

**MIAMI-DADE COUNTY
FINAL OFFICIAL MINUTES
Miami-Dade Sea Level Rise Task Force**

Dade County Courthouse
73 West Flagler Street
Suite 242
Miami, Florida 33130

May 27, 2014
As Advertised

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Board of County Commissioners

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MIAMI-DADE COUNTY SEA LEVEL RISE TASK FORCE
May 27, 2014

The Miami-Dade County Sea Level Rise Task Force (Task Force) convened a workshop on Tuesday, May 27, 2014, at Dade County Courthouse, 73 West Flagler Street, Suite 242, Miami, Florida, at 3:00 p.m. Present were Honorable Clerk of Courts Harvey Ruvlin, Task Force Chairman; and members Dr. David Enfield, Ms. Sara Fain, Mr. Arsenio Milian and Mr. James Murley; (Mr. Willard T. Fair, and Mr. Jorge Gonzales were absent).

In addition to the Task Force members, the following staff members were present: Ms. Nichole Hefty, Chief, Office of Sustainability, Planning Division, Miami-Dade Department of Regulatory and Economic Resources (RER); Assistant County Attorney Christopher Angell; and Deputy Clerk Maryse Fontus.

I. Welcome and Introductions

Chairman Ruvlin announced that there was a quorum as five members were present. He said that the minutes of the May 8th meeting would be approved at the next meeting.

II. Draft Report Review and Discussion

Chairman Ruvlin suggested that the members review the document page by page. He explained that there would be a title page entitled: "Sea Level Rise Task Force Report and Recommendations." He noted the title page would be followed by a Chairman's letter, in which he would thank the County Commission for creating the Task Force; and would explain that while there have been cycles of climate change in history, coinciding with ice ages, human civilization has never had to contend with changing coastlines, as they had remained static for the last 15,000 years. Chairman

Ruvin noted he would also mention that the plan called for the provision of strategic public education.

Dr. Enfield advised Chairman Ruvin not to use the figure of 15,000 years, as it was not quite accurate, since at that time sea level was rising rather quickly. He pointed out that it would be more accurate to say that for the last 6,000 years the sea had not risen as it was doing today.

Chairman Ruvin noted he obtained that figure from Mr. John Englander's book; however, he said he would remove it, because he did not want to include information that was inaccurate.

Dr. Enfield said that he could find a more accurate figure; and Mr. Murley suggested that Chairman Ruvin indicate that for the last thousands of years the sea had not risen as it was doing today.

Pursuant to Chairman Ruvin's question as to whether the members wanted to change anything on page 1, Mr. Murley noted after "sea level rise" there should be a coma, followed by "the".

In response to Mr. Murley's question regarding whether it was accurate to indicate that the Board of County Commissioners (BCC) noted the "mounting evidence supporting the overwhelming consensus that climate change is real," Chairman Ruvin said he believed that the BCC did note the "mounting evidence." He said the reason he chose to begin the report with these words was to make the point that the scientific evidence regarding sea level rise was overwhelming, as recently a number of reports had been published that had reinforced this conclusion.

Pursuant to Mr. Milian's comment that the word "overwhelming" should be changed to "increasing", Dr. Enfield advised against it, confirming that the scientific evidence was overwhelming.

Chairman Ruvin suggested that the sentence remain unchanged, because it indicated that the County Commission was concerned by the evidence. He said he would make a note to review this sentence.

Responding to Mr. Murley's question as to whether the Task Force's charge was two-fold, Chairman Ruvin indicated that the charge was multi-faceted.

Pursuant to Dr. Enfield's question as to whether the Task Force was allowed to have a technical editor review the report, Chairman Ruvin confirmed that this was allowed, noting Ms. Hefty and he would work with an editor. He indicated that the first time the Miami-Dade County Sea Level Rise Task Force was used in the report, it would be spelled out, and thereafter, it would be abbreviated to "the Task Force"; similarly, the first time the Miami-Dade County Climate Change Task Force was used in the report, it would be spelled out, and thereafter, it would be abbreviated to "the CCATF."

Pursuant to Mr. Milian's suggestion that fresh water security and flood protection be added as examples in the recommendation on page one, Chairman Ruvin said that flood protection, and salinity structures would be included as examples.

Mr. Murley noted in order to conform with the structure of the other recommendations, the first recommendation should begin with "The Sea Level Rise Task Force recommends beginning the process by seeking and formally selecting the engineering expertise needed to develop and design a robust capital plan." He suggested that all of the recommendations be worded the same way.

Chairman Ruvin suggested that instead of underlining the sentence, it be capitalized. He explained that he chose to put the premise at the beginning of the recommendation.

Mr. Murley pointed out that the recommendation could be phrased in a number of ways, depending on style. He said that he preferred to begin recommendations with what was being asked.

Chairman Ruvin suggested that the first sentence in the recommendation from "In order to secure ..." until "the process now", be placed before the

box; and the last sentence, "Carrying out this plan will be costly, but far less than the cost of inaction" should be placed after the box in bold letters.

Pursuant to Dr. Enfield's comment that the Commission might take offense with the word "robust," the other members pointed out that the actions undertaken until now had not been robust.

Chairman Ruvin noted the recommendation would read as follows: "The Sea Level Rise Task Force recommends beginning the process by seeking and formally selecting the engineering expertise needed to develop a robust plan, vetting the elements (i.e., pump stations, road and bridge designs, flood protection, and salinity structures, just to name a few possibilities) as well as what vital signs will trigger timely sequencing."

Chairman Ruvin asked whether the members had any comments on the first paragraph on page two. As the members did not appear to have comments, he asked them whether they had any comments on the section entitled "Miami-Dade Climate Change Advisory Task Force 2006-2011."

Mr. Murley noted he would still prefer a chronological presentation, because he believed this would improve the flow of the report. He also noted he did not believe that the report mentions Greenprint.

Chairman Ruvin said that although it was mentioned in the original draft, he did not believe it belonged in the report.

Ms. Hefty noted the County was implementing some of the Greenprint recommendations, and suggested that Greenprint be mentioned after the CCATF recommendation.

Chairman Ruvin said he agreed with Ms. Hefty's suggestions. Referring to the paragraph on education, he noted he would prefer to mention it in his cover letter, and indicate that some outreach was already being undertaken, particularly in Miami Beach.

Mr. Milian emphasized that the commissioners would want to educate the public, if they were going to raise taxes.

Chairman Ruvin suggested that the paragraph be moved from its current location, and inserted somewhere else in the report. He also suggested that lines 73 to 77 be deleted.

Mr. Murley suggested that the title on line 45 be changed to "Past County and Regional Initiatives Addressing Sea Level Rise," because the next paragraphs would be discussing these various initiatives.

Dr. Enfield said he agreed with Mr. Murley, because the current title referred specifically to the CCATF. He noted if the title on line 45 remained unchanged, there would have to be another subtitle before line 78.

Chairman Ruvin said he preferred to keep the title on line 45, and to insert a new title on the Southeast Florida Regional Climate Change Compact before line 78.

Mr. Murley pointed out that in this section the report was discussing a series of initiatives. He said he did not believe that the CCATF had a recommendation on Adaptation Action Areas (AAAs). He noted the Task Force was recommending that the CDMP did not need to be modified; it simply needed to be implemented. Mr. Murley suggested the following language: "The Task Force recommends that Miami-Dade County implement the AAAs called for in the CDMP and to reflect sea level rise and storm surge risks, using the best available data." He suggested that CCATF and LIDAR be removed from the recommendation.

Chairman Ruvin suggested that the last sentence on page 4, lines 143 and 144, be separated from the paragraph, and capitalized.

Dr. Enfield noted he disliked the following language on lines 116 and 117: "... coupled with massive loss of global ice sheets." He said that he would prefer to use the following language: "... coupled with net mass loss from ice sheets", or "net melt from ice sheets", or "increasing melts from ice sheets."

Chairman Ruvlin suggested the following language: "... coupled with increasing net loss from ice sheets, are the fundamental causes of sea level rise.

Dr. Enfield noted although the second paragraph, from lines 120 to 129, was technically correct, it was a little more detailed than he would have liked. He said that he would edit it.

Referring to the graphs on page 5, Chairman Ruvlin asked why the one on the left was needed.

Dr. Enfield explained that it was needed because it helped understand the graph on the right, and it illustrated the difference that 2 feet of sea level rise would make to storm surge.

Mr. Murley pointed out that there could be a third graph that would illustrate inundation with two feet of sea level rise, independently from storm surge.

Dr. Enfield noted the point of the graphs was to illustrate how storm surge and sea level rise interact.

Mr. Milian said he believed that this was a powerful way to present the impact of 2 feet of sea level rise, and it illustrated that the inundation would be higher in the western part of the County.

Dr. Enfield noted he would consult with Ms. Bolter to decide how to make the graphs more easily comprehensible. He said that he would explain to her that Chairman Ruvlin was uncomfortable with the legend.

Mr. Murley suggested that the title be changed to "Category 3 Storm Surge with Sea Level Rise"; and Ms. Hefty suggested that "feet of inundation" be included at the bottom.

Pursuant to Chairman Ruvlin's question regarding the section entitled "Other causes of Future Inundation" on page 5, Dr. Enfield read the paragraph, and asked whether the figure was necessary. Dr. Enfield noted while the figure was very compelling, he contacted the authors, who

informed him that they were going to use it in a scientific publication, and would not like the figure to become public unless a clarification was inserted, indicating that one of the data sources was only available during the last five years.

Chairman Ruvin said he believed that the figure was unnecessary, because the point was made in the text.

Mr. Milian noted the figure on page 5 painted a gloomy picture. He suggested that the report indicate that this is what would occur without the implementation of adaptation measures.

Chairman Ruvin noted the last sentence on page 6 made that point as it indicated that "Clearly, without adaptation, current ground levels and essential fresh water, flood, and drainage related systems will be critically compromised if not overwhelmed." He suggested that this sentence be capitalized, and that the figure on page 6 be removed.

Mr. Murley noted although the recommendations on page 6 were important, they were not properly introduced. He suggested that the title on page 4, line 114, be changed to "Inundation Caused by Sea Level Rise and Storm Surge," as this would fit better with the title on page 6, line 153, which reads "Other Causes of Future Inundation". Mr. Murley suggested that the information on page 7 be moved to line 151, before "Other Causes of Future Inundation."

Dr. Enfield pointed out that page 7 pertained to sea level rise, and not storm surge. He suggested that the discussion on sea level rise be placed at line 130.

Chairman Ruvin noted the two recommendations on page 6 were not directly related to what was discussed in the report. He said that perhaps the report could list other relevant recommendations; alternatively, the two recommendations on lines 173 and 174 could be placed immediately after the first recommendation on line 35.

Mr. Murley said he agreed, because they pertained to major issues, and were as important as the first recommendation. Alternatively, he suggested that the recommendation on line 173 could remain after the discussion on inundation.

Chairman Ruvin requested that the footnote on page 7 be deleted.

Mr. Murley suggested that the discussion on inundation be placed on page 1, after the Task Force's charge, because it provided background material for the entire report.

Dr. Enfield asked whether Mr. Murley was suggesting that the science be placed before the history in the report, and Chairman Ruvin noted he preferred to have the report's major recommendations on page 1.

Mr. Murley said in that case it was best to maintain the report's current organization. He explained that he rewrote the recommendation on page 8, line 222, because he believed that the County should engage private insurance and re-insurance professionals to encourage them to develop long-term risk management solutions.

Chairman Ruvin noted this was beyond the Task Force's mission.

Mr. Murley stressed that it was important to engage other partners who needed to participate in the discussion.

Dr. Enfield noted the presenters from the re-insurance industry made it clear that their actions in the future would depend in part on the measures that the County would adopt to address sea level rise.

In response to Chairman Ruvin's question regarding the measures which the County could take to quantifiably impact rates, Mr. Milian noted the presenters from the re-insurance industry proposed specific adaptation measures for Miami-Dade County.

Chairman Ruvin pointed out that the report already recommended involving the re-insurance industry in the plan's development to facilitate its effective buy-in.

Mr. Murley explained that in the proposed recommendation on page 8, he was specifically targeting the Florida Department of Insurance; however, he said that he could leave out this recommendation.

Chairman Ruvin suggested that the sentence on page 8, line 229, "Without a professionally well thought-out worst-case plan in place, we risk losing insurability and financial support for our future," be capitalized. In addition, he requested that lines 220 and 221 be removed, and said that he may have the sentence on lines 119 and 120 capitalized, as well.

Assistant County Attorney Angell advised that if the meeting was to continue beyond 5 p.m., a motion to extend it would be necessary.

It was moved by Mr. James Murley that the May 27th, 2014 meeting of the Sea Level Rise Task Force, be extended to 5:30 p.m. This motion was seconded by Dr. David Enfield, and upon being put to a vote, passed by a unanimous vote of those members present.

Dr. Enfield said that he gave some thought to the members' discussion at their last meeting regarding whether to recommend 2 feet versus 3 feet of sea level rise for longer-range planning purposes, up to 2100. He noted in the last two weeks, four science papers had been published in prominent science journals about Greenland and West Antarctica; and they indicated that the amount of sea level rise that was anticipated in the future was already occurring. Dr. Enfield pointed out that this provided a basis for an abundance of caution and recommending 3 feet of sea level rise for longer-range planning purposes.

Chairman Ruvin noted the Compact was already indicating that it may have to re-evaluate its projections.

III. Next Meeting


Chairman Ruvin suggested that the next meeting be scheduled for June 5th at 2 p.m.

Ms. Hefty pointed out that the deadline for the report to be assigned to a Committee was June 2nd.

Assistant County Attorney Christopher Angell said that he would request that this deadline be waived.

IV. Adjournment

There being no comments from the members of the public present, and no other business to come before the Sea Level Rise Task Force, the meeting adjourned at 5:03 p.m.



Chairman Harvey Ruvin
Sea Level Rise Task Force



**Miami Dade County
Sea Level Rise Task Force
May 27, 2014**

Prepared by: Maryse Fontus

EXHIBITS LIST

NO.	DATE	ITEM #	DESCRIPTION
1	5/22/14		Agenda
2	5/22/14		Roll Call Sheet
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Miami-Dade Sea Level Rise Task Force Meeting

May 27, 2014

3:00 PM – 5:00 PM

Dade County Courthouse

73 West Flagler Street, #242

Miami, Florida 33130

- **Welcome and Introductions**
Honorable Clerk & Sea Level Rise Task Force Chair, Harvey Ruvin

- **Approval of May 8th, 2014 Meeting Minutes**

- **Draft Report Review and Discussion**

- **Questions and Comments from the Public**
 - Question from G. Cavros of Southern Alliance for Clean Energy: Plans for media outreach for release of SLRTF Report?

- **Schedule Next Meeting**

- **Adjourn**

