HOOVER ENVIRONMENTAL LEGAL DEFENSE FUND

Herbert W. Hoover Jr., Chairman

Results of the Coliform Sampling Program

for

Biscayne Bay

December 7, 1969

December 16, 1969
Press Conference
DuPont Plaza Hotel
Miami, Florida

Remarks by: Herbert W. Hoover, Jr., Chairman
Hoover Environmental Legal Defense Fund

Gentlemen:

The results of the Hoover Environmental Legal Defense Fund's coliform sampling of Biscayne Bay, on December 7, are now complete. They are indeed shocking. The most alarming part to me is that in areas not suspect, some of the highest pollution exists. I specifically refer to Matheson Hammock wading beach, where a fecal coliform count was four times that considered safe for swimming! Speaking in lay terms, fecal count refers to raw, untreated sewage. According to sanitation engineers, the higher the fecal count, the more probability one has of contracting such dreaded diseases as typhoid and tetanus. I am further told that any count over 200 in a sample of 100 milliliters of salt water can be injurious to the public health.

The worst count of all, as was to be expected, was at the mouth of the Miami River, which in reality, is little better than an open sewer. There is an area North of Dinner Key, at Station 3, which had a count leading us to suspect some kind of a sewage outfall. Moving down the Bay, we came to Station 6, on the beautiful Coral Gables Waterway. The fecal count here is high enough that it must be considered unfit for swimming. Just to the South of the Coral Cables Waterway is a private beach. Its count is marginally dangerous and warrants further investigation. Snapper Creek, which is a recepticle for at least one private sewage disposal plant, was also above the danger level. The second highest count we found was in Black Creek . . . another recepticle for private sewage disposal plants. To sum up, no one single count can be taken as a final word in any given area. However, where we found counts above what is considered safe, particularly in places of public recreation, a program of daily monitoring should begin immediately.

According to Dr. Fogarty here, at the very least, such areas could cause ear and low level infections. At the most, these high fecal count areas could be vehicles to spread deadly typhoid and tetanus and, as Chairman of the Hoover Environmental Legal Defense Fund, I urge the responsible agencies to fully investigate this.

In closing, it is my understanding that the Dade County Pollution Control Department does not own a boat and that this year they chose to purchase three automobiles instead of a boat. If it is beyond the means of the Department to purchase such a boat to monitor coliform counts in Biscayne Bay and the streams in and around Dade County, I'm sure that the Hoover Environmental Legal Defense Fund and other responsible organizations/citizens will see that the Department receives such a boat for this important use . . . providing we can be assured that it is used for this purpose.

Dr. William Fogarty will now outline how the samples were taken, how the tests were run and further significance of these tests. After his remarks, we will be happy to answer your questions.

TO: HOOVER ENVIRONMENTAL LEGAL DEFENSE FUND

FROM: Dr. William Fogarty

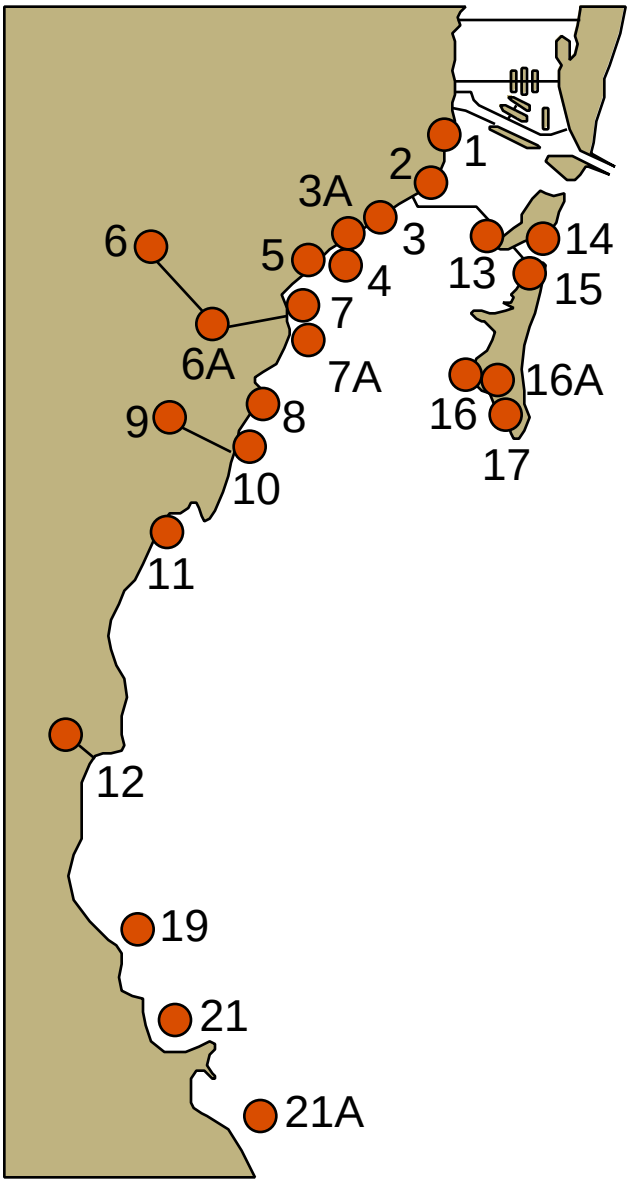
SUBJECT: Pollution Study of 7 December 1969

On December 7, 1969, samples of water were taken from 27 locations in and around Biscayne Bay. The locations are shown on the enclosed charts.

Based upon D.O. samples and bacterial counts which reflect fecal coliform populations, it is possible to attempt to determine if certain areas of Biscayne Bay reflect contaminated locations. Such analyses need to be taken on several occasions over a period of time to be meaningful as regards conclusions pertaining to the quantification of pollution levels. Since the samples taken on the date in question reflect conditions measured by grab samples at single locations at one specific time it is necessary to caution the reader not to reach set and specific conclusions. Rather, the interpretation of such results should be made with an attempt to point out potential pollution sources which should then be sampled and studied over a period of time on a number of occasions.

RESULTS OF THE COLIFORIM SAMPLING PROGRAM

STATION NUMBER	AREA	COUNT
1	Mouth of the Miami River	5000
2	Apartment house section - Brickell Avenue North of Rickenbacker Causeway	7
3	Apartment house outfalls North of Dinner Key	270
3A	Yacht Clubs - Dinner Key	90
4	Pier 2 - Dinner Key	40
5	Seminole Docks - Dinner Key	Is
C.	Coral Gables Waterway at Dixie Highway	350
6A	Coral Gables Waterway - Old Cutler Road Bridge	30
7	Coral Gables Waterway Mouth	180
7A	Tahiti Beach	240
8	Matheson Hammock Wading Beach	1160
9	Fresh Water Barrier - Snapper Creek	
10	Mouth of Snapper Creek	175
11	Cutler Power Plant - Effluent Canal	10
12	Salt Water Barrier - Black Creek	1360
13	South Side of Rickenbacker Causeway	2
14	Bear Cut at TABLE Lab	6
15	Crandon Park Marina	20
16	Hurricane Harbor - Key Biscayne	15
16A	Pine's Canal - Key Biscayne	10
17	Hurricane Hole - Cape Florida State Park Key Biscayne	10
19	Mouth of Homestead Air Force Base Canal	35
21	Florida City Canal	25
21A	Grand Canal - Turkey Point	45



Sampling locations

Based upon the above qualifications, the results of this one day study indicate that there are four locations in Biscayne Bay which call for an in depth study of the water condition as regards potential pollution of the area and an additional four locations which call for additional study to further quantify the potential levels of pollution which may exist. No attempt is being made to "soft-sell" the potential pollution problems which may exist in Biscayne Bay at present in this report, but, rather, an attempt is being made to point out that care must be exercised in reaching strong conclusions from the data taken in this study.

(SEE: RESULTS OF THE COLIFORM SAMPLING PROGRAM)

These results occur as averages of data compiled from two sources. Generally, the data agreed fairly well with the greatest range of values found at Station (70 vs. 600) and some differences found at Stations 8 (920 vs. 1400) and 12 (920 vs. 1800).

It is recommended that a responsible agency in the community which has the responsibility, authority and duty to protect the public health and safety take it upon themselves to inaugurate an immediate program of surveillance and study regarding potential fecal contamination of areas near to Stations 1, 3, 6, 7, 7A, 8, 10, and 12, as well as other "suspect" areas not included in this sample. Such a study may well be a cooperative study performed by the State Board of Health, Dade County Pollution Control and the Center for Urban Studies of the University of Miami as well as other interested groups or organizations.

One point of interest in this study is that a measure of fecal contamination was attempted through the use of the fecal coliform test procedures. While a bacterial count, based on MPN testing for *E. coli*, in excess of 1000 per 100 mL is considered the upper limit for swimming, it must be stated that, in salt water (where toxicity is greater for the organisms involved) the upper limit of 1000 should be reduced and further, if an upper limit of some value is set for *E. coli* and the counts based on fecal coliforms approach this value, then the problem is indeed a serious one.

Based upon the samples taken from Stations 1, 8 and 12, it can be said that, if the samples are representative of the conditions which normally exist, swimming should be most definitely prohibited at these locations through the use of police powers. Such a conclusion can only be reached through additional testing and such testing should be immediately undertaken - since the public health and safety is at stake.