

Miami-Dade County  
& NPDES Co-Permittees

Surface Water Quality  
Monitoring Report

April 15, 2022

Phase I MS4 Permit No. FLS000003-004  
Part V – Monitoring Requirements  
National Pollutant Discharge Elimination System (NPDES)

For the Period

January 1, 2021 to December 31, 2021

# Table of Contents

## Surface Water Quality Monitoring: Results and Discussion

	Page #
<b>1.1. Introduction</b> .....	1
Figure 1 – Map of Outstanding Florida Waters and Outstanding National Resource Waters, including the Biscayne Bay Aquatic Preserves, Biscayne National Park, and the Florida Keys National Marine Sanctuary .....	3
<b>1.2. Water Quality Sampling Activities</b> .....	4
Figure 2. Map of current surface water quality monitoring stations in Miami-Dade County .....	5
Figure 3. Map of all monitoring stations utilized for 2022 NPDES Report.....	6
<b>1.3. Sample Collection</b> .....	7
<b>1.4. Sample Analysis</b> .....	7
Table 1. List of NPDES Recommended Parameters, and ‘other parameters for consideration’ sampled in the program .....	7
Table 2. Analytical Laboratories utilized by the Miami-Dade NPDES monitoring Program .....	8
<b>1.5. Data Analyses and Reporting</b> .....	8
Table 3: Number of Sample Exceedances Needed to be on the Verified List Based on Sample Size.....	9
<b>1.6. Numeric Nutrient Standards for Florida Waters</b> .....	10
Table 4. Numeric interpretation of the State of Florida’s narrative nutrient criteria expressed in mg/L or µg/L, as AGM (62-302.532 F.A.C.) per Estuarine Region .....	10
<b>1.7. Parameters without Established Numeric Criteria</b> .....	11
<b>2.0. Results</b> .....	12
Table 5. NPDES Parameters Monitored by Miami-Dade County with Associated Criteria .....	12
<b>2.1. WBID Compliance with Water Quality Criteria</b> .....	12
Table 6. Summary of WBIDs showing non-compliance with surface water quality criteria following assessment as per 62-303.400 F.A.C. (e.g., 90% confidence that a minimum of 10% of samples over the past 7.5 years do not meet the established criteria) .....	13

<b>2.2.</b>	<b>Ammonia</b> .....	15
	Figure 4. Compliance assessment of Ammonia by WBID .....	16
<b>2.3.</b>	<b>Dissolved Oxygen</b> .....	17
	Figure 5. Compliance assessment of Dissolved Oxygen by WBID .....	18
<b>2.4.</b>	<b>Bacteriological Parameters</b> .....	19
	Figure 6. Compliance assessment of Enterococci by WBID .....	20
	Figure 7. Compliance assessment of Escherichia Coli by WBID .....	21
<b>2.5.</b>	<b>Specific Conductivity</b> .....	22
	Figure 8. Compliance assessment of Specific Conductivity by WBID .....	23
<b>2.6.</b>	<b>Total Suspended Solids</b> .....	24
	Figure 9. Compliance assessment of Total Suspended Solids by WBID .....	25
	Table 7. WBID 2018 Status compared to the 2016 ‘Cycle-3’ IWR Assessment Status .....	26
<b>2.7.</b>	<b>Estuarine-Specific Numeric Nutrient-Chlorophyll Assessment</b> .....	26
	Table 8. Results of evaluation of Estuarine Regions in Biscayne Bay, as per 62-303.353.....	27
	Figure 10: Numeric Nutrient Assessment for Estuarine Regions of Biscayne Bay.....	29
<b>2.8.</b>	<b>Evaluation of Parameters without State or County Numeric Criteria</b> .....	30
	Table 9. Assessment of Parameters without Established Numeric Criteria — Annual Geometric Means (AGM) in relation to the baseline period of 1996-2004.....	30
<b>3.0.</b>	<b>Summary of MDC Surface Water Quality Monitoring Program</b> .....	36
	Table 10. 2020-2021 Verified list of impaired waters.....	39
	Table 11. WBIDs with their Out-of-compliance Parameters or Exceeds Background Conditions.....	42
	Attachment 1. Sampling frequency of each parameter per station .....	44
	Attachment 2. Statistical summaries by WBID for each parameter and frequencies of compliance with established State or County criteria .....	47
	References .....	72

# Surface Water Quality Monitoring: Results and Discussion

Report from January 2021- December 2021

As per Part V.B. of the Phase I MS4 Permit No. FLS000003-004

Issued to Miami-Dade County and NPDES Co-Permittees

## 1.1. Introduction

Biscayne Bay is home to two state aquatic preserves, a national park, and borders a national marine sanctuary. The Biscayne Bay Aquatic Preserves were established in 1974 and 1975, respectively and run the length of Biscayne Bay, from the headwaters of the Oleta River down to Card Sound, with an offshore component adjacent to Key Biscayne. Biscayne National Park lies in the central part of the bay, and its boundaries do not overlap with the Biscayne Bay Aquatic Preserves; however, the boundaries of the Florida Keys National Marine Sanctuary do overlap with the boundaries of the Biscayne Bay Aquatic Preserves in the Card Sound Region (Figure 1). Both the Biscayne Bay Aquatic Preserves and the Florida Keys National Marine Sanctuary are designated by the state of Florida as Outstanding Florida Waters and Biscayne National Park is designated Outstanding National Resource Waters, per 62-302.700 F.A.C. No degradation of water quality is permitted in Outstanding Florida Waters and Outstanding National Resource Waters notwithstanding any other state rules that allow water quality lowering.

The surface waters of Miami-Dade County (all canals and tidal waters) are also designated as “Class-III waters” by the state of Florida. This “Designated Use” as defined provides that these waters are used for: *“Fish Consumption, Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife”* (62-302 F.A.C.), which has also been referred to as “Fishable–Swimmable Waters”. Water quality criteria have been established for each surface water classification in order to protect present and future uses of the waters.

The monitoring protocol and activities described in this report are conducted on behalf of Miami-Dade County (MDC) and the thirty-one (31) co-permittees (except Florida Turnpike Enterprise), pursuant to the requirements of Part V.B. of the Phase I Municipal Separate Storm Sewer System, (MS4) Permit No. FLS000003-004. Florida Turnpike Enterprise opted to conduct their own water quality monitoring and prepare their own annual report. Miami-Dade County and its Co-Permittees’ current Monitoring Plan dated January 1, 2019, was approved by the Florida Department of Environmental Protection (FDEP) on February 13, 2019.

Interlocal Agreements, initially executed in 1994 with each of the co-permittees, provided the funding and enabled the implementation of the National Pollutant Discharge Elimination System (NPDES) Permit-required Surface Water Quality Monitoring Program (NPDES-SWQP). The Interlocal Agreements have been renewed periodically, and have been most recently renewed on November 7, 2017, for the 5-year term of October 1, 2017, to September 30, 2022.

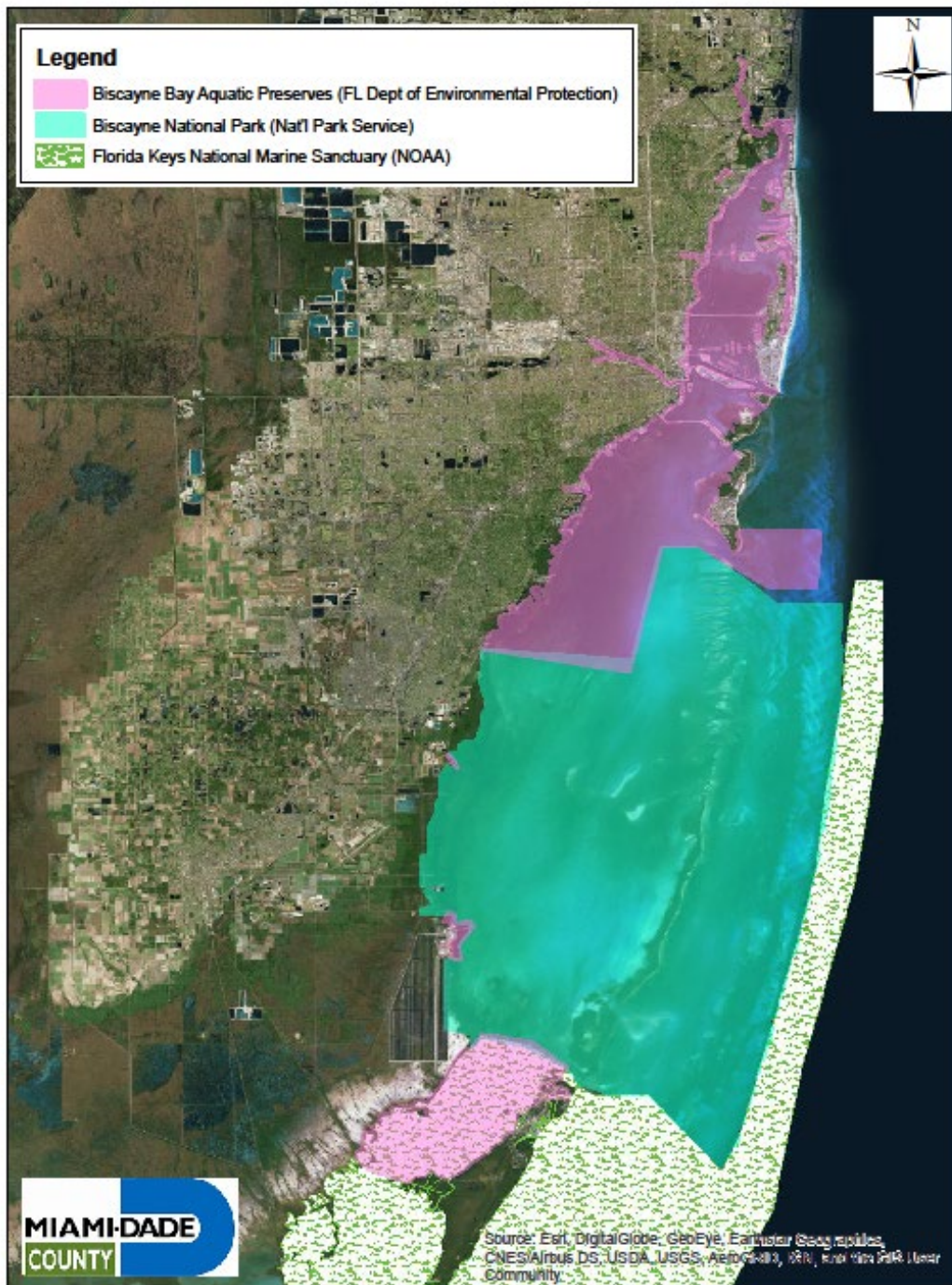
In 1999, the Florida Department of Environmental Protection (FDEP) established Water Body Identifications (WBIDs), geographical delineations intended to represent Florida’s waterbodies at the

watersheds or sub-watershed scale, to be utilized in assessing the State's waters for meeting their Designated Use (62-302 F.A.C.). Each WBID has a unique Water Body identification number that is tracked by the FDEP and has a geographic delineation as a polygon layer. In 2018 the State subdivided 2 large WBIDS, 3226H and 6001 into 10 smaller WBIDS (net increase of 7), based on a spatial assessment initiative by RER staff.

Prior to 2009, Florida had a narrative nutrient water quality criterion in place to protect Florida's waters against nutrient over-enrichment. The FDEP-initiated rulemaking in 2009 and in 2011, adopted what would be the first set of statewide numeric nutrient standards for Florida's waters. South Florida canals are not covered by numeric nutrient criteria; however, Biscayne Bay was delineated into nine (9) Estuarine Regions, each with its own numeric criterion for Total Nitrogen, Total Phosphorus, and Chlorophyll-A (Table 4.). WBIDs that fall within these Estuarine Regions are assessed based on their respective numeric criteria.

All forty-four (44) WBIDS within the county are evaluated for impairment according to the procedures specified in the State of Florida's Impaired Waters Rule (Chapter 62-303, F.A.C.) for determination of a 'Verified Impaired' water body.

## Outstanding Florida Waters & Outstanding National Resource Waters



**Figure 1** – Map of Outstanding Florida Waters and Outstanding National Resource Waters, including the Biscayne Bay Aquatic Preserves, Biscayne National Park, and the Florida Keys National Marine Sanctuary

## 1.2. Water Quality Sampling Activities

The sampling activities follow the provisions of the monitoring program described in the supplement to the Part 2 Application, submitted to EPA Region IV on April 28, 1995, by the Miami-Dade County's (MDC) Water Management Division (then of the Department of Environmental Resources Management [DERM] & presently of the Department of Regulatory and Economic Resources [RER]). Furthermore, sampling activities follow the provisions of the Memorandum of Understanding (MOU) issued by the EPA Region 4, after a meeting on January 29, 1997, held at the DERM. Miami-Dade County and the NPDES Co-Permittees' current NPDES Monitoring Plan was effective January 1, 2019, and it was approved by Florida Department of Environmental Protection on February 13, 2019. Pursuant to the monitoring plan, eighty-six (86) stations are currently sampled under the NPDES Interlocal Agreement. Forty-one (41) of the stations are located in internal freshwater canals, while the remaining forty-five (45) stations are estuarine sites located at discharge points of the canals into Biscayne Bay, and within the bay itself.

Since then, RER has expanded the program by re-establishing certain discontinued stations and adding stations where historically there were geographical gaps, and currently there are one hundred and seven (107) active sampling locations. Of the 107 active stations, forty-one (41) are within Biscayne Bay, and sixty-six (66) are in canals— eleven (11) of those are located at the discharge points to the Bay. The current monitoring stations are depicted in Figure 3.

Surface water quality sampling was conducted monthly between January and December 2021 by the staff of the RER Restoration & Enhancement Section. The State of Florida's methods for determining impaired waters (Chapter 62-303, F.A.C.) recommend using 7.5 years of data. In order to obtain a more robust assessment, all of the data for that period, including those from the discontinued stations were utilized in the analyses. Therefore, all of the monitoring program's one hundred and forty-two (142) stations— currently existing one hundred and seven (107) stations and discontinued thirty -five (35) stations— within forty-four (44) WBIDs were used for evaluation of the numerical criteria (Figure 2).

The one hundred forty-two (142) monitoring stations utilized in this report (both active and discontinued) are located in the freshwater canals and in the estuarine areas within Biscayne Bay and its tributaries. Eighty-four (84) of the stations are located in the internal freshwater or tidal portion of the canals including the discharge points to the Bay. The remaining fifty-eight (58) stations are estuarine stations within Biscayne Bay and are characterized by higher salinities than the other eighty-four (84) sampling locations. The matrix showing the sample collection and frequency at each site is presented in Attachment 1.

# Miami-Dade County Biscayne Bay Water Quality Monitoring Stations

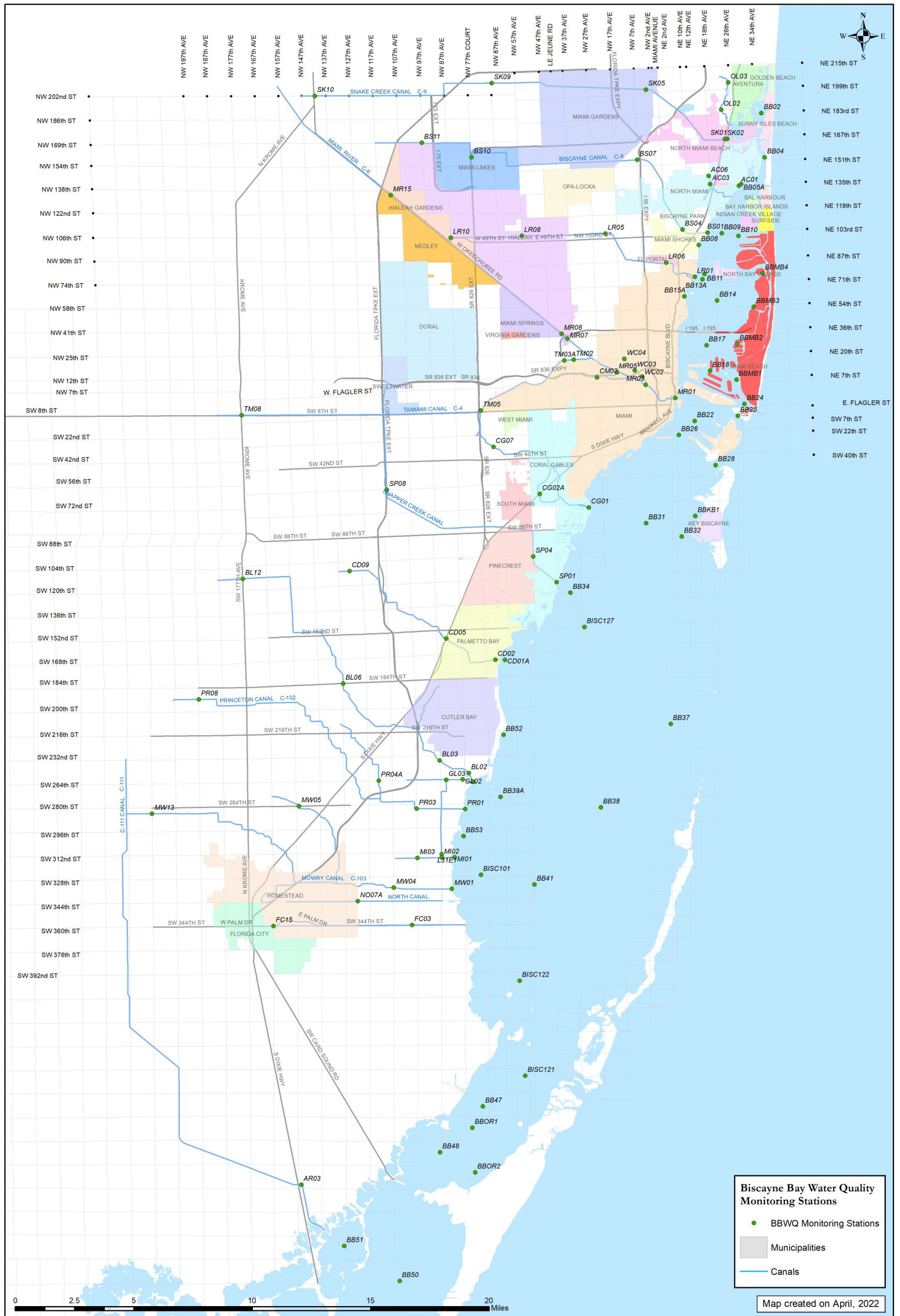


Figure 2. Map of Current Surface Water Quality Monitoring Stations in Miami-Dade County.



# Miami-Dade County Surface Water Quality Monitoring Stations and FDEP Established WBIDs

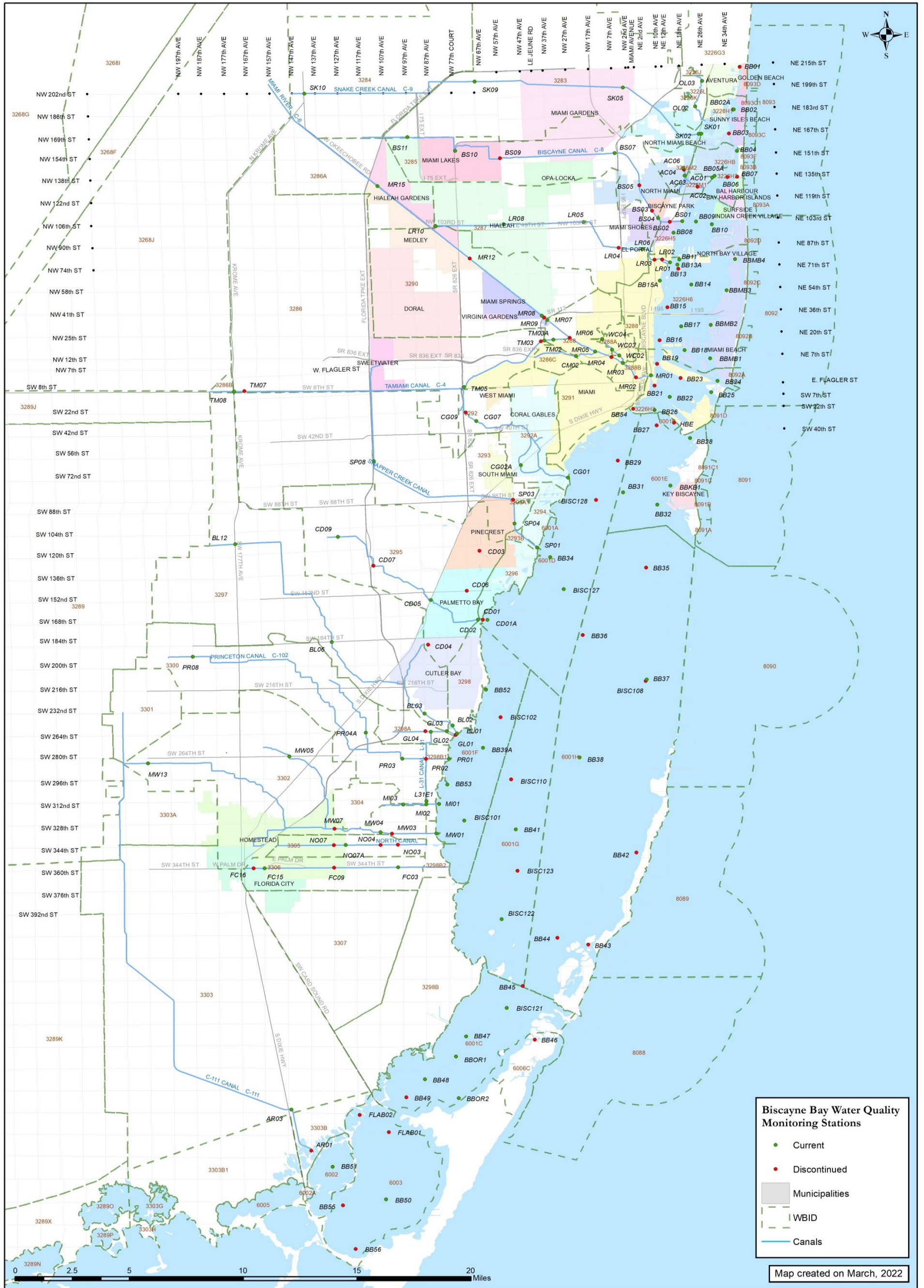


Figure 3. Current and Discontinued NPDES Monitoring Stations

### 1.3. Sample Collection

All surface water samples were “grab samples” collected either directly into a sample container using a ‘Niskin’ bottle grab sampler, or through a peristaltic pump, and transported to the analytical laboratory. Bacteriological and Chlorophyll-A samples were collected directly into pre-labeled containers at the surface of the water.

Physical parameters (temperature, salinity, specific conductance, pH, and dissolved oxygen) were measured in the field with YSI multi-probed meter. All readings were ‘stored’ on YSI data loggers, as well as handwritten on field sheets. All parameters were collected at three depths (bottom, one-half meter below the surface, and at the surface) at stations with greater than 1-meter water depth, and at two depths (surface and bottom) at stations with water depth less than 0.5 meter. All field documentation, sample collection, and field meter calibration were performed in compliance with the FDEP Standard Operating Procedures for Field Activities (FDEP SOP 001/01).

### 1.4. Sample Analysis

Information from Table 2 of the FDEP document, “Guidance for Preparing Monitoring Plans as Required for Phase I Municipal Separate Storm Sewer Systems (MS4) Permits” dated August 1, 2009 was used as a reference to develop the County’s parameter list (See Table 1 below).

**Table 1.** List of NPDES Recommended Parameters, and ‘other parameters for consideration’ sampled in the program.

<b>Recommended Parameters</b>	<b>Other Parameters for Consideration</b>
Chlorophyll-A**	Ammonia*
Conductivity (Salinity)*	Biochemical Oxygen Demand
Copper, Dissolved*	Cadmium, Dissolved*
Dissolved Oxygen*	Chemical Oxygen Demand
Escherichia Coli*	Chromium*
Enterococcus*	Color
Hardness	Lead, Dissolved*
Nitrate + Nitrite	Oil & Grease
pH	Ortho-phosphorus
Total Kjeldahl Nitrogen	Total Dissolved Phosphorus
Total Nitrogen**	Total Dissolved Solids*
Total Phosphorus**	Total Organic Carbon
Total Suspended Solids	Zinc, Dissolved*
Turbidity*	Any other parameter(s) of interest to the jurisdiction

\* Parameters with established State or County Criterion

\*\* Estuary-Specific Numeric Criterion

The samples were analyzed by laboratories that maintain NELAC certification for specific parameters. The names and the locations of the laboratories are listed in Table 2 below:

**Table 2.** Analytical Laboratories utilized by the Miami-Dade NPDES monitoring Program.

No.	Name of the Laboratory	Location Address
1.	Miami-Dade RER-DERM	211 W. Flagler St, Miami, FL 33130
2.	Pace Analytical Services, Inc.	3610 Park Central Blvd N, Pompano Beach, FL 33064
3.	Advanced Environmental Laboratories Inc.	6601 Southpoint Parkway, Jacksonville, FL 33216
4.	South Florida Water Management District	8894 Belvedere Road, Bld. 374 West Palm Beach, FL 33411

### 1.5. Data Analyses and Reporting

For parameters that have surface water quality criteria established by the State of Florida (62-302.530 and 62-302-532, F.A.C.) or Miami-Dade County (Municipal Code of Miami-Dade County, Chapter 24-42[4]; Surface Water Quality Standards), sample results were compared to those criteria. If the water body does not meet one or more established water quality criteria, the water body is considered as not meeting its designated use.

The USEPA recommends a “greater than 10% exceedance percentage” to determine that waters are not meeting their designated use. Since the true exceedance percentage of a pollutant is usually unknown and must be estimated from samples, the FDEP’s Technical Advisory Committee (TAC) sought to establish a highly reliable method to determine whether the true, statistically valid, exceedance percentage is larger than 10%. To verify as impaired with at least 90% confidence, the TAC has derived a method for a range of sample sizes, which uses the binomial distribution to determine, with statistical significance, the number of exceedances needed to ensure that the true exceedance rate is greater than 10%

The FDEP used the binomial distribution to derive, for a given sample size, the threshold number of samples not meeting the criterion that are needed to be deemed impaired with at least 90% statistical confidence. Table 3 of 62-303.420 F.A.C., and Table 3 of this report provides the minimum number of samples that do not meet a criterion for various sample sizes needed to put a water body (WBID) on the Verified List of Impaired Waters with at least 90% statistical confidence that 10% or more of the samples do not meet the applicable criteria, thus the water body (WBID) is deemed as not meeting the water quality criterion for that parameter. The analysis shall be limited to data collected during the last 7.5 years. For sample sizes greater than 500, i.e., sample sizes beyond the range in Table 3, a regression model was used to derive an equation to calculate the corresponding exceedance threshold for a given sample size.

**Table 3:** Number of Sample Exceedances Needed to be on the Verified List Based on Sample<sup>1</sup>Size

Minimum number of samples not meeting an applicable water quality criterion needed to put a water on the Verified List with at least 90% confidence.					
Sample sizes		Are listed if they have at least this # of samples that do not meet a criterion	Sample sizes		Are listed if they have at least this # of samples that do not meet a criterion
From	To		From	To	
20	25	5	254	262	33
26	32	6	263	270	34
33	40	7	271	279	35
41	47	8	280	288	36
48	55	9	289	297	37
56	63	10	298	306	38
64	71	11	307	315	39
72	79	12	316	324	40
80	88	13	325	333	41
89	96	14	334	343	42
97	104	15	344	352	43
105	113	16	353	361	44
114	121	17	362	370	45
122	130	18	371	379	46
131	138	19	380	388	47
139	147	20	389	397	48
148	156	21	398	406	49
157	164	22	407	415	50
165	173	23	416	424	51
174	182	24	425	434	52
183	191	25	435	443	53
192	199	26	444	452	54
200	208	27	453	461	55
209	217	28	462	470	56
218	226	29	471	479	57
227	235	30	480	489	58
236	244	31	490	498	59
245	253	32	499	500	60

Parameters with numeric criteria listed in 62-302.530 F.A.C., were evaluated according to the procedures specified in the State of Florida’s Impaired Waters Rule (Chapter 62-303, F.A.C.) for determination of a ‘Verified Impaired’ water body. The Rule establishes specific data requirements and an assessment period of the most recent 7.5 years for data evaluation. Data utilized in these comparisons met or exceeded the data quality and density requirements of the Rule. Water bodies that are non-compliant with one or more

<sup>1</sup> For sample sizes larger than 500, the number of exceedances for the specific sample size was estimated based on a power regression ( $r^2=0.962$ ) of the sample sizes versus the minimum number of exceedances required for consideration as ‘impaired’. Parameters with less than the minimum stated sample size (i.e., parameters sampled on an annual or semi-annual basis), were not evaluated with this method, due to their small sample size.

water quality criteria may be declared “Impaired”. Accordingly, the most recent 7.5 years of data for each WBID were compiled and the number of results that exceeded each established criterion calculated. All sample results within a WBID were pooled, and the number of samples not meeting an applicable water quality criterion was calculated and compared to the sample size threshold in Table 3 above<sup>2</sup>. For Turbidity, pH, and Specific Conductance, 62-303, F.A.C. states that the sample results shall not exceed some value (specific to each parameter) above "background conditions". Turbidity thresholds are not to exceed 29 NTU above background; specific Conductance specifies "no more than 50% above background or to 1275  $\mu$ S/cm; and pH requires the values to be no less than 1 unit below background. The background was derived by calculating the WBID Annual Geometric Mean (AGM) using the period of 1996-2004. The period chosen for the background served as representative conditions for the establishment of numeric nutrient criteria, as water quality results indicated no significant disturbances such as algal blooms, major meteorological events, or other potentially detrimental impacts.

### 1.6. Numeric Nutrient Standards for Florida Waters

For those nutrients with numeric interpretations of narrative criteria listed in 62-302.532 F.A.C., the evaluation followed the protocol as noted in that section of the F.A.C. At the present time, only estuarine and coastal waters have designated numeric nutrient criteria. The F.A.C. defines compliance with the criterion as: “Annual Geometric Mean (AGM) will not be exceeded more than once in a 3-year period” (62-302.532(h)). To calculate an annual geometric or arithmetic mean for TN, TP, or Chlorophyll-A, there shall be at least four temporally independent samples per year with at least one sample taken between May 1 and September 30 and at least one sample taken during the other months of the calendar year. To be treated as temporally independent, samples must be taken at least one week apart. Estuary-specific Numeric Nutrient Criteria for Coastal and Marine waters within Miami-Dade (i.e., Biscayne Bay) are shown in Table 4 below.

**Table 4.** Numeric interpretation of the State of Florida’s narrative nutrient criteria expressed in mg/L or  $\mu$ g/L, as AGM (62-302.532 F.A.C.) per Estuarine Region.

WBID	ENR	Estuary	Total Phosphorus	Total Nitrogen	Chlorophyll-A
	(h) Biscayne Bay		Annual geometric means that shall not be exceeded more than once in a three-year period		
6001C	ENRH1	1. Card Sound (CS)	0.008 mg/L	0.33 mg/L	0.5 $\mu$ g/L
6002, 6003, 3303B	ENRH2	2. Manatee Bay – Barnes Sound (MBS)	0.007 mg/L	0.58 mg/L	0.4 $\mu$ g/L
6001D	ENRH3	3. North Central Inshore (NCI)	0.007 mg/L	0.31 mg/L	0.5 $\mu$ g/L
6001D	ENRH4	4. North Central Outer-Bay (NCO)	0.008 mg/L	0.28 mg/L	0.7 $\mu$ g/L
3226H1, 3225H2, 3226H5	ENRH5	5. Northern North Bay (NNB)	0.012 mg/L	0.30 mg/L	1.7 $\mu$ g/L

6001F	ENRH6	6. South Central Inshore (SCI)	0.007 mg/L	0.48 mg/L	0.4 µg/L
6001G	ENRH7	7. South Central Mid-Bay (SCM)	0.007 mg/L	0.35 mg/L	0.2 µg/L
6001H	ENRH8	8. South Central Outer-Bay (SCO)	0.006 mg/L	0.24 mg/L	0.2 µg/L
3226H3, 3226H6	ENRH9	9. Southern North Bay (SNB)	0.010 mg/L	0.29 mg/L	1.1 µg/L

To evaluate the compliance of the appropriate estuarine regions with the listed estuarine nutrient criteria, the calendar year AGM values for each parameter in each region were calculated. Each AGM was compared to its respective criterion to determine if the criterion was exceeded. If the AGM did not exceed the criterion more than once in the past 3-year period, the WBID was deemed ‘In compliance’ and deemed ‘Not in compliance’ if the criterion was exceeded more than once in the 3-year period (Table 8 and Figure 9).

For those sample results where the analyte (parameter) being assessed was not detected (i.e., concentration was less than the analytical Method Detection Limit (MDL), the samples were designated as being “Below Detection Limit” (BDL) and qualified with a “U” in the associated ‘Laboratory Qualifier’ column. It is not possible to know the actual concentration of such samples; however, it is desirable and necessary to account for these samples in statistical summaries and comparisons. For statistical purposes, analytical results that were qualified with a “U” (i.e., “BDL”) were assigned a value equal to one-half (1/2) of the MDL for that analyte, when included in statistical summaries and comparisons. This convention is similar to that noted in Chapter 62-302 of the Florida Administrative Code for assigning numerical values to sample results that are BDL.

As the method noted above (e.g., as described in 62-303 F.A.C.) is the process utilized by the State of Florida for determination of “Impaired Waters”, the comparisons and results described herein provide an interim status of the water body relative to a potential ‘Impaired’ designation.

### 1.7. Parameters without Established Numeric Criteria

For parameters that do not have specific numeric criteria, the Anti-Degradation Policy (62-302.300 F.A.C.) was applied, by comparing the annual WBID AGM to a “Baseline Criterion”. Briceño et al (2010) defined a period considered to be "good ecological conditions" for Biscayne Bay (1996-2004) where the data were independent of disturbed conditions, such as storms, hurricanes or other disturbance events, and used the upper 80<sup>th</sup> confidence interval for the mean of a normal distribution to derive an Upper Limit, intended to be compared to shorter time scales, specifically Annual Geometric Means (AGM). This baseline criterion and the upper limit (i.e., upper 80<sup>th</sup> confidence interval) was derived for each WBID using the County’s sampling data for the same 1996-2004 period.

For certain parameters, such as silver, the MDL is higher than the State and or County Standards and thus, an absolute determination of compliance was not possible. The Impaired Waters Rule (62-303.320[12][b] F.A.C.) provides that when a parameter has an MDL higher than the state’s criterion, all analytical results reported as BDL are presumed to be compliant with the criterion.

## 2.0 Results

### 2.1. WBID Compliance with Water Quality Criteria:

Table 5 provides a list of the parameters and their associated State and Miami-Dade County (MDC) criteria. These parameters are monitored by MDC as part of the NPDES program.

Table 5. NPDES Parameters Monitored by Miami-Dade County with Associated Criteria

Parameter	Saltwater Criterion (F.A.C)	Freshwater Criterion (F.A.C)	Saltwater Criterion (MDC Chapter 24)	Freshwater Criterion (MDC Chapter 24)	Units
Ammonia Nitrogen			0.5	0.5	mg/L
Arsenic	50	50		50	µg/L
Cadmium	8.8	*			µg/L
Chlorophyll-A	**				µg/L
Copper	3.7	*	400		µg/L
DO%	42	42			% Sat
Enterococci	130	130			MPN/100ML
Escherichia Coli		410			MPN/100ML
Hardness	0.0036	0.0038			mg/L
Lead	8.5	*	350		µg/L
Mercury	0.025	0.012	0.003	0.003	µg/L
Nickel	8.3	*			µg/L
pH	6.5-8.5	6.0-8.5			
Specific Conductivity		1275			µmhos/cm
Total Dissolved Solids			1000	1000	mg/L
Total Nitrogen	**				mg/L
Total Phosphorus	**				mg/L
Total Suspended Solids			40	40	mg/L
Turb			29	29	NTU
Zinc	86	*	1000		µg/L

\* Based on Algorithm using Hardness Conc.

\*\*Estuarine-Specific Criterion

Table 6 lists the WBIDs that, based on the assessment procedures provided in the Impaired Waters Rule (IWR) (62-303 F.A.C.), are not meeting their designated use, as they are non-compliant with one or more surface water quality criteria. It should be noted that these evaluations are not meant to imply a designation of impairment on these water bodies, rather, only to note the present condition of the waterway, which can be used for management considerations within the WBID and watershed in general. Complete assessment of possible WBID impairment is conducted by the State of Florida as part of their Total Maximum Daily Load (TMDL) program.

Thirty (30) parameters were monitored within forty-four (44) WBIDs, twenty (20) have established State criteria (Table 5), which yielded a total of seven hundred and twenty-six (726) assessments, where an "assessment" is a geographic delineation (WBID) evaluated for a parameter with established state or county

criteria (note: water quality samples are not collected for all parameters in all WBIDS; therefore, the total number of comparisons will be less than the product of the number of parameters and the number of WBIDS). A total of 115 (15.8%) of the assessments identified WBIDS that were not in compliance with their associated criteria. Thirty-nine (39) WBIDS were not in compliance with the Dissolved Oxygen criterion, twenty-eight (28) WBIDS were not in compliance with the bacteriological criteria (11 Enterococci and 17 Escherichia Coli), nineteen (19) were not in compliance with the Estuarine-Specific Nutrient criteria (Table 8), six (6) were not in compliance with the Specific Conductivity criterion, six (6) were out of compliance with the Total Dissolved Solids criterion, twelve (12) were not in compliance with the criterion for Total Suspended Solids, and one was not in compliance for Mercury. Figures 4-9 present maps illustrating the WBIDS that were non-compliant with the IWR assessment.

**Table 6.** Summary of WBIDS showing non-compliance with surface water quality criteria (both State and County) following assessment as per 62-303.400 F.A.C. (e.g., 90% confidence that a minimum of 10% of samples over the past 7.5 years do not meet the established criteria).

Parameter	SFWMD Canal Name	Local Name	WBID Number	No. of Samples not Meeting Criterion	Total Samples (N)	Percent of Samples Not Meeting Criterion
Ammonia Nitrogen		Arch Creek	3226M1	101	269	38
Ammonia Nitrogen	C-7	Little River	3287	91	354	26
Ammonia Nitrogen	C-6	Upper Miami River	3290	27	181	15
Ammonia Nitrogen	C-102N	Goulds Canal	3298A	66	149	44
Dissolved Oxygen		Dumbfoundling Bay	3226H1	453	468	97
Dissolved Oxygen		Bakers Inlet	3226H2	440	448	98
Dissolved Oxygen		Rickenbacker Basin	3226H3	580	580	100
Dissolved Oxygen			3226H5	643	652	99
Dissolved Oxygen			3226H6	1565	1576	99
Dissolved Oxygen		Oleta River	3226L	212	450	47
Dissolved Oxygen		Arch Creek	3226M1	385	685	56
Dissolved Oxygen	C-9	Snake Creek	3283	577	578	100
Dissolved Oxygen	C-9	Snake Creek	3284	204	204	100
Dissolved Oxygen	C-8	Biscayne Canal	3285	669	672	100
Dissolved Oxygen	C-4	Tamiami Canal	3286	465	465	100
Dissolved Oxygen	C6	Miami River West	3286A	234	234	100
Dissolved Oxygen	C-5	Comfort Canal	3286C	233	233	100
Dissolved Oxygen	C-7	Little River	3287	928	931	100
Dissolved Oxygen	C-6	Miami River	3288	743	956	78
Dissolved Oxygen		Wagner Creek	3288A	176	628	28
Dissolved Oxygen	C-6	Lower Miami River	3288B	229	234	98
Dissolved Oxygen	C-6	Upper Miami River	3290	345	477	72
Dissolved Oxygen	C-3	Coral Gables Canal	3292	243	243	100
Dissolved Oxygen			3292A	65	77	84
Dissolved Oxygen	C-2	Snapper Creek	3293	471	471	100
Dissolved Oxygen	C-100	Cutler Drain	3295	705	710	99



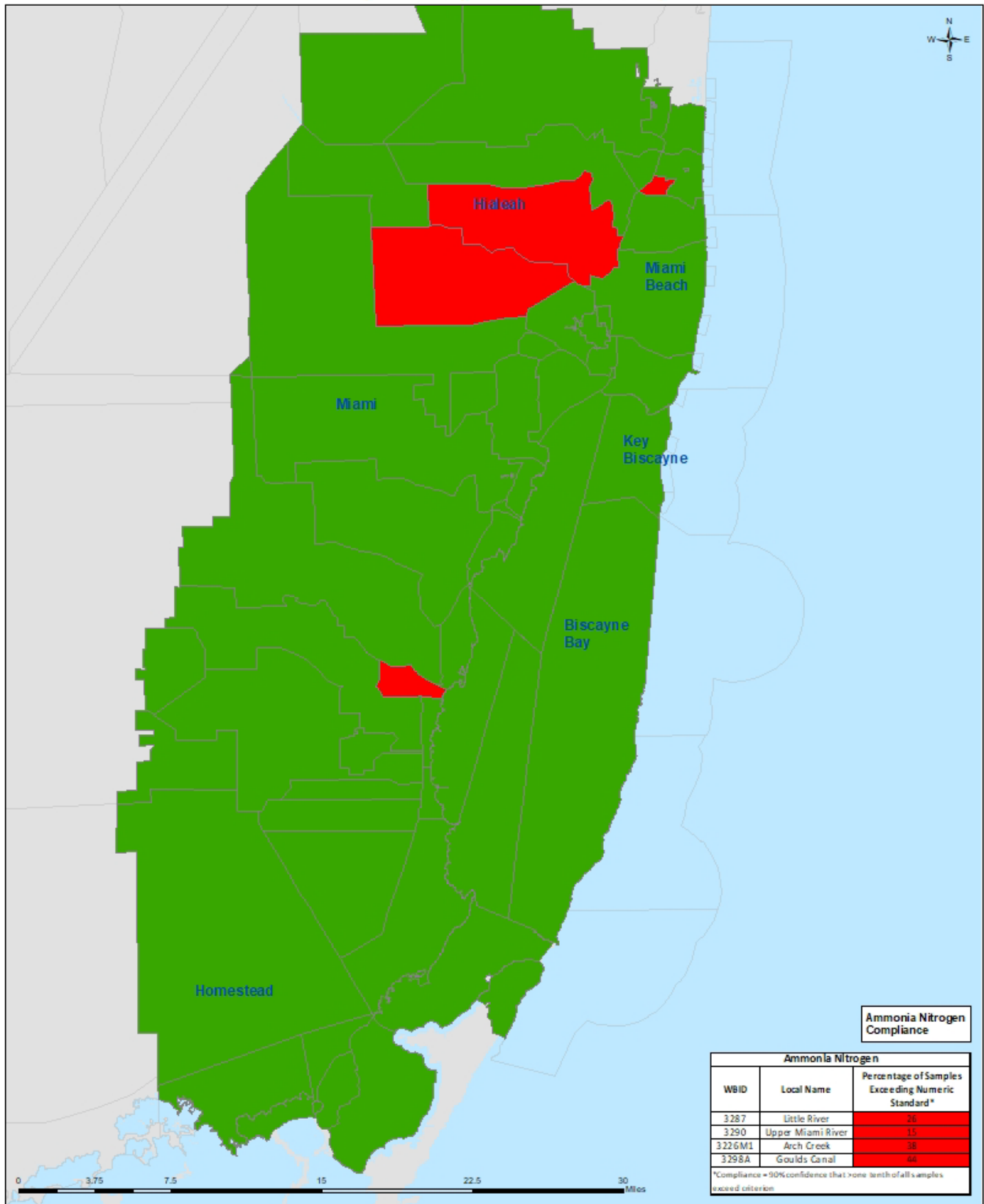
Parameter	SFWMD Canal Name	Local Name	WBID Number	No. of Samples not Meeting Criterion	Total Samples (N)	Percent of Samples Not Meeting Criterion
Dissolved Oxygen	C-1	Black Creek	3297	567	574	99
Dissolved Oxygen	C-102N	Goulds Canal	3298A	322	398	81
Dissolved Oxygen	L31-E	L31-E	3298B1	234	234	100
Dissolved Oxygen	C-102N	Princeton Canal	3300	698	702	99
Dissolved Oxygen	C-103	Mowry Canal	3302	708	708	100
Dissolved Oxygen	C-111	Aerojet Canal	3303	234	234	100
Dissolved Oxygen		Military Canal	3304	466	467	100
Dissolved Oxygen		North Canal	3305	243	243	100
Dissolved Oxygen		Florida City Canal	3306	456	457	100
Dissolved Oxygen		Card Sound	6001C	660	663	100
Dissolved Oxygen			6001D	1110	1177	94
Dissolved Oxygen			6001E	357	357	100
Dissolved Oxygen			6001F	936	971	96
Dissolved Oxygen			6001G	485	486	100
Dissolved Oxygen			6001H	508	510	100
Dissolved Oxygen		Manatee Bay	6002	234	234	100
Dissolved Oxygen		Barnes Sound	6003	257	261	98
Enterococci			3226H6	72	475	15
Enterococci		Oleta River	3226L	61	100	61
Enterococci		Arch Creek	3226M1	84	146	58
Enterococci	C-6	Miami River	3288	49	152	32
Enterococci		Wagner Creek	3288A	120	154	78
Enterococci	C-6	Lower Miami River	3288B	17	54	31
Enterococci	C-6	Upper Miami River	3290	19	52	37
Enterococci			3292A	7	28	25
Enterococci	C-102N	Goulds Canal	3298A	24	75	32
Enterococci	L31-E	L31-E	3298B1	8	44	18
Enterococci		Military Canal	3304	11	56	20
Escherichia Coli		Dumbfoundling Bay	3226H1	21	39	54
Escherichia Coli			3226H5	31	53	58
Escherichia Coli			3226H6	43	58	74
Escherichia Coli		Oleta River	3226L	97	98	99
Escherichia Coli		Arch Creek	3226M1	110	146	75
Escherichia Coli	C-9	Snake Creek	3284	15	83	18
Escherichia Coli	C-5	Comfort Canal	3286C	25	50	50
Escherichia Coli	C-7	Little River	3287	73	210	35
Escherichia Coli	C-6	Miami River	3288	103	180	57
Escherichia Coli		Wagner Creek	3288A	145	154	94
Escherichia Coli	C-6	Lower Miami River	3288B	38	54	70
Escherichia Coli	C-6	Upper Miami River	3290	40	103	39

Parameter	SFWMD Canal Name	Local Name	WBID Number	No. of Samples not Meeting Criterion	Total Samples (N)	Percent of Samples Not Meeting Criterion
Escherichia Coli	C-3	Coral Gables Canal	3292	10	49	20
Escherichia Coli			3292A	13	33	39
Escherichia Coli	C-102N	Goulds Canal	3298A	34	78	44
Escherichia Coli			6001D	56	111	50
Escherichia Coli			6001F	25	55	45
Mercury	C-7	Little River	3287	5	24	21
Specific Conductivity	C-9	Snake Creek	3283	76	576	13
Specific Conductivity	C-8	Biscayne Canal	3285	98	671	15
Specific Conductivity	C-102N	Goulds Canal	3298A	162	217	75
Specific Conductivity		L31-E	3298B1	178	231	77
Specific Conductivity	C-103	Mowry Canal	3302	99	708	14
Specific Conductivity		Military Canal	3304	269	467	58
Total Dissolved Solids		Oleta River	3226L	28	29	97
Total Dissolved Solids		Arch Creek	3226M1	52	55	95
Total Dissolved Solids		Wagner Creek	3288A	13	28	46
Total Dissolved Solids	C-102N	Goulds Canal	3298A	15	27	56
Total Dissolved Solids	L31-E	L31-E	3298B1	19	29	66
Total Dissolved Solids		Military Canal	3304	25	58	43
Total Suspended Solids		Dumbfoundling Bay	3226H1	10	55	18
Total Suspended Solids		Bakers Inlet	3226H2	16	57	28
Total Suspended Solids		Rickenbacker Basin	3226H3	20	64	31
Total Suspended Solids			3226H5	15	69	22
Total Suspended Solids			3226H6	32	129	25
Total Suspended Solids		Arch Creek	3226M1	16	83	19
Total Suspended Solids	C-6	Lower Miami River	3288B	8	30	27
Total Suspended Solids		Card Sound	6001C	9	44	20
Total Suspended Solids			6001D	31	119	26
Total Suspended Solids			6001E	7	39	18
Total Suspended Solids			6001G	9	30	30
Total Suspended Solids			6001H	18	60	30

## 2.2. Ammonia

This evaluation identifies four (4) WBIDs as impaired for ammonia, based on the County standard (Figure 4); the State's Standard is based on "unionized" ammonia. The impairments are localized near existing or abandoned landfills where leachate is affecting sampling locations in the vicinity. Two of those WBIDS, 3287/ Little River/C-7, and 3226M2/Arch Creek, are also impaired for bacteriological parameters, while 3290/Upper Miami River/C-6 are downstream of former landfills where leachate may be affecting the water body.

## Exceedance-based Ammonia Nitrogen Assessment of Biscayne Bay Water Quality 2022

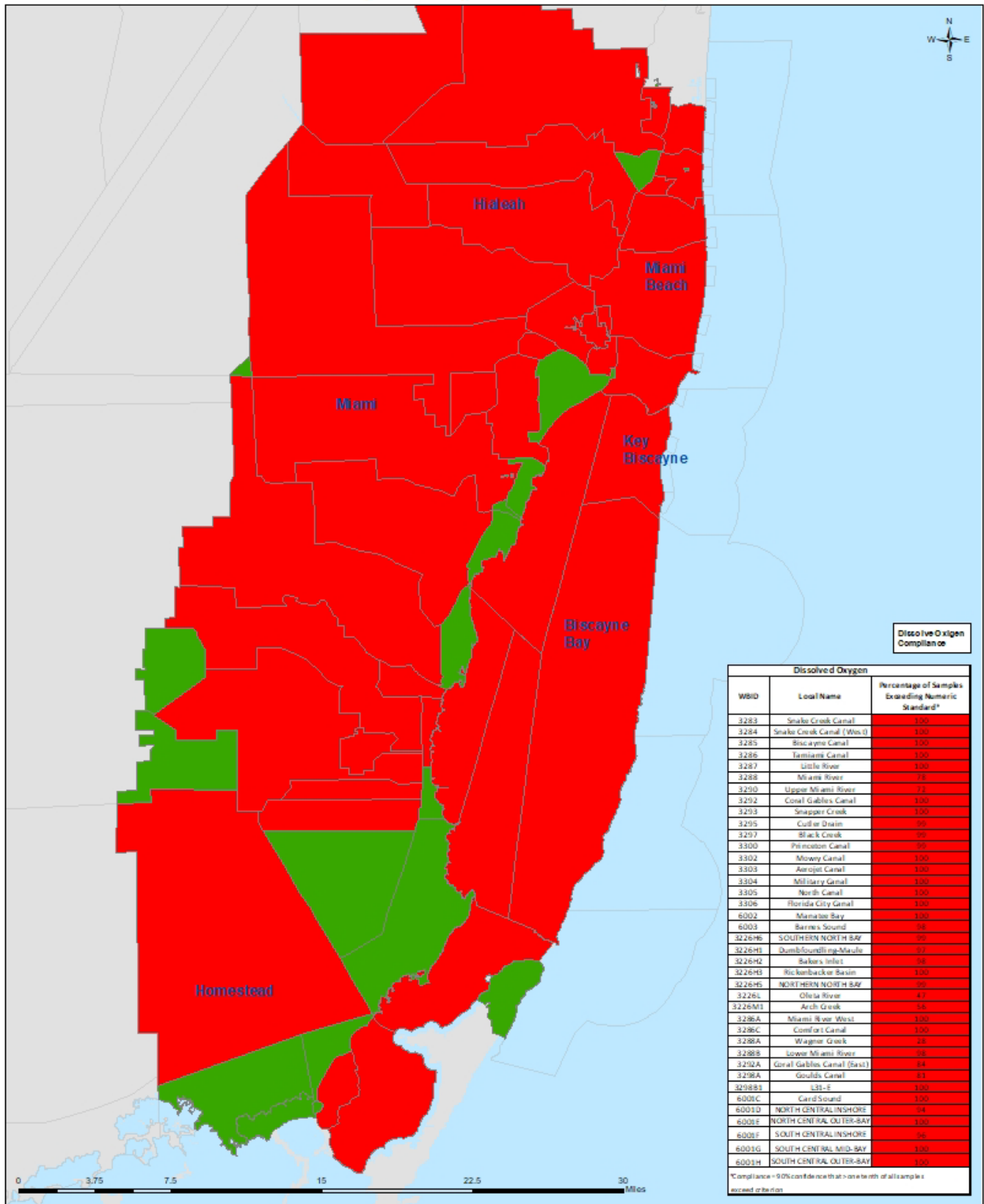


**Figure 4.** Compliance assesment of Ammonia by WBID.

### 2.3. Dissolved Oxygen

The WBIDs where the concentrations of Dissolved Oxygen (DO) do not meet the State standard are presented in Figure 5. It should be noted that some ‘parameters’, such as Dissolved Oxygen and Chlorophyll-A, are considered “response” parameters. Therefore, any non-compliance due to those parameters may be a result of a causal factor (i.e., excessive nutrients for Chlorophyll-A, high Biological Oxygen Demand [BOD] or other oxygen depleting constituents for DO). In cases where the concentrations of DO in the canals do not meet the standard, other parameters are evaluated in order to determine if the DO levels are a response to a causal parameter (e.g., high BOD, elevated nutrients, or Chlorophyll-A, etc.). If a WBID has what could be considered a ‘causal’ parameter, such as bacteriological impairments, the DO would be considered non-compliant in response to a causal parameter. If a ‘causal’ factor cannot be identified or associated with the elevated response parameter, the WBID will be listed on the “303-4D” list (303-4D list is for water bodies that do not meet applicable criteria, but no causal pollutant can be identified; therefore, a Total Maximum Daily Load [TMDL] would not be developed). Furthermore, the Bay and its tributaries (canals) are heavily influenced by groundwater—the canals were cut directly into the groundwater aquifer—and groundwater is typically hypoxic.

## Exceedance-based Dissolved Oxygen Assessment of Biscayne Bay Water Quality 2022

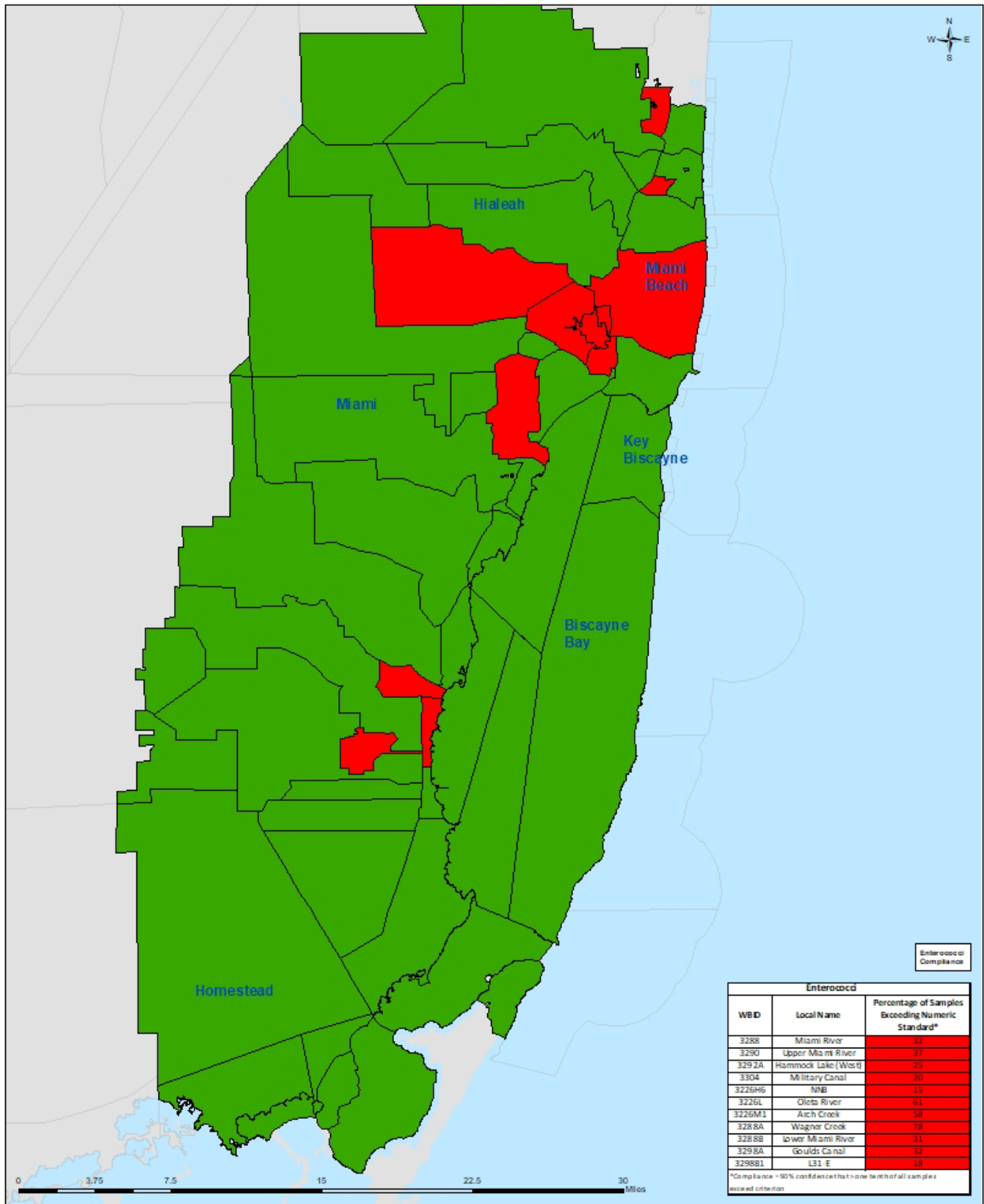


**Figure 5.** Compliance assesment of Dissolved Oxygen by WBID.

#### **2.4. Bacteriological Parameters**

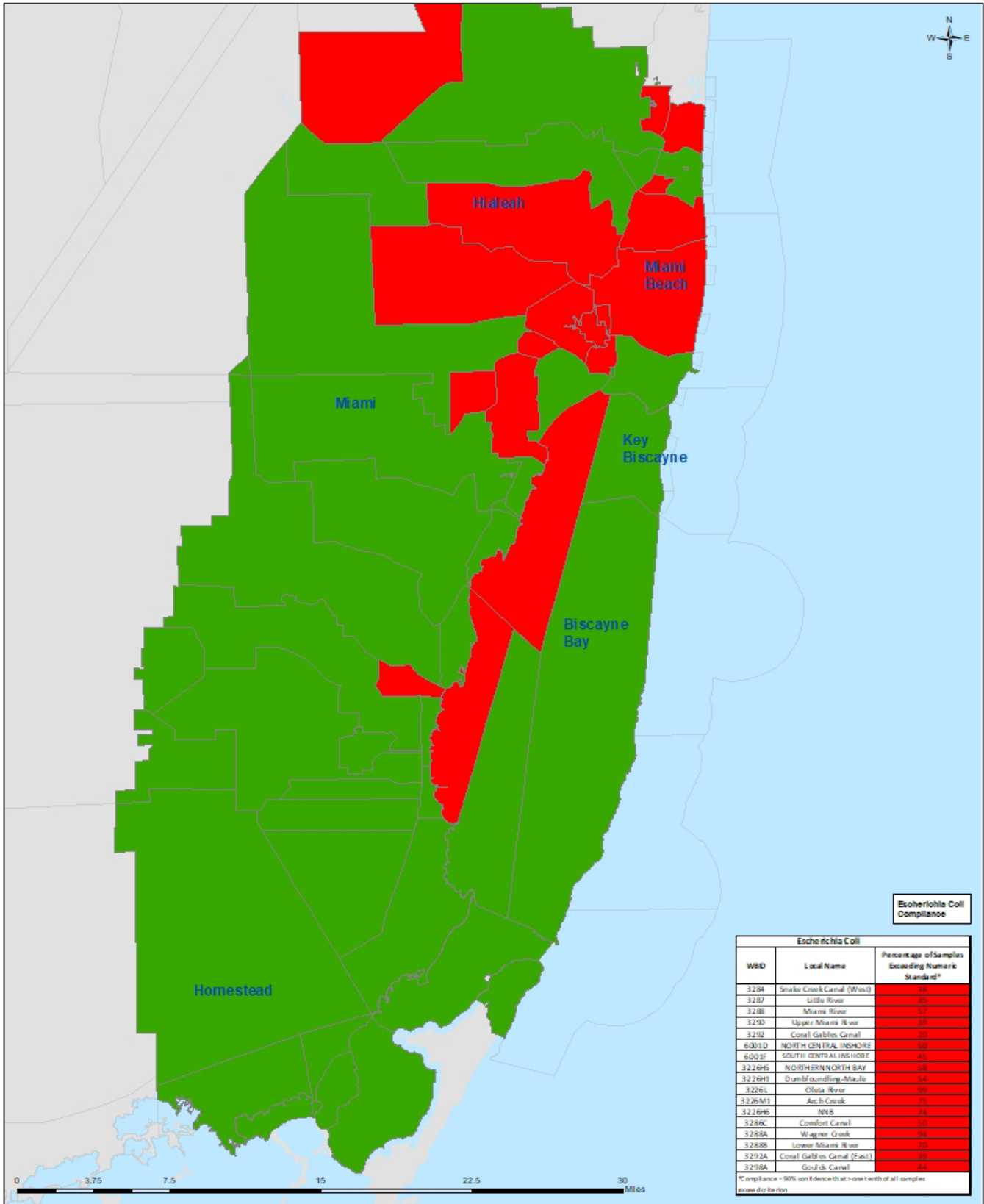
Twenty-one (21) WBIDs were not compliant with the State's bacteriological parameters, twelve (12) impaired for Escherichia Coli criterion and nine (9) were not compliant with the State's Enterococci criterion. Several of these WBIDs were also not compliant with other parameters (Table 6), particularly Dissolved Oxygen, Total Dissolved and Suspended Solids, and Nutrient Parameters (Table 8 and Figure 9). In some instances, the receiving waters downstream of listed WBIDs were also non-compliant with other parameters associated with eutrophication.

## Exceedance-based Enterococci Assessment of Biscayne Bay Water Quality 2022



**Figure 6.** Compliance assesment of Enterococci by WBID.

## Exceedance-based Escherichia Coli Assessment of Biscayne Bay Water Quality 2022



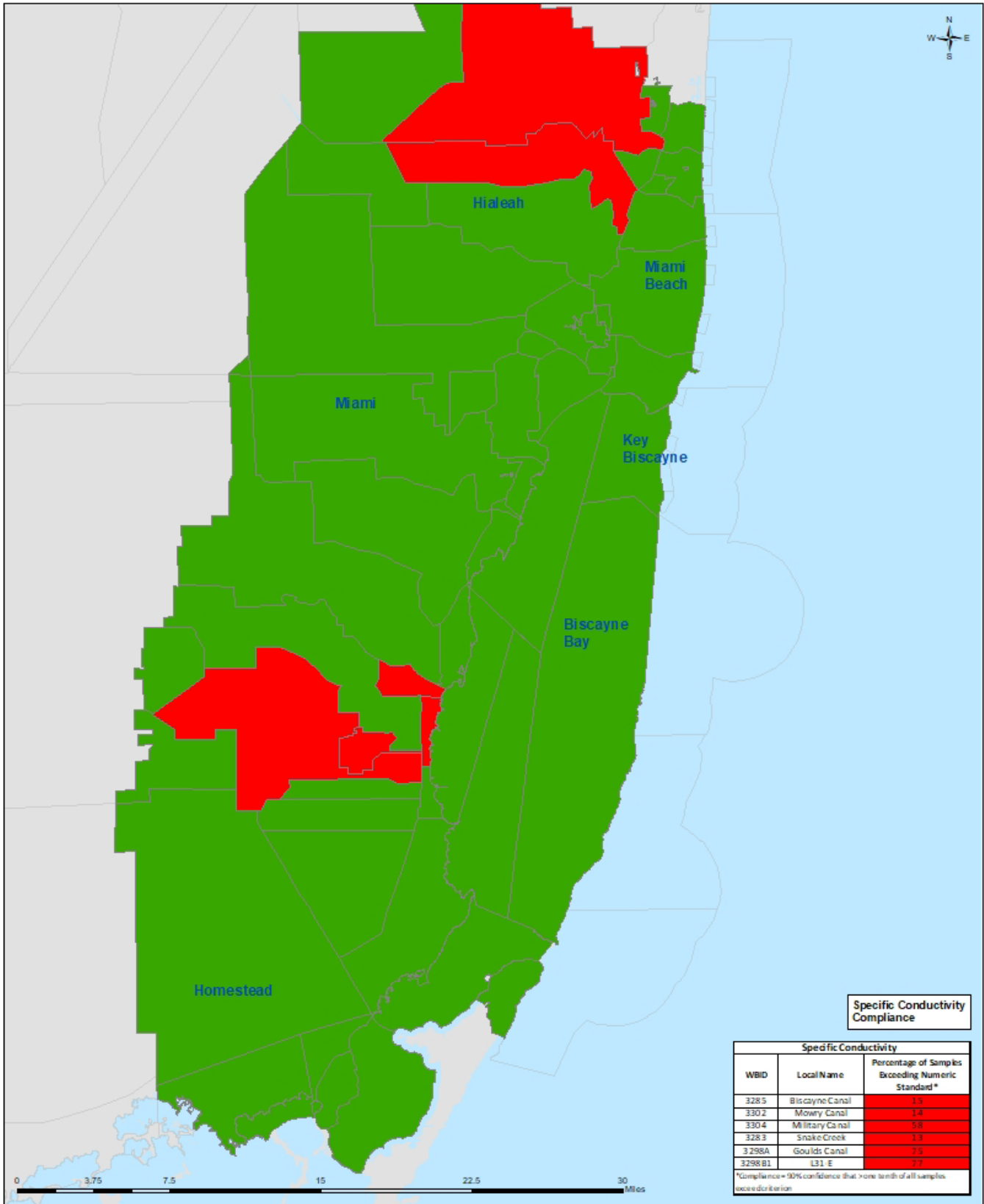
**Figure 7.** Compliance assesment of Escherichia Coli by WBID.



## **2.5. Specific Conductivity**

Exceedances of the State's Specific Conductivity criterion of 1,275  $\mu\text{s}/\text{cm}$  occurred at stations that are immediately upstream of salinity structures S29, S28, S20, S20G and a berm at GL02 (WBIDS 3283, 3285, 3302, 3304, 3298B1 and 3298A respectively). Leaks at these salinity structures are the likely cause of high salinity values at these locations. These structures are owned and maintained by the SFWMD and, as such, MDC has no control over their function and performance. However, it is the responsibility of the District to monitor them for performance and upgrade them as needed.

## Exceedance-based Specific Conductivity Assessment of Biscayne Bay Water Quality 2022

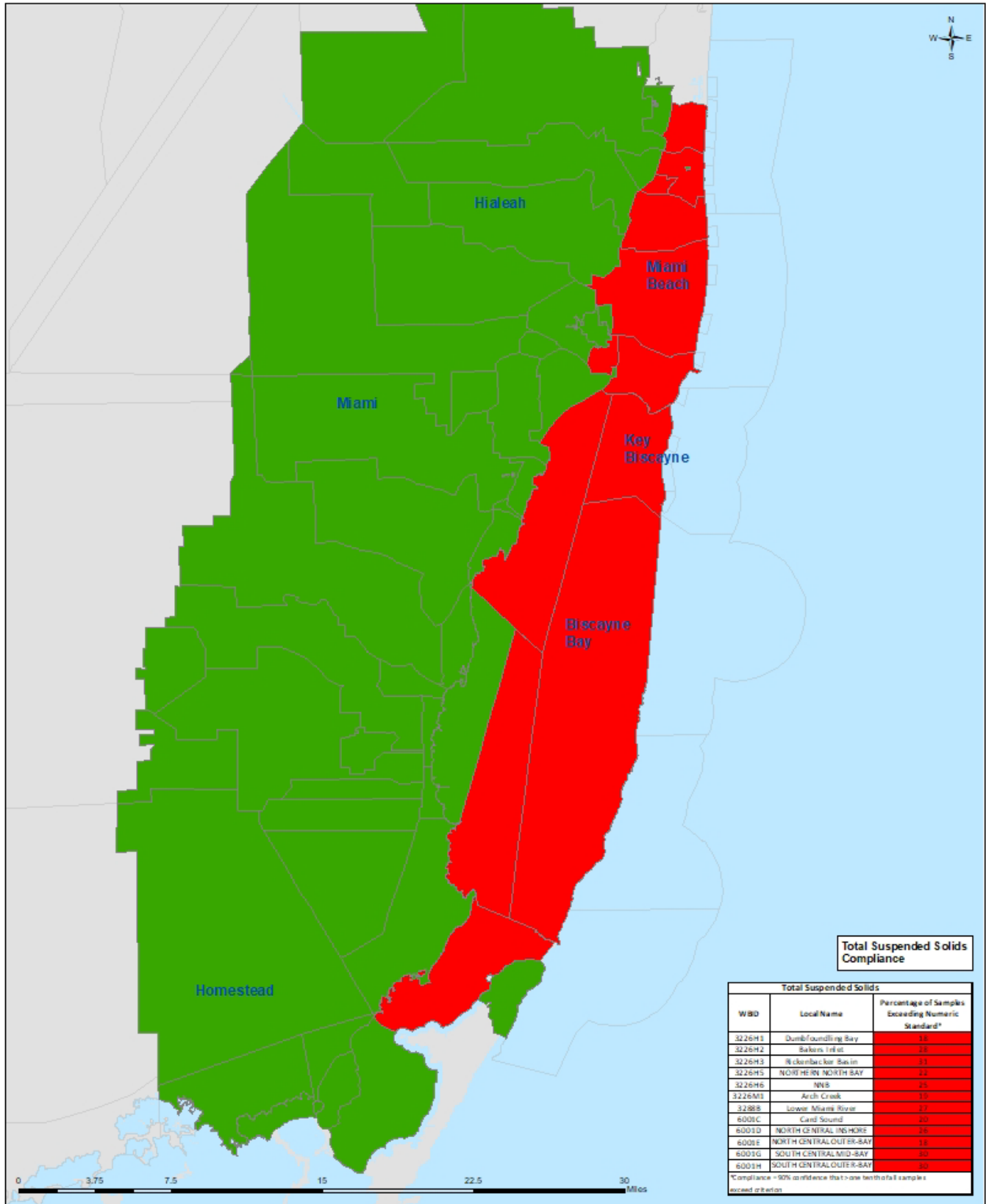


**Figure 8.** Compliance assessment of Specific Conductivity by WBID.

## **2.6 Total Suspended Solids (TSS) and Total Dissolved Solids (TDS)**

Both TSS and TDS are functionally related where TSS is the organic and inorganic material in a known volume of a water sample retained by a filter with a pore size of 2 µm or less, and TDS represents the material that passes through the filter but increases in loads can degrade aquatic ecosystems through several mechanisms. TSS can block sunlight, which may reduce photosynthetic rates, affecting primary productivity and decreasing the survival of plants, further decreasing water's oxygen levels. Additionally, TSS can clog fish and invertebrate gills, resulting in fish kills and suspended sediment may settle to the bottom of aquatic systems, potentially smothering fish eggs or other benthos. TDS also can contaminate groundwater via recharge to the aquifer and exceed drinking water standards. Exceedances of Miami-Dade County's Total Suspended Solids (TSS) standard of 40 mg/L occurred in several WBIDs within Biscayne Bay (Figure 9). High suspended solids may lower water's natural dissolved oxygen levels and increase water temperature, which in turn may negatively affect small aquatic organisms' ability to survive, such as corals or small fish. Twelve (12) of the forty-four (44) WBIDs within the County are not meeting the County's TDS criterion, and six (6) are not meeting the TDS criterion .

## Exceedance-based Total Suspended Solids Assessment of Biscayne Bay Water Quality 2022



**Figure 9.** Compliance assessment of Total Suspended Solids by WBID.

**Table 7.** WBID 2020 Status compared to the 2016 ‘Cycle-3’ IWR Assessment Status.

WBID	WBID Name	Parameter	Cycle 3 (2016) Status	Present Status
3286C	C-5/Comfort Canal	Specific Conductance	Non-Compliant	Compliant
3298A	Goulds Canal	Specific Conductance	Non-Compliant	Non-Compliant
3302	C-103/Mowry Canal	Specific Conductance	Non-Compliant	Non-Compliant
3304	Military Canal	Specific Conductance	Non-Compliant	Non-Compliant
3285	C8/Biscayne Canal	Specific Conductance	Not Identified	Non-Compliant
3283	C-9/Snake Creek Canal	Specific Conductance	Not Identified	Non-Compliant

### 2.7. Estuarine-Specific Numeric Nutrient-Chlorophyll Assessment

Prior to November 2012, the State of Florida’s surface water criterion for nutrients was a ‘narrative’ rather than numeric criteria. The criterion read “*In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.*” (62-302.530(47) F.A.C.). In November 2012, the State of Florida established ‘Numeric’ interpretations of the Narrative Nutrient Criteria for specific estuaries, including Biscayne Bay (620-302.532 F.A.C.; Table 4 above). However, those criteria were applied to specific ‘regions’ of the bay, which were independent of WBID boundaries as previously defined. In 2018 the State subdivided WBID 6001, the largest WBID in the southern bay, the delineations were consistent with the Nutrient Regions, and they were assigned their own unique Water Body Identification Numbers (WBIDS). Another large WBID in northern Biscayne Bay (3226H) was also subdivided based on a geo-spatial analysis of water quality data, therefore there are now 13 WBIDS within the County (all in Biscayne Bay) that are subject to the application of Numeric Nutrient Criteria. These delineations into WBIDs now allow for nutrient evaluations in each WBID within the Bay relative to Chlorophyll-A and those nutrients with defined criteria (Total Nitrogen and Total Phosphorus). The results of those evaluations are presented in Table 8 and depicted in Figure 9.

**Table 8.** Results of evaluation of Estuarine Regions in Biscayne Bay, as per 62-303.353. Exceedances of the criterion are typed in red.

<b>NUMERIC NUTRIENT CRITERIA (NNC) of BISCAYNE BAY 2016-2020</b>													
<b>NNC Standard:</b> The Annual Geometric Mean (AGM) shall not exceed the criterion more than once in any three-year period (62-302.532 (1) (h) FAC)													
<b>AGM for Total Phosphorus Concentrations (mg/l)</b>													
Nutrient WBID	3226H1	3226H2	3226H3	3226H5	3226H6	6001C	6001D	6001E	6001F	6001G	6001H	6002	6003
Criterion	0.012	0.012	0.01	0.012	0.01	0.008	0.007	0.008	0.007	0.007	0.006	0.007	0.007
2017	0.008	0.006	0.005	0.006	0.006	0.002	0.003	0.003	0.003	0.002	0.002	0.002	0.004
2018	0.009	0.008	0.005	0.008	0.009	0.003	0.005	0.003	0.004	0.003	0.003	0.003	0.004
2019	0.008	0.008	0.005	0.009	0.009	0.004	0.005	0.004	0.004	0.004	0.005	0.004	0.004
2020	0.009	0.007	0.003	0.007	0.007	0.002	0.003	0.003	0.003	0.002	0.002	0.002	0.002
2021	0.008	0.006	0.004	0.007	0.007	0.003	0.003	0.003	0.003	0.002	0.003	0.004	0.003

<b>AGM for Total Nitrogen Concentrations (mg/l)</b>													
Nutrient WBID	3226H1	3226H2	3226H3	3226H5	3226H6	6001C	6001D	6001E	6001F	6001G	6001H	6002	6003
Criterion	0.3	0.3	0.29	0.3	0.29	0.33	0.31	0.28	0.48	0.35	0.24	0.58	0.58
2017	0.461	0.32	0.306	0.34	0.413	0.388	0.42	0.33	0.55	0.432	0.262	0.688	0.579
2018	0.302	0.243	0.256	0.303	0.324	0.307	0.383	0.353	0.476	0.335	0.197	0.599	0.541
2019	0.353	0.252	0.189	0.273	0.265	0.294	0.296	0.238	0.476	0.281	0.14	0.673	0.547
2020	0.523	0.317	0.243	0.331	0.306	0.354	0.43	0.292	0.594	0.374	0.168	0.698	0.625
2021	0.308	0.271	0.286	0.353	0.349	0.404	0.38	0.309	0.566	0.363	0.255	0.68	0.554

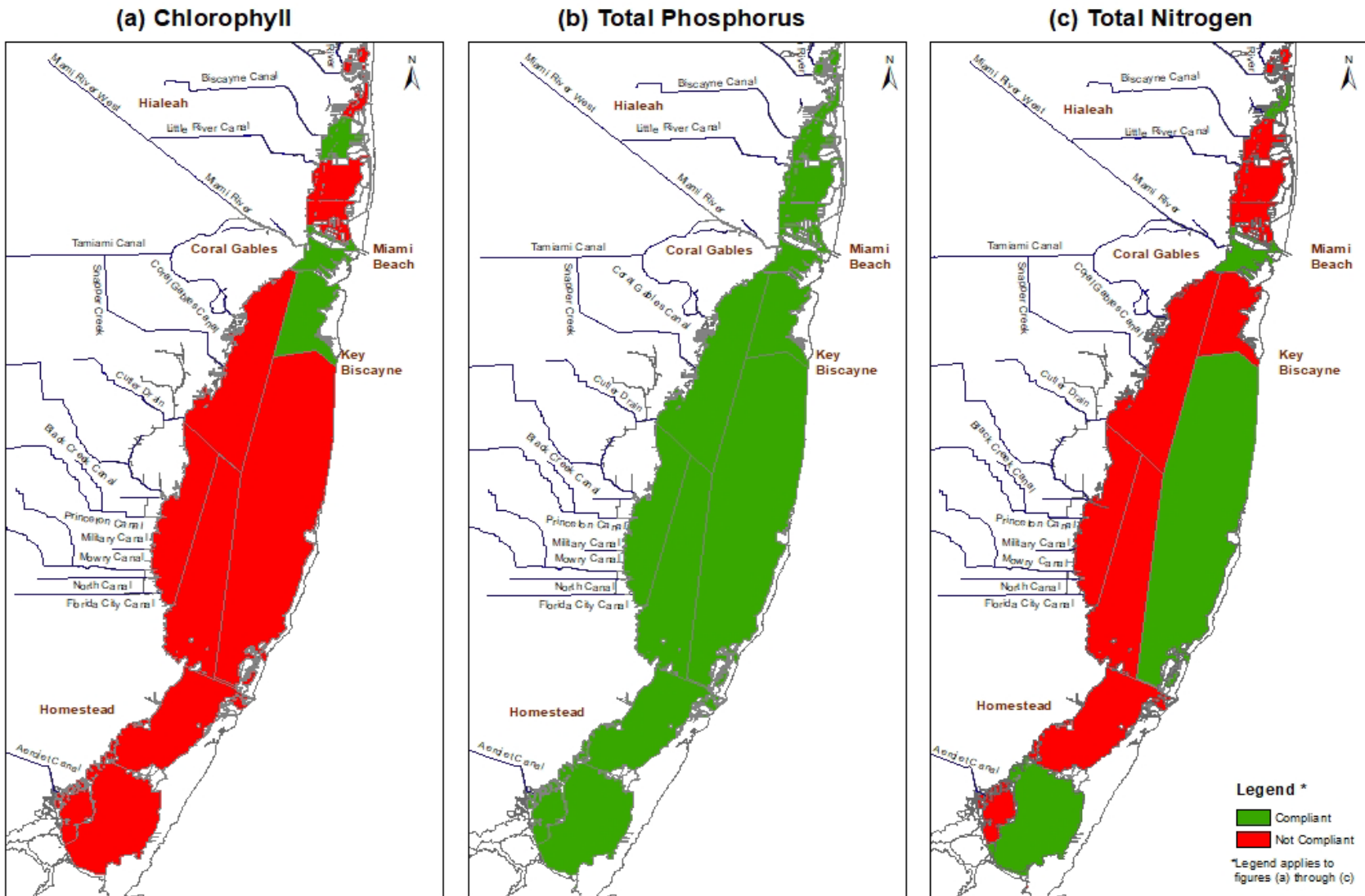
<b>AGM for Chlorophyll (µg/l)</b>													
Nutrient WBID	3226H1	3226H2	3226H3	3226H5	3226H6	6001C	6001D	6001E	6001F	6001G	6001H	6002	6003
Criterion	1.7	1.7	1.1	1.7	1.1	0.5	0.5	0.7	0.4	0.2	0.2	0.4	0.4
2017	3.786	2.186	1.131	2.533	2.046	0.615	0.88	0.965	0.493	0.468	0.341	0.584	1.058
2018	3.422	1.84	1.38	1.396	1.738	0.526	0.659	0.712	0.387	0.426	0.245	0.537	0.97
2019	3.486	1.696	0.636	1.421	1.323	0.52	0.642	0.627	0.401	0.315	0.358	0.486	0.708
2020	5.327	3.027	1.033	2.152	1.625	0.562	0.87	0.763	0.465	0.342	0.479	0.527	0.709
2021	4.151	1.747	0.741	1.228	1.355	0.425	0.495	0.501	0.271	0.317	0.332	0.23	0.552

The Estuarine Regions that failed to meet the criterion (e.g., the AGM exceeds criterion more than once in any 3-year period), are shown in red. Ten(10) of the thirteen (13) estuarine regions throughout Biscayne Bay failed to meet the criterion for Chlorophyll-A. No exceedances in criteria were noted for Total Phosphorus, and in all thirteen (13) regions, though in many WBIDs AGM was higher this year than in the previous year. Nine (9) regions exceeded the criterion for Total Nitrogen in 2021, Unusually high rainfall events between May and September of 2020 precipitated large freshwater delivery into several portions of the bay and canals and was associated with a fish kill event in August 2020. Specifically, the freshwater flows in Little River have shown the highest peaks since 1994 (>2000 cfs), exceeding the 20- years monthly

average flow for wet season (~ 300 cfs). These high freshwater flows, high temperatures, low wind, and oxygen conditions, as well as other environmental factors, likely caused the fish kill event in August 2020.

Chlorophyll-A, like DO, is considered a response variable and a causal parameter needs to be identified to confirm an 'impairment'. Among the associated primary nutrient parameters, TN exceeded the criterion in four (4) estuarine regions and TP did not exceed its respective criteria. Further review of other associated indicators of nutrient enrichment (e.g., ammonia and BOD) did not show high values to suggest that these are causal parameters. However, it should be noted that phytoplankton algal blooms are known to have rapid uptake of nutrients which could make detection of the causal nutrients difficult. Since 2005, there have been phytoplankton and algal blooms concurrent with seagrass losses. Two of those blooms have been associated with large areas of seagrass loss; however, a recent decline of seagrass in a large area of Biscayne Bay has been observed in the absence of any algal bloom. Elevated Chlorophyll-A levels have persisted during that period. The bloom event values were included in the data set used for this evaluation, as they are indicative of the recent nutrient loading, likely associated with heavy rainfall. An ongoing seagrass dieoff first documented in 2017 (Avila et al. 2017; Varona et al. 2017) and presented to the Board of County Commissioners in the 2019 Report on the Decline of Seagrass and Hardbottom Community, has shown no sign of recovery to date.

# Numeric Nutrient Assessment for Regions of Biscayne Bay 2022



Compliance = Annual Geometric Mean (AGM) does not exceed criteria more than once in a consecutive three (3) year period.

Figure 10: Numeric Nutrient Assessment for Estuarine Regions of Biscayne Bay



## 2.8. Evaluation of Parameters without State or County Numeric Criteria

A total of 2200 Annual Geometric Means (AGM) were calculated (over the past 7.5 years) from ten (10) parameters (Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Color, Total Phosphorus<sup>3</sup>, Nitrate+Nitrite, Ortho Phosphate, Phenols, Total Suspended Solids, Total Kjeldahl Nitrogen, and Total Dissolved Solids) in forty-four(44) WBIDs (not all parameters are collected in all WBIDs) and compared to the Baseline Criterion (upper 80<sup>th</sup> confidence interval). For statistical relevance, any years with less than two (2) samples within a WBID were excluded. For certain WBIDs samples were not collected during the Baseline reference period (1996-2004) and thus no data were available for comparison. Of the 2200 Annual Geometric Means, 425 (19.3%) exceeded the Baseline Criterion. Table 9 presents evaluations for each WBID since 2019 (3 years) with the comparison of the Annual Geometric Mean to the Baseline Criterion, along with the Percent Difference:

$$\frac{\text{AGM} - \text{Baseline Criterion}}{\text{Baseline Criterion}} \times 100$$

Negative values in the Difference column suggests that there is an improvement since the 1996-2004 good conditions period.

**Table 9.** Assessment of Parameters without Established Numeric Criteria—Annual Geometric Means (AGM) in relation to the baseline period of 1996-2004.

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
BOD_5 (in mg/L)	3283	2020	8	1.235	1.414	0.179	14.5
BOD_5	3285	2020	7	1.356	1.486	0.13	9.6
BOD_5	3286	2020	6	1.461	1.587	0.127	8.7
BOD_5	3287	2019	17	1.294	1.33	0.036	2.8
BOD_5	3287	2020	16	1.294	1.674	0.379	29.3
BOD_5	3292	2019	4	1.964	2	0.036	1.8
BOD_5	3292	2021	4	1.964	2.725	0.762	38.8
BOD_5	3293	2021	8	1.419	1.582	0.163	11.5
BOD_5	3295	2020	10	1.388	1.897	0.509	36.7
BOD_5	3297	2019	8	1.239	1.414	0.175	14.1
BOD_5	3297	2020	8	1.239	1.297	0.058	4.7
BOD_5	3300	2019	12	1.056	1.189	0.133	12.6
BOD_5	3300	2020	12	1.056	1.189	0.133	12.6
BOD_5	3300	2021	12	1.056	1.073	0.018	1.7
BOD_5	3302	2019	12	1.069	1.189	0.12	11.3

<sup>3</sup> Total Phosphorus has established criteria for Estuarine Regions, as defined by the State, but a criterion has not been established for WBIDs

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
BOD_5	3302	2020	12	1.069	1.189	0.12	11.3
BOD_5	3305	2019	4	1.085	1.189	0.104	9.6
BOD_5	3305	2020	3	1.085	1.26	0.175	16.1
BOD_5	3306	2019	8	1.064	1.189	0.125	11.7
BOD_5	3306	2020	6	1.064	1.789	0.725	68.1
BOD_5	3226L	2021	4	1.717	2.013	0.297	17.3
BOD_5	3286A	2020	4	1.355	1.414	0.059	4.4
BOD_5	3298A	2019	3	1.117	1.26	0.143	12.8
BOD_5	3298A	2020	3	1.117	1.587	0.471	42.1
BOD_5	3298A	2021	4	1.117	1.133	0.016	1.5
COD (in mg/L)	3226H6	2020	4	83.516	99.499	15.983	19.1
COD	3226L	2019	4	51.507	54.219	2.712	5.3
COD	3226M1	2019	8	26.608	32.11	5.503	20.7
COD	3226M1	2020	5	26.608	30.604	3.996	15
COD	3226M1	2021	8	26.608	54.208	27.601	103.7
COD	3288A	2019	4	10.1	30.026	19.926	197.3
COD	3288A	2021	4	10.1	13.53	3.43	34
COD	3298A	2019	4	16.811	27.378	10.567	62.9
Color (Apparent) (in PCU)	6002	2021	1	13.667	22	8.333	61
Color (Apparent)	3226H2	2019	20	11.345	11.487	0.142	1.3
Color (Apparent)	3226H5	2021	2	17.1	19.079	1.978	11.6
Color (Apparent)	6001C	2019	2	8.846	9.798	0.952	10.8
Color (Apparent)	6001C	2021	2	8.846	13.856	5.011	56.6
Color (Apparent)	6001D	2019	14	16.633	25.217	8.584	51.6
Color (Apparent)	6001D	2020	4	16.633	16.86	0.227	1.4
Color (Apparent)	6001D	2021	2	16.633	24.819	8.186	49.2
Nitrate+Nitrite (in mg/L)	3286	2021	24	0.023	0.023	0.001	2.2
Nitrate+Nitrite	3292	2020	9	0.304	0.517	0.213	70.2
Nitrate+Nitrite	3297	2019	160	0.178	0.707	0.529	297.1
Nitrate+Nitrite	3303	2020	9	0.042	0.1	0.058	137.1
Nitrate+Nitrite	3303	2021	12	0.042	0.051	0.009	20.3
Nitrate+Nitrite	6002	2020	9	0.01	0.013	0.003	32
Nitrate+Nitrite	6002	2021	12	0.01	0.013	0.003	31.4
Nitrate+Nitrite	6003	2021	12	0.015	0.016	0.001	3.7
Nitrate+Nitrite	3226H2	2020	21	0.024	0.033	0.008	34.4
Nitrate+Nitrite	3226L	2020	9	0.097	0.108	0.012	12
Nitrate+Nitrite	3226M1	2020	26	0.096	0.113	0.017	17.6
Nitrate+Nitrite	3288A	2020	30	0.164	0.176	0.013	7.8

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
Nitrate+Nitrite	3298A	2019	133	0.991	1.255	0.263	26.5
Nitrate+Nitrite	6001D	2020	56	0.04	0.053	0.013	32.2
Nitrate+Nitrite	6001E	2020	23	0.015	0.016	0.002	10.6
Nitrate+Nitrite	6001E	2021	36	0.015	0.015	0.001	6.1
Nitrate+Nitrite	6001F	2019	826	0.625	1.239	0.614	98.3
Nitrate+Nitrite	6001G	2020	21	0.04	0.043	0.003	7
Ortho Phosphate (in mg/L)	3283	2020	33	0.008	0.01	0.002	32.4
Ortho Phosphate	3283	2021	36	0.008	0.01	0.002	32.4
Ortho Phosphate	3285	2020	21	0.011	0.015	0.004	32.5
Ortho Phosphate	3286	2019	24	0.007	0.008	0.001	12.8
Ortho Phosphate	3286	2020	18	0.007	0.01	0.003	41.8
Ortho Phosphate	3286	2021	24	0.007	0.011	0.003	44.3
Ortho Phosphate	3287	2020	46	0.014	0.018	0.004	28
Ortho Phosphate	3288	2019	47	0.008	0.009	0.002	20
Ortho Phosphate	3288	2020	42	0.008	0.012	0.004	55.6
Ortho Phosphate	3288	2021	48	0.008	0.011	0.004	48
Ortho Phosphate	3295	2020	30	0.005	0.01	0.005	87.6
Ortho Phosphate	3295	2021	36	0.005	0.01	0.005	87.6
Ortho Phosphate	3297	2020	33	0.01	0.01	0.001	6.1
Ortho Phosphate	3297	2021	36	0.01	0.01	0	3.3
Ortho Phosphate	3300	2020	35	0.008	0.01	0.003	36
Ortho Phosphate	3300	2021	36	0.008	0.01	0.002	32.4
Ortho Phosphate	3302	2020	35	0.007	0.01	0.003	42
Ortho Phosphate	3302	2021	36	0.007	0.011	0.004	49.8
Ortho Phosphate	3303	2020	9	0.006	0.01	0.004	75.9
Ortho Phosphate	3303	2021	12	0.006	0.01	0.004	75.9
Ortho Phosphate	3304	2020	18	0.006	0.01	0.004	68.7
Ortho Phosphate	3304	2021	24	0.006	0.01	0.004	68.7
Ortho Phosphate	3306	2019	24	0.005	0.005	0	0.3
Ortho Phosphate	3306	2020	17	0.005	0.011	0.007	138.2
Ortho Phosphate	3306	2021	24	0.005	0.01	0.005	112.2
Ortho Phosphate	3286A	2020	12	0.008	0.01	0.002	30.7
Ortho Phosphate	3286A	2021	12	0.008	0.01	0.002	30.7
Total Phosphorus (in mg/L)	3283	2019	36	0.009	0.01	0.001	14.4
Total Phosphorus	3283	2020	33	0.009	0.014	0.005	56.9
Total Phosphorus	3283	2021	36	0.009	0.011	0.002	23.2
Total Phosphorus	3285	2020	21	0.016	0.022	0.006	38.5
Total Phosphorus	3286	2020	18	0.012	0.014	0.002	14.8

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
Total Phosphorus	3286	2021	24	0.012	0.015	0.002	19
Total Phosphorus	3287	2019	46	0.019	0.02	0.002	8
Total Phosphorus	3287	2020	46	0.019	0.028	0.009	49.7
Total Phosphorus	3287	2021	48	0.019	0.02	0.001	7.2
Total Phosphorus	3288	2019	47	0.014	0.015	0	3.3
Total Phosphorus	3288	2020	42	0.014	0.014	0	0.6
Total Phosphorus	3288	2021	48	0.014	0.014	0	0.4
Total Phosphorus	3295	2019	36	0.007	0.009	0.002	29
Total Phosphorus	3295	2020	30	0.007	0.011	0.004	56.2
Total Phosphorus	3295	2021	36	0.007	0.011	0.004	57.3
Total Phosphorus	3297	2020	35	0.01	0.01	0	1.1
Total Phosphorus	3300	2020	35	0.009	0.011	0.001	16.1
Total Phosphorus	3300	2021	36	0.009	0.01	0.001	14.6
Total Phosphorus	3302	2020	35	0.01	0.01	0.001	5.7
Total Phosphorus	3302	2021	36	0.01	0.012	0.003	27
Total Phosphorus	3303	2019	12	0.004	0.004	0	2.8
Total Phosphorus	3303	2020	9	0.004	0.01	0.006	130.2
Total Phosphorus	3303	2021	12	0.004	0.01	0.006	130.2
Total Phosphorus	3304	2020	18	0.01	0.01	0	4.7
Total Phosphorus	3304	2021	24	0.01	0.013	0.003	28.2
Total Phosphorus	3306	2020	17	0.012	0.017	0.005	41
Total Phosphorus	6002	2019	12	0.004	0.004	0	6.5
Total Phosphorus	6002	2021	12	0.004	0.01	0.006	147.4
Total Phosphorus	6003	2019	12	0.003	0.004	0.001	30.5
Total Phosphorus	6003	2020	9	0.003	0.01	0.007	213
Total Phosphorus	6003	2021	12	0.003	0.01	0.007	213
Total Phosphorus	3226H1	2019	24	0.011	0.011	0	3.4
Total Phosphorus	3226H1	2020	18	0.011	0.012	0.001	10.4
Total Phosphorus	3226H1	2021	24	0.011	0.012	0.001	10.2
Total Phosphorus	3226H2	2020	21	0.008	0.01	0.002	23
Total Phosphorus	3226H2	2021	24	0.008	0.01	0.002	22.5
Total Phosphorus	3226H3	2019	30	0.004	0.005	0.001	20.2
Total Phosphorus	3226H3	2020	36	0.004	0.01	0.006	135
Total Phosphorus	3226H3	2021	36	0.004	0.01	0.006	135
Total Phosphorus	3226H5	2019	48	0.008	0.01	0.002	29.5
Total Phosphorus	3226H5	2020	42	0.008	0.013	0.005	64.2
Total Phosphorus	3226H5	2021	48	0.008	0.012	0.004	51.4
Total Phosphorus	3226H6	2020	102	0.01	0.012	0.002	19.3

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
Total Phosphorus	3226H6	2021	127	0.01	0.011	0.001	5.8
Total Phosphorus	3226L	2020	9	0.053	0.053	0	0
Total Phosphorus	3286A	2020	12	0.01	0.011	0.001	12.9
Total Phosphorus	6001C	2019	36	0.002	0.004	0.002	90.8
Total Phosphorus	6001C	2020	27	0.002	0.01	0.008	346.4
Total Phosphorus	6001C	2021	60	0.002	0.01	0.008	346.4
Total Phosphorus	6001D	2019	60	0.007	0.007	0	3.3
Total Phosphorus	6001D	2020	56	0.007	0.012	0.005	84.2
Total Phosphorus	6001D	2021	60	0.007	0.01	0.004	60.9
Total Phosphorus	6001E	2019	12	0.003	0.004	0.001	31.6
Total Phosphorus	6001E	2020	23	0.003	0.02	0.017	571.7
Total Phosphorus	6001E	2021	36	0.003	0.01	0.007	235.9
Total Phosphorus	6001F	2020	42	0.008	0.01	0.002	23.9
Total Phosphorus	6001G	2019	24	0.002	0.004	0.002	76
Total Phosphorus	6001G	2020	21	0.002	0.01	0.008	351
Total Phosphorus	6001G	2021	24	0.002	0.01	0.008	351
Total Phosphorus	6001H	2019	24	0.002	0.005	0.003	133.8
Total Phosphorus	6001H	2020	18	0.002	0.01	0.008	382.7
Total Phosphorus	6001H	2021	24	0.002	0.013	0.011	508.2
Total Dissolved Solids (in mg/L)	3283	2019	10	496.671	524.027	27.356	5.5
Total Dissolved Solids	3286	2019	8	305.911	338.109	32.198	10.5
Total Dissolved Solids	3288	2019	5	296.868	628.273	331.405	111.6
Total Dissolved Solids	3293	2019	8	307.322	311.651	4.329	1.4
Total Dissolved Solids	3297	2019	8	308.45	378.19	69.739	22.6
Total Dissolved Solids	3297	2020	8	308.45	310.846	2.395	0.8
Total Dissolved Solids	3297	2021	8	308.45	311.515	3.065	1
Total Dissolved Solids	3300	2019	12	361.279	380.048	18.769	5.2
Total Dissolved Solids	3304	2019	8	455.099	979.906	524.808	115.3
Total Dissolved Solids	3304	2020	6	455.099	1116.29	661.191	145.3
Total Dissolved Solids	3304	2021	8	455.099	1418.695	963.597	211.7
Total Dissolved Solids	3305	2020	3	355.039	367.809	12.77	3.6
Total Dissolved Solids	3305	2021	4	355.039	358.554	3.515	1
Total Dissolved Solids	3306	2020	6	329.213	387.106	57.893	17.6
Total Dissolved Solids	3306	2021	8	329.213	339.344	10.131	3.1
Total Dissolved Solids	3226L	2019	4	3408.799	6494.979	3086.18	90.5
Total Dissolved Solids	3226M1	2019	8	667.54	3564.604	2897.063	434
Total Dissolved Solids	3226M1	2020	5	667.54	3832.499	3164.958	474.1
Total Dissolved Solids	3226M1	2021	8	667.54	10195.24	9527.7	1427.3

Parameter	WBID	Year	Total Annual Samples (N)	Baseline Criterion (80th CI)	Annual Geometric Mean	Difference	Percent Difference
Total Dissolved Solids	3288A	2019	4	4379.2	4464.994	85.794	2
Total Dissolved Solids	3298A	2019	3	629.331	1357.006	727.675	115.6
Total Dissolved Solids	3298A	2020	3	629.331	1334.3	704.969	112
Total Dissolved Solids	3298A	2021	4	629.331	956.959	327.628	52.1
Total Suspended Solids (in mg/L)	3287	2021	16	3.323	3.338	0.015	0.5

Biological Oxygen Demand (BOD) is an indicator of eutrophication and is directly related to oxygen consumption and availability in water bodies. Every WBID that exceeded the baseline BOD criterion was also impaired for Dissolved Oxygen, which suggest that in those areas, groundwater exchange may not be the sole or primary driver of low DO values. Degradation in nutrient parameters comport with other studies that show increasing trends in nutrients and Chlorophyll-A in sections of Biscayne Bay—the receiving waters—and observations of ecological changes within the Bay.

Suspended solids in a body of water may be due to natural or unnatural causes, where excesses above 'background' are often attributed to human causes and are a concern primarily for drinking water. Imports of inorganic materials can easily become suspended due to runoff, erosion, and resuspension from hydrodynamics. When suspended solids exceed expected concentrations, they can negatively impact a body of water by blocking light necessary for photosynthesis in the water column and in the benthic community, including interfering with the self-cleaning mechanisms of corals through smothering that can lead to tissue necrosis. Like suspended solids, dissolved solids have natural sources and levels, and elevated levels can result from toxic heavy metals or organic pollutants—none of which were identified in this evaluation.

For parameters BOD, COD, TSS, and TDS, the comparison to the baseline is not valid because detection limits and analysis methods changed appreciably over time. Therefore, assessments of water quality with these comparisons are artificially influenced by analysis procedures and methods rather than actual analyte concentrations, particularly when ½ the method detection limit is used as a concentration value. A review of the data used in this report showed that there were a high percentage of non-detects across all WBIDs, principally for the following parameters: Biological Oxygen Demand (45%), Total Suspended Solids (39%), Orthophosphate (24%), and several metals parameters (> 50%).

### 3.0. Summary of Miami-Dade County Surface Water Quality Monitoring Program

Data used for this evaluation are from a total of 207,342 samples collected at monitoring stations within forty-four (44) WBIDs and thirteen (13) Estuarine Regions, during ninety (90) sampling events over the past 7.5 years. Samples were evaluated by WBID or Estuarine Regions using the established State of Florida or Miami-Dade County (MDC) criteria—a total of twenty (20) Parameters (17 plus 3 Nutrient Criteria: TP, TN, and Chlorophyll-A in Estuarine Regions). The analysis generated 388 assessments, where an "assessment" is a geographic region—WBID or Estuarine Region—compared to a parameter criterion (Established State or County Standards, or Background Standard). Of the 388 assessments, 288 (74.2%) were compliant with established criteria and 100 (25.7%) were not compliant.

MDC has nineteen (19) nutrient impairments identified within the thirteen (13) Estuarine Regions. Ten (10) of these Estuarine Regions are not meeting the chlorophyll criteria, nine (9) are not meeting the Total Nitrogen criteria, and all are meeting the criteria for Total Phosphorus and all nine have lower AGMs than the previous year.

Of the forty-four (44) WBIDs, thirty-two (32) have been identified by the State of Florida as 'impaired' for one or more parameters and are presently listed on the State's list of 'Verified Impaired Waters' (Table 9) adopted by a Secretarial Order on June 27, 2017—the State does not use local (Miami-Dade Chapter 24) criteria for its impaired water identification. Of the ninety-one (91) 'non-compliance' results identified in this report thirty-nine (39) were attributed to low Dissolved Oxygen (DO) in South Florida Water Management District (SFWMD) drainage canal segments.

Dissolved Oxygen is considered a response variable and WBIDs that do not meet criteria are not considered 'impaired' unless associated with one or more 'causal pollutants'. Furthermore, when these canals were constructed, they were dug sufficiently deep to intersect the surficial aquifer. In many areas, groundwater with very low DO concentrations have the potential to freely exchange with the surface waters of the canals, lowering Dissolved Oxygen concentrations within the canals. This condition does not result from biological or chemical depletion associated with a causal pollutant; rather, the condition is caused by the consistent northwest-to-southeast flow of groundwater in the aquifer, and the free exchange of the low oxygen groundwater with the surficial canal waters. Twenty-seven WBIDs impaired for DO also had one or more other parameters that were identified as non-compliant, but because there are no clear patterns of association with other parameters, it is likely that the low values are associated with groundwater exchange. This has been recognized by the State of Florida during their prior evaluation, wherein only 1 WBID (3305, 'North Canal') was identified as impaired for Dissolved Oxygen. Based on these premises, the State of Florida noted that the 23 WBIDS do not meet the DO criteria, but are not considered 'impaired', as the non-compliance is not associated with a 'causal pollutant', and as such were put in category 4d.

There were six (6) instances of non-compliance associated with 'specific conductivity'. This non-compliance is a result of the close proximity of the sampling stations to the Coastal Control Structures,

which essentially is a physical barrier between inland fresh water and downstream tidal (salt) water. The State has determined not to designate the water body to be impaired for Specific Conductivity and the decision was due to close proximity of the sampling stations to the Coastal Control structures, and not a ‘causal’ pollutant.

The 2020-2022 Biennial Impaired Waters Assessments identified nine (9) WBIDs as being impaired for bacteriological parameters—6 Enterococci and 3 Escherichia Coli—and 3 other WBIDS were listed for Bacteria Beach Advisories. One WBID (6001) was listed as impaired for metal parameters Copper Lead, and Zinc. After a review of the data by RER staff, discrepancies with laboratory analyses were identified and the FDEP decided to remove those metals impairments from the list. The current report identifies seventeen (17) WBIDS as impaired for Escherichia Coli and eleven (11) impaired for Enterococci, certain WBIDS are impaired for both parameters, whereas the States does not apply the Escherichia Coli criterion downstream of salinity control structures even when salinity values may be below the threshold used to define estuarine waters.

For the thirteen (13) estuarine WBIDS, the receiving waters for several major canals, Estuarine-Specific Numeric Nutrient criteria assessments identified ten (10) estuarine regions as non-compliant with the Chlorophyll-A criteria, though all thirteen (13) estuarine regions saw a reduction in Chlorophyll-A values and seven (7) were reduced to levels below their respective criterion.

In the nearshore regions of northern Biscayne Bay, southern Biscayne Bay and Manatee Bay-Barnes Sound, there are seven (7) WBIDS that are not meeting the criteria for both Total Nitrogen and Chlorophyll-A simultaneously. These southern areas are considered to be the more pristine regions of Biscayne Bay and a possible sentinel for South Florida waters overall. As such, these areas need further study to identify potential causes for these recent changes. Similarly, six (6) of thirteen (13) regions had an increase of Total Nitrogen concentrations. Increases in these nutrients are of notable concern because several species of macro and micro algae respond to nitrogen inputs by growing excessively causing cascading ecological imbalances that are being observed in several areas of Biscayne Bay.

The FDEP has recommended that eleven (11) DO impairments be removed from the 303(d) List and the rest be placed in category 4d (i.e., a waterbody verified as not meeting the dissolved oxygen criterion pursuant to the verified list requirements, but a cause has not been identified.). The Specific Conductance impairments are all associated with sites immediately upstream of the South Florida Water Management District's salinity structures which are not functioning properly—if at all. These Specific Conductance impairments are localized and do not adversely affect the overall condition of the surface waters and associated biota.

For parameters that have no established numeric criteria—where current conditions were compared to values derived from a baseline, the instances where the WBID annual geometric mean exceeds the derived baseline value include: eleven (11) Ortho Phosphate (OPO4), nine (9) Total Phosphorus, six (6) Total Dissolved Solids (TDS), five (5) Biological Oxygen Demand (BOD), five (5) Nitrate+Nitrite (NOX), four



(4) Apparent Color, two (2) Chemical Oxygen Demand (COD), and one (1) Total Suspended Solids (TSS) –note that the Total Phosphorus (TP) listed above apply to canals only and are not to be confused with the estuarine-specific Numeric Nutrient Criteria

Examining individual parameter impairments or other concerns is limited in that it does not holistically consider the interaction of other parameters and their association with biogeography. Ecological changes have occurred within certain areas of Biscayne Bay that may not be explained by any single parameter. It is critical to consider water quality issues within the context of smaller-scale geography, as impairment of a water body has significant implication to municipalities and resource managers that need to comply with NPDES regulations, which can drain financial resources. Table 11 presents each WBID with its list of parameters that are out of compliance with numerical or degradation criteria.

The Estuarine Region impairments are of concern, particularly because of the more frequent and ongoing algal blooms and seagrass die-offs. These estuaries and their associated inputs (canals) need further study to understand the magnitude of the canals' nutrient input into an oligotrophic system that supports a vibrant, diverse, and abundant flora and fauna. A number of protective designations, an Aquatic Preserve and National Park both fall within the boundaries of Biscayne Bay, and it has been assigned the status of an 'Outstanding Florida Waters', which is intended to prevent deterioration of the water quality that existed at the time of designation. Further assessments of the four (4) sources of nutrient inputs (loading) into the bay is needed, with an emphasis on three (3): stormwater, groundwater, and regional system delivery; atmospheric deposition may not be a significant contributor. The Department and several academic and federal agency partners are pursuing a FDEP grant to study the pollutant inputs into the Bay with three (3) main goals: 1. quantify the pollutant loads, 2. track the sources of the pollutants, and 3. develop a circulation model to understand where those loads are transported to.

**Table 10.** 2020-2022 Verified list of impaired waters.

Group Name	WBID	Waterbody Name	Waterbody Type	Waterbody Class <sup>1</sup>	Parameters Assessed Using the Impaired Surface Waters Rule (IWR)	Criterion Concentration or Threshold Not Met	† Previous Summary Assessment Category <sup>2</sup>	† Current Assessment Category <sup>3</sup>	† Integrated Report Category Summary Assessment	Summary Assessment Status	Priority for TMDL Development <sup>4</sup>	Planning Period Assessment Data <sup>5</sup>	Verified Period Assessment Data <sup>5</sup>	Comments
Southeast Coast - Biscayne Bay	3226H	ICWW (Miami-Dade County)	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	2	5	5	Impaired	High	6/32	48/345	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3226L	Oleta River (Upper Segment)	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	3c	5	5	Impaired	High	7/20	30/63	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3226M2	Arch Creek (Upper Segment)	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	3c	5	5	Impaired	High	14/18	46/56	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed using genetic marker and chemical tracer data. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3286C	C-5/Comfort Canal	Stream	3F	Escherichia coli	≤ 410 Counts / 100 mL	NA	5	5	Impaired	High	3/4	16/28	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3287	C-7/Little River	Stream	3F	Escherichia coli	≤ 410 Counts / 100 mL	NA	5	5	Impaired	Low	5/24	44/115	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed using genetic and chemical tracer data and identified using land use. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3288	C-6/Miami River	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	3b	5	5	Impaired	Low	8/17	28/89	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed using genetic marker and chemical tracer data. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3288B	C-6/Miami River (Lower Segment)	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	3c	5	5	Impaired	Low	3/9	21/58	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use. This parameter is

Group Name	WBID	Waterbody Name	Waterbody Type	Waterbody Class <sup>1</sup>	Parameters Assessed Using the Impaired Surface Waters Rule (IWR)	Criterion Concentration or Threshold Not Met	† Previous Summary Assessment Category <sup>2</sup>	† Current Assessment Category <sup>3</sup>	† Integrated Report Category Summary Assessment	Summary Assessment Status	Priority for TMDL Development <sup>4</sup>	Planning Period Assessment Data <sup>5</sup>	Verified Period Assessment Data <sup>5</sup>	Comments
														being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3292	Coral Gables Canal	Stream	3F	Escherichia coli	≤ 410 Counts / 100 mL	NA	5	5	Impaired	High	3/8	7/30	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been confirmed using genetic marker and chemical tracer data. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3298	Black Creek	Estuary	3M	Enterococci	≤ 130 Counts / 100 mL	3b	5	5	Impaired	High	3/5	7/38	This waterbody is impaired for this parameter based on the number of exceedances for the sample size and anthropogenic sources have been identified using land use and confirmed using genetic marker and chemical tracer data. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	3226H2	Haulover Inlet/Arch Creek	Estuary	3M	Nutrients (Chlorophyll-a)	ENRH5: AGM ≤ 1.7 µg/L	2	5	5	Impaired	Medium	ENRH5 (AGM) 2008 (1.2 µg/L) 2009 (1.1 µg/L) 2010 (1.5 µg/L) 2011 (1.6 µg/L) 2012 (1.4 µg/L) 2013 (1.5 µg/L) 2014 (1.6 µg/L) 2015 (2.2 µg/L) 2016 (1.9 µg/L) 2017 (2.2 µg/L)	ENRH5 (AGM) 2013 (1.5 µg/L) 2014 (1.6 µg/L) 2015 (2.2 µg/L) 2016 (1.9 µg/L) 2017 (2.2 µg/L) 2018 (1.6 µg/L) 2019 (1.6 µg/L)	This waterbody is impaired for this parameter because the annual geometric means exceeded the criteria more than once in a three-year period. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	6001	Biscayne Bay	Estuary	3M	Copper	≤ 3.7 µg/L	3c	5	5	Impaired	Medium	9/80	9/21	This waterbody is impaired for this parameter based on the number of exceedances for the sample size. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	6001	Biscayne Bay	Estuary	3M	Lead	≤ 8.5 µg/L	2	5	5	Impaired	Medium	8/79	8/31	This waterbody is impaired for this parameter based on the number of exceedances for the sample size. This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	6001	Biscayne Bay	Estuary	3M	Zinc	≤ 86 µg/L	2	5	5	Impaired	Medium	8/79	8/20	This waterbody is impaired for this parameter based on the number of exceedances for the sample size. This parameter is being added to

Group Name	WBID	Waterbody Name	Waterbody Type	Waterbody Class <sup>1</sup>	Parameters Assessed Using the Impaired Surface Waters Rule (IWR)	Criterion Concentration or Threshold Not Met	† Previous Summary Assessment Category <sup>2</sup>	† Current Assessment Category <sup>3</sup>	† Integrated Report Category Summary Assessment	Summary Assessment Status	Priority for TMDL Development <sup>4</sup>	Planning Period Assessment Data <sup>5</sup>	Verified Period Assessment Data <sup>5</sup>	Comments
														the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	8091C	Crandon Park South	Beach	3M	Bacteria (Beach Advisories)	< 21 days of beach advisories	2	5	5	Impaired	High	Beach Advisories 2008 (no advisory) 2009 (no advisory) 2010 (0 days) 2011 (5 days) 2012 (0 days) 2013 (0 days) 2014 (0 days) 2015 (0 days) 2016 (0 days) 2017 (6 days)	Beach Advisories 2013 (0 days) 2014 (0 days) 2015 (0 days) 2016 (0 days) 2017 (6 days) 2018 (25 days) 2019 (34 days)	This waterbody is impaired for this parameter because there were 21 days or more of beach advisories in the verified period. This is a beach WBID, which are assessed solely on beach advisory information received from DOH.^ This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	8091C1	Crandon Park North	Beach	3M	Bacteria (Beach Advisories)	< 21 days of beach advisories	NA	5	5	Impaired	High	Beach Advisories 2008 (12 days) 2009 (1 days) 2010 (15 days) 2011 (0 days) 2012 (0 days) 2013 (0 days) 2014 (0 days) 2015 (0 days) 2016 (4 days) 2017 (6 days)	Beach Advisories 2013 (0 days) 2014 (0 days) 2015 (0 days) 2016 (4 days) 2017 (6 days) 2018 (20 days) 2019 (28 days)	This waterbody is impaired for this parameter because there were 21 days or more of beach advisories in the verified period. This is a beach WBID, which are assessed solely on beach advisory information received from DOH.^ This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.
Southeast Coast - Biscayne Bay	8093F	Haulover Beach - North	Beach	3M	Bacteria (Beach Advisories)	< 21 days of beach advisories	2	5	5	Impaired	High	Beach Advisories 2008 (no advisory) 2009 (no advisory) 2010 (0 days) 2011 (0 days) 2012 (0 days) 2013 (0 days) 2014 (0 days) 2015 (7 days) 2016 (0 days) 2017 (0 days)	Beach Advisories 2013 (0 days) 2014 (0 days) 2015 (7 days) 2016 (0 days) 2017 (0 days) 2018 (0 days) 2019 (186 days)	This waterbody is impaired for this parameter because there were 21 days or more of beach advisories in the verified period. This is a beach WBID, which are assessed solely on beach advisory information received from DOH.^ This parameter is being added to the Verified List and the department is requesting EPA add it to the 303(d) List.

<sup>1</sup> Florida's waterbody classifications are defined as:

- 1 - Potable water supplies
- 2 - Shellfish propagation or harvesting
- 3F - Fish consumption; recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in fresh water
- 3M - Fish consumption; recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in marine water
- 3F or 3M - Limited - Fish consumption; recreation or limited recreation; and/or propagation and maintenance of a limited population of fish and wildlife
- 4 - Agricultural water supplies
- 5 - Navigation, utility, and industrial use

<sup>2</sup> The previous summary assessment is based on the most recent basin assessment. The basin list adoptions are as follows: Group 1 in 2019; Group 2 in 2020, Group 3 in 2016, Group 4 in 2017, Group 5 in 2018.

<sup>3</sup> The current assessment includes data from the Planning Period (January 1, 2008 through December 31, 2017) and the Verified Period (January 1, 2013 through June 30, 2020).

† EPA's Integrated Report Category:

- 1 - Attains all designated uses.

- 2 - Attains some designated uses and insufficient or no information or data are present to determine if remaining uses are attained.
- 2b - Attains one or more designated uses and a Reasonable Assurance Plan has already been completed.
- 2e - Attains one or more designated uses and an alternative restoration plan has already been completed.
- 2t - Attains one or more designated uses and a Total Maximum Daily Load (TMDL) has already been completed.
- 3a - No data and information are present to determine if any designated use is attained.
- 3b - Some data and information are present but not enough to determine if any designated use is attained.
- 3c - Enough data and information are present to determine that one or more designated uses may not be attained according to the Planning List methodology.
- 4a - Impaired for one or more designated uses but does not require TMDL development because a TMDL has already been completed.
- 4b - Impaired for one or more designated uses but does not require TMDL development because the water will attain water quality standards due to existing or proposed measures.
- 4c - Impaired for one or more criteria or designated uses but does not require TMDL development because impairment is not caused by a pollutant.
- 4d - Waterbody indicates nonattainment of water quality standards, but the Department does not have enough information to determine a causative pollutant; or current data show a potentially adverse trend in nutrients or nutrient response variables; or there are exceedances of stream nutrient thresholds, but the Department does not have enough information to fully assess nonattainment of the stream nutrient standard.
- 4e - Waterbody indicates nonattainment of water quality standards and pollution control mechanisms or restoration activities are in progress or planned to address nonattainment of water quality standards, but the Department does not have enough information to fully evaluate whether proposed pollution mechanisms will result in attainment of water quality standards.
- 5 - Water quality standards are not attained and a TMDL is required.

<sup>4</sup> TMDL priorities of High, Medium, and Low are determined per rule 62-303.500, F.A.C. For Mercury (In Fish Tissue) Listings, a statewide TMDL for mercury was adopted in 2012.

<sup>5</sup> Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples.

Where Biology data are presented as SCI (n=y), y represents the total number of samples; WBID Mean is the average value of all temporally independent biological health assessment scores over the assessment period; Mean 1 is the first temporally independent average of all biological health assessments within the most recent consecutive three month period; Mean 2 is the second temporally independent average of all biological health assessments within the most recent consecutive three month period prior to the most recent biological health assessment.

Beach advisories are based on FL Dept of Health Enterococcus criterion of >70 CFU/100mL. Beach advisory data are provided by the Florida Department of Health 2019 Beach Advisories.

Fish advisory data are provided by the Florida Department of Health 2020 Fish Advisories.

Abbreviations: WBID - Waterbody Identification; NA - Not Applicable, does not apply, or was not assessed in the previous cycle (i.e. it's a new WBID, waterbody type change, etc.);

ENR - Estuary Nutrient Region; AAM - Annual Arithmetic Mean; AGM - Annual Geometric Mean; LTA - Long Term Average; LTAAM - Long Term Annual Arithmetic Mean; SSAC - Site Specific Alternative Criteria; WQBEL - Water Quality Based Effluent Limit.

The Southeast District Verified List is based on IWR Run 60 and the Impaired Waters Rule (IWR), Chapter 62-303, Florida Administrative Code, with the effective date of 2/17/2016.

**Table 11. WBIDs with their Out-of-compliance Parameters or Exceeds Background Conditions**

WBID	SFWMD Canal Name	Local Name	Total Annual Samples (N)	Parameters not in Compliance or Exceeds Background Conditions	State-Listed Parameters
3283	C-9	Snake Creek	578	DO%, Ortho Phosphate , Specific Conductivity, Total Phosphorus	DO%
3284	C-9	Snake Creek	204	DO%, Escherichia Coli	DO%
3285	C-8	Biscayne Canal	672	DO%, Specific Conductivity	DO%
3286	C-4	Tamiami Canal	465	DO%, Nitrate+Nitrite, Ortho Phosphate , Total Phosphorus	DO%
3287	C-7	Little River	354	Ammonia Nitrogen, DO%, Escherichia Coli, Mercury, Total Phosphorus, TSS	DO%, Escherichia Coli
3288	C-6	Miami River	956	DO%, Enterococci, Escherichia Coli, Ortho Phosphate , Total Phosphorus	DO%, Enterococci
3290	C-6	Upper Miami River	181	Ammonia Nitrogen, DO%, Enterococci, Escherichia Coli	DO%
3292	C-3	Coral Gables Canal	243	BOD, DO%, Escherichia Coli	DO%, Escherichia Coli
3293	C-2	Snapper Creek	471	BOD, DO%	DO%
3295	C-100	Cutler Drain	710	DO%, Ortho Phosphate , Total Phosphorus	
3297	C-1	Black Creek	574	DO%, Ortho Phosphate , TDS	DO%
3300	C-102N	Princeton Canal	702	BOD, DO%, Ortho Phosphate , Total Phosphorus	DO%
3302	C-103	Mowry Canal	708	DO%, Ortho Phosphate , Specific Conductivity, Total Phosphorus	DO%
3303	C-111	Aerojet Canal	234	DO%, Nitrate+Nitrite, Ortho Phosphate , Total Phosphorus	DO%
3304		Military Canal	467	DO%, Enterococci, Ortho Phosphate , Specific Conductivity, TDS, Total Phosphorus	DO%, Specific Conductivity
3305		North Canal	243	DO%, TDS	DO%
3306		Florida City Canal	457	DO%, Ortho Phosphate , TDS	
6002		Manatee Bay	234	Color (Apparent), DO%, Nitrate+Nitrite, Total Phosphorus	
6003		Barnes Sound	261	DO%, Nitrate+Nitrite, Total Phosphorus,	

WBID	SFWMDCanal Name	Local Name	Total Annual Samples (N)	Parameters not in Compliance or Exceeds Background Conditions	State-Listed Parameters
3226H1		Dumbfoundling Bay	468	DO%, Escherichia Coli, Total Phosphorus, TSS,	Nutrients (Chlorophyll-A)
3226H2		Bakers Inlet	448	DO%, Total Phosphorus, TSS,	Nutrients (Chlorophyll-A)
3226H3		Rickenbacker Basin	580	DO%, Total Phosphorus, TSS,	Nutrients (Chlorophyll-A)
3226H5			652	Color (Apparent), DO%, Escherichia Coli, Total Phosphorus, TSS	
3226H6			1576	DO%, Enterococci, Escherichia Coli, Total Phosphorus, TSS	
3226L		Oleta River	450	BOD, DO%, Enterococci, Escherichia Coli, TDS	DO%, Enterococci
3286A	C6	Miami River West	234	DO%, Ortho Phosphate	DO%
3286C	C-5	Comfort Canal	233	DO%, Escherichia Coli	DO%, Escherichia Coli
3288A		Wagner Creek	628	COD, DO%, Enterococci, Escherichia Coli, TDS	DO%, Escherichia Coli
3288B	C-6	Lower Miami River	234	DO%, Enterococci, Escherichia Coli, TSS	Enterococci, Nutrients
3292A	C-3	Coral Gables Canal	77	DO%, Enterococci, Escherichia Coli	
3298B1	L31-E	L31-E	234	DO%, Enterococci, Specific Conductivity, TDS	DO%, Nutrients
6001C		Card Sound	663	Color (Apparent), DO%, Total Phosphorus, TSS	
6001D			1177	Color (Apparent), DO%, Escherichia Coli, Total Phosphorus, TSS	
6001E			357	DO%, Nitrate+Nitrite, Total Phosphorus, TSS	
6001F			971	DO%, Escherichia Coli	
6001G			486	DO%, Total Phosphorus, TSS	
6001H			510	DO%, Total Phosphorus, TSS	

**Attachment 1.** Sampling frequency of each parameter per station. **M** = MONTHLY: JAN - DEC; **B** = BIMONTHLY: JAN, MAR, MAY, JUL, SEP, NOV; **Q** = QUARTERLY: MAR, JUN, SEP, DEC; **SA** = SEMI-ANNUAL: MAR, SEP; **A** = ANNUALLY: MAR.

Station	Physical	PAR	Entero	Ecoli	TP	NH3-N	NOx-N	Color	Turb	Chl-a	O-P04	TKN	Cu-FW	Pb-FW	Zn-FW	Cd-FW	HRDNES	Cu-SW	Pb-SW	Zn-SW	Cd-SW	TSS	TDS	BOD	COD	As	Cr	Hg	Ni
AC01	M	M	M	M	M	M	M		M	M	M	M										Q							
AC03	M		M	M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
AC06	M		M	M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
AR03	M		B	B	M	M	M		M	M	M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
BB02	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB04	M	M	M		M	M	M	M	M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB05A	M	M	M		M	M	M	M	M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB08	M		M		M	M	M		M	M	M	M																	
BB09	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB10	M	M	M		M	M	M		M	M	M	M																	
BB11	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB14	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB15A	M		M		M	M	M		M	M	M	M																	
BB17	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB18	M	M	M		M	M	M		M	M	M	M																	
BB22	M	M	M		M	M	M	M	M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB24	M	M	M		M	M	M		M		M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB25	M		M																										
BB26	M	M	M		M	M	M		M	M	M	M																	
BB28	M		M																										
BB31	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB32	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB34	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB37	M	M	B		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB38	M	M	B		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB39A	M	M	B		M	M	M	M	M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB41	M	M	B		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB47	M	M	B		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BB48	M	M	M		M	M	M		M	M	M	M																	
BB50	M	M			M	M	M	M	M	M	M	M																	
BB51	M	M			M	M	M	M	M	M	M	M																	
BB52	M																	1 in 5	1 in 5	1 in 5	1 in 5								
BB53	M																	1 in 5	1 in 5	1 in 5	1 in 5								
BBMB1	M	M	M		M	M	M	M	M	M	M	M																	
BBMB2	M		M		M	M	M	M	M	M	M	M																	
BBMB3	M		M		M	M	M	M	M	M	M	M																	
BBMB4	M		M		M	M	M	M	M	M	M	M																	
BBOR1	M	M	M		M	M	M		M	M	M	M										Q							
BBOR2	M	M	M		M	M	M		M	M	M	M										Q							
BISC101	M	M			M	M	M		M	M	M	M																	
BISC121	M	M			M	M	M		M	M	M	M																	

Station	Physical	PAR	Entero	Ecoli	TP	NH3-N	NOx-N	Color	Turb	Chl-a	O-P04	TKN	Cu-FW	Pb-FW	Zn-FW	Cd-FW	HRDNES	Cu-SW	Pb-SW	Zn-SW	Cd-SW	TSS	TDS	BOD	COD	As	Cr	Hg	Ni
BISC122	M	M			M	M	M		M	M	M	M																	
BISC127	M	M	M		M	M	M		M	M	M	M																	
BL01	B		B															1 in 5	1 in 5	1 in 5	1 in 5								
BL02	M																												
BL03	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
BL06	M			B	M	M	M		M		M	M																	
BL12	M			B	M	M	M	M	M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
BS01	M	M	M	M	M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
BS04	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
BS07	M			M																									
BS10	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
BS11	M			M	M	M	M		M		M	M																	
CD01A	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
CD02	M			B	M	M	M		M		M	M										Q	Q	Q	Q	A	1 in 5	A	1 in 5
CD05	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
CD09	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
CG01	M	M	M	M	M	M	M		M		M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
CG02A	M		M	M	M	M	M		M		M	M																	
CG07	M			M	M	M	M		M	M	M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
CM02	M			M	M	M	M				M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
FC03	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
FC16	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
GL02	M		M	M	M	M	M		M			M																	
GL03	B		B	B									A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
KBB1	M		M		M	M	M		M	M	M	M										Q	Q	Q	Q				
L31E1	M		M	M	M	M	M		M		M	M	A	A	A	A	A	1 in 5	1 in 5	1 in 5	1 in 5	Q	Q	Q	Q	A	1 in 5	A	1 in 5
LR01	M	M	M	M	M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
LR05	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
LR06	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
LR08	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
LR10	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MI01	M																	1 in 5	1 in 5	1 in 5	1 in 5								
MI02	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MI03	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MR01	M	M	M	M	M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
MR03	M	M	M	M	M	M	M		M		M	M						1 in 5	1 in 5	1 in 5	1 in 5								
MR05	M	M	M	M	M	M	M		M		M	M																	
MR07	M	M	M	M	M	M	M		M		M	M										Q							
MR08	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MR15	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MW01	M																	1 in 5	1 in 5	1 in 5	1 in 5								
MW04	M			B	M	M	M	M	M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5



Station	Physical	PAR	Entero	Ecoli	TP	NH3-N	NOx-N	Color	Turb	Chl-a	O-P04	TKN	Cu-FW	Pb-FW	Zn-FW	Cd-FW	HRDNES	Cu-SW	Pb-SW	Zn-SW	Cd-SW	TSS	TDS	BOD	COD	As	Cr	Hg	Ni
MW05	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
MW13	M			B	M	M	M	M	M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
NO07A	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
OL02	M		M	M																									
OL03	M		M	M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
PR01	M																												
PR03	M			B	M	M	M	M	M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
PR04A	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
PR08	M			M	M	M	M	M	M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
SK01	M	M	M		M	M	M		M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
SK02	M			M	M	M			M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
SK05	M			M	M	M	M		M		M	M																	
SK09	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
SK10	M			M	M	M	M		M		M	M																	
SP01	M	M	M	M	M	M	M	M	M	M	M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
SP04	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
SP08	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
TM02	M		M	M	M	M	M		M		M	M						1 in 5	1 in 5	1 in 5	1 in 5	Q							
TM03A	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
TM05	M			M	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
TM08	M			B	M	M	M		M		M	M	A	A	A	A	A					Q	Q	Q	Q	A	1 in 5	A	1 in 5
WC02	M	M	M	M	M	M	M		M		M	M						1 in 5	1 in 5	1 in 5	1 in 5								
WC03	M		M	M	M	M	M		M			M																	
WC04	M		M	M	M	M	M		M		M	M	SA	SA	SA	SA	SA					Q	Q	Q	Q	A	1 in 5	A	1 in 5

**Attachment 2.** Statistical summaries by WBID for each parameter and frequencies of compliance with established State or County criteria.

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Ammonia Nitrogen	3283	Snake Creek/C-9	-	.5	mg/L	217	225	96	Compliant	0.1	0.005	0.15	0.23	0.45	0.72
Ammonia Nitrogen	3284	Snake Creek/C-9	-	.5	mg/L	85	86	99	Compliant	0.099	0.005	0.16	0.24	0.32	1.77
Ammonia Nitrogen	3285	Biscayne Canal/C-8	-	.5	mg/L	165	176	94	Compliant	0.083	0.005	0.11	0.24	0.54	0.78
Ammonia Nitrogen	3286	Tamiami Canal/C-4	-	.5	mg/L	157	169	93	Compliant	0.295	0.01	0.34	0.42	0.51	0.79
Ammonia Nitrogen	3287	Little River/C-7	-	.5	mg/L	263	354	74	Compliant	0.347	0.01	0.31	0.52	2.81	5.43
Ammonia Nitrogen	3288	Miami River/C-6	-	.5	mg/L	363	364	100	Compliant	0.083	0.005	0.1	0.19	0.35	0.57
Ammonia Nitrogen	3290	Upper Miami River/C-6	-	.5	mg/L	154	181	85	Compliant	0.142	0.005	0.19	0.37	0.64	0.89
Ammonia Nitrogen	3292	Coral Gables Canal/C-3	-	.5	mg/L	77	90	86	Compliant	0.1	0.005	0.13	0.38	0.66	1.01
Ammonia Nitrogen	3293	Snapper Creek/C-2	-	.5	mg/L	178	180	99	Compliant	0.196	0.005	0.28	0.34	0.425	0.63
Ammonia Nitrogen	3295	Cutler Drain/C-100	-	.5	mg/L	262	264	99	Compliant	0.016	0.005	0.018	0.03	0.08	8.91
Ammonia Nitrogen	3297	Black Creek/C-1	-	.5	mg/L	270	270	100	Compliant	0.048	0.002	0.07	0.16	0.34	0.44
Ammonia Nitrogen	3300	Princeton Canal/C-102N	-	.5	mg/L	268	268	100	Compliant	0.023	0.005	0.018	0.09	0.3	0.45
Ammonia Nitrogen	3302	Mowry Canal/C-103	-	.5	mg/L	269	269	100	Compliant	0.028	0.005	0.02	0.09	0.21	0.4
Ammonia Nitrogen	3303	Aerojet Canal/C-111	-	.5	mg/L	85	86	99	Compliant	0.027	0.005	0.03	0.06	0.1	0.13
Ammonia Nitrogen	3304	Military Canal	-	.5	mg/L	174	174	100	Compliant	0.049	0.005	0.05	0.08	0.17	0.26
Ammonia Nitrogen	3305	North Canal	-	.5	mg/L	88	89	99	Compliant	0.027	0.005	0.03	0.04	0.08	0.54
Ammonia Nitrogen	3306	Florida City Canal	-	.5	mg/L	173	173	100	Compliant	0.021	0.005	0.02	0.04	0.07	0.42
Ammonia Nitrogen	6002	Manatee Bay	-	.5	mg/L	86	87	99	Compliant	0.064	0.005	0.08	0.11	0.16	0.31
Ammonia Nitrogen	6003	Barnes Sound	-	.5	mg/L	95	96	99	Compliant	0.078	0.005	0.09	0.145	0.22	0.31
Ammonia Nitrogen	3226H1	Dumbfoundling-Maule	-	.5	mg/L	170	172	99	Compliant	0.053	0.005	0.07	0.1	0.33	0.49
Ammonia Nitrogen	3226H2	Bakers Inlet	-	.5	mg/L	183	185	99	Compliant	0.038	0.005	0.07	0.09	0.11	0.16
Ammonia Nitrogen	3226H3	79th St Basin	-	.5	mg/L	217	219	99	Compliant	0.03	0.005	0.07	0.09	0.11	0.18
Ammonia Nitrogen	3226H5	79th St Basin	-	.5	mg/L	262	266	98	Compliant	0.04	0.005	0.07	0.1	0.21	0.39
Ammonia Nitrogen	3226H6		-	.5	mg/L	623	634	98	Compliant	0.032	0.005	0.04	0.1	0.15	3.04
Ammonia Nitrogen	3226L	Oleta River	-	.5	mg/L	90	90	100	Compliant	0.109	0.005	0.12	0.2	0.29	0.46
Ammonia Nitrogen	3226M1	Arch Creek	-	.5	mg/L	167	269	62	NA	0.272	0.005	0.33	0.7	1.45	2.38
Ammonia Nitrogen	3286A	Miami River West/C6	-	.5	mg/L	90	90	100	Compliant	0.15	0.05	0.16	0.2	0.26	0.48
Ammonia Nitrogen	3286C	Comfort Canal/C-5	-	.5	mg/L	86	86	100	Compliant	0.035	0.005	0.04	0.09	0.26	0.27
Ammonia Nitrogen	3288A	Wagner Creek	-	.5	mg/L	262	271	97	Compliant	0.185	0.03	0.19	0.28	0.46	1.12
Ammonia Nitrogen	3288B	Lower Miami River/C-6	-	.5	mg/L	92	93	99	Compliant	0.063	0.005	0.1	0.13	0.21	0.28
Ammonia Nitrogen	3292A	Coral Gables Canal/C-3	-	.5	mg/L	39	39	100	Compliant	0.022	0.005	0.02	0.04	0.05	0.07
Ammonia Nitrogen	3298A	Goulds Canal/C-102N	-	.5	mg/L	83	149	56	Compliant	0.35	0.007	0.42	0.78	2.179	4.68
Ammonia Nitrogen	3298B1	L31-E	-	.5	mg/L	83	83	100	Compliant	0.041	0.005	0.04	0.07	0.12	0.17
Ammonia Nitrogen	3303B	Aerojet Canal/C-111	-	.5	mg/L	3	3	100	Small N	0.105	0.07	0.11	0.15	0.15	0.15
Ammonia Nitrogen	6001C	Card Sound	-	.5	mg/L	238	241	99	Compliant	0.032	0.005	0.04	0.08	0.12	0.29
Ammonia Nitrogen	6001D		-	.5	mg/L	449	454	99	Compliant	0.051	0.005	0.08	0.1	0.17	0.35
Ammonia Nitrogen	6001E		-	.5	mg/L	128	131	98	Compliant	0.027	0.005	0.02	0.09	0.12	0.35
Ammonia Nitrogen	6001F		-	.5	mg/L	494	496	100	Compliant	0.05	0	0.06	0.095	0.15	0.279

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Ammonia Nitrogen	6001G		-	.5		180	183	98	Compliant	0.038	0.005	0.07	0.09	0.13	0.56
Ammonia Nitrogen	6001H		-	.5		186	188	99	Compliant	0.034	0.005	0.07	0.08	0.11	0.35
Arsenic	3283	Snake Creek/C-9	50	50	ug/L	16	16	100	Compliant	3.221	2	3	3	9	9
Arsenic	3285	Biscayne Canal/C-8	50	50	ug/L	14	14	100	Compliant	3.285	2	3	3	8	8
Arsenic	3286	Tamiami Canal/C-4	50	50	ug/L	14	14	100	Compliant	3.46	2	3	3	8	8
Arsenic	3287	Little River/C-7	50	50	ug/L	28	28	100	Compliant	3.115	2	3	3	7	8
Arsenic	3288	Miami River/C-6	50	50	ug/L	12	12	100	Compliant	3.568	2	3	4.5	9	9
Arsenic	3290	Upper Miami River/C-6	50	50	ug/L	8	8	100	Small N	2.852	2	3	3	3	3
Arsenic	3292	Coral Gables Canal/C-3	50	50	ug/L	7	7	100	Small N	3.491	2	3	3	13	13
Arsenic	3293	Snapper Creek/C-2	50	50	ug/L	14	14	100	Compliant	3.037	2	3	3	8	8
Arsenic	3295	Cutler Drain/C-100	50	50	ug/L	21	21	100	Compliant	3.231	2	3	3	8	9
Arsenic	3297	Black Creek/C-1	50	50	ug/L	16	16	100	Compliant	3.363	2	3	3	14	14
Arsenic	3300	Princeton Canal/C-102N	50	50	ug/L	21	21	100	Compliant	3.4	2	3	3	9	20
Arsenic	3302	Mowry Canal/C-103	50	50	ug/L	20	20	100	Compliant	3.281	2	3	3	13.5	14
Arsenic	3303	Aerojet Canal/C-111	50	50	ug/L	7	7	100	Small N	2.831	2	3	3	3	3
Arsenic	3304	Military Canal	50	50	ug/L	14	14	100	Compliant	3.037	2	3	3	8	8
Arsenic	3305	North Canal	50	50	ug/L	7	7	100	Small N	3.738	2	3	7	9	9
Arsenic	3306	Florida City Canal	50	50	ug/L	12	12	100	Compliant	3.528	3	3	3	9	9
Arsenic	3226H6		50	50	ug/L	10	10	100	Compliant	3	3	3	3	3	3
Arsenic	3226L	Oleta River	50	50	ug/L	7	7	100	Small N	3.126	2	3	3	6	6
Arsenic	3226M1	Arch Creek	50	50	ug/L	15	15	100	Compliant	3.164	2	3	3	6	6
Arsenic	3286A	Miami River West/C6	50	50	ug/L	7	7	100	Small N	3.195	2	3	3	7	7
Arsenic	3286C	Comfort Canal/C-5	50	50	ug/L	7	7	100	Small N	3.363	2	3	3	10	10
Arsenic	3288A	Wagner Creek	50	50	ug/L	9	9	100	Small N	2.868	2	3	3	3	3
Arsenic	3298A	Goulds Canal/C-102N	50	50	ug/L	7	7	100	Small N	2.831	2	3	3	3	3
Arsenic	3298B1	L31-E	50	50	ug/L	6	6	100	Small N	3.267	3	3	3	5	5
Arsenic	6001D		50	50	ug/L	5	5	100	Compliant	3	3	3	3	3	3
Barium	3226H6		-	-	ug/L	NA	10	NA	NA	1	1	1	1	1	1
BOD_5	3292	Coral Gables Canal/C-3	*	*	mg/L	NA	4		Non-Compliant	1.686	1	2	2	3.79	5
BOD_5	3293	Snapper Creek/C-2	*	*	mg/L	NA	8		Non-Compliant	1.324	0.2	1	2	2.24	3
BOD_5	3300	Princeton Canal/C-102N	*	*	mg/L	NA	12		Non-Compliant	1.316	0.2	1	2	2	2
BOD_5	3226L	Oleta River	*	*	mg/L	NA	4		Non-Compliant	1.705	1	2	2	3	4
BOD_5	3226M1	Arch Creek	*	*	mg/L	NA	53	NA	NA	1.632	0.2	2	2	4	4.67
BOD_5	3298A	Goulds Canal/C-102N	*	*	mg/L	NA	4		Non-Compliant	1.404	0.2	2	2	2	2.06
Cadmium	3283	Snake Creek/C-9	*	-	ug/L	19	19	100	Compliant	0.478	0.15	1	1	1	1
Cadmium	3284	Snake Creek/C-9	*	-	ug/L	4	4	100	Small N	1	1	1	1	1	1
Cadmium	3285	Biscayne Canal/C-8	*	-	ug/L	17	17	100	Compliant	0.439	0.15	0.25	1	1	1
Cadmium	3286	Tamiami Canal/C-4	*	-	ug/L	16	16	100	Compliant	0.469	0.15	0.625	1	1	1
Cadmium	3287	Little River/C-7	*	-	ug/L	32	32	100	Compliant	0.469	0.15	0.625	1	1	1

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Cadmium	3288	Miami River/C-6	*	-	ug/L	8	8	100	Compliant	0.497	0.012	1	1	2	2
Cadmium	3290	Upper Miami River/C-6	*	-	ug/L	9	9	100	Compliant	0.451	0.15	0.625	1	1	1
Cadmium	3292	Coral Gables Canal/C-3	*	-	ug/L	9	9	100	Small N	0.413	0.15	0.25	1	1	1
Cadmium	3293	Snapper Creek/C-2	*	-	ug/L	15	16	94	Compliant	0.504	0.15	0.9	1	1	1
Cadmium	3295	Cutler Drain/C-100	*	-	ug/L	23	25	92	Compliant	0.484	0.15	0.7	1	1	1
Cadmium	3297	Black Creek/C-1	*	-	ug/L	18	18	100	Compliant	0.51	0.15	1	1	1	1
Cadmium	3300	Princeton Canal/C-102N	*	-	ug/L	23	24	96	Compliant	0.504	0.15	0.85	1	1	1
Cadmium	3302	Mowry Canal/C-103	*	-	ug/L	24	24	100	Compliant	0.469	0.15	0.625	1	1	1
Cadmium	3303	Aerojet Canal/C-111	*	-	ug/L	8	8	100	Small N	0.469	0.15	0.625	1	1	1
Cadmium	3304	Military Canal	*	-	ug/L	15	16	94	Compliant	0.528	0.15	0.85	1	1	1
Cadmium	3305	North Canal	*	-	ug/L	8	9	89	Compliant	0.455	0.15	0.6	1	1	1
Cadmium	3306	Florida City Canal	*	-	ug/L	14	15	93	Compliant	0.501	0.15	1	1	1	1
Cadmium	3226H1	Dumbfoundling-Maule	8.8	-	ug/L	4	4	100	Small N	0.045	0.002	0.501	1	1	1
Cadmium	3226H2	Bakers Inlet	8.8	-	ug/L	4	4	100	Small N	0.056	0.002	0.502	1	1	1
Cadmium	3226H3	Rickenbacker Basin	8.8	-	ug/L	5	5	100	Small N	0.104	0.002	1	1	1	1
Cadmium	3226H5	79th St Basin	-	-		5	5	100	Small N	0.347	0.005	1	1	1	1
Cadmium	3226H6		-	-		14	14	100	Compliant	0.198	0.002	1	1	1	1
Cadmium	3226L	Oleta River	8.8	-	ug/L	9	9	100	Small N	0.622	0.25	0.8	1	2	2
Cadmium	3226M1	Arch Creek	-	-		18	18	100	Compliant	0.594	0.15	1	1	2	2
Cadmium	3286A	Miami River West/C6	-	-	ug/L	8	8	100	Small N	0.469	0.15	0.625	1	1	1
Cadmium	3286C	Comfort Canal/C-5	-	-	ug/L	8	8	100	Small N	0.469	0.15	0.625	1	1	1
Cadmium	3288A	Wagner Creek	8.8	-	ug/L	18	18	100	Compliant	0.596	0.092	1	1	2	2
Cadmium	3298A	Goulds Canal/C-102N	-	-	ug/L	7	7	100	Small N	0.512	0.15	0.75	1	1	1
Cadmium	3298B1	L31-E	-	-	ug/L	8	8	100	Small N	0.469	0.15	0.625	1	1	1
Cadmium	6001C	Card Sound	8.8	-	ug/L	4	4	100	Small N	0.211	0.002	1	1	1	1
Cadmium	6001D		-	-		9	9	100	Compliant	0.071	0.002	1	1	1	1
Cadmium	6001F		-	-		7	7	100	Compliant	0.012	0.002	0.002	1	1	1
Cadmium	6001H		-	-		4	4	100	Compliant	0.053	0.002	0.502	1	1	1
Chlorophyll-A	3288	Miami River/C-6	-	-	ug/l	NA	3	NA	NA	6.746	4.18	7.25	10.13	10.13	10.13
Chlorophyll-A	3297	Black Creek/C-1	-	-	ug/l	NA	44	NA	Compliant	1.918	0.347	1.88	2.74	5.66	11.9
Chlorophyll-A	3303	Aerojet Canal/C-111	-	-	ug/l	NA	86	NA	Compliant	1.94	0.39	2.025	2.8	4.03	4.35
Chlorophyll-A	6002	Manatee Bay	.4	-	ug/l	NA	87	NA	Non-Compliant	0.47	0.001	0.46	0.63	1.4	2.98
Chlorophyll-A	6003	Barnes Sound	.4	-	ug/l	NA	96	NA	Non-Compliant	0.825	0.08	0.735	1.245	2.29	8.11
Chlorophyll-A	3226H1	Dumbfoundling-Maule	1.7	-	ug/l	NA	171	NA	Non-Compliant	3.893	1.13	3.94	5.5	8.46	13.7
Chlorophyll-A	3226H2	Bakers Inlet	1.7	-	ug/l	NA	179	NA	Non-Compliant	1.977	0.51	1.91	2.52	5.77	11.68
Chlorophyll-A	3226H3	Rickenbacker Basin	1.1	-	ug/l	NA	139	NA	Non-Compliant	0.956	0.16	0.92	1.21	2.77	7.61
Chlorophyll-A	3226H5	79th St Basin	1.7	-	ug/l	NA	262	NA	Non-Compliant	1.942	0.37	1.71	2.86	7.72	58.67
Chlorophyll-A	3226H6		1.7	-	ug/l	NA	634	NA	Non-Compliant	1.695	0.16	1.62	2.49	5.55	36.52
Chlorophyll-A	3226M1	Arch Creek	-	-	ug/l	NA	86	NA	Compliant	2.729	0.94	2.935	3.79	5.86	8.84

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Chlorophyll-A	3288B	Lower Miami River/C-6	-	-	ug/l	NA	89	NA	Compliant	1.457	0.16	1.36	1.8	5.48	12.91
Chlorophyll-A	3298A	Goulds Canal/C-102N	-	-	ug/l	NA	53	NA	Compliant	2.803	0.423	2.5	3.72	8.13	10.3
Chlorophyll-A	3303B	Aerojet Canal/C-111	-	-	ug/l	NA	3	NA	Compliant	0.923	0.67	1.03	1.14	1.14	1.14
Chlorophyll-A	6001C	Card Sound	.5	-	ug/l	NA	241	NA	Non-Compliant	0.512	0.001	0.5	0.65	1.48	3.56
Chlorophyll-A	6001D		.5		ug/l	NA	452	NA	Non-Compliant	0.896	0.08	0.875	1.56	3.21	16.86
Chlorophyll-A	6001E		.7		ug/l	NA	131	NA	Non-Compliant	0.693	0.24	0.64	0.9	1.82	5.71
Chlorophyll-A	6001F		.4		ug/l	NA	504	NA	Non-Compliant	0.6	0.001	0.591	0.951	1.93	45.1
Chlorophyll-A	6001G		.2		ug/l	NA	182	NA	Non-Compliant	0.373	0.08	0.36	0.43	1.05	2.84
Chlorophyll-A	6001H		.2		ug/l	NA	188	NA	Non-Compliant	0.329	0.08	0.35	0.44	0.75	2.04
Chromium	3283	Snake Creek/C-9	*	500	ug/L	7	7	100	Small N	0.741	0.35	1	1	1	1
Chromium	3285	Biscayne Canal/C-8	*	500	ug/L	6	6	100	Small N	0.705	0.35	1	1	1	1
Chromium	3286	Tamiami Canal/C-4	*	500	ug/L	5	5	100	Small N	0.657	0.35	1	1	1	1
Chromium	3287	Little River/C-7	*	500	ug/L	12	12	100	Compliant	0.705	0.35	1	1	1	1
Chromium	3293	Snapper Creek/C-2	*	500	ug/L	4	4	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3295	Cutler Drain/C-100	*	500	ug/L	6	6	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3297	Black Creek/C-1	*	500	ug/L	5	5	100	Small N	0.657	0.35	1	1	1	1
Chromium	3300	Princeton Canal/C-102N	*	500	ug/L	6	6	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3302	Mowry Canal/C-103	*	500	ug/L	6	6	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3304	Military Canal	*	500	ug/L	4	4	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3306	Florida City Canal	*	500	ug/L	4	4	100	Small N	0.592	0.35	0.675	1	1	1
Chromium	3226H1	Dumbfoundling-Maule	*	500	ug/L		4	NA	Compliant	0.497	0.225	0.636	1	1	1
Chromium	3226H2	Bakers Inlet	*	500	ug/L		4	NA	Compliant	0.622	0.214	0.85	1	1	1
Chromium	3226H3	Rickenbacker Basin	*	500	ug/L		5	NA	Compliant	0.607	0.27	1	1	1	1
Chromium	3226H6		*	500	ug/L		14	NA	NA	0.922	0.286	1	1	2.25	2.25
Chromium	3288A	Wagner Creek	*	500	ug/L		5	NA	Compliant	1.15	0.35	1	1	5.74	5.74
Chromium	6001C	Card Sound	*	500	ug/L		4	NA	NA	0.733	0.289	1	1	1	1
Chromium	6001D		*	500	ug/L		9	NA	NA	0.458	0.118	1	1	1	1
Chromium	6001H		*	500	ug/L		4	NA	NA	0.431	0.182	0.595	1	1	1
COD	3283	Snake Creek/C-9	-	-	mg/L	NA	76	NA	Compliant	27.979	3	31	35	41	42
COD	3284	Snake Creek/C-9	-	-	mg/L	NA	30	NA	Compliant	35.593	18	36.5	43	54	70
COD	3285	Biscayne Canal/C-8	-	-	mg/L	NA	58	NA	Compliant	25.069	3	28	34	42	46
COD	3286	Tamiami Canal/C-4	-	-	mg/L	NA	53	NA	Compliant	29.468	9	33	37	46	48
COD	3287	Little River/C-7	-	-	mg/L	NA	120	NA	Compliant	26.791	3	29	35.5	43	81
COD	3288	Miami River/C-6	-	-	mg/L	NA	38	NA	Compliant	22.978	6	23	29	82	97
COD	3290	Upper Miami River/C-6	-	-	mg/L	NA	35	NA	Compliant	27.824	2	31	37	55	60
COD	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	30	NA	Compliant	13.198	3	15	20	41	58
COD	3293	Snapper Creek/C-2	-	-	mg/L	NA	60	NA	Compliant	27.208	2	30	33.5	38	39
COD	3295	Cutler Drain/C-100	-	-	mg/L	NA	89	NA	Compliant	8.607	2	10	12	17	58
COD	3297	Black Creek/C-1	-	-	mg/L	NA	74	NA	Compliant	16.904	2	23	34	42	47

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
COD	3300	Princeton Canal/C-102N	-	-	mg/L	NA	89	NA	Compliant	9.415	2	8	25	50	55
COD	3302	Mowry Canal/C-103	-	-	mg/L	NA	89	NA	Compliant	10.187	2	9	23	47	65
COD	3303	Aerojet Canal/C-111	-	-	mg/L	NA	29	NA	Compliant	17.037	3	18	23	29	36
COD	3304	Military Canal	-	-	mg/L	NA	58	NA	Compliant	11.536	2	13.5	18	25	33
COD	3305	North Canal	-	-	mg/L	NA	30	NA	Compliant	5.271	2	6	8	11	14
COD	3306	Florida City Canal	-	-	mg/L	NA	57	NA	Compliant	7.032	2	7	11	22	31
COD	3226H3	Rickenbacker Basin	-	-	mg/L	NA	3	NA	NA	219.545	151	240	292	292	292
COD	3226H6		-	-	mg/L	NA	4	NA	NA	99.499	27	129.5	222	261	261
COD	3226L	Oleta River	-	-	mg/L	NA	29	NA	Compliant	33.949	3	35	43	98	120
COD	3226M1	Arch Creek	-	-	mg/L	NA	8	NA	Compliant	53.489	3	47	94	245	270
COD	3286A	Miami River West/C6	-	-	mg/L	NA	29	NA	Compliant	33.809	15	38	44	52	59
COD	3286C	Comfort Canal/C-5	-	-	mg/L	NA	29	NA	Compliant	18.392	3	23	26	36	49
COD	3288A	Wagner Creek	-	-	mg/L	NA	4	NA	Compliant	21.282	3	21	36	70	109
COD	3292A	Coral Gables Canal/C-3	-	-	mg/L	NA	9	NA	Compliant	32.378	10	33	62	97	97
COD	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	38	NA	Compliant	23.893	3	17.5	44	209	214
COD	3298B1	L31-E	-	-	mg/L	NA	29	NA	Compliant	20.307	2	25	36	53	68
COD	6001D		-	-	mg/L	NA	3	NA	NA	89.463	52	85	162	162	162
COD	6001F		-	-	mg/L	NA	5	NA	NA	41.218	15	24	135	144	144
Color (Apparent)	3283	Snake Creek/C-9	-	-	PCU	NA	3		NA	39.925	37.000	40.000	43.000	43.000	43.000
Color (Apparent)	3285	Biscayne Canal/C-8	-	-	PCU	NA	3	NA	Compliant	39.967	38	40	42	42	42
Color (Apparent)	3287	Little River/C-7	-	-	PCU	NA	5	NA	Compliant	41.339	33	41	44	52	52
Color (Apparent)	3288	Miami River/C-6	-	-	PCU	NA	4	NA	NA	32.494	27	33.5	36.5	37	37
Color (Apparent)	3290	Upper Miami River/C-6	-	-	PCU	NA	3	NA	NA	40.125	34	38	50	50	50
Color (Apparent)	3295	Cutler Drain/C-100	-	-	PCU	NA	3	NA	NA	12.092	8	13	17	17	17
Color (Apparent)	3297	Black Creek/C-1	-	-	PCU	NA	119	NA	Compliant	22.367	2	35	45	58	70
Color (Apparent)	3300	Princeton Canal/C-102N	-	-	PCU	NA	139	NA	Compliant	20.843	2.5	30	50	60	80
Color (Apparent)	3302	Mowry Canal/C-103	-	-	PCU	NA	140	NA	Compliant	18.795	2.5	25	41	57	80
Color (Apparent)	3306	Florida City Canal	-	-	PCU	NA	7	NA	Compliant	9.157	5	10	12	15	15
Color (Apparent)	6002	Manatee Bay	-	-	PCU	NA	69	NA	Compliant	13.503	2.5	15	18	20	22
Color (Apparent)	6003	Barnes Sound	-	-	PCU	NA	69	NA	Compliant	10.015	2.5	10	12	20	35
Color (Apparent)	3226H2	Bakers Inlet	-	-	PCU	NA	131	NA	Compliant	10.687	5	10	15	25	27
Color (Apparent)	3226H3	Rickenbacker Basin	-	-	PCU	NA	71	NA	Compliant	8.109	2.5	9	10	12	18
Color (Apparent)	3226H5	79th St Basin	-	-	PCU	NA	24	NA	NA	10.338	2.5	10	13	15	28
Color (Apparent)	3226H6		-	-	PCU	NA	108	NA	NA	10.313	2.5	10	13	20	80
Color (Apparent)	3226M1	Arch Creek	-	-	PCU	NA	3	NA	NA	31.155	8	45	84	84	84
Color (Apparent)	3288A	Wagner Creek	-	-	PCU	NA	3	NA	NA	26.178	12	23	65	65	65
Color (Apparent)	3298A	Goulds Canal/C-102N	-	-	PCU	NA	57	NA	Compliant	6.923	2	7	10	20	25
Color (Apparent)	3298B1	L31-E	-	-	PCU	NA	4	NA	Compliant	22.635	15	22.5	30	35	35
Color (Apparent)	3303B	Aerojet Canal/C-111	-	-	PCU	NA	3	NA	Compliant	28.231	25	30	30	30	30

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Color (Apparent)	6001C	Card Sound	-	-	PCU	NA	8	NA	Compliant	9.031	2.5	11	12	16	16
Color (Apparent)	6001D		-	-	PCU	NA	73	NA	NA	24.285	0	30	37	45	56
Color (Apparent)	6001F		-	-	PCU	NA	365	NA	NA	6.401	0.5	7	11	22	36
Color (Apparent)	6001H		-	-	PCU	NA	9	NA	NA	8.37	6	10	10	10	10
Copper	3283	Snake Creek/C-9	*	400	ug/L	17	17	100	Compliant	0.795	0.35	0.35	2	2	2
Copper	3284	Snake Creek/C-9	*	400	ug/L	4	4	100	Small N	2	2	2	2	2	2
Copper	3285	Biscayne Canal/C-8	*	400	ug/L	15	15	100	Compliant	0.747	0.35	0.35	2	5	5
Copper	3286	Tamiami Canal/C-4	*	400	ug/L	14	14	100	Compliant	0.739	0.35	0.35	2	2	2
Copper	3287	Little River/C-7	*	400	ug/L	28	28	100	Compliant	0.901	0.35	1.55	2	2.7	3.8
Copper	3288	Miami River/C-6	*	400	ug/L	7	7	100	Compliant	1.317	0.35	2	2	4.67	4.67
Copper	3290	Upper Miami River/C-6	*	400	ug/L	8	8	100	Small N	1.068	0.35	2	2	7.5	7.5
Copper	3292	Coral Gables Canal/C-3	*	400	ug/L	8	8	100	Small N	0.793	0.35	0.825	2	2	2
Copper	3293	Snapper Creek/C-2	*	400	ug/L	14	14	100	Compliant	0.739	0.35	0.35	2	2	2
Copper	3295	Cutler Drain/C-100	*	400	ug/L	22	22	100	Compliant	0.714	0.35	0.35	2	2	2
Copper	3297	Black Creek/C-1	*	400	ug/L	16	16	100	Compliant	0.888	0.35	1.45	2	2	2
Copper	3300	Princeton Canal/C-102N	*	400	ug/L	21	21	100	Compliant	0.768	0.35	0.35	2	2	2
Copper	3302	Mowry Canal/C-103	*	400	ug/L	21	21	100	Compliant	1.031	0.35	2	2	2.4	2.9
Copper	3303	Aerojet Canal/C-111	*	400	ug/L	7	7	100	Small N	0.739	0.35	0.35	2	2	2
Copper	3304	Military Canal	*	400	ug/L	14	14	100	Compliant	0.897	0.35	0.9	2	2	2
Copper	3305	North Canal	*	400	ug/L	8	8	100	Small N	0.673	0.35	0.35	2	2	2
Copper	3306	Florida City Canal	*	400	ug/L	13	13	100	Compliant	0.782	0.35	0.35	2	2	2
Copper	3226H1	Dumbfoundling-Maule	3.7	400	ug/L	4	4	100	Small N	2.256	1.76	2	2.84	3.68	3.68
Copper	3226H2	Bakers Inlet	3.7	400	ug/L	3	4	75	Small N	2.797	2	2.255	4.305	6.1	6.1
Copper	3226H3	Rickenbacker Basin	3.7	400	ug/L	3	5	60	Small N	5.554	2	2	25.3	26.1	26.1
Copper	3226H5	79th St Basin	*	-	ug/L	5	5	100	Small N	2.062	2	2	2	2.33	2.33
Copper	3226H6		*	-	ug/L	14	14	100	Compliant	2.28	2	2	2.24	3.67	3.67
Copper	3226L	Oleta River	3.7	400	ug/L	8	8	100	Small N	1.031	0.35	0.9	2	4	4
Copper	3226M1	Arch Creek	-	-	ug/L	16	16	100	Compliant	0.917	0.35	1.3	2	2	2
Copper	3286A	Miami River West/C6	*	400	ug/L	7	7	100	Small N	0.739	0.35	0.35	2	2	2
Copper	3286C	Comfort Canal/C-5	*	400	ug/L	7	7	100	Small N	1.784	0.35	2	3.6	3.8	3.8
Copper	3288A	Wagner Creek	3.7	400	ug/L	12	16	75	Small N	1.861	0.35	2	3.05	21.1	21.1
Copper	3298A	Goulds Canal/C-102N	*	400	ug/L	6	6	100	Small N	0.739	0.35	0.35	2	2	2
Copper	3298B1	L31-E	*	400	ug/L	7	7	100	Small N	0.739	0.35	0.35	2	2	2
Copper	6001C	Card Sound	*	-	ug/L	4	4	100	Small N	2.067	2	2	2.14	2.28	2.28
Copper	6001D		*	-	ug/L	8	9	89	Small N	2.313	0.27	2	2.91	24.9	24.9
Copper	6001F		*	-	ug/L	7	7	100	Compliant	1.254	0.16	1.77	2	2.4	2.4
Copper	6001H		*	-	ug/L	4	4	100	Compliant	1.076	0.13	2	2.29	2.58	2.58
Dissolved Oxygen	3283	Snake Creek/C-9	-	-	mg/L	282	575	49	NA	3.634	0.35	4.11	6.25	8.15	9.6
Dissolved Oxygen	3284	Snake Creek/C-9	-	-	mg/L	144	204	71	NA	1.458	0.1	1.225	4.985	7.6	10.55

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Dissolved Oxygen	3285	Biscayne Canal/C-8	-	-	mg/L	209	674	31	NA	4.395	0.25	4.935	6.01	7.45	12.56
Dissolved Oxygen	3286	Tamiami Canal/C-4	-	-	mg/L	415	465	89	NA	1.284	0.04	1.27	2.5	4.91	8.78
Dissolved Oxygen	3287	Little River/C-7	-	-	mg/L	780	931	84	NA	1.978	0.08	2.14	3.35	5.27	10.19
Dissolved Oxygen	3288	Miami River/C-6	-	-	mg/L	409	956	43	NA	4.167	0.57	4.51	5.57	7.86	10.3
Dissolved Oxygen	3290	Upper Miami River/C-6	-	-	mg/L	299	477	63	NA	2.978	0.14	3.11	5.13	7.95	377
Dissolved Oxygen	3292	Coral Gables Canal/C-3	-	-	mg/L	136	243	56	NA	2.822	0.06	3.67	5.23	6.7	11.23
Dissolved Oxygen	3293	Snapper Creek/C-2	-	-	mg/L	388	471	82	NA	1.512	0.06	1.45	3.01	6.02	9.62
Dissolved Oxygen	3295	Cutler Drain/C-100	-	-	mg/L	269	710	38	NA	4.547	0.24	5.53	6.96	8.14	9.49
Dissolved Oxygen	3297	Black Creek/C-1	-	-	mg/L	351	615	57	NA	2.68	0.08	3.34	6.47	9.07	97.2
Dissolved Oxygen	3300	Princeton Canal/C-102N	-	-	mg/L	375	702	53	NA	3.257	0.11	3.86	5.13	6.72	9.44
Dissolved Oxygen	3302	Mowry Canal/C-103	-	-	mg/L	296	708	42	NA	3.735	0.25	4.79	6.95	9.59	15.73
Dissolved Oxygen	3303	Aerojet Canal/C-111	-	-	mg/L	33	234	14	NA	5.76	0.23	6.94	8.11	8.68	9.15
Dissolved Oxygen	3304	Military Canal	-	-	mg/L	52	467	11	NA	6.295	0.22	7.42	8.56	9.68	11.18
Dissolved Oxygen	3305	North Canal	-	-	mg/L	79	243	33	NA	4.648	0.55	4.74	5.97	7.58	9.88
Dissolved Oxygen	3306	Florida City Canal	-	-	mg/L	102	457	22	NA	5.072	0.43	5.62	6.86	9.02	11.6
Dissolved Oxygen	6002	Manatee Bay	-	-	mg/L	3	234	1	NA	6.265	3.41	6.305	6.95	7.71	9.29
Dissolved Oxygen	6003	Barnes Sound	-	-	mg/L	11	261	4	NA	6.071	1.69	6.27	6.95	7.74	8.72
Dissolved Oxygen	3226H1	Dumbfoundling-Maule	-	-	mg/L	49	468	10	NA	5.363	1.13	5.6	6.335	7.38	9.12
Dissolved Oxygen	3226H2	Bakers Inlet	-	-	mg/L	30	448	7	NA	5.628	1.82	5.835	6.36	6.92	11.6
Dissolved Oxygen	3226H3	Rickenbacker Basin	-	-	mg/L	6	580	1	NA	6.013	3.18	6.15	6.6	7.1	8.15
Dissolved Oxygen	3226H5	79th St Basin	-	-	mg/L	59	652	9	NA	5.789	1.81	6.21	6.7	7.6	10.21
Dissolved Oxygen	3226H6		-	-	mg/L	36	1576	2	NA	5.854	1.8	5.97	6.5	7.38	11.78
Dissolved Oxygen	3226L	Oleta River	-	-	mg/L	325	450	72	NA	3.053	0.39	3.07	4.11	5.93	7.4
Dissolved Oxygen	3226M1	Arch Creek	-	-	mg/L	388	684	57	NA	2.581	0.1	3.28	5.56	6.63	10.03
Dissolved Oxygen	3286A	Miami River West/C6	-	-	mg/L	231	234	99	Compliant	1.033	0.08	0.95	1.73	3.17	4.18
Dissolved Oxygen	3286C	Comfort Canal/C-5	-	-	mg/L	107	233	46	NA	3.568	0.16	4.33	5.92	7.5	9.16
Dissolved Oxygen	3288A	Wagner Creek	-	-	mg/L	532	628	85	NA	1.919	0.05	2.095	3.405	5.2	7.45
Dissolved Oxygen	3288B	Lower Miami River/C-6	-	-	mg/L	12	234	5	NA	5.447	0.33	5.7	6.23	6.95	7.87
Dissolved Oxygen	3292A	Coral Gables Canal/C-3	-	-	mg/L	38	77	49	NA	3.961	1.63	4.05	5.07	5.9	13.76
Dissolved Oxygen	3298A	Goulds Canal/C-102N	-	-	mg/L	180	447	40	NA	4.132	0.16	4.64	6.39	7.87	9.23
Dissolved Oxygen	3298B1	L31-E	-	-	mg/L	73	234	31	NA	4.225	0.38	5.815	7.14	8.43	9.09
Dissolved Oxygen	3303B	Aerojet Canal/C-111	-	-	mg/L	6	9	67	Small N	3.782	2.98	3.8	4.12	6.36	6.36
Dissolved Oxygen	6001C	Card Sound	-	-	mg/L	9	662	1	NA	6.081	1.23	6.14	6.77	7.43	10.36
Dissolved Oxygen	6001D		-	-	mg/L	139	1177	12	NA	5.415	0.71	5.85	6.56	7.62	13.84
Dissolved Oxygen	6001E		-	-	mg/L	6	357	2	NA	6.265	3.38	6.31	6.96	7.69	11.22
Dissolved Oxygen	6001F		-	-	mg/L	121	1236	10	NA	5.814	0.2	6.29	7.12	8.27	14.29
Dissolved Oxygen	6001G		-	-	mg/L	10	486	2	NA	6.298	0.85	6.35	6.99	7.83	8.75
Dissolved Oxygen	6001H		-	-	mg/L	6	510	1	NA	6.114	3.84	6.185	6.76	7.74	10.2
DO%	3283	Snake Creek/C-9	42	-	% Sat	1	578	0	Non-Compliant	45.508	5.1	52.1	77.6	98	116.8



Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
DO%	3284	Snake Creek/C-9	42	-	% Sat	204	204	0	Non-Compliant	17.073	1.2	13.6	57.1	94.8	127.1
DO%	3285	Biscayne Canal/C-8	42	-	% Sat	3	672	0	Non-Compliant	55.915	3.8	61.7	74.85	94.1	115.6
DO%	3286	Tamiami Canal/C-4	42	-	% Sat	465	465	0	Non-Compliant	15.807	0.5	15.9	30.3	60.9	113.4
DO%	3287	Little River/C-7	42	-	% Sat	3	931	0	Non-Compliant	24.62	1	26.8	41.2	65.2	148.9
DO%	3288	Miami River/C-6	42	-	% Sat	213	956	22	Non-Compliant	54.271	5.1	57.9	75.05	95.6	115.4
DO%	3290	Upper Miami River/C-6	42	-	% Sat	132	477	28	Non-Compliant	37.355	2.9	41	65.2	94.6	127.5
DO%	3292	Coral Gables Canal/C-3	42	-	% Sat	243	243	0	Non-Compliant	35.225	2.5	45.6	65.9	77.9	149
DO%	3293	Snapper Creek/C-2	42	-	% Sat	471	471	0	Non-Compliant	18.571	0.8	18	35.9	74.3	117.7
DO%	3295	Cutler Drain/C-100	42	-	% Sat	5	710	1	Non-Compliant	56.27	3.1	70.25	86.7	96.1	121.2
DO%	3297	Black Creek/C-1	42	-	% Sat	7	574	1	Non-Compliant	31.663	1	39.85	79.1	110.8	141.6
DO%	3300	Princeton Canal/C-102N	42	-	% Sat	4	702	1	Non-Compliant	40.057	1.3	48	63.1	82.9	125.5
DO%	3302	Mowry Canal/C-103	42	-	% Sat	708	708	0	Non-Compliant	46.085	3.1	57.95	86.65	121.6	189.8
DO%	3303	Aerojet Canal/C-111	42	-	% Sat	234	234	0	Non-Compliant	71.156	2.9	87.6	96.6	104.8	116.8
DO%	3304	Military Canal	42	-	% Sat	1	467	0	Non-Compliant	80.637	3	92.3	107	125.1	142.3
DO%	3305	North Canal	42	-	% Sat	243	243	0	Non-Compliant	57.563	7.1	58.8	71.9	99.8	122.3
DO%	3306	Florida City Canal	42	-	% Sat	1	457	0	Non-Compliant	62.989	5.3	69.8	85.3	111.2	136.5
DO%	6002	Manatee Bay	42	-	% Sat	234	234	0	Non-Compliant	91.771	51.8	94.6	97.9	102.8	158.5
DO%	6003	Barnes Sound	42	-	% Sat	4	261	2	Non-Compliant	90.919	26.1	96	98.9	102.9	110.6
DO%	3226H1	Dumbfoundling-Maule	42	-	% Sat	15	468	3	Non-Compliant	77.543	17.3	82.2	91.7	103.5	114.7
DO%	3226H2	Bakers Inlet	42	-	% Sat	8	448	2	Non-Compliant	84.351	28.3	89.2	94.55	100.5	122.5
DO%	3226H3	Rickenbacker Basin	42	-	% Sat	580	580	0	Non-Compliant	90.689	48.9	92.6	96.4	101.55	585.7
DO%	3226H5	79th St Basin	42	-	% Sat	9	652	1	NA	85.197	28.2	91.65	99.5	109.6	165.9
DO%	3226H6		42	-	% Sat	11	1576	1	NA	86.547	23.4	89.4	94.5	103.1	159.1
DO%	3226L	Oleta River	42	-	% Sat	238	450	53	Non-Compliant	40.55	5	41.1	55.2	74.6	97.8
DO%	3226M1	Arch Creek	42	-	% Sat	300	685	44	Non-Compliant	36.956	0.8	47	84.1	95.4	153.4
DO%	3286A	Miami River West/C6	42	-	% Sat	234	234	0	Non-Compliant	12.697	1	11.75	21.5	37.5	48.2
DO%	3286C	Comfort Canal/C-5	42	-	% Sat	233	233	0	Non-Compliant	44.823	2	53.8	74.6	90.4	110.9
DO%	3288A	Wagner Creek	42	-	% Sat	452	628	72	Non-Compliant	24.764	0.7	27.3	43.45	68.5	98.4
DO%	3288B	Lower Miami River/C-6	42	-	% Sat	5	234	2	Non-Compliant	79.468	5	83.35	90.8	97.2	115.9
DO%	3292A	Coral Gables Canal/C-3	42	-	% Sat	12	77	16	Non-Compliant	53.376	22.6	53.7	63.4	87.1	165
DO%	3298A	Goulds Canal/C-102N	42	-	% Sat	76	398	19	Non-Compliant	52.726	2.3	59.35	77.7	98.3	111.7
DO%	3298B1	L31-E	42	-	% Sat	234	234	0	Non-Compliant	54.489	5	74.85	89.6	106.3	116.5
DO%	3303B	Aerojet Canal/C-111	42	-	% Sat	9	9	0	Small N	58.209	47.7	55.5	59.8	102.6	102.6
DO%	6001C	Card Sound	42	-	% Sat	3	663	0	Non-Compliant	91.425	14.9	93.9	97.8	102.1	138.3
DO%	6001D		42	-	% Sat	67	1177	6	NA	78.502	11.2	86.9	95.2	103.8	142.3
DO%	6001E		42	-	% Sat	357	357	0	Non-Compliant	92.955	52.7	95.4	98.8	105.9	119.7
DO%	6001F		42	-	% Sat	35	971	4	NA	83.356	4.7	91.9	99.6	108.9	149.5
DO%	6001G		42	-	% Sat	1	486	0	NA	94.241	14.2	97.2	100.2	104.8	125.6
DO%	6001H		42	-	% Sat	2	510	0	NA	91.18	7.04	93.8	98.8	107.8	144.3

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Enterococci	3283	Snake Creek/C-9	130	-	MPN/100ml	10	14	71	Small N	25.033	5	15	41	958	958
Enterococci	3285	Biscayne Canal/C-8	130	-	MPN/100ml	5	6	83	Small N	19.742	5	20	20	148	148
Enterococci	3287	Little River/C-7	130	-	MPN/100ml	2	7	29	Small N	94.27	10	85	404	480	480
Enterococci	3288	Miami River/C-6	130	-	MPN/100ml	103	152	68	Non-Compliant	74.369	5	78.5	159	835	6870
Enterococci	3290	Upper Miami River/C-6	130	-	MPN/100ml	33	52	63	NA	54.499	5	52	230.5	579	1080
Enterococci	3292	Coral Gables Canal/C-3	130	-	MPN/100ml	2	3	67	Small N	23.27	10	20	63	63	63
Enterococci	3293	Snapper Creek/C-2	130	-	MPN/100ml	2	6	33	Small N	60.002	5	110	288	376	376
Enterococci	3295	Cutler Drain/C-100	130	-	MPN/100ml	8	10	80	Small N	20.537	5	10	20	451	451
Enterococci	3297	Black Creek/C-1	130	-	MPN/100ml	6	6	100	Small N	12.075	5	15	20	31	31
Enterococci	3300	Princeton Canal/C-102N	130	-	MPN/100ml	5	6	83	Small N	11.429	5	5	31	115	115
Enterococci	3302	Mowry Canal/C-103	130	-	MPN/100ml	5	6	83	Small N	11.541	5	7.5	30	63	63
Enterococci	3303	Aerojet Canal/C-111	130	-	MPN/100ml	27	32	84	Non-Compliant	11.686	5	10	15	41	146
Enterococci	3304	Military Canal	130	-	MPN/100ml	45	56	80	Non-Compliant	15.68	5	10	15	269	24196
Enterococci	3226H1	Dumbfoundling-Maule	130	-	MPN/100ml	86	96	90	Compliant	18.148	5	10	41	238	886
Enterococci	3226H2	Bakers Inlet	130	-	MPN/100ml	93	99	94	Compliant	12.092	5	10	20	121	576
Enterococci	3226H3	Rickenbacker Basin	130	-	MPN/100ml	161	168	96	Compliant	10.017	5	10	10	100	1690
Enterococci	3226H5	79th St Basin	130	-	MPN/100ml	166	187	89	NA	17.799	0.5	10	41	328	6130
Enterococci	3226H6		130	-	MPN/100ml	393	475	83	NA	22.066	5	10	52	616	24200
Enterococci	3226L	Oleta River	130	-	MPN/100ml	39	100	39	Non-Compliant	190.212	5	165.5	386	3550	24200
Enterococci	3226M1	Arch Creek	130	-	MPN/100ml	61	146	42	Non-Compliant	134.326	5	237	748	4110	13000
Enterococci	3288A	Wagner Creek	130	-	MPN/100ml	34	154	22	Non-Compliant	624.253	10	511	2419.6	19900	48400
Enterococci	3288B	Lower Miami River/C-6	130	-	MPN/100ml	36	54	67	Non-Compliant	69.439	5	85	169	2100	7700
Enterococci	3292A	Coral Gables Canal/C-3	130	-	MPN/100ml	21	28	75	Non-Compliant	48.625	5	20	120.5	2910	24196
Enterococci	3298A	Goulds Canal/C-102N	130	-	MPN/100ml	51	75	68	Non-Compliant	44.235	5	41	134	1850	24196
Enterococci	3298B1	L31-E	130	-	MPN/100ml	36	44	82	Non-Compliant	13.46	0.5	10	20	121	24196
Enterococci	6001C	Card Sound	130	-	MPN/100ml	95	97	98	Compliant	7.199	5	10	10	10	10
Enterococci	6001D		130	-	MPN/100ml	199	229	87	NA	16.355	1	10	41	221	12000
Enterococci	6001E		130	-	MPN/100ml	107	110	97	Compliant	7.837	5	10	10	10	100
Enterococci	6001F		130	-	MPN/100ml	125	132	95	Compliant	11.592	5	10	20	122	771
Enterococci	6001G		130	-	MPN/100ml	37	38	97	Compliant	6.695	5	5	10	10	10
Enterococci	6001H		130	-	MPN/100ml	68	70	97	Compliant	7.213	5	10	10	10	20
Escherichia Coli	3283	Snake Creek/C-9	410	-	MPN/100ml	124	134	93	Compliant	73.677	5	63	145	980	6870
Escherichia Coli	3284	Snake Creek/C-9	410	-	MPN/100ml	68	83	82	Non-Compliant	50.514	2	31	291	1610	51700
Escherichia Coli	3285	Biscayne Canal/C-8	410	-	MPN/100ml	137	156	88	Compliant	142.398	5	133	251	1720	24200
Escherichia Coli	3286	Tamiami Canal/C-4	410	-	MPN/100ml	77	83	93	Compliant	69.691	5	86	189	528	2760
Escherichia Coli	3287	Little River/C-7	410	-	MPN/100ml	137	210	65	Non-Compliant	215.265	5	253	565	1610	6700
Escherichia Coli	3288	Miami River/C-6	410	-	MPN/100ml	77	180	43	Non-Compliant	188.553	10	171	348	1515	24200
Escherichia Coli	3290	Upper Miami River/C-6	410	-	MPN/100ml	63	103	61	Non-Compliant	201.292	20	169	305	1180	7700
Escherichia Coli	3292	Coral Gables Canal/C-3	410	-	MPN/100ml	39	49	80	Non-Compliant	199.363	10	201	309	2060	17300

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Escherichia Coli	3293	Snapper Creek/C-2	410	-	MPN/100ml	95	102	93	Compliant	65.773	5	74	110	530	1420
Escherichia Coli	3295	Cutler Drain/C-100	410	-	MPN/100ml	117	133	88	Non-Compliant	82.452	5	75	204	934	11200
Escherichia Coli	3297	Black Creek/C-1	410	-	MPN/100ml	98	103	95	Compliant	54.67	5	63	146	393	697
Escherichia Coli	3300	Princeton Canal/C-102N	410	-	MPN/100ml	126	128	98	Compliant	52.745	5	63	134	256	2850
Escherichia Coli	3302	Mowry Canal/C-103	410	-	MPN/100ml	115	121	95	Compliant	39.285	5	31	121	368	8160
Escherichia Coli	3303	Aerojet Canal/C-111	410	-	MPN/100ml	35	36	97	Compliant	10.753	5	10	10	41	1040
Escherichia Coli	3304	Military Canal	410	-	MPN/100ml	71	72	99	Compliant	17.802	5	10	41	213	435
Escherichia Coli	3305	North Canal	410	-	MPN/100ml	34	35	97	Compliant	42.555	5	41	86	404	548
Escherichia Coli	3306	Florida City Canal	410	-	MPN/100ml	69	70	99	Compliant	15.697	5	10	31	107	538
Escherichia Coli	3226H1	Dumbfoundling-Maule	410	-	MPN/100ml	18	39	46	Non-Compliant	146.103	5	146	243	3080	4170
Escherichia Coli	3226H3	Rickenbacker Basin	-	-	MPN/100ml	4	4	100	Small N	11.892	5	15	20	20	20
Escherichia Coli	3226H5	79th St Basin	-	-	MPN/100ml	21	53	40	NA	165.754	5	185	305	988	6870
Escherichia Coli	3226H6		-	-	MPN/100ml	14	58	24	NA	195.26	5	238	343	1460	3050
Escherichia Coli	3226L	Oleta River	410	-	MPN/100ml	1	98	1	Non-Compliant	590.054	134	421	990	4350	24195
Escherichia Coli	3226M1	Arch Creek	410	-	MPN/100ml	35	146	24	Non-Compliant	583.103	10	740.5	2140	14100	24200
Escherichia Coli	3286A	Miami River West/C6	410	-	MPN/100ml	51	51	100	Compliant	18.641	5	20	31	75	122
Escherichia Coli	3286C	Comfort Canal/C-5	410	-	MPN/100ml	25	50	50	Non-Compliant	465.633	27.5	412	809	3570	7750
Escherichia Coli	3288A	Wagner Creek	410	-	MPN/100ml	9	154	6	Non-Compliant	1203.737	10	914	4020	24200	130000
Escherichia Coli	3288B	Lower Miami River/C-6	410	-	MPN/100ml	15	54	28	Non-Compliant	209.601	20	214.5	414	1330	1920
Escherichia Coli	3292A	Coral Gables Canal/C-3	410	-	MPN/100ml	20	33	61	Non-Compliant	120.99	10	97	350	1350	1900
Escherichia Coli	3298A	Goulds Canal/C-102N	410	-	MPN/100ml	44	78	56	Non-Compliant	165.62	5	145.5	336	2490	24196
Escherichia Coli	3298B1	L31-E	410	-	MPN/100ml	48	51	94	Compliant	43.028	5	52	110	414	776
Escherichia Coli	6001D		-	-	MPN/100ml	53	111	48	NA	140.82	5	132	231	2610	24196
Escherichia Coli	6001E		-	-	MPN/100ml	3	3	100	Compliant	52.15	31	61	75	75	75
Escherichia Coli	6001F		-	-	MPN/100ml	30	55	55	NA	109.602	5	120	213	583	24196
Hardness	3283	Snake Creek/C-9	-	-	mg/L	NA	14	NA	Compliant	224.82	192	222.5	233	306	306
Hardness	3285	Biscayne Canal/C-8	-	-	mg/L	NA	13	NA	Compliant	240.001	202	234	250	295	295
Hardness	3286	Tamiami Canal/C-4	-	-	mg/L	NA	12	NA	Compliant	209.919	184	208.5	220.5	257	257
Hardness	3287	Little River/C-7	-	-	mg/L	NA	24	NA	Compliant	240.477	190	216	227.5	247	3340
Hardness	3288	Miami River/C-6			mg/L	NA	8	NA	NA	350.457	181	204	633	2450	2450
Hardness	3290	Upper Miami River/C-6	-	-	mg/L	NA	7	NA	Compliant	220.024	196	214	228	289	289
Hardness	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	7	NA	Compliant	207.58	190	207	212	236	236
Hardness	3293	Snapper Creek/C-2	-	-	mg/L	NA	12	NA	Compliant	217.483	200	214	231	238	238
Hardness	3295	Cutler Drain/C-100	-	-	mg/L	NA	19	NA	Compliant	213.959	171	222	227	236	236
Hardness	3297	Black Creek/C-1	-	-	mg/L	NA	13	NA	Compliant	206.429	178	210	217	242	242
Hardness	3300	Princeton Canal/C-102N	-	-	mg/L	NA	18	NA	Compliant	258.238	205	263	280	355	355
Hardness	3302	Mowry Canal/C-103	-	-	mg/L	NA	18	NA	Compliant	255.806	202	257.5	278	351	351
Hardness	3303	Aerojet Canal/C-111	-	-	mg/L	NA	6	NA	Compliant	194.963	175	200.5	204	208	208
Hardness	3304	Military Canal	-	-	mg/L	NA	12	NA	Compliant	278.621	164	300.5	371	436	436

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Hardness	3305	North Canal	-	-	mg/L	NA	7	NA	Compliant	237.619	225	232	247	274	274
Hardness	3306	Florida City Canal	-	-	mg/L	NA	11	NA	Compliant	214.813	183	216	226	237	237
Hardness	3226L	Oleta River	-	-	mg/L	NA	6	NA	Compliant	1272.135	483	1215	2180	3390	3390
Hardness	3226M1	Arch Creek			mg/L	NA	13	NA	NA	1795.761	233	3040	3570	6700	6700
Hardness	3286A	Miami River West/C6	-	-	mg/L	NA	6	NA	Compliant	225.897	208	226.5	236	248	248
Hardness	3286C	Comfort Canal/C-5	-	-	mg/L	NA	6	NA	Compliant	70.434	0.5	192.5	199	224	224
Hardness	3288A	Wagner Creek	-	-	mg/L	NA	12	NA	Compliant	391.687	201	308	483.5	2120	2120
Hardness	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	6	NA	Compliant	340.651	205	380	393	394	394
Hardness	3298B1	L31-E	-	-	mg/L	NA	6	NA	Compliant	438.595	224	394.5	640	932	932
Lead	3283	Snake Creek/C-9	*	350	ug/L	17	17	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3284	Snake Creek/C-9	*	350	ug/L	4	4	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3285	Biscayne Canal/C-8	*	350	ug/L	15	15	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3286	Tamiami Canal/C-4	*	350	ug/L	14	14	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3287	Little River/C-7	*	350	ug/L	28	28	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3288	Miami River/C-6	*	350	ug/L	7	7	100	Small N	1.58	1.47	1.5	1.5	3	3
Lead	3290	Upper Miami River/C-6	*	350	ug/L	7	8	88	Compliant	2.011	1.5	1.5	1.5	21	21
Lead	3292	Coral Gables Canal/C-3	*	350	ug/L	8	8	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3293	Snapper Creek/C-2	*	350	ug/L	14	14	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3295	Cutler Drain/C-100	*	350	ug/L	22	22	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3297	Black Creek/C-1	*	350	ug/L	16	16	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3300	Princeton Canal/C-102N	*	350	ug/L	21	21	100	Compliant	1.55	1.5	1.5	1.5	1.5	3
Lead	3302	Mowry Canal/C-103	*	350	ug/L	21	21	100	Compliant	1.572	1.5	1.5	1.5	1.5	4
Lead	3303	Aerojet Canal/C-111	*	350	ug/L	7	7	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3304	Military Canal	*	350	ug/L	14	14	100	Compliant	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3305	North Canal	*	350	ug/L	8	8	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3306	Florida City Canal	*	350	ug/L	12	13	92	Small N	1.816	1.5	1.5	1.5	9	9
Lead	3226H1	Dumbfoundling-Maule	8.5	350	ug/L	4	4	100	Small N	0.904	0.465	1.069	1.5	1.5	1.5
Lead	3226H2	Bakers Inlet	8.5	350	ug/L	4	4	100	Small N	0.848	0.283	1.156	1.5	1.5	1.5
Lead	3226H3	Rickenbacker Basin	8.5	350	ug/L	4	5	80	Small N	3.358	1.43	1.5	2.71	49	49
Lead	3226H5	79th St Basin	*	-	ug/L	5	5	100	Small N	1.283	0.686	1.5	1.5	1.5	1.5
Lead	3226H6		*	-	ug/L	13	14	93	Small N	2.023	1	1.5	1.55	41	41
Lead	3226L	Oleta River	8.5	350	ug/L	8	8	100	Small N	1.829	1.5	1.5	3	3	3
Lead	3226M1	Arch Creek	*	-	ug/L	16	16	100	Compliant	1.566	1.5	1.5	1.5	3	3
Lead	3286A	Miami River West/C6	*	350	ug/L	7	7	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3286C	Comfort Canal/C-5	*	350	ug/L	7	7	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3288A	Wagner Creek	8.5	350	ug/L	13	16	81	Small N	2.848	1.5	1.5	3.5	47	47
Lead	3298A	Goulds Canal/C-102N	*	350	ug/L	6	6	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	3298B1	L31-E	*	350	ug/L	7	7	100	Small N	1.5	1.5	1.5	1.5	1.5	1.5
Lead	6001C	Card Sound	8.5	350	ug/L	4	4	100	Small N	1.229	0.675	1.5	1.5	1.5	1.5

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Lead	6001D		*	-	ug/L	9	9	100	Compliant	0.814	0.031	1.5	1.5	1.5	1.5
Lead	6001F		*	-	ug/L	7	7	100	Compliant	0.476	0.02	0.653	1.5	1.5	1.5
Lead	6001H		*	-	ug/L	4	4	100	Compliant	0.44	0.016	1.27	1.5	1.5	1.5
Mercury	3283	Snake Creek/C-9	.012	.003	ug/L	8	13	100	Small N	1.233	0.007	1.5	3	3.1	3.1
Mercury	3285	Biscayne Canal/C-8	.012	.003	ug/L	8	12	100	Small N	1.978	1.5	1.5	3	4.2	4.2
Mercury	3286	Tamiami Canal/C-4	.012	.003	ug/L	10	12	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3287	Little River/C-7	.012	.003	ug/L	19	24	100	Compliant	1.738	1.5	1.5	1.5	3	3.2
Mercury	3288	Miami River/C-6	.012	.003	ug/L	5	8	100	Small N	2.11	1.5	1.5	3.55	4.2	4.2
Mercury	3290	Upper Miami River/C-6	.012	.003	ug/L	3	6	100	Small N	3.049	1.5	2.3	3.2	24	24
Mercury	3292	Coral Gables Canal/C-3	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3293	Snapper Creek/C-2	.012	.003	ug/L	9	12	100	Small N	1.815	1.5	1.5	2.25	3.7	3.7
Mercury	3295	Cutler Drain/C-100	.012	.003	ug/L	15	18	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3297	Black Creek/C-1	.012	.003	ug/L	11	13	100	Small N	1.669	1.5	1.5	1.5	3	3
Mercury	3300	Princeton Canal/C-102N	.012	.003	ug/L	15	18	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3302	Mowry Canal/C-103	.012	.003	ug/L	15	18	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3303	Aerojet Canal/C-111	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3304	Military Canal	.012	.003	ug/L	9	12	100	Small N	1.803	1.5	1.5	2.25	3.4	3.4
Mercury	3305	North Canal	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3306	Florida City Canal	.012	.003	ug/L	8	10	100	Small N	1.723	1.5	1.5	1.5	3	3
Mercury	3226L	Oleta River	.012	.003	ug/L	4	6	100	Small N	2.037	1.5	1.5	3	4.7	4.7
Mercury	3226M1	Arch Creek	.012	.003	ug/L	7	12	100	Small N	2.178	1.5	1.5	3.15	5.6	5.6
Mercury	3286A	Miami River West/C6	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3286C	Comfort Canal/C-5	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3288A	Wagner Creek	.012	.003	ug/L	2	6	100	Small N	1.277	0.016	2.25	5.8	7.1	7.1
Mercury	3298A	Goulds Canal/C-102N	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Mercury	3298B1	L31-E	.012	.003	ug/L	5	6	100	Small N	1.684	1.5	1.5	1.5	3	3
Nickel	3283	Snake Creek/C-9	*	*	ug/L	4	4	100	Small N	1.581	1	1.75	2.5	2.5	2.5
Nickel	3285	Biscayne Canal/C-8	*	*	ug/L	4	4	100	Small N	1.581	1	1.75	2.5	2.5	2.5
Nickel	3287	Little River/C-7	*	*	ug/L	8	8	100	Small N	1.581	1	1.75	2.5	2.5	2.5
Nickel	3226H6		*	*	ug/L	4	4	100	Small N	0.274	0.16	0.18	0.65	1.1	1.1
Nickel	6001D		*	*	ug/L	4	4	100	Compliant	0.123	0.06	0.08	0.345	0.6	0.6
Nickel	6001F		*	*	ug/L	5	5	100	Compliant	0.109	0.08	0.1	0.11	0.19	0.19
Nitrate+Nitrite	3283	Snake Creek/C-9	-	-	mg/L	NA	225	NA	Compliant	0.051	0.005	0.07	0.13	0.3	0.401
Nitrate+Nitrite	3284	Snake Creek/C-9	-	-	mg/L	NA	86	NA	Compliant	0.013	0	0.01	0.04	0.127	0.419
Nitrate+Nitrite	3285	Biscayne Canal/C-8	-	-	mg/L	NA	175	NA	Compliant	0.117	0.005	0.17	0.25	0.41	0.53
Nitrate+Nitrite	3286	Tamiami Canal/C-4	-	-	mg/L	NA	24	100	Non-Compliant	0.02	0.002	0.02	0.052	0.14	0.33
Nitrate+Nitrite	3287	Little River/C-7	-	-	mg/L	NA	353	NA	Compliant	0.126	0.005	0.2	0.29	0.4	0.59
Nitrate+Nitrite	3288	Miami River/C-6	-	-	mg/L	NA	356	NA	Compliant	0.131	0.005	0.153	0.22	0.35	0.47
Nitrate+Nitrite	3290	Upper Miami River/C-6	-	-	mg/L	NA	177	NA	Compliant	0.079	0.005	0.09	0.135	0.22	0.551

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Nitrate+Nitrite	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	89	NA	Compliant	0.192	0.005	0.24	0.4	0.635	0.8
Nitrate+Nitrite	3293	Snapper Creek/C-2	-	-	mg/L	NA	180	NA	Compliant	0.035	0	0.04	0.098	0.2	0.456
Nitrate+Nitrite	3295	Cutler Drain/C-100	-	-	mg/L	NA	266	NA	Compliant	0.06	0.005	0.061	0.16	0.29	0.69
Nitrate+Nitrite	3297	Black Creek/C-1	-	-	mg/L	NA	267	NA	Compliant	0.162	0.002	0.3	0.761	1.59	3.25
Nitrate+Nitrite	3300	Princeton Canal/C-102N	-	-	mg/L	NA	267	NA	Compliant	0.642	0.005	3.49	4.1	4.87	9.48
Nitrate+Nitrite	3302	Mowry Canal/C-103	-	-	mg/L	NA	266	NA	Compliant	0.475	0	1.425	3.33	4.24	4.85
Nitrate+Nitrite	3303	Aerojet Canal/C-111	-	-	mg/L	NA	12	100	Non-Compliant	0.043	0.005	0.06	0.1	0.17	0.25
Nitrate+Nitrite	3304	Military Canal	-	-	mg/L	NA	173	NA	Compliant	0.269	0.005	0.37	0.58	0.91	2.48
Nitrate+Nitrite	3305	North Canal	-	-	mg/L	NA	89	NA	Compliant	1.408	0.08	1.45	1.58	1.8	1.94
Nitrate+Nitrite	3306	Florida City Canal	-	-	mg/L	NA	156	NA	Compliant	0.496	0.03	0.6	0.735	1.23	3.09
Nitrate+Nitrite	6002	Manatee Bay	-	-	mg/L	NA	12	100	Non-Compliant	0.01	0.005	0.01	0.018	0.04	0.073
Nitrate+Nitrite	6003	Barnes Sound	-	-	mg/L	NA	12	100	Non-Compliant	0.009	0	0.008	0.016	0.046	0.07
Nitrate+Nitrite	3226H1	Dumbfoundling-Maule	-	-	mg/L	NA	171	NA	Compliant	0.03	0.002	0.04	0.1	0.22	0.27
Nitrate+Nitrite	3226H2	Bakers Inlet	-	-	mg/L	NA	177	NA	Compliant	0.014	0.002	0.012	0.03	0.08	0.13
Nitrate+Nitrite	3226H3	Rickenbacker Basin	-	-	mg/L	NA	217	NA	Compliant	0.01	0.002	0.01	0.02	0.04	0.07
Nitrate+Nitrite	3226H5		-	-	mg/L	NA	267	NA	NA	0.025	0.005	0.028	0.07	0.2	0.457
Nitrate+Nitrite	3226H6		-	-	mg/L	NA	632	NA	NA	0.021	0.005	0.02	0.04	0.15	0.43
Nitrate+Nitrite	3226L	Oleta River	-	-	mg/L	NA	87	NA	Compliant	0.042	0.002	0.05	0.087	0.2	0.299
Nitrate+Nitrite	3226M1	Arch Creek	-	-	mg/L	NA	262	NA	Compliant	0.045	0.005	0.059	0.1	0.19	0.55
Nitrate+Nitrite	3286A	Miami River West/C6	-	-	mg/L	NA	89	NA	Compliant	0.016	0.005	0.02	0.04	0.065	0.109
Nitrate+Nitrite	3286C	Comfort Canal/C-5	-	-	mg/L	NA	87	NA	Compliant	0.068	0.005	0.08	0.16	0.28	1.79
Nitrate+Nitrite	3288A	Wagner Creek	-	-	mg/L	NA	262	NA	Compliant	0.119	0.005	0.13	0.18	0.27	0.47
Nitrate+Nitrite	3288B	Lower Miami River/C-6	-	-	mg/L	NA	89	NA	Compliant	0.04	0.005	0.04	0.09	0.16	0.48
Nitrate+Nitrite	3292A	Coral Gables Canal/C-3	-	-	mg/L	NA	22	NA	Compliant	0.851	0.655	0.871	0.94	1.1	1.108
Nitrate+Nitrite	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	142	NA	Compliant	0.205	0.005	0.222	0.37	0.84	3.223
Nitrate+Nitrite	3298B1	L31-E	-	-	mg/L	NA	84	NA	Compliant	0.522	0.005	0.595	1.45	3.78	4.32
Nitrate+Nitrite	3303B	Aerojet Canal/C-111	-	-	mg/L	NA	3	NA	Compliant	0.006	0.005	0.005	0.01	0.01	0.01
Nitrate+Nitrite	6001C	Card Sound	-	-	mg/L	NA	241	NA	Compliant	0.01	0	0.005	0.02	0.06	0.166
Nitrate+Nitrite	6001D		-	-	mg/L	NA	451	NA	NA	0.023	0.002	0.02	0.07	0.18	0.64
Nitrate+Nitrite	6001E		-	-	mg/L	NA	36	100	Non-Compliant	0.012	0.002	0.01	0.02	0.042	0.11
Nitrate+Nitrite	6001F		-	-	mg/L	NA	514	NA	NA	0.105	0.002	0.13	0.397	1.427	3.635
Nitrate+Nitrite	6001G		-	-	mg/L	NA	182	NA	NA	0.018	0	0.017	0.04	0.156	0.88
Nitrate+Nitrite	6001H		-	-	mg/L	NA	188	NA	NA	0.007	0	0.005	0.005	0.02	0.09
Ortho Phosphate	3283	Snake Creek/C-9	-	-	mg/L	NA	36	100	Non-Compliant	0.004	0.001	0.005	0.009	0.011	0.021
Ortho Phosphate	3284	Snake Creek/C-9	-	-	mg/L	NA	86	NA	Compliant	0.013	0.003	0.012	0.016	0.102	0.209
Ortho Phosphate	3285	Biscayne Canal/C-8	-	-	mg/L	NA	176	NA	Compliant	0.005	0.001	0.005	0.009	0.017	0.358
Ortho Phosphate	3286	Tamiami Canal/C-4	-	-	mg/L	NA	24	100	Non-Compliant	0.005	0.001	0.007	0.01	0.015	0.023
Ortho Phosphate	3287	Little River/C-7	-	-	mg/L	NA	354	NA	Compliant	0.008	0.001	0.009	0.014	0.025	0.043
Ortho Phosphate	3288	Miami River/C-6	-	-	mg/L	NA	48	100	Non-Compliant	0.007	0	0.007	0.011	0.018	0.035

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Ortho Phosphate	3290	Upper Miami River/C-6	-	-	mg/L	NA	181	NA	Compliant	0.005	0	0.006	0.009	0.019	0.039
Ortho Phosphate	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	90	NA	Compliant	0.012	0.002	0.011	0.021	0.039	0.069
Ortho Phosphate	3293	Snapper Creek/C-2	-	-	mg/L	NA	180	NA	Compliant	0.004	0.001	0.004	0.008	0.01	0.013
Ortho Phosphate	3295	Cutler Drain/C-100	-	-	mg/L	NA	36	100	Non-Compliant	0.003	0.001	0.004	0.006	0.01	0.033
Ortho Phosphate	3297	Black Creek/C-1	-	-	mg/L	NA	36	100	Non-Compliant	0.004	0.001	0.005	0.007	0.011	0.015
Ortho Phosphate	3300	Princeton Canal/C-102N	-	-	mg/L	NA	36	100	Non-Compliant	0.003	0	0.004	0.006	0.009	0.021
Ortho Phosphate	3302	Mowry Canal/C-103	-	-	mg/L	NA	36	100	Non-Compliant	0.003	0	0.003	0.005	0.008	0.037
Ortho Phosphate	3303	Aerojet Canal/C-111	-	-	mg/L	NA	12	100	Non-Compliant	0.003	0.001	0.003	0.005	0.006	0.01
Ortho Phosphate	3304	Military Canal	-	-	mg/L	NA	24	100	Non-Compliant	0.002	0.001	0.003	0.005	0.007	0.011
Ortho Phosphate	3305	North Canal	-	-	mg/L	NA	91	NA	Compliant	0.003	0	0.003	0.005	0.016	0.11
Ortho Phosphate	3306	Florida City Canal	-	-	mg/L	NA	24	100	Non-Compliant	0.002	0	0.002	0.004	0.007	0.066
Ortho Phosphate	6002	Manatee Bay	-	-	mg/L	NA	87	NA	Compliant	0.002	0	0.002	0.003	0.008	0.025
Ortho Phosphate	6003	Barnes Sound	-	-	mg/L	NA	96	NA	Compliant	0.002	0	0.002	0.003	0.01	0.026
Ortho Phosphate	3226H1	Dumbfoundling-Maule	-	-	mg/L	NA	173	NA	Compliant	0.005	- 1111111 0656	0.005	0.008	0.013	0.047
Ortho Phosphate	3226H2	Bakers Inlet	-	-	mg/L	NA	179	NA	Compliant	0.002	- 1111111 0656	0.002	0.004	0.006	0.026
Ortho Phosphate	3226H3	Rickenbacker Basin	-	-	mg/L	NA	219	NA	Compliant	0.002	0	0.002	0.002	0.005	0.028
Ortho Phosphate	3226H5		-	-	mg/L	NA	266	NA	NA	0.004	- 1111111 0656	0.004	0.008	0.016	0.032
Ortho Phosphate	3226H6		-	-	mg/L	NA	634	NA	NA	0.003	- 1111111 0656	0.003	0.005	0.019	0.065
Ortho Phosphate	3226L	Oleta River	-	-	mg/L	NA	86	NA	Compliant	0.015	0.001	0.015	0.025	0.043	0.059
Ortho Phosphate	3226M1	Arch Creek	-	-	mg/L	NA	260	NA	Compliant	0.021	- 1111111 0656	0.033	0.066	0.129	0.257
Ortho Phosphate	3286A	Miami River West/C6	-	-	mg/L	NA	12	100	Non-Compliant	0.003	0	0.003	0.008	0.01	0.018
Ortho Phosphate	3286C	Comfort Canal/C-5	-	-	mg/L	NA	87	NA	Compliant	0.011	0.001	0.011	0.026	0.05	0.067
Ortho Phosphate	3288A	Wagner Creek	-	-	mg/L	NA	174	NA	Compliant	0.035	0.002	0.037	0.054	0.084	0.231
Ortho Phosphate	3288B	Lower Miami River/C-6	-	-	mg/L	NA	90	NA	Compliant	0.004	0.001	0.004	0.007	0.013	0.026
Ortho Phosphate	3292A	Coral Gables Canal/C-3	-	-	mg/L	NA	22	NA	Compliant	0.046	0.032	0.049	0.05	0.054	0.057
Ortho Phosphate	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	9	NA	Compliant	0.003	0.001	0.003	0.006	0.008	0.008
Ortho Phosphate	3298B1	L31-E	-	-	mg/L	NA	85	NA	Compliant	0.003	0.001	0.003	0.005	0.008	0.018
Ortho Phosphate	3303B	Aerojet Canal/C-111	-	-	mg/L	NA	3	NA	Compliant	0.001	0.001	0.001	0.001	0.001	0.001
Ortho Phosphate	6001C	Card Sound	-	-	mg/L	NA	241	NA	Compliant	0.002	0	0.002	0.002	0.005	0.03
Ortho Phosphate	6001D		-	-	mg/L	NA	452	NA	NA	0.003	0	0.002	0.005	0.011	0.038
Ortho Phosphate	6001E		-	-	mg/L	NA	131	NA	NA	0.002	0	0.002	0.002	0.007	0.024
Ortho Phosphate	6001F		-	-	mg/L	NA	214	NA	NA	0.002	0	0.002	0.003	0.007	0.024
Ortho Phosphate	6001G		-	-	mg/L	NA	182	NA	NA	0.002	0	0.001	0.002	0.007	0.029

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Ortho Phosphate	6001H		-	-	mg/L	NA	188	NA	NA	0.002	0	0.001	0.002	0.004	0.029
pH (Field)	3283	Snake Creek/C-9	-	-		548	575	95	Compliant	7.746	6.76	7.61	8.02	8.49	13.75
pH (Field)	3284	Snake Creek/C-9	-	-		201	204	99	Compliant	7.502	6.64	7.415	7.73	8.24	9.72
pH (Field)	3285	Biscayne Canal/C-8	-	-		660	674	98	Compliant	7.655	6.85	7.65	7.85	8.18	10
pH (Field)	3286	Tamiami Canal/C-4	-	-		465	465	100	Compliant	7.381	6.53	7.37	7.53	7.78	8.47
pH (Field)	3287	Little River/C-7	-	-		919	931	99	Compliant	7.457	2.27	7.43	7.59	7.9	9.8
pH (Field)	3288	Miami River/C-6	-	-		945	956	99	Compliant	7.668	4.65	7.65	7.86	8.24	9.51
pH (Field)	3290	Upper Miami River/C-6	-	-		473	477	99	Compliant	7.584	6.53	7.56	7.72	8.19	9.3
pH (Field)	3292	Coral Gables Canal/C-3	-	-		242	243	100	Compliant	7.431	6.49	7.46	7.66	7.85	8.88
pH (Field)	3293	Snapper Creek/C-2	-	-		471	471	100	Compliant	7.403	6.81	7.36	7.53	7.88	8.29
pH (Field)	3295	Cutler Drain/C-100	-	-		710	710	100	Compliant	7.542	6.79	7.55	7.8	8.07	8.26
pH (Field)	3297	Black Creek/C-1	-	-		589	592	99	Compliant	7.512	6.88	7.43	7.75	8.13	9.02
pH (Field)	3300	Princeton Canal/C-102N	-	-		702	702	100	Compliant	7.324	6.56	7.32	7.46	7.69	8.42
pH (Field)	3302	Mowry Canal/C-103	-	-		708	708	100	Compliant	7.426	6.64	7.41	7.58	7.88	8.39
pH (Field)	3303	Aerojet Canal/C-111	-	-		231	234	99	Compliant	7.853	6.19	7.89	8.12	8.26	8.87
pH (Field)	3304	Military Canal	-	-		446	467	96	Compliant	7.802	6.94	7.8	8.09	8.48	8.67
pH (Field)	3305	North Canal	-	-		243	243	100	Compliant	7.327	6.55	7.33	7.47	7.69	8.02
pH (Field)	3306	Florida City Canal	-	-		456	457	100	Compliant	7.354	5.94	7.37	7.54	7.91	8.22
pH (Field)	6002	Manatee Bay	-	-		225	234	96	Compliant	8.033	7.51	8	8.12	8.49	8.86
pH (Field)	6003	Barnes Sound	-	-		255	261	98	Compliant	7.993	7.4	7.99	8.08	8.32	8.86
pH (Field)	3226H1	Dumbfoundling-Maule	-	-		464	468	99	Compliant	7.793	6.42	7.8	7.95	8.28	8.76
pH (Field)	3226H2	Bakers Inlet	-	-		446	448	100	Compliant	7.9	6.9	7.92	8.05	8.37	8.55
pH (Field)	3226H3	Rickenbacker Basin	-	-		572	580	99	Compliant	7.986	7.44	7.99	8.075	8.28	8.61
pH (Field)	3226H5	79th St Basin	-	-		651	652	100	Compliant	7.863	6.73	7.9	8	8.26	8.71
pH (Field)	3226H6		-	-		1569	1576	100	Compliant	7.855	6.67	7.87	7.97	8.18	8.71
pH (Field)	3226L	Oleta River	-	-		444	450	99	Compliant	7.567	6.84	7.51	7.62	7.98	13.27
pH (Field)	3226M1	Arch Creek	-	-		684	685	100	Compliant	7.554	6.47	7.55	7.87	8.19	8.47
pH (Field)	3286A	Miami River West/C6	-	-		234	234	100	Compliant	7.322	6.77	7.32	7.4	7.61	7.93
pH (Field)	3286C	Comfort Canal/C-5	-	-		233	233	100	Compliant	7.587	7.01	7.57	7.78	8.09	8.39
pH (Field)	3288A	Wagner Creek	-	-		623	628	99	Compliant	7.457	6.52	7.43	7.58	7.91	9.08
pH (Field)	3288B	Lower Miami River/C-6	-	-		233	234	100	Compliant	7.886	7.25	7.88	8	8.3	8.52
pH (Field)	3292A	Coral Gables Canal/C-3	-	-		77	77	100	Compliant	7.305	7.06	7.28	7.41	7.57	8.15
pH (Field)	3298A	Goulds Canal/C-102N	-	-		422	423	100	Compliant	7.458	6.08	7.44	7.61	7.96	8.48
pH (Field)	3298B1	L31-E	-	-		234	234	100	Compliant	7.513	6.66	7.54	7.8	8.04	8.39
pH (Field)	3303B	Aerojet Canal/C-111	-	-		9	9	100	Small N	8.023	7.63	7.88	8.4	8.43	8.43
pH (Field)	6001C	Card Sound	-	-		654	663	99	Compliant	7.997	7.52	7.98	8.08	8.3	8.75
pH (Field)	6001D		-	-		1177	1177	100	Compliant	7.891	7.07	7.92	8.04	8.2	8.35
pH (Field)	6001E		-	-		358	358	100	Compliant	7.966	7.16	7.96	8.07	8.16	8.42
pH (Field)	6001F		-	-		1070	1091	98	Compliant	7.96	6.46	8	8.1	8.28	9



Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
pH (Field)	6001G		-	-		465	486	96	Compliant	8.06	7.49	8.04	8.13	8.36	9
pH (Field)	6001H		-	-		505	510	99	Compliant	8.045	7.49	8.03	8.16	8.33	8.58
Phenols	3287	Little River/C-7	-	-		NA	4	NA	NA	2	2	2	2	2	2
Phenols	3290	Upper Miami River/C-6	-	-		NA	6	NA	NA	4.845	2	2	2	404	404
Phenols	3295	Cutler Drain/C-100	-	-		NA	4	NA	NA	2.378	2	2	3	4	4
Total Phosphorus	3283	Snake Creek/C-9	*	*	mg/L	NA	36		Non-Compliant	0.009	0.001	0.009	0.012	0.021	0.033
Total Phosphorus	3284	Snake Creek/C-9	*	*	mg/L	NA	86	NA	Compliant	0.025	0.006	0.022	0.063	0.204	0.325
Total Phosphorus	3285	Biscayne Canal/C-8	*	*	mg/L	NA	163	NA	Compliant	0.015	0.005	0.014	0.02	0.031	0.367
Total Phosphorus	3286	Tamiami Canal/C-4	*	*	mg/L	NA	24	NA	Compliant	0.011	0.001	0.011	0.018	0.03	0.06
Total Phosphorus	3287	Little River/C-7	*	*	mg/L	NA	48	NA	Compliant	0.019	0.004	0.019	0.027	0.04	0.208
Total Phosphorus	3288	Miami River/C-6	*	*	mg/L	NA	48	NA	Compliant	0.012	0.001	0.012	0.015	0.024	0.047
Total Phosphorus	3290	Upper Miami River/C-6	*	*	mg/L	NA	175	NA	Compliant	0.011	0.004	0.01	0.013	0.03	0.086
Total Phosphorus	3292	Coral Gables Canal/C-3	*	*	mg/L	NA	88	NA	Compliant	0.038	0.012	0.038	0.052	0.081	0.18
Total Phosphorus	3293	Snapper Creek/C-2	*	*	mg/L	NA	177	NA	Compliant	0.009	0.003	0.009	0.011	0.017	0.038
Total Phosphorus	3295	Cutler Drain/C-100	*	*	mg/L	NA	36	NA	Compliant	0.009	0.001	0.009	0.012	0.026	0.381
Total Phosphorus	3297	Black Creek/C-1	*	*	mg/L	NA	267	NA	Compliant	0.008	0.001	0.008	0.01	0.016	0.054
Total Phosphorus	3300	Princeton Canal/C-102N	*	*	mg/L	NA	36	NA	Compliant	0.005	0.001	0.006	0.008	0.013	0.038
Total Phosphorus	3302	Mowry Canal/C-103	*	*	mg/L	NA	36	NA	Compliant	0.006	0.001	0.006	0.008	0.016	0.077
Total Phosphorus	3303	Aerojet Canal/C-111	*	*	mg/L	NA	12	NA	Compliant	0.004	0.001	0.005	0.006	0.009	0.028
Total Phosphorus	3304	Military Canal	*	*	mg/L	NA	24	NA	Compliant	0.008	0.001	0.008	0.011	0.019	0.045
Total Phosphorus	3305	North Canal	*	*	mg/L	NA	87	NA	Compliant	0.008	0.001	0.007	0.012	0.03	0.14
Total Phosphorus	3306	Florida City Canal	*	*	mg/L	NA	151	NA	Compliant	0.006	0.001	0.006	0.009	0.025	0.174
Total Phosphorus	6002	Manatee Bay	.007	*	mg/L	NA	12	NA	Compliant	0.003	0	0.003	0.005	0.011	0.034
Total Phosphorus	6003	Barnes Sound	.007	*	mg/L	NA	12	NA	Compliant	0.003	0	0.003	0.005	0.015	0.038
Total Phosphorus	3226H1	Dumbfoundling-Maule	.012	*	mg/L	NA	24	NA	Compliant	0.01	0.003	0.009	0.014	0.031	0.047
Total Phosphorus	3226H2	Bakers Inlet	.012	*	mg/L	NA	24	NA	Compliant	0.007	0.001	0.006	0.009	0.031	0.047
Total Phosphorus	3226H3	Rickenbacker Basin	.01	*	mg/L	NA	36	NA	Compliant	0.005	0	0.004	0.006	0.02	0.048
Total Phosphorus	3226H5	79th St Basin	.012	*	mg/L	NA	48	NA	Compliant	0.01	0.002	0.009	0.014	0.031	0.05
Total Phosphorus	3226H6		.012	*	mg/L	NA	127	NA	Compliant	0.009	0.001	0.008	0.012	0.034	0.109
Total Phosphorus	3226L	Oleta River	*	*	mg/L	NA	86	NA	Compliant	0.043	0.024	0.041	0.049	0.081	0.269
Total Phosphorus	3226M1	Arch Creek	*	*	mg/L	NA	257	NA	Compliant	0.038	0.004	0.051	0.094	0.201	0.667
Total Phosphorus	3286A	Miami River West/C6	*	*	mg/L	NA	89	NA	Compliant	0.007	0.003	0.006	0.008	0.016	0.035
Total Phosphorus	3286C	Comfort Canal/C-5	*	*	mg/L	NA	85	NA	Compliant	0.026	0.008	0.024	0.042	0.068	0.09
Total Phosphorus	3288A	Wagner Creek	*	*	mg/L	NA	259	NA	Compliant	0.05	0.006	0.049	0.068	0.13	0.643
Total Phosphorus	3288B	Lower Miami River/C-6	*	*	mg/L	NA	89	NA	Compliant	0.009	0.003	0.008	0.012	0.026	0.046
Total Phosphorus	3292A	Coral Gables Canal/C-3	*	*	mg/L	NA	22	NA	Compliant	0.05	0.035	0.05	0.055	0.062	0.071
Total Phosphorus	3298A	Goulds Canal/C-102N	*	*	mg/L	NA	145	NA	Compliant	0.013	0.003	0.012	0.016	0.032	0.071
Total Phosphorus	3298B1	L31-E	*	*	mg/L	NA	83	NA	Compliant	0.008	0.001	0.008	0.01	0.019	0.094
Total Phosphorus	6001C	Card Sound	.008	*	mg/L	NA	60	NA	Compliant	0.003	0	0.003	0.004	0.013	0.041

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Total Phosphorus	6001D		.007	*	mg/L	NA	60	NA	Compliant	0.006	0	0.006	0.01	0.02	0.06
Total Phosphorus	6001E		.008	*	mg/L	NA	36	NA	Compliant	0.003	0	0.003	0.004	0.02	0.041
Total Phosphorus	6001F		.007	*	mg/L	NA	501	NA	Compliant	0.005	0	0.006	0.008	0.012	0.036
Total Phosphorus	6001G		.007	*	mg/L	NA	24	NA	Compliant	0.003	0	0.002	0.004	0.024	0.046
Total Phosphorus	6001H		.007	*	mg/L	NA	24	NA	Compliant	0.003	0	0.003	0.004	0.016	0.043
Salinity	3283	Snake Creek/C-9	-	-	ppt	NA	576	NA	Compliant	0.437	0.21	0.29	0.36	18.31	72.14
Salinity	3284	Snake Creek/C-9	-	-	ppt	NA	204	NA	Compliant	0.303	0.2	0.29	0.31	0.35	36.74
Salinity	3285	Biscayne Canal/C-8	-	-	ppt	NA	674	NA	Compliant	0.415	0.2	0.28	0.38	14.21	30.86
Salinity	3286	Tamiami Canal/C-4	-	-	ppt	NA	465	NA	Compliant	0.274	0.21	0.25	0.27	0.31	116.63
Salinity	3287	Little River/C-7	-	-	ppt	NA	931	NA	Compliant	0.287	0	0.27	0.29	0.32	20.29
Salinity	3288	Miami River/C-6	-	-	ppt	NA	956	NA	Compliant	2.288	0	2.51	18.085	31.75	36.43
Salinity	3290	Upper Miami River/C-6	-	50	ppt	NA	477	NA	Compliant	0.904	0.15	0.29	5.03	25.57	30.14
Salinity	3292	Coral Gables Canal/C-3	-	-	ppt	NA	243	NA	Compliant	0.245	0.16	0.25	0.26	0.27	0.29
Salinity	3293	Snapper Creek/C-2	-	-	ppt	NA	471	NA	Compliant	0.265	0.16	0.26	0.27	0.29	20.71
Salinity	3295	Cutler Drain/C-100	-	-	ppt	NA	710	NA	Compliant	0.27	0.14	0.25	0.27	0.43	12.78
Salinity	3297	Black Creek/C-1	-	-	ppt	NA	614	NA	Compliant	0.303	0	0.27	0.29	0.4	31.1
Salinity	3300	Princeton Canal/C-102N	-	-	ppt	NA	702	NA	Compliant	0.3	0	0.31	0.31	0.35	3.64
Salinity	3302	Mowry Canal/C-103	-	-	ppt	NA	708	NA	Compliant	0.398	0.19	0.31	0.38	1.87	21.43
Salinity	3303	Aerojet Canal/C-111	-	-	ppt	NA	234	NA	Compliant	0.27	0.17	0.25	0.27	0.37	7.74
Salinity	3304	Military Canal	-	-	ppt	NA	467	NA	Compliant	1.052	0.17	0.84	1.96	13.25	22.82
Salinity	3305	North Canal	-	-	ppt	NA	243	NA	Compliant	0.289	0.26	0.29	0.3	0.31	0.35
Salinity	3306	Florida City Canal	-	-	ppt	NA	457	NA	Compliant	0.291	0.18	0.28	0.3	0.45	1.33
Salinity	6002	Manatee Bay	-	-	ppt	NA	234	NA	Compliant	28.453	7.96	30.77	34.08	39.6	44.16
Salinity	6003	Barnes Sound	-	-	ppt	NA	261	NA	Compliant	31.697	0.62	34.29	36.71	40.37	44.05
Salinity	3226H1	Dumbfoundling-Maule	-	-	ppt	NA	468	NA	Compliant	21.475	0.48	29.23	33.13	35.05	36.22
Salinity	3226H2	Bakers Inlet	-	-	ppt	NA	448	NA	Compliant	31.772	7.2	33.795	35.245	36.49	37.52
Salinity	3226H3	Rickenbacker Basin	-	-	ppt	NA	580	NA	Compliant	33.216	8.37	34.32	35.915	37.06	38.81
Salinity	3226H5		-	-	ppt	NA	652	NA	NA	28.061	0.8	31.965	34.11	35.83	37.26
Salinity	3226H6		-	-	ppt	NA	1576	NA	NA	29.76	0.61	31.715	34.085	36.47	37.41
Salinity	3226L	Oleta River	-	-	ppt	NA	429	NA	Compliant	6.959	0.02	7.63	15.44	28.07	32.93
Salinity	3226M1	Arch Creek	-	-	ppt	NA	685	NA	Compliant	20.464	0	28.23	32.36	35.74	37.89
Salinity	3286A	Miami River West/C6	-	500	ppt	NA	234	NA	Compliant	0.324	0.26	0.3	0.31	0.35	107.71
Salinity	3286C	Comfort Canal/C-5	-	500	ppt	NA	233	NA	Compliant	0.367	0.15	0.24	0.31	9.9	76.73
Salinity	3288A	Wagner Creek	-	-	ppt	NA	628	NA	Compliant	3.403	0.07	2.985	9.805	21.28	29.06
Salinity	3288B	Lower Miami River/C-6	-	-	ppt	NA	234	NA	Compliant	26.508	2.92	30.985	33.86	36.26	38.59
Salinity	3292A	Coral Gables Canal/C-3	-	-	ppt	NA	77	NA	Compliant	11.153	2.31	12.87	17.15	21.69	27.52
Salinity	3298A	Goulds Canal/C-102N	-	-	ppt	NA	447	NA	Compliant	3.802	0	3.69	19.15	27.47	34.85
Salinity	3298B1	L31-E	-	-	ppt	NA	234	NA	Compliant	1.923	0.25	1.9	5.25	12.46	15.9
Salinity	3303B	Aerojet Canal/C-111	-	-	ppt	NA	9	NA	Compliant	23.007	5.17	30.7	32.96	36.24	36.24

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Salinity	6001C	Card Sound	-	-	ppt	NA	663	NA	Compliant	34.421	18.2	35.55	37.15	38.65	40.64
Salinity	6001D		-	-	ppt	NA	1171	NA	NA	26.085	0.39	30.47	33.13	37.52	41.14
Salinity	6001E		-	-	ppt	NA	358	NA	NA	32.359	8.4	33.3	35.37	37.53	40.12
Salinity	6001F		-	-	ppt	NA	1240	NA	NA	20.163	0	25	30.335	38.16	42.4
Salinity	6001G		-	-	ppt	NA	483	NA	NA	33.042	0.31	35.39	37.02	38.92	39.65
Salinity	6001H		-	-	ppt	NA	510	NA	NA	35.346	15.84	36	37.2	38.03	39.09
Selenium	3287	Little River/C-7	-	-	ug/L	1	4	25	Small N	10.194	4	12	17.5	20	20
Selenium	3288	Miami River/C-6	-	-	ug/L	3	4	75	Small N	11.764	4	16	18.5	19	19
Selenium	3226H5	79th St Basin	-	-	ug/L	4	4	0	Small N	147.88	116	144	180	201	201
Selenium	3226H6		-	-	ug/L	3	10	30	Small N	46.611	4	123.5	137	206	206
Selenium	6001D		-	-	ug/L	5	5	0	Small N	269.506	213	239	294	426	426
Silver	3287	Little River/C-7	-	-	ug/L	4	4	100	Small N	0.5	0.5	0.5	0.5	0.5	0.5
Silver	3288	Miami River/C-6	-	-	ug/L	4	4	100	Small N	0.707	0.5	0.5	1.25	2	2
Silver	3226H5	79th St Basin	-	-	ug/L	4	4	100	Small N	0.595	0.5	0.5	0.75	1	1
Silver	3226H6		-	-	ug/L	10	10	100	Compliant	0.66	0.5	0.5	1	1	1
Silver	6001D		-	-	ug/L	5	5	100	Compliant	0.5	0.5	0.5	0.5	0.5	0.5
Specific Conductivity	3283	Snake Creek/C-9	1275	500	uS/cm	500	576	87	Non-Compliant	885.7	432.2	606	741	29617.9	44179.8
Specific Conductivity	3284	Snake Creek/C-9	-	-	uS/cm	NA	204	NA	NA	584.3	429.7	599.1	637.35	699	987
Specific Conductivity	3285	Biscayne Canal/C-8	1275	500	uS/cm	576	674	85	Non-Compliant	845.5	425	591.3	780	23471.5	47417.3
Specific Conductivity	3286	Tamiami Canal/C-4	1275	500	uS/cm	460	465	99	Compliant	567.3	444.9	528	563	633	147033
Specific Conductivity	3287	Little River/C-7	1275	500	uS/cm	914	931	98	Compliant	589.6	3	567.9	595.9	654	32643.4
Specific Conductivity	3288	Miami River/C-6	1275	500	uS/cm	240	246	98	Compliant	4134.1	1	4672.7	29388.8	48619	55133
Specific Conductivity	3290	Upper Miami River/C-6	1275	500	uS/cm	242	243	100	Compliant	1774.2	316	604.9	9226.9	40128.3	46569.6
Specific Conductivity	3292	Coral Gables Canal/C-3	1275	500	uS/cm	243	243	100	Compliant	510.5	342.6	514.8	532	567.9	610
Specific Conductivity	3293	Snapper Creek/C-2	1275	500	uS/cm	469	471	100	Compliant	546.6	14	541	562	593	32831
Specific Conductivity	3295	Cutler Drain/C-100	1275	500	uS/cm	685	710	96	Compliant	557.9	39	522.75	563	886	21367
Specific Conductivity	3297	Black Creek/C-1	1275	500	uS/cm	553	558	99	Compliant	621.8	24	568.1	601	912	47904
Specific Conductivity	3300	Princeton Canal/C-102N	1275	500	uS/cm	697	702	99	Compliant	624.3	430.9	636	651	727.7	6668.7
Specific Conductivity	3302	Mowry Canal/C-103	1275	500	uS/cm	609	708	86	Non-Compliant	806.4	43.3	632.2	770.4	3575	34336.6
Specific Conductivity	3303	Aerojet Canal/C-111	1275	500	uS/cm	232	234	99	Compliant	560.6	365.1	530.1	565	755.6	13463
Specific Conductivity	3304	Military Canal	1275	500	uS/cm	198	467	42	Non-Compliant	2050.8	357.8	1680	3714.6	22147	36195.3
Specific Conductivity	3305	North Canal	1275	500	uS/cm	243	243	100	Compliant	589.4	6	596	617.9	649.5	719
Specific Conductivity	3306	Florida City Canal	1275	500	uS/cm	453	457	99	Compliant	604.3	379	580.5	619.7	926.6	2577.4
Specific Conductivity	6002	Manatee Bay	-	-	uS/cm	NA	234	NA	NA	44114.5	13843	47323.6	51858	59335.1	65414
Specific Conductivity	6003	Barnes Sound	-	-	uS/cm	NA	261	NA	NA	48582.3	1245	52056	55529	60365.3	65276
Specific Conductivity	3226H1	Dumbfoundling-Maule	-	-	uS/cm	NA	468	NA	NA	34283.7	966	45336.4	50518.3	53154.3	505687
Specific Conductivity	3226H2	Bakers Inlet	-	-	uS/cm	NA	448	NA	NA	48846.5	17650	51537	53464.7	55097.8	56610
Specific Conductivity	3226H3	Rickenbacker Basin	-	-	uS/cm	NA	580	NA	NA	50773.0	14520	52248.8	54360	55883.6	58403
Specific Conductivity	3226H5		-	-	uS/cm	NA	652	NA	NA	43787.4	493	49160.9	51943.9	54253.6	328863

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Specific Conductivity	3226H6		-	-	uS/cm	NA	1576	NA	NA	45794.9	93	48675.8	51846.8	55137.8	56509
Specific Conductivity	3226L	Oleta River	-	-	uS/cm	NA	429	NA	NA	12259.6	689	13334	25348	43596	50331
Specific Conductivity	3226M1	Arch Creek	-	-	uS/cm	NA	685	NA	NA	32219.9	4	43925.5	49610	54074	57115
Specific Conductivity	3286A	Miami River West/C6	1275	500	uS/cm	231	234	99	Compliant	666.807	538	615.35	649	717	138190
Specific Conductivity	3286C	Comfort Canal/C-5	1275	500	uS/cm	NA	233	NA	Compliant	749.434	324.8	498.3	635.5	16953.4	104934
Specific Conductivity	3288A	Wagner Creek	-	-	uS/cm	NA	628	NA	NA	6189.4	147.2	5468.4	16908	33956.1	44987.5
Specific Conductivity	3288B	Lower Miami River/C-6	1275	500	uS/cm	NA	234	NA	Compliant	41552.2	5441.7	47765.7	51547.5	54833.1	58116
Specific Conductivity	3292A	Coral Gables Canal/C-3	-	-	uS/cm	NA	77	NA	NA	18779.4	4378	21545.6	27770.8	34598.8	42875.5
Specific Conductivity	3298A	Goulds Canal/C-102N	1275	500	uS/cm	55	225	24	Non-Compliant	6600.2	604	5358.1	30165	42817	53128
Specific Conductivity	3298B1	L31-E	1275	500	uS/cm	NA	234	NA	Compliant	3656.8	523	3530.4	9570.6	20862	26101.8
Specific Conductivity	3303B	Aerojet Canal/C-111	1275	500	uS/cm	NA	9	NA	Compliant	36462.5	9297	47459	50547	54992	54992
Specific Conductivity	6001C	Card Sound	-	-	uS/cm	22	72	31	NA	52338.2	29544	53856	56045	58025.3	60726.1
Specific Conductivity	6001D		-	-	uS/cm	NA	1171	NA	NA	40834.0	809.7	46979.3	50541.8	56572.1	61450
Specific Conductivity	6001E		-	-	uS/cm	NA	358	NA	NA	49518.1	14568	50901.7	53550.6	56561	60111
Specific Conductivity	6001F		-	-	uS/cm	NA	1306	NA	NA	32615.4	941	39545	46584	57291	63063
Specific Conductivity	6001G		-	-	uS/cm	NA	483	NA	NA	50775.3	17670	53648	55810	58539	59406.5
Specific Conductivity	6001H		-	-	uS/cm	NA	510	NA	NA	53656.9	27810	54469	56116.6	57269	58744
Temperature (Field)	3283	Snake Creek/C-9	-	-	^C	NA	576	NA	Compliant	26.0	18.2	26.6	28.1	30.0	31.1
Temperature (Field)	3284	Snake Creek/C-9	-	-	^C	NA	204	NA	Compliant	25.5	20.5	25.6	27.3	29.3	37.8
Temperature (Field)	3285	Biscayne Canal/C-8	-	-	^C	NA	674	NA	Compliant	26.3	18	27.1	28.8	30.7	32.6
Temperature (Field)	3286	Tamiami Canal/C-4	-	-	^C	NA	465	NA	Compliant	25.4	19.6	25.8	27.1	28.3	30.3
Temperature (Field)	3287	Little River/C-7	-	-	^C	NA	931	NA	Compliant	26.2	18.8	26.9	28.1	29.3	31.1
Temperature (Field)	3288	Miami River/C-6	-	-	^C	NA	956	NA	Compliant	26.2	19.3	27.1	28.4	30.0	31.8
Temperature (Field)	3290	Upper Miami River/C-6	-	-	^C	NA	477	NA	Compliant	26.1	18.8	26.9	28.2	29.7	30.7
Temperature (Field)	3292	Coral Gables Canal/C-3	-	-	^C	NA	243	NA	Compliant	25.9	18.8	26.6	27.8	29.9	31
Temperature (Field)	3293	Snapper Creek/C-2	-	-	^C	NA	471	NA	Compliant	25.8	19	26.2	27.3	28.8	31.2
Temperature (Field)	3295	Cutler Drain/C-100	-	-	^C	NA	710	NA	Compliant	26.2	19.1	26.3	28.4	30.3	31.8
Temperature (Field)	3297	Black Creek/C-1	-	-	^C	NA	614	NA	Compliant	26.0	19.5	26.3	27.9	29.7	31.7
Temperature (Field)	3300	Princeton Canal/C-102N	-	-	^C	NA	702	NA	Compliant	25.7	20.8	25.9	26.6	28.6	30.9
Temperature (Field)	3302	Mowry Canal/C-103	-	-	^C	NA	708	NA	Compliant	25.9	18.3	26.2	27.5	29.4	31.8
Temperature (Field)	3303	Aerojet Canal/C-111	-	-	^C	NA	234	NA	Compliant	25.9	20.2	26.8	28.0	29.6	31
Temperature (Field)	3304	Military Canal	-	-	^C	NA	467	NA	Compliant	26.9	18.6	27.7	29.5	31.7	34.1
Temperature (Field)	3305	North Canal	-	-	^C	NA	243	NA	Compliant	26.0	22.5	26.4	26.8	28.3	29.2
Temperature (Field)	3306	Florida City Canal	-	-	^C	NA	457	NA	Compliant	26.3	20.8	26.5	27.6	29.9	32.3
Temperature (Field)	6002	Manatee Bay	-	-	^C	NA	234	NA	Compliant	26.1	16.8	27.3	29.1	30.8	32.5
Temperature (Field)	6003	Barnes Sound	-	-	^C	NA	261	NA	Compliant	26.5	17.6	27.9	29.6	30.9	32.9
Temperature (Field)	3226H1	Dumbfoundling-Maule	-	-	^C	NA	468	NA	Compliant	26.981	19.5	27.8	29.795	31.333	32.01
Temperature (Field)	3226H2	Bakers Inlet	-	-	^C	NA	448	NA	Compliant	26.7	18.9	27.5	29.5	30.6	32.0
Temperature (Field)	3226H3	Rickenbacker Basin	-	-	^C	NA	580	NA	Compliant	26.6	19.6	27.5	29.4	30.6	31.6

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Temperature (Field)	3226H5		-	-	^C	NA	652	NA	Compliant	26.6	17.5	27.5	29.5	31.4	33.0
Temperature (Field)	3226H6		-	-	^C	NA	1576	NA	Compliant	26.4	16.5	27.6	29.5	30.93	32.2
Temperature (Field)	3226L	Oleta River	-	-	^C	NA	428	NA	Compliant	26.8	18.9	27.6	29.6	31.2	32.4
Temperature (Field)	3226M1	Arch Creek	-	-	^C	NA	685	NA	Compliant	27.2	20	27.5	29.5	31.2	32.6
Temperature (Field)	3286A	Miami River West/C6	-	-	^C	NA	234	NA	Compliant	25.3	18.5	25.6	26.8	28.1	29.0
Temperature (Field)	3286C	Comfort Canal/C-5	-	-	^C	NA	233	NA	Compliant	26.3	19.5	27.1	28.6	30.8	31.5
Temperature (Field)	3288A	Wagner Creek	-	-	^C	NA	628	NA	Compliant	26.3	20.3	26.8	27.7	28.9	30.8
Temperature (Field)	3288B	Lower Miami River/C-6	-	-	^C	NA	235	NA	Compliant	26.4	19.6	27.4	29.2	30.7	31.5
Temperature (Field)	3292A	Coral Gables Canal/C-3	-	-	^C	NA	77	NA	Compliant	27.0	21.9	27.9	28.8	30.6	31.1
Temperature (Field)	3298A	Goulds Canal/C-102N	-	-	^C	NA	447	NA	Compliant	26.7	17.3	27.5	29.1	31.2	33.3
Temperature (Field)	3298B1	L31-E	-	-	^C	NA	234	NA	Compliant	26.8	19.2	26.9	29.21	31.2	33.1
Temperature (Field)	3303B	Aerojet Canal/C-111	-	-	^C	NA	9	NA	Compliant	30.5	29.2	30.9	31.2	31.8	31.8
Temperature (Field)	6001C	Card Sound	-	-	^C	NA	663	NA	Compliant	26.1	17.2	27.6	29.4	30.5	33.38
Temperature (Field)	6001D		-	-	^C	NA	1171	NA	Compliant	26.0	15.7	27.1	28.8	30.88	31.8
Temperature (Field)	6001E		-	-	^C	NA	358	NA	Compliant	26.0	16.5	27.45	29.28	30.3	31.3
Temperature (Field)	6001F		-	-	^C	NA	1240	NA	Compliant	26.2	16	27.3	29.5	31.5	33.6
Temperature (Field)	6001G		-	-	^C	NA	483	NA	Compliant	26.1	16.1	27.4	29.3	31.1	31.9
Temperature (Field)	6001H		-	-	^C	NA	510	NA	Compliant	26.0	16.1	27.2	29.13	30.6	31.7
Total Dissolved Solids	3283	Snake Creek/C-9	-	1000	mg/l	59	64	92	Compliant	441.6	254	365.5	494.5	1130	5910
Total Dissolved Solids	3285	Biscayne Canal/C-8	-	1000	mg/l	55	58	95	Compliant	462.6	265	391.5	680	1020	1480
Total Dissolved Solids	3286	Tamiami Canal/C-4	-	1000	mg/l	54	55	98	Compliant	335.0	169	321	375	450	1240
Total Dissolved Solids	3287	Little River/C-7	-	1000	mg/l	116	116	100	Compliant	344.2	245	332.5	366.5	495	819
Total Dissolved Solids	3288	Miami River/C-6	-	1000	mg/l	33	37	89	Compliant	435.79	230	296	332	12200	14100
Total Dissolved Solids	3290	Upper Miami River/C-6	-	1000	mg/l	30	31	97	Compliant	376.6	283	330	375	457	6390
Total Dissolved Solids	3292	Coral Gables Canal/C-3	-	1000	mg/l	30	30	100	Compliant	291.9	245	294.5	307	338	362
Total Dissolved Solids	3293	Snapper Creek/C-2	-	1000	mg/l	60	60	100	Compliant	323.1	267	316	331	363.5	813
Total Dissolved Solids	3295	Cutler Drain/C-100	-	1000	mg/l	89	89	100	Compliant	305.6	208	310	330	402	474
Total Dissolved Solids	3297	Black Creek/C-1	-	1000	mg/l	NA	8	100	Compliant	327.1	126	330	356.5	446	622
Total Dissolved Solids	3300	Princeton Canal/C-102N	-	1000	mg/l	90	90	100	Compliant	383.8	136	389	415	490	784
Total Dissolved Solids	3302	Mowry Canal/C-103	-	1000	mg/l	84	90	93	Compliant	421.6	114	385	490	1040	1340
Total Dissolved Solids	3303	Aerojet Canal/C-111	-	1000	mg/l	29	29	100	Compliant	324.7	268	307	354	433	556
Total Dissolved Solids	3304	Military Canal	-	1000	mg/l	NA	8	100	Compliant	860.2	280	753.5	1400	3450	7882
Total Dissolved Solids	3305	North Canal	-	1000	mg/l	NA	4	100	Compliant	354.8	304	357	371	393	410
Total Dissolved Solids	3306	Florida City Canal	-	1000	mg/l	NA	8	100	Compliant	348.9	219	332	366	573	707
Total Dissolved Solids	3226L	Oleta River	-	1000	mg/l	1	29	3	Non-Compliant	3924	530	3380	7715	15000	24600
Total Dissolved Solids	3226M1	Arch Creek	-	1000	mg/l	NA	8	100	Compliant	7569.541	431	8700	16600	28400	78400
Total Dissolved Solids	3286A	Miami River West/C6	-	1000	mg/l	28	29	97	Compliant	400.1	300	361	384	466	6160
Total Dissolved Solids	3286C	Comfort Canal/C-5	-	1000	mg/l	27	30	90	Compliant	401.7	226	292	355	6280	7540
Total Dissolved Solids	3288A	Wagner Creek	-	1000	mg/l	15	28	54	Non-Compliant	1402.9	329	879	3123	13300	25200

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Total Dissolved Solids	3298A	Goulds Canal/C-102N	-	1000	mg/l	NA	4	100	Compliant	953.6	335	1100	1380	1690	1700
Total Dissolved Solids	3298B1	L31-E	-	1000	mg/l	10	29	34	Non-Compliant	1448.1	250	1750	2900	5210	6880
Total Kjeldahl Nitrogen	3283	Snake Creek/C-9	-	-	mg/L	NA	151	NA	Compliant	0.807	0.34	0.82	0.92	1.18	1.45
Total Kjeldahl Nitrogen	3284	Snake Creek/C-9	-	-	mg/L	NA	76	NA	Compliant	1.075	0.67	1.005	1.225	2	4.9
Total Kjeldahl Nitrogen	3285	Biscayne Canal/C-8	-	-	mg/L	NA	108	NA	Compliant	0.751	0.06	0.735	0.995	1.34	1.55
Total Kjeldahl Nitrogen	3286	Tamiami Canal/C-4	-	-	mg/L	NA	104	NA	Compliant	0.978	0.48	0.97	1.075	1.3	1.62
Total Kjeldahl Nitrogen	3287	Little River/C-7	-	-	mg/L	NA	222	NA	Compliant	1.131	0.46	0.93	1.27	3.63	6.1
Total Kjeldahl Nitrogen	3288	Miami River/C-6	-	-	mg/L	NA	238	NA	Compliant	0.582	0.04	0.615	0.72	0.97	1.25
Total Kjeldahl Nitrogen	3290	Upper Miami River/C-6	-	-	mg/L	NA	119	NA	Compliant	0.811	0.1	0.82	1.13	1.35	1.59
Total Kjeldahl Nitrogen	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	55	NA	Compliant	0.543	0.04	0.63	0.78	1.18	1.44
Total Kjeldahl Nitrogen	3293	Snapper Creek/C-2	-	-	mg/L	NA	112	NA	Compliant	0.824	0.04	0.9	1.01	1.15	1.31
Total Kjeldahl Nitrogen	3295	Cutler Drain/C-100	-	-	mg/L	NA	163	NA	Compliant	0.243	0.03	0.26	0.31	0.41	1.11
Total Kjeldahl Nitrogen	3297	Black Creek/C-1	-	-	mg/L	NA	160	NA	Compliant	0.508	0.04	0.675	0.905	1.15	1.31
Total Kjeldahl Nitrogen	3300	Princeton Canal/C-102N	-	-	mg/L	NA	176	NA	Compliant	0.309	0.04	0.275	0.665	1.14	1.54
Total Kjeldahl Nitrogen	3302	Mowry Canal/C-103	-	-	mg/L	NA	176	NA	Compliant	0.345	0.04	0.32	0.63	0.97	1.54
Total Kjeldahl Nitrogen	3303	Aerojet Canal/C-111	-	-	mg/L	NA	62	NA	Compliant	0.471	0.25	0.47	0.55	0.65	0.87
Total Kjeldahl Nitrogen	3304	Military Canal	-	-	mg/L	NA	124	NA	Compliant	0.371	0.19	0.385	0.425	0.57	0.78
Total Kjeldahl Nitrogen	3305	North Canal	-	-	mg/L	NA	55	NA	Compliant	0.19	0.04	0.21	0.25	0.32	0.79
Total Kjeldahl Nitrogen	3306	Florida City Canal	-	-	mg/L	NA	105	NA	Compliant	0.225	0.04	0.24	0.3	0.47	1.31
Total Kjeldahl Nitrogen	6002	Manatee Bay	-	-	mg/L	NA	67	NA	Compliant	0.647	0.39	0.65	0.74	0.88	1.25
Total Kjeldahl Nitrogen	6003	Barnes Sound	-	-	mg/L	NA	76	NA	Compliant	0.557	0.23	0.56	0.66	0.85	1.14
Total Kjeldahl Nitrogen	3226H1	Dumbfoundling-Maule	-	-	mg/L	NA	111	NA	Compliant	0.392	0.12	0.38	0.58	0.95	1.16
Total Kjeldahl Nitrogen	3226H2	Bakers Inlet	-	-	mg/L	NA	141	NA	Compliant	0.234	0.04	0.25	0.33	0.5	0.94
Total Kjeldahl Nitrogen	3226H3	Rickenbacker Basin	-	-	mg/L	NA	178	NA	Compliant	0.223	0.04	0.24	0.3	0.54	0.86
Total Kjeldahl Nitrogen	3226H5		-	-	mg/L	NA	215	NA	NA	0.306	0.08	0.31	0.4	0.7	0.99
Total Kjeldahl Nitrogen	3226H6		-	-	mg/L	NA	538	NA	NA	0.304	0.04	0.31	0.39	0.64	3.39
Total Kjeldahl Nitrogen	3226L	Oleta River	-	-	mg/L	NA	53	NA	Compliant	0.622	0.36	0.63	0.68	0.96	1.2
Total Kjeldahl Nitrogen	3226M1	Arch Creek	-	-	mg/L	NA	160	NA	Compliant	0.592	0.04	0.605	1.195	2.175	2.85
Total Kjeldahl Nitrogen	3286A	Miami River West/C6	-	-	mg/L	NA	56	NA	Compliant	0.855	0.47	0.835	1.04	1.28	1.41
Total Kjeldahl Nitrogen	3286C	Comfort Canal/C-5	-	-	mg/L	NA	53	NA	Compliant	0.509	0.21	0.53	0.62	0.73	0.77
Total Kjeldahl Nitrogen	3288A	Wagner Creek	-	-	mg/L	NA	177	NA	Compliant	0.457	0.04	0.46	0.56	0.99	5.4
Total Kjeldahl Nitrogen	3288B	Lower Miami River/C-6	-	-	mg/L	NA	56	NA	Compliant	0.388	0.16	0.365	0.505	0.71	1.83
Total Kjeldahl Nitrogen	3292A	Coral Gables Canal/C-3	-	-	mg/L	NA	30	NA	Compliant	0.175	0.04	0.19	0.26	0.36	0.36
Total Kjeldahl Nitrogen	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	76	NA	Compliant	0.826	0.04	0.82	1.28	2.4	3.53
Total Kjeldahl Nitrogen	3298B1	L31-E	-	-	mg/L	NA	60	NA	Compliant	0.425	0.06	0.425	0.57	0.84	0.95
Total Kjeldahl Nitrogen	6001C	Card Sound	-	-	mg/L	NA	200	NA	Compliant	0.321	0.04	0.32	0.435	0.64	1.04
Total Kjeldahl Nitrogen	6001D		-	-	mg/L	NA	307	NA	NA	0.374	0.04	0.38	0.49	0.75	1.13
Total Kjeldahl Nitrogen	6001E		-	-	mg/L	NA	111	NA	NA	0.275	0.04	0.3	0.34	0.49	1.16
Total Kjeldahl Nitrogen	6001F		-	-	mg/L	NA	250	NA	NA	0.484	0.14	0.48	0.62	0.88	1.31

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Total Kjeldahl Nitrogen	6001G		-	-	mg/L	NA	142	NA	NA	0.298	0.11	0.295	0.39	0.56	1.13
Total Kjeldahl Nitrogen	6001H		-	-	mg/L	NA	146	NA	NA	0.175	0.04	0.19	0.25	0.43	0.97
Total Nitrogen	3283	Snake Creek/C-9	-	-	mg/L	NA	36		NA	0.747	0.590	0.700	0.825	1.120	1.150
Total Nitrogen	3284	Snake Creek/C-9	-	-	mg/L	NA	24	NA	NA	1.172	0.67	1.16	1.45	1.68	4.91
Total Nitrogen	3285	Biscayne Canal/C-8	-	-	mg/L	NA	24	NA	NA	0.773	0.43	0.765	0.97	1.16	1.35
Total Nitrogen	3286	Tamiami Canal/C-4	-	-	mg/L	NA	24	NA	NA	0.929	0.8	0.92	1.01	1.03	1.06
Total Nitrogen	3287	Little River/C-7	-	-	mg/L	NA	48	NA	NA	1.224	0.73	1.005	1.255	3.56	4.25
Total Nitrogen	3288	Miami River/C-6	-	-	mg/L	NA	48	NA	NA	0.683	0.33	0.755	0.835	0.9	1.08
Total Nitrogen	3290	Upper Miami River/C-6	-	-	mg/L	NA	24	NA	NA	0.784	0.47	0.845	0.97	1.11	1.13
Total Nitrogen	3292	Coral Gables Canal/C-3	-	-	mg/L	NA	12	NA	NA	0.781	0.45	0.74	1.045	1.68	1.68
Total Nitrogen	3293	Snapper Creek/C-2	-	-	mg/L	NA	23	NA	NA	0.927	0.61	0.95	1.01	1.35	1.38
Total Nitrogen	3295	Cutler Drain/C-100	-	-	mg/L	NA	35	NA	NA	0.345	0.19	0.35	0.44	0.63	1.18
Total Nitrogen	3297	Black Creek/C-1	-	-	mg/L	NA	48	NA	NA	0.913	0.39	0.985	1.14	1.46	1.58
Total Nitrogen	3300	Princeton Canal/C-102N	-	-	mg/L	NA	36	NA	NA	2.339	0.55	3.945	4.315	5.53	6.54
Total Nitrogen	3302	Mowry Canal/C-103	-	-	mg/L	NA	36	NA	NA	1.683	0.48	1.865	3.765	4.6	4.76
Total Nitrogen	3303	Aerojet Canal/C-111	-	-	mg/L	NA	12	NA	NA	0.507	0.42	0.52	0.54	0.57	0.57
Total Nitrogen	3304	Military Canal	-	-	mg/L	NA	24	NA	NA	0.652	0.28	0.68	0.815	1.08	1.17
Total Nitrogen	3305	North Canal	-	-	mg/L	NA	12	NA	NA	1.684	1.5	1.67	1.765	2.32	2.32
Total Nitrogen	3306	Florida City Canal	-	-	mg/L	NA	24	NA	NA	0.868	0.48	0.84	1.015	1.62	2.99
Total Nitrogen	6002	Manatee Bay	.58	-	mg/L	NA	12	NA	Compliant	0.679	0.49	0.72	0.815	0.89	0.89
Total Nitrogen	6003	Barnes Sound	.58	-	mg/L	NA	12	NA	Compliant	0.554	0.34	0.57	0.655	0.87	0.87
Total Nitrogen	3226H1	Dumbfoundling-Maule	.3	-	mg/L	NA	24	NA	Non-Compliant	0.358	0.19	0.335	0.47	0.73	0.79
Total Nitrogen	3226H2	Bakers Inlet	.3	-	mg/L	NA	24	NA	Compliant	0.27	0.1	0.285	0.345	0.42	0.59
Total Nitrogen	3226H3	Rickenbacker Basin	.29	-	mg/L	NA	36	NA	Compliant	0.285	0.16	0.29	0.355	0.46	0.48
Total Nitrogen	3226H5		.3	-	mg/L	NA	48	NA	Non-Compliant	0.367	0.18	0.35	0.455	0.75	0.88
Total Nitrogen	3226H6		.29	-	mg/L	NA	127	NA	Non-Compliant	0.365	0.18	0.35	0.42	0.61	3.4
Total Nitrogen	3226L	Oleta River	-	-	mg/L	NA	12	NA	NA	0.703	0.57	0.685	0.78	1	1
Total Nitrogen	3226M1	Arch Creek	-	-	mg/L	NA	36	NA	NA	0.679	0.21	0.69	1.105	1.53	1.56
Total Nitrogen	3286A	Miami River West/C6	-	-	mg/L	NA	12	NA	NA	0.736	0.58	0.75	0.825	0.86	0.86
Total Nitrogen	3286C	Comfort Canal/C-5	-	-	mg/L	NA	12	NA	NA	0.517	0.34	0.55	0.57	0.65	0.65
Total Nitrogen	3288A	Wagner Creek	-	-	mg/L	NA	36	NA	NA	0.53	0.37	0.545	0.59	0.68	0.75
Total Nitrogen	3288B	Lower Miami River/C-6	-	-	mg/L	NA	12	NA	NA	0.392	0.27	0.375	0.455	0.59	0.59
Total Nitrogen	3292A	Coral Gables Canal/C-3	-	-	mg/L	NA	11	NA	NA	0.992	0.87	0.99	1.09	1.15	1.15
Total Nitrogen	3298A	Goulds Canal/C-102N	-	-	mg/L	NA	26	NA	NA	1.006	0.344	1.02	1.27	2.04	2.18
Total Nitrogen	3298B1	L31-E	-	-	mg/L	NA	12	NA	NA	0.793	0.11	0.785	1.545	2.1	2.1
Total Nitrogen	6001C	Card Sound	.33	-	mg/L	NA	60	NA	Non-Compliant	0.403	0.22	0.41	0.51	0.625	0.72
Total Nitrogen	6001D		.31	-	mg/L	NA	60	NA	Non-Compliant	0.43	0.21	0.43	0.505	0.735	0.84
Total Nitrogen	6001E		.28	-	mg/L	NA	35	NA	Non-Compliant	0.308	0.18	0.33	0.35	0.42	0.42
Total Nitrogen	6001F		.48	-	mg/L	NA	102	NA	Non-Compliant	0.74	0.32	0.674	0.909	2.53	3.53

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Total Nitrogen	6001G		.35	-	mg/L	NA	24	NA	Non-Compliant	0.363	0.18	0.38	0.43	0.49	0.62
Total Nitrogen	6001H		.24	-	mg/L	NA	24	NA	Compliant	0.253	0.12	0.26	0.315	0.35	0.38
Total Suspended Solids	3283	Snake Creek/C-9	-	40	mg/L	64	64	100	Compliant	2.195	1	2.5	3	8	13
Total Suspended Solids	3285	Biscayne Canal/C-8	-	40	mg/L	58	58	100	Compliant	2.572	1	2.5	3	12	21
Total Suspended Solids	3286	Tamiami Canal/C-4	-	40	mg/L	53	53	100	Compliant	2.389	1	2.5	3	8	29
Total Suspended Solids	3287	Little River/C-7	-	40	mg/L	115	116	99	Compliant	2.786	1	2.6	3.25	14	105
Total Suspended Solids	3288	Miami River/C-6	-	40	mg/L	63	63	100	Compliant	2.866	1.25	2.5	5.7	8.5	12
Total Suspended Solids	3290	Upper Miami River/C-6	-	40	mg/L	53	56	95	Compliant	3.728	1	3	7.2	54	151
Total Suspended Solids	3292	Coral Gables Canal/C-3	-	40	mg/L	30	30	100	Compliant	4.377	1.25	4.4	7	14.1	30.9
Total Suspended Solids	3293	Snapper Creek/C-2	-	40	mg/L	59	59	100	Compliant	2.346	1	2.5	3	12	14.8
Total Suspended Solids	3295	Cutler Drain/C-100	-	40	mg/L	89	89	100	Compliant	2.395	1	2.5	3	12	25.8
Total Suspended Solids	3297	Black Creek/C-1	-	40	mg/L	107	107	100	Compliant	2.2	-3	1.5	3	9.1	24
Total Suspended Solids	3300	Princeton Canal/C-102N	-	40	mg/L	89	90	99	Compliant	2.206	1	2.5	3	8	85.6
Total Suspended Solids	3302	Mowry Canal/C-103	-	40	mg/L	90	90	100	Compliant	2.2	1	2.5	3	8.8	12
Total Suspended Solids	3303	Aerojet Canal/C-111	-	40	mg/L	29	29	100	Compliant	2.193	1	2.5	3	6	12
Total Suspended Solids	3304	Military Canal	-	40	mg/L	57	57	100	Compliant	2.664	1	2.5	3	12	21
Total Suspended Solids	3305	North Canal	-	40	mg/L	30	31	97	Compliant	3.088	1	2.7	5.9	15.1	42
Total Suspended Solids	3306	Florida City Canal	-	40	mg/L	56	57	98	Compliant	3.519	1	3	5.3	26.6	127
Total Suspended Solids	6002	Manatee Bay	-	40	mg/L	1	5	20	Small N	68.13	21	63	127	156	156
Total Suspended Solids	6003	Barnes Sound	-	40	mg/L	1	6	17	Small N	70.029	19	65	171	179	179
Total Suspended Solids	3226H1	Dumbfoundling-Maule	-	40	mg/L	45	55	82	Non-Compliant	16.307	1.25	15.8	27	159	264
Total Suspended Solids	3226H2	Bakers Inlet	-	40	mg/L	41	57	72	Non-Compliant	22.549	2.5	20.9	46.2	181	284
Total Suspended Solids	3226H3	Rickenbacker Basin	-	40	mg/L	44	64	69	Non-Compliant	25.025	2.5	21.9	62.4	185	320
Total Suspended Solids	3226H5	79th St Basin	-	40	mg/L	54	69	78	NA	14.793	1.25	15.1	25.4	137	274
Total Suspended Solids	3226H6		-	40	mg/L	97	129	75	NA	19.268	1.25	18	40	188	295
Total Suspended Solids	3226L	Oleta River	-	40	mg/L	29	29	100	Compliant	5.431	1.25	5.5	12	19	29
Total Suspended Solids	3226M1	Arch Creek	-	40	mg/L	67	83	81	Non-Compliant	14.835	1.25	14.2	32	137	274
Total Suspended Solids	3286A	Miami River West/C6	-	40	mg/L	29	29	100	Compliant	2.509	1	2.5	3	14	23
Total Suspended Solids	3286C	Comfort Canal/C-5	-	40	mg/L	29	29	100	Compliant	3.352	1	3	5.5	9.3	12
Total Suspended Solids	3288A	Wagner Creek	-	40	mg/L	29	30	97	Compliant	5.083	1.25	3.8	10	31.7	86
Total Suspended Solids	3288B	Lower Miami River/C-6	-	40	mg/L	22	30	73	Non-Compliant	18.293	1.25	15.55	43	196	259
Total Suspended Solids	3298A	Goulds Canal/C-102N	-	40	mg/L	82	82	100	Compliant	2.449	-3	2.5	3.3	6	15
Total Suspended Solids	3298B1	L31-E	-	40	mg/L	29	29	100	Compliant	2.473	1	2.5	3	9	12
Total Suspended Solids	6001C	Card Sound	-	40	mg/L	35	44	80	Non-Compliant	16.824	2.7	17.8	28.4	165	211
Total Suspended Solids	6001D		-	40	mg/L	88	119	74	NA	17.085	1.25	15	43	166	189
Total Suspended Solids	6001E		-	40	mg/L	32	39	82	NA	14.751	1	15.8	27.1	173	181
Total Suspended Solids	6001F		-	40	mg/L	324	335	97	Compliant	3.594	1.25	2.5	7	28.1	150
Total Suspended Solids	6001G		-	40	mg/L	21	30	70	NA	23.595	2.5	20.95	52	182	215
Total Suspended Solids	6001H		-	40	mg/L	42	60	70	NA	24.688	1.25	21.9	55	192	213



Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Turbidity	3283	Snake Creek/C-9	29	29	NTU	193	193	100	Compliant	0.861	0.3	0.8	1.1	2.1	16.8
Turbidity	3284	Snake Creek/C-9	29	29	NTU	NA	68	NA	Compliant	1.621	0.2	1.3	4.9	15	51.8
Turbidity	3285	Biscayne Canal/C-8	29	29	NTU	155	155	100	Compliant	0.86	0.3	0.8	1.1	1.8	13.1
Turbidity	3286	Tamiami Canal/C-4	29	29	NTU	151	151	100	Compliant	1.229	0.5	1.2	1.5	3.1	25.7
Turbidity	3287	Little River/C-7	29	29	NTU	309	309	100	Compliant	0.986	0.3	0.9	1.3	3.3	22.3
Turbidity	3288	Miami River/C-6	29	29	NTU	317	317	100	Compliant	0.938	0.4	0.9	1.1	2.4	5.7
Turbidity	3290	Upper Miami River/C-6	29	29	NTU	159	159	100	Compliant	0.843	0.3	0.7	1.2	2.7	4.4
Turbidity	3292	Coral Gables Canal/C-3	29	29	NTU	81	81	100	Compliant	2.111	0.3	2	2.7	5.2	13.2
Turbidity	3293	Snapper Creek/C-2	29	29	NTU	156	156	100	Compliant	0.972	0.3	0.9	1.2	2.4	6.3
Turbidity	3295	Cutler Drain/C-100	29	29	NTU	237	237	100	Compliant	0.611	0.2	0.6	0.8	1.4	5.8
Turbidity	3297	Black Creek/C-1	29	29	NTU	189	189	100	Compliant	0.723	0.2	0.7	1	1.7	5
Turbidity	3300	Princeton Canal/C-102N	29	29	NTU	234	234	100	Compliant	0.642	0.1	0.6	1.1	2.2	19.8
Turbidity	3302	Mowry Canal/C-103	29	29	NTU	233	234	100	Compliant	0.712	0.1	0.7	1.1	2.2	177
Turbidity	3303	Aerojet Canal/C-111	29	29	NTU	78	78	100	Compliant	0.753	0.4	0.7	1	1.8	3.3
Turbidity	3304	Military Canal	29	29	NTU	156	156	100	Compliant	0.691	0.3	0.7	0.9	1.4	11.6
Turbidity	3305	North Canal	29	29	NTU	80	81	99	Compliant	0.663	0.2	0.5	0.9	3.4	144.4
Turbidity	3306	Florida City Canal	29	29	NTU	155	157	99	Compliant	0.748	0.2	0.6	1.1	5.8	254
Turbidity	6002	Manatee Bay	29	29	NTU	78	78	100	Compliant	0.634	0.3	0.6	0.8	1.3	1.6
Turbidity	6003	Barnes Sound	29	29	NTU	87	87	100	Compliant	0.78	0.3	0.7	1.2	1.8	4.6
Turbidity	3226H1	Dumbfoundling-Maule	29	29	NTU	155	155	100	Compliant	0.904	0.2	0.8	1.3	2.3	4.1
Turbidity	3226H2	Bakers Inlet	29	29	NTU	158	158	100	Compliant	0.777	0.3	0.75	1.1	1.8	5.4
Turbidity	3226H3	Rickenbacker Basin	29	29	NTU	183	183	100	Compliant	0.707	0.2	0.7	1	1.5	2.6
Turbidity	3226H5	79th St Basin	29	29		NA	224	NA	NA	0.904	0.3	0.85	1.2	1.8	24.6
Turbidity	3226H6		29	29		NA	540	NA	NA	1.436	0.4	1.4	2.1	3.8	6.2
Turbidity	3226L	Oleta River	29	29	NTU	78	78	100	Compliant	1.996	0.7	2	2.5	5.8	15.4
Turbidity	3226M1	Arch Creek	29	29	NTU	237	238	100	Compliant	1.879	0.3	2	4.1	10.9	38.5
Turbidity	3286A	Miami River West/C6	29	29	NTU	78	78	100	Compliant	0.441	0.2	0.4	0.5	2	5.2
Turbidity	3286C	Comfort Canal/C-5	29	29	NTU	NA	78	NA	Compliant	1.441	0.4	1.25	2.1	4.8	8.7
Turbidity	3288A	Wagner Creek	29	29	NTU	231	232	100	Compliant	1.3	0.4	1.1	1.9	5.7	37.9
Turbidity	3288B	Lower Miami River/C-6	29	29	NTU	78	78	100	Compliant	0.904	0.5	0.8	1.2	1.9	2.5
Turbidity	3292A	Coral Gables Canal/C-3	29	29	NTU	NA	29	NA	Compliant	0.681	0.2	0.5	1.2	4.2	5.6
Turbidity	3298A	Goulds Canal/C-102N	29	29	NTU	84	85	99	Compliant	1.321	0.5	1.2	1.7	3.4	41.2
Turbidity	3298B1	L31-E	29	29	NTU	NA	76	NA	Compliant	0.788	0.3	0.7	1.15	1.9	2.6
Turbidity	3303B	Aerojet Canal/C-111	29	29	NTU	3	3	100	Small N	0.654	0.5	0.7	0.8	0.8	0.8
Turbidity	6001C	Card Sound	29	29	NTU	210	223	94	Compliant	0.51	0.1	0.5	0.7	1.4	19.6
Turbidity	6001D		29	29	NTU	NA	396	NA	NA	0.655	0.2	0.6	0.9	1.9	5.1
Turbidity	6001E		29	29	NTU	NA	111	NA	NA	0.713	0.2	0.7	1.1	1.8	4.2
Turbidity	6001F		29	29	NTU	NA	189	NA	NA	0.607	0.05	0.6	0.8	1.6	2.4
Turbidity	6001G		29	29	NTU	NA	161	NA	NA	0.533	0.2	0.5	0.7	1.3	3.4

Parameter	WBID	Local Name	State Criterion	County Criterion	Units	Number of samples in Compliance	Total Samples (N)	Percent of Samples in Compliance	IWR-Based Evaluation	Geometric Mean	Min	Median	75th Percentile	95th Percentile	Max
Turbidity	6001H		29	29	NTU	NA	170	NA	NA	0.505	0.2	0.5	0.7	1.4	3.7
Vanadium	3287	Little River/C-7	-	-	ug/L	NA	4	NA	NA	2.866	1.5	3.25	5.5	6	6
Vanadium	3288	Miami River/C-6	-	-	ug/L	NA	4	NA	NA	4.356	1.5	5.5	9	10	10
Vanadium	3226H5	79th St Basin	-	-	ug/L	NA	4	NA	NA	66.843	53	68.5	78	81	81
Vanadium	3226H6		-	-	ug/L	NA	10	NA	NA	70.397	55	68.5	75	96	96
Zinc	3283	Snake Creek/C-9	*	1000	ug/L	14	14	100	Small N	2.684	2	2	2.5	7	7
Zinc	3285	Biscayne Canal/C-8	*	1000	ug/L	13	13	100	Small N	3.949	2	2	7	33	33
Zinc	3286	Tamiami Canal/C-4	*	1000	ug/L	12	12	100	Small N	2.61	2	2.25	2.5	8	8
Zinc	3287	Little River/C-7	*	1000	ug/L	24	24	100	Compliant	4.753	2	4	9.5	16	21
Zinc	3288	Miami River/C-6	*	1000	ug/L	6	6	100	Small N	5.432	2	6	10	11	11
Zinc	3290	Upper Miami River/C-6	*	1000	ug/L	7	7	100	Small N	8.001	2	8	9	54	54
Zinc	3292	Coral Gables Canal/C-3	*	1000	ug/L	7	7	100	Small N	3.706	2	2.5	8	8	8
Zinc	3293	Snapper Creek/C-2	*	1000	ug/L	12	12	100	Small N	2.283	2	2	2.5	4	4
Zinc	3295	Cutler Drain/C-100	*	1000	ug/L	19	19	100	Compliant	2.588	2	2.5	2.5	7	7
Zinc	3297	Black Creek/C-1	*	1000	ug/L	13	13	100	Small N	3.111	2	2.5	5	8	8
Zinc	3300	Princeton Canal/C-102N	*	1000	ug/L	18	18	100	Compliant	2.918	2	2.5	4	7	7
Zinc	3302	Mowry Canal/C-103	*	1000	ug/L	18	18	100	Compliant	2.31	2	2	2.5	7	7
Zinc	3303	Aerojet Canal/C-111	*	1000	ug/L	6	6	100	Small N	2.154	2	2	2.5	2.5	2.5
Zinc	3304	Military Canal	*	1000	ug/L	12	12	100	Small N	3.576	2	2.5	7.5	14	14
Zinc	3305	North Canal	*	1000	ug/L	7	7	100	Small N	2.132	2	2	2.5	2.5	2.5
Zinc	3306	Florida City Canal	*	1000	ug/L	11	11	100	Small N	3.055	2	2.5	6	6	6
Zinc	3226H6		*	1000	ug/L	4	4	100	Small N	5.045	2.49	3.375	13.72	23.5	23.5
Zinc	3226L	Oleta River	86	1000	ug/L	7	7	100	Small N	3.42	2	3.25	5	8	8
Zinc	3226M1	Arch Creek	*	1000	ug/L	13	13	100	Compliant	4.826	2	4	12	14	14
Zinc	3286A	Miami River West/C6	*	1000	ug/L	6	6	100	Small N	2.154	2	2	2.5	2.5	2.5
Zinc	3286C	Comfort Canal/C-5	*	1000	ug/L	6	6	100	Small N	5.477	2.5	5.5	6	12	12
Zinc	3288A	Wagner Creek	86	1000	ug/L	13	13	100	Compliant	11.928	2.5	11	21	33	33
Zinc	3298A	Goulds Canal/C-102N	*	1000	ug/L	6	6	100	Small N	2.817	2	2.25	2.5	10	10
Zinc	3298B1	L31-E	*	1000	ug/L	6	6	100	Small N	3.26	2	2.5	6	8	8
Zinc	6001D		*	1000	ug/L	4	4	100	Small N	3.466	0.4	4.265	12.92	20.7	20.7
Zinc	6001F		*	1000	ug/L	5	5	100	Small N	1.261	0.175	2.06	2.28	2.34	2.34

## References

Briceño, H.O., Boyer, J.N., and Harlem, P.W., 2010, Proposed methodology for the assessment of numeric nutrient criteria for South Florida estuaries and coastal waters, Report to the National Park Service, Everglades National Park, Cooperative Agreement Number: H5000-06-0104

Avila, C., Varona, G., Pierre, M., Abdelrahman O., and Monty, J. (2017) A Review of Seagrass Losses and Algal Blooms in Biscayne Bay. In *GEER 2017 Greater Everglades Ecosystem Restoration "Science in Support of Everglades Restoration"* Program & Abstracts

Varona, G., Avila, C., Collado-Vides, L. and Monty, J. (2017) Development, Persistence, and Impacts of a Decade Long Macroalgal Bloom in Biscayne Bay. *GEER 2017 Greater Everglades Ecosystem Restoration "Science in Support of Everglades Restoration"* Program & Abstracts

Varona, G, Sweeney, P. (2019) Report on the Findings of the County's Study on the Decline of Seagrass and Hardbottom Habitat in Biscayne Bay. Miami-Dade County. Available at <https://www.miamidade.gov/govaction/legistarfiles/Matters/Y2019/190191.pdf>