# ATTACHMENT NO. 6

# REQUEST FOR MIXING ZONE VARIANCE

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For the groin construction, a mixing zone variance is not requested since it is not expected that any phase of construction will have any substantial change to water quality. Temporary suspension of sediment particles in the water column may occur, but no significant turbidity levels greater than 29 NTU's above background levels are foreseen.

For the beach construction portion of the proposed project, the applicants request the same water quality monitoring plan granted by the FDEP for the existing Permit Modification No. 0270032-004-JN for the Lido Key Beach Nourishment Project that is currently under construction.

The applicant requests that the mixing zone for the beach site be established at 150 meters offshore and 150 meters downcurrent from the point where the return water from the dredged discharge reenters the Gulf of Mexico. Similar to the existing permit for Lido Key, the applicants request that criteria for extending the beach mixing zone be included as follows. If 2 exceedances of the turbidity standard occur within 30 days at the edge of the 150-meter mixing zone, in the offshore direction, the offshore dimension of the mixing zone would be increased to 300 meters. If 2 exceedances occur within 30 days at 150 meters in the alongshore direction, the alongshore dimension of the mixing zone will be increased to 500 meters. If 2 additional exceedances occur within 30 days at 500 meters in the alongshore direction, the alongshore direction of the mixing zone will be increased to 1,000 meters. These increases shall not take effect until the JCP Compliance Officer has been notified of the change by email.

The maximum mixing zone (300-m offshore by 1,000 meters downcurrent) is shown in Attachment 33d. There are no natural resources within the mixing zone. The figure includes the boundary of the Outstanding Florida Waters (OFW), located in New Pass and Big Sarasota Pass. A portion of the dredge area and the mixing zone is located inside the OFW. We understand that the F.A.C. Rules do not allow turbidity to exceed 0 NTUs above background at the edge of the mixing zone inside the OFW; however, the applicants request to use guidance set forth in F.A.C. 62-4.242(2)(a-c). Further information may be collected to establish natural background variability in the OFW, at which time the sampling procedure will be coordinated with the Department.

Provided in Attachment No. 34 is the proposed turbidity monitoring plan.

## **Supporting Information**

The mixing zone requested for this project has been reduced in size with each nourishment event. The requested mixing zone is a smaller than the variance approved by the FDEP for the 2001 Lido Key Interim Beach Nourishment Project, the 2009 Lido Key Beach Nourishment Project mixing zone variance, and it is identical to the 2015 Lido Key Beach Nourishment Project. The 2011 project monitoring data shows a turbidity value exceeding the compliance limit at the 750-m distance from the point of discharge, with no exceedances at the 1,000-m location. This supports the 1,000-m downcurent distance from the point of discharge and shows that mixing zone is appropriately sized. The distance between 750-m and 1,000-m from point of discharge at

which the sample would return to a compliant level is unknown, and could be located anywhere between those two distances. The applicant is committed to performing intermediate sampling if the mixing zone is expanded beyond 150-meters.

## 2001 South Lido Key Interim Beach Nourishment Project

<u>2001 Water Quality Monitoring Program:</u> In 2001, the Florida Department of Environmental Protection (FDEP) issued a mixing zone variance which provided a mixing zone 300 meter offshore and 2,300 meters down-current of the discharge point (Attachment No. 6b). The FDEP permit established a water quality monitoring program which included monitoring of the water quality mixing zone every six hours during dredging at the beach disposal site (nearshore), and every six hours during dredging at the borrow site.

Two offshore water quality sampling stations (one control and compliance) and three nearshore water quality sample stations (one control and two compliance) were required. The offshore control samples were to be taken at least 300 meters up current from the dredge, and the compliance was to be taken no more than 150 meters down current from the dredge. Nearshore control samples were to be taken 400 meters offshore and up current from the point of discharge, and the two compliance stations were located 300 meters offshore and (1) directly offshore and (2) at a distance of 2,300 meters down current of the discharge point.

<u>2001 Water Quality Monitoring Results:</u> The 2001 Lido Key Beach Nourishment Project was constructed from March 2001 to April 2001. Numerous days were lost to mechanical repairs and to adverse sea conditions resulting in no dredging and no water quality monitoring on these days. The project construction did not result in the exceedance of the 29 NTU standard outside of the allowed mixing zone, based on the mixing zone variance water quality monitoring program results (Attachment No. 6b).

## 2009 Lido Key Beach Nourishment Project

<u>2009 Water Quality Monitoring Program:</u> In 2009, the Florida Department of Environmental Protection (FDEP) issued a mixing zone variance which provided a mixing zone 300 meter offshore and 1,500 meters down-current of the discharge point (Attachment No. 6a). The FDEP permit established a water quality monitoring program which included monitoring of the water quality mixing zone every six hours during dredging at the beach disposal site (nearshore), and every six hours during dredging at the borrow site.

Two offshore (dredge site) water quality sampling stations (one background and compliance) and two nearshore (beach site) water quality sample stations (one background and one compliance) were required. The offshore background samples were to be taken at least 300 meters up current from the dredge, and the compliance was to be taken 150 meters down-current from the dredge, in the densest portion of any visible turbidity plume. Nearshore background samples were to be taken approximately 500

meters up-current of the point where the return water from the dredged discharge reenters the Gulf of Mexico, and the same distance offshore as the associated compliance sample, and the compliance station was collected where the densest portion of the turbidity plume crosses the edge of the mixing zone, which measures 300 meters offshore and 1,500 meters down-current from the point where the return water from the dredged discharge re-enters the Gulf of Mexico.

In addition to the compliance monitoring, supplemental turbidity monitoring was required to be conducted each day during construction within the mixing zone to collect data to assist with establishing the appropriate size of the mixing zone for future events. For these samples, the Background site was at mid-depth, at least 500 meters up-current from the point where the return water from the dredged discharge re-enters the Gulf of Mexico, and clearly outside the influence of any turbidity generated by the project, taken at a distance offshore to correspond with the distance of the intermediate sites. The intermediate sites were to be taken in the densest portion of the turbidity plume, at 150 meters, 300 meters, 500 meters, 750 meters and 1,000 meters from the point wherever the return water from the dredged discharge re-enters the Gulf of Mexico, at mid-depth.

<u>2009 Water Quality Monitoring Results:</u> The 2009 Lido Key Beach Nourishment Project was constructed April and May 2009. The project construction did not result in the exceedance of the 29 NTU standard outside of the allowed mixing zone, based on the mixing zone variance water quality monitoring program results.

The intermediate monitoring samples, which were not required for permit compliance but were gathered to establish future mixing zones, indicated one instance on April 1, 2009 where water quality exceeded the 29 NTU standard at 750 meters from the point wherever the return water from the dredged discharge re-enters the Gulf of Mexico, at mid-depth. The reading at this location was 35.93 NTU's above background (Attachment No. 6c).

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# ATTACHMENT NO. 6a

2008 FDEP MIXING ZONE VARIANCE

# ATTACHMENT NO. 6b

2001 FDEP MIXING ZONE VARIANCE AND WATER QUALITY MONITORING RESULTS

# ATTACHMENT NO. 6c

2009 WATER QUALITY MONITORING SUMMARY

#### Notice of Variances and Waivers

#### **DEPARTMENT OF ENVIRONMENTAL PROTECTION**

RULE NO: RULE TITLE

#### 62-4.244: Mixing Zones: Surface Waters

NOTICE IS HEREBY GIVEN that on December 23, 2008, the Bureau of Beaches and Coastal Systems has issued an order.

The Department of Environmental Protection gives notice of its intent to grant a variance under Section 403.201, F.S., from the provisions of paragraph 62-4.244(5)(c), F.A.C., to the City of Sarasota, 1565 First Street, Room 100A, Sarasota, Florida 34236, (File No.0270032-002-EV) to temporarily establish an expanded mixing zone of 300 meters offshore and 1,500 meters downcurrent from the point of sand discharge onto the beach disposal area during the beach nourishment on Lido Key beach, between R 35.5 and R 44.2. The Department's file on this matter is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Protection, Bureau of Beaches and Coastal Systems, 3900 Commonwealth Boulevard, MS 300, Tallahassee, Florida 32399-3000, (850)414-7798.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk): Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Mediation under Section 120.573 of the Florida Statutes is not available.

Because the administrative hearing process is designed to redetermine final agency action on the application, the filing of a petition for an administrative hearing may result in a modification of the agency action or even a denial of the application. If a sufficient petition for an administrative hearing or request for an extension of time to file a petition is timely filed, this agency action automatically becomes only proposed agency action on the application, subject to the result of the administrative review process. Accordingly, the applicant is advised not to commence construction or other activities in accordance with this variance until the deadlines noted below for filing a petition for an administrative hearing, or request for an extension of time has expired.

Under subsections 28-106.111(3) and 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with: Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

In the event that a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Any intervention will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

In accordance with subsection 28-106.111(2) and paragraph 62-110.106(3)(a), (4), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first.

Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication. The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency decision; (d) A statement of all disputed issues of material fact. If there are none, the petitioner contends warrant reversal or modification of the agency's proposed action; and (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301. Under Sections 120.569(2)(c) and (d), F.S., a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed. This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

This variance constitutes an order of the Department. The applicant has the right to seek judicial review of the order under Section 120.68, Florida Statutes, by the filing of a notice of appeal under Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department. A copy of the Order may be obtained by contacting: Molly Edson at (850)414-7798 or by email at Molly.Edson@dep. state.fl.us or by mail: 3900 Commonwealth Blvd., MS 300, Tallahassee, Florida 32399.

# ATTACHMENT 6a 2001 LIDO KEY INTERIM BEACH NOURISHMENT PROJECT MIXING ZONE VARIANCE



leb Bush

Governor In re:

# Department of Environmental Protection

Marjory Stoneman Douglas Building 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000

David B. Struhs Secretary

Petition APPLICANT: <u>City of Sarasota</u> c/o Dennis Daughters, P.E. 1565 First Street – Room 100A Sarasota, Florida 34236

PROJECT NAME: <u>Lido Key South Beach</u> <u>Nourishment Project</u> Variance No. 0158095-002-EV Sarasota County

## **FINAL ORDER**

### BY THE DEPARTMENT:

The Department received from the City of Sarasota a Petition for Variance, pursuant to Section 403.201(1), Florida Statutes (F.S.), and Section 62-110.104, Florida Administrative Code (F.A.C.). The Petitioner requested relief from Rule 62-4.244(5)(c), F.A.C., to establish a temporary mixing zone greater than 150 meters within an area of Class III Waters of the Gulf of Mexico. Specifically, the Petitioner has requested a temporary mixing zone for turbidity at the beach nourishment site extending 300 meters offshore and up to 2,300 meters down current from the point of discharge, which shall not extend into the Sarasota Bay Estuarine System (OFW).

After reviewing the Petition for Variance, the Department staff concluded that it satisfied the requirements and criteria set forth in Section 403.201, F.S. Specifically, the applicant has demonstrated that there is no practicable means known or available to control turbidity in this situation.

The Consolidated Notice of Intent to Issue Joint Coastal Permit, Authorization to Use Sovereign Submerged Lands, and Variance notified the Petitioner of the Department's proposed agency action and advised it of its right to a hearing pursuant to Sections 120.569 and 120.57, F.S. On May 19, 2000, notice was given in the Sarasota Herald Tribune and in the <u>Florida</u> <u>Administrative Weekly</u> informing the public of the Department's intended action and offering an opportunity for hearing pursuant to Sections 120.569 and 120.57, F.S. A copy of the notice is attached as Exhibit A.

The Petitioner and interested parties having been advised of their rights under Chapter 120, F.S., and having failed or declined to file a Petition pursuant to Sections 120.569 and 120.57, F.S., are hereby deemed to have waived those rights. Acceptance of the variance constitutes notice and agreement that the Department will periodically review this variance for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof. It is therefore:

"More Protection, Less Process"

Printed on recycled paper.

Notice of Final Order City of Sarasota Variance No. 0158095-002-EV Page 2 of 2

**ORDERED** by the State of Florida, Department of Environmental Protection, that the Petition of Sarasota County requesting a variance be and is hereby granted, subject to the conditions specified by Department staff in Permit No. 0158095-001-JC.

Any Party to this Order has the right to seek judicial review of the Order Pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of the Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.

DONE AND ORDERED this <u>26<sup>th</sup></u> day of <u>September</u>, 2000, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Alfred B. Devereaux, Jr., Director Office of Beaches and Coastal Systems

Copies furnished to: Robert Stetler, DEP/Southwest District, Tampa David Arnold, FWC, BPSM Chuck Sultzman, USFWS Rick Spadoni, CP & E Jerris Foote, Mote Marine Laboratory Robbin Trindell, FWC, BPSM Joseph R. Bacheler, U. S. Army Corps of Engineers Phil Flood, OBCS Robert Brantly, OBCS

#### FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Cannil Leen 9/26/00 Deputy Clerk Date

# ATTACHMENT NO. 6b 2001 LIDO KEY INTERIM BEACH NOURISHMENT PROJECT WATER QUALITY MONITORING RESULTS

#### SOUTH LIDO KEY, SARASOTA, FL 2001 INTERIM BEACH NOURISHMENT PROJECT BEACH FILL AREA TURBIDITY

	ти	ME	WIN	ID						BACKGRO	UND (NTU's)	DOWNCU	CE: 2,300 M RRENT OF IARGE		NCE: 300 M F DISCHARGE
DATE	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)		URRENT RECTION		SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
3/9/2001	11:25	12:45	10-15	S	1-2	FLOOD	N	TO	S N	1.8	2.1	1.6	1.8	4.1	4.3
	16:55	17:25	15-18	Ň	2-4	EBB	S	TO	N	2.9	3.0	2.4	2.4	6.3	6.6
3/10/2001	01:10	01:55	5-10	N	1-2 1-2	EBB EBB	S S	TO	Ν	2.9 3.1	3.2 3.0	2.5	2.8	9.5	9.9 8.5
	06:25	07:05	10	N	1-2	EBB	S	TO	N	3.1	3.0	3.9	3.1	7.7	8.5
	12:30	13:05	10	N	1-2	FLOOD	N	TO	N S	3.9	3.5	3.8	3.1	7.4	8.9
	18:45	19:15	5-10	N	1-2	EBB	S	TO	N	3.9	4.1	3.0	3.5	7.0	8.9
3/11/2001	01:05	01:38	LIGHT	S	1-2	H. SLACK	N	TO	S S S	3.8	4.2	3.8	4.0	14.8	15.1
	05:45	06:10	LIGHT	S	1-2	EBB	N	TO	S	3.9	4.5	3.5	4.1	12.3	9.8
	13:15	13:35	5	S	1-2	FLOOD	N	TO	S	4.5	5.5	4.9	5.3	10.1	8.8
	20:25	20:45	LIGHT	S	1-2	L. SLACK	N	TO	S	3.9	4.5	3.3	3.9	11.8	12.1
3/12/2001	01:55	02:15	10-20	N	2-3	H. SLACK	S	TO	Ň	4.3	5.1	3.2	3.8	15.7	16.2
	05:15	05:45	10-15	N	2-3	EBB	S	TO	N	4.6	4.0	4.0	5.0	10.0	9.5
	13:35	14:00	20	N	2-4	H. SLACK	S	TO	N	4.5	5.1	5.1	5.6	12.8	13.9
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	14:00	14:27	15-17	s	3	FLOOD	N	TO TO	S S	5.1	4.0 5.5	4.0	4.7	12.3	11.0
	20:10	20:38	15-18	s	3	EBB	N	TO	s	4.2	5.0	4.1	4.8	12.1	15.8
3/14/2001	02:05	02:33	10-15	Ŵ	3	FLOOD	N	TO	S	6.5	7.1	5.0	4.9	15.3	17.1
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	23:15	23:37	10	Ŵ	2-3	L. SLACK	N	TO	s	4.6	4.4	3.9	4.9 4.2	14.0	16.3
3/15/2001	05:03	05:43	15	S	2-3	FLOOD	S	TO	N	12.9	14.0	7.1	8.8	19.3	21.8
0/10/2001	10:45	11:05	15	SW	2-3	FLOOD	N	то	S	12.3	14.8	10.0	11.8	13.7	12.7
	16:46	17:15	15	SW	2-3	EBB	N	TO		10.3	11.2	9.9	10.5	19.9	21.2
	22:09	22:44	12-15		3	EBB	N	TO	S S	13.4	15.1	10.0	11.9	21.8	23.0
3/16/2001	06:05	06:30	10-15	S		FLOOD		TO	N			11.1			
0/10/2001	11:50	12:14	10-15	S SW	2-3 2-3	FLOOD	S S	TO	N	11.9 13.1	10.3 13.9	10.1	7.9 10.0	23.3 15.8	24.7 13.7
	17:15	17:49	5-10	s	2-3	H. SLACK	s	то	N	11.7	15.8	7.3	8.9	19.0	15.3
	22:36	22:55	5-10	s	2-5	EBB	N N	TO	N N S	8.0	14.9	7.1	6.3	19.9	21.5
3/17/2001	05:35	06:00	LIGHT	SW	1-2	FLOOD	N	TO	S	7.2	8.1	5.5	8.1	17.8	15.3
0/11/2001	00.00	00.00		011	L					PROBLEM WITH		0.0	0.1	17.0	10.0
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3/19/2001	10:03	10:21	10-12	EAST	1-2	FLOOD	N	TO		8.1	7.5	6.6	7.9	15.8	20.1
5/15/2001	14:45	15:05	10-12	EAST	1-2	L. SLACK	N	то	ω ω	5.5	8.9	4.9	6.0	18.1	20.1
	21:05	21:28	10-12	SW	1-2	EBB	N	TO	s	8.0	7.2	5.9	6.6	22.8	20.2
3/20/2001	03:05	03:33	10-12	- 3W W	2-3	F	N	TO	S	9.8	11.2	7.8	9.1	17.7	19.8
3/20/2001	03.00	03.33	10	vv									9.1	17.7	19.0
3/21/2001											EM WITH TRAN				
3/21/2001											EM WITH TRAN				
3/22/2001											EM WITH TRAN				
3/23/2001	10:09	10.29	5 10	SW	1-2	FLOOD		TO	S	7.9	8.0		71	12.5	11.0
3/23/2001	19:08	19:38	5-10	200	1-2	FLOOD	N	10	3	1.9	0.0	6.6	7.1	12.5	11.0

#### SOUTH LIDO KEY, SARASOTA, FL 2001 INTERIM BEACH NOURISHMENT PROJECT BEACH FILL AREA TURBIDITY

	ти	ME	WIN	ID				BACKGRO	UND (NTU's)	DOWNCU	CE: 2,300 M RRENT OF IARGE		NCE: 300 M OF DISCHARGI
DATE	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)	CURRENT DIRECTION	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
3/24/2001	02:55	03:18	5-10	SW	1	EBB	N TO S	6.6	10.3	6.4	7.2	21.4	22.3
	13:05	13:29	5	SW	1	EBB		8.9	10.5	5.9	6.3	22.5	24.9
	20:05	20:25	5 5	SW	1	1	N TO S N TO S	7.1	6.6	5.0	4.5	17.8	20.1
3/25/2001	03:47	04:17	5	SW	1-2	EBB	N TO S	8.9	9.5	5.5	6.9	23.5	21.1
	08:35	08:58	5	SW	1-2	FLOOD	N TO S	9.9	8.3	6.5	8.0	25.5	23.2
	13:55	14:18	10	SW	1-2	EBB	N TO S	7.9	6.6	5.5	5.9	24.4	26.8
	20:03	20:18	5-10	NW	1-2	FLOOD	N TO S	6.9	7.9	5.8	5.5	22.8	20.3
3/26/2001	02:05	02:24	5-10	NE	1-2	EBB	N TO S	9.9	8.7	6.8	5.9	21.3	23.8
	09:30	09:51	10	NE	1-2	FLOOD	N TO S	8.8	10.2	7.3	6.2	18.9	16.6
	15:47 22:35	16:05 22:59	15 15	NE NE	1-2 1-2	EBB FLOOD	N TO S N TO S	6.9 10.4	5.9 9.6	4.9 6.6	4.5 7.4	19.8 22.2	21.7 20.5
3/27/2001	03:05	03:23	15	NE	1-2	EBB	N TO S	10.4	9.0	6.4	7.8	17.8	20.5
3/27/2001	03:05	03:23	10	NE		L. SLACK	NONE DETECTED		9.9			17.8	17.3
	14:44	15:05	10	NE	1-2 1-2	EBB		7.7 7.2	9.2 6.6	6.6 5.2	6.3 6.5	19.9	17.3
	22:35	22:59	10-15	NE	1-2	FLOOD	N TO S N TO S	7.0	9.5	4.9	5.5	14.4	12.9
3/28/2001	04:25	04:42	10-15	NE	2-3	EBB	N TO S	8.8	10.1	7.6	7.9	19.2	23.5
3/20/2001	04.23	04.42	10-15						SURVEY VESSE		1.5	13.2	20.0
	17:57	18:19	10	NE	2-3	EBB	N TO S	9.4	7.9	5.4	7.4	18.9	22.3
	22:42	23:00	10	NE	2-3	FLOOD	N TO S	6.8	7.9	4.9	6.8	14.3	12.9
3/29/2001	03:35	03:55	10	NE	2-3	H. SLACK	N TO S	8.0	6.9	7.0	7.1	14.5	18.8
	09:50	10:14	20-25	S	3-5	FLOOD	N TO S	8.0	6.9	6.9	5.8	9.8	10.2
						TOO ROUGH	TO SAFELY CONDUCT WA						L
3/30/2001	20:35	20:57	5-10	S	3-4	EBB	N TO S	9.5	11.3	6.9	8.8	19.8	18.3
					SEVER	RE WEATHER	PREVENTS SAFE WATER	QUALITY MON	ITORING SAMPI	ING			
3/31/2001	03:15	03:32	10	S	2-3	FLOOD	N TO S	5.9	8.3	5.6	5.9	19.2	21.0
	09:33	09:57	10	SE SE	2-3	FLOOD	N TO S	5.2	4.8	4.9 3.6	5.0	17.1	15.5
	15:45	16:09	10-15	SE	2-3	H. SLACK	NONE DETECTED	5.1	6.8	3.6	5.2	12.9	16.3
	22:00	22:22	10-15	SE	2-3	EBB	S TO N	6.8	8.3	7.5	6.6	11.8	15.6
4/1/2001	05:45	06:08	10	NW	2	FLOOD	N TO S	6.6	8.3	5.1	4.2	18.8	20.9
							STRUCTION - DREDGE O			-			
4/2/2001	07:25	07:46	5	NE	0-1	FLOOD	N TO S	5.7	6.3	5.0	4.9	9.3	8.9
	14:08	14:25	5-10	NE	0-1	FLOOD	N TO S	6.9	5.8	6.4	4.5	18.3	14.6
	20:25	20:48	5-10	NE	0-1	EBB	S TO N	5.6	4.2	3.8	4.0	15.6	11.2
4/3/2001	03:22	04:23	5-10	SW	1-2	EBB	S TO N	3.4	8.0	7.4	8.3	3.1	2.8
	12:34	13:43	10-15	SW SW	2-3	H. SLACK	NONE DETECTED	3.7	7.7 9.1	7.6 5.7	8.4	3.4 9.2	2.9
1/1/0001	20:23	21:26	5-15		1-3	FLOOD		6.6			8.3		10.6
4/4/2001	02:50	03:36	LIGHT	E SE	CALM	EBB FLOOD	NORTHWEST	4.2 7.9	5.4 6.6	4.5 5.5	5.8 5.9	6.2 15.4	7.5 17.7
	10:20	11:26 20:15	5 5	SE	1	EBB	N TO S S TO N	7.9 6.9	5.8	5.5 6.4	5.9 4.6	15.4	17.7
4/5/2001	02:15	03:11	5	E	1	EBB	S TO N	5.1	5.9	4.8	5.2	12.2	14.1
4/3/2001	02.15	03.11	5	<u> </u>	L	NO CONST		PROBLEM WIT		4.0	<u> </u>	12.2	14.1
4/6/2001	07:00	07:42	5	E	1	LOW	N TO S	3.7	4.2	4.4	7.2	11.8	10.1
	13:52	14:16	5-10	S	1 1	EBB	S TO N	2.8	31	4.2	5.6	6.4	7.2
	20:11	20:42	5-10	SW	1	FLOOD	N TO S	2.6	3.1 3.2	4.2 4.2	3.6	16.3	16.9
4/7/2001	06:43	07:16	5-10	SSE	1	EBB	SW TO NE	2.5	3.4	3.6		3.4	4.9
	12:55	13:27	5	SW	1	FLOOD	N TO S	3.0	2.8	4.1	4.4 3.7	8.8	9.1
	19:13	19:46	CALM	SW	1	EBB	SW TO NE	2.6	3.0	3.6	3.1	5.8	8.5
4/8/2001	02:42	03:15	CALM	SW	CALM	EBB	S TO N	2.8	3.6	3.2	4.7	12.9	14.1
	09:00	09:38	CALM	SW	CALM	FLOOD	NW TO SE	3.3	4.5	4.1	3.8	21.4	18.3
	15:03	15:34	5-10	SW	1	EBB	SW TO NNE	2.0	4.5	3.8	6.1	15.7	14.2
		19:36	5-10	W	1	EBB	NW TO SE	1.9	3.4	4.2	5.3	13.6	14.3

#### SOUTH LIDO KEY, SARASOTA, FL 2001 INTERIM BEACH NOURISHMENT PROJECT BEACH FILL AREA TURBIDITY

	ТИ	ME	WIN	ID						BACKGRO	UND (NTU's)	DOWNCU	CE: 2,300 M RRENT OF IARGE		NCE: 300 M F DISCHARGE
DATE	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)				SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
4/9/2001	23:54	00:27	5	NNW	CALM	FLOOD	NW	То	SE	3.2	4.5	3.7	6.5	22.1	11.3
		L	4	L	L	NO CONST	RUCTION	- MECH	ANICAL	PROBLEM WITH	H DREDGE		L	L	
4/10/2001						NO CONST	RUCTION	- MECH/	ANICAL	PROBLEM WITH	H DREDGE				
4/11/2001	03:26	03:55	5	SE	1	FLOOD	S	TO	Ν	3.0	3.4	4.2	4.5	6.6	7.7
	10:10	10:36	10	SSE	1-2	FLOOD	S	TO	N	4.2	4.4	4.1	4.9	7.8	5.7
	16:17	16:54	5	S	1-2	EBB	NE	TO	SW	4.8	5.4	3.9	4.6	13.7	12.0
4/12/2001	01:13	02:04	CALM	S	1	FLOOD		TO		5.1	4.6	3.3	7.4	22.7	16.6
	07:12	07:44	5	s WSW	1	EBB		TO TO		6.9 6.1	5.9	1.9 5.7	6.6 4.8	24.7 14.9	17.3 15.3
	15:36	16:14	5-10		1-2	EBB	N		S		6.9				
	21:10	21:51	10	SW	1-2	EBB	SW	TO	NE	5.7	5.1	3.1	5.9	15.8	14.3
4/13/2001	01:35	02:17	5	S SW	1	EBB	N	TO	S N	4.0 5.2	3.3	6.7	7.6	18.2	16.7
	09:05	09:46	5-10		1	FLOOD	S	TO			8.7	7.7	6.2	15.7	28.7
	23:07	23:44	5	W	1-2	EBB	N	TO	S	4.2	5.1	5.7	6.1	16.8	17.4
4/14/2001	06:50	07:19	5	SW	1	FLOOD	N	TO	S	5.2	8.7	9.2	11.2	19.9	22.3
	14:30	14:52	10-15	SW	1	FLOOD	N	TO TO	S N	7.2	8.3	7.9	13.4	26.5	29.3
	19:23	19:54	5-10	W	1	EBB	S			8.0	6.0	6.0	7.5	24.6	28.0
4/15/2001	23:49	00:29	5	W SW	1	EBB	SE	TO	NW	5.2	6.8	7.6	8.3	20.7	18.7
	07:21	07:47	5	SW	1	FLOOD	N N	TO TO	S S	2.9	4.7	6.3	3.9	12.5	13.7
	13:47 21:41	14:13 22:02	5-10	W	1	FLOOD EBB	N S		N	7.3	8.1 7.4	7.9	13.4	19.4	22.3
4/16/2001	03:54	04:23	10 5-10	WNW	1-2 1-2	LOW	NW	TO TO	SE	6.5 4.2	5.0	7.5	11.7 4.4	19.9 18.7	25.7 16.8
4/16/2001	20:04	20:31	15-20	WNW	2-3	EBB	NW	TO	SE		5.0 8.4	7.7	9.6	14.7	16.2
4/17/2001	04:22	04:54	15-20	WNW		LOW	NW	TO	SE	6.9	8.8		9.6 5.1	14.7	
4/17/2001	09:39	10:03	15-25	WNW	2 2-3	FLOOD	NW	TO	SE	5.8	8.4	4.5 9.3		14.5	16.3 15.1
	16:08	16:40	15-25	NW	2-3	FLOOD	N	TO	SE SE S	7.2 7.6	8.4 5.4	5.3	6.7 5.0	14.6	17.2
4/18/2001	10.00	10.40	10 20		23					NOON. TOO RO		0.0	0.0	14.0	11.2
4/10/2001	14:57	15:20	15-20	NE	3	EBB	S	TO	N	7.1	9.5	7.6	6.3	17.8	19.2
	14:57 20:07	20:36	15	NE	2-3	FLOOD	s	TÖ	N	5.5	9.9	7.2	8.8	12.8	16.2
4/19/2001	03:09	03:33	5-10	E	1-2	EBB	Ň	TO	S	6.2	7.9	5.8	6.0	12.2	10.1
1710/2001	10:45	11:11	10		1-2	FLOOD	S	TO	N	3.4	5.1		6.9	16.2	14.9
	17:25	17:47	10	E	1-2	EBB	Ň	TÖ	s	3.4 4.7	6.3	6.2 4.5	4.2	11.6	15.3
	22:35	23:01	10	E	1-2	FLOOD	S	TO	SN	3.5	5.1	6.0	5.1	10.5	9.9
4/20/2001	04:45	05:08	10	E	1-2	EBB	Ň	TO	S	4.4	6.3	4.0	4.5	16.2	12.1
	10:02	10:25	10	Ē	1	FLOOD	S	TÖ		4.7	3.5	6.7	8.2	17.7	21.6
	14:45	15:10	5-10	SW	1	EBB	N	TO	N S	2.3	3.3	1.9	2.3	6.4	8.9
	19:55	20:19	5	SW	1	FLOOD	S	TO	N	2.5	3.9	5.1	4.0	10.5	8.6
4/21/2001	01:33	01:59	5-10	SE	1-2	EBB	N	TO	S	5.0	4.1	4.8	4.1	10.5	8.6
	10:.35	10.58	5	E	1	FLOOD	S	TO	N	2.6	4.1	3.4	3.8	11.6	15.2
	15:15	15:38	5-10	SE	1-2	EBB	N S	TO	S N	2.6 4.7	5.1	4.1	4.0	7.2	6.6
	22:06	22:24	5	SE	1-2	FLOOD		TO		4.8	3.9	5.8	7.6	9.6	10.8
4/22/2001	03:45	04:10	5-10	E	1-2	EBB	N	TO	S N S	6.2	7.3	5.1	3.6	15.6	20.2
	10:17	10:42	10	Ē	0-1	FLOOD	S	TO	N	6.3 7.3	4.9	7.1	6.3	17.6	18.9
	16:10	16:34	10		1-2	EBB	N	TO	S	7.3	7.9	5.2	6.5	17.6	20.9
	21:45	22:09	5	SW	1	FLOOD	S	TO	N	7.9	8.5	5.5	6.8	17.6	21.3
4/23/2001	06:10	06:32	1	E	1	EBB	N	TO	S	8.6	6.3	7.3	5.8	17.9	15.6
							CON	STRUCT	ION COL	<b>IPLETED</b>					

	HOPPER	тіі	ME	WIN	D				BACKGRO	UND (NTU's)	COMPLIAN DOWNCURI DRE	
	LOAD	FIRST	LAST	SPEED		SEAS	TIDE	CURRENT	011054.05	1 M ABOVE	011054.05	1 M ABOVE
DATE	NO.	SAMPLE	SAMPLE	(Est. Knts)	DIR.	(Est. Ft.)	(Stage)	DIRECTION	SURFACE	BOTTOM	SURFACE	BOTTOM
3/9/2001	1	05:30	05:45	10	S	1-1.5	EBB	S TO N	2.3	2.6	6.1	6.9
	2	10:15	10:25	10	S	1-1.5	FLOOD	N TO S	1.9	2.6	5.9	5.5
	3	14:45	14:55	10-15	s s	1-2 2-4	EBB	S TO N S TO N	2.4	3.0	6.0	7.1
	4	19:25	19:45	15-18			SLACK		2.8	2.9	8.0	8.5
- / /	5	23:35	23:55	15-18	S	2-4	FLOOD	N TO S	2.9	2.8	7.6	7.3
3/10/2001	6	05:15	05:25	10	N	1-3	EBB	S TO N	2.5	3.1	7.1	8.0
	7	09:50	09:55	10	N	1-3	FLOOD	N TO S	2.9	2.9	8.7	7.9
	8 9	14:00	14:10	10 10	N	1-3	H. SLACK	TO S TO N	1.9 2.1	2.3 2.5	7.5 8.9	8.5
		17:50	18:05		N	1-3	EBB					9.3
0/44/0004	10	21:50	22:05	LIGHT	N	1-2	FLOOD	N TO S	1.5	2.3	7.0	7.9
3/11/2001	11 12	02:00 07:10	0215 07:20	LIGHT	s s	1-2 1-2	EBB EBB	S TO N S TO N	2.9 1.9	3.1 1.5	9.7 10.1	6.5
	12											9.1
	13 14	10:45	11:00	LIGHT	VAR.	1-2 1-2	FLOOD	<u>s to n</u> n to s	2.4	2.3 2.8	7.3 9.7	8.0
		15:05	15:20	LIGHT	S		EBB					10.1
0/40/0004	15	19:12 23:05	19:35	LIGHT	S	1-2 3-4	EBB FLOOD	N TO S S TO N	2.9	2.3	10.3	7.1
3/12/2001	16 17		23:15	10-20	S					4.1	12.2	10.8
	17 18	03:15	03:25	10-20	s S S	3-4	EBB		2.9	2.5	11.9	12.5
	18 19	07:35	07:50	15	5	3-4	EBB		3.3 3.5	3.9 2.9	13.9	10.5
	20	11:47	12:00	20	s	4-6	FLOOD				11.0	13.1
	20	15:30	15:40	20-25 20-25	S	5-6	EBB	N TO S TOO ROUGH TO C	2.9	3.5	10.2	8.2
	21	+		20-25	S	6		TOO ROUGH TO C				
0/40/0004								TOO ROUGH TO C				
3/13/2001	23 24	07:35	07:43	20 15-20	000	4-6 4-6	EBB	N TO S	3.8	4.0	12.9	14.8
	24	12:25		15-20			FLOOD		NO REPORT	NO REPORT		14.8
	25 26	15:45	12:35 15:55	15-20	s s	4-6 4-6	EBB	<u>s to n</u> n to s	4.1	3.2	14.5 15.2	10.8
	20	19:15	19:48	15-16	s	3-5	EBB	N TO S	3.0	2.8	12.9	14.8
3/14/2001	28	00:05	00:18	10-15	W	4-5	FLOOD	SW TO NE	4.1	4.0	17.5	15.3
3/14/2001	20	04:30	04:43	10-15	NW	4-5	H. SLACK		5.1	4.0	11.9	15.8
	29 30	04:30	08:55	10-15	W	3-5	EBB	W TO E N TO S	3.5	4.7	10.1	18.9
	31	13:00	13:14	10-15	SW	3-5	FLOOD	S TO N	2.9	4.5	12.7	19.1
	32	17:02	17:10	10-12	SW	3-4	EBB	N TO S	3.3	4.5	17.9	15.3
	33	22:14	22:24	10-12	SW	3-4	EBB	N TO S	4.5	4.1	19.1	16.0
3/15/2001	34	02:43	02:55	15	S	4	FLOOD	S TO N	7.3	8.9	19.2	21.2
0/10/2001	35	07:00	07:17	15		4	EBB	N TO S	5.7	6.5	17.1	21.5
	36	11:28	11:40	10-15	s s	3-4	FLOOD	S TO N	7.3	7.8	15.0	22.3
	37	16:05	16:17	10-15	s	3-4	EBB	S TO N	5.6	12.1	21.0	23.9
	38	20:12	20:22	15	S	4	EBB	S TO N	7.8	9.0	18.9	20.0
3/16/2001	39	00:33	00:45	10-15		3-4	L. SLACK	S TO N	6.0	8.9	16.3	19.2
	40	05:15	05:24	10-15	s s	3-4	FLOOD	S TO N	8.9	7.1	15.5	16.1
	41	10:00	10:11	10-12	SW	3-4	FLOOD	S TO N	5.5	9.9	20.3	19.0
	42	14:27	14:42	10-12	SW	3	FLOOD	S TO N	5.0	4.5	16.8	22.3
	43	19:35	19:48	10	SW	2-3	EBB	N TO S	6.9	7.5	18.0	15.8
	44	23:33	23:44	5-10	SW	2-3	EBB	N TO S	4.4	8.9	15.2	10.8

	HOPPER	тіі	ME	WIN	D				BACKGRO	UND (NTU's)	DOWNCUR	NCE: 150 M RENT FROM DGE
DATE	LOAD NO.	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)	CURRENT DIRECTION	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
3/17/2001	45	04:20	04:29	LIGHT	SW NO (		FLOOD	S TO N CAL PROBLEM WITH DREI	6.1	8.0	15.9	19.5
3/18/2001								CAL PROBLEM WITH DRE				
3/19/2001	46	02:35	02:45	10	E	2-3	EBB	N TO S	6.9	9.8	12.3	16.0
	47	07:00	07:09	15	E	2-3	FLOOD	S TO N	6.3	11.5	11.9	20.8
	48	10:57	11:08	15-18	E	2-3	FLOOD	S TO N	7.8	8.4	18.5	15.7
	49 50	15:20	15:32	15	E	2-3	FLOOD	S TO N	5.0	9.1	22.5	19.3
		20:11	20:20	10	SW	2-3	H. SLACK	S TO N	6.9	10.0	17.6	20.9
3/20/2001	51	00:15	00:28	15	W	4-5	EBB	N TO S	7.3	6.5	16.9	20.2
	52	04:42	04:50	15	W	4-5	L. SLACK	N TO S	5.8	10.3	18.0	25.2
								ECHANICAL PROBLEM WI				
3/21/2001								ECHANICAL PROBLEM WI				
3/22/2001								ECHANICAL PROBLEM WI				
3/23/2001								ECHANICAL PROBLEM WI				
	53	15:47	15:59	10	W	3	EBB	N TO S	5.3	8.9	15.8	19.1
	54	21:15	21:25	10	W	3	FLOOD	S TO N	6.4	7.9	12.0	15.5
3/24/2001	55 56	02:10	02:22 07:14	5-10	SW	2-3	EBB	N TO S	5.5 5.9	10.0	15.8	18.1 15.1
		07:03		5-10	SW	2-3	L. SLACK	NONE DETECTED		8.4	18.8	
	57	12:08	12:21	5	SW	1-2	FLOOD	S TO N N TO S	4.9	5.9	20.3	21.9
	58	16:24	16:33	5-10	SW	2	EBB	N TO S	6.7	7.8	12.8	15.5
	59	20:54	21:05	8-12	SW	2	FLOOD	S TO N	6.6	8.7	17.8	21.5
3/25/2001	60	03:00	03:11	5-10	SW	2	EBB	N TO S	7.5	9.8	19.8	22.3
	61	07:42	07:51 13:21	5	SW		FLOOD	SLIGHTLY FROM N	7.7	5.9	21.9	17.5
	62 63	13:08		5-10	SW	1-2	FLOOD	S TO N N TO S	6.4 5.9	9.2	15.4	21.9 24.1
	63	17:37	17:48	5	W	1-2	EBB	N TO S		6.8	22.7	
0/00/0004	64	22:15	22:25	10	NW	1-2	FLOOD	S TO N N TO S	7.7	6.3	19.9	23.4
3/26/2001	65	02:58 07:27	03:10 07:39	10 10	NE	2-3 2-3	EBB L. SLACK		8.9 9.9	9.5	17.6	21.4
	66				NE					10.4	17.8	15.0
	67	12:15 17:16	12:25 17:24 21:39	10	NE NE NE	2-3 2-3	FLOOD EBB	<u>s to n</u> N to s	7.1 5.9 7.7	6.2 9.8 5.9	16.6 15.8	21.3 19.2
	68 69	21:29	17:24	10-15	NE		FLOOD	N TO S S TO N	5.9	9.8		19.2
3/27/2001		02:07	02:15	15 10	NE	3	H. SLACK		5.8	5.9 9.9	15.3 12.8	19.9 15.4
3/2//2001	70	07:00	02.15	10		3	EBB					
	71 72				NE				7.3	5.9	11.0	9.8
	12	12:32 17:14	12:43 17:25	10-15 10-15	NE NE	3-4	FLOOD EBB	<u>s to n</u> N to s	6.5 8.0	6.2 6.8	11.9 16.8	15.7
	73 74	21:33		10-15	NE	4	FLOOD	S TO N	5.1			13.3
3/28/2001	74	02:15	21:42	10-15		4	H.SLACK	S TO N		9.2 9.5	16.5 17.9	15.9
3/20/2001	75 76	02:15	02:23 07:18	10-15	NE NE	3-4 3-4	EBB	N TO S	8.3 8.2		17.9	20.8 15.3
	77	07.10		COULD NOT T				. TOM" LIFTED AND PROP		10.1 MARINA IN SARA		15.3
	77 78	17:05	17:14	10	NE		EBB		6.8	8.3	12.8	19.1
	78	21:57	22:05	10	NE	4	L.SLACK	N TO S N TO S	9.3	8.3 7.2	21.3	23.9
	19	21.3/	22.00	10	INE		L.SLAUK		9.3	1.2	21.3	23.9

	HOPPER	ті	ME	WIN	ID				BACKGRO	JND (NTU's)	DOWNCUR	NCE: 150 M RENT FROM DGE
DATE	LOAD NO.	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)	CURRENT DIRECTION	SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
3/29/2001	80	02:47	02:55	10	NE	3-4	FLOOD	S TO N	9.5	7.5	16.8	18.5
	81	07:42	07:49	10-15	SE SW	3-4	EBB	N TO S	8.8	10.2	13.3	19.9
	82			15-35		5-7		ADVERSE WEATHE	R - UNSAFE CON	DITIONS PREVEN	IT SAMPLING	
	83			15-35	SW	5-7		ADVERSE WEATHE	R - UNSAFE CON	DITIONS PREVEN	IT SAMPLING	
	84			15-35	SW	5-7		ADVERSE WEATHE				
3/30/2001	85			ADVERSE	WEATHER -	SEVERE LIGH	TNING STORM	ALL NIGHT LONG WITH	HIGH WINDS PRE	VENTED SAMPLI	NG	
	86	19:45	19:54	10	SW	4-5	EBB	N TO S	9.8	12.5	17.8	23.5
3/31/2001	87	02:11	02:22	10	S	4	FLOOD	S TO N S TO N S TO N	1.5	2.8	14.8	19.2
	88 89	08:30	08:40	10	SE	4	FLOOD	S TO N	1.8	5.5	11.0	9.3
	89	14:51	14:59	10-15	SE	4	FLOOD	S TO N	3.6	2.9	15.6	11.9
	90	21:03	21:11	10-15	SE	4-5	EBB	N TO S	3.8	4.8	9.9	18.3
4/1/2001	91	04:37	04:46	10	NW	4	FLOOD	S TO N	3.1	2.5	11.3	15.6
					NO 0	CONSTRUCTIO	N - MECHANI	CAL PROBLEM WITH DRE				
4/2/2001	92 93 94 95	06:17	06:26	5 5	NE	2-3	FLOOD	<u>S TO N</u> S TO N	3.3 2.1	5.8	13.9	18.6
	93	12:52	13:04	5	NE	2-3	FLOOD		2.1	4.3	15.6	13.2
	94	18:44	18:55	5-10	NE	2-3	FLOOD	<u>S TO N</u> N TO S	1.9	4.8	10.3	17.2
	95	23:42	23:55	8-10	NE	2-3	EBB	N TO S	4.0	3.6	18.8	15.5
4/3/2001	96 97 98 99	00:54	01:22	5-10		2-3	EBB	N TO S	3.7	4.2	17.2	15.0
	97	06:25	06:54	5-10	Γ	2-3	FLOOD	S TO N	3.9	4.8	16.4	14.6
	98	11:46	12:19	10-15	SW	2-4	FLOOD	N TO S   S TO N   N TO S   S TO N   N TO S   N TO S	4.0	4.8	19.4	17.6 14.2
	99	18:07	18:40	10-15	SW	2-4	FLOOD	S TO N	4.8	5.4	16.6	14.2
	100	23:08	23:48	5-10	SW	2-3	EBB		3.2	4.6	15.2	12.9
4/4/2001	101	05:08	05:44	CALM		1-2	EBB	S TO N	4.4	5.2	16.2	10.5
	102	11:06	11:34	CALM	LT. EAST	1	FLOOD	S TO N	3.9	4.5	14.2	12.6
	103	16:36	17:12	5	E	1	EBB	N TO S	4.4	4.0	18.2	10.2
	104	23:12	23:54	5-7	SE	1-2	EBB	N TO S	4.4	4.7	14.1	10.1
4/5/2001					NO	CONSTRUCTIO	N - MECHANI	CAL PROBLEM WITH DRE	DGE			
4/6/2001	105	03:10	03:26	5	E	1	EBB	N TO S	2.8	3.4	6.0	3.2
	106	08:14	08:59		E	1	FLOOD	S TO N	2.7	3.8	7.4	3.4
	107	12:53	13:20	5 5	S	1	FLOOD	S TO N S TO N	2.5	3.0	7.9	5.1
	108	18:28	18:38	5-10	SW	1	EBB	N TO S	1.5	3.3	9.1	6.4
	109	23:15	11:35:00 P8	510	SW	1-2	FLOOD	S TO N	2.7	3.6	8.6	6.2
4/7/2001	110	04:22	04:32	5-10	SE S	1	EBB	N TO S	1.5	1.4	6.9	14.1
	111	09:13	09:28	5-10	S	1	FLOOD	S TO N	0.6	1.1	8.9	12.8
	112	14:24	14:38	5-10	SW	1	EBB	N TO S	0.7	0.9	13.1	9.2
	113	20:26	20:40	CALM	Γ	FLAT	LOW	W TO E	0.8	1.1	9.4	14.2
4/8/2001	114	01:35	01:49	CALM		CALM	H. SLACK	S TO N S TO N	1.2	1.6	14.1	12.2
	115	07:41	07:55	CALM	Γ	CALM	EBB		1.1	1.4	12.7	12.3
	116	12:42	12:53	5	SW	1	FLOOD	SW TO NE	1.6	2.1	13.3	10.6 12.1
	117	17:26	17:40	5-10	WSW	1	EBB	N TO S	0.9	1.4	13.3 10.7	12.1
	118	22.41	22.50	5-10	WSW	1-2	FLOOD	S TO N	0.5	1.3	10.2	12.6
4/9/2001	119				•	-	NO RE	PORT PROVIDED				•
	Γ				NO C	CONSTRUCTIO	N - MECHANI	CAL PROBLEM WITH DRE	DGE			

	HOPPER	Ш	ME	WIN	D						BACKGROU	JND (NTU's)	DOWNCUR	NCE: 150 M RENT FROM DGE
DATE	LOAD NO.	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)	_	URRENT RECTION		SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
4/10/2001					NO	CONSTRUCTIO	ON MECHANI	CAL PROB	BLEM WIT	H DREI	DGE			
	120	20:15	21:06	10-15	WSW	2	EBB	N	TO	S	1.6	2.0	16.7	14.3
4/11/2001	121	02:03	02:20	0-5	VAR.	CALM	FLOOD	S	TO	Ν	0.8	1.3	15.4	11.4
	122 123	06:53	07:03	5 10	S S	1	EBB	N S	TO	S N	0.5	0.8	14.1 12.8	10.6
		13:06	13:28	10		1-2	FLOOD	S	TO		0.4	1.1		9.9
	124 125	18:02	18:19	5	SW	1	EBB	N	TO	S S	1.2 0.3	1.0	14.9 13.6	11.1
		23:10	23:19	CALM		1	LOW	N	TO			0.9		12.2
4/12/2001	126	04:07	04:20	5	S	1	FLOOD	S	TO	Ν	0.9	0.7	17.4	15.6
	127	09:38	09:54	5	SW	1	FLOOD	S	TO	Ν	0.5	0.8	15.4	11.8
	128	13:40	13:54	5-10	SSW	1-2	EBB	N	TÖ	S	0.6	0.7	25.2	16.7
	129 130	18:23 23:19	18:49	10-15	SSW	2-3	EBB	N	TO	S S	0.6	0.9	13.8	12.4
			23:37	5-10	S	1-2	EBB	N	TO		1.3	0.9	16.1	14.6
4/13/2001	131	03:30	03:46	5	S	1-2	FLOOD	S	TO	Ν	0.9	0.6	7.5	6.3
	132 133	07:18	07:31	5 5-10	SSW	1-2 1-2	FLOOD	s S	TO	Ν	0.7	0.6	9.7 12.8	6.2
	133	13:07	13:21		SW	1-2	FLOOD	S	TÖ	N	0.6	0.8		10.6
	134 135	17:37	17:52	5-15	WSW	2	EBB	N	TO	S S	0.9	0.6	10.7	12.1
		21:51	22:03	5-10	W	2	EBB	N	TO		0.5	0.4	12.2	10.6
4/14/2001	136	02:21	02:36	CALM		CALM	FLOOD	S	TO	Ν	0.7	0.5	4.3	6.7
	137 138	08:06	08:18 12:02	5 5-10	SW SW	1	FLOOD	s S	TO	Ν	0.5 0.7	0.9	14.3	10.4
	138	11:48	12:02	5-10	SW	1	FLOOD	S	TO	N	0.7	0.9	14.8	13.2
	139	16:43	16:57	5-15	WSW	1-2	FLOOD	s	TO	N	0.4	0.7	12.9	10.5
	140	20:27	21:17	5-10	WSW	2	EBB	N	TO	S	0.6	0.5	16.4	14.1
4/15/2001	141	02:07	02:19	5		1	LOW	N	TO	S	0.7	0.8	13.6	10.8
	142 143	06:00 12:03	06:15 12:16	5 5-10	SW SW	1	FLOOD	S S	TO TO	N N	1.4 2.0	1.1	11.5 15.4	7.7 13.7
						1-2	FLOOD	S	TO	N		1.4		
	144	16:12	16:25	5-10	WSW	1-2	HIGH	S	TO	N	2.9	1.6	21.5	17.1
	145	20:08	20:21	10	W	1-2	EBB	N	TÖ	S	1.3	0.9	17.2	14.3
4/16/2001	146	02:07	02:28	5-10	WNW	1-3	EBB	N	TO	S	1.3	0.9	23.7	19.1
	147	06:37	06:58	5-10	WNW	1-3	FLOOD	NW		SE	1.8	2.3	19.6	17.1
	147 148										CHANICAL REPA			
	149 150	L									CHANICAL REP			
	150	21:35	21:48	15-20	WNW	2-4	EBB	NW	TO	SE	4.8	3.9	15.1	12.8
4/17/2001	151 152 153	02:20	02:33	15-20	WNW	3-4	EBB	NW		SE	4.3	5.6	11.4	11.1
	152	07:06	07:21	15-20	WNW	3-4	FLOOD	NW		SE	5.9	4.3	17.2	15.2
	153	L		15-25	WNW	4-6						DITIONS PREVEN		
	154	L		15-25	NW	4-6						DITIONS PREVEN		
	155			15-25	N	4-6	l					DITIONS PREVEN	IT SAMPLING	
4/18/2001	156	L					ATHER - UNS							
	157	13:55	14:05	15-20	NE	5	EBB	N	TO	S	7.6	8.2	19.3	20.2
	158	18:33	18:44	15	NE	4	FLOOD	S	TÖ	N	6.9	7.9	15.1	19.6

	HOPPER	тіі	ME	WIN	D						BACKGRO	JND (NTU's)	DOWNCUR	NCE: 150 M RENT FROM DGE
DATE	LOAD NO.	FIRST SAMPLE	LAST SAMPLE	SPEED (Est. Knts)	DIR.	SEAS (Est. Ft.)	TIDE (Stage)		CURRENT		SURFACE	1 M ABOVE BOTTOM	SURFACE	1 M ABOVE BOTTOM
4/19/2001	159	00:12	00:19	10	E	3	EBB	N	TO	S	3.6	5.8	19.8	16.2
	160	04:10	04:18	10	E	2-3	EBB	N	TO	S	4.6	10.1	12.3	16.1
	161	09:27	09:36	5-10	E	2-3	FLOOD	S	TO	N	6.2	5.9	11.8	19.9
	162	14:17	14:26	5-10	E	2-3	EBB	N	TO	S	4.9	8.8	19.2	15.6
	163	20:02	20:12	5-10	E	2	FLOOD	S	TO	N	4.4	6.9	14.6	17.3
4/20/2001	164	00:58	01:09	5	E	1-3	EBB	N	TO	S	6.9	5.8	17.6	21.3
	165	06:30	06:38	5-10	E	1-3	L. SLACK	E	TO	W	4.5	7.3	19.1	16.8
	166	11:42	11:51	10	E	2-3	FLOOD	S	TO	N	3.5	6.0	16.0	21.5
	167	17:05	17:14	10	SW	2-3	EBB	N	TO	S	2.8	3.5	11.6	10.8
	168	22:21	22:31	10	SE	2-3	FLOOD	S	TO	N	4.9	3.8	9.8	17.6
4/21/2001	169	03:27	03:35	5-10	SE	2	EBB	N	TO	S	3.3	7.2	13.6	18.9
	170	09:05	09:14	10	SE	2	FLOOD	S	TO	N	6.2	5.1	9.8	15.9
	171	14:41	14:51	10	SE	2	EBB	N	TO	S	3.5	5.2	16.6	21.2
	172	20:10	20:19	5-10	SE	1-2	EBB	N	TO	S	4.1	6.9	17.8	16.2
4/22/2001	173	01:35	01:44	10	E	2-3	EBB	N	TO	S	5.4	4.3	12.6	9.3
	174	07:03	07:09	10	E	2	L. SLACK	N	TO	S	6.0	5.2	15.9	12.6
	175	12:42	12:51	5	E	1-2	H. SLACK	NON	IE DETEC	TED	3.8	4.6	11.6	9.1
	176	18:15	18:25	5	SW	2	EBB	N	TO	S	2.5	4.8	12.6	16.8
	177	23:43	23:54	5	SW	2	FLOOD	S	TO	N	2.7	3.8	9.7	15.1
4/23/2001	178	04:50	05:00	10	E	2	EBB	N	TO	S	5.0	9.6	16.0	19.5
	[					CO	ONSTRUCTION	COMPL	ETED					

			F	Key Beach Renouris DEP Permit No. 027( ater Quality Monitori March 5 - March 1	)032-001-J ng Summa	c								
			Beach Site			I	Dredge Site							
Date	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)						
3/5/2009	18:00	2.42	2.65	0.23	18:00	2.38	2.85	0.47						
3/6/2009	0:00	1.11	1.64	0.53	0:00	2.47	2.98	0.51						
3/6/2009	6:00	2.80	3.15	0.35			3.10	0.75						
3/6/2009	12:00	2.35	3.32	0.97	12:00	2.62	2.83	0.21						
3/6/2009	18:00	1.82	2.67	0.85	18:00	1.28	1.59							
3/7/2009 0:00 2.13 2.31 0.18 0:00 1.13 1.59 0.46														
3/7/2009	12:00	1.56	1.90	0.34										
3/7/2009	18:00	1.04	1.17	0.13										
3/8/2009	0:00	1.47	1.27	-0.20										
3/8/2009	6:00	1.38	1.82	0.44	6:00	-								
3/8/2009	18:00	1.42	1.85	0.43		-								
3/9/2008	0:00	1.01	1.83		0:00									
3/9/2008	6:00	1.96	3.58		6:00									
3/9/2008	12:00	1.64	2.02			-	2.07							
3/9/2008	18:00	2.38	2.92											
3/10/2009	0:00	1.72	1.96	-	0:00		1.77	0.84						
3/10/2009	6:00	1.84	3.26		6:00									
3/10/2009	12:00	2.48	2.71	0.23	12:00			0.23						
3/11/2009	6:00	1.64	4.45		6:00									
3/11/2009	12:00	1.67	3.42											
3/11/2009	18:00	1.89	3.37	1.48	18:00	0.89	1.79	0.90						

#### Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 5 - March 11, 2009

Monitorin	g Samples	(Not for Compliance)	150 M	leters	300 N	leters	500 N	leters	750 N	leters	1000	Meters
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)								
3/6/09	12:00	2.35	2.34	-0.01	2.86	0.51	4.89	2.54	4.78	2.43	2.48	0.13
3/7/09	12:00	1.56	3.91	2.35	1.32	-0.24	1.85	0.29	1.59	0.03	1.61	0.05
3/8/09	6:00	1.38	2.60	1.22	2.71	1.33	2.93	1.55	1.42	0.04	1.44	0.06
3/9/09	12:00	1.64	1.90	0.26	2.34	0.70	2.46	0.82	3.52	1.88	1.33	-0.31
3/10/09	12:00	2.48	5.13	2.65	6.62	4.14	6.01	3.53	5.18	2.70	2.30	-0.18
3/11/09	12:00	1.67	6.17	4.50	3.08	1.41	2.99	1.32	2.37	0.70	2.03	0.36

				o Key Beach Renou FDEP Permit No. 02 Water Quality Monito March 12 - Marc	270032-001 pring Sumr	-JC		
			Beach Site				Dredge Site	
Date		Background (NTU's)	Compliance (NTU's)	Difference (NTU's)	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)
3/12/2009	0:00	1.64	1.74	0.10	0:00	2.85	2.96	0.11
3/12/2009	6:00	1.81	3.50	1.69	6:00	1.74	2.03	0.29
3/12/2009	12:00	1.41	2.10	0.69	12:00	1.17	1.98	0.81
3/12/2009	18:00	1.21	3.25	2.04	18:00	2.07	2.16	0.09
3/13/2009	0:00	1.33		-0.11	0:00		1.87	0.66
3/13/2009	6:00	1.41	3.71	2.30		-		
3/13/2009	12:00	1.49		0.71	12:00	0.46	1.54	1.08
3/13/2009	18:00	1.39		2.38		1.00		0.71
3/14/2009		2.04		0.73			-	
3/14/2009	6:00	1.44			6:00			
3/14/2009		0.96		1.55		0.82		3.07
3/14/2009		0.92			18:00	1.12		0.12
3/15/2009		2.94		0.30		1.14		0.29
3/15/2009	6:00	1.76		0.75			2.05	
3/15/2009	18:00	1.16	÷	1.95		1.45		0.02
3/16/2009	0:00	0.00		3.82		1.25		
3/16/2009	6:00	1.91	2.23	0.32	6:00	1.54		
3/16/2009		1.31	1.74	0.43				
3/16/2009	18:00	0.86			18:00			
3/17/2009		1.45		-	0:00	1.47	-	0.05
3/17/2009	6:00	1.21	2.82	1.61	6:00	1.04	-	0.45
3/17/2009	12:00	1.08			12:00	0.43		1.00
3/18/2009	0:00	1.47					1.55	
3/18/2009		1.06		0.46		0.97	1.18	
3/18/2009	12:00	1.43	-	0.11	12:00	0.90		2.24
3/18/2009	18:00	0.90	3.09	2.19	18:00	0.56	3.52	2.96

#### Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 12 - March 18, 2009

Monitorin	g Samples	(Not for Compliance)	150 M	/leters	300 N	leters	500 N	leters	750 N	leters	1000	Meters
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)								
3/12/09	12:00	1.41	2.85	1.44	6.28	4.87	3.31	1.90	3.60	2.19	2.23	0.82
3/13/09	12:00	1.49	1.42	-0.07	1.62	0.13	2.71	1.22	2.14	0.65	2.93	1.44
3/14/09	12:00	0.96	1.53	0.57	2.27	1.31	3.58	2.62	3.28	2.32	4.62	3.66
3/16/09	12:00	1.31	1.16	-0.15	1.64	0.33	1.80	0.49	2.28	0.97	2.38	1.07
3/17/09	12:00	1.08	1.88	0.80	1.07	-0.01	1.26	0.18	1.32	0.24	1.51	0.43
3/18/09	12:00	1.43	2.00	0.57	1.85	0.42	2.54	1.11	2.46	1.03	1.32	-0.11

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 19 - March 25, 2009														
			Beach Site				Dredge Site								
Date	Time Background (NTU's) Compliance (NTU's) Difference (NTU's) Time Background (NTU's) Compliance (NTU's)							Difference (NTU's)							
3/19/2009	0:00	0.68	4.73	4.05	0:00	2.36	2.73	0.37							
3/19/2009	6:00	0.66	2.02	1.36	6:00	1.84	2.27	0.43							
3/19/2009	12:00	0.52	0.52	0.00	12:00	1.87	6.73	4.86							
3/20/2009	0:00	2.54	3.51	0.97	0:00	3.03	3.57	0.54							
3/20/2009		1.14	4.49					2.28							
3/20/2009	12:00	0.92	2.46	-				1.46							
3/20/2009		2.87	3.82	0.95				0.73							
3/21/2009	0:00	2.19	3.77	1.58			4.72	2.51							
3/21/2009		1.34	3.80					1.29							
3/21/2009		1.99		0.08			11.30	10.29							
3/22/2009		1.19			0:00		-	1.87							
3/22/2009		1.43	4.26					0.99							
3/22/2009		0.81	1.12	0.31	12:00	-	19.60	14.79							
3/22/2009	18:00	1.14	1.28	0.14	18:00		12.60	11.39							
3/23/2009	0:00	1.89		-	0:00	-		2.31							
3/23/2009		1.01	2.68		6:00		5.25	2.96							
3/23/2009		0.71	1.29	0.58				0.00							
3/23/2009		2.25	3.38				2.81	1.24							
3/24/2009		1.30						0.48							
3/24/2009		0.92	3.95		6:00			1.00							
3/24/2009		1.24	3.14			-		1.02							
3/24/2009		1.27	1.84		18:00		8.94	5.87							
3/25/2009	0:00	1.05					1.81	1.04							
3/25/2009		2.14					6.67	4.10							
3/25/2009		1.71	2.18	-	12:00		1.97	0.66							
3/25/2009	18:00	2.75	8.03	5.28	18:00	2.10	5.65	3.55							

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#### Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 19 - March 25, 2009

Monitorin	Monitoring Samples (Not for Compliance) 150 Meters			leters	300 N	leters	500 N	leters	750 N	eters	1000 Meters	
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)	Sample (NTU's)	Difference from						
3/19/09	12:00	0.52	0.91	0.39	1.19	0.67	0.91	0.39	0.93	0.41	0.75	0.23
3/20/09	12:00	0.92	4.40	3.48	3.47	2.55	3.47	2.55	4.18	3.26	2.99	2.07
3/22/09	12:00	0.81	1.11	0.30	1.95	1.14	1.44	0.63	1.12	0.31	1.43	0.62
3/23/09	12:00	0.71	0.70	-0.01	1.00	0.29	4.60	3.89	0.63	-0.08	1.40	0.69
3/24/09	12:00	1.24	1.69	0.45	1.62	0.38	1.43	0.19	1.96	0.72	3.19	1.95
3/25/09	12:00	1.71	3.36	1.65	2.00	0.29	1.70	-0.01	2.79	1.08	2.99	1.28

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 26 - April 1, 2009												
	Beach Site Dredge Site												
Date	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)					
3/26/2009	0:00	1.04	1.61	0.57	0:00	0.93	1.04		0.11				
3/27/2009	3/27/2009 Dredge Down Due to Weather												
3/28/2009				Dredge Dov	vn Due to V	Veather							
3/29/2009				Dredge Dov	vn Due to V	Veather							
3/30/2009				Dredge Dov	vn Due to V	Veather							
3/31/2009	18:00	3.44	5.06	1.62	18:00	3.47	12.10		8.63				
4/1/2009	0:00	4.53	5.73	1.20	0:00	5.72	5.94		0.22				
4/1/2009	6:00	5.64	5.92	0.28	6:00	3.28	5.51		2.23				
4/1/2009	12:00	5.17	16.50	11.33	12:00	4.71	6.97		2.26				

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary March 26 - April 1, 2009											
Monitoring	Monitoring Samples (Not for Compliance)			Neters	300 N	leters	500 N	leters	750 1	Neters	1000 Meters	
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)								
3/26/09						Dredge Down	Due to Weather					
3/27/09						Dredge Down	Due to Weather					
3/28/09						Dredge Down	Due to Weather					
3/29/09						Dredge Down	Due to Weather					
3/30/09							Due to Weather					
3/31/09						Dredge Down	Due to Weather					
4/1/09	12:00	5.17	7.18	2.01		2.01			41.10	35.93	27.50	22.33

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary April 2 - April 8, 2009											
	Beach Site Dredge Site											
Date	Time Background (NTU's) Compliance (NTU's) Difference (NTU's) Time Background (NTU's) Compliance (NTU's) Difference											
4/2/2009				Dredge Dov	/n Due to \	Neather	·					
4/3/2009				Dredge Dov	n Due to	Neather						
4/4/2009				Dredge Dov	/n Due to \	Neather						
4/5/2009				Dredge Dov	/n Due to \	Neather						
4/6/2009				Dredge Dov	n Due to	Neather						
4/7/2009				Dredge Dov	/n Due to \	Neather						
4/8/2009				Dredge Dov	n Due to	Neather						

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary April 2 - April 8, 2009											
Monitoring Samples (Not for Compliance) 150 Meters 300 Meters 500 Meters 750 Meters							1000	Meters				
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)								
4/2/09						Dredge Down	Due to Weather					
4/3/09							Due to Weather					
4/4/09						Dredge Down	Due to Weather					
4/5/09							Due to Weather					
4/6/09							Due to Weather					
4/7/09							Due to Weather					
4/8/09						Dredge Down	Due to Weather					

			Li					Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC													
				Water Quality Monit																	
				April 9 - April		initial y															
					,																
			Beach Site		Dredge Site																
Date	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)	Time	Background (NTU's)	Compliance (NTU's)	Difference (NTU's)													
4/9/2009	12:00	4.56	4.72	0.16	12:00	3.24	18.60	15.36													
4/9/2009	18:00	4.05	7.40	3.35	18:00	2.90	7.36	4.46													
4/10/2009	0:00	5.04	5.16	0.12	0:00	4.04	5.52	1.48													
4/10/2009	6:00	4.87	5.07	0.20	6:00	No Sample Collected															
4/10/2009	12:00	5.05	11.50	6.45	12:00	7.25	12.20	4.95													
4/10/2009	18:00	3.36	10.30	6.94	18:00	5.31	15.10	9.79													
4/11/2009	0:00	3.90	14.50	10.60	0:00	5.62	9.08	3.46													
4/11/2009	6:00	4.15	6.39	2.24	6:00	3.95	5.23	1.28													
4/11/2009	12:00	2.67	4.67	2.00	12:00	3.12	14.40	11.28													
4/11/2009	18:00	1.92	9.82	7.90	18:00	3.38	5.55	2.17													
4/12/2009	0:00	3.96	6.13	2.17	0:00	2.50	19.70	17.20													
4/12/2009	6:00	3.25	4.54	1.29	6:00	3.98	11.30	7.32													
4/12/2009	12:00	2.57	7.21	4.64	12:00	2.57	10.90	8.33													
4/12/2009	18:00	4.28	5.29	1.01	18:00	3.31	13.30	9.99													
4/13/2009	0:00	3.85	4.68	0.83	0:00	2.60	4.45	1.85													
4/13/2009	6:00	3.82	3.92	0.10	6:00	5.33	6.58	1.25													
4/13/2009	12:00	3.11	4.91	1.80	12:00	2.54	4.54	2.00													

	Lido Key Beach Renourishement Project FDEP Permit No. 0270032-001-JC Water Quality Monitoring Summary April 9 - April 13, 2009												
Monitorin	Monitoring Samples (Not for Compliance) 150 Meters			300 N	leters	500 N	leters	750 N	leters	1000	Meters		
Date	Time	Background (NTU's)	Sample (NTU's)	Difference from Background (NTU's)									
4/9/09	12:00	4.56	6.25	1.69	5.91	1.35	6.24	1.68	6.28	1.72	5.88	1.32	
4/10/09	12:00	5.05	11.00	5.95	10.80	5.75	No Sample		5.94	0.89	8.20	3.15	
4/11/09	12:00	2.67	3.51	0.84	3.44	0.77	2.24	-0.43	7.46	4.79	3.10	0.43	
4/12/09	12:00	2.57	4.19	1.62	9.02	6.45	8.57	6.00	4.07	1.50	10.40	7.83	
4/13/09	12:00	3.11	6.72	3.61	7.45	4.34	7.77	4.66	4.11	1.00	5.02	1.91	