

**“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”
Action Item Matrix Quarterly Progress Report**

Second Quarterly Report, 2002
(April 1 – June 30)

Action Item:

- 3. Enforcement, compliance and education
 - e. Continue surveillance and inspections

Lead Agency: Miami-Dade County DERM

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Action Item Status:

The Coastal Resources Section of Miami-Dade County Department of Environmental Resource Management conducts routine inspections on the Miami River and also responds to specific public complaints. The following is a summary of the activities performed by the inspectors during the last quarter.

MIAMI RIVER ENFORCEMENT ACTIVITIES

DATE	ACTIVITY/STATUS	
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4-05-02	<input checked="" type="checkbox"/> Inspection	<input type="checkbox"/> Meeting
	<input type="checkbox"/> Initial	<input type="checkbox"/> Follow up

Name: Miami River and its tributaries.
Address:
Action taken: Survey the waterway by boat.
Results/Status: No violations were documented.

4-09-02	<input type="checkbox"/> Inspection	<input checked="" type="checkbox"/> Meeting
	<input type="checkbox"/> Initial	<input type="checkbox"/> Follow up

Name: Miami River Enforcement Group Meeting
Address: US Coast Guard Marine Safety Office

Action taken: Meeting of the various enforcement agencies with jurisdiction over the Miami River areas.

Results/Status: The date and location of the interagency inspections was set.

4-12-02 Inspection Meeting
 Initial Follow up

Name: Miami River and its tributaries.

Address:

Action taken: Survey the waterway by boat with a representative from FWC for the purpose of documenting derelict vessels.

Results/Status: One possible DV identified on the Seybold Canal to be investigated by FWC.

4-17-02 Inspection Meeting
 Initial Follow up

Miami River Enforcement Group (MREG) inspections.

Name: Island Shipping & Terminals, Inc.

Address: 3600 NW North River Drive

Action taken: None

Results/Status: The facility was in compliance with the conditions of their Marine Facilities Annual Operating Permit. MSO representatives identified deficiencies with cargo arrangement, fire extinguishers and electrical fixtures and outlets.

Name: Cap Haitian Miami Terminal Services

Address: 3460 NW North River Drive

Action taken: None

Results/Status: The facility was in compliance with the conditions of their operating permit. MSO representatives identified deficiencies with cargo arrangement and fire extinguishers.

4-17-02 Inspection Meeting
 Initial Follow up

Name: Superior Terminal

Address: 3464 NW North River Drive

Action taken: An inspection was performed at a new terminal operation.

Results/Status: The new business was advised of the operating permit requirements and guidelines and given the permit application and information. No violations were documented.

4-18-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Gilbert Southern / FDOT
Address: 2ND Avenue Bridge Project
Action taken: Uniform Civil Violation Notice was issued to Gilbert Southern for violation of Class I Permit conditions (failure to maintain turbidity controls). Notice To Correct A Waste Dumping Violation was issued to FDOT and Gilbert Southern for dewatering sewage contaminated ground-water to the river. A formal Notice of Violation was subsequently issued to Gilbert Southern.
Results/Status: Monitoring of the project is ongoing.

4-23-02 ___ Inspection ___ Meeting
 ___ Initial Follow up

Name: Manny Seafood
Address: 510 NW 7TH Avenue
Action Taken: An inspection revealed that the structure was removed.
Results/Status: Compliance with the notice was achieved.

4-24-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Miami River Enforcement Group (MREG) inspections.

Name: Bimini Shipping
Address: 1201 NW South River Drive
Action taken: None
Results/Status: The facility was in compliance with the conditions of their operating permit.

Name: La Reine Du Norde Group/ Brown Property
Address: 31 NW South River Drive
Action taken: The property owner will be notified of the requirements for operating a commercial docking facility.
Results/Status: The facility is operating without a valid MOP permit and used for dockage of a freighter. Repair activities were being performed aboard the vessel.

4-26-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Boat survey of the Miami River and its tributaries.

Name: Miami River and its tributaries.

Address:

Action taken: Survey the waterway by boat.

Results/Status: No violations were documented.

5-02-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Cap Haitian Miami Terminal Service

Address: 3460 NW North River Drive

Action taken: A Notice To Correct A Waste Dumping Violation was issued for discharge of hydrocarbons from a leaking crane to the asphalt parking area.

Results/Status: The asphalt area was cleaned.

5-06-02 ___ Inspection ___ Meeting
 ___ Initial Follow up

Name: Big Fish Restaurant

Address: 55 SW Miami Avenue Road

Action taken: An inspection revealed that the unauthorized dock was removed.

Results/Status: Compliance with the Uniform Civil Violation was achieved.

5-08-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Isla Del Mar Yacht Club

Address: 1800 NW 24 Avenue

Action taken: Field Notice issued for improper storage of solid waste.

Results/Status: The solid waste was containerized and properly disposed of.

5-09-02 Inspection ___ Meeting

Initial Follow up

Name: Miami River and its waterways.
Address:
Action taken: Survey the waterway by boat.
Results/ Status: No violations were documented.

5-09-02 Inspection Meeting

 Initial Follow up

Name: Miami River
Address: Area of the Miami Avenue Bridge
Action taken: An inspection was performed related to turbidity in this area of the Miami River.
Results/Status: No source of a discharge contributing to turbidity in the area was identified.

5-23-02 Inspection Meeting

 Initial Follow up

Boat survey of the Miami River and its tributaries.

Name: Brickell Shipping Corp.
Address: 615 SW 2ND Avenue
Action taken: A cargo vessel was moored on site. The facility does not have a valid MOP permit.
Results/Status: Notification was given to the property owners and the permit issues have been resolved.

5-28-02 Inspection Meeting

 Initial Follow up

Name: Miami River
Address: Area of Miami Avenue and 2ND Avenue bridges
Action taken: Inspected the area in response to a turbidity complaint related to stormwater runoff.
Results/Status: No point sources were identified as sources of turbidity.

5-30-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Bassas Cargo International
Address: 311-325 NW South River Drive
Action taken: Inspected the facility and the vessel La Family Island Express in response to a complaint of garbage being dumped to the waterway.
Results/Status: No violations were observed during the inspection.

6-04-02 ___ Inspection Meeting
 ___ Initial ___ Follow up

Name: Miami River Enforcement Group Meeting
Address: US Coast Guard Marine Safety Office
Action taken: Meeting of the various enforcement agencies with jurisdiction over the Miami River areas.
Result/Status: The date and locations of the interagency inspections was set.

6-05-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Merrill Stevens Dry Dock Co.
Address: 1270 NW 11 Street
Action taken: An inspection was performed in response to a complaint of dumping debris to the waterway from work areas.
Results/Status: No violations were observed at the facility.

6-06-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Cap Haitian Miami Terminal Service
Address: 3460 NW North River Drive
Action taken: An inspection was performed in response to a complaint of hydrocarbons discharged to a stormdrain. Observed product in drain but I could not access the structure.
Results/Status: Follow up inspection to be performed.

6-07-02 ___ Inspection ___ Meeting
 ___ Initial Follow up

Name: Cap Haitian Miami Terminal Service
Address: 3460 NW North River Drive
Action taken : A sample was collected of the contents in the stormdrain.
The material resembled a layer of oil and grease.
Results/Status: A formal enforcement notice will be issued to the facility.

6-13-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Jones Boat Yard
Address: 3399 NW South River Drive
Action taken: An inspection was performed in response to as fuel sheen in the vicinity of the facility.
Results/Status: A slight sheen was observed moving with the outgoing tide from upstream. No source could be identified and heavy rains may account for upland runoff from the streets to cause hydrocarbons to enter the river.

6-14-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Boat Survey of the Miami River and its tributaries.

Name: Sosa/Sunken Vessel/ Hurricane Cove
Address: 1884 NW North River Drive
Action taken: A sunken vessel was observed during a routine boat survey at the above location. A hydrocarbon sheen was emanating from the vessel.
Result/ Status: A Notice To Correct A Waste Dumping Violation was issued the vessel owner and the vessel was subsequently raised.

6-17-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: Neo-Lofts Development
Address: 10 SW South River Drive
Action taken: An inspection was performed in response to a complaint of dewatering on site without a permit. Dewatering to the municipal stormwater system without authorization was documented.

Results/Status: A Field Notice of Violation and Order To Cease and Desist Was issued.

6-17-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: M/V Rusalka/ Bernuth Chartering, S.A.
Address: 1583/85 NW 24 Avenue
Action taken: An inspection was performed in response to a complaint of a discharge to the surface waters from boat repair activities.
Results/Status: A Notice To Correct A Waste Dumping Violation was issued for dust being discharged to surface waters from sanding operations being performed without adequate controls.

6-17-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Name: M/V Transport/ 5TH Street Terminal, Inc.
Address: 517-555 NW South River Drive
Action taken: An inspection was performed in response to a complaint of work being performed on the hull of a freighter without controls.
Results/Status: A Marine Facilities Inspection Report was issued advising operator of the facility and the vessel's representative of the required containment measures.

6-18-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Miami River Enforcement Group inspections.

Name: River Marine Terminal/ Export Terminal
Address: 3795 NW South River Drive
Action taken: Inspection revealed improper storage of solid waste and rubbish. MSO identified deficiencies with electrical, fire and security regs.
Results/Status: A Marine Facilities Inspection Report was issued requiring collection and proper disposal of the solid waste and rubbish.

Name: ICM Corporation
Address: 3701 NW South River Drive
Action taken: None
Results/Status: MSO identified deficiencies with security, fire electrical, cargo arrangement and lighting requirements and will follow up as needed.

6-19-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Miami River Enforcement Group inspections.

Name: Antillean Marine Shipping Corp.

Address: 2199 NW South River Drive

Action taken: None

Results/Status: The facility was in compliance with the guidelines of the MOP permit. MSO identified deficiencies with security and lighting.

Name: Global Marine/Coastal Tug/ Millennium Shipping

Address: 2215 NW 14 Street

Action taken: This facility is operating without a valid Certificate of Use and Occupational License. No MOP permit has been issued pending resolution of the enforcement case

Results/Status: The facility is currently under enforcement and is being Monitored.

6-27-02 Inspection ___ Meeting
 ___ Initial ___ Follow up

Boat survey of the Miami River and its tributaries.

Name: Possible derelict vessel.

Address: NW North River Drive and 9 Avenue

Action taken: The sunken houseboat was referred to FWC for investigation as a possible derelict vessel.

Results/Status: We will continue to monitor the houseboat and assist FWC as needed.

Name: Bernuth Chartering, S.A./ MV Rusalka

Address: 1583/85 NW 24 Avenue

Action taken: An inspection was performed and the work was being in compliance with the guidelines of the operating permit.

Results/Status: We will continue to monitor the facility.

Name: 5TH Street Terminal, Inc.

Address: 517/555 NW South River Drive

Action taken: An inspection was performed and no work was being done on the freighter moored at the terminal.

Results/Status: We will continue to monitor the facility.

“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”
Action Item Matrix Quarterly Progress Report

Second Quarterly Report, 2002
(April 1 – June 30)

Action Item:

4. Monitoring and Research
 - a. Continue monthly monitoring for water quality of Wagner Creek, Miami River, and adjoining Biscayne Bay

Lead Agency: Miami-Dade County DERM

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Action Item Status:

With the assistance of funding from DEP, Miami-Dade DERM has continued to collect monthly water quality samples in the Miami River and its tributaries (including Tamiami Canal and Wagner Creek). During the second quarter of 2002, samples were collected at each of the ten stations in the River on April 2nd, May 7th, and June 4th. Costs for sampling (including salaries and fringe and analysis) have been calculated at approximately \$320 per station per month. See the previous quarterly report for a matrix of parameters collected on the Miami River during DERM’s monthly “Bay Run” and the frequency with which various types of parameters are collected.

See **Figures 1 & 2** below for maps showing Total Coliform results from April, and May (which are available sooner than the remaining chemical parameters) at all stations in the northern half of the County. Total Coliform results from station locations on the Miami River and its tributaries have been combined in **Figure 3** to show how frequently the results at each station exceeded the County standard during the second quarter.

Due to the delays in the conduct of internal quality assurance analyses, the most recent complete quarter data available for summary reporting are those from the first quarter (Jan- Mar 2002). As indicated in the previous quarterly report, the time required for laboratory analysis of the samples, reporting of the results, and the conduct of internal quality assurance analyses, summary information for a given quarter will typically not be available until thirty days after the end of that quarter.

The table below shows a summary of the results of the sampling from the FIRST Quarter of 2002 by parameter by station. The basic statistics derived are mean, median (for highly variable results like total coliform), min, max, and range.

STATION	PARMTER	FREQ	MEAN	MEDIAN	MIN	MAX	RANGE
MR01	A-COLOR	3	10.33333	7	5	19	14
MR01	Cu	1	-0.44	-0.44	-0.44	-0.44	0
MR01	DEPTH	3	5.066667	5	4.7	5.5	0.8
MR01	DISSOXY	9	6.421111	6.47	4.65	7.35	2.7
MR01	FECCOLI	3	430	600	50	640	590
MR01	NH3-N	3	0.14	0.12	0.12	0.18	0.06
MR01	NOx-N	3	0.036667	0.03	0.02	0.06	0.04
MR01	ORP	9	480.1111	481	452	506	54
MR01	PAR	2	-0.5334	-0.5334	-0.5631	-0.5037	0.0594
MR01	Pb	1	-0.17	-0.17	-0.17	-0.17	0
MR01	SALIN	9	27.53333	30.2	13.9	33.3	19.4
MR01	TEMP	9	21.5	21.37	19.41	23.81	4.4
MR01	TOTCOLI	3	5066.667	5500	3000	6700	3700
MR01	TP	3	0.005667	0.006	0.004	0.007	0.003
MR01	TURB	3	1.34	1	0.7	2.32	1.62
MR01	Zn	1	-12.2	-12.2	-12.2	-12.2	0
MR01	pH	9	8.101111	8.16	7.77	8.21	0.44
MR01	spCOND	9	42622.22	46400	23100	50700	27600
MR02	A-COLOR	4	38.5	36	34	48	14
MR02	DEPTH	3	5.366667	5.3	5.1	5.7	0.6
MR02	DISSOXY	9	5.406667	5.86	3.66	6.52	2.86
MR02	FECCOLI	4	530	510	410	690	280
MR02	NH3-N	4	0.1375	0.125	0.1	0.2	0.1
MR02	NOx-N	4	0.1925	0.175	0.11	0.31	0.2
MR02	ORP	9	483.8889	487	451	515	64
MR02	PAR	2	-0.88025	-0.88025	-0.9311	-0.8294	0.1017
MR02	SALIN	9	14.51111	9.6	4.4	32.2	27.8
MR02	TEMP	9	21.68778	21.69	19.65	23.99	4.34
MR02	TOTCOLI	4	12427.5	12500	710	24000	23290
MR02	TP	4	0.02775	0.0265	0.023	0.035	0.012
MR02	TURB	4	1.58	1.625	0.8	2.27	1.47
MR02	pH	9	7.917778	7.88	7.66	8.19	0.53
MR02	spCOND	9	23183.33	16400	7860	49100	41240
MR03	A-COLOR	4	39.25	39	35	44	9
MR03	Cd	1	-0.08	-0.08	-0.08	-0.08	0
MR03	Cu	1	-0.44	-0.44	-0.44	-0.44	0
MR03	DEPTH	3	4.6	4.6	4.5	4.7	0.2
MR03	DISSOXY	9	4.897778	5.06	3.09	6.01	2.92
MR03	FECCOLI	4	2617.5	3000	70	4400	4330
MR03	NH3-N	4	0.1775	0.18	0.13	0.22	0.09
MR03	NOx-N	4	0.18	0.16	0.11	0.29	0.18
MR03	ORP	9	482.8889	484	459	510	51
MR03	PAR	2	-1.06705	-1.06705	-1.1983	-0.9358	0.2625
MR03	Pb	1	-0.17	-0.17	-0.17	-0.17	0
MR03	SALIN	9	12.33333	6.7	2.7	32.1	29.4
MR03	TEMP	9	21.80667	21.97	19.68	24.54	4.86
MR03	TOTCOLI	4	19950	24500	2800	28000	25200
MR03	TP	4	0.03025	0.0305	0.023	0.037	0.014

MR03	TURB	4	1.67	1.65	1	2.38	1.38
MR03	Zn	1	-12.2	-12.2	-12.2	-12.2	0
MR03	pH	9	7.867778	7.87	7.62	8.16	0.54
MR03	spCOND	9	19741.11	11790	4860	49000	44140
MR04	A-COLOR	4	44.25	46.5	37	47	10
MR04	DEPTH	3	4.733333	4.7	4.7	4.8	0.1
MR04	DISSOXY	9	4.801111	5.17	3.18	5.66	2.48
MR04	FECCOLI	4	277.5	325	110	350	240
MR04	NH3-N	4	0.1675	0.165	0.13	0.21	0.08
MR04	NOx-N	4	0.21	0.23	0.1	0.28	0.18
MR04	ORP	9	411.3333	408	394	432	38
MR04	PAR	1	-1.0452	-1.0452	-1.0452	-1.0452	0
MR04	SALIN	9	11.64444	6.6	2	28.9	26.9
MR04	TEMP	9	21.84222	21.95	19.56	24.6	5.04
MR04	TOTCOLI	4	2375	2050	1700	3700	2000
MR04	TP	4	0.03125	0.0335	0.023	0.035	0.012
MR04	TURB	4	1.86	1.75	1.4	2.54	1.14
MR04	pH	9	7.853333	7.86	7.58	8.08	0.5
MR04	spCOND	9	18617.78	11480	3650	44700	41050
MR06	A-COLOR	3	61.66667	65	43	77	34
MR06	Cd	1	-0.08	-0.08	-0.08	-0.08	0
MR06	Cu	1	-0.44	-0.44	-0.44	-0.44	0
MR06	DEPTH	3	4.766667	4.6	4.5	5.2	0.7
MR06	DISSOXY	9	3.637778	4.05	2.6	4.46	1.86
MR06	FECCOLI	3	143.3333	160	40	230	190
MR06	NH3-N	3	0.223333	0.24	0.18	0.25	0.07
MR06	NOx-N	3	0.15	0.15	0.09	0.21	0.12
MR06	ORP	9	427.4444	438	337	503	166
MR06	PAR	2	-1.3002	-1.3002	-1.6846	-0.9158	0.7688
MR06	Pb	1	-0.17	-0.17	-0.17	-0.17	0
MR06	SALIN	9	6.033333	3	0.8	20.5	19.7
MR06	TEMP	9	22.30667	21.97	20.2	24.92	4.72
MR06	TOTCOLI	3	1120	1200	760	1400	640
MR06	TP	3	0.032	0.031	0.028	0.037	0.009
MR06	TURB	3	3.03	0.9	0.9	7.29	6.39
MR06	Zn	1	-12.2	-12.2	-12.2	-12.2	0
MR06	pH	9	7.675556	7.67	7.55	7.8	0.25
MR06	spCOND	9	10153.33	5360	1460	32900	31440
MR07	A-COLOR	3	51.33333	49	49	56	7
MR07	DEPTH	3	3.966667	4	3.4	4.5	1.1
MR07	DISSOXY	9	3.015556	3.02	1.59	4.24	2.65
MR07	FECCOLI	3	83.33333	70	70	110	40
MR07	NH3-N	3	0.293333	0.25	0.23	0.4	0.17
MR07	NOx-N	3	0.086667	0.08	0.08	0.1	0.02
MR07	ORP	9	390.8889	367	331	472	141
MR07	PAR	2	-1.19655	-1.19655	-1.3369	-1.0562	0.2807
MR07	SALIN	9	2.055556	0.4	0.3	14.6	14.3
MR07	TEMP	9	22.78889	22.57	20.25	24.94	4.69
MR07	TOTCOLI	3	860	250	230	2100	1870
MR07	TP	3	0.037	0.038	0.033	0.04	0.007
MR07	TURB	3	1.453333	0.8	0.7	2.86	2.16
MR07	pH	9	7.733333	7.79	7.46	7.86	0.4
MR07	spCOND	9	3525	830	630	24200	23570
TM02	A-COLOR	3	42.33333	42	39	46	7

TM02	DEPTH	3	6.466667	6.2	6.2	7	0.8
TM02	DISSOXY	9	4.343333	4.88	1.7	6.31	4.61
TM02	FECCOLI	3	70	60	-10	160	170
TM02	NH3-N	3	0.25	0.21	0.09	0.45	0.36
TM02	NOx-N	3	0.233333	0.27	0.08	0.35	0.27
TM02	ORP	9	399.1111	415	309	470	161
TM02	PAR	2	-0.8387	-0.8387	-0.8414	-0.836	0.0054
TM02	SALIN	9	1.6	0.3	0.3	8.1	7.8
TM02	TEMP	9	21.88667	22.24	19.82	24.75	4.93
TM02	TOTCOLI	3	303.3333	310	140	460	320
TM02	TP	3	0.037	0.037	0.035	0.039	0.004
TM02	TURB	3	1.423333	1.6	0.9	1.77	0.87
TM02	pH	9	7.794444	7.82	7.43	8.08	0.65
TM02	spCOND	9	2838.222	576	534	13960	13426
TM03	pH	9	7.706667	7.65	7.56	7.94	0.38
TM03	spCOND	9	460.6667	516	14	522	508
WC02	A-COLOR	3	26	24	19	35	16
WC02	DEPTH	3	1.4	1.5	1.2	1.5	0.3
WC02	DISSOXY	9	2.388889	2.66	1.34	3.52	2.18
WC02	FECCOLI	3	560	470	410	800	390
WC02	NH3-N	3	0.253333	0.26	0.21	0.29	0.08
WC02	NOx-N	3	0.206667	0.22	0.09	0.31	0.22
WC02	ORP	9	262.5556	278	208	298	90
WC02	PAR	2	-0.73835	-0.73835	-0.8105	-0.6662	0.1443
WC02	SALIN	9	3.055556	1.5	1.2	8.5	7.3
WC02	TEMP	9	23.44111	23.29	22.74	24.36	1.62
WC02	TOTCOLI	3	42966.67	44000	3900	81000	77100
WC02	TP	3	0.063667	0.053	0.041	0.097	0.056
WC02	TURB	3	3.766667	3.5	0.9	6.9	6
WC02	pH	9	7.704444	7.69	7.54	7.91	0.37
WC02	spCOND	9	5426.667	2800	2260	14610	12350
WC03	A-COLOR	3	13.33333	14	11	15	4
WC03	COD	1	10.1	10.1	10.1	10.1	0
WC03	DEPTH	3	1.3	1.3	1.2	1.4	0.2
WC03	DISSOXY	9	1.715556	1.17	0.86	5.76	4.9
WC03	FECCOLI	3	113.3333	50	-100	390	490
WC03	NH3-N	3	0.466667	0.4	0.32	0.68	0.36
WC03	NOx-N	3	0.233333	0.2	0.19	0.31	0.12
WC03	ORP	9	353.1111	333	258	450	192
WC03	SALIN	9	1.155556	1.1	0.4	1.7	1.3
WC03	TEMP	9	22.22889	22.98	20.27	24.38	4.11
WC03	TKN	1	0.9	0.9	0.9	0.9	0
WC03	TOTCOLI	3	35100	2700	2600	100000	97400
WC03	TP	3	0.048	0.047	0.038	0.059	0.021
WC03	TURB	3	1.176667	1	0.8	1.73	0.93
WC03	pH	9	7.283333	7.3	7.22	7.35	0.13
WC03	spCOND	9	2137.444	2130	817	3120	2303
WC04	A-COLOR	3	22.66667	24	14	30	16
WC04	Ag	1	-0.5	-0.5	-0.5	-0.5	0
WC04	As	1	-6	-6	-6	-6	0
WC04	Ba	1	18.2	18.2	18.2	18.2	0
WC04	Be	1	-0.01	-0.01	-0.01	-0.01	0
WC04	COD	1	10.1	10.1	10.1	10.1	0
WC04	Cd	1	-0.1	-0.1	-0.1	-0.1	0

WC04	Cr	1	-1	-1	-1	-1	0
WC04	Cu	1	-2	-2	-2	-2	0
WC04	DEPTH	3	0.166667	0.2	0.1	0.2	0.1
WC04	DISSOXY	3	3.113333	2.81	2.78	3.75	0.97
WC04	FECCOLI	3	17383.33	250	-100	52000	52100
WC04	HARDNESS	1	247	247	247	247	0
WC04	Mn	1	4.7	4.7	4.7	4.7	0
WC04	NH3-N	3	0.696667	0.15	0.13	1.81	1.68
WC04	NOx-N	3	0.226667	0.22	0.18	0.28	0.1
WC04	Ni	1	-3	-3	-3	-3	0
WC04	ORP	3	295.6667	294	196	397	201
WC04	Pb	1	-2	-2	-2	-2	0
WC04	SALIN	3	0.466667	0.5	0.4	0.5	0.1
WC04	Sb	1	-3	-3	-3	-3	0
WC04	Se	1	-3	-3	-3	-3	0
WC04	TEMP	3	23.34333	23.35	22.26	24.42	2.16
WC04	TKN	1	0.4	0.4	0.4	0.4	0
WC04	TOTCOLI	3	274166.7	2600	-100	820000	820100
WC04	TP	3	0.123667	0.095	0.045	0.231	0.186
WC04	TURB	3	14.68333	4.1	2.45	37.5	35.05
WC04	Tl	1	-4	-4	-4	-4	0
WC04	Zn	1	6.4	6.4	6.4	6.4	0
WC04	pH	3	7.403333	7.37	7.34	7.5	0.16
WC04	spCOND	3	879	913	759	965	206

Figure 1.

Program

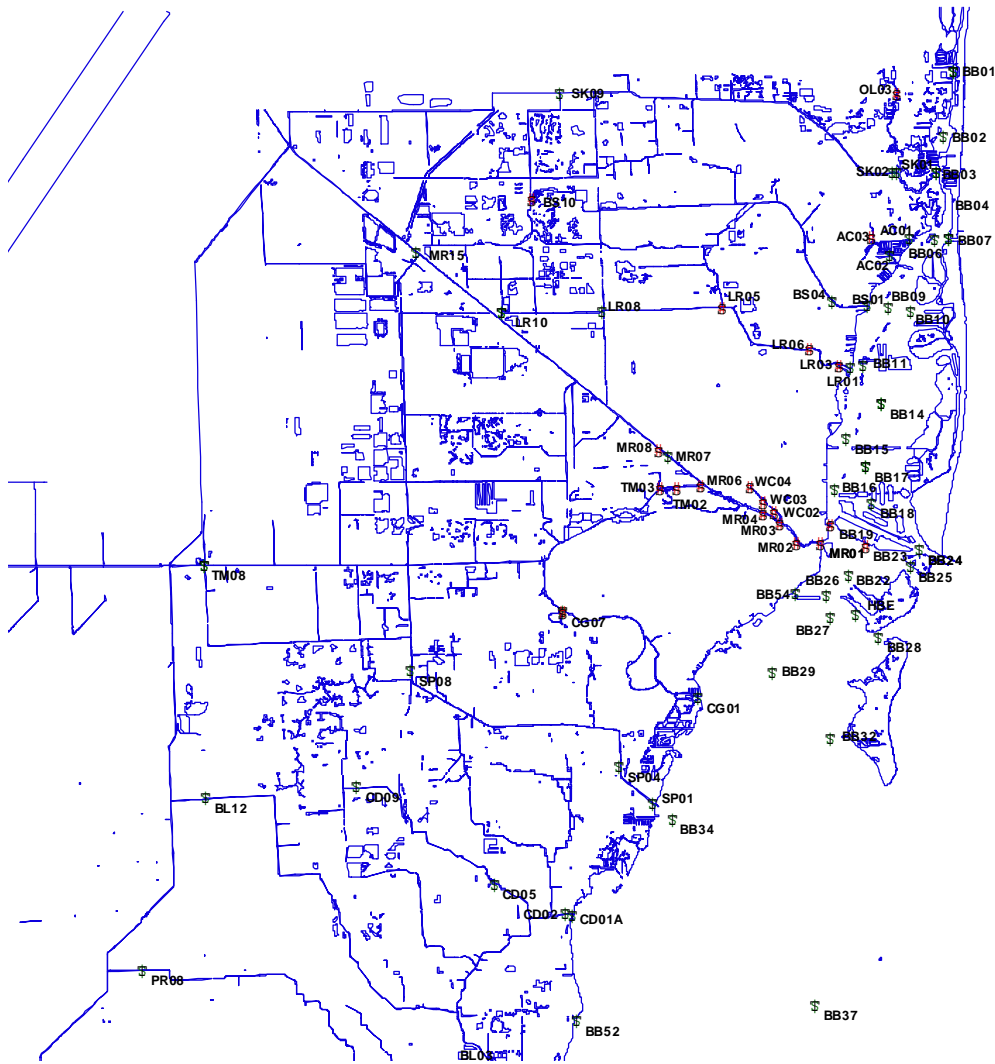


Figure 2.

Program

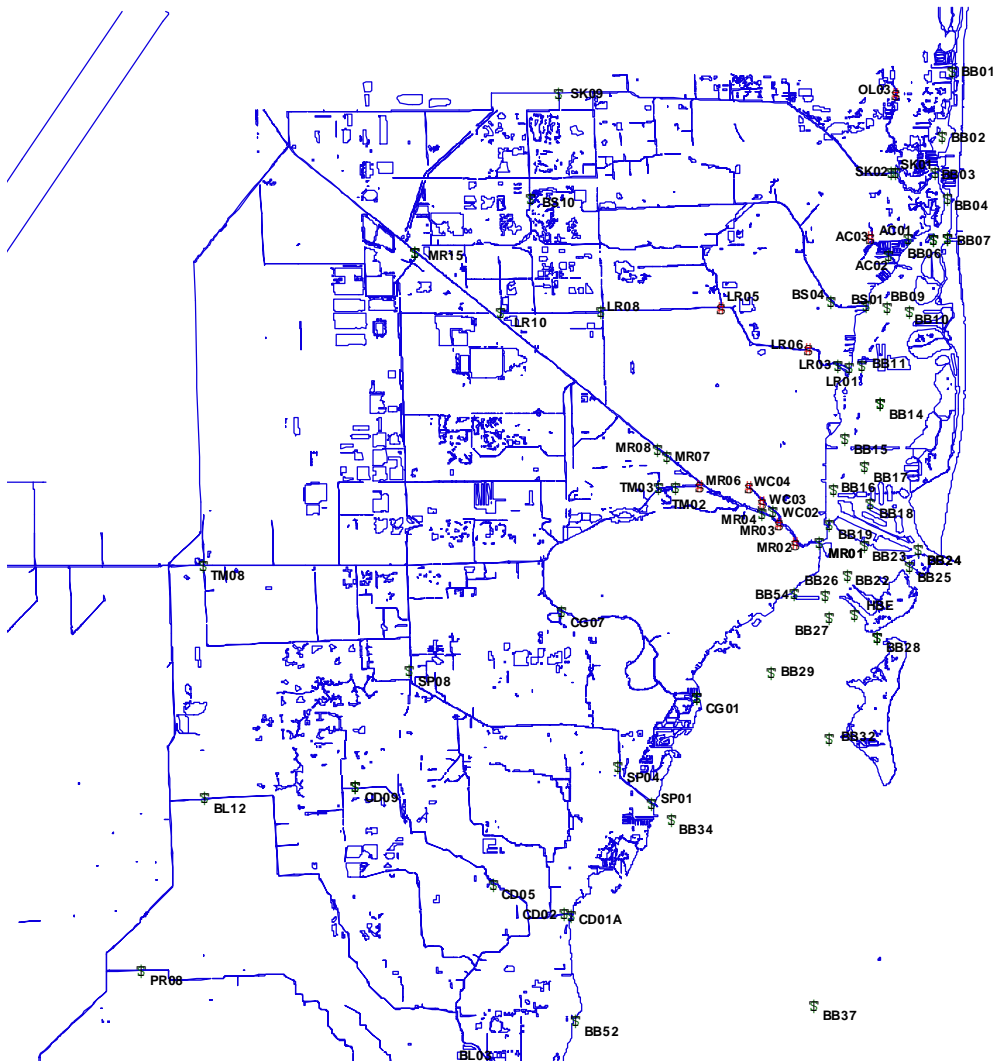
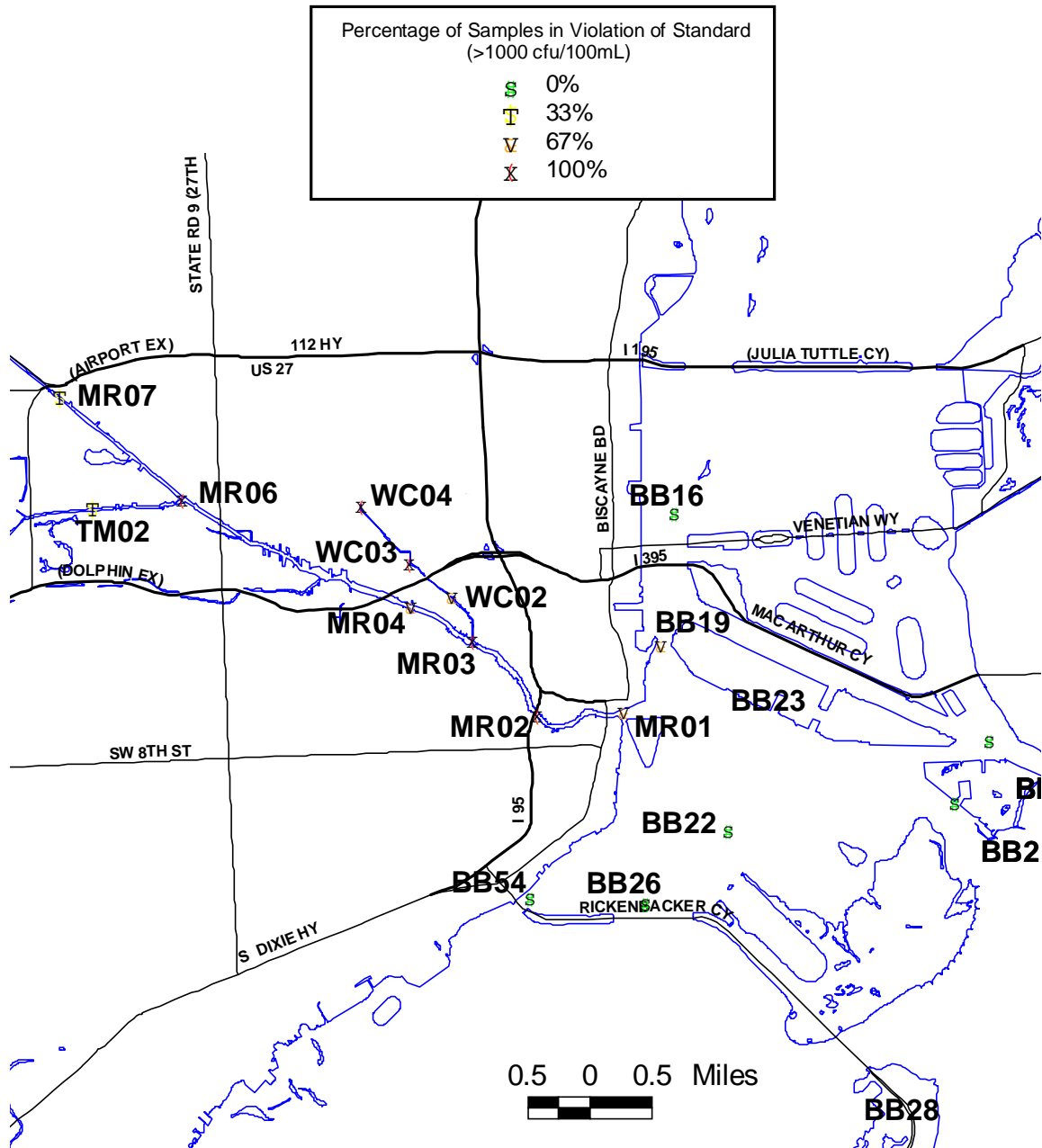


Figure 3.

Biscayne Bay Surface Water Quality Monitoring Program



**“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”
Action Item Matrix Quarterly Progress Report**

Second Quarterly Report, 2002
(April 1 – June 30)

Action Item:

- 4. Monitoring and Research
- f. Finalize water quality targets for key parameters

Lead Agency: Miami-Dade County DERM
Supporting Agencies: South Florida Water Management District (SFWMD)
Florida Department of Environmental Protection (FDEP)

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Action Item Status:

Past efforts to develop numerical water quality concentration targets for Wagner Creek and the Miami Rivers have focused primarily on nutrients and bacteria. This particular effort is re-evaluating the some of the same parameters that were considered previously, with the advantage of having additional data collected over an expanded period of record. Furthermore, the current approach seeks to evaluate data collected on various other parameters of interest including select metals and turbidity.

DERM staff have conducted a preliminary analyses of the relevant parameters from DERM’s existing water quality database over the entire period of record (1979 to present). Overall maximum, minimum, mean, median, 5% and 95% confidence interval values were calculated for the parameters listed below:

Nutrients

- Total Ammonia Nitrogen
- Total Nitrite/Nitrate
- Total Phosphorus

Turbidity

- NTU

Metals

- Cadmium
- Copper
- Lead
- Zinc

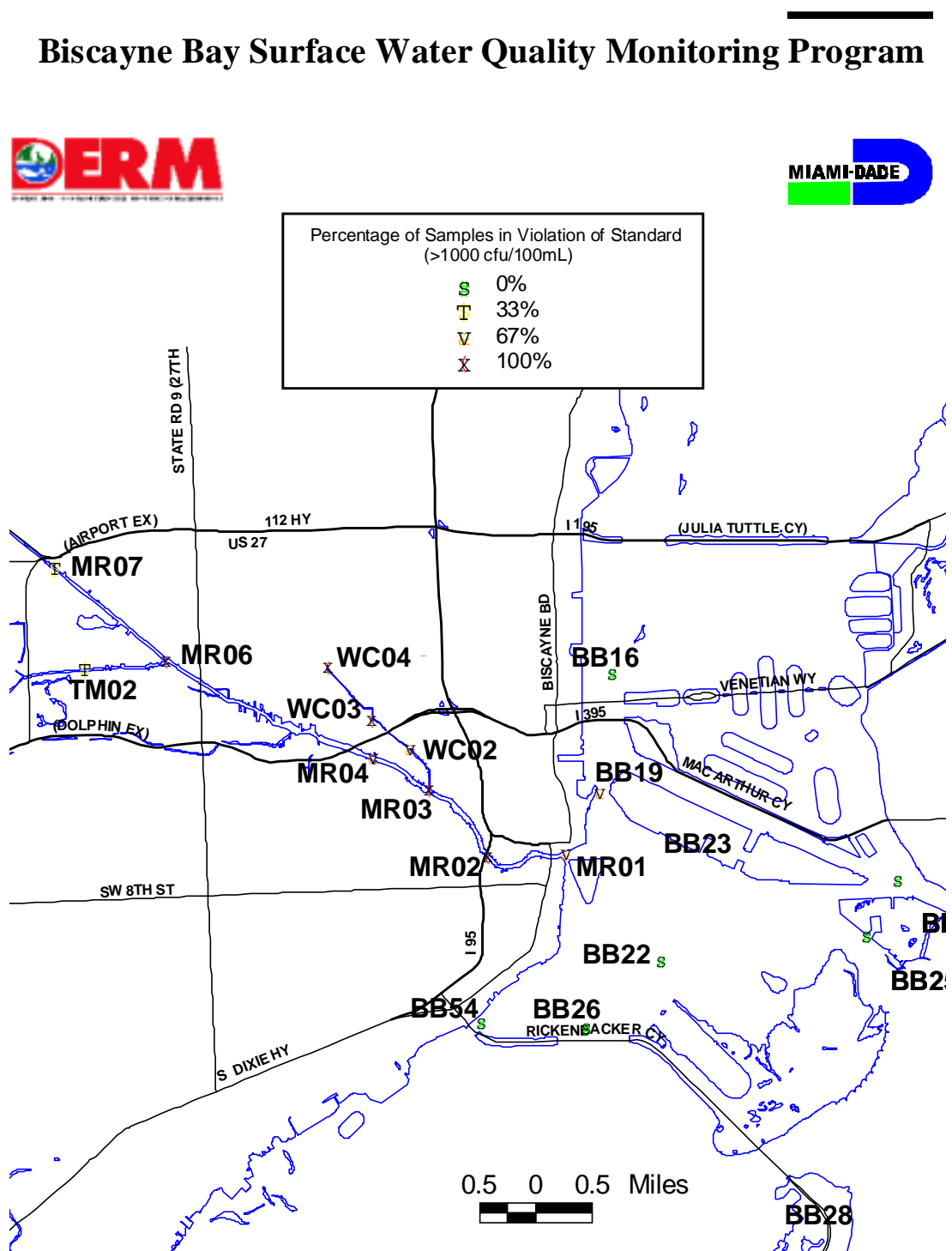
Bacterial Indicators

- Total Coliform
- Fecal Coliform

Analyses were conducted on the following station groupings (see Figure 1 for map of station locations):

- Biscayne Bay – Dodge Island to Rickenbacker Causeway (BB19-BB26, BB54)
- Lower River (MR01-MR03)
- Upper River (MR04-MR07)
- Wagner Creek (WC02-WC04)

Figure 1.



In the table below, median values calculated from the Upper River group are proposed as non-degradation targets for Wagner Creek, and Biscayne Bay values are proposed as concentration targets for waters in the Miami River. Data from Wagner Creek were analyzed and the results are included in the table for reference.

It is anticipated that this task will be completed during the next quarter. Additional calculations to be conducted will include evaluation of an additional set of Biscayne Bay stations to confirm background concentrations established in the existing Biscayne Bay group. Final analysis will involve calculating the same (max, min, mean, med, etc.) values on an annual basis. The yearly figures will allow determination of the appropriateness of the overall median values as non-degradation targets and will assist in evaluating trends.

The working group requests that the Stormwater Subcommittee make recommendation as to the desired format of the final deliverables and specific management applications anticipated to facilitate implementation of the proposed targets.

Proposed Water Quality Concentration Targets for Miami River

Parameter (units)	County Standard	Median upper Miami River Concentration	Median Biscayne Bay Concentration	Typical Wagner Creek Concentration
Management Objective	Never Exceed	Prevent degradation of River	Prevent degradation of Bay	
Total Ammonia Nitrogen (mg/l)	0.5	0.31	0.06	0.2 – 0.5
Total Nitrate/Nitrite (mg/l)		0.11	0.02	0.04 – 0.18
Total Phosphorus (mg/l)		0.02	0.005	0.05 – 0.12
Turbidity (NTU)	29 (above background)	1.9	2.4	1.2 – 4.0
Cadmium (ug/l)		0.04	0.05	0.05 – 0.08
Copper (ug/l)		1.43	0.6	1.0 – 3.6
Lead (ug/l)		0.53	0.3	1.0 – 3.4
Zinc (ug/l)		2.07	1.9	3.5 – 16.6
Total Coliform (cfu/100ml)	1000	2,300	30	4,000 – 90,000
Fecal Coliform (cfu/100ml)		565	10	1,000 – 24,000

**“MIAMI RIVER BASIN WATER QUALITY IMPROVEMENT REPORT”
Action Item Matrix Quarterly Progress Report**

Second Quarterly Report, 2002
(April 1 – June 30)

Action Item:

- 5. Management
- d. Establish standardized water quality tracking for key characteristics

Lead Agency: Miami-Dade County DERM

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Action Item Status:

Monthly results from DERM’s “Bay Run” monitoring activities for the first quarter of 2002 are summarized and reported under action item 4a. These results will be plotted and compared against existing state standards as well as one year (2001) and five year (1996 – 2000) long term averages. See the chart below for a plot of fecal coliform showing the format that DERM proposes to incorporate for use in future reporting of recent conditions.

