



**Town of Surfside  
Special Town Commission Meeting  
Sand Report  
AGENDA**

**September 11, 2014**

**7 p.m.**

**Town Hall Commission Chambers - 9293 Harding Ave, 2<sup>nd</sup> Floor  
Surfside, FL 33154**

- 1. Opening**
  - A. Call to Order**
  - B. Roll Call of Members**
  - C. Pledge of Allegiance**
  
- 2. Sand Committee Final Report – Michael P. Crotty, Town Manager**
  - A. Presentation**
  - B. Discussion**
  - C. Commission Action on Report Recommendations:**
    - 1. Sand Recommendation**
    - 2. Urging Resolution**
    - 3. Establishment of Permanent Beach Committee**
  
- 3. Resolution Authorizing CB&I Environmental & Infrastructure, Inc.**

**A RESOLUTION OF THE TOWN OF SURFSIDE, FLORIDA AUTHORIZING THE TOWN MANAGER TO RETAIN CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC., (“CB&I”) TO ASSIST AND PROVIDE THE TOWN COASTAL ENGINEERING SERVICES; AUTHORIZING THE TOWN MANAGER TO EXECUTE AN AGREEMENT FOR RETENTION OF CB&I FOR CONSULTING AND ENGINEERING SERVICES; AUTHORIZING THE APPROPRIATION AND EXPENDITURE FROM THE FISCAL YEAR 2013/2014 BUDGET NOT TO EXCEED \$16,496.00 FROM THE GENERAL FUND, NON-DEPARTMENTAL ACCOUNT NO. 001-7900-590-3110; PROVIDING FOR AUTHORIZATION; AND PROVIDING FOR AN EFFECTIVE DATE.**

#### 4. Adjournment

Respectfully submitted,



Michael P. Crotty  
Town Manager

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THIS MEETING IS OPEN TO THE PUBLIC. IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, ALL PERSONS THAT ARE DISABLED; WHO NEED SPECIAL ACCOMMODATIONS TO PARTICIPATE IN THIS MEETING BECAUSE OF THAT DISABILITY SHOULD CONTACT THE OFFICE OF THE TOWN CLERK AT 305-861-4863 EXT. 226 NO LATER THAN FOUR DAYS PRIOR TO SUCH PROCEEDING.

IN ACCORDANCE WITH THE PROVISIONS OF SECTION 286.0105, FLORIDA STATUTES, ANYONE WISHING TO APPEAL ANY DECISION MADE BY THE TOWN OF SURFSIDE COMMISSION, WITH RESPECT TO ANY MATTER CONSIDERED AT THIS MEETING OR HEARING, WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE WHICH RECORD SHALL INCLUDE THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

AGENDA ITEMS MAY BE VIEWED AT THE OFFICE OF THE TOWN CLERK, TOWN OF SURFSIDE TOWN HALL, 9293 HARDING AVENUE. ANYONE WISHING TO OBTAIN A COPY OF ANY AGENDA ITEM SHOULD CONTACT THE TOWN CLERK AT 305-861-4863. A COMPLETE AGENDA PACKET IS ALSO AVAILABLE ON THE TOWN WEBSITE AT [www.townofsurfsidefl.gov](http://www.townofsurfsidefl.gov)

TWO OR MORE MEMBERS OF OTHER TOWN BOARDS MAY ATTEND THIS MEETING.

THESE MEETINGS MAY BE CONDUCTED BY MEANS OF OR IN CONJUNCTION WITH COMMUNICATIONS MEDIA TECHNOLOGY, SPECIFICALLY, A TELEPHONE CONFERENCE CALL. THE LOCATION 9293 HARDING AVENUE, SURFSIDE, FL 33154, WHICH IS OPEN TO THE PUBLIC, SHALL SERVE AS AN ACCESS POINT FOR SUCH COMMUNICATION.



## **Town of Surfside**

### **MEMORANDUM**

**To:** Mayor, Vice Mayor and Commission  
Sand Committee

**From:** Michael P. Crotty, Town Manager

**Date:** September 10, 2014

**Subject:** Special Meeting – September 11, 7 pm (Sand Committee Report)

A Special Meeting will be held at 7:00 pm on Thursday, September 11 in the Commission Chambers.

Enclosed is a copy of the final report. This report is essentially the “draft” final report sent to you on August 29 with the edits suggested by the Sand Committee at their September 2 meeting plus an expanded introduction to the “OVERVIEW” section which provides detailed background on this project as suggested by the Committee.

The purpose of this meeting is to take action on the Committee’s recommendations.

The following is a summary of the Committee’s recommendations:

1. Sand Solution
  - Scraping of the Surf Club sand off the beach and placing it in the dunes or street access areas
  - Prior to the project being undertaken that the following two (2) conditions be met:
    - Resolving through FDEP the Compliance Assistance Offer regarding debris on the beach; and
    - Testing of the sand prior to being placed on the dunes pursuant to a modified testing protocol developed and approved by Dr. Teaf.

2. Urging Resolution

The Town Commission adopts Urging Resolution which asks the State to adopt chemical testing standards and requirements for sand transferred/placed on the beach in Florida.

3. Establishment of a permanent beach management committee.

Regarding the “Urging Resolution”, thanks to Town Attorney Linda Miller for preparing a draft “urging resolution” incorporating the intent of the Sand Committee. The draft resolution is awaiting review by the Building Official, who has been out of the office, to ensure it is technically consistent with and/or reflects current Code/Building/FDEL regulation issues. It is likely that the Commission will take final action at their October meeting once the draft resolution is fully vetted.

A resolution is enclosed authorizing professional services of Gordon Thomson CB&I Inc., in an amount not to exceed \$16,496. The services of a professional coastal engineer are advisable in order to coordinate on behalf of the Town the necessary professional/engineering oversight and assistance in implementing an approved sand solution.

Finally, the attachments to the report are listed on the Town’s website under Sand Updates. These attachments have been consistently provided to the Commission and Sand Committee throughout the process.

Enclosures:   September 11 Special Meeting Agenda  
                  Final Report  
                  Resolution – CB&I



## Town of Surfside

**TO:** Town Commission  
**FROM:** Sand Project Community Monitoring Committee  
**SUBJECT:** Final Report  
**DATE:** September 11, 2014

### OVERVIEW

On April 23, 2013, the Surf Club received final approval of their amended site plan which would permit a 285 unit condominium/hotel including a gourmet specialty food product store, a four star hotel with a spa, roof top decks, pools, 668 parking spaces, tandem parking, and 24 hour valet parking consisting of three 12-story buildings on the east side of Collins Avenue and two 4-story buildings on the west side of Collins Avenue, and conditional uses, pursuant to Section 90-23-2 of the Zoning Code, to permit the development of structured parking, hotel swimming pools, Jacuzzi, outdoor dining, lounges/bars, and a roof top bar at 9011 Collins Avenue.

This type of oceanfront development is consistent with the Town's efforts to promote lower density, quality infill development. The density of this development is approximately 37.4% of the allowable density permitted by Code.

The development of the approved project included excavation on the site to accommodate the proposed development. Approximately 85% of the property is located east of the Coastal Construction Control Line (CCCL). Chapter 62B-33: Bureau of Beaches and Coastal Systems – Rules and Procedures for Coastal Construction and Excavation (Permits for Construction Seaward of the Coastal Construction Control Line and Fifty-Foot Setback) addresses the requirements of retaining beach compatible sand excavated east of the CCCL.

The FDEP issued a permit (Permit #DA-631) to the Surf Club (SC Property Acquisition, LLC) for certain activities associated with their project that are east of the CCCL including excavation and transferring beach compatible sand onto the beach. On December 9, 2013, FDEP issued a Notice to Proceed to the Surf Club under their permit for activities seaward of CCCL (beach sand redistribution). The Surf Club excavated approximately 20,000 cubic yards of native sand from its development prior to May 1 and placed it on the beach landward of the seasonal mean high water line.

As the sand was being placed, concerns were registered regarding the color/texture/compatibility. When originally placed, the color of the native sand was a substantially darker color than the existing sand. Since being placed, the sand has begun the natural process of bleaching. Independent testing of the sand prior and after placement on the beach indicates that the sand meets FDEP beach sand compatibility standards. The chemical analysis of the sand indicated an arsenic level consistent with naturally

occurring levels for the beach environment in Miami-Dade but higher than the State recommended residential default rate of 2.1 mg/kg. This led to a concern regarding the safety of the placed sand.

With these concerns still unresolved, a Sand Project Town Hall meeting was held on Monday, June 2. Public input was received regarding these issues including that arsenic levels were still of concern to some and that the newly placed sand should be removed. It was suggested that a community oversight committee be formed to address these unresolved issues. This led to the formation of a Manager's Committee titled – "Sand Project Community Monitoring Committee".

The Sand Project Community Monitoring Committee (Committee) was established in June 2014 in response to issues and concerns relating to a recently completed sand transfer project by the Surf Club. The Committee held its first meeting on June 25.

Through the establishment of this Committee, a process and opportunity was created for properly addressing these issues/concerns in a logical, comprehensive and community based approach.

The Committee would like to express its appreciation to the subject matter experts (who are acknowledged within the body of the report); Town Staff who worked diligently to assist the Committee; and the residents who regularly participated throughout the process.

It is the hope of the Committee that its work and recommendations provide a workable and final solution to the current issues/concerns regarding the recent sand transfer project and provide a framework going forward that will enable the Town of Surfside to be proactive in monitoring and safeguarding the management of its beaches.

### **Summary of Recommendations**

#### **1. Sand Solution**

- Scraping of the Surf Club sand off the beach and placing it in the dunes or street access areas
- Prior to the project being undertaken that the following two (2) conditions be met:
  - Resolving through FDEP the Compliance Assistance Offer regarding debris on the beach; and
  - Testing of the sand prior to being placed on the dunes pursuant to a modified testing protocol developed and approved by Dr. Teaf.

#### **2. Urging Resolution**

The Town Commission adopts Urging Resolution which asks the State to adopt chemical testing standards and requirements for sand transferred/placed on the beach in Florida.

#### **3. Establishment of a permanent beach management committee.**

## **Introduction**

The Sand Project Community Monitoring Committee (Committee) was established by the Town Commission at its June 10, 2014 meeting. The Charter for the Committee is attached (Attachment 1).

The Charter assigned the following tasks to the Committee:

- A. Sand Testing Results (chemical composition): 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on the sand testing protocol and results relating to arsenic, lead and asbestos; and 2. Determine process to bring this issue to closure based upon best scientific data and evidence.
- B. Sand (physical composition): 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on the physical composition of sand and expected changes over time; 2. Review the options identified by FDEP available to address citizens' concerns regarding the color/texture issue and provide recommendation; and 3. Determine process to bring this issue to closure based upon best scientific data and evidence.
- C. Beach Management: 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on beach issues including current beach conditions; sand issues; erosion and beach renourishment opportunities; 2. Determine process to obtain CCCL Maintenance Permit to allow regular maintenance of beach (similar to Sunny Isles Beach).
- D. Remaining Issues: 1. Dune Restoration at Surf Club; 2. Escarpments/Cliffs/Walls; 3. Sifting – address concerns of construction and establishment of regular debris monitoring of beach; 4. Legislative Action (urging resolution to require chemical testing for transferred sand in the State of Florida); 5. Prepare enhanced regulations for Surfside that reflect lessons learned with regard to chemical testing and public notice and engagement; 6. Renourishment – identify schedule, sand source and other relevant details; 7. Sea Turtles—public education on importance of sea turtles to the ecosystem and the impact on timing/scheduling of beach improvements; 8. Other issues identified by the Committee.

The Committee held its organizational meeting on June 25. An additional six meetings were held culminating in the Committee's final meeting on August 20. [Note: The Committee agreed to meet on September 2 to review/approve the final report].

Members appointed to the Committee were:

- Joe Benton (Surf Club representative)
- Juan Borges (Resident)
- Debbie Cimadevilla (resident, resigned – replaced by resident Marianne Meisheid)
- Lee Gottlieb (Youth Environmental Alliance)
- David Raymond (Resident)
- Scott Stripling (Chair, Miami Chapter Surfrider Foundation)
- Barbara Wolverton (resident, resigned – replaced by resident Jeffrey Platt)

## Process

The recommendations contained in this report have been arrived at as a result of the cumulative efforts of the Committee; Town Staff; Citizen input and guidance from professionals who are subject matter experts on the issues assigned to the Committee.

The final report will not attempt to summarize the many hours of professional presentations; Committee discussion/debate and citizen input as the Town Commission has been receiving all documents and updates on the Committee's progress; through briefings and viewing of meetings (either in person or broadcast). It is noteworthy to list the professionals/subject matter experts who assisted the Committee and provided informative, interesting and useful technical information:

### A. Chemical Analysis – Sand

- Dr. Christopher Teaf, Director of Toxicology and President of HSWMR; member of the faculty of Florida State University; and Board Certified by the Academy of Toxicological Sciences
- Alex Front, ARS Environmental, Inc.

### B. Sand Issues and Permitting

- Dr. Stephen Leatherman, Professor Florida International University; and widely published lecturer and author on beach issues
- Stephen Blair, Chief, Restoration and Enhancement Section, Miami-Dade Department of Regulatory and Economic Resources, Environmental Resource Management (DERM)
- Brian Flynn, Special Projects Coordinator, Miami-Dade Department of Regulatory and Economic Resources, Environmental Resource Management (DERM) (coordinates Miami-Dade beach renourishment projects)
- Gordon Thomson, P.E., D.CE, CB&I Environmental & Infrastructure, Inc.

Attachment 2 contains the minutes of the Committee's meetings.

Significant issues addressed by the Committee that are not necessarily detailed in the recommendation section of the report include:

#### 1. Chemical Analysis

In April, the Town undertook testing of the sand placed on the beach from the Surf Club. Testing included chemical and color/grain size/sediment testing. The testing was conducted by Terrecon.

The testing results revealed arsenic readings of 7.0, 7.8 and 8.9 mg/kg. The Florida Department of Health (FDOH); DERM; 2 private toxicologists and the Miami-Dade Health Department reviewed the test results and found that these readings were reflective of naturally occurring background arsenic levels in the beach environment of Miami-Dade County and are consistent with expected testing results for beach sand.



However, a number of citizens expressed strong concerns that the arsenic readings exceed the State recommended default level of 2.1 mg/kg for residential. As the Committee undertook its tasks, additional discussion among Committee and the public centered on possible health concerns and the fact that the initial analysis did not include testing for certain pesticides which were commonly used at sites that contained 70+ year old developments; lead (leachability –TCLP); etc.

Accordingly, a substantial portion of the Committee’s initial effort was devoted to fully vetting this issue. Professional assistance was provided by Dr. Teaf in developing a comprehensive testing protocol which was intended to be utilized for additional testing of the sand. The protocol provided for 60 samples taken from 38 separate locations; QA/QC recommendations; data presentations/analysis; and the testing parameters (Attachment 3). The Committee ultimately decided not to initiate this level of testing pending arriving at its recommendation regarding the sand issue. This comprehensive testing protocol assisted in the preparation of the testing requirements for the Committee’s recommendation to relocate the sand into the dunes.

[Note: Chemical testing results of the sand provided to the Committee, including Terrecon, ARS Environmental and Kimley Horn (Surf Club), are on file in Town Hall as a public record and are available on the Town’s website listed as “Sand Updates” under Town News on the Town’s website at [www.townofsurfsidefl.gov](http://www.townofsurfsidefl.gov)].

## **2. Beach Sand Compatibility**

In April, the Town retained the independent testing firm Terrecon to undertake chemical analysis of the sand and testing of the sand for compatibility with FDEP for grain size and Munsell color designation. The Terrecon testing confirmed compliance with FDEP requirements for color and grain size.

The issue of the transferred sand meeting FDEP standards for color/grain size remained a matter of concern for some members of the Committee and the public. The Committee requested Dr. Leatherman (Coastal & Environmental Consultants, Inc.) to undertake an additional test to determine compliance with FDEP guidelines. In a report dated July 28, 2014, Dr. Leatherman reports that his testing determined that the transferred sand passes the color compatibility test and particle size distribution per the State guidelines. Dr. Leatherman noted in his report that the Town could consider adopting more stringent criteria for color for future projects (Attachment 4, July 28, Dr. Leatherman Report).

## **3. Debris**

The Committee spent considerable time discussing, hearing public input and exploring solutions to the debris found on the beach. The Committee reviewed the FDEP Compliance Assistance Offer dated July 2, 2014 regarding the FDEP requirement (Special Permit Condition number 5.1.4) that mandates “that the placed excavated fill material shall not contain construction debris, metal, vegetation, organic soil, rocks, clay, toxic material or other foreign matter”.

The final recommendation of the Committee regarding the relocation of the sand to the dunes is contingent upon the FDEP determining compliance with this Special Permit Condition.

#### **4. FDEP Maintenance Permit**

The Committee was informed that the Town has submitted an initial application to FDEP for a maintenance permit (similar to Sunny Isles Beach) that would allow regular beach maintenance.

Gordon Thomson will be assisting in determining the best strategy for permitting (Town vs. joining Miami-Dade permit) and providing follow-up information to FDEP.

#### **5. Beach Management**

The Committee's efforts in understanding and addressing its assigned tasks regarding beach management were greatly enhanced by the array of professional subject matter experts who participated in the process including:

- Stephen Blair who presented an in-depth information and analysis on the topic of Miami-Dade County beach sands and discussed with the Committee historical and current beach issues; erosion and beach renourishment opportunities; dune systems and the challenges and maintenance issues associated with escarpments.
- Brian Flynn who advised the Committee of Miami-Dade's plans for full renourishment of Surfside's beaches (currently forecasted for 2017) and the on-going challenges associated with locating beach compatible sand for the upcoming full renourishment.
- Dr. Stephen Leatherman (Dr. Beach) who provided the Committee with his in-depth knowledge of beach issues; shared personal best beach management practices based on his experience in other areas of Florida and throughout the United States; and conducted sand compatibility tests through his company.
- Gordon Thomson who has provided professional guidance to the Committee regarding sand solutions including cost estimates and FDEP permitting considerations; beach maintenance issues including debris; and coordination of the Town's professional effort to bring about the recommendation solution.

#### **6. Surf Club**

The Committee would like to especially recognize the cooperation of the Surf Club who has been a partner throughout this process for its willingness to be on board to arrive at and support a community based solution that will resolve this sand issue. More importantly, the Committee thanks Committee member Joe Benton who represented the Surf Club. His willingness to participate and cooperation was instrumental in arriving at the Committee's final recommendations.

#### **7. Committee Documents**

The attachments to this report include just a portion of the information that led to the recommendations. All Committee documentation is available for public review. The complete files are available for review at Town Hall. Also, under Town News on the Town's homepage ([www.townofsurfsidefl.gov](http://www.townofsurfsidefl.gov)) a link entitled "Sand Updates" will provide a greater insight on this subject and the Committee's efforts.

## Committee Recommendations

### 1. Sand

The Committee was tasked with reviewing the options identified by FDEP to address sand concerns [1. no action; 2. till; 3. cover with a layer of new sand; and 4. remove existing sand and replace with new sand] and provide recommendations. With the assistance of Gordon Thomson, P.E., D.CE of CB&I (Town consultant), the following projects were identified as being consistent with the options identified by FDEP:

Option	Description	Cost	Permit Effort	Effectiveness
1	Till the beach	\$5,000.00	Low	Low
2	Scraping the Surf Club sand off the beach and placing it in the dunes or street access areas	\$156,220.00	Medium	Medium
3	Cover the Surf Club sand with more sand from an upland source	\$304,835.00	Low	Medium
4	Scrape, remove and replace the Surf Club sand with upland sand	\$797,220.00	Low	High
5	Scrape the Surf Club sand into the ocean	\$56,300.00	High	Medium
6	Scrape and remove the Surf Club Sand and place it below mean high water in Bal Harbor or City of Miami Beach	\$141,440.00	Medium	High

[Note: FDEP also listed an option of “no action” which requires no permit or expenditure].

At the August 18 meeting, the Committee recommended the following:

- a. **Scraping of the Surf Club sand off the beach and placing it in the dunes or street access areas**
- b. **Prior to the project being undertaken that the following two (2) conditions be met:**
  - **Ensuring compliance with FDEP permit requirements and resolving Compliance Assistance Offer dated July 2 regarding removal of debris on the beach and;**
  - **Testing of the sand prior to being placed on the dunes pursuant to a modified testing protocol developed and approved by Dr. Teaf (Attachment 5)**
  - **At the September 2 meeting of the Committee, the Committee recommended that 2 control beach sites (one north and one south of Surfside) be selected for sampling and testing. In addition, the Committee requested that the following be added to the sampling/testing plan prepared by Dr. Teaf:**

*Undertake assessment of leaching potential by implementing the Synthetic Precipitation Leaching Procedure (SPLP; USEPA Method 1312) due to the concerns previously discussed by the Committee and residents.*

### 2. Urging Resolution

At the August 18 meeting, the Committee approved the contents of an urging resolution which asks the State to adopt chemical testing standards and requirements for sand transferred/placed on the

beach in Florida. The Committee approved a document prepared by Dr. Teaf that would serve as the basis for such a resolution.

The following is recommended to be included in such an urging resolution:

*At present, there is no explicit testing requirement to assess the chemical quality of sand that is to be used in beach renourishment activities in Florida. Existing language in renourishment permits requires the absence of "toxic material", but stops short of identifying explicit procedures or requirements for that demonstration. It would be prudent to establish a minimum requirement for analytical testing at the state level, as tangible support for any conclusions regarding the presence, absence and/or significance of relevant substances.*

*To some extent, the appropriate suite of chemicals for analysis of a potential sand source will be a function of historical knowledge about the activities which have been conducted at a site where the potential renourishment fill originates. The following analytical categories are suggested for inclusion as a baseline analytical profile, with appropriate supplementary tests to be identified and implemented based upon the site's historical information.*

- *"RCRA 8" metals with extraction by USEPA Method 3050 and analysis by USEPA Method 6010 or 200.7 (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver). Data to be expressed in mg/kg;*
- *Total Recoverable Petroleum Hydrocarbons (TRPH) by Florida Department of Environmental Protection (FDEP) FL-PRO method. Data to be expressed in mg/kg;*
- *Chlorinated hydrocarbon pesticides by USEPA Method 8081, specifically aldrin, chlordane, dieldrin, endrin, heptachlor, and the DDT/DDD/DDE group. Data to be expressed in mg/kg; and,*
- *Polychlorinated biphenyls (PCBs) by USEPA Method 8082 (i.e., Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260). Data to be expressed in mg/kg.*

*As an alternative approach, USEPA Method 8270 may be used to capture the analysis listed in both the third and fourth categories, though that method is capable of identifying a much larger universe of substances that the individual methods cited.*

*If there is site-specific knowledge which suggests that assessment of the leaching potential for a particular sand source is warranted, the appropriate test method will be the Synthetic Precipitation Leaching Procedure (SPLP; USEPA Method 1312).*

*The number of samples of each type to be collected for analysis should be determined based upon the quantity of material to be applied in the beach environment (e.g., # of samples per 10,000 cubic yards). Specific protocols and sample numbers should be developed on a site-specific basis, based upon discussions between Florida DEP and the entity that is proposing the beach renourishment. An appropriate number of background samples should be required as well, to establish background conditions on the beach prior to the addition of local renourishment sand.*

While not taking formal action or developing a specific recommendation, the Committee discussed submitting a request to FDEP to review their rules to determine if more stringent regulations should be established relating to sand transfers from properties where there was pre-existing development

that requires demolition as there is a significantly higher level of risk/potential problems associated with a sand transfer from this type of situation vs. a sand transfer from an undeveloped site.

### 3. Establish Standing Beach Committee

The Committee **strongly** recommends that the Town Commission develop a Charter for a standing beach committee and establish such a committee. The Committee “brainstormed” the role/function of such a standing committee and suggests that the following tasks could be assigned:

- Land Development Regulations Review which could include more stringent local standards regarding grain size; color; sand bleaching, if necessary, prior to placement; inspection of sifting operations; testing requirements (Phase 1 and Phase 2); capping amount of excavation east of CCCL; etc.;
- Best Management Practices for overall beach issues including dune vegetation; turtle lighting standards; volunteer outreach/education programs; etc.;
- Tighter standards to address debris on beach by requiring local inspection of sifting operations and more aggressive code enforcement to address dumping of debris on the beach

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The Committee wishes to thank the Commission for providing this opportunity to serve and to address this important community issue.

Jeffrey Platt, Chair  
Lee Gottlieb, Vice Chair  
Joe Benton  
Juan Borges  
Marianne Meischeid  
David Raymond  
Scott Stripling

- Attachment 1: Sand Project Community Monitoring Committee - Charter
- Attachment 2: Committee Minutes
- Attachment 3: Testing Protocol – Dr. Christopher Teaf
- Attachment 4: July 28, 2014, Dr. Stephen Leatherman Report
- Attachment 5: Testing Protocol Prior to Scraping Beach and Placing in Dunes – Dr. Christopher Teaf



## Town of Surfside

### CHARTER

#### Sand Project Community Monitoring Committee

##### PURPOSE

The Town Commission, at its June 10, 2014 meeting, authorized the Town Manager to implement its Sand Project Action Plan (see attached), which included the creation of a Community Monitoring Committee (Committee). The purpose of the Committee is to serve as a resource to the Town Administration as it addresses issues and concerns relating to the recently completed sand transfer project. This Committee process will also provide an opportunity for the community to be involved in an educational initiative pertaining to beach management and beach opportunities going forward.

##### COMMITTEE MEMBERSHIP

The Committee consists of seven members appointed by the Town Manager that represents a cross-section of community stakeholders.

##### COMMITTEE TASKS

- A. Sand Testing Results (chemical composition): 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on the sand testing protocol and results relating to arsenic, lead and asbestos; and 2. Determine process to bring this issue to closure based upon best scientific data and evidence.
- B. Sand (physical composition): 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on the physical composition of sand and expected changes over time; 2. Review the options identified by FDEP available to address citizens' concerns regarding the color/texture issue and provide recommendation; and 3. Determine process to bring this issue to closure based upon best scientific data and evidence.
- C. Beach Management: 1. Receive educational presentations from independent subject matter experts (both public and private sectors) on beach issues including current beach conditions; sand issues; erosion and beach renourishment opportunities; 2. Determine process to obtain CCCL Maintenance Permit to allow regular maintenance of beach (similar to Sunny Isles Beach).

Attachment 2 contains the minutes of the Committee's meetings.

Significant issues addressed by the Committee that are not necessarily detailed in the recommendation section of the report include:

### **1. Chemical Analysis**

In April, the Town undertook testing of the sand placed on the beach from the Surf Club. Testing included chemical and color/grain size/sediment testing. The testing was conducted by Terrecon.

The testing results revealed arsenic readings of 7.0, 7.8 and 8.9 mg/kg. The Florida Department of Health (FDOH); DERM; 2 private toxicologists and the Miami-Dade Health Department reviewed the test results and found that these readings were reflective of naturally occurring background arsenic levels in the beach environment of Miami-Dade County and are consistent with expected testing results for beach sand.

However, a number of citizens expressed strong concerns that the arsenic readings exceed the State recommended default level of 2.1 mg/kg for residential. As the Committee undertook its tasks, additional discussion among Committee and the public centered on possible health concerns and the fact that the initial analysis did not include testing for certain pesticides which were commonly used at sites that contained 70+ year old developments; iron (leachability –TCLP); etc.

Accordingly a substantial portion of the Committee's initial effort was devoted to fully vetting this issue. Substantial professional assistance was provided to the Committee regarding chemical issues including testing protocol developed by Dr. Teaf which was intended to be used in further testing of the transferred sand. The protocol provided for 60 samples taken from 38 separate locations; QA/QC recommendations; data presentations/analysis; and the testing parameters (Attachment 4). The Committee ultimately decided not to initiate this level of testing. However, this information assisted in the preparation of the testing requirements for the Committee's recommendation to relocate the sand into the dunes.

### **2. Beach Sand Compatibility**

In April, the Town retained the independent testing firm Terrecon to undertake chemical analysis of the sand and testing of the sand for compatibility with FDEP for grain size and Munsell color designation. The Terrecon testing confirmed compliance with FDEP requirements for color and grain size.

The issue of the transferred sand meeting FDEP standards for color/grain size remained a matter of concern for some members of the Committee and the public. The Committee requested Dr. Leatherman (Coastal & Environmental Consultants, Inc.) to undertake an additional test to determine compliance with FDEP guidelines. In a report dated July 28, 2014, Dr. Leatherman reports that his testing determined that the transferred sand passes the color compatibility test and particle size distribution per the State guidelines. Dr. Leatherman noted in his report that the Town could consider

- D. Remaining Issues: 1. Dune Restoration at Surf Club; 2. Escarpments/Cliffs/Walls; 3. Sifting –address concerns of construction and establishment of regular debris monitoring of beach; 4. Legislative Action (urging resolution to require chemical testing for transferred sand in the State of Florida); 5. Prepare enhanced regulations for Surfside that reflect lessons learned with regard to chemical testing and public notice and engagement; 6. Renourishment – identify schedule, sand source and other relevant details; 7. Sea Turtles—public education on importance of sea turtles to the ecosystem and the impact on timing/scheduling of beach improvements; 8. Other issues identified by the Committee.

## **NATURE OF COMMITTEE**

The Committee is advisory in nature and their input/recommendations/report will be submitted by the Town Manager to the Town Commission.

## **COMMITTEE ORGANIZATION**

- The Town Manager will provide administrative leadership and will serve as the presiding officer
- Town Staff will provide administrative and clerical support
- Committee shall elect a Chair and Vice Chair at their organizational meeting
- Meetings will be publically noticed and broadcast on Channel 77
- Committee may determine methods of public outreach and engagement to enhance public involvement and input

## **DURATION**

Due to the urgency of these issues, the Committee is requested to completed its assigned tasks and prepare its final report no later than 60 days from the date of the organizational meeting.

## **SUNSET PROVISION**

The Committee shall sunset upon the completion of its assigned tasks unless the Town Commission takes formal action to reauthorize the Committee to continue its work with similar beach or environmental issues.





**Town of Surfside**  
9293 Harding Avenue, Surfside FL 33154

**Sand Project Community Monitoring Committee  
Regular Meeting**

**Wednesday, August 20, 2014 – 7:00 pm**  
**Town Hall – Commission Chambers**

**MINUTES**

**Committee Members**

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

**1. Call to Order and Roll Call**

The meeting was called to order by Chair, Jeffrey Platt at 7:02 pm.

The roll was called with the above listed members present, with the exception of Joe Benton, who is absent. A quorum was established.

**Also in attendance:** Gordon Thomson, P.E., Surfside residents, Mayor Daniel Dietch, Vice-Mayor Eli Tourgeman, Linda Miller, Town Attorney, Joseph Kroll, Public Works Director, Michael Crotty, Town Manager.

The Town Manager advised that the minutes from today's meeting as well as the minutes of the August 20, 2014 meeting will be sent to the committee as well as the final report that will be sent to the Commission on September 9, 2014.

**2. Recommendation on possible enhanced land development regulations specifically for Surfside regarding future sand transfer operations.**

Town Manager indicated that the purpose of this particular meeting to have the members provide general ideas, so that going forward the Town can assess the feasibility with insight from Nancy Shroud, the Town's Land Use Counsel, to see if land development regulations can be amended to include those ideas in the form of an ordinance.

Gordon Thomson advised that the Town can make recommendation to amend a line item on the CCCL permit, which requires the Town to agree or review permit app for setback requirements and zoning. The Town can amend zoning ordinances to include such language for the beach.

David Raymond inquired if the town can set testing protocols with relation to zoning amendments for future developments.

Jeffrey Platt inquired if the Town can place a cap on the amount of excavated sand per each development that can be placed on the beach.

The Town Manager advised that it would have to be researched legally.

Juan Borges suggested at looking at regulations that are within the Town's reach and what the Town can control.

Lee Gottlieb made a motion to request that the Commission extend the Sand Committee to move forward with the following items: beach maintenance management practices, turtle lighting outreach, removal of

exotic plants and animals, sand bypass system from Haulover, ongoing volunteer restoration and educational programs; Juan Borges seconded the motion for discussion purposes.

Some of the members wouldn't like to see this temporary committee used for additional beach issues.

The members voted in the following manner:

Raymond – no

Marianne – no

Scott –yes

Juan no

Jeff – yes

Lee – yes

The motion fails with a tied vote.

Marianne Meischeid suggested having a standing beach committee to monitor additions, alternations to the beach (public & private entities). The committee should be empowered to review standards and guidelines for the beach such as sand guidelines. The committee should be made up of residents and business owners of the Town and should include a design expert and real estate expert amongst its members. The area the standing committee should address should be land use guidelines, hard pack edge treatment, the dunes, the beach, the sand guidelines, future nourishment, and fill transfers.

David Raymond would also like to see the standing committee and would like to see the report prior to it going to the Town Commission.

Juan Borges suggested that both Lee Gottlieb and Marianne Meischeid create separate motions due to the level of suggestions presented by each member.

The Town Manager advised that both recommendations will be included in the final report.

The Town Manager suggested September 2, 2014 as the final meeting date. Marianne Meiseid will not be available, but Town Manager advised that she can be conferenced in on the meeting.

Marianne Meiseid made a motion to create a standing committee on beach issues to be included in the final report and to also include her previous recommendations and that the duties standing committee not be made until said committee is formed. David Raymond seconded the motion.

The members voted in the following manner:

David – yes

Lee – yes

Marianne – yes

Scott - yes

Juan – no

Jeff – yes

The motion passes.

Resident Peter Neville suggested building bridges/walk way in between the gaps of the dunes in order to get rid of the sand.

Jeffrey Platt recommends that the next committee take into consideration color, grain size, and testing of all sand being place on the beach.

3. Other Issues

N/A

4. Public Comments

The following residents provided their feedback and concerns

regarding the sand:

- Larissa Alonzo
- Monica Grandeze
- Deborah Cimadevilla
- Peter Neville
- Marcos Arancibia

David Raymond suggest that the Town looks at other communities that have beach committees like Marco Island to view their committee structure, mission statements, etc..

Board members as well as residents would like to see more code enforcement on the beach as a part of their duties.

Lee Gottlieb made a motion to request the Town Commission to issue a temporary moratorium on sand transfers until November 1, 2014; David Raymond seconded the motion.

Juan Borges inquired if legally the Town could do it.

David withdrew his motion given new information that the motion pertains to sand east of the CCCL.

Lee Gottlieb made a motion to request the Town Commission to issue a temporary moratorium on all beach quality sand transfer until November 1, 2014; Juan Borges seconded the motion for discussion purposes.

The board didn't understand the purpose of the moratorium as it could be problematic for other developments and the Town could incur additional cost for stopping the project developments within the Town.

The members voted in the following manner:

David – no

Lee – no

Marianne – no

Scott – no

Juan – no

Jeff – no

The motion fails.

David Raymond advised that before any discussion regarding new developments and permits are issued for construction that the standing committee be in place.

Jeffrey Platt and Michael Crotty thanked the committee for their contributions.

#### 5. Thanks and Adjournment

Marianne Meischeid made a motion to adjourn the meeting; Juan Borges seconded the motion. The motion passed unanimously. The meeting ended at 9:30 pm.



**Town of Surfside**  
9293 Harding Avenue, Surfside FL 33154

**Sand Project Community Monitoring Committee  
Regular Meeting**

**Monday, August 18, 2014 – 7:00 pm**  
**Town Hall – Commission Chambers**

**MINUTES**

**Committee Members**

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

1. Call to Order and Welcome

The meeting was called to order by Chair, Jeffrey Platt at 7:14 pm.

The roll was called with the above listed members present, with the exception of Scott Stripling, who is absent. A quorum was established.

**Also in attendance:** Dr. Stephen Leatherman, Gordon Thomson, P.E., Surfside residents, Mayor Daniel Dietch, Linda Miller, Town Attorney, Joseph Kroll, Public Works, Michael Crotty, Town Manager.

2. Approval of Minutes: August 5, 2014

David Raymond made a motion to approve the minutes; Marianne Meischeid seconded the motion. The motion passed unanimously. The minutes were approved.

3. Final review of beach/sand options and Committee recommendation regarding beach/sand options to be included in final report  
Facilitator: Gordon Thomson, PE, D.CE. CBI Environmental & Infrastructure, Inc.

David Raymond inquired as to what happened with plant life if the sand is placed on the dunes.

Gordon Thomson advised that the plant life will die, but the dunes can be replanted.

Jeffrey Platt suggested that with the construction companies in the work of re-doing the dunes behind their respective building it would make sense to re-do all the dunes to have a more uniformed look in the town.

Gordon Thomson suggested looking at the most cost effective item.

Lee Gottlieb inquired about the option of inversely flipping the sand. Gordon Thomson advised that flipping the beach can become expensive project.

Joe Benton suggested making the beach wider by adding additional sand.

Lee Gottlieb advised of another alternative currently taking place in Sunny Isles in which they are digging trenches onto the beach and burying the old sand, and capping it off with the existing sand.

Marianne Meischeid made a motion to move forward with the option of scraping, removing, and replacing the Surf Club sand with upland sand; David Raymond seconded the motion.



The members voted in the following manner:

Joe Benton – No  
David Raymond – No  
Lee Gottlieb – No  
Marianne Meischeid – Yes  
Juan Borges – No  
Jeffrey Platt - Yes

The motion fails with a vote of 4-2.

After the failed vote and additional discussion, the Town Manager suggested that the Committee might wish to consider a motion recommending option 2 (scraping & placing in dunes) subject to FDEP signing off of their compliance assistance offer (debris) and a modified testing protocol as recommended by Dr. Teaf.

David Raymond made a motion to move forward with option number two by scraping the Surf Club sand off the beach and placing it in the dunes/street access areas subject to resolving FDEP offer of assistance with regards to debris on the beach and undertaking testing sample protocol as recommended by Dr. Teaf. Lee Gottlieb seconded the motion.

The members voted in the following manner:

Joe Benton – No Vote  
David Raymond – Yes  
Lee Gottlieb – Yes  
Marianne Meischeid – Yes  
Juan Borges – No  
Jeffrey Platt - Yes

The motion passes with vote of 4-1 with one abstention.

4. Final review of draft proposal of Urging Resolution prepared by Dr. Christopher Teaf and Committee recommendation on chemical testing protocol to be included in the “Urging Resolution” to the State of Florida specifically requiring all sand transfer within the State under minimum testing requirements

Town Manager recommends that the Board approve the draft Urging Resolution to the State of Florida with regards to minimum testing on sand transfers and to also include language of the synthetic precipitation leaching procedure (SPLP) in the Urging Resolution.

David Raymond moved to approve the draft of the Urging Resolution along with the inclusion of the synthetic precipitation leaching procedure language in the draft; Marianne Meischeid seconded the motion. The motion passes with a vote of 5-1.

Joe Benton has abstained from voting due to a nature of conflict.

5. Report on meeting with Chateau representatives regarding their FDEP CCCL Permit (sand transfer)  
The Chateau’s permit allows them to place sand on the beach starting at 93<sup>rd</sup> street south into Miami Beach.
6. Discussion on possible enhanced land development regulations specifically for Surfside regarding future sand transfer operations  
Facilitators: Gordon Thomson and Dr. Stephen Leatherman

Town Manager advised that this item will be discussed at length at the next meeting.

7. Presentation by Dr. Stephen Leatherman on recently obtained sand core samples from offshore Martin County (possible source of sand for 2016/2017 full beach renourishment)

Dr. Leatherman provided samples from the sand core just offshore of Martin County. It includes the sand identified by the core of county engineers for beach renourishment within the Town of Surfside.

8. Public comment

The following residents provided their feedback and concerns regarding the sand:

- Norma Parron
- Monica Grandeze
- Deborah Cimadevilla
- Peter Neville
- Tina Paul

9. Adjournment

Marianne Meischeid made a motion to adjourn the meeting; Juan Borges seconded the motion. The motion passes unanimously. The meeting ended at 9:41 pm.



**Town of Surfside**  
9293 Harding Avenue, Surfside FL 33154

**Sand Project Community Monitoring Committee  
Regular Meeting**

**Tuesday, August 5, 2014 – 7:00 pm**  
**Town Hall – Commission Chambers**

**MINUTES**

**Committee Members**

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

**1. Call to Order and Welcome**

The meeting was called to order by Chair, Jeffrey Platt at 7:06 pm.

The roll was called with the above listed members present, with the exception of David Raymond and Juan Borges, who were absent. A quorum was established.

Scott Stripling entered the meeting at 7:10 pm.

Also in attendance: Surfside residents, Mayor Daniel Dietch and Vice-Mayor Eli Tourgeman.

**2. Approval of Minutes: July 29, 2014**

Marianne Meischeid made a motion to approve the minutes with the amendment to reflect: that beach sand can be placed in the dunes for

replenishment purposes; Lee Gottlieb seconded the motion. The motion passed unanimously with the amendment.

3. Presentation by Gordon Thomson P.E., D.CE, (CB&I) on FDEP permitting procedures and options to implement the Committee's approved motion to remove/relocate transferred sand.

Gordon Thomson, a professional engineer, provided a presentation regarding viable options regarding the beach sand.

Mr. Thomson advised that the Surf Club sand was beach compatible, but the only issue was that FDEP found that some of the material was non-compliant due to the grain size.

Mr. Thomson advised that FDEP advised that the color does fall within the state color matrix. He does expect the sand color to lighten with time.

Mr. Thomson advised that there are no immediate options that can happen now due to turtle nesting season. At this time, the only thing that can be done is the knocking down of escarpments, if any.

Mr. Thomson provided the following options for beach remediation:

Short term option (November 1, 2014 – April 30, 2015):

- No Action  
Existing sand should get lighter with exposure to the elements.  
Natural mixing of new sand with previously placed sand should lighten the color of the beach.
- Tilling the beach  
Mechanically mix the new sand and previously placed sand (Town has submitted an application for this type of work). The cost is generally \$400-750 per acre.
- Scraping the sand  
The sand can be scraped off and placed in the dunes or at street access areas.

- Bringing in new sand from an upland source. This option adds more sand to the system, which is beneficial.
- Scrape, remove, and replace. This option is more expensive.
- Scrap the new sand into the ocean using the Miami Dade County's current permit.

Mr. Thomson recommends keeping all the sand within Surfside. If not, he recommends putting it in Bal Harbour as the sand would eventually move south back into Surfside.

#### Medium Term Options (2015-2016)

- Obtain permit to place future sand below mean high water. The Town can also request to be added as an area included in the County's existing permit.

#### Long Term Options (2017- beyond)

- Support County's beach nourishment efforts.
- Support continued bypassing efforts at Haulover inlets to include dredging.

Mr. Thomson recommends that the Town continues to:

- Monitor the change in beach color
- Revise permit requests for beach tilling and beach scraping
- Approach the County to request revising their permit to allow placement material seaward of mean high water line in Surfside.

Marianne Meisheid is still concerned about non-compliance of the grain size and the debris.

Lee Gottlieb exited the meeting at 7:56 pm.

Mr. Thomson advised that scraping the sand and putting it in the dunes and beach access permit requires a CCCL permit.

Tilling the beach will require a CCCL permit and is the most cost effective option for November 1, 2014.

Sifting has to be done before tilling can be done.

Town Manager will coordinate a meeting with Mr. Thomson and the Chateau Group regarding placement of their sand under the CCCL permit.

Marianne made a motion to have the sand scraped, removed, and replaced. The motion, not receiving a second, died.

Jeffrey Platt advised that he couldn't second the motion due to the fact that the location of where the replacement sand would come from is not known. Mr. Platt would also like to see the sand remain on the beach preferably in the dunes as a safety mechanism.

Joe Benton exited the meeting at 8:50 pm.

#### 4. Public comment

The following individuals provided their feedback and concerns regarding the sand:

- George Kousoulas
- Monica Grandeze
- Deborah Cimadevilla
- Vice-Mayor Eli Tourgeman
- Renee Tischler

#### 5. Other items/updates

#### 6. Adjournment

Due to a lack of a quorum, the meeting ended at 8:52 pm.



Town of Surfside  
9293 Harding Ave, Surfside, FL 33154

Sand Project Community Monitoring Committee Meeting  
July 29, 2014 - 7:30 pm  
Town Hall Commission Chambers

## MINUTES

### **Committee Members**

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

### **1. Opening**

#### A. Call to Order by Chair Jeffrey Platt

The meeting was called to order by Jeffrey Platt, Chair at 7:46 pm.

#### B. Roll Call of Members

All the above listed members are present with the exception of David Raymond.  
David Raymond is absent with regrets.

### **2. Approval of Minutes**

Marianne Meischeid made a motion to approve the minutes; Scott Stripling seconded the motion. The motion passed unanimously. The minutes were approved.

### **3. Presentation by Dr. Stephen Leatherman**

- A. Sieve Testing Results
- B. Beach Sand Compatibility
- C. Other issues

Value is the whiteness scale - 10 is absolute white and 0 is absolute black  
Chroma defines the color purity or the saturation of color.



Six samples were acquired at Surfside beach on Monday, July 21—two each at 96th Street, 92nd Street and 88th Street. The samples were taken within the fill area but avoiding the heavily trafficked backshore area. The fill samples were taken from a depth of 0 to 6 inches, and the beach samples were taken from the same hole at a depth of 24 to 30 inches.

**4. Presentation by Stephen Blair, Chief, Restoration & Enhancement Section (DERM) - - Miami Dade County Beach Sands**

Stephen Blair advised that anything above the mean high water line is approved by the state, which is what the Surf Club permit approved.

Anything below the line federal, state, and local permits are needed. It proves to be costly and a time consuming process.

(Scott Stripling exited the meeting at 9:01 pm)

Joe Benton inquired if the washing protocol is considered would this be something that would be staffed by the County. It was advised that it wouldn't.

Michael Crotty advised that the Town has moved forward with applying for a permit for beach maintenance.

Marianne Meischeid inquired if the town can take responsibility for beach maintenance as opposed to the county. Town Manager advised that the town doesn't have the personnel, resource, and capability to maintain the beach like the County does.

County permit will allow for maintenance of beach sand to be entered into the dunes for replenishment.

Dr. Leatherman suggested placing the sand in the water to have it washed.

The Town Manager advised that a Coastal Engineer will be available at the next meeting to help identify a solution.

Dr. Leatherman will contact other states to see about their sand testing methods.

**5. Presentation by Brian Flynn, Special Projects Administrator (DERM) on 2017 Full Beach Renourishment**

Brian Flynn advised that the cost for beach renourishment that was done in Surfside in 1999 was \$70-100 per cubic yard. There was about 690,000 cubic yard of sand used.

The cost to do the renourishment now would be \$58 million. The funding would be 50% - Federal, 25% state, and 25% from the County.

Brian Flynn is expecting 425,000 cubic yards is needed for the renourishment in 2017.

He also advised that a combination of sand source can be used. A combination of Native Beach sand and upland sand can be used.

Dr. Leatherman suggested back passing (taking sand off of Miami Beach and pumping it north), sand on Haulover inlet, and the sand on Crandon Park.

Stephen Blair advised that all the local and possible options Dr. Leatherman suggested have been reviewed.

Stephen Blair advised that the County will proceed with the maintenance permit.

**6. Progress Report on Motion Made by Committee at July 21 Meeting Regarding:**

- Testing protocol/sampling

Michael Crotty recommends not moving forward with additional testing. Town staff has moved forward with the process of obtaining beach maintenance permit.

Mr. Gordon Thomson, P.E.; will be at the next scheduled meeting to help with the permit solutions.

Marianne Meischeid made a motion to have the Board to take no further action with regard to additional testing and to have Mr. Gordon Thomson, P.E. available at the next meeting to provide additional solutions; Lee Gottlieb seconded the motion. The motion passed unanimously.

**7. Public Comment**

The following residents provided public comment: George Kousoulas; Becky Hope; Monica Grandeze; Norma Parron; Deborah Cimadevilla and Arhlene Ayalin.

**8. Other Issues**

N/A

**9. Next Meeting Date**

The next scheduled meeting date is August 5, 2014 at 7:00 pm.

**10. Adjournment**

Marianne Meischeid made a motion to adjourn the meeting; Juan Borges seconded the motion. The motion passed unanimously. The meeting ended at 10:54 pm.



**Town of Surfside  
Sand Project Community Monitoring Committee Meeting  
July 21, 2014  
7 p.m.**

Town Hall Commission Chambers - 9293 Harding Ave, 2<sup>nd</sup> Floor  
Surfside, FL 33154

## MINUTES

### Committee Members

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

#### 1. Opening

##### A. Call to Order by Chair Jeffrey Platt

The meeting was called to order by Chair, Jeffrey Platt at 7:06pm.

##### B. Roll Call of Members

All the above listed members are present with the exception of Scott Stripling.

Scott Stripling is absent with regrets.

**Also in attendance:** Michael Crotty, Town Manager, Joseph Kroll, Public Works Director, Ross Prieto, Building Official, Mayor Daniel Dietch, Vice Mayor Eli Tourgeman, Commissioner Michael Karukin, Michelle Kligman, Joseph Graubart, Dr. Stephen Leatherman, Dr. Chris Teaf, Alex Front, Surfside Residents

#### 2. Approval of Minutes

Marianne Meischeid made a motion to approve the minutes with her additional email attachments, dated July 21, 2014.

The Town Manager commented on the attachment and indicated that the word "positive" should be replaced with the word "detected" on the following two bullet points:

- The results from "A" samples (Hard Pack) showed: Positive "TCLP" LEAD LEACHABILITY in all three "A" Samples. (96th St, 90th St, 87 Terr).

- The results from "B" samples (Mid-Beach Renourished Sand) showed: Positive "TCLP" LEAD LEACHABILITY at the 96th St. Negative at 90th St & 87 Terr.

Ms. Meischeid had no objection for the substitution of "detected". The Town Manager further stated that he recording of the July 1 meeting indicates that Mr. Front did state that the detected lead levels were insignificant.

David Raymond seconded the motion. The motion passed unanimously. The minutes were approved.

### **3. Update: Sunshine Law and Public Records**

Michael Crotty reminded the Board about the Sunshine Law. All Board members cannot click "Reply-All" on an email. It is recommended that the Board members communicate with Town Staff and the Consultants directly if they have any questions or need clarification on an item.

### **4. Test Protocol – Dr. Christopher Teaf**

Town Manager advised that all testing from Miami Dade Health Department, DERM, etc., show that the arsenic level are within the normal natural occurring levels on the beach.

The residents feel that the only acceptable levels of arsenic are the residential default rate.

Additional testing will only produce the same test results.

Chair Jeffrey Platt suggested hearing from Dr. Leatherman's take on the situation first.

Dr. Teaf suggested taking 60 samples at 38 locations. (10 off site, 16 in the dunes, and 34 beach samples). As outlined in his report entitled "Sand Sampling & Chemical Analysis Plan".

Dr. Teaf advised that the cost for the testing will range from \$60,000-\$75,000.

Monica Grandeze suggested that the samples be split for testing by the Town and the residents.

Tina Paul inquired if the Town can host a special election to vote on the issue of the sand, especially if tax payer's money is being used.

The turnaround time for test results can be weeks.

Jeffrey Platt inquired who will be providing the money to pay for additional testing.

The board would like to know the total cost for testing prior to it being done.

Juan Borges made a motion to direct staff comeback with three proposals for engineering that are qualified to collect samples, while implementing Dr. Teaf's testing protocol and to explore fund sourcing for the testing; David Raymond seconded the motion. The motion passed unanimously.

**5. Presentation by Dr. Stephen Leatherman**

6.

**A. Sieve Testing Results**

Dr. Leatherman did not have a chance to complete the testing as he was out of the country. He will have the results available at the next meeting.

**B. Sand Beach Compatibility**

**C. Other issues**

Dr. Leatherman advised of beach scraping programs. The top of foot of the sand is scraped to build a dune to act as a store house of sand, energy dissipater, and a surge barrier.

Juan Borges wanted to know where the Surf Club is with complying with FDEP. Joe Benton advised that the Surf Club has replied to the State.

FDEP tested the Surf Club sand in November 2013 and April 2014 for beach compatibility. Both results show compatibility.

Juan Borges inquired if everything checks out okay and the option is to move the sand into the dunes who will be responsible for moving the sand.

Lee Gottlieb advised that a determination of what kind of sand is on the beach is needed.

The following residents provided their feedback and concerns regarding the sand:

- Barbara Woolverton
- Norma Parron
- Conchita De Antunanor
- George Kousoulas
- Renee Tischler
- Deborah Cimadevilla
- William Kelly Urban II
- Sindy Posso
- Michelle Kligman
- Rob Ludicke
- Jose Castro
- Larisa Alonso
- Marcos Arancibia
- Flavio Sa Carvalho
- Tina Paul
- Monica Grandeze

- Peter Filiberto

The overall consensus of the residents is having the sand removed.

David Raymond wants the Town to do a public records request to DERM for Surf Club's environmental phase 2 permits.

Marianne Meisheid inquired if the implementation plans are set for each outcome. The Town Manager advised that the plans are set for each outcome.

Dr. Leatherman suggested offering the sand to Miami Beach as fill for work being done on Alton Road to help with the flooding.

Jeffrey Platt suggested looking at other alternative locations for sand placement.

Lee Gottlieb inquired as to who has jurisdiction on the beach and it was advised that FDEP covers the beach. Michael Crotty advised that the Town can make recommendations to FDEP regarding the Town's action plans.

Juan Borges wants the Town to find out how much fill does Miami beach need prior to proceeding.

David Raymond made a motion to remove sand and offer it as fill to Miami Beach for Alton Road project or other use the state may so approve; Marianne seconded the motion. The members voted in the following manner:

Joe Bention – NO  
David Raymond – YES  
Lee Gottlieb – NO  
Marianne Meisheid - YES  
Juan Borges – NO  
Jeffrey Platt – YES

Being a tied vote the motion dies. The members who voted "no" voted on lack of information provided to move forward.

David Raymond made a motion to proceed with the testing and that cost sharing be explored with the developers. The motion died for a lack of a second.

It was suggested that the Board listens to Dr. Teaf's recommendations regarding the testing protocol.

Town Manager suggested that based on the discussion regarding the Committee's motions, a course of action to consider would be to requests that staff identify the necessary action steps to move forward the option of the removal/relocation of the sand.

David Raymond made a motion to authorize staff pursue the option of total removal and come back with parameters such as cost & permitting to be done before the next Commission meeting, but an update provide at the next sand meeting; Juan Borges seconded the motion. The motion passed unanimously.

Barbara Woolverton is distraught that there is no representative from FDEP at any of the meetings.

Lee Gottlieb suggested that FDEP be present at the next meeting.

**7. Public comment**

**8. Other issues**

**9. Next meeting Date**

**The next meeting date is July 29, 2014**

**10. Adjournment**

David Raymond made a motion to adjourn the meeting Marianne Meischeid seconded the motion. The motion passed unanimously. The meeting ended at 10:59pm.



## Town of Surfside

9293 Harding Avenue, Surfside FL 33154

### Sand Project Community Monitoring Committee Regular Meeting

Tuesday, July 1, 2014 – 7:00 pm  
Town Hall – Commission Chambers

## MINUTES

### Committee Members

Joe Benton  
Juan Borges  
Lee Gottlieb  
Marianne Meischeid  
Jeffrey Platt  
David Raymond  
Scott Stripling

1. Call to Order and Welcome

The meeting called to order by the Town Manager at 7:03pm.

Also in attendance: Linda Miller, Town Attorney, Dr. Steven Leatherman, Florida International University, Dr. Chris Teaf, HSWMR, Inc. Alex Front, ARS Environmental.

2. Approval of Minutes: June 25, 2014 Organizational Meeting

Marianne Meischeid made a motion to approve the minutes; Lee Gottlieb seconded the motion. The motion passed unanimously. The minutes were approved.

3. Presentation on Sunshine Law and Public Records

Linda Miller presented information to the Committee regarding the Sunshine Law.



4. Introduction of Dr. Stephen Leatherman and discussion with Committee on possible assistance or services to be provided

Dr. Stephen P. Leatherman is Professor and Director of the Laboratory for Coastal Research at Florida International University.

Dr. Leatherman, in his career, has done extensive studies on beach sand quality.

Dr. Leatherman will be using a sieve and will conduct sieve analysis among other methods to determine the quality of the sand.

There are 50 criteria's used to rate the beaches.

Dr. Leatherman advised of several options the Town could have pursued such as :

- Placing the sand in the emerging dunes. The plants would have grown through the sand.
- A sand dune could have been created serving as a surge barrier or energy dissipater.

Native sand can be found under the original dune.

Monica Grandeze was disappointed about the selection procedure of the committee and suggested that there may have been some favoritism in the process and there was no transparency. She never received a call or an email.

Larissa Alonzo inquired about the standard definition of sand.

Dr. Leatherman advised that sand is not defined by color, but actually by size.

Sand naturally has arsenic due to sea shells and clams.

Deborah Cimadevilla would like to see testing done that would compare the previous sand and current sand.

Ms. Cimadevilla's main concern is not necessarily the color. She could eventually live with the color but the toxicity is the major issue.

The Board would like to see Dr. Leatherman report back with the following:

- Sieve testing
- Color test
- Determine compatibility per state definition
- To determine range of what's in the area (off shores sources)
- To determine range of compatibility and how it relates to what the Town prefers
- To determine list of places that have the best legislative practices locally and state wide for the movement of sand

#### 5. Sand Testing Results

- Presentation by Dr. Christopher Teaf, HSWMR (Town toxicologist) on initial chemical testing of sand and arsenic conclusions.

Dr. Teaf is board-certified by the Academy of Toxicological Sciences and is Director of Toxicology and President for Hazardous Substance & Waste Management Research, Inc. (HSWMR).

Dr. Teaf was hired by the Town to test the levels of arsenic in the sand sample.

Dr. Teaf spoke on the many testing protocols that can be done.

David Raymond suggested having analysis of the sand underneath where it has been placed to help determine if the arsenic level is the same as below.

Mr. Raymond inquired as to how many samples are needed in order to have conclusive results.

Mr. Raymond also inquired as to what other things should be tested that may be a concern other than arsenic.

Mr. Raymond would like to see a list of things that should be tested as well as the protocol.

- Presentation by Alex Front of ARS Environmental regarding testing results presented at the June 10 Town Commission meeting relating to lead

Mr. Front summarized his background as a self-taught environmental consultant with ARS Environmental, Inc.; education GED. Mr. Front was hired by private citizens to conduct May collection/analysis. Mr. Front took “representative” subsamples on/near the “hard pack” trails. Even though the Iron (Pb) “presence was very low”, he felt samples needed to be tested for leachability (TCLP). No “total metals data” in sand were collected from which the objective decision was made to go to TCLP. He concluded that “There was no lead present in the sand” in mg/kg (“total Pb analysis”).

In 2014, Mr. Front sampled 3 areas: hard pack west, hard pack middle, low tideline. Only sand sample was from tideline. No sand sample had any leachable lead. Locations were sampled late at night (9 PM to midnight). He took samples from 8-12 inch depth and composited them from 2-3 feet horizontally near the hardpack to make one hardpack sample.

Dr. Leatherman noted that leached materials would concentrate near the water table. Mr. Front agreed with conclusion that Pb may be present in leaching tests from some hardpack samples present, but the levels are so low as to be completely insignificant, and that it should be at the tideline if it was significant. Pb wasn’t found at tideline. “A” samples are “hardpack west”, closest to Collins Ave; “B” samples were middle hardpack “trail” in dunes; and “C” samples were at low tideline.

The Pb detections were “very low, minute, insignificant almost”, later described as “minimal, nominal, nothing”. Mr. Front raised an issue during Ms. Cimadevilla’s comments, describing what he called “3R’s of toxicology”, defined as “reduce, refine, replace”, associating that with environmental issues.

Mr. Front expressed an interest in getting on Surf Club site to sample soil. A number of Committee members questioned that logic.

- Direction from Committee on process/action to resolve sand testing/chemical issue

The Board wants Dr. Teaf to determine and create testing protocol for sand and Dr. Leatherman to proceed with the recommended testing.

6. Confirm future meeting date(s)/time(s) and identify specific agenda items  
The next meeting date is July 21, 2014.
7. Election of Committee Chair and Vice Chair  
[Note: Due to a new member attending, this item is placed toward the end of the agenda]

Marianne Meischeid nominates Jeffrey Platt as Chair for the Committee.  
Scott Strippling nominates David Raymond as Chair for the Committee.

David Raymond respectfully declines the nomination due to personal conflicts.

Jeffrey Platt has been elected as the Chair.

Lee Gottlieb nominates himself as Vice-Chair for the Committee.

8. Public comment
9. Other items/updates
10. Adjournment  
Jeffrey Platt made a motion to adjourn; Juan Borges seconded the motion.  
The motion passed unanimously. The meeting ended at 10:20pm.



**Town of Surfside**  
9293 Harding Avenue, Surfside FL 33154

**Sand Project Community Monitoring Committee  
Organizational Meeting**

**Wednesday, June 25, 2014 – 7:00 pm**  
**Town Hall – Commission Chambers**

**MINUTES**

**Committee Members**

Joe Benton  
Juan Borges  
Deborah Cimadevilla  
Lee Gottlieb  
David Raymond  
Scott Stripling  
Barbara Woolverton

1. Call to Order and Welcome

The meeting was called to order by Town Manager, Michael Crotty at 7:02pm.

**Also in attendance:** Mayor Daniel Dietch, Commissioner Michael Karukin, Courtney Cunningham, President of Cunningham Group, Joseph Kroll, Public Works Director, Ross Prieto, Building Official, Duncan Tavares, TEDACS Director, Frantza Duval, Recording Clerk

2. Introduction of Committee Members

Juan Borges, resident, is interested in the helping the Surfside community in any way possible.

Scott Stripling, Chair of Surfider Foundation, is interested in the protection of the ocean, environmental nourishment, and health issues of the public.

Barbara Woolverton, resident, is interested in resolving the sand issue. Barbara will no longer be able to serve on the Board, but has asked that Marianne Meisheid replace her on the Committee.

Jeffrey Platt, resident, was asked to fill in for Deborah Cimadevilla, who will no longer be able to serve on the Committee. Mr. Platt is interested in the beach sand initiative.

Lee Gottlieb, Youth Environmental Alliance Director of Community Outreach, is interested in assisting to vet the health and safety concerns and to help protect the natural resources.

David Raymond, resident, is interested in helping the environment and specifically what happens on the beach.

Joe Benton, Surf Club, is looking to be a part of the solution to help move this forward.

### 3. Committee Charter

- Review of Charter Tasks  
Action plan includes community outreach.

Michael Crotty advised that the purpose of the committee was to address the issues and concerns since the sand transfer was undertaken and completed.

The first task is to address any and all chemical issues.

The Town Manager has provided all testing reports and communications related to the sand transfer to the committee.

The Town Manager suggested that the committee consider what can be done to bring sand transfer to a close with regards to toxicology at the next meeting.

The committee will eventually create a final report with their recommendations to the town commission identifying one of four options which include (no action, mix & blend, overlay, or remove the sand).

Dune restorations and escarpments have been major issues and this is something that the committee will also look into.

The committee will also look into if beach maintenance permits are beneficial to the Town.

The committee will also look into Legislative action requiring the state to adopt legislation to have people test sand for chemicals prior to transfers.

The goal is to have this completed within 60 days.

Scott Stripling inquired if there has been any additional health issues and it was advised that no additional issues have been reported.

Michael Crotty advised that reports have also been submitted to Miami- Dade Health Department for review.

Deborah Cimadevilla advised that Cholorthane, a pesticide used in buildings in the past was never tested. Michael Crotty said this can be tested.

Juan Borges wants to the environmental audit done by the Surf Club to be made available to the committee. Joe Benton will make the request and have it available at the next meeting.

Michael Crotty advised that Dr. Leatherman will be available to the committee regarding beach issues and will be available at the next meeting being held on July 1, 2014.

Lee Gottlieb inquired as to how the Town derive at the list of chemicals to be tested. Ross Prieto advised that Teracon recommended it for testing. It the standard testing of chemicals for soil.

Barbara Woolverton advised that proper testing is needed. Joe Benton advised that recommendations can be made to Tallahassee requiring

them incorporate testing in the future whether there is suspicion or not of toxicology contaminations.

Joseph Kroll advised that work on the beach as far as the escarpment is concerned is complete.

Michael Crotty recommended walking the beach at 6pm prior to one of the meetings to discuss any issues on the beach.

Deborah Cimadevilla advised that there was a truck dredging sand out of the water and placing it out on the beach which was reported to Florida Department of Environmental Protection (FDEP). She has videos of this happening. Joe Benton advised Deborah Cimadevilla to submit footage and photos for the records to be reviewed.

Courtney Cunningham, President of the Cunningham Group, helped identify issues within the action plan. The main component of the action plan to engaging the community and keeping them informed and keeping them a part of the process.

Mr. Cunningham job's is make sure the public receives the information in a timely and transparent manner. He wants to make sure that the residents receives facts that are supported by research.

Mr. Cunningham advised that a text message gateway will be available for residents to sign up for in order to receive the latest information.

David Raymond advised that the main issues that residents had was not properly being informed and getting pieces of information. He advised that status updates are regularly needed.

The committee is subject to the Sunshine Law for transparency.

Mr. Cunningham advised that social media pages were created, pending Town approval, that are ready to be launched.

- Establish schedule/priority of addressing assigned tasks



4. Establishment of meeting dates and times

Michael Crotty advised that on July 1, 2014 Dr. Teaf and Dr. Leatherman will be available to attend the meeting.

Michael Crotty suggested weekly meetings for the beginning phase of the committee.

The next meetings will be July 1, 10, 17, 2014.

5. Public comment

N/A

6. Election of Committee Chair and Vice Chair

It was agreed that since two new members are absent it would be discussed at the next meeting.

A calendar will be provided showing the available dates for the next meetings.

David Raymond inquired if someone from FDEP will be available to join the committee at a meeting.

Jeffrey Platt recommends having Christian Lambright, a representative of FDEP, in on the meetings.

7. Other items

N/A

8. Adjournment

The meeting was adjourned by the Town Manager, Michael Crotty at 8:03pm.

## Sand Sampling & Chemical Analysis Plan

### A. *Introduction*

In late-April and early May, 2014, three samples of sand used for beach renourishment were collected by the Town of Surfside, and by TerraCon Consultants. Those sand samples were collected at 88<sup>th</sup> St. and 94<sup>th</sup> St, and were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), as well as arsenic, aluminum, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, and zinc. Of all those analytes, only the arsenic concentrations of 7.0, 7.8 and 8.9 milligrams per kilogram (mg/kg) in the three sand samples exceeded the default residential Soil Cleanup Target Level (SCTL) of 2.1 mg/kg, as set by the Florida Department of Environmental Protection and by Miami-Dade County. The 2.1 mg/kg guideline assumes simultaneous oral, dermal, and inhalation exposure for 350 days/year and for 30 years, including both children and adults. That level represents a conservative, acceptable health-based target level with a reasonable margin of safety that is quite unlikely to underestimate risks. Other protective values are available for comparison. The three results were within the range of sand concentrations reported in the Miami-Dade County natural background study described in the following paragraph.

Based on an evaluation of the Terracon data, the Florida Department of Health (FDOH) has concluded that there was not a significant increased health risk related to exposure to arsenic in the beach sand, even assuming lifetime exposure. That FDOH conclusion supplemented the statement of Dr. Samir Elmir, Ph.D, P.E., Director of Environmental Health & Engineering Services for the Florida Department of Health in Miami-Dade. In addition, Mr. Wilbur Mayorga, P.E., Chief of the Environmental Monitoring and Restoration Division of the Miami-Dade County Department of Environmental Resources Management (DERM) concluded that the results are consistent with natural arsenic levels on the barrier island beaches in Miami-Dade County, which showed values as high as 15.1 mg/kg. Naturally occurring background is indicative of conditions that are geological in origin and do not represent human activities.

Subsequent to the TerraCon and Town of Surfside sample collection, Kimley-Horn in May 2014 collected 14 additional samples of surficial beach sand at locations from South

Point (just to the north of Government Cut), northward to just beyond Haulover Inlet. Those samples did not include samples of the renourishment sand in the Town of Surfside. The 14 samples ranged in arsenic concentration from 2.0 to 11.0 mg/kg. Results were all within the range of sand concentrations reported in the Miami-Dade County natural background study.

This Sand Sampling & Chemical Analysis Plan has been developed in cooperation with the Surfside Sand Committee to assist the Town of Surfside in reaching decisions concerning the chemical characteristics of sand that was used from the Surf Club reconstruction project in April, 2014 for beach renourishment within the Surfside town limits. The objective of this Sampling & Chemical Analysis Plan is to permit a valid comparison between the chemical character of the renourishment sand and the chemical character of the native beach sand which was present prior to the additions made during the renourishment project.

#### ***B. Number and Location of Sand Samples***

A total of 60 individual samples are proposed for collection from 38 separate locations as shown on Figure 1 and Figure 3. Seventeen sample locations will be established in the beach renourishment area located between 88<sup>th</sup> St. and 96<sup>th</sup> St. in the Town of Surfside, FL. Sixteen sample locations will be established in the dune areas located between 88<sup>th</sup> St. and 96<sup>th</sup> St. Five sample locations will be established at publicly accessible locations outside the Town of Surfside. Samples from the beach grid line and the publicly accessible non-Surfside locations will be collected in the renourishment area (or its equivalent for the non-Surfside locations) approximately 20 feet to the east of the dune/vegetation line. Samples from the Surfside dune grid line will be collected approximately 10 feet to the west of the dune/vegetation line (Figure 2). Samples from non-Surfside locations will be collected from Park locations as shown on Figure 3.

Each beach location (Surfside and non-Surfside) will be sampled at two (2) depth intervals, as described in the following bullet points. Intervals may vary somewhat from location to location, given irregularities in renourishment sand layer thickness.

- Interval 1 – Sample will be a composite collected from the 0 to 6 inch vertical depth interval below land surface, to characterize renourishment sand; and,
- Interval 2 – Sample will be a composite collected from the 6 inch vertical depth interval immediately above the water table, measured at high tide, to characterize the native beach sand at depth.

Each dune location will be sampled at one (1) depth interval, from the 0 to 6 inch depth interval below land surface, to characterize the native beach sand at the surface. Sample locations may be adjusted laterally to avoid damaging the vegetation and to ensure that the sample is free of plant roots.

### C. *Chemical Analysis of Samples*

Each sample will be analyzed for four (4) categories of substances, as described in the following bullet points. Analytical categories were selected based on review of previous sample results, historical information, and stated interest by some Town of Surfside residents at public meetings. An experienced environmental firm (“Contractor”) and certified analytical laboratory will be selected by the Committee. Samples will be collected by the Contractor as described in Section B, and delivered to a certified laboratory for analysis, with appropriate Chain of Custody documentation.

- “RCRA 8” metals with extraction by USEPA Method 3050 and analysis by USEPA Method 6010 or 200.7 (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver). Data will be expressed in mg/kg. *Rationale: environmental persistence, ongoing interest in arsenic and comparison to naturally occurring background; ongoing interest in lead as it relates to historical activities and prior sampling conducted at Surf Club property;*
- Total Recoverable Petroleum Hydrocarbons (TRPH) by Florida Department of Environmental Protection (FDEP) FL-PRO method. Data will be expressed in mg/kg. *Rationale: inclusion in prior renourishment sand sampling, potential relationship to historical activities at Surf Club property;*
- Chlorinated hydrocarbon pesticides by USEPA Method 8081, specifically aldrin, chlordane, dieldrin, endrin, heptachlor, and the DDT/DDD/DDE group. Data will be expressed in mg/kg. *Rationale: environmental persistence and ongoing interest in potential historical use at Surf Club property; and,*
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082 (i.e., Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260). Data will be expressed in mg/kg. *Rationale: environmental persistence, ongoing interest in potential historical use or release of fluids from PCB-containing electrical transformers at Surf Club property.*

Alternatively, USEPA Method 8270 may be used to capture the analytes listed in both the third and fourth categories.

Appropriate Quality Assurance/Quality Control (QA/QC) procedures will be followed by the firm selected for the sampling, per the applicable Florida Department of Environmental Protection (FDEP) standard protocols (FDEP SOP FS 3000 Soil, available online at <http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/fs3000.pdf>; FDEP SOP FQ 1000 Field Quality Control Requirements, available online at <http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/fq1000.pdf>).

#### ***D. Data Presentation & Analysis***

The sand analytical data will be summarized in tabular form by sample location and by depth interval. Chemical analysis results will be evaluated by appropriate statistical procedures to assess whether there are significant differences in concentrations between sand intervals and horizontal locations (i.e., dune sand vs renourishment sand). Comparisons will be conducted between beach vs. dune shallow zone samples, as well as between beach shallow vs beach deeper zone samples.

It is recommended that the 95% Upper Tolerance Limit (95% UTL) for individual metals, as identified by Miami-Dade County in the 2004 study entitled "Natural Background Soil Concentrations for the Barrier Islands of Miami-Dade County", be used to assess similarity of measured sand concentrations with existing background concentrations. The UTL regularly is used by regulatory agencies such as USEPA, and the states of TX, GA, MT, MO, OH, and ID, as a measure of background soil conditions. To the extent that concentrations exceed Miami-Dade County natural background, they will be compared to existing health-based guidance criteria for soils as established by relevant agencies (e.g., Florida Department of Environmental Protection, Miami-Dade County Environmental Resources Management, Florida Department of Health).

July 28, 2014

MEMO

TO: Mr. Michael P. Crotty, Town Manager

Town of Surfside

9293 Harding Avenue

Surfside, Florida 33154

FR: Dr. Stephen P. Leatherman

11401 SW 87<sup>th</sup> Avenue

Miami, Florida 33176

[Leatherm@hotmail.com](mailto:Leatherm@hotmail.com)

305-238-5888

RE: Town of Surfside Sand Analysis

The initial studies involved determining the sand color and size compatibility of the fill material relative to the existing beach sand.

The Munsell Soil Color Charts (1994) are the accepted guide to determine sand color. The nine charts display 322 different standard color chips, but beach sands are typically only in the yellow, yellow-red and red domains, termed Hue. The arrangement of the color chips is three dimensional with the other axes being Value (e.g., whiteness) and Chroma, which is a measure of saturation (with sands typically being more pastel).

Comparison of the sample to the color chip is obtained by holding the sand sample directly behind the apertures separating the closet matching color chip. According to Munsell (1994) "Rarely will the color of the samples be perfectly matched by any color in the chart. The probability of having a perfect matching of the sample color is less than one in one hundred." The key is to find the closest match for each sample.

The fill and beach sand samples from the Town of Surfside were examined in direct sunlight at 4 PM on July 23, 2014 and the following day, which was overcast--the same values were obtained in each case as shown below:

Fill	Beach	Munsell Notation
10 YR	10 YR	Hue
6	7.5	Value
2	2	Chroma

The sand color guidelines for beaches in Miami-Dade County are set according to Sustainability of Re-nourishment RFP No. DACW17-02-R-0031 with the range as follows:

Hue of 2.5 YR, 5 YR, 7.5 YR, 10 YR, 2.5 Y and 5Y (YR = yellow-red and Y = yellow)

Value of 6, 7 or 8 (0 is absolute black and 10 is absolute white)

Chroma of 1, 2 or 3 (scale of 0 to 20 with lower numbers being less saturated, like pastels)

The fill material passes the sand color compatibility test, but the Town of Surfside may want to adopt more stringent criteria for future projects. It is recommended that the sediment from land excavations be washed and screened before being placed on the beach.

The sand size analysis was undertaken by sieve, using US standard sieves of 4 (4.75 mm), 8 (2.36 mm), 10 (2.00 mm), 30 (0.60 mm), 60 (0.25 mm), 80 (0.18 mm), 100 (0.15 mm), 140 (0.11 mm), 170 (0.09 mm), 230 (0.06 mm) and pan. Sieves correspondent to the following grain size:

Screen	Class of Material
4 & 8	Gravel
10	Coarse Sand
30 & 60	Medium Sand
80 & 100	Fine Sand
140, 170 & 230	Very Fine Sand
Pan	Silts and Clays (termed dust when dry and mud when wet)

Six samples were acquired at Surfside beach on Monday, July 21—two each at 96<sup>th</sup> Street, 92<sup>nd</sup> Street and 88<sup>th</sup> Street. The samples were taken within the fill area but avoiding the heavily trafficked backshore area. The fill samples were taken from a depth of 0 to 6 inches, and the beach samples were taken from the same hole at a depth of 24 to 30 inches.

The samples were oven dried, and a mechanical sieve shaker was used to sort the sample by size with the largest size sieve (#4) at the top and the smaller sieve size (#230) and pan at the bottom of the stack. Some of the material in the pan for the fill was so fine that it stuck to the sides of the brass sieves, which were 11 inches in diameter. A sample splitter was used to obtain approximately 100 grams from each field sample for the sieve analysis. The timer for the shaker was set for 15 minutes for each sample. Standard procedures were used to clean the sieves with a brush to obtain the amount retained in each sieve, which was weighed. The attached tables display the sieve data with the most important statistic being the percentage retained on each sieve, which were plotted on three graphs with the fill and beach sample for each street location. The fill material is slightly coarser on average than the beach except for the sample acquired at 92<sup>nd</sup> Street wherein the beach sample contained more shells.

The criteria for beach compatible material for the State of Florida (62-41.007(1)(j)) shall have a particle size distribution such that:

- Less than 5% of the material by weight shall be retained on the #4 sieve (e.g., gravel)
- Less than 5% of the material by weight shall pass through the #230 size (e.g., silt, clay or colloids)
- Coarse gravel, cobbles or material retained on the ¾ inch sieve (e.g., 19 mm) shall not be in a percentage of size greater than found on the native beach.

Location	Gravel %	Silt/clay/colloid %
96 St Fill	0.89	0.06
96 St Beach	0	0.02
92 St Fill	1.22	0.31
92 St Beach	0.37	0.13
88 St Fill	0.38	0.07
88 St Beach	0	0.20

The fill sand passes the State of Florida requirement for particle size distribution. It should be noted that some residents have found nails and other debris in the fill, but none was found in the three tested samples.



**Michael Crotty**

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**From:** Christopher Teaf <cteaf@hswmr.com>  
**Sent:** Tuesday, August 19, 2014 1:12 PM  
**To:** Michael Crotty  
**Subject:** Sand Committee directive regarding sampling  
**Attachments:** SandSamplingPlan\_DRAFT2.pdf; ATT00001..htm

Mike,

The Sand Committee meeting last night (August 18), among other things, led to a conclusion by the group that some level of sampling should be conducted on the renourishment sand from the Surf Club site, and that I should provide a recommendation regarding such sampling. Please consider this email to represent that recommendation.

As you know, in response to a previous directive by the Sand Committee, I developed a robust and detailed sand sampling protocol, a draft copy of which is attached for reference. That detailed plan was designed to accomplish in a scientifically defensible manner two specific objectives that were of importance to the Sand Committee at that time:

1. to assist the Town of Surfside in reaching decisions concerning the chemical characteristics of sand that was used from the Surf Club reconstruction project in April, 2014 for beach renourishment within the Surfside town limits; and,
2. to permit a valid comparison between the chemical character of the renourishment sand and the chemical character of the native beach sand which was present prior to the additions made during the renourishment project.

That plan proposed 60 samples from 38 locations, several of which included multiple depth intervals, including a number of non-Surfside locations selected to represent existing beach sand conditions between Haulover Park to the north and South Pointe Park to the south.

While there may still be a place for such a detailed sampling plan at some point, my sense from listening to the Sand Committee meeting last night was that there is a strong interest, and a practical benefit, to conducted a more focused initial sampling effort at this time. That focused analysis could be used to make a determination regarding suitability of the renourishment sand for placement in the dune field at selected appropriate locations immediately to the west of the Surfside beach. To accomplish that goal, I recommend collecting 6 composite samples of the renourishment sand at the 0 to 1 foot depth interval at midbeach of 88th, 90th, 91st, 92nd, 94th and 96th St. These locations span the length of the Surfside beachfront, with an emphasis on the specific area of apparent interest eastward of the Surf Club.

An experienced environmental firm (“Contractor”) and certified analytical laboratory should be selected by the Committee. Samples will be collected by the Contractor, and delivered to a certified laboratory for analysis, with appropriate Chain of Custody documentation.

Analysis should be conducted according to the following methods:

• “RCRA 8” metals with extraction by USEPA Method 3050 and analysis by USEPA Method 6010 or 200.7 (i.e., arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver). Data will be expressed in mg/kg. *Rationale: environmental persistence, ongoing interest in arsenic and comparison to naturally occurring background; ongoing interest in lead as it relates to historical activities and prior sampling conducted at Surf Club property;*

• Total Recoverable Petroleum Hydrocarbons (TRPH) by Florida Department of Environmental Protection (FDEP) FL-PRO method. Data will be expressed in mg/kg. *Rationale: inclusion in prior renourishment sand sampling, potential relationship to historical activities at Surf Club property;*

• Chlorinated hydrocarbon pesticides by USEPA Method 8081, specifically aldrin, chlordane, dieldrin, endrin, heptachlor, and the DDT/DDD/DDE group. Data will be expressed in mg/kg. *Rationale: environmental persistence and ongoing interest in potential historical use at Surf Club property;* and,

• Polychlorinated biphenyls (PCBs) by USEPA Method 8082 (i.e., Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260). Data will be expressed in mg/kg. *Rationale: environmental persistence, ongoing interest in potential historical use or release of fluids from PCB-containing electrical transformers at Surf Club property.*

Alternatively, USEPA Method 8270 may be used to capture the analytes listed in both the third and fourth categories. However, use of that method will involve reporting of many more substances than the individual methods specified.

Appropriate Quality Assurance/Quality Control (QA/QC) procedures will be followed by the firm selected for the sampling, per the applicable Florida Department of Environmental Protection (FDEP) standard protocols (FDEP SOP FS 3000 Soil, available online at <http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/fs3000.pdf>; FDEP SOP FQ 1000 Field Quality Control Requirements, available online at <http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/fq1000.pdf>).

This sampling plan can not specifically address the issue of establishing what is or is not background for selected metals in sand (e.g., arsenic, barium, lead). However, of the metals reported in samples to date, only arsenic has been reported at greater than the Florida DEP default residential Soil Cleanup target Level. For arsenic, the overwhelming conclusion of the environmental professionals who have reviewed those data is that the arsenic represents natural background related to the origin of sand as a marine sediment, and its presence in seawater. My previous report, dated June 5, 2014 addressed that subject in detail. Unless arsenic levels are observed with regularity at greater than the maximum arsenic concentration reported for the 2004 Miami-Dade County barrier islands background study, it should be considered to be background for which no action is necessary or appropriate.

Depending upon the results of those analyses, a decision can be made regarding whether or to what extent further analysis is necessary.

Regards,

Chris

RESOLUTION NO. 14 - \_\_\_\_\_

**A RESOLUTION OF THE TOWN OF SURFSIDE, FLORIDA AUTHORIZING THE TOWN MANAGER TO RETAIN CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC., ("CB&I") TO ASSIST AND PROVIDE THE TOWN COASTAL ENGINEERING SERVICES; AUTHORIZING THE TOWN MANAGER TO EXECUTE AN AGREEMENT FOR RETENTION OF CB&I FOR CONSULTING AND ENGINEERING SERVICES; AUTHORIZING THE APPROPRIATION AND EXPENDITURE FROM THE FISCAL YEAR 2013/2014 BUDGET NOT TO EXCEED \$16,496.00 FROM THE GENERAL FUND, NON-DEPARTMENTAL ACCOUNT NO. 001-7900-590-3110; PROVIDING FOR AUTHORIZATION; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the Town Commission of the Town of Surfside, Florida desires to retain a qualified professional engineer to provide coastal engineering assistance with respect to the Town's beaches; and

**WHEREAS**, the Town of Surfside desires to enter into an agreement for professional engineering services in the amount that does not exceed \$16,496.00; and

**WHEREAS**, per Town Code, Sec. 3-13(2) (c) contracts for professional services are exempt from competitive bidding; and

**WHEREAS**, the Town Commission of the Town of Surfside, Florida believes it is in the Town's best interest to enter into an agreement with CB&I for coastal engineering services with respect to the Town's beaches; and

**WHEREAS**, the Town Commission hereby authorizes the appropriation and expenditure from the 2013/2014 fiscal year budget not to exceed \$16,496.00 from the General Fund, Non-Departmental Account No. 001-7900-590-3110 for Coastal Engineering Services; and

**WHEREAS**, it is in the best interest of the Town to retain CB&I and to approve the Service Agreement not to exceed \$16,496.00 from the General Fund, Non-departmental Account No. 001-7900-590-3110; and

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COMMISSION OF THE TOWN OF SURFSIDE, FLORIDA, AS FOLLOWS:**

**Section 1. Recitals Adopted.** That each of the above stated recitals are hereby adopted, confirmed and incorporated herein.

**Section 2. Authorization to Execute Agreement.** The Town Commission hereby authorizes the Town Manager to execute an Agreement with CB&I Environmental & Infrastructure, Inc., on behalf of the Town, once approved as to form and legal sufficiency by the Town Attorney.

**Section 3. Authorization to Expend Funds.** The Town Manager is authorized to expend funds from the FY 2013/2014 Budget of no more than \$16,496.00 from the General Fund, Non-Departmental Account No. 001-7900-590-3110 to implement the terms and conditions of the Agreement.

**Section 4. Effective Date.** That this Resolution shall be effective immediately upon adoption.

**PASSED and ADOPTED** on this \_\_\_\_ day of \_\_\_\_\_

Motion by \_\_\_\_\_,

Second by \_\_\_\_\_.

**FINAL VOTE ON ADOPTION**

Commissioner Barry Cohen \_\_\_\_\_  
Commissioner Michael Karukin \_\_\_\_\_  
Commissioner Marta Olchyk \_\_\_\_\_  
Vice-Mayor Eli Tourgeman \_\_\_\_\_  
Mayor Daniel Dietch \_\_\_\_\_

\_\_\_\_\_  
Daniel Dietch, Mayor

**ATTEST:**

\_\_\_\_\_  
Sandra Novoa, Town Clerk

**APPROVED AS TO FORM AND  
LEGAL SUFFICIENCY FOR  
THE TOWN OF SURFSIDE ONLY:**



\_\_\_\_\_  
Linda Miller, Town Attorney