JS
TOTAL PHOSPHORUS AS P	0.220	MG/L	0.008	0.032	365.3	10/18/2023 19:11	JS
CHLOROPHYLL A, CORRECTED	1.32	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	17.0	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.11	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	4.17 I	MG/L	1.36	5.44	SM5310B	10/17/2023 02:20	KT
NITRATE+NITRITE AS N	0.021 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:53	LK
TOTAL NITROGEN	0.879	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:20	LL/JA/LK

Submission Number: 23100492
Sample Number: 006
Sample Description: 670131 Surf

Sample Date: 10/09/2023
Sample Time: 11:34
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.3	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.443	MG/L	0.032	0.128	350.1	10/11/2023 16:44	LK
TOTAL KJELDAHL NITROGEN	0.622	MG/L	0.05	0.20	351.2	10/20/2023 16:22	LL/JA
ORTHO PHOSPHORUS AS P	0.106	MG/L	0.002	0.008	365.3	10/10/2023 21:05	JS
TOTAL PHOSPHORUS AS P	0.209	MG/L	0.008	0.032	365.3	10/18/2023 19:14	JS
CHLOROPHYLL A, CORRECTED	2.11	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	17.8	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.13	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	3.95 I	MG/L	1.36	5.44	SM5310B	10/17/2023 02:50	KT
NITRATE+NITRITE AS N	0.017 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:53	LK
TOTAL NITROGEN	0.639	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:22	LL/JA/LK

Submission Number: 23100492
Sample Number: 007
Sample Description: 670120 Surf

Sample Date: 10/09/2023
Sample Time: 12:17
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.3	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH

AMMONIA NITROGEN	0.606	MG/L	0.032	0.128	350.1	10/11/2023 16:45	LK
TOTAL KJELDAHL NITROGEN	0.806	MG/L	0.05	0.20	351.2	10/20/2023 16:29	LL/JA
ORTHO PHOSPHORUS AS P	0.155	MG/L	0.002	0.008	365.3	10/10/2023 21:07	JS
TOTAL PHOSPHORUS AS P	0.215	MG/L	0.008	0.032	365.3	10/18/2023 19:15	JS
CHLOROPHYLL A, CORRECTED	1.40	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	20.6	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.16	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	5.00 I	MG/L	1.36	5.44	SM5310B	10/17/2023 03:16	KT
NITRATE+NITRITE AS N	0.018 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:54	LK
TOTAL NITROGEN	0.824	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:29	LL/JA/LK

Submission Number: 23100492
Sample Number: 008
Sample Description: 670121 Surf
Sample Date: 10/09/2023
Sample Time: 12:29
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	4.3	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.548	MG/L	0.032	0.128	350.1	10/11/2023 16:58	LK
TOTAL KJELDAHL NITROGEN	0.847	MG/L	0.05	0.20	351.2	10/20/2023 16:30	LL/JA
ORTHO PHOSPHORUS AS P	0.013	MG/L	0.002	0.008	365.3	10/10/2023 21:08	JS
TOTAL PHOSPHORUS AS P	0.015 I	MG/L	0.008	0.032	365.3	10/18/2023 19:16	JS
CHLOROPHYLL A, CORRECTED	18.4	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	18.0	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.20	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	5.76	MG/L	1.36	5.44	SM5310B	10/17/2023 03:46	KT
NITRATE+NITRITE AS N	0.018 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:54	LK
TOTAL NITROGEN	0.865	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:30	LL/JA/LK

Submission Number: 23100492
Sample Number: 009
Sample Description: 670133 Surf
Sample Date: 10/09/2023
Sample Time: 12:43
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.4	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.542	MG/L	0.032	0.128	350.1	10/11/2023 17:00	LK
TOTAL KJELDAHL NITROGEN	0.767	MG/L	0.05	0.20	351.2	10/20/2023 16:31	LL/JA
ORTHO PHOSPHORUS AS P	0.105	MG/L	0.002	0.008	365.3	10/10/2023 21:09	JS
TOTAL PHOSPHORUS AS P	0.208	MG/L	0.008	0.032	365.3	10/18/2023 19:17	JS
CHLOROPHYLL A, CORRECTED	10.2	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	20	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH

TOTAL SUSPENDED SOLIDS	22.6	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.19	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	6.48	MG/L	1.36	5.44	SM5310B	10/17/2023 04:15	KT
NITRATE+NITRITE AS N	0.013 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:55	LK
TOTAL NITROGEN	0.780	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:31	LL/JA/LK

Submission Number: 23100492
Sample Number: 010
Sample Description: 670110 Surf
Sample Date: 10/09/2023
Sample Time: 13:00
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.7	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.518	MG/L	0.032	0.128	350.1	10/11/2023 17:02	LK
TOTAL KJELDAHL NITROGEN	0.818	MG/L	0.05	0.20	351.2	10/20/2023 16:33	LL/JA
ORTHO PHOSPHORUS AS P	0.083	MG/L	0.002	0.008	365.3	10/10/2023 21:11	JS
TOTAL PHOSPHORUS AS P	0.111	MG/L	0.008	0.032	365.3	10/18/2023 19:18	JS
CHLOROPHYLL A, CORRECTED	2.56	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	10	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	22.8	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	8.17	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	4.46 I	MG/L	1.36	5.44	SM5310B	10/17/2023 04:42	KT
NITRATE+NITRITE AS N	0.016 I	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:55	LK
TOTAL NITROGEN	0.834	MG/L	0.05	0.20	SYSTEA+351	10/20/2023 16:33	LL/JA/LK

Submission Number: 23100492
Sample Number: 011
Sample Description: Blank
Sample Date: 10/09/2023
Sample Time: 13:03
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	0.11 U	NTU	0.11	0.11	180.1	10/10/2023 15:48	JH
AMMONIA NITROGEN	0.032 U	MG/L	0.032	0.128	350.1	10/11/2023 17:06	LK
TOTAL KJELDAHL NITROGEN	0.05 U	MG/L	0.05	0.20	351.2	10/23/2023 09:36	LL/JA
ORTHO PHOSPHORUS AS P	0.002 U	MG/L	0.002	0.008	365.3	10/10/2023 21:12	JS
TOTAL PHOSPHORUS AS P	0.008 U	MG/L	0.008	0.032	365.3	10/18/2023 19:19	JS
CHLOROPHYLL A, CORRECTED	0.25 U	MG/M3	0.25	1.00	445.0	10/17/2023 14:04	MAS
COLOR, APPARENT	2.5 U	PCU	2.5	2.5	SM2120B	10/10/2023 15:48	JH
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/11/2023 11:24	IR
COLOR PH	7.01	UNITS			SM4500H+B	10/10/2023 15:48	JH
TOTAL ORGANIC CARBON	1.36 U	MG/L	1.36	5.44	SM5310B	10/17/2023 05:09	KT
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	10/17/2023 15:59	LK
TOTAL NITROGEN	0.05 U	MG/L	0.05	0.20	SYSTEA+351	10/23/2023 09:36	LL/JA/LK

Haley Rin 11/07/2023

Dr. Dale D. Dixon Laboratory Director Date

Haley Richardson QC Manager / Kathleen Gauthier QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.
B = Results based upon colony counts outside the ideal range.
H = Value based on field kit determination. Results may not be accurate.
I = Reported value is between the laboratory MDL and the PQL.
J1 = Estimated value. Surrogate recovery limits exceeded.
J2 = Estimated value. No quality control criteria exists for component.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
J5 = Estimated value. Data questionable due to improper lab or field protocols.
K = Off-scale low. Value is known to be < the value reported.
L = Off-scale high. Value is known to be > the value reported.
N = Presumptive evidence of presence of material.
O = Sampled, but analysis lost or not performed.
Q = Sample held beyond accepted hold time.
T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
| = Data deviate from historically established concentration ranges.
? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
* = Not reported due to interference.
Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

NOTES:

MBAS calculated as LAS; molecular weight = 340.
PQL = 4xMDL.
ND = Not detected at or above the adjusted reporting limit.
G1 = Accuracy standard does not meet method control limits, but does meet lab control limits that are in agreement with USEPA generated data. USEPA letter available upon request.
G2 = Accuracy standard exceeds acceptable control limits. Duplicate and spike values are within control limits. Reported data are usable.

COMMENTS:

Chlorophyll A lab filtered at E85086 on 10/10/2023 at 0805.

For questions or comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc. E84167
1711 Twelfth Street East
Palmetto, FL. 34221
(941) 723-9986 / (941) 723-6061 fax
www.Benchmarkea.com
Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client:
Charlotte County Public Works - Stormwater
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay **FWC**

Profile # 700

Laboratory Submission #: 23100492

Station ID *as per sample bottles 10/9/23 BK Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters, Preservative[4], Container Type[5] / Total Number of container =						Laboratory Sample #
		TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/10/23 0805	Ortho-Phosphate (365.3) (Field Filtered must be on cap)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ☑ Acid Lot # 25-10	0.2mL 1:1 H_3PO_4	
735504 Surf*	SSW / Grab	Date & Time 10/9/23 8:50	•	•	•	•	•	1
735138 Surf*	SSW / Grab	Date & Time 10/9/23 9:04	•	•	•	•	•	2
735512 Surf*	SSW / Grab	Date & Time 10/9/23 9:59	•	•	•	•	•	3
735146 Surf*	SSW / Grab	Date & Time 10/9/23 10:24	•	•	•	•	•	4
735144 Surf*	SSW / Grab	Date & Time 10/9/23 10:43	•	•	•	•	•	5
670131 Surf*	SSW / Grab	Date & Time 10/9/23 11:34	•	•	•	•	•	6
670120 Surf*	SSW / Grab	Date & Time 10/9/23 12:17	•	•	•	•	•	7
670121 Surf*	SSW / Grab	Date & Time 10/9/23 12:29	•	•	•	•	•	8
670133 Surf*	SSW / Grab	Date & Time 10/9/23 12:43	•	•	•	•	•	9
670110 Surf*	SSW / Grab	Date & Time 10/9/23 13:00	•	•	•	•	•	10

Notes:
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
5. Under "Preservative," list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio, H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:
pH <2 : ☑ BEA Temperature: 0.9C
BEAS Temperature: 1.4°C

1	Collector & Affiliation: (Print & Sign) Sara Rios FWC	Date: 10/9/23	Time: 1452	Received By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/9/23	Time: 1452
2	Relinquished By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/10/23	Time: 1114	Received By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/10/23	Time: 1114
3	Relinquished By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/10/23	Time: 1422	Received By & Affiliation: (Print & Sign) Kara McLaren BEA	Date: 10/10/23	Time: 1424

Benchmark EnviroAnalytical, Inc. E84167
1711 Twelfth Street East
Palmetto, FL. 34221
(941) 723-9986 / (941) 723-6061 fax
www.Benchmarkea.com
Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client: **Charlotte County Public Works - Stormwater**
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay **FWC**

Profile # 700

Laboratory Submission #: 23100492

Station ID Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters. Preservative[4]. Container Type[3] / Total Number of container =						Laboratory Sample #
		TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/10/23 0805	Ortho-Phosphate (365.3) (Field Filtered must be on cap)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ☑ Acid Lot # 23-10	0.2mL 1:1 H_3PO_4	
Blank	SSW / Grab	Date & Time 10/9/23 13:03			•	•	•	11
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						

Notes:
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
5. Under "Preservative," list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio. H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:
pH <2 : ☑ BEA Temperature: 0.9°C
BEAS Temperature: 1.4°C

1	Collector & Affiliation: (Print & Sign) Sara Rios FWC LAB	Date: 10/9/23	Time: 1452	Received By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/9/23	Time: 1452
2	Relinquished By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/10/23	Time: 1114	Received By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/10/23	Time: 1114
3	Relinquished By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/10/23	Time: 1422	Received By & Affiliation: (Print & Sign) BEAS	Date: 10/10/23	Time: 1422

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/9/23	**Grid#** 532 Surf	**Region:** 1 2 3 4 5 (LB)
Time: 850	**Sonde:** BU1	
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26° 50.240	Lat: 26.83368
Long: 82° 16.566	Long: 82.27745

Samplers: (SR) (EC) TH CS DY RM (EM) AW AB NI (CHNEP)
MB GP KC DB EW LH (SM) NL NM MY JD (Volunteer)

Sampler Signature: E. R

Weather Conditions:

Wind dir/spd: NE 8 (mph) or knots (circle)

Wave ht: 0.1 ft (m) (Circle)

Cld cover (%): 40 Hazy (Clear) Fog Rain

Tide Level: LS LR LF MR MF HR HS (HF)

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
1.8	1.8	1.8	1.8

BOTTOM TYPE: (seagrass) (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	735504

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
850	0.5	26.9	54262	35.84	4.37	7.95
851	1	26.9	54265	35.84	4.36	7.97
	2					
	3					
	4					
	5					
	6					
	7					
852	bottom 1.3	26.9	54269	35.84	4.33	7.97
	Blank					

Additional Comments & Observations: Volunteer = Judy Ott

26° 50.021
82° 16.347

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/9/23	**Grid#** 516 Surf	**Region:** 1 2
Time: 959	**Sonde:** BW	3 4 5 (LB)
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected: Lat: 26°55.388 Long: 82°21.064	**GPS Actual:** Lat: 26.92179 Long: 82.35041

Samplers: (SR) (EC) TH CS DY RM (EM) AW AB NI (CHNEP)
MB GP KC DB EW LH (SM) NL NM MY JD (Volunteer)

Sampler Signature:

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
1.7	1.7	1.7	1.7

BOTTOM TYPE: (seagrass) (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	735512

Weather Conditions:

Wind dir/spd: NE 12 (mph) or knots (circle)

Wave ht: 0.2 ft (m) (Circle)

Cld cover (%): 70 Hazy (Clear) Fog Rain

Tide Level: LS LR LF MR MF HR HS (HF)

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Data: (0.01)

Time:	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
959	0.5	26.1	54439	35.99	5.20	7.99
1000	1	26.1	54444	36.00	5.18	7.99
	2					
	3					
	4					
	5					
	6					
	7					
1001	bottom 1.2	26.1	54442	35.99	5.17	7.99
	Blank					

Additional Comments & Observations: Skip 2nd

26°55.308
82°21.024

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/9/23	**Grid#** 526 **Surf**	**Region:** 1 2 3 4 5 (LB)
Time: 1043	**Sonde:** BW	
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
DUP Time:	Duplicate Storet Code:
Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26°52.793	Lat: 26.876644
Long: 82° 18.971	Long: 82.31648

Samplers: (SR) EC TH CS DY RM (EM) AW AB NI (CHNEP)
MB GP KC DB EW LH (SM) NL NM MY JD Volunteer

Sampler Signature:

Weather Conditions:
Wind dir/spd: NE 08 (mph) or knots (circle)
Wave ht: 0.1 ft (m) (Circle)
Cld cover (%): 90 Hazy (Clear) Fog Rain
Tide Level: LS LR LF MR (MF) HR HS HF
L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
1.7	1.7	1.7	1.7

BOTTOM TYPE: (seagrass) (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	735144

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
1043	0.5	26.1	54818	36.27	4.92	7.93
1044	1	26.1	54813	36.27	4.87	7.91
	2					
	3					
	4					
	5					
	6					
	7					
1045	bottom 1.2	26.2	54832	36.28	4.88	7.91
	Blank					

Additional Comments & Observations:

26°58.599
82° 18.989

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Date: 10/9/23	**Grid#** 98 **Surf**	**Region:** 1 2	Blank Time:
Time: 1217	**Sonde:** BW	3 4 (5) LB	____ DUP Time:
Collecting Agency:	FWC		____ Bottom Time:

Site Storet Code:	
Blank Storet Code:	
Duplicate Storet Code:	
Bottom Storet Code:	

GPS Selected:	**GPS Actual:**
Lat: 26°48.145	Lat: 26.80367
Long: 82° 15.174	Long: 82.25215

Samplers: (SR) (EC) TH CS DY RM (EM) AW AB NI (CHNEP)
MB GP KC DB EW LH (SM) NL NM MY JD (Volunteer)

Sampler Signature:

Weather Conditions:
Wind dir/spd: NE 08 (mph) or knots (circle)
Wave ht: 0.1 ft (m) (Circle)
Cld cover (%): 100 Hazy Clear Fog (Rain)
Tide Level: LS LR LF MR (MF) HR HS HF
L=Low; M=Mid; H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.9	2.0	2.0	2.0

BOTTOM TYPE: seagrass (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670120

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
1217	0.5	26.7	54244	35.83	5.57	7.98
1218	1	26.7	54255	35.84	5.52	7.96
1219	2	26.7	54301	35.87	5.47	7.95
	3					
	4					
	5					
	6					
	7					
1220	bottom 2.4	26.7	54301	35.87	5.46	7.95
	Blank					

Additional Comments & Observations:

26°48.220
82° 15.129

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:
Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/9/23	**Grid#** 114 **Surf**	**Region:** 1 2 3 4 (5) LB
Time: 1243	**Sonde:** BW	
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
DUP Time:	Duplicate Storet Code:
Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26°46.653	Lat: 26.79411
Long: 82° 10.634	Long: 82.23943

Samplers: (SR) EC TH CS DY RM (EM) AW AB NI (CHNEP)
MB GP KC DB EW LH (SM) NL NM MY JD Volunteer

Sampler Signature:

Weather Conditions:
Wind dir/spd: NE 08 (mph) or knots (circle)
Wave ht: 0.1 ft (m) (Circle)
Cld cover (%): 100 Hazy (Clear) Fog Rain
Tide Level: LS LR LF MR (MF) HR HS HF
L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
1.5	1.5	1.5	1.5

BOTTOM TYPE: seagrass, (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670133

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
1243	0.5	25.2	52107	34.28	6.38	8.05
1241	1	25.2	52121	34.29	6.35	8.03
	2					
	3					
	4					
	5					
	6					
	7					
	bottom					
	Blank					

Additional Comments & Observations: Alt grid from 126 for wind + time
26° 47.647
82° 14.365

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:
Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

FDOH Certification #E84167

BENCHMARK
EnviroAnalytical, Inc.

ANALYTICAL TEST REPORT

THESE RESULTS MEET NELAC STANDARDS

Submission Number : 23100613

Charlotte County Public Works
410 Taylor St, Unit 104
Punta Gorda, FL 33950

Joanne Vernon P.E.

Project Name : CHARLOTTE HARBOR/LEMON BAY FWC
Date Received : 10/11/2023
Time Received : 15:42

Submission Number: 23100613
Sample Number: 001
Sample Description: 670078 Surf

Sample Date: 10/10/2023
Sample Time: 08:49
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.0	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.212	MG/L	0.032	0.128	350.1	10/12/2023 16:34	LK
TOTAL KJELDAHL NITROGEN	0.842	MG/L	0.05	0.20	351.2	10/20/2023 17:58	LL/JA
ORTHO PHOSPHORUS AS P	0.198	MG/L	0.002	0.008	365.3	10/11/2023 19:14	JS
TOTAL PHOSPHORUS AS P	0.200	MG/L	0.008	0.032	365.3	10/20/2023 10:39	JS
CHLOROPHYLL A, CORRECTED	12.3	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	12.2	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.63	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	7.15	MG/L	1.36	5.44	SM5310B	10/17/2023 13:17	KT
NITRATE+NITRITE AS N	0.014 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:17	MA
TOTAL NITROGEN	0.856	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:17	LL/JA/MA

Submission Number: 23100613
Sample Number: 002
Sample Description: 670082 Surf

Sample Date: 10/10/2023
Sample Time: 09:06
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.2	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.155	MG/L	0.032	0.128	350.1	10/12/2023 16:43	LK
TOTAL KJELDAHL NITROGEN	0.639	MG/L	0.05	0.20	351.2	10/20/2023 18:00	LL/JA
ORTHO PHOSPHORUS AS P	0.199	MG/L	0.002	0.008	365.3	10/11/2023 13:15	JS
TOTAL PHOSPHORUS AS P	0.198	MG/L	0.008	0.032	365.3	10/20/2023 10:40	JS
CHLOROPHYLL A, CORRECTED	5.04	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	20	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	15.8	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR

1711 12th Street East * Palmetto, FL 34221 * Phone (941) 723-9986 * Fax (941) 723-6061

COLOR PH	7.72	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	6.13	MG/L	1.36	5.44	SM5310B	10/17/2023 22:09	KT
NITRATE+NITRITE AS N	0.019 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:17	MA
TOTAL NITROGEN	0.668	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:17	LL/JA/MA

Submission Number: 23100613
Sample Number: 003
Sample Description: 670083 Surf

Sample Date: 10/10/2023
Sample Time: 09:21
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.4	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.177	MG/L	0.032	0.128	350.1	10/12/2023 16:45	LK
TOTAL KJELDAHL NITROGEN	0.923	MG/L	0.05	0.20	351.2	10/20/2023 18:01	LL/JA
ORTHO PHOSPHORUS AS P	0.198	MG/L	0.002	0.008	365.3	10/11/2023 19:01	JS
TOTAL PHOSPHORUS AS P	0.200	MG/L	0.008	0.032	365.3	10/20/2023 10:41	JS
CHLOROPHYLL A, CORRECTED	9.49	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	22.0	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.77	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	6.15	MG/L	1.36	5.44	SM5310B	10/17/2023 22:38	KT
NITRATE+NITRITE AS N	0.022 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:18	MA
TOTAL NITROGEN	0.945	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:18	LL/JA/MA

Submission Number: 23100613
Sample Number: 004
Sample Description: 670083 Bott

Sample Date: 10/10/2023
Sample Time: 09:24
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.3	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.231	MG/L	0.032	0.128	350.1	10/12/2023 16:47	LK
TOTAL KJELDAHL NITROGEN	0.703	MG/L	0.05	0.20	351.2	10/20/2023 18:03	LL/JA
ORTHO PHOSPHORUS AS P	0.175	MG/L	0.002	0.008	365.3	10/11/2023 19:02	JS
TOTAL PHOSPHORUS AS P	0.223	MG/L	0.008	0.032	365.3	10/19/2023 12:21	JS
CHLOROPHYLL A, CORRECTED	5.19	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	20	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	18.6	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.64	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	7.15	MG/L	1.36	5.44	SM5310B	10/18/2023 00:27	KT
NITRATE+NITRITE AS N	0.017 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:18	MA
TOTAL NITROGEN	0.720	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:18	LL/JA/MA

Submission Number: 23100613
Sample Number: 005
Sample Description: 670097 Surf

Sample Date: 10/10/2023
Sample Time: 09:50
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.0	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.366	MG/L	0.032	0.128	350.1	10/12/2023 16:49	LK
TOTAL KJELDAHL NITROGEN	0.555	MG/L	0.05	0.20	351.2	10/20/2023 18:04	LL/JA
ORTHO PHOSPHORUS AS P	0.136	MG/L	0.002	0.008	365.3	10/11/2023 19:04	JS
TOTAL PHOSPHORUS AS P	0.150	MG/L	0.008	0.032	365.3	10/19/2023 15:49	JS
CHLOROPHYLL A, CORRECTED	25.4	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	100	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	27.0	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.81	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	14.5	MG/L	1.36	5.44	SM5310B	10/18/2023 01:23	KT
NITRATE+NITRITE AS N	0.026	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:19	MA
TOTAL NITROGEN	0.581	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:19	LL/JA/MA

Submission Number: 23100613
Sample Number: 006
Sample Description: 670097 Bott

Sample Date: 10/10/2023
Sample Time: 09:55
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.7	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.769	MG/L	0.032	0.128	350.1	10/12/2023 16:51	LK
TOTAL KJELDAHL NITROGEN	0.772	MG/L	0.05	0.20	351.2	10/20/2023 18:05	LL/JA
ORTHO PHOSPHORUS AS P	0.090	MG/L	0.002	0.008	365.3	10/11/2023 19:05	JS
TOTAL PHOSPHORUS AS P	0.191	MG/L	0.008	0.032	365.3	10/19/2023 15:50	JS
CHLOROPHYLL A, CORRECTED	1.14	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	29.6	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.70	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	10.9	MG/L	1.36	5.44	SM5310B	10/18/2023 03:12	KT
NITRATE+NITRITE AS N	0.027	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:19	MA
TOTAL NITROGEN	0.799	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:19	LL/JA/MA

Submission Number: 23100613
Sample Number: 007
Sample Description: 670103 Surf

Sample Date: 10/10/2023
Sample Time: 10:14
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.9	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH

AMMONIA NITROGEN	0.204	MG/L	0.032	0.128	350.1	10/12/2023 16:53	LK
TOTAL KJELDAHL NITROGEN	0.821	MG/L	0.05	0.20	351.2	10/23/2023 11:59	LL/JA
ORTHO PHOSPHORUS AS P	0.224	MG/L	0.002	0.008	365.3	10/11/2023 19:06	JS
TOTAL PHOSPHORUS AS P	0.244	MG/L	0.008	0.032	365.3	10/19/2023 12:25	JS
CHLOROPHYLL A, CORRECTED	25.7	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	8.40	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.80	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	6.77	MG/L	1.36	5.44	SM5310B	10/18/2023 03:39	KT
NITRATE+NITRITE AS N	0.015 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:20	MA
TOTAL NITROGEN	0.836	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:20	LL/JA/MA

Submission Number: 23100613
Sample Number: 008
Sample Description: 670103 Bott

Sample Date: 10/10/2023
Sample Time: 10:17
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.8	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.287	MG/L	0.032	0.128	350.1	10/12/2023 16:54	LK
TOTAL KJELDAHL NITROGEN	0.897	MG/L	0.05	0.20	351.2	10/20/2023 18:14	LL/JA
ORTHO PHOSPHORUS AS P	0.193	MG/L	0.002	0.008	365.3	10/11/2023 19:08	JS
TOTAL PHOSPHORUS AS P	0.201	MG/L	0.008	0.032	365.3	10/19/2023 15:52	JS
CHLOROPHYLL A, CORRECTED	5.00	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	20	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	25.6	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.76	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	6.15	MG/L	1.36	5.44	SM5310B	10/18/2023 04:06	KT
NITRATE+NITRITE AS N	0.016 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:20	MA
TOTAL NITROGEN	0.913	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:20	LL/JA/MA

Submission Number: 23100613
Sample Number: 009
Sample Description: 670105 Surf

Sample Date: 10/10/2023
Sample Time: 10:39
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	3.5	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.294	MG/L	0.032	0.128	350.1	10/12/2023 16:56	LK
TOTAL KJELDAHL NITROGEN	0.551	MG/L	0.05	0.20	351.2	10/20/2023 18:15	LL/JA
ORTHO PHOSPHORUS AS P	0.100	MG/L	0.002	0.008	365.3	10/11/2023 19:09	JS
TOTAL PHOSPHORUS AS P	0.152	MG/L	0.008	0.032	365.3	10/26/2023 12:25	JS
CHLOROPHYLL A, CORRECTED	29.1	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH

TOTAL SUSPENDED SOLIDS	22.2	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.88	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	12.7	MG/L	1.36	5.44	SM5310B	10/18/2023 04:33	KT
NITRATE+NITRITE AS N	0.021 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:23	MA
TOTAL NITROGEN	0.572	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:23	LL/JA/MA

Submission Number: 23100613
Sample Number: 010
Sample Description: 670105 Bott
Sample Date: 10/10/2023
Sample Time: 10:44
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	3.0	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.427	MG/L	0.032	0.128	350.1	10/12/2023 17:09	LK
TOTAL KJELDAHL NITROGEN	0.635	MG/L	0.05	0.20	351.2	10/20/2023 18:17	LL/JA
ORTHO PHOSPHORUS AS P	0.104	MG/L	0.002	0.008	365.3	10/11/2023 19:10	JS
TOTAL PHOSPHORUS AS P	0.118	MG/L	0.008	0.032	365.3	10/19/2023 15:53	JS
CHLOROPHYLL A, CORRECTED	14.9	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	28.2	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.86	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	11.3	MG/L	1.36	5.44	SM5310B	10/18/2023 05:00	KT
NITRATE+NITRITE AS N	0.026	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:24	MA
TOTAL NITROGEN	0.661	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:24	LL/JA/MA

Submission Number: 23100613
Sample Number: 011
Sample Description: 670118 Surf
Sample Date: 10/10/2023
Sample Time: 11:01
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.8	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.256	MG/L	0.032	0.128	350.1	10/12/2023 17:11	LK
TOTAL KJELDAHL NITROGEN	0.596	MG/L	0.05	0.20	351.2	10/20/2023 18:18	LL/JA
ORTHO PHOSPHORUS AS P	0.138	MG/L	0.002	0.008	365.3	10/11/2023 19:20	JS
TOTAL PHOSPHORUS AS P	0.156	MG/L	0.008	0.032	365.3	10/19/2023 12:29	JS
CHLOROPHYLL A, CORRECTED	14.7	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	21.6	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.73	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	12.4	MG/L	1.36	5.44	SM5310B	10/18/2023 05:27	KT
NITRATE+NITRITE AS N	0.015 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:24	MA
TOTAL NITROGEN	0.611	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:24	LL/JA/MA

Submission Number: 23100613
Sample Number: 012
Sample Description: 670101 Surf

Sample Date: 10/10/2023
Sample Time: 11:26
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	3.2	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.454	MG/L	0.032	0.128	350.1	10/12/2023 17:13	LK
TOTAL KJELDAHL NITROGEN	0.793	MG/L	0.05	0.20	351.2	10/20/2023 18:19	LL/JA
ORTHO PHOSPHORUS AS P	0.096	MG/L	0.002	0.008	365.3	10/11/2023 19:21	JS
TOTAL PHOSPHORUS AS P	0.122	MG/L	0.008	0.032	365.3	10/19/2023 15:54	JS
CHLOROPHYLL A, CORRECTED	14.5	MG/M3	0.25	1.00	445.0	10/19/2023 16:00	MAS
COLOR, APPARENT	40	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	7.60	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.71	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	11.1	MG/L	1.36	5.44	SM5310B	10/18/2023 14:19	KT
NITRATE+NITRITE AS N	0.014 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:25	MA
TOTAL NITROGEN	0.807	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:25	LL/JA/MA

Submission Number: 23100613
Sample Number: 013
Sample Description: 670093 Surf

Sample Date: 10/10/2023
Sample Time: 12:22
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.0	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.327	MG/L	0.032	0.128	350.1	10/12/2023 17:15	LK
TOTAL KJELDAHL NITROGEN	0.576	MG/L	0.05	0.20	351.2	10/20/2023 18:21	LL/JA
ORTHO PHOSPHORUS AS P	0.115	MG/L	0.002	0.008	365.3	10/11/2023 19:22	JS
TOTAL PHOSPHORUS AS P	0.148	MG/L	0.008	0.032	365.3	10/19/2023 15:55	JS
CHLOROPHYLL A, CORRECTED	18.6	MG/M3	0.25	1.00	445.0	10/19/2023 16:00	MAS
COLOR, APPARENT	60	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	22.4	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.88	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	12.5	MG/L	1.36	5.44	SM5310B	10/18/2023 15:13	KT
NITRATE+NITRITE AS N	0.019 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:25	MA
TOTAL NITROGEN	0.595	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:25	LL/JA/MA

Submission Number: 23100613
Sample Number: 014
Sample Description: 670092 Surf

Sample Date: 10/10/2023
Sample Time: 12:39
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.3	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH

AMMONIA NITROGEN	0.523	MG/L	0.032	0.128	350.1	10/12/2023 17:17	LK
TOTAL KJELDAHL NITROGEN	0.694	MG/L	0.05	0.20	351.2	10/20/2023 16:22	LL/JA
ORTHO PHOSPHORUS AS P	0.133	MG/L	0.002	0.008	365.3	10/11/2023 19:24	JS
TOTAL PHOSPHORUS AS P	0.203	MG/L	0.008	0.032	365.3	10/19/2023 12:32	JS
CHLOROPHYLL A, CORRECTED	16.7	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	60	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	17.4	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.84	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	11.7	MG/L	1.36	5.44	SM5310B	10/18/2023 23:05	KT
NITRATE+NITRITE AS N	0.023 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:26	MA
TOTAL NITROGEN	0.717	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:26	LL/JA/MA

Submission Number: 23100613
Sample Number: 015
Sample Description: 670092 Bott

Sample Date: 10/10/2023
Sample Time: 12:42
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.6	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.554	MG/L	0.032	0.128	350.1	10/12/2023 17:19	LK
TOTAL KJELDAHL NITROGEN	0.646	MG/L	0.05	0.20	351.2	10/23/2023 12:04	LL/JA
ORTHO PHOSPHORUS AS P	0.111	MG/L	0.002	0.008	365.3	10/11/2023 19:25	JS
TOTAL PHOSPHORUS AS P	0.149	MG/L	0.008	0.032	365.3	10/19/2023 12:33	JS
CHLOROPHYLL A, CORRECTED	1.86	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	90	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH
TOTAL SUSPENDED SOLIDS	24.2	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	7.66	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	7.96	MG/L	1.36	5.44	SM5310B	10/18/2023 23:32	KT
NITRATE+NITRITE AS N	0.018 I	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:27	MA
TOTAL NITROGEN	0.664	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:27	LL/JA/MA

Submission Number: 23100613
Sample Number: 016
Sample Description: Blank

Sample Date: 10/10/2023
Sample Time: 12:52
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	0.11 U	NTU	0.11	0.11	180.1	10/11/2023 17:01	JH
AMMONIA NITROGEN	0.032 U	MG/L	0.032	0.128	350.1	10/12/2023 17:30	LK
TOTAL KJELDAHL NITROGEN	0.05 U	MG/L	0.05	0.20	351.2	10/23/2023 09:55	LL/JA
ORTHO PHOSPHORUS AS P	0.002 U	MG/L	0.002	0.008	365.3	10/11/2023 19:26	JS
TOTAL PHOSPHORUS AS P	0.008 U	MG/L	0.008	0.032	365.3	10/18/2023 20:23	JS
CHLOROPHYLL A, CORRECTED	0.25 U	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	2.5 U	PCU	2.5	2.5	SM2120B	10/11/2023 15:58	JH

TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/12/2023 13:21	IR
COLOR PH	6.78	UNITS			SM4500H+B	10/11/2023 15:58	JH
TOTAL ORGANIC CARBON	1.36 U	MG/L	1.36	5.44	SM5310B	10/18/2023 23:58	KT
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:27	MA
TOTAL NITROGEN	0.05 U	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:27	LL/JA/MA

Haley Rin — 11/07/2023

Dr. Dale D. Dixon Laboratory Director — Date

Haley Richardson QC Manager / Kathleen Gauthier QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.
B = Results based upon colony counts outside the ideal range.
H = Value based on field kit determination. Results may not be accurate.
I = Reported value is between the laboratory MDL and the PQL.
J1 = Estimated value. Surrogate recovery limits exceeded.
J2 = Estimated value. No quality control criteria exists for component.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
J5 = Estimated value. Data questionable due to improper lab or field protocols.
K = Off-scale low. Value is known to be < the value reported.
L = Off-scale high. Value is known to be > the value reported.
N = Presumptive evidence of presence of material.
O = Sampled, but analysis lost or not performed.
Q = Sample held beyond accepted hold time.
T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
! = Data deviate from historically established concentration ranges.
? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
* = Not reported due to interference.
Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

NOTES:

MBAS calculated as LAS; molecular weight = 340.
PQL = 4xMDL.
ND = Not detected at or above the adjusted reporting limit.
G1 = Accuracy standard does not meet method control limits, but does meet lab control limits that are in agreement with USEPA generated data. USEPA letter available upon request.
G2 = Accuracy standard exceeds acceptable control limits. Duplicate and spike values are within control limits. Reported data are usable.

COMMENTS:

Chlorophyll A lab filtered at E85086 on 10/11/2023 at 0817.

For questions or comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc. E84167
1711 Twelfth Street East
Palmetto, FL. 34221
(941) 723-9986 / (941) 723-6061 fax
www.Benchmarkea.com
Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client: **Charlotte County Public Works - Stormwater**
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay FWC

Profile # 700

Laboratory Submission #: 23100613

Station ID Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters, Preservative[4], Container Type[3] / Total Number of container =						Laboratory Sample #
		TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/11/23 0917	Ortho-Phosphate (365.3) (Field Filtered must be on can)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ☑ Acid Lot # 23-14	0.2mL 1:1 H_3PO_4	
670078 surf	SSW / Grab	Date & Time: 10/10/23 8:49						1
670082 surf	SSW / Grab	Date & Time: 10/10/23 9:06						2
670083 surf	SSW / Grab	Date & Time: 10/10/23 9:21						3
670083 deep bott	SSW / Grab	Date & Time: 10/10/23 9:24						4
670097 surf	SSW / Grab	Date & Time: 10/10/23 9:50						5
670097 bott	SSW / Grab	Date & Time: 10/10/23 9:55						6
670103 surf	SSW / Grab	Date & Time: 10/10/23 10:14						7
670103 bott	SSW / Grab	Date & Time: 10/10/23 10:17						8
670105 surf	SSW / Grab	Date & Time: 10/10/23 10:39						9
670105 bott	SSW / Grab	Date & Time: 10/10/23 10:44						10

Notes:
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
5. Under "Preservative," list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio, H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:
pH <2 : ✓ BEA Temperature: 0.7C
BEAS Temperature: 4.4°C

1	Collector & Affiliation (Print & Sign): Emily Clancey FWC	Date: 10/10/23	Time: 14:45	Received By & Affiliation (Print & Sign): J Barron J Barron	Date: 10/10/23	Time: 1445
2	Relinquished By & Affiliation (Print & Sign): J Barron J Barron	Date: 10/10/23	Time: 1504	Received By & Affiliation (Print & Sign): Brooke Kwiatkowski Brooke Kwiatkowski BEAS	Date: 10/10/23	Time: 1504
3	Relinquished By & Affiliation (Print & Sign): Brooke Kwiatkowski Brooke Kwiatkowski BEAS	Date: 10/11/23	Time: 12:15	Received By & Affiliation (Print & Sign): LN JN Beam	Date: 10/11/23	Time: 12:15
	LN JN Beam	10/11/23	1542	Kara Lebanon BEA	10/11/23	1542

Benchmark EnviroAnalytical, Inc. E84167
1711 Twelfth Street East
Palmetto, FL. 34221
(941) 723-9986 / (941) 723-6061 fax
www.Benchmarkea.com
Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client:

Charlotte County Public Works - Stormwater
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay **FWC**

Profile # 700

Laboratory Submission #: 2310613

Station ID Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters. Preservative[4]. Container Type[3] / Total Number of container = TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/11/23 0817	Ortho-Phosphate (365.3) (Field Filtered must be on cap)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	Laboratory Sample #
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ✓ Acid Lot # 23-14	0.2mL 1:1 H_3PO_4	
670118 surf	SSW / Grab	Date & Time 10/10/23 11:01						11
670101 surf	SSW / Grab	Date & Time 10/10/23 11:26						12
670093 surf	SSW / Grab	Date & Time 10/10/23 12:22						13
670092 surf	SSW / Grab	Date & Time 10/10/23 12:39						14
670092 bott	SSW / Grab	Date & Time 10/10/23 12:42						15
BLANK	SSW / Grab	Date & Time 10/10/23 12:52						16
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						

Notes:

1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
5. Under "Preservative," list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio, H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:

1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:

pH <2 : ✓ BEA Temperature: 0.7C

BEAS Temperature: 4.4°C

1	Collector & Affiliation (Print & Sign) Emily Clunney FWC	Date: 10/10/23	Time: 1445	Received By & Affiliation: (Print & Sign) J Barron	Date: 10/10/23	Time: 1445
2	Relinquished By & Affiliation (Print & Sign) J Barron J Barron	Date: 10/10/23	Time: 1504	Received By & Affiliation: (Print & Sign) Brooke Kwiatkowski Brooke Kwiatkowski BEAS	Date: 10/10/23	Time: 1504
3	Relinquished By & Affiliation (Print & Sign) Brooke Kwiatkowski Brooke Kwiatkowski BEAS	Date: 10/11/23	Time: 12:15	Received By & Affiliation: (Print & Sign) LN GN Beam	Date: 12/10/23	Time: 12:15
	LN GN Beam	10/12/23	1542	Kara McBarron BEAS	10/11/23	1542

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/10/23	**Grid#** 052 **Surf**	**Region:** 1 2 (3) 4 5 LB
Time: 8:49	**Sonde:** RW	
Collecting Agency:	**FWC**	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26° 54.873	Lat: 26.91402
Long: 82° 08.311	Long: 82.13922

Weather Conditions:

Wind dir/spd: NE 07 (mph) or knots (circle)

Wave ht: 0.4 ft (m) (Circle)

Cld cover (%): 70 Hazy (Clear) Fog Rain

Tide Level: LS LR LF (MR) MF HR HS HF

L=Low; M=Mid, H=High

S=Slack, R=Rising, F=Falling

Samplers: (SR) (EC) (TH) CS DY RM EM AW AB NI (CHNEP) MB GP KC DB EW LH SM NL (NM) MY JD Volunteer

Sampler Signature:

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.7	0.8	0.9	0.8

BOTTOM TYPE: seagrass (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
8:49	0.5	24.6	26844	16.44	5.97	7.56
8:50	1	24.6	26867	16.46	5.89	7.55
8:51	2	24.7	28965	17.88	5.50	7.54
	3					
	4					
	5					
	6					
	7					
8:52	bottom 2.2	26.9	35159	22.08	3.14	7.41
	Blank					

Additional Comments & Observations:

26° 54.841 High river flow from Peace

82° 08 353

Pre/Post PAR readings: (Only on 1st & last sample of trip) ~~Time:~~

Air: UW Shallow: UW Deep:

Type	**SID**
FLO	670078

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/10/23	**Grid#** 054 **Surf**	**Region:** 1 2
Time: 9:21	**Sonde:** BW	(3) 4 5 LB
Collecting Agency:	**FWC**	
GPS Selected:	**GPS Actual:**	
Lat: 26° 53.175	Lat: 26.88623	
Long: 82° 09.504	Long: 82.15971	

Samplers: (SR) (EC) (TH) CS DY RM EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL (NM) MY JD Volunteer

Sampler Signature:

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
3.0	1.1	1.1	1.1

BOTTOM TYPE: seagrass (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	6700983

Blank Time:	**Blank Storet Code:**
____ DUP Time:	**Duplicate Storet Code:**
2.5 Bottom Time: 9:24	**Bottom Storet Code:**

Weather Conditions:

Wind dir/spd: NE 06 (mph) or knots (circle)

Wave ht: 0.6 ft (m) (Circle)

Cld cover (%): 90 Hazy (Clear) Fog Rain

Tide Level: LS LR LF (MR) MF HR HS HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
9:21	0.5	24.6	23846	14.44	6.85	7.76
9:22	1	24.6	23844	14.44	6.77	7.74
9:23	2	24.7	24213	14.68	6.70	7.73
	3					
	4					
	5					
	6					
	7					
9:24	bottom 2.5	24.6	26212	16.01	6.69	7.74
	Blank					

Additional Comments & Observations:

26° 53.174

82° 09.583

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/10/23	**Grid#** D 72 **Surf**	**Region:** 1 2
Time: 10:14	**Sonde:** BW	3 4 5 LB
Collecting Agency:	**FWC**	
GPS Selected:	**GPS Actual:**	
Lat: 26° 50.621	Lat: 26. 84709	
Long: 82° 08.489	Long: 82. 14149	

Samplers: SR EC TH CS DY RM EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY JD Volunteer

Sampler Signature:

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
3.3	1.3	1.3	1.3

BOTTOM TYPE: seagrass mud sand hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670103

Blank Time:		Blank Storet Code:
____ DUP Time:		Duplicate Storet Code:
2.4 Bottom Time:	10:17	Bottom Storet Code:

Weather Conditions:

Wind dir/spd: NE 05 mph or knots (circle)

Wave ht: 0.5 ft (Circle)

Cld cover (%): 95 Hazy Clear Fog Rain

Tide Level: LS LR LF MR MF HR HS HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
10:14	0.5	24.8	27047	16.58	7.22	7.79
10:15	1	24.9	27076	16.60	7.03	7.71
10:16	2	24.9	27160	16.65	6.46	7.76
	3					
	4					
	5					
	6					
	7					
10:17	bottom 2.4	25.1	27743	17.04	6.35	7.73
	Blank					

Additional Comments & Observations:

26° 50.645

82° 08.489

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/10/23	**Grid#** 094 **Surf**	**Region:** 1 2	Blank Time:	Blank Storet Code:
Time: 11:01	**Sonde:** BW	3 (4) 5 **LB**	____ DUP Time:	Duplicate Storet Code:
Collecting Agency:	**FWC**		____ Bottom Time:	Bottom Storet Code:
GPS Selected:	**GPS Actual:**		**Weather Conditions:**	
Lat: 26° 49.220	Lat: 26.42113		Wind dir/spd: NE 05	mph or knots (circle)
Long: 82° 04.480	Long: 82.07447		Wave ht: 0.3	ft (m) (Circle)

Samplers: (SR) (EC) (TH) **CS DY RM EM AW AB NI (CHNEP) MB GP KC DB EW LH SM NL (NM) MY JD Volunteer**

Cld cover (%): 80 Hazy (Clear) Fog Rain

Tide Level: LS LR LF (MR) MF (HR) HS HF

L=Low; M=Mid, H=High

S=Slack, R=Rising, F=Falling

Sampler Signature:

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.5	1.4	1.4	1.4

BOTTOM TYPE: seagrass ~~mud~~ (sand) **hard bottom UNK**

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
11:01	0.5	25.8	36324	22.92	5.06	7.73
11:02	1	25.8	36338	22.93	4.87	7.71
11:03	2	25.8	36343	22.96	4.56	7.66
	3					
	4					
	5					
	6					
	7					
	bottom					
	Blank					

Additional Comments & Observations:

26° 49.268

82° 04.468

Type	SID
FLO	670118

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10/10/23	**Grid#** 068 **Surf**	**Region:** 1 2
Time: 12:22	**Sonde:** SW	3 (4) 5 LB
Collecting Agency:	**FWC**	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26° 52.769	Lat: 26.88211
Long: 82° 04.844	Long: 82.08094

Samplers: (SR) (EC) (TH) CS DY RM EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL (NM) MY JD Volunteer

Sampler Signature:

Weather Conditions:

Wind dir/spd: NE 3 (mph) or knots (circle)

Wave ht: 0.1 ft (m) (Circle)

Cld cover (%): 100 Hazy (Clear) Fog Rain

Tide Level: LS LR LF MR MF HR (HS) HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.5	1.6	1.6	1.6

BOTTOM TYPE: seagrass (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
12:22	0.5	26.2	35071	22.04	7.00	7.91
12:23	1	26.2	35276	22.18	6.84	7.88
12:24	2	26.4	36476	23.01	6.34	7.85
	3					
	4					
	5					
	6					
	7					
	bottom					
	Blank					

Additional Comments & Observations:

26° 52.927

82° 04.856

Type	**SID**
FLO	670093

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

FDOH Certification #E84167

BENCHMARK EnviroAnalytical, Inc.

ANALYTICAL TEST REPORT

THESE RESULTS MEET NELAC STANDARDS

Submission Number : 23100689

Charlotte County Public Works
410 Taylor St, Unit 104
Punta Gorda, FL 33950

Project Name : CHARLOTTE HARBOR/LEMON BAY FWC
Date Received : 10/12/2023
Time Received : 14:19

Joanne Vernon P.E.

Submission Number: 23100689
Sample Number: 001
Sample Description: 670161 Surf

Sample Date: 10/11/2023
Sample Time: 09:08
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.1	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.056 I	MG/L	0.032	0.128	350.1	10/13/2023 17:39	LK
TOTAL KJELDAHL NITROGEN	1.22	MG/L	0.05	0.20	351.2	10/23/2023 18:55	JA,LL
ORTHO PHOSPHORUS AS P	0.516	MG/L	0.002	0.008	365.3	10/12/2023 17:07	JS
TOTAL PHOSPHORUS AS P	0.623	MG/L	0.008	0.032	365.3	10/23/2023 14:17	JS
CHLOROPHYLL A, CORRECTED	0.961 I	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	280	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	20.0	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.15	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	32.5	MG/L	1.36	5.44	SM5310B	10/26/2023 13:52	KT
NITRATE+NITRITE AS N	0.222	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:39	MA
TOTAL NITROGEN	1.44	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:39	JA,LL/MA

Submission Number: 23100689
Sample Number: 002
Sample Description: 670163 Surf

Sample Date: 10/11/2023
Sample Time: 09:33
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.0	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.124 I	MG/L	0.032	0.128	350.1	10/13/2023 17:41	LK
TOTAL KJELDAHL NITROGEN	1.05	MG/L	0.05	0.20	351.2	10/23/2023 18:56	JA,LL
ORTHO PHOSPHORUS AS P	0.385	MG/L	0.002	0.008	365.3	10/12/2023 18:41	JS
TOTAL PHOSPHORUS AS P	0.454	MG/L	0.008	0.032	365.3	10/20/2023 16:14	JS
CHLOROPHYLL A, CORRECTED	1.99	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	180	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	20.4	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN

COLOR PH	7.33	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	22.2	MG/L	1.36	5.44	SM5310B	10/20/2023 17:32	KT
NITRATE+NITRITE AS N	0.083	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:39	MA
TOTAL NITROGEN	1.13	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:39	JA,LL/MA

Submission Number: 23100689
Sample Number: 003
Sample Description: 670059 Surf
Sample Date: 10/11/2023
Sample Time: 09:47
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.4	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.125 I	MG/L	0.032	0.128	350.1	10/13/2023 17:50	LK
TOTAL KJELDAHL NITROGEN	1.15	MG/L	0.05	0.20	351.2	10/23/2023 18:58	JA,LL
ORTHO PHOSPHORUS AS P	0.454	MG/L	0.002	0.008	365.3	10/12/2023 18:43	JS
TOTAL PHOSPHORUS AS P	0.477	MG/L	0.008	0.032	365.3	10/23/2023 15:37	JS
CHLOROPHYLL A, CORRECTED	1.22	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	220	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	15.6	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.34	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	23.0	MG/L	1.36	5.44	SM5310B	10/20/1923 18:25	KT
NITRATE+NITRITE AS N	0.083	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:40	MA
TOTAL NITROGEN	1.23	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:40	JA,LL/MA

Submission Number: 23100689
Sample Number: 004
Sample Description: 670167 Surf
Sample Date: 10/11/2023
Sample Time: 10:00
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.6	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.172	MG/L	0.032	0.128	350.1	10/13/2023 17:52	LK
TOTAL KJELDAHL NITROGEN	1.12	MG/L	0.05	0.20	351.2	10/23/2023 18:59	JA,LL
ORTHO PHOSPHORUS AS P	0.282	MG/L	0.002	0.008	365.3	10/12/2023 18:44	JS
TOTAL PHOSPHORUS AS P	0.356	MG/L	0.008	0.032	365.3	10/23/2023 13:23	JS
CHLOROPHYLL A, CORRECTED	1.64	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	180	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	23.2	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.47	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	18.8	MG/L	1.36	5.44	SM5310B	10/20/2023 18:52	KT
NITRATE+NITRITE AS N	0.064	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:40	MA
TOTAL NITROGEN	1.18	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:40	JA,LL/MA

Submission Number: 23100689
Sample Number: 005
Sample Description: 670064 Surf
Sample Date: 10/11/2023
Sample Time: 10:22
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.6	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.461	MG/L	0.032	0.128	350.1	10/13/2023 17:54	LK
TOTAL KJELDAHL NITROGEN	1.05	MG/L	0.05	0.20	351.2	10/23/2023 19:01	JA,LL
ORTHO PHOSPHORUS AS P	0.298	MG/L	0.002	0.008	365.3	10/12/2023 18:45	JS
TOTAL PHOSPHORUS AS P	0.330	MG/L	0.008	0.032	365.3	10/23/2023 15:38	JS
CHLOROPHYLL A, CORRECTED	10.2	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	100	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	23.2	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.66	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	13.3	MG/L	1.36	5.44	SM5310B	10/20/2023 19:19	KT
NITRATE+NITRITE AS N	0.056	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:41	MA
TOTAL NITROGEN	1.11	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:41	JA,LL/MA

Submission Number: 23100689
Sample Number: 006
Sample Description: 670069 Surf
Sample Date: 10/11/2023
Sample Time: 10:46
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.6	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.257	MG/L	0.032	0.128	350.1	10/13/2023 17:55	LK
TOTAL KJELDAHL NITROGEN	0.832	MG/L	0.05	0.20	351.2	10/23/2023 19:02	JA,LL
ORTHO PHOSPHORUS AS P	0.197	MG/L	0.002	0.008	365.3	10/12/2023 18:47	JS
TOTAL PHOSPHORUS AS P	0.218	MG/L	0.008	0.032	365.3	10/23/2023 13:57	JS
CHLOROPHYLL A, CORRECTED	16.7	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	80	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	37.6	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.57	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	12.6	MG/L	1.36	5.44	SM5310B	10/20/2023 19:45	KT
NITRATE+NITRITE AS N	0.044	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:41	MA
TOTAL NITROGEN	0.876	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:41	JA,LL/MA

Submission Number: 23100689
Sample Number: 007
Sample Description: 670069 Bott
Sample Date: 10/11/2023
Sample Time: 10:49
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.4	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH

AMMONIA NITROGEN	0.479	MG/L	0.032	0.128	350.1	10/13/2023 17:57	LK
TOTAL KJELDAHL NITROGEN	0.846	MG/L	0.05	0.20	351.2	10/23/2023 19:09	JA,LL
ORTHO PHOSPHORUS AS P	0.177	MG/L	0.002	0.008	365.3	10/12/2023 18:48	JS
TOTAL PHOSPHORUS AS P	0.224	MG/L	0.008	0.032	365.3	10/23/2023 13:58	JS
CHLOROPHYLL A, CORRECTED	2.70	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	100	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	39.6	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.81	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	12.5	MG/L	1.36	5.44	SM5310B	10/20/2023 20:13	KT
NITRATE+NITRITE AS N	0.041	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:42	MA
TOTAL NITROGEN	0.887	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:42	JA,LL/MA

Submission Number: 23100689
Sample Number: 008
Sample Description: 670052 Surf
Sample Date: 10/11/2023
Sample Time: 11:36
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	2.4	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.389	MG/L	0.032	0.128	350.1	10/13/2023 17:59	LK
TOTAL KJELDAHL NITROGEN	0.896	MG/L	0.05	0.20	351.2	10/23/2023 19:10	JA,LL
ORTHO PHOSPHORUS AS P	0.216	MG/L	0.002	0.008	365.3	10/12/2023 18:49	JS
TOTAL PHOSPHORUS AS P	0.260	MG/L	0.008	0.032	365.3	10/23/2023 13:59	JS
CHLOROPHYLL A, CORRECTED	9.45	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	140	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	33.2	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.75	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	16.0	MG/L	1.36	5.44	SM5310B	10/26/2023 20:42	KT
NITRATE+NITRITE AS N	0.048	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:45	MA
TOTAL NITROGEN	0.944	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:45	JA,LL/MA

Submission Number: 23100689
Sample Number: 009
Sample Description: 670042 Surf
Sample Date: 10/11/2023
Sample Time: 11:59
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.9	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.183	MG/L	0.032	0.128	350.1	10/13/2023 18:01	LK
TOTAL KJELDAHL NITROGEN	1.14	MG/L	0.05	0.20	351.2	10/23/2023 19:12	JA,LL
ORTHO PHOSPHORUS AS P	0.304	MG/L	0.002	0.008	365.3	10/12/2023 18:53	JS
TOTAL PHOSPHORUS AS P	0.313	MG/L	0.008	0.032	365.3	10/23/2023 14:20	JS
CHLOROPHYLL A, CORRECTED	2.90	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	220	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH

TOTAL SUSPENDED SOLIDS	11.2	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.53	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	25.4	MG/L	1.36	5.44	SM5310B	10/20/1923 15:16	KT
NITRATE+NITRITE AS N	0.045	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:46	MA
TOTAL NITROGEN	1.19	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:46	JA,LL/MA

Submission Number: 23100689
Sample Number: 010
Sample Description: 670045 Surf
Sample Date: 10/11/2023
Sample Time: 12:15
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.9	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.146	MG/L	0.032	0.128	350.1	10/18/2023 13:50	LK
TOTAL KJELDAHL NITROGEN	0.894	MG/L	0.05	0.20	351.2	10/23/2023 19:13	JA,LL
ORTHO PHOSPHORUS AS P	0.246	MG/L	0.002	0.008	365.3	10/12/2023 18:55	JS
TOTAL PHOSPHORUS AS P	0.262	MG/L	0.008	0.032	365.3	10/23/2023 14:01	JS
CHLOROPHYLL A, CORRECTED	5.39	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	180	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	24.4	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.54	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	20.2	MG/L	1.36	5.44	SM5310B	10/26/2023 21:09	KT
NITRATE+NITRITE AS N	0.063	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:46	MA
TOTAL NITROGEN	0.957	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:46	JA,LL/MA

Submission Number: 23100689
Sample Number: 011
Sample Description: 670051 Surf
Sample Date: 10/11/2023
Sample Time: 12:36
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	1.7	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.151	MG/L	0.032	0.128	350.1	10/18/2023 13:52	LK
TOTAL KJELDAHL NITROGEN	1.03	MG/L	0.05	0.20	351.2	10/23/2023 19:15	JA,LL
ORTHO PHOSPHORUS AS P	0.222	MG/L	0.002	0.008	365.3	10/12/2023 18:56	JS
TOTAL PHOSPHORUS AS P	0.309	MG/L	0.008	0.032	365.3	10/23/2023 13:25	JS
CHLOROPHYLL A, CORRECTED	4.09	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	140	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	4.20	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	7.70	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	15.8	MG/L	1.36	5.44	SM5310B	10/26/2023 21:37	KT
NITRATE+NITRITE AS N	0.059	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:47	MA
TOTAL NITROGEN	1.09	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:47	JA,LL/MA

FDOH Certification #E84167

BENCHMARK
EnviroAnalytical, Inc.

Submission Number: 23100689
Sample Number: 012
Sample Description: Blank

Sample Date: 10/11/2023
Sample Time: 12:38
Sample Method: Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
TURBIDITY	0.11 U	NTU	0.11	0.11	180.1	10/12/2023 15:39	JH
AMMONIA NITROGEN	0.032 U	MG/L	0.032	0.128	350.1	10/18/2023 13:56	LK
TOTAL KJELDAHL NITROGEN	0.05 U	MG/L	0.05	0.20	351.2	10/23/2023 19:17	JA,LL
ORTHO PHOSPHORUS AS P	0.002 U	MG/L	0.002	0.008	365.3	10/12/2023 18:57	JS
TOTAL PHOSPHORUS AS P	0.008 U	MG/L	0.008	0.032	365.3	10/19/2023 17:12	JS
CHLOROPHYLL A, CORRECTED	0.25 U	MG/M3	0.25	1.00	445.0	10/19/2023 18:00	MAS
COLOR, APPARENT	2.5 U	PCU	2.5	2.5	SM2120B	10/12/2023 15:39	JH
TOTAL SUSPENDED SOLIDS	0.570 U	MG/L	0.570	2.280	SM2540D	10/13/2023 14:06	IR/MN
COLOR PH	6.62	UNITS			SM4500H+B	10/12/2023 15:39	JH
TOTAL ORGANIC CARBON	1.36 U	MG/L	1.36	5.44	SM5310B	10/26/2023 11:04	KT
NITRATE+NITRITE AS N	0.006 U	MG/L	0.006	0.024	SYSTEA EASY	10/26/2023 16:47	MA
TOTAL NITROGEN	0.05 U	MG/L	0.05	0.20	SYSTEA+351	10/26/2023 16:47	JA,LL/MA

Haley Rin — 11/15/2023 (Date)

Dr. Dale D. Dixon Laboratory Director

Haley Richardson QC Manager / **Kathleen Gauthier** QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.
B = Results based upon colony counts outside the ideal range.
H = Value based on field kit determination. Results may not be accurate.
I = Reported value is between the laboratory MDL and the PQL.
J1 = Estimated value. Surrogate recovery limits exceeded.
J2 = Estimated value. No quality control criteria exists for component.
J3 = Estimated value. Quality control criteria for precision or accuracy not met.
J4 = Estimated value. Sample matrix interference suspected.
J5 = Estimated value. Data questionable due to improper lab or field protocols.
K = Off-scale low. Value is known to be < the value reported.
L = Off-scale high. Value is known to be > the value reported.
N = Presumptive evidence of presence of material.
O = Sampled, but analysis lost or not performed.
Q = Sample held beyond accepted hold time.
T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
U = Analyte analyzed but not detected at the value indicated.
V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
! = Data deviate from historically established concentration ranges.
? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
* = Not reported due to interference.
Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

NOTES:

MBAS calculated as LAS; molecular weight = 340.
PQL = 4xMDL.
ND = Not detected at or above the adjusted reporting limit.
G1 = Accuracy standard does not meet method control limits, but does meet lab control limits that are in agreement with USEPA generated data. USEPA letter available upon request.
G2 = Accuracy standard exceeds acceptable control limits. Duplicate and spike values are within control limits. Reported data are usable.

COMMENTS:

Chlorophyll A lab filtered at E85086 on 10/12/2023 at 0820.

For questions or comments regarding these results, please contact us at (941) 723-9986.

Results relate only to the samples.

Benchmark EnviroAnalytical, Inc. E84167
1711 Twelfth Street East
Palmetto, FL. 34221
(941) 723-9986 / (941) 723-6061 fax
www.Benchmarkea.com
Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client:

Charlotte County Public Works - Stormwater
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay **FWC**

Profile # 700

Laboratory Submission #: 23100689

Station ID Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters. Preservative[4]. Container Type[3] / Total Number of container =						Laboratory Sample #
		TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/12/23 0820	Ortho-Phosphate (365.3) (Field Filtered must be on cap)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ☑ Acid Lot # 23-18	0.2mL 1:1 H_3PO_4	
670161 Surf	SSW / Grab	Date & Time • 10-11 • 9:08	•	•	-	-	•	1
670163 Surf	SSW / Grab	Date & Time • 10-11 • 9:33	•	•	•	•	•	2
670059 Surf	SSW / Grab	Date & Time • 10-11 • 9:47	•	•	•	•	•	3
670167 Surf	SSW / Grab	Date & Time • 10-11 • 10:00	•	•	•	•	•	4
670064 Surf	SSW / Grab	Date & Time • 10-11 • 10:22	•	•	•	•	•	5
670069 Surf	SSW / Grab	Date & Time • 10-11 • 10:46	•	•	•	•	•	6
670069 Bott	SSW / Grab	Date & Time • 10-11 • 10:49	•	•	•	-	•	7
670052 Surf	SSW / Grab	Date & Time • 10-11 • 11:36	•	•	•	•	•	8
670042 Surf	SSW / Grab	Date & Time • 10-11 • 11:59	•	•	•	•	•	9
670045 Surf	SSW / Grab	Date & Time • 10-11 • 12:15	•	•	-	-	•	10

Notes:
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. **Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).**
5. Under "Preservative," list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio, H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:
1. Each bottle has a label identifying sample ID, premeasured preservative contained in the bottle, sample type, client ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:
pH <2 : ☒ BEA Temperature: 0.8°C
BEAS Temperature: 1.8°C

		Date:	Time:		Date:	Time:
1	Collector & Affiliation: (Print & Sign) Trenton Hughes FWC	10-11-23	1428	Received By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	10/11/23	1428
2	Relinquished By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	10/12/23	1105	Received By & Affiliation: (Print & Sign) Bill Chamberlain	10/12/23	1105
3	Relinquished By & Affiliation: (Print & Sign) Bill Chamberlain	10/12/23	1419	Received By & Affiliation: (Print & Sign) Kara McGraw BEA	10/12/23	1419

Benchmark EnviroAnalytical, Inc. E84167
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Sample Temperature checked upon receipt with Temperature Gun ID #258
Sample Temperature checked upon receipt at BEAS with Temperature Gun ID #7

Client:
Charlotte County Public Works - Stormwater
Joanne Vernon P.E.
410 Taylor St., Unit 104
Punta Gorda, FL 33950
941-575-3661 / 941-637-9265
Joanne.Vernon@charlottefl.com &
Matthew.Logan@charlottecountyfl.gov

Contact
FWC Lab
941-613-0945

Project Name: Charlotte Harbor / Lemon Bay **FWC**

Profile # 700

Laboratory Submission #: 23100689

Station ID Naming Format: ###### "Surf" or "Bott"	Sample Matrix[2] / Sample Type[1]	Parameters. Preservative[4]. Container Type[3] / Total Number of container =						Laboratory Sample #
		TSS (SM2540D)	NTU (180.1) Color/pH (SM2120)	Chlorophyll a Corrected (445.0) Filtered @ BEAS 10/12/23 0920	Ortho-Phosphate (365.3) (Field Filtered must be on cap)	TKN(351.2) T-P (365.3) NO_3-NO_2 (Systea Easy) NH_3 (350.1) T-N	TOC (SM5310B)	
		1 x 1 Quart Plastic	1 x ½ Pint Plastic	1 x 500 Opaque Plastic	1 x ½ Pint Plastic	1 x ½ Pint Plastic	1 x 40mL Glass Vial	
		Plain	Plain	Plain	Plain	1.1 mL 1:4 H_2SO_4 pH<2 ☑ Acid Lot # 23-18	0.2mL 1:1 H_3PO_4	
670051 Surf	SSW / Grab	Date & Time 10-11 12:36						11
Blank	SSW / Grab	Date & Time 10-11 12:38						12
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						
	SSW / Grab	Date & Time						

Notes:
1. "Sample Type" is used to indicate whether the sample was a grab (G) or whether it was a composite (C).
2. "Sample Matrix" is used to indicate whether the sample is being discharged to drinking water (DW), groundwater (GW), surface water (SW), fresh surface water (FSW), saline surface water (SSW), soil, sediment (SDMNT), or sludge (SLDG).
3. "Container Type" is used to indicate whether the container is plastic (P) or glass (G).
4. Sample must be refrigerated or stored in wet ice after collection. The temperature during storage should be less than or equal to 6°C (42.8°F).
5. Under "Preservative" list any preservatives that were added to the sample container. Lot Number of preservative used is specific to the bottles included in the kit. NaThio, H_2SO_4 and HNO_3 do not have expiration dates per the manufacturer.

Instructions:
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3. All bottles not containing preservative may be rinsed with appropriate sample prior to collection.
4. The client is responsible for documentation of the sampling event. Please note special sampling events on the sample custody form.
5. Sample kit has been created by BEA using new, certified bottles.

** 12-29-10 Send extra TOC vial per every 10 Samples

Laboratory Sample Acceptability:
pH <2 : ✓ BEA Temperature: 0.8°C
BEAS Temperature: 1.8°C

1	Collector & Affiliation: (Print & Sign) Trenton Hughes FWC Trenton Hughes	Date: 10-11-23	Time: 1428	Received By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/11/23	Time: 1428
2	Relinquished By & Affiliation: (Print & Sign) Gabriel Fritzen BEAS	Date: 10/12/23	Time: 1105	Received By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/12/23	Time: 1105
3	Relinquished By & Affiliation: (Print & Sign) Bill Chamberlain	Date: 10/12/23	Time: 1419	Received By & Affiliation: (Print & Sign) BEAS	Date: 10/12/23	Time: 1419

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Date: 10-11-23	**Grid#** 194 **Surf**	**Region:** 1 (2)	Blank Time:	**Site Storet Code:**
Time: 9:08	**Sonde:** BW	3 4 5 LB	____ DUP Time:	Blank Storet Code:
Collecting Agency:	**FWC**		____ Bottom Time:	Duplicate Storet Code:
GPS Selected:	**GPS Actual:**			Bottom Storet Code:
Lat: 2658.354	Lat: 26.97174			
Long: 82 00.304	Long: 82.00609			

Samplers: SR (EC) ~~TH~~ CS DY ~~RM~~ EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY (JD) Volunteer

Sampler Signature: Jacinton Hughes

Weather Conditions:
Wind dir/spd: NE 5 ~~mph~~ or knots (circle)
Wave ht: 0 ~~ft~~ m (Circle)
Cld cover (%): 40 Hazy ~~Clear~~ Fog Rain
Tide Level: LS LR LF L=Low; M=Mid, H=High
(MR) MF HR HS HF S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
1.2	0.6	0.6	0.6

BOTTOM TYPE: seagrass ~~mud~~ ~~sand~~ hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670161

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
9:08	0.5	25.3	578	0.28	4.34	7.41
	1					
	2					
	3					
	4					
	5					
	6					
	7					
9:09	bottom	25.4	557	0.27	4.26	7.33
	Blank					

Additional Comments & Observations: 2658.304 82 00.365

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:
Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Date: 10-11-23	**Grid#** 28 Surf	**Region:** 1 (2)	Blank Time:	**Site Storet Code:**
Time: 9:47	**Sonde:** BW	3 4 5 LB	____ DUP Time:	Blank Storet Code:
Collecting Agency:	FWC		____ Bottom Time:	Duplicate Storet Code:
GPS Selected:	**GPS Actual:**			Bottom Storet Code:
Lat: 26 57.31	Lat: 26.95563			
Long: 82 03.179	Long: 82.05259			

Samplers: SR EC (TH) CS DY RM EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY JD Volunteer

Sampler Signature: Heather Kuhns

Weather Conditions:
Wind dir/spd: E 8 (mph) or knots (circle)
Wave ht: 0.1 (ft) m (Circle)
Cld cover (%): 30 Hazy (Clear) Fog Rain
Tide Level: LS LR LF (MR) MF HR HS HF
L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.4	0.7	0.7	0.7

BOTTOM TYPE: seagrass (mud) sand hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	SID
FLO	670054

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
9:47	0.5	28.0	12346	7.08	4.10	7.14
9:48	1	26.3	19034	11.27	3.30	7.15
	2					
	3					
	4					
	5					
	6					
	7					
9:49	bottom 1.9	27.2	33370	20.84	1.84	7.27
	Blank					

Additional Comments & Observations: 26 57.328 82 03.155

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:
Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10-11-23	**Grid#** 35 **Surf**	**Region:** 1 (2)
Time: 1022	**Sonde:** ~~B~~ W	3 4 5 LB
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26 56.777	Lat: 26.94614
Long: 82 06.411	Long: 82.10732

Samplers: SR ~~EC~~ (TH) CS DY ~~RM~~ EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY JD Volunteer

Sampler Signature: Kenton Hendrix

Weather Conditions:

Wind dir/spd: NE 8 (mph) or knots (circle)

Wave ht: 0.2 (ft) m (Circle)

Cld cover (%): 40 Hazy (Clear) Fog Rain

Tide Level: LS LR LF (MR) MF HR HS HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.5	1.4	1.4	1.4

BOTTOM TYPE: seagrass ~~mud~~ sand / hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670164

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
1022	0.5	26.7	29544	18.23	4.37	7.48
1023	1	26.5	29638	18.30	4.11	7.43
1024	2	26.4	29868	18.46	4.12	7.43
	3					
	4					
	5					
	6					
	7					
	bottom					
	Blank					

Additional Comments & Observations: 26 56.769 82 06.439

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 10-11-23	**Grid#** 21 **Surf**	**Region:** (1) 2
Time: 1136	**Sonde:** 154	3 4 5 LB
Collecting Agency:	**FWC**	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26 57 593	Lat: 26.96030
Long: 82 12 455	Long: 82.20853

Samplers: SR (EC) TH CS DY RM EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY JD **Volunteer**

Sampler Signature: Trenton Hayes

Weather Conditions:

Wind dir/spd: SE 10 (mph) or knots (circle)

Wave ht: 0.1 (ft) m (Circle)

Cld cover (%): 40 Hazy (Clear) Fog Rain

Tide Level: LS LR LF MR MF (HR) HS HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.3	0.9	0.9	0.9

BOTTOM TYPE: **seagrass** (mud) ~~sand~~ **hard bottom UNK**

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
1136	0.5	26.7	24150	14.61	5.82	7.59
1137	1	26.6	24215	14.66	5.78	7.58
	2					
	3					
	4					
	5					
	6					
	7					
1138	bottom 1.8	26.4	24549	14.88	5.80	7.57
	Blank					

Additional Comments & Observations: 26 57.618 82 12.511

Type	**SID**
FLO	670052

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

CHARLOTTE HARBOR - LEMON BAY RANDOM SAMPLING DATA SHEET

Site Storet Code:

Date: 11-11-23	**Grid#** 9 **Surf**	**Region:** 1 **2**
Time: 12 15	**Sonde:** BW	3 4 5 LB
Collecting Agency:	FWC	

Blank Time:	Blank Storet Code:
____ DUP Time:	Duplicate Storet Code:
____ Bottom Time:	Bottom Storet Code:

GPS Selected:	**GPS Actual:**
Lat: 26 59.691	Lat: 26.99483
Long: 82 14.192	Long: 82.23759

Samplers: SR EG TH CS DY (RM) EM AW AB NI (CHNEP)
MB GP KC DB EW LH SM NL NM MY (JD) Volunteer

Sampler Signature: Baxter Kuykendall

Weather Conditions:

Wind dir/spd: S 13 (mph) or knots (circle)

Wave ht: 0.1 (ft) m (Circle)

Cld cover (%): 50 Hazy (Clear) Fog Rain

Tide Level: LS LR LF MR MF (HR) HS HF

L=Low; M=Mid, H=High
S=Slack, R=Rising, F=Falling

Water Depth / Secchi:

Total Depth/m	Disappearance Depth/m	Reappearance Depth/m	Secchi Average/m
2.1	0.8	0.8	0.8

BOTTOM TYPE: seagrass (mud) (sand) hard bottom UNK

Par Data µmol/m2/s	Air sensor	Sha. In-water sensor	Deep In-water sensor
Depth/m	deck	0.5 m	1.0 m
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			
Depth/m	deck		
Reading:			
Time:			

Type	**SID**
FLO	670045

Water Data: (0.01)

	Sample Depth/m	Water Temp. (°C)	Sp. conductance (uS/cm)	Salinity ‰	Dissolved Oxygen (mg/L)	pH
Time:						
12 15	0.5	26.4	16180	9.94	5.08	7.42
1216	1	26.3	17649	10.38	4.55	7.36
	2					
	3					
	4					
	5					
	6					
	7					
1217	bottom 1.6	26.3	17734	10.44	4.45	7.39
	Blank					

Additional Comments & Observations: 26 59.689 82 14.255

Pre/Post PAR readings: (Only on 1st & last sample of trip) Time:

Air: UW Shallow: UW Deep:

Call Melinda Merchant @ Benchmark EnviroAnalytical, Inc. 941-240-3066

Water Quality Status and Updates

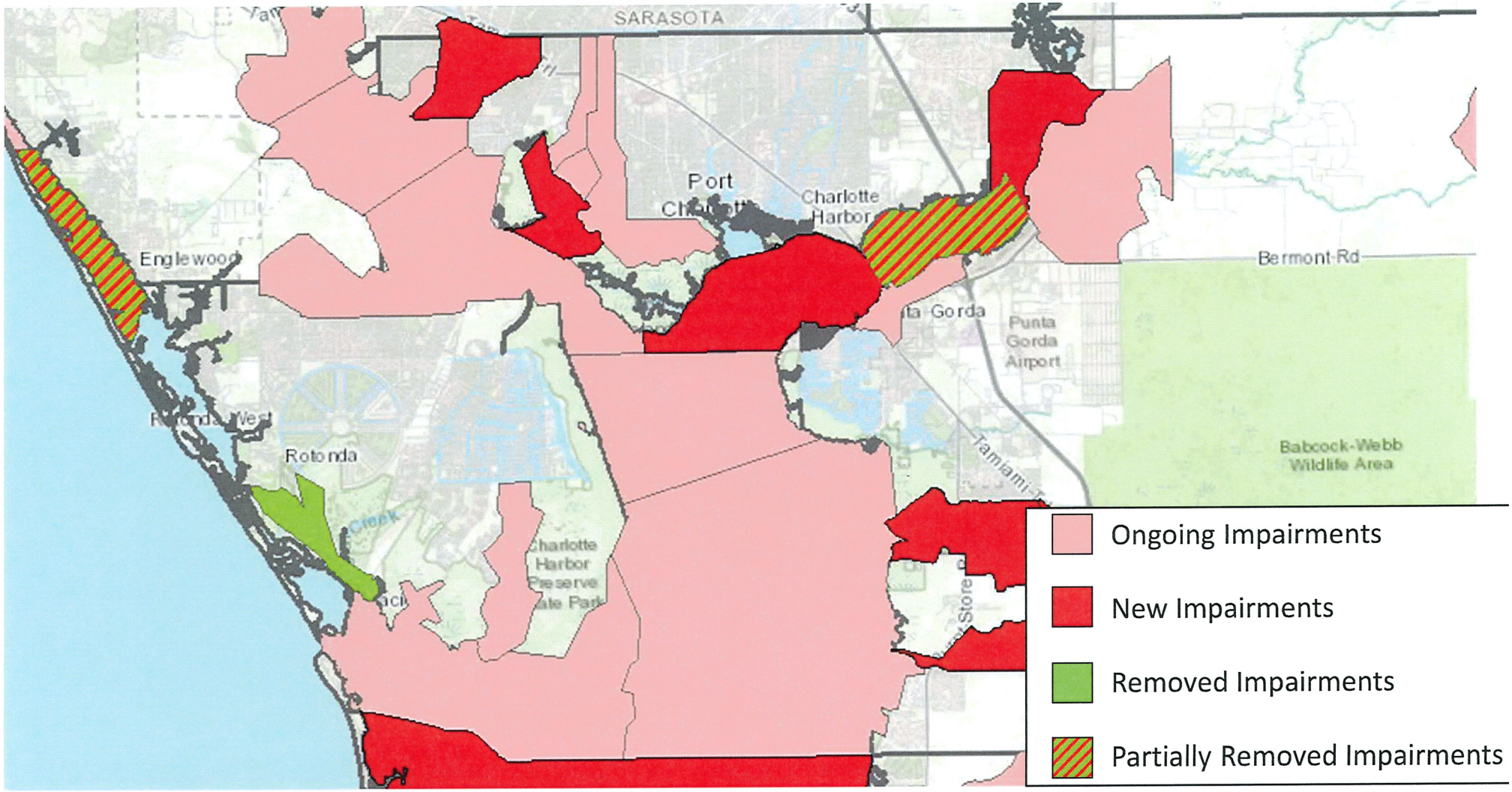
December 19th, 2023

CHARLOTTE COUNTY
FLORIDA

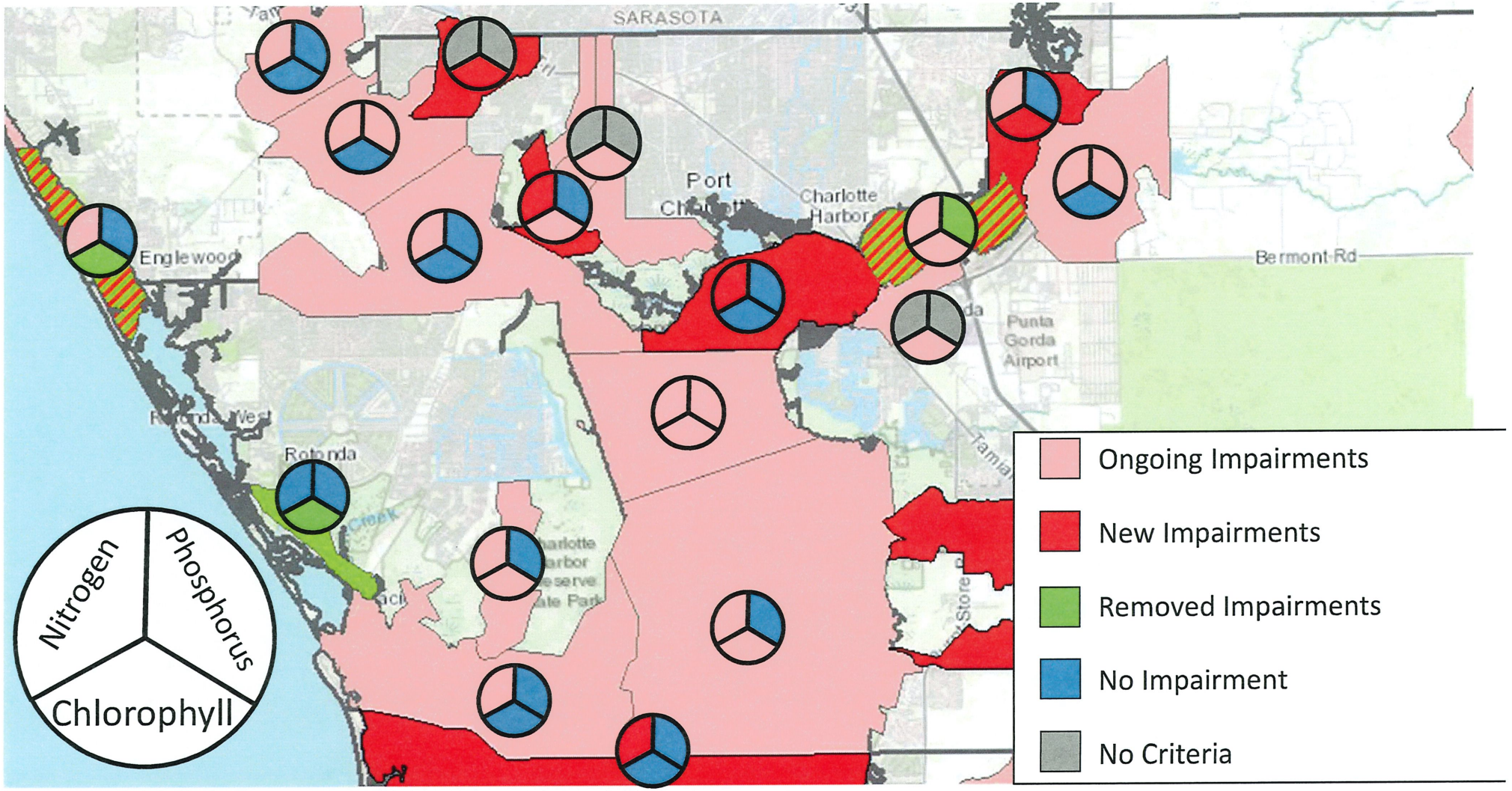
Water Quality Protection Activities

- County Waters Impairment and Monitoring Updates
- Addressing Impairments: Total Maximum Daily Loads and Alternative Restoration Plans
- County Water Planning and Improvement Updates
- Recreational Fishery Habitat Conservation

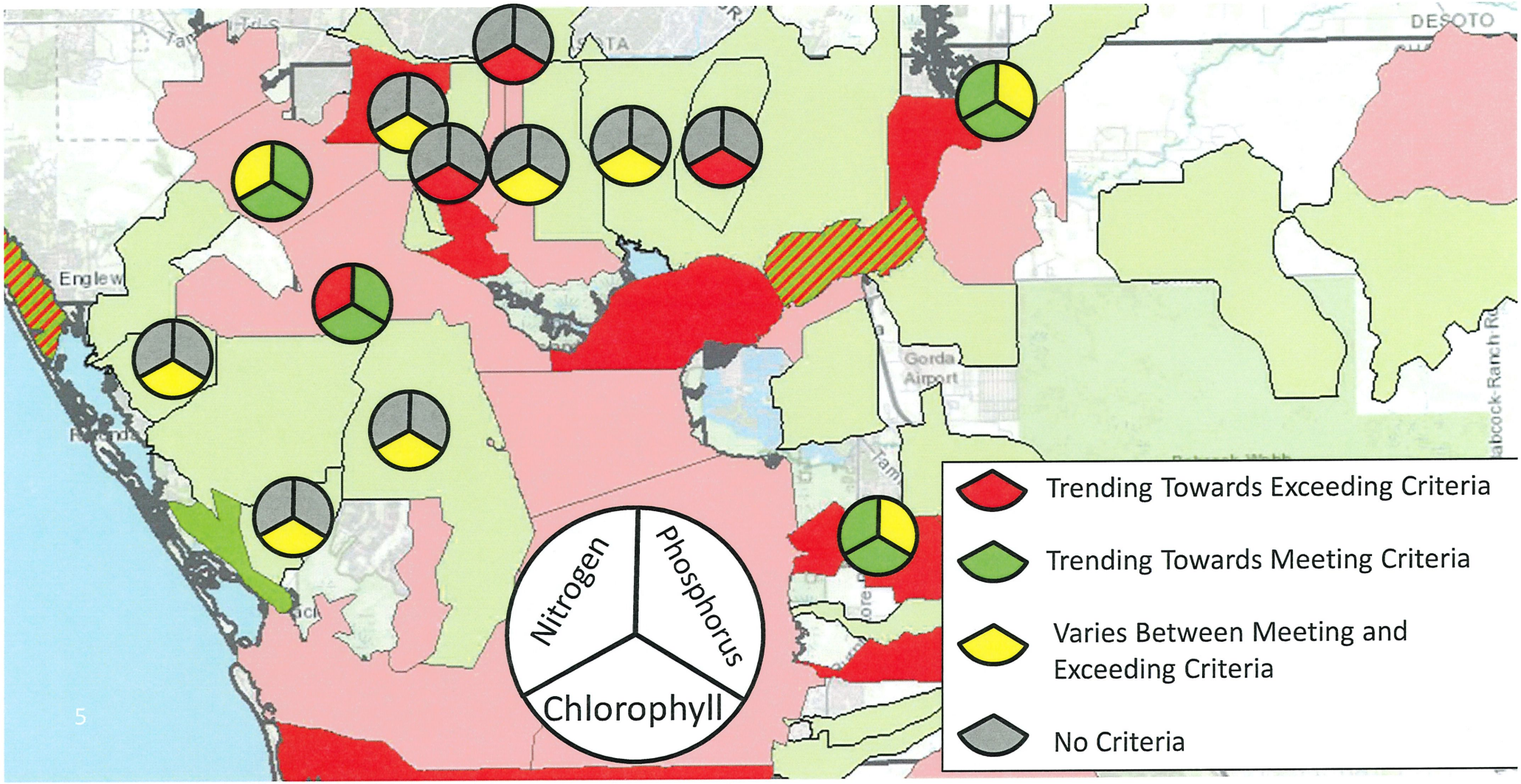
State Water Quality Assessments 2023: Nutrients



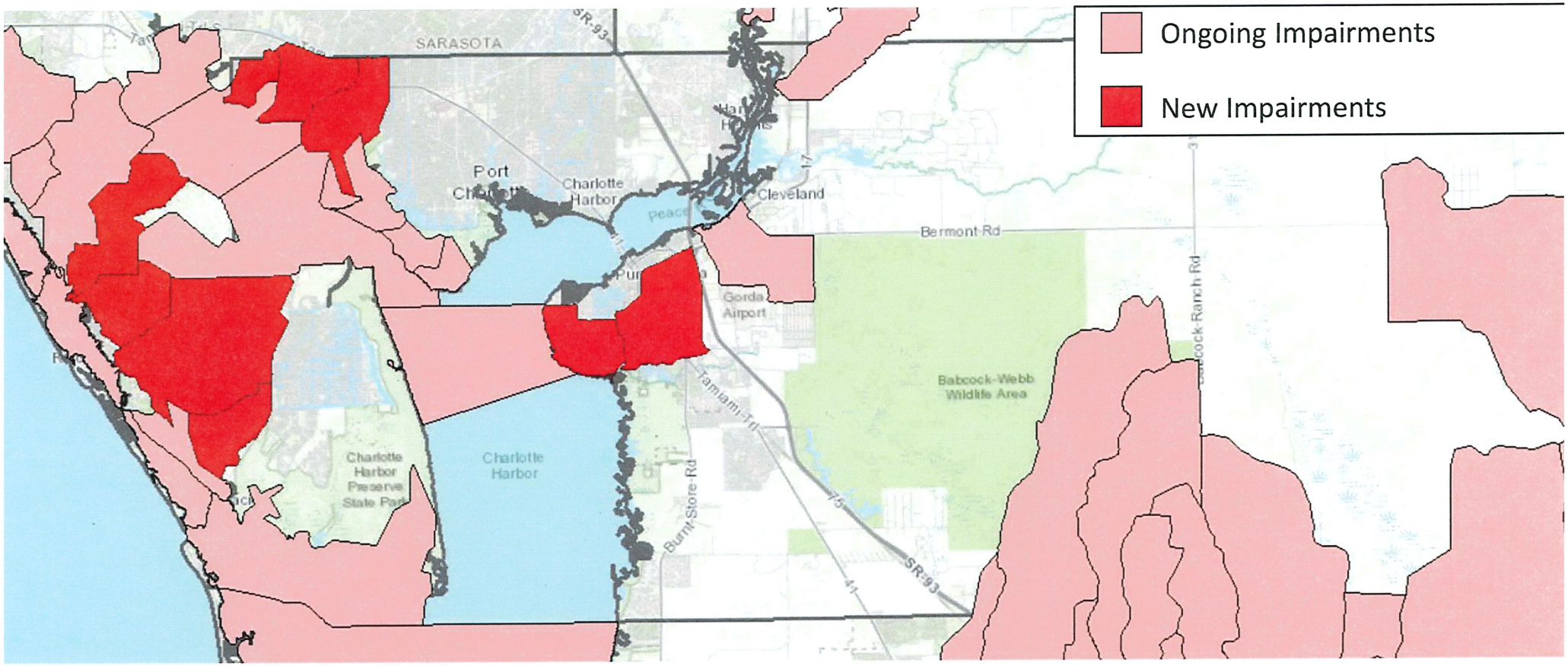
State Water Quality Assessments 2023: Nutrients



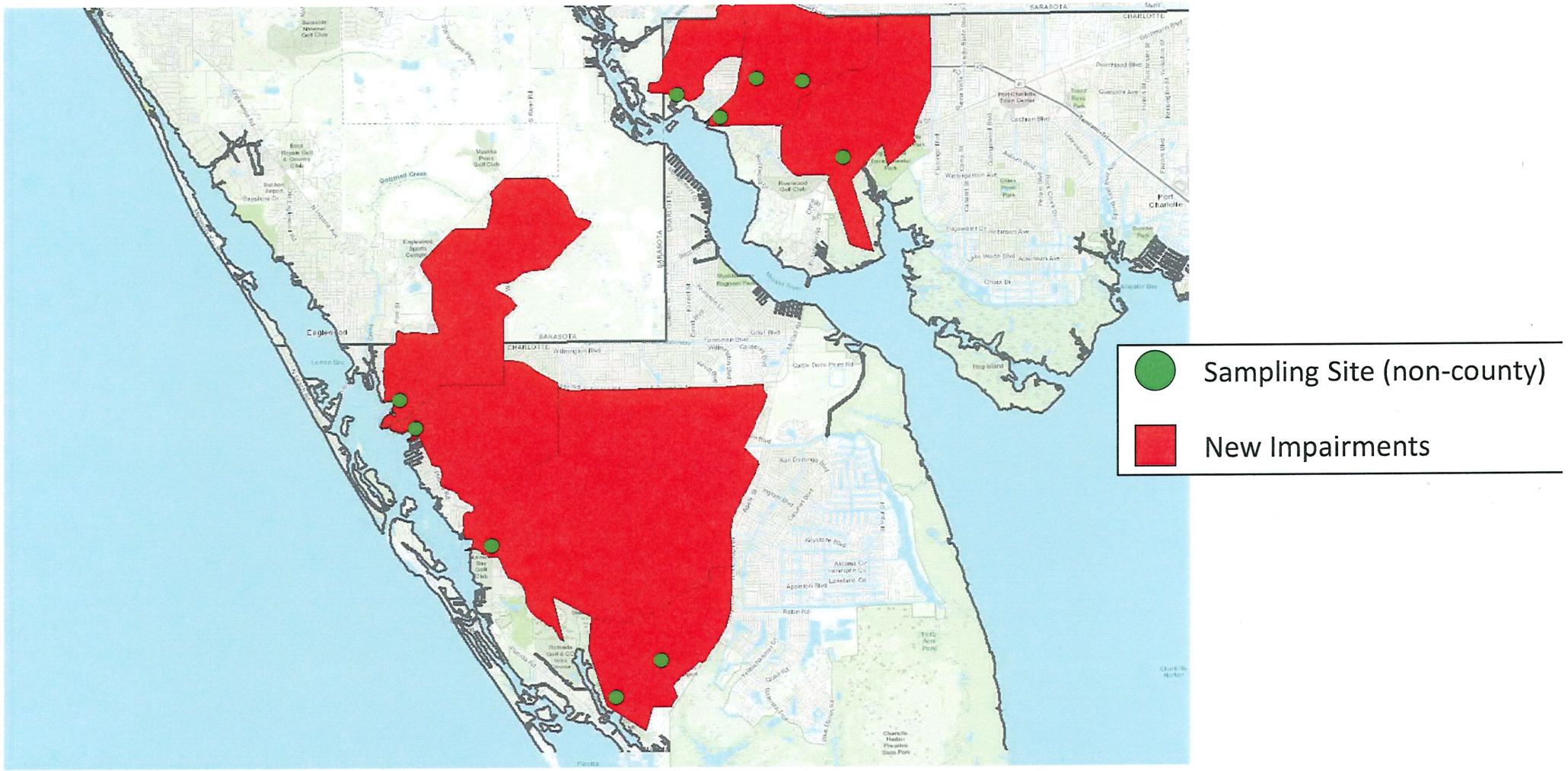
Areas To Watch: Nutrients



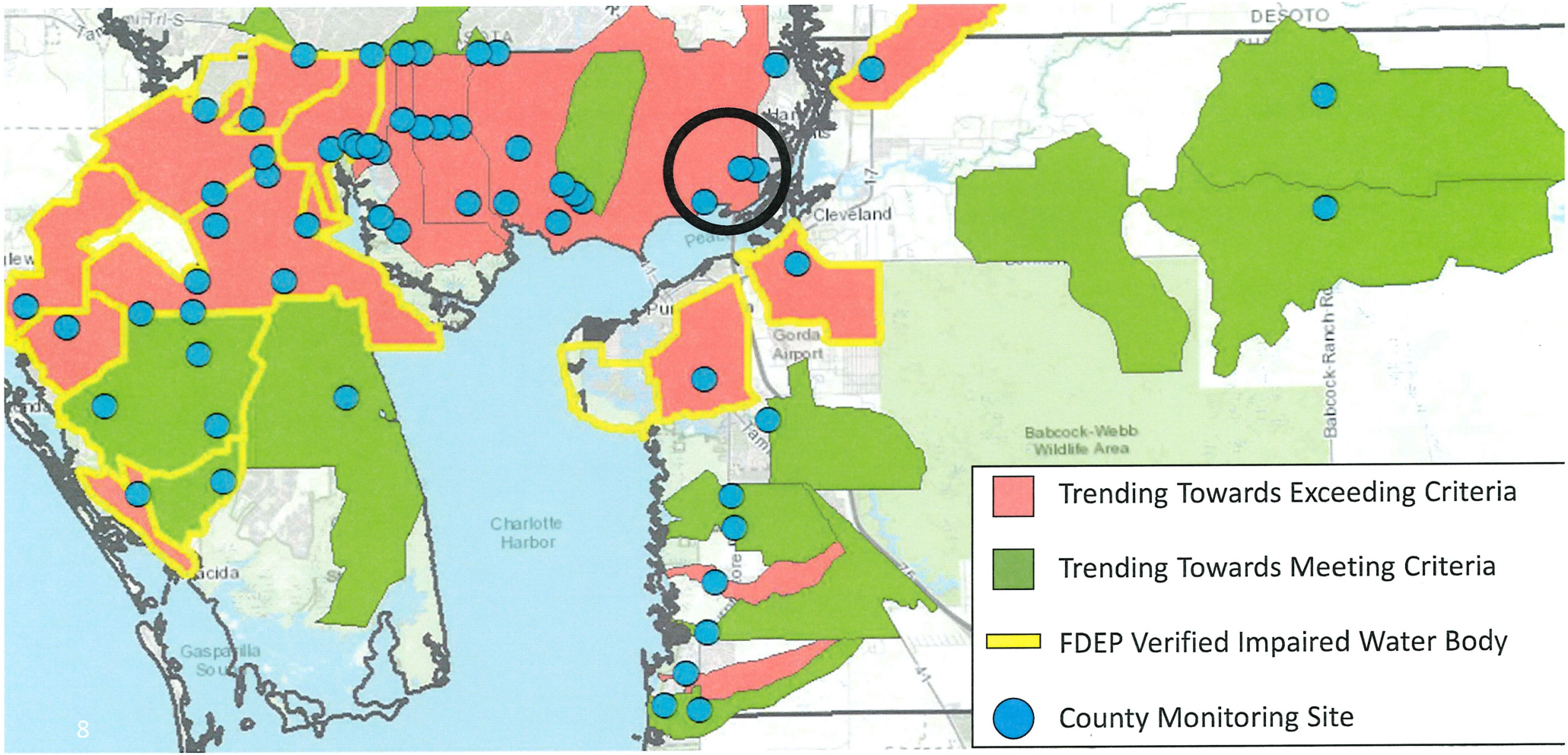
State Water Quality Assessments 2023: Bacteria



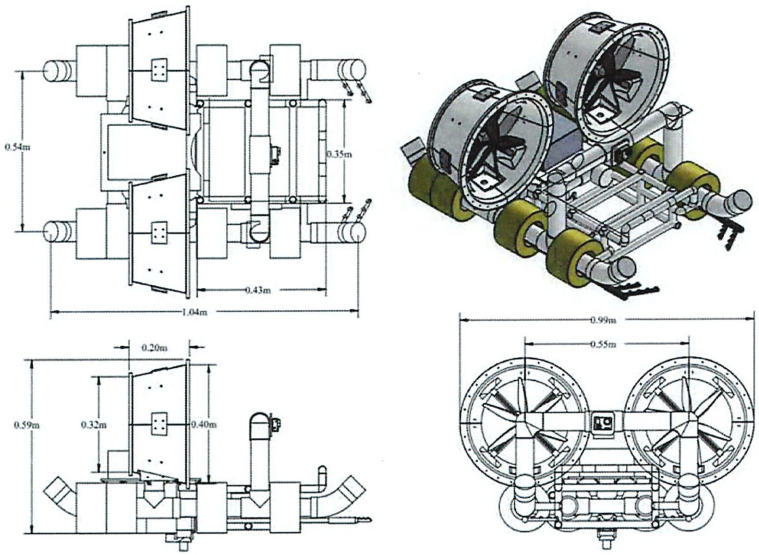
State Water Quality Assessments 2023: Bacteria



Areas To Watch: Bacteria



Water Studies and Improvement Projects

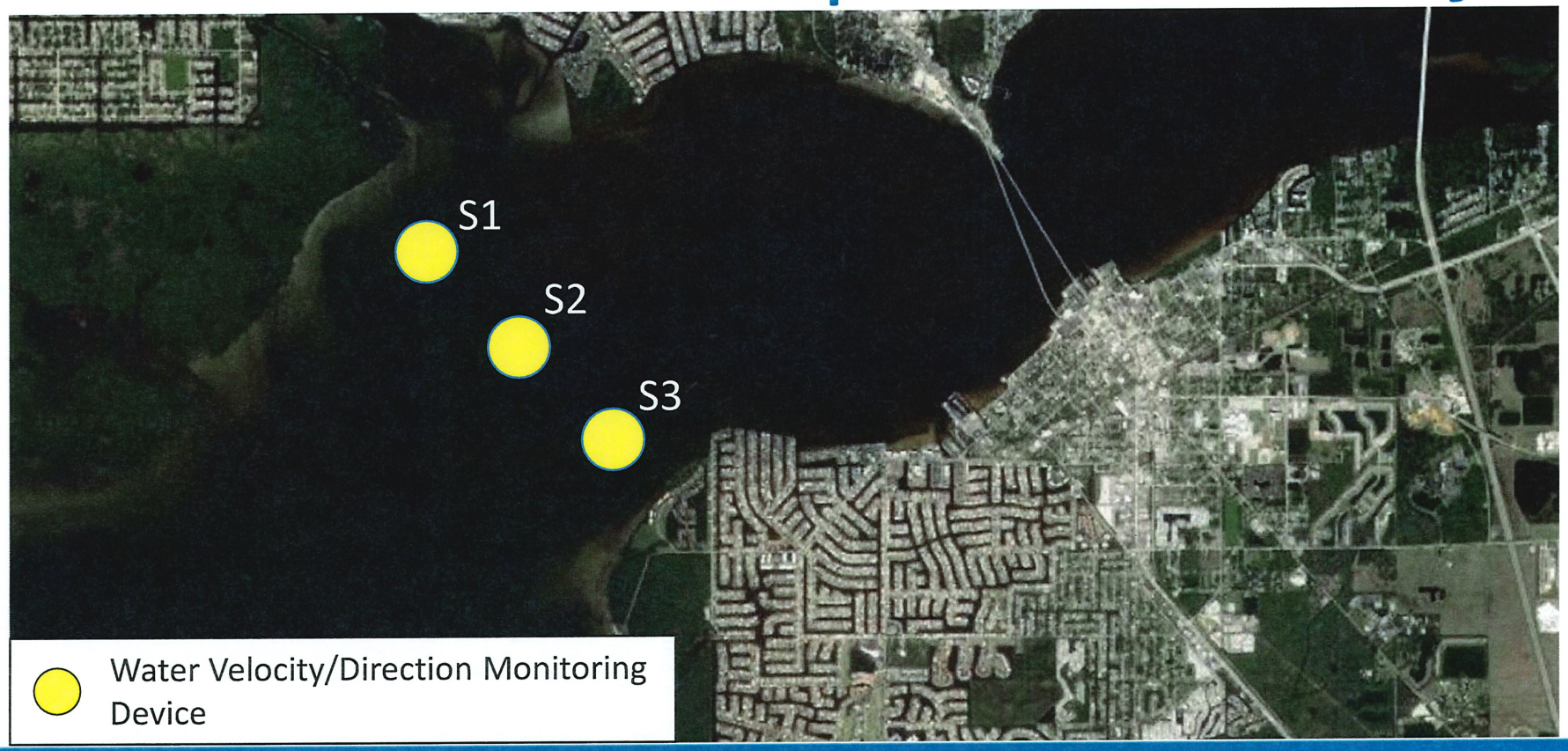


CLEMSON UNIVERSITY

Florida Gulf Coast University

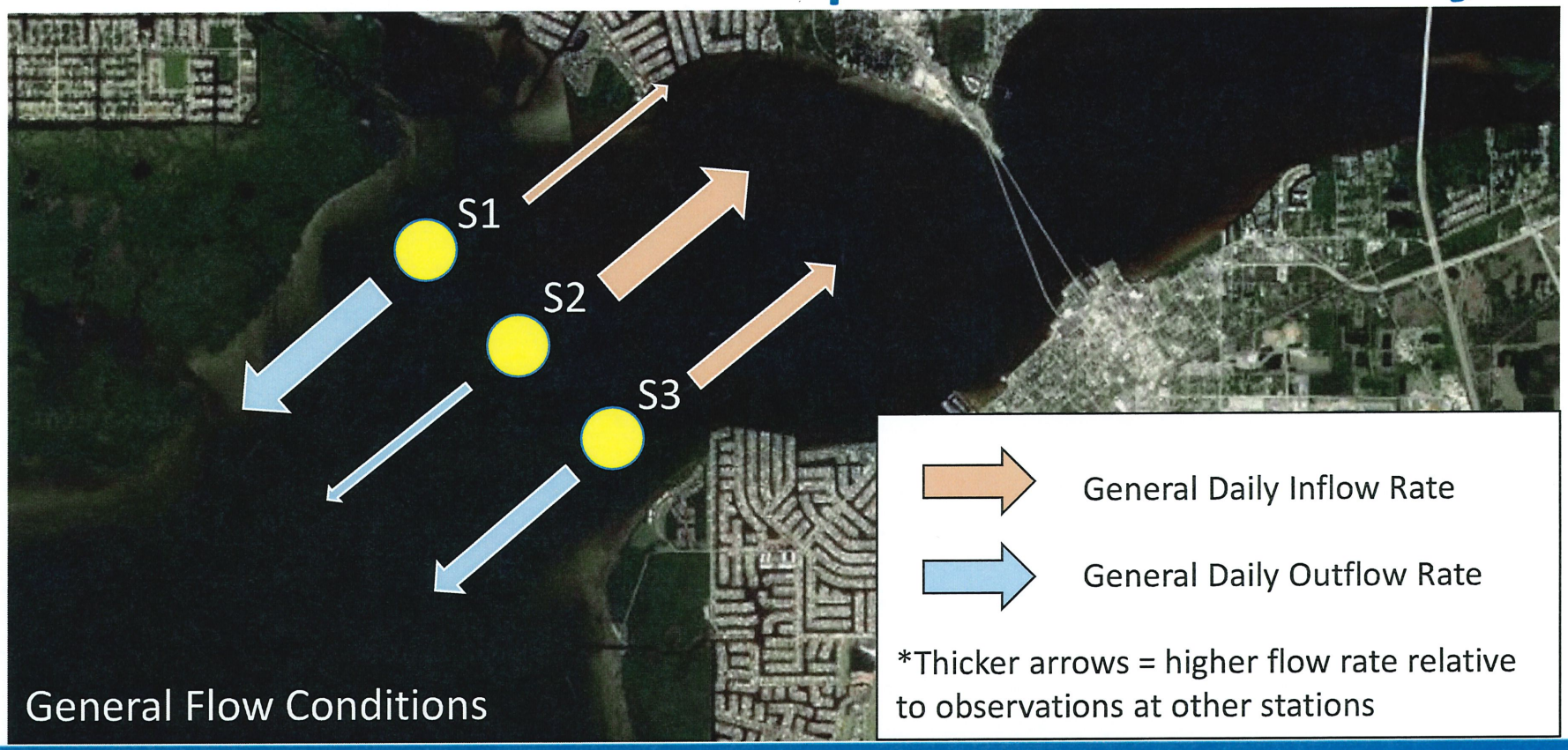
CHARLOTTE COUNTY FLORIDA

Water Studies and Improvement Projects



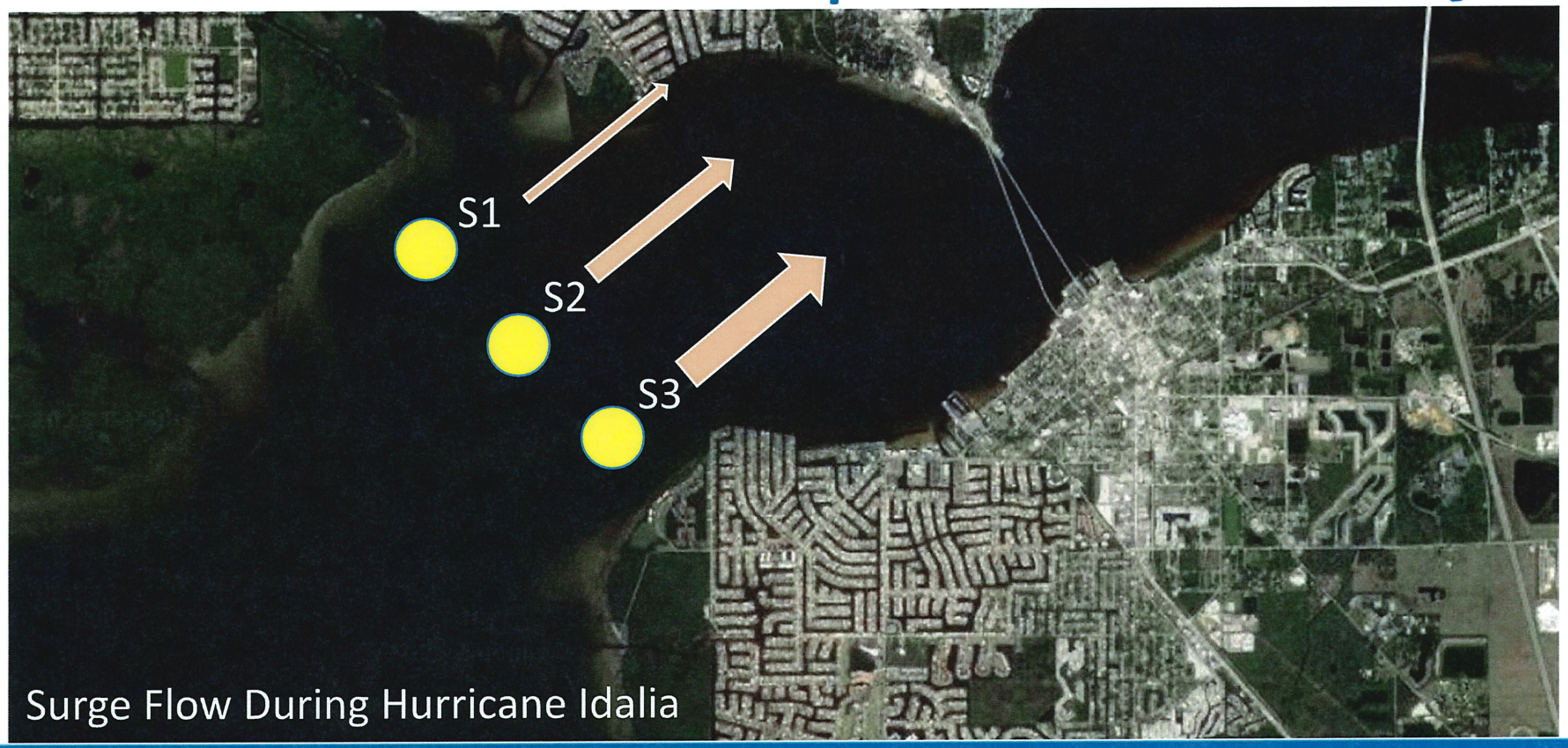
CHARLOTTE COUNTY FLORIDA

Water Studies and Improvement Projects



CHARLOTTE COUNTY FLORIDA

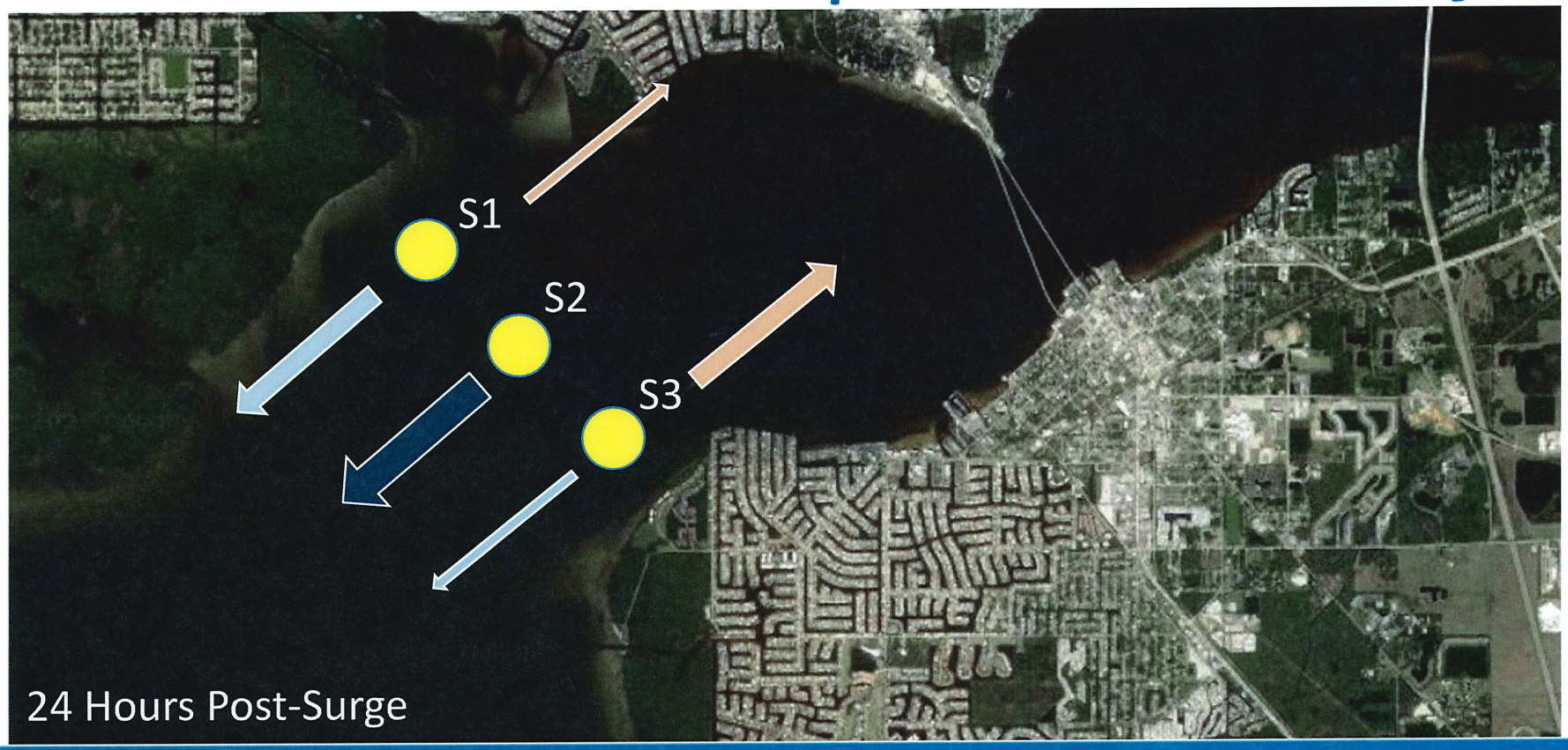
Water Studies and Improvement Projects



Surge Flow During Hurricane Idalia

CHARLOTTE COUNTY
FLORIDA

Water Studies and Improvement Projects



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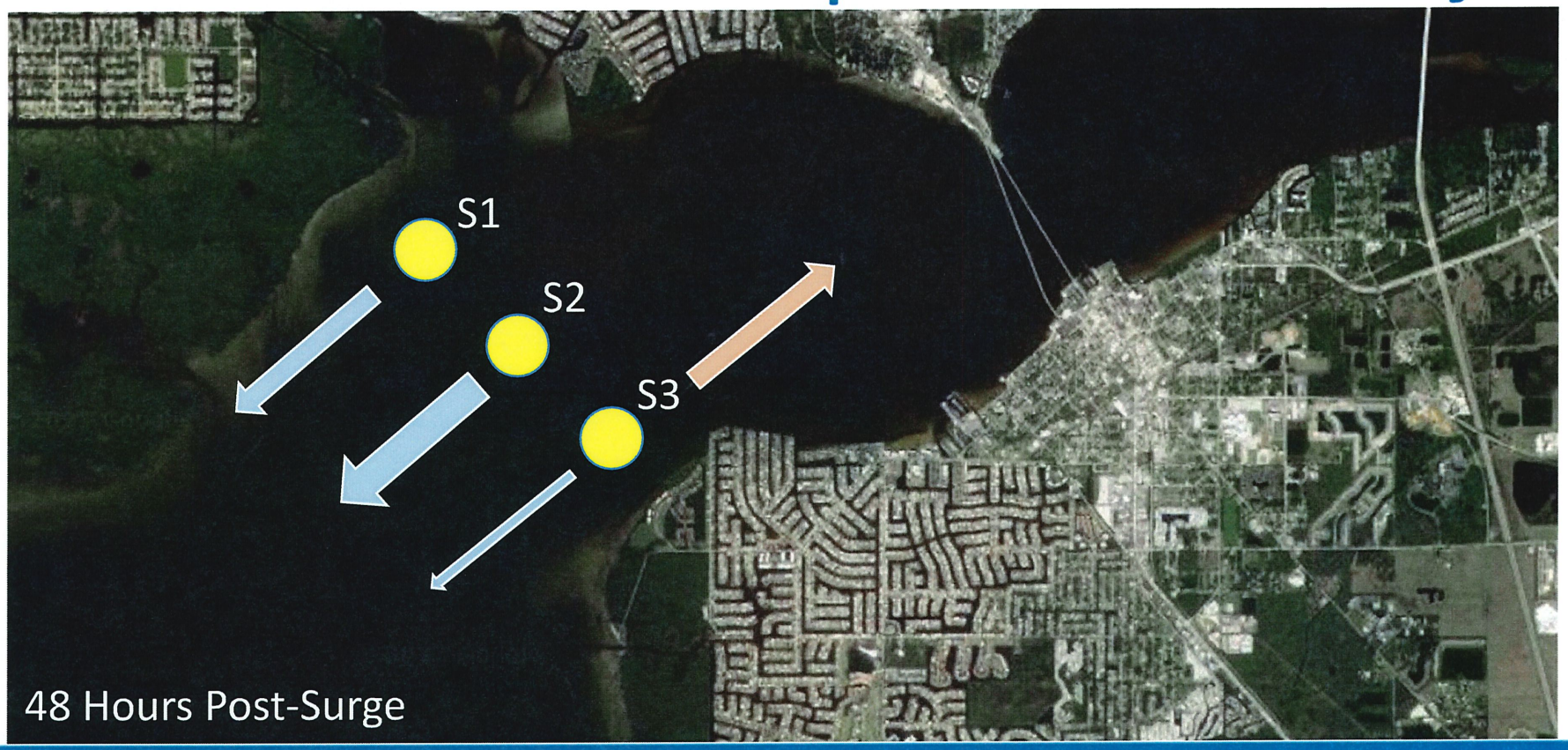
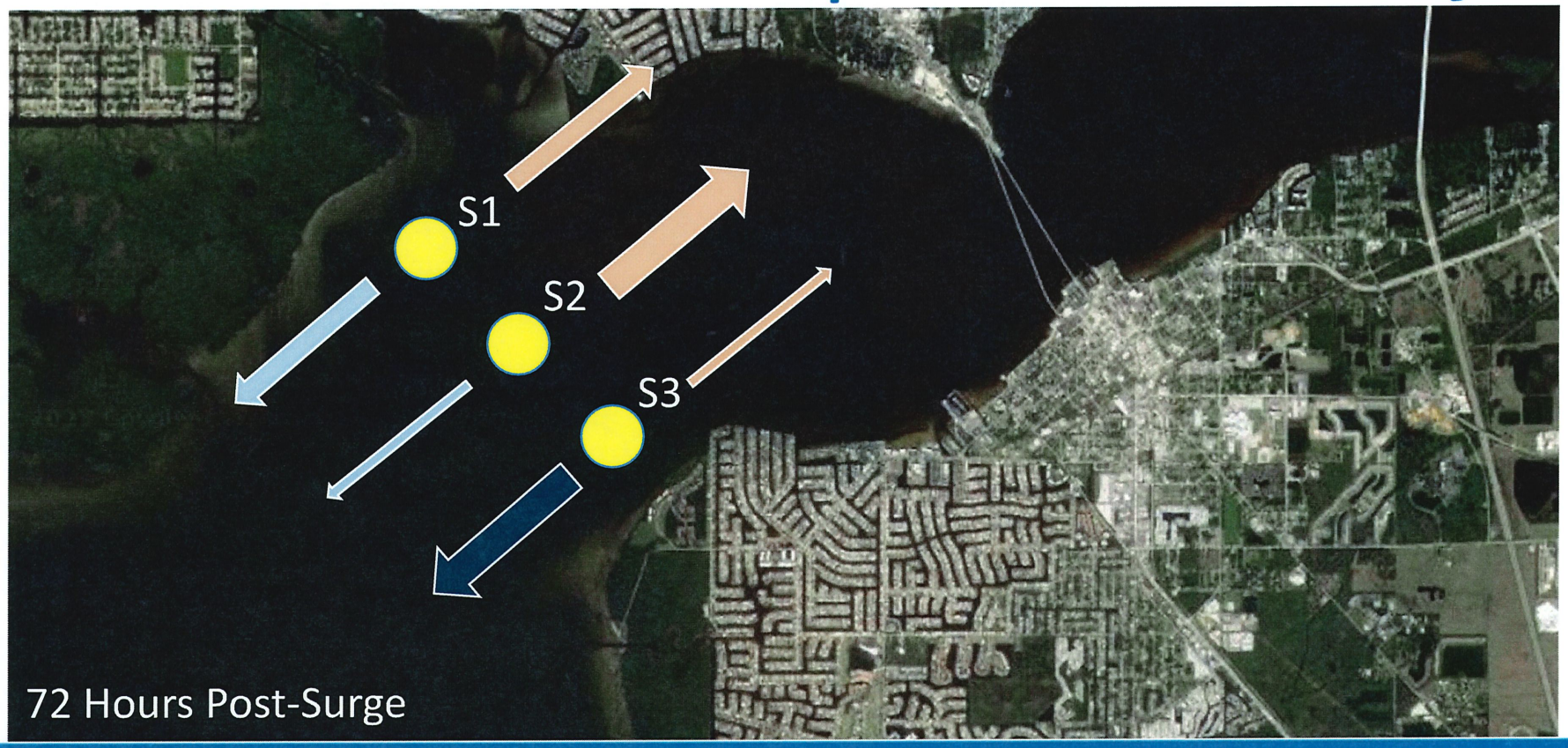
Water Studies and Improvement Projects



CHARLOTTE COUNTY
FLORIDA

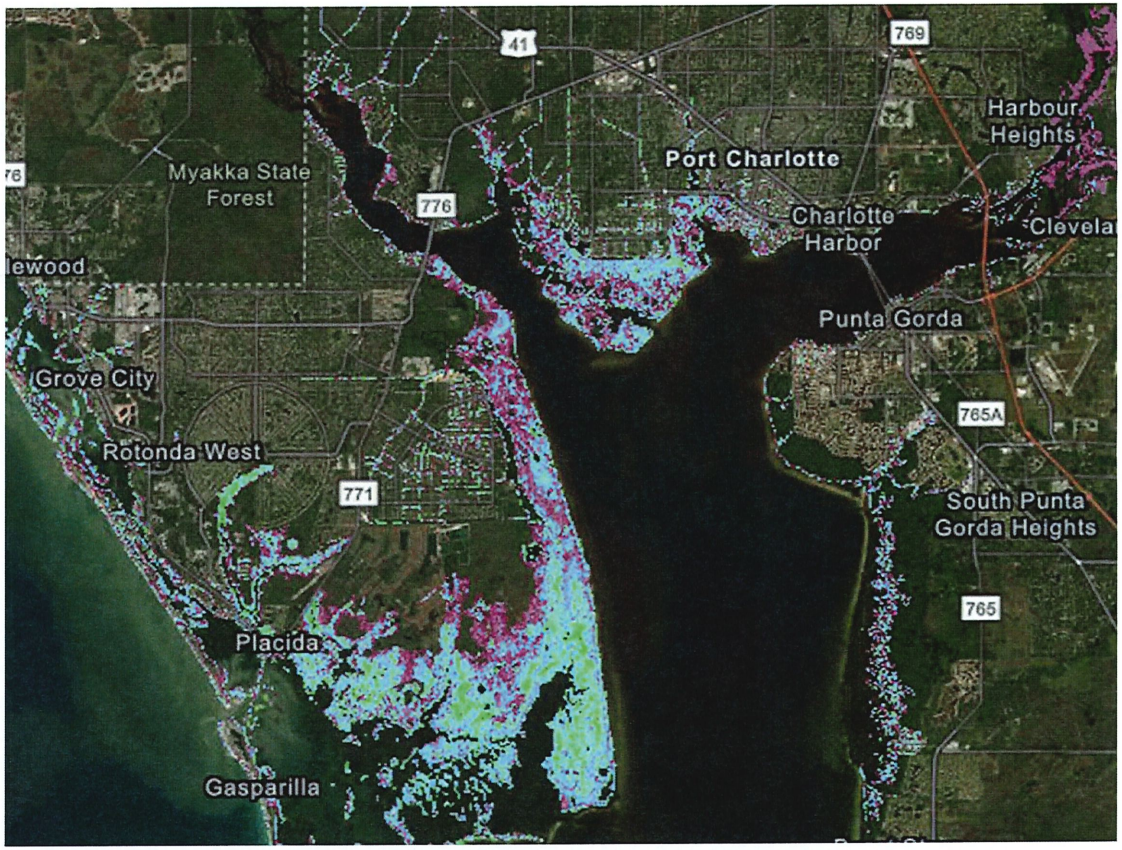
Water Studies and Improvement Projects



CHARLOTTE COUNTY
FLORIDA

Policy/Planning Update

- County Vulnerability Assessment Development
- County Watershed Master Plan
- One Charlotte, One Water



Punta Gorda FLORIDA

CHARLOTTE COUNTY FLORIDA