# MINUTES OF THE MEETING
# OF THE CITY OF SAN CLEMENTE
# COASTAL ADVISORY COMMITTEE
**Thursday, November 13, 2003**
**@ 7:00 p.m.**
**Community Center, Ole Hanson Fireside Room**
**100 N. Seville**
**San Clemente, CA 92672**



## 1. PLEDGE OF ALLEGIANCE

Committee Member William Hart led the Pledge of Allegiance.

## 2. ROLL CALL

Present: Ken Nielsen, Nesa Ortega, Dennis Hannan, Michael Barnes, James Burror, William Hart

Absent: Garrett Waters

Staff present: Bill Cameron, City Engineer
Bill Humphreys, Marine Safety Chief

## 3. APPROVAL OF MINUTES.

CAC Minutes of October 9, 2003

Chairman Barnes stated for the record that these minutes were excellent and that Mary Colletti was doing a very good job on them.

MOTION BY COMMITTEE MEMBER ORTEGA, SECONDED BY COMMITTEE MEMBER BURROR, CARRIED (4-0-2), abstained: Hart, Hannan, to approve the minutes of October 9, 2003.

## 4. PUBLIC INPUT

Resident Charles Hauswirth brought up the proposed City policy of giving Lifeguards the authority to close beaches. Mr. Hauswirth, a new resident of San Clemente, read a prepared letter in which he commended our lifeguards' skill and intelligence. He stated that he trusts their judgment and recommends they be given authority to temporarily close San Clemente beaches as they see fit. He asked that the Committee send copies of this letter to the City Council members and to the Sun Post.

## 5. NEW BUSINESS

New Business was re-ordered to be discussed prior to Old Business in order to

accommodate Greg Heron from Coastal Frontiers.

A. Update and Presentation from Coastal Frontiers on Results of San Monitoring to-date in San Clemente

Marine Safety Chief Humphreys introduced Mr. Greg Heron of Coastal Frontiers, and said he is the primary person overseeing sand monitoring in San Clemente. Chief Humphreys said that he and a representative of Coastal Frontiers would be giving tonight's presentation next week to the Orange County Coastal Coalition on November 20th, 2003, at 9:00am at the Newport Library.

Mr. Heron gave a PowerPoint presentation, and said he and Chief Humphreys had already given this presentation at the Headwaters to Ocean conference and it was well received.

He began by discussing the beach monitoring program objectives:

1. Document the shore zone changes.
2. Provide a measure by which to evaluate changes from natural events and from man-made events (i.e. beach nourishment).
3. Develop a foundation for future coastal projects including sand nourishment and other Public Works projects.
4. Implement a sustainable program to be maintained on a long-term basis.

He said the beach monitoring program consists of two primary components:

1. City Annual Beach Profile Surveys (evaluating a cross section of beach elevation from the back beach where the sand meets the revetment and parking lot, up to a water depth of about 50 feet).
2. Bimonthly Beach Width Measurements (a cost effective way to evaluate changes). Mr. Heron said that Coastal Frontiers does this in conjunction with Chief Humphreys and the Marine Safety Division, who completely administer the beach width measurement program.

Mr. Heron said the study area stretches from Dana Point and Doheny State Beach down to Cotton's Point in San Clemente. He showed slides of historical beach transects from a USACOE study in 1980, and mentioned that each transect has had 8-10 surveys conducted between 1983 and 1989. He said the advantage of reoccupying these historical transects is that, though this is a new monitoring program for San Clemente, we have a head start using this historical data.

He said much of the backshore area is heavily armored, especially with the railroad revetment from Cotton's Point to Capistrano Shores. He said the study area (from Doheny State Beach to Cotton's Point) is seven miles of coast that is fairly diverse: Doheny is wide with no backshore armoring; San

Clemente's North Beach is narrow and this reduces access to both the public and Marine Safety staff in case of emergency. He said San Clemente State Beach is much wider, but heavily affected by weather. He illustrated these points with slides of photographs of these beaches.

Mr. Heron said they are utilizing two basic components for beach profile survey:

1. Shore Crew (uses traditional techniques of electronic station to get a cross section of beach from the back beach to a depth of about 15 feet of water where a staff member will be on the beach, with another staff member in the water holding a gauge pole).
2. Boat Crew (used at same time as shore crew, this boat is equipped with a digital acoustic echo sounder, with GPS navigation and a dynamic motion compensator which filters out contamination during its use. All the data collected is "fed" into a laptop computer on the boat. Data from about 50' of water into the surf zone is collected, with overlap of data collected by the shore crew). The collected data is reviewed at the office

He showed slides of beach width transect surveys from 1983-1989 and from Fall 2001 to the present. He summarized that Doheny State Beach had lost over 150' of beach in a 19-year period, while the beaches at Capistrano Shore, San Clemente Pier, and Linda Lane have changed very little over that 19-year period.

Mr. Heron said there is no data from 1989-2001, and there is no data prior to the 1982-1983 El Niño, so though it is thought that a great deal of sand was dragged offshore during that time, past the presumed "depth of closure", there is no prior survey data of the transects to compare to. He said there is a handful of surveys from transect 1720 (just North of Capistrano Shores Trailer park) from prior to 1983, which Coastal Frontiers obtained from the USACOE, but they had trouble matching this data, and believe this is due to problems with how baseline data was collected in the 1950's. He said another reason for lack of change is the hard armoring onshore, with no place for the beach to recede. He said there is a paucity of sand at Linda Lane, but near Cotton's there is more sand. Mr. Heron clarified for Chairman Barnes that beach width is measured as the distance along the mean sea level elevation from zero to the intersection with the profile. In the future, he said they would profile volume of sand above mean sea level, as well as the entire volume inside the depth of closure (about 20' out).

In regard to the Beach Width Measurement Program—Mr. Heron showed slides of this data, gathered by the City's Marine Safety Division, and commented they were doing an accurate job of gathering this data.

Chief Humphreys gave an overview of the importance of beaches in San Clemente. We have 5 miles of shoreline (2 miles are public). Our beaches

provide recreation and physical support for concessions, the Marine Safety HQ, etc., so we are dependent upon our sand as there is limited inland ground due to the railroad tracks and bluffs. Economically, per Dr. Phil King's 2001 study (contracted by the City), San Clemente generates approximately $1.6 million in taxes, parking ad concession revenue, and we spend about $1.5 million to maintain the beaches. Therefore, the City nets about $100,000 per year in direct revenue from the beaches. Chief Humphreys said there is another value that is not included in the revenue equation, which is the intrinsic value of our beaches with the recreation and quality of life provided by living near the beach. Chief Humphreys said the City's goal with the program is to obtain the data in a cost effective manner, in order to create a sustainable program. The City is partnering with Coastal Frontiers in the two aspects of the program to help keep costs down. (1) by having our lifeguards survey the beach, which is also safer and more effective cost-wise to the than having a contractor do this. He said we measure before and after a major storm, but the main goal is to take two measurements per month, and this program is entirely administered by the Marine Safety Department, based on training by Greg Heron. He said it takes two lifeguards 1-2 hours twice monthly to do the measuring. Chief Humphreys showed slides of the beach width measurements overlaid on top of Mr. Heron's beach profiles—which showed that the measurements the lifeguards are taking are very close to the measurements taken by Coastal Frontiers on their profiles.

Chief Humphreys said survey points are pre-established, and the measurements are done at a certain tide level. The lifeguards measure out to the berm and try to adjust to what the waterline would be without currents. They use an abni-level to get the slope angle. They also record the time the measurement took place. They then report this data to Coastal Frontiers, who adjust the data to the NOAA standard (which has to do with the mean sea level position), for consistency. Mr. Heron said the error rate using this method is only about +/- 50-10 feet. He said San Diego, SANDAG, Escondido and Solana Beach have used this method to advantage. Mr. Heron said our City's Marine Safety Division do a particularly good job of taking these measurements.

Chief Humphreys said the point of gathering this data is to present it to the USACOE project, which is now in its fourth and final year. He said the USACOE would attend the CAC meeting in the near future to give an update on the project. He said he'd heard rumors there may be a slight delay in the project. He said the total project cost is $1.7 million, with the City paying 50% and the federal government providing 50%. He said about 85% of our local cost was paid by grants from the Department of Boating and Waterways. He said the results should potentially lead into recommendations for a Sand Replenishment Project, which is the justification for starting this project; however, the data gathered has been useful for other projects, such as the Opportunistic Nourishment Program and to provide information required by the California Costal Commission for refurbishment of the Marine Safety building. Chief Humphreys said, therefore, it's been a cost-effective and

advantageous project for the City. He said our ultimate goal is to sustain a long-term, low-cost program in which this data will continue to be helpful in many aspects. Chief Humphreys concluded his presentation and asked for questions.

Resident Hauswirth mentioned Dana Point's historical museum which had great aerial shots which could indicate baseline measurements. Mr. Heron told him that aerial photos are commonly used in this regard; the USACOE has a library of them, and Coastal Frontiers will consider using these as a tool.

City Engineer Cameron remarked that another source of aerial photos is in Whittier, and asked if the USACOE was using these. Committee Member Burror said that would be a valid question to ask the USACOE. Mr. Cameron remarked that the beach was much wider in the 1970's when the beach was above the storm drain (it is now below the storm drain). He estimated the loss of width to be about 20-30 feet.

Committee Member Hart asked how transect locations were determined. Mr. Heron said they reestablished the historical transects from 1989, and took into consideration the City's current needs. Committee Member Hart said the transects North of the Pier are more dense than those South of the pier, and Chief Humphreys said the USACOE directed us to do three transects from the North Beach area, (due to the Marblehead Coastal project), and that's why the concentration there is so heavy. Committee Member Hart then asked about interdecedal cycles, and whether the current data is being analyzed to see if we're in such a cycle now. Mr. Heron responded that after the '82-'83 El Niño storms there is not much data on beach loss in that time period. He said that since the San Clemente program started in Fall 2001, the winter wave conditions have been pretty benign.

Committee Member Hannan mentioned the shoreline study and asked Chief Humphreys if the USACOE was doing a shoreline study from historical photographs, and Chief Humphreys didn't think they were; he thinks they are using their own data, plus the current data we're gathering. He said he has suggested that they use historical data, but the USACOE prefers "hard", objective data. Chief Humphreys said he and Mr. Heron have discussed having Coastal Frontiers utilize this historical data and photos as part of the program.

During the general question and answer period, Mr. Heron commented on how valuable the data already gathered is: this data will be instrumental in, for example, the Marine Safety Division sheetpile project, and this real data is valuable for "selling" such projects to the California Coastal Commission and the USACOE. Chief Humphreys said that the Beach Width Measurement program would go on for five years, with Coastal Frontiers doing the technical analysis and Marine Safety doing the measuring. The Coastal Frontiers five year contract costs around $107,000, and the City pays about

$3000/year for the lifeguards to do the beach width measurement.

Committee Member Hannan said he'd like to see Coastal Frontiers correlate this project with weather analysis. Committee Member Ortega asked why Doheny State Beach narrowed so dramatically and Mr. Heron said he believes it was because it had been artificially widened by about a million cubic yards, and then dropped off dramatically in the '80's due to El Niño and a freak storm in 1988. City Engineer Cameron asked if the USCAOE are looking at how much less sediment is coming down from San Juan Creek now. Committee Member Hannan answered that the Watershed Management Study done by regional groups and cities addressed that, but that federally we're all mandated to prevent erosion, and by putting up fences, we're choking off the supply to the river; he said this is part of why we're getting less sediment. Committee Member Hannan said that our feasibility study and the San Juan Creek study are not being correlated—they are being done independent of each other.

Committee Member Ortega asked if, during the time of the Beach Ad Hoc Committee, wasn't that committee shown maps with different historical beach widths from well before El Niño, and why don't we have data prior to El Niño. Chairman Barnes said that he believes some of this earlier data so poorly correlated with data that Coastal Frontiers and the USCAOE gathered, it was felt that the earlier data was not well documented and some baseline data was lost.

Mr. Heron proceeded to show slides of beach sand nourishment projects in other parts of Southern California to give the committee some idea of the different kinds of methods available for the San Clemente beach sand nourishment program. He said most of these projects were opportunistic sand nourishment from inland material. He said that Santa Monica's nourishment has lasted the longest, as they have Marina Del Rey, and an offshore breakwater which kept the sand on the beach.

Mr. Heron used Huntington Beach between Surfside/Sunset and Newport Harbor as an example of a federally sponsored periodic nourishment program where about 18 million cubic yards of sand was placed at Surfside/Sunset between 1963 and 1997, and the effect on the beaches has been very positive—there has been substantial sand retention—partly due to the groin fields in Newport Beach. There was 200' of gain in Surfside/Sunset, 140' in Bolsa Chica, and in Huntington and W. Newport, 100' of beach gain. He said this amount of sand would be like doubling the beaches in San Clemente. He said the SANDAG project entailed 2.1 million cubic yards of sand placement, where most of it went into the Oceanside cell, with some placement at Silver Strand and Mission beaches. He said the material came from offshore borrow sites. Oceanside had 421,000 cubic yards of material placed and 1.5 months later the beach was pretty wide, and last fall, a year after this placement, the beach is still wide. He believes most of the positive changes are from nourishment and not from natural replenishment. He said the receiver sites

all gained in the first year; the following year, most of them eroded; the updrift transects gained in the first year; as did the downdrift transects. Imperial Beach gained 140' of beach in the first year; all the beaches did well except for Fletcher Cove and Solana Beach due to the fine material placed, but even so, the public still seems happy with the beaches there.

Committee Member Ortega asked which cities had beach nourishment programs similar to what San Clemente would have (San Clemente has no retention devices). Mr. Heron said San Clemente is unique because it's kind of "out there in the cold" therefore difficult to compare it with other programs. Ms. Ortega asked if there would be a comparable city from which to gain advice. He said Kathy Weldon at NCS would be a good source—they are now working on permits for opportunistic sand placement. He said the political climate now is to do periodic placement of sand on the beach rather than build retention devices. An exception to this view is that the USACOE is reviewing a "227" program to build some offshore structures to retain sediment, but Mr. Heron feels this could be disastrous because of the way they are approaching it—they are looking at using Geotech-style placement in bags that contain polypropylene. These bags could rupture and float, and cause injury to people. He said it's a myth that these can be easily removed under the surface—they become weighted down with sand, making them difficult to remove, and when removed they can float to the surface in pieces the size of bedsheets to handkerchiefs.

Mr. Heron said Coastal Frontiers looked at building a submerged offshore breakwater (a "sill") covered with sand as an alternative to the above; they tested it and found that so much water flowed over this sill that it flowed sideways and substantially increased the alongshore current, causing new problems.

Chairman Barnes confirmed that groin fields are pretty much out of the question in San Clemente; and asked Mr. Heron what other methods have been most successful. Mr. Heron felt the best way was to retain the sand without attracting controversy. Committee Member Hannan mentioned a groin built inside the pier in Seal Beach, which seemed less offensive than some groins. Mr. Heron said with a groin, sand is trapped on one side and not on the other, but you can fill up the other side periodically. He said this method could work in some places, possibly San Mateo point. In response to Committee Member Ortega's question about the artificial reef in Australia, he said he'd heard it was sinking, and is similar to the El Segundo reef. He said this is similar to what the 227 project wants to do and the results in Australia should be considered.

Chairman Barnes thanked Greg Heron for attending the meeting and giving his presentation. Mr. Heron said it was a pleasure working with the CAC, the City, and Chief Humphreys.

## 6. OLD BUSINESS

A. Draft Beach Sand Opportunistic Nourishment Policy

Chairman Barnes asked each committee member to comment on the current draft Policy. The committee made revisions to this Policy—see revised Policy dated 12/07/03 for details.

Committee Member Ortega stated she thinks the fines percentage stated in the Policy is too conservative and may preclude us getting some opportunistic sand opportunities, but she said she will vote for the Policy as is. Committee Member Hannan agreed that we should use the State guidelines in the Policy instead of the 5% - 10% fines now in the Policy. The other committee members felt that the City Council could be the deciding factor if sand with a higher percentage of fines was donated, but Committee Member Hannan felt this should not be left up to the City Council due to time constraints.

Committee Member Nielsen spoke of placement locations and asked where the starting point would be for each location—he said locations are stated in the permit, but not precisely. Committee Member Hannan said it would be best to place it at Doheny State Beach and let the sand travel to San Clemente on its own. Chief Humphreys said we are obligated to follow the sand placement sites stated in the permit.

Chief Humphreys said if the Policy was approved tonight as amended, he would make the revisions and forward them to Chairman Barnes for a final review. Then, it could be reviewed by the City Manager, and then sent to the City Attorney. Any changes made by the attorney would then be submitted to the CAC for final review. If the City Attorney had no changes, the Policy would then go to the City Council and be presented by the CAC Chairman and Chief Humphreys. He feels this could be done in January 2004.

MOTION BY COMMITTEE MEMBER HART, SECONDED BY COMMITTEE MEMBER HANNAN, CARRIED (6-0-0) to accept and forward to Staff for final review, the Policy as amended this evening.

## 7. COMMUNICATIONS

A. Parks and Recreation Commission Minutes

1. Minutes from August 26, 2003
2. Minutes from September 9, 2003

Received and filed.

B. Bacteriological Monitoring Report

Received and filed. Committee Member Hannan said he has neighbors overwatering and asked Mr. Cameron for some water conservation packets to

distribute to them. Chairman Barnes complimented City Engineer Cameron on the depth of material covered in this report.

C. September 2003 Water Quality Section Program Update

Received and filed.

## 8. ITEMS FROM STAFF

None

## 9. ITEMS FROM COMMITTEE MEMBERS

Committee Member Burror stated that Thanksgiving dinner donations could be made to the families of Marines who could not return home for the holidays. He also mentioned the joint meeting, and said there was a lot of interest in the fines percentage there. In regard to the Policy, Committee Member Burror said it was excellent, and he commended the committee members on their excellent job on the Policy. He also said he's hearing rumbles about trash and cigarette butts and dog waste on the beach, and he'd like to see some type of enforcement against littering on the beach. Chief Humphreys said regarding the "no smoking" issue, he had just prepared a draft report for the City Manager, and he gave an overview of this report to the committee. He said Solana Beach advocates "no active enforcement" of the ban on smoking on the beach. Chief Humphreys also tracked complaints of dog sightings on the beach—he said Marine Safety's policy is to "operate within the spirit of the law", not the "letter of the law", and lifeguards keep a 2 year list of all offenders, updated weekly and carried by lifeguard units. New offenders are added to the list but not cited. Chief Humphreys estimated 66,000 adult smokers on our beach each year; if 75% comply due to signage and public, there would still be an estimated 16,500 violations a year (2 million visitors per year, times 30% estimated adult attendance, times 11% smoking rate for Orange County, times 25% non-compiance). With funding, more staff could be hired to enforce a law and there could be receptacles in parking lots. He said as far as dogs go, the lifeguards are very diligent in tracking violators, and are doing their best to enforce the no-dog restriction. However, many times, dog owners run when they see lifeguards coming, come before and after lifeguards are on duty or lifeguards are busy with water priorities and cannot contact violators right away. At these times, lifeguards call for assistance from Animal Control or the Sheriffs.

Committee Member Hart commended City Engineer Cameron on the new street sweeping program where the enforcement staff quite closely follows the street sweepers to give parking citations. He said the residents who formerly had complaints about the previous process are now quite happy with the current one. Committee Member Nielsen said he followed a street sweeper and saw many cars being cited. He also said there were many trash cans (placed in the street a day early) in the way of the street sweepers and felt these should be cited as violations too.

## 10. ADJOURNMENT

MOTION BY COMMITTEE MEMBER HART, SECONDED BY COMMITTEE MEMBER ORTEGA, CARRIED (6-0-0) to adjourn at 10:00 pm to a regular meeting to be held on Thursday, December 11, 2003, at 7:00 pm, in the Fireside Room, at the Community Center, 100 N. Seville, San Clemente, California.

Respectfully submitted,

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Michael Barnes, Chair

Attest:

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Bill Humphreys, Marine Safety Chief