MINUTES OF THE MEETING OF THE CITY OF SAN CLEMENTE COASTAL ADVISORY COMMITTEE

Thursday, October 10, 2002 @ 7:00 p.m.

Senior Center, Multi-Purpose Room 242 Avenida Del Mar San Clemente, CA 92672

PLEDGE OF ALLEGIANCE 1.

Committee Member Greg Hulsizer led the Pledge of Allegiance.

2. **ROLL CALL**

Present:

Michael Barnes, Dennis Hannan, Bill Hart, Greg Hulsizer,

Nesa Ortega

Absent:

Ken Nielsen, Bill Thomas

Staff present: Bill Humphreys, Marine Safety Captain

Bruce Wegner, Beaches, Parks and Recreation Director

Mary Colletti, Recording Secretary

Guest:

Dr. Gary Griggs, UC Santa Cruz

3. APPROVAL OF MINUTES

MOTION BY COMMITTEE MEMBER BARNES, SECONDED BY COMMITTEE MEMBER ORTEGA, CARRIED (4-0-1) to approve the minutes of September 12, 2002 as amended (abstained: Hulsizer).

4. **PUBLIC INPUT**

There was public input during Dr. Griggs' presentation. These comments are listed in the text under "New Business".

5. OLD BUSINESS

A. <u>Draft Sand Replenishment Policy or Ordinance</u>.

Chairman Hart suggested that the Committee not engage in detailed discussion of this old business in order to allow a special presentation by Dr. Gary Griggs, pertinent to this topic. Committee Member Hannan stated that he would have more information for the Committee at the next meeting.

6. NEW BUSINESS

Chairman Hart welcomed Dr. Gary Griggs, UC Santa Cruz, who made a special presentation on: 1) The effects of seawalls on beaches, 2) Littoral cells and "sand budgets", and 3) Beach nourishments/replenishment issues. His presentation was comprised of an extensive slide show including slides of Coastal Dunes/Sinks, Sand and Bluff Erosion, and Littoral Cell Maps, as well as examples of seawalls from Southern California coastal areas including Santa Barbara, Santa Cruz, Newport Beach, Dana Point, San Juan Creek, and San Clemente, etc. He also presented "before" and "after" slides of El Nino/Southern Oscillation (ENSO) damage to various beaches. The following is a summary of Dr. Grigg's lecture and presentation.

Dr. Griggs opened the presentation by stating that he had no economic interest in San Clemente and was not selling anything, but he has studied the coast of California for almost 35 years and wrote a book 17 years ago titled "Living with the California Coast". The book was a study of the framework of the California coast, mile by mile, which looked at coastal problems in order to make people more aware that the coast is a dynamic environment. This book was part of a nationwide series of studies that began on the east coast. Dr. Grigg's study encompasses everything from cliff erosion to littoral budgets, to effectiveness of coastal protection structures. Dr. Grigg's presentation was comprised of 3 parts:

A. <u>Summary of Coastal Framework</u>

Dr. Griggs began by stating that what happens from Dana Point and southward effects the way the beaches of San Clemente operate. Beaches worldwide tend to be in 3 different conditions. Dr. Griggs stated that in terms of San Clemente, he would be talking about long-term accretion; (defined as having more sand being added than is taken away.) He discussed littoral cells such as from Dana Point to Pt. Loma. Each cell has: 1) sources of sand, 2) movement of sand along the shore through the cell, and 3) sink (loss), which could be attributed to a dune field or, more often than not in Southern California, a submarine canyon. Rocky points and headlands often separate the various cells in the system. Dr. Griggs opined that for California beaches, the two important sources of sand are rivers/streams and sea cliffs above the ocean. Both of these sources have been altered by human activities. If you cut off the river/stream supply, you reduce the supply of sand. Dr. Griggs cited that a recent State Coast Conservancy study of California beach restoration stated that depending on where one is along the coast, up to 75-

90% of beach sand is derived from streams or rivers. In some places this is closer to 100%. Bluffs and cliffs tend to provide a small fraction of sand. In this study, the Oceanside cell, which extends from Dana Point to Scripps, the bluffs provided 10-11% of sand in that system. This is a system where bluff contribution is considered high. In the Santa Barbara cell, for example, bluffs contribute less than 0.5%.

Regarding rivers or streams in the Oceanside cell, San Juan Creek provides about 30,000 cubic yards of sand to the cell each year.

Throughout California there have been shoreline structures built that temporarily, or over the long-term, have disrupted the flow of sand. Jetties, breakwaters, etc. have disrupted the natural flow of sand. It's very difficult to document how much sand moves from the beach to the shelf and how much sand moves from the shelf back to the beach. Dr. Griggs feels that over the long term, there is an equilibrium, but this can be hard to quantify. Dr. Griggs does not believe that in our area there are many dunes or sinks taking sand from the beaches. In regard to canyons, they are the biggest sinks, taking sand down to 10,000 - 15,000 feet, and we don't get it back. Instead, California loses millions of cubic yards each year to the canyons. San Clemente is in the upper end of the Oceanside littoral cell, and all the sand we lose ends up in Scripps or La Jolla Canyon eventually. Dr. Griggs showed slides indicating that the sand movement is pretty much from Northwest to Southeast, driven by wave energy and refraction. Sand is moved back and forth along the shore with rates in California ranging from 30,000 – 300,000 cubic yards per year.

Seasonal changes in the amount of sand on a given beach are most visible indications of this sand movement, however, long term changes need to be considered as well. Dr. Griggs noted that in the last decade or two, inter-decadal oscillations have produced more frequent El Nino events, more rainfall, and larger storm waves. These concepts are important to keep in mind when studying San Clemente, over a 20-30 year period in regard to reduction in sand supply.

Dr. Griggs made a distinction between cliff erosion (a one-way process) and beach erosion (a seasonal process). He illustrated the seasonal changes with Santa Barbara slides and one of a Santa Cruz ENSO (El Nino Southern Oscillation) event in '97-'98 which showed the beach entirely underwater, but 6 months later was back to normal. Dr. Griggs summarized that there are short-term cycles and long term events. He noted that most of California's coastal damage is caused by large storm events. Dr. Griggs then cited an example of a wedge of sand constructed to guard some expensive homes from wave energy, but this revetment actually acted as a wave ramp during the '92-'93 El Nino event. This site had been stable for 15 years until the "right" combination of events occurred. This raises the question, apropos to our area, of building on an active beach. Homes on Beach Road, for example, are built at sea level, and we don't know how high sea level will rise over the decades and how many El Nino events will occur.

Dr. Griggs showed a pattern of more frequent El Nino (ENSO) events. In 1945-1978 there was a calm period (virtually no El Nino activity). During this time, Southern California's coastal population skyrocketed. From 1978-1996, more severe events began occurring. Dr. Griggs stated that he doesn't think anyone knows if we're out of this storm cycle yet. Two large concerns are future ENSO events and whether there are long-term sand reductions that could concern us.

According to Dr. Griggs, sand supply has been reduced in California with reservoir and dam construction. One Coastal Conservancy study he reviewed looked at sand coming to California beaches from rivers, and how much of it is curtailed by dams. Almost five dams are built a year, which has an effect, along with gravel and sand mining. Specifically, regarding San Juan Creek, he stated that although there may not be sand mining or reservoirs, there is a concrete channel, which may have a negative impact on the amount erosion of (inland) which otherwise could contribute sand to the beaches.

B. <u>Dealing with Coastal Problems</u>

In the second part of his presentation, Dr. Griggs posed the question that, assuming that the coast is eroding, how should we deal with it? He stated that a favorite choice in many areas is armor, though it's not as popular as it once was. Using a public beach to effect this is a bone of contention. Another approach is beach nourishment/replenishment/retention. Regarding armor, there are two main types of seawalls: concrete/timber/steel structures and rock riprap revetments. There are structures built 70 years ago that are still intact, and then there are structures that were built that lasted 6 weeks. The Coastal Commission had been pushing revetments over seawalls because they believed that revetments were permeable and didn't affect beach erosion. Dr. Griggs thinks there are fallacies in this line of thought.

Dr. Griggs stated that there are two important points regarding coastal protection structures: 1) Effectiveness and 2) Impacts. After the '82-'83 El Nino, Dr. Griggs did a study on how coastal structures endured the event. His team looked at coastal structures from San Francisco to Carmel, studying when and how structures were built, their repair history, and how they failed. Dr. Griggs showed slides indicating that the problems in most seawalls were: 1) Overtapping: (too low for wave protection). 2) Undermining: structures should be built deep enough to avoid undermining (from earthquakes, changes in wave refraction), and 3) Outflanking (going around the edges of the structure).

In regard to the impacts of the above, the most concern seems to be whether a seawall causes erosion. However, Dr. Griggs stated there are other impacts to consider, such as access restriction, visual impact, sand reduction, passive erosion and active erosion.

Dr. Griggs noted a new approach to improving the visual impact of walls, is being used along the Dana Point bluffs, with textured colored shotcrete or gunite. He believes concrete can look very natural, and does very well in ocean climates, though these structures haven't yet been in place for 20-30 years. Dr Griggs stated that placement loss is the most significant problem with seawalls, especially with rip-rap types which have a large base. Typical California coasts have an uplifted marine terrace, with bedrock in the lower part of bluffs (indicated on a slide). In one instance too much rock was used; it was overkill, and too expensive. In another example a tunnel wall was built to hold a bike path in place; minimal beach area was used. If you're building a seawall (around 1-3 feet wide) vs. a revetment (which needs 1-1/2 to 2 to 1 slope, and you come up 30 feet, you've covered 40-60 feet of beach). While the Coastal Commission favors the latter, Dr. Griggs disagrees. While he doesn't love seawalls, he conceded that the placement loss effects are different for these two structures. Passive erosion is the other biggest single impact (the effect of millions of years on the coastline and the rise in sea level over time). This applies to San Clemente beaches, where we have solid revetment (railroad tracks with riprap) from one end of the city to the other, which has fixed the position of the shoreline, and with sand loss and sea level rise, has reduced beach widths--this is passive erosion.

Dr. Griggs stated that active erosion (seawalls causing erosion) is controversial. Dr. Griggs led the first study of effects of seawalls. In Monterey, California, where the study was performed, in winter, the beaches narrowed (they watched a number of sites each month for a year), waves reflected off the revetment, but along the shore there was no excess scour. When looking at a vertical wall with a revetment, there was also no scour. Over the 8-years, Dr. Griggs concluded that summer beaches did not differ greatly from winter beaches, so no major effect of active erosion came from the seawalls. From his findings, he did not find seawalls caused any significant erosion. However, the conclusions reached at this beach in Monterey may not apply to San Clemente because Monterey has over 300,000 cubic yards of sand transport per year, while San Clemente has 30,000.

Chairman Hart asked if Dr. Griggs was able to quantify the longshore movement on an average stretch of beach in San Clemente. Chairman Hart then further clarified his question to mean the amount of material that was moved around the littoral cell. Was it above or below average? Could it have an effect or no effect in terms of what a seawall would do? Dr. Griggs responded by stating that in California, littoral drift rates are typically around 100,000 - 300,000 yards per year. Dr. Griggs stated that we don't have that much drift here because we don't have that much sand in the system. We may have that much potential drift, via wave energy, but we don't have much sand to move--the wave energy moves all the sand that we have. The formula for potential littoral drift is the amount of wave energy and what it can move. For example, we may have enough energy to move 300,000 cubic yards of sand (as does Oceanside), but in our location, we don't have much sand, so wave energy shovels it through as fast as it comes in.

Dr. Griggs continued to discuss beach restoration and broke it down into: 1) Sustainability--over a long term, to recreate or sustain natural systems will be less expensive, more effective, less environmentally damaging than other solutions requiring annual maintenance/construction. 2) Nourishment: (bringing from another source). With beaches – the typical public sentiment is the wider the better, so the more sand available, the more recreational opportunities. To date most of federal funding has gone to Atlantic beaches for nourishment, probably because their communities control the house and senate, especially in Florida & New Jersey.

Dr. Griggs also stated that the following must be considered: a) Volume and particle size is important; if sand grain is too small, it won't stay on the beach, b) cost and who will pay for it, c) impact on source; be it sand quarry, river channel or offshore, d) transporting/depositing e) lifespan (or half-life), f) replenishment--to clear the way for the natural supply of sand to return (i.e. from dam removal, sand-mining). g) holding sand in place. Groins mimic headlands and points, but are artificial. They have created some problems, because of incorrect spacing; but more often the problems are with jetties, not groins. Dr. Griggs stated that groins are very effective littoral barriers in widening beaches, such as Newport Beach and Ventura. Dana Point is a natural groin; we have two natural pocket beaches formed here by natural groins. Capitola has a constructed, back-filled groin. Santa Cruz beaches are headland-controlled or with natural or artificial (jetty) groins which stabilize these wide beaches and provide shoreline protection. Dr. Griggs felt we should let natural processes do as much work as they can, then try to replicate natural systems.

C. San Clemente Coastline

Dr. Griggs stated that he had not spent much time in San Clemente, but asked if it's clear that the beach is getting narrower, and what has been the long-term beach width change in San Clemente, within half a century to a century (interdecadal cycles may be only 20-30 years long). If it is eroding, is it a continual, progressive long-term change or is it attributable to interdecadal oscillations (i.e. El Nino)? Has the sand supply been reduced, or are there changes in wave energy; both of these are climatically controlled. In regard to passive erosion, if the sea level continues to rise, the beach will narrow; is this a factor? Dr. Griggs said San Clemente is in the upper end of the Oceanside compartment; the lower end of this cell should have a lot of sand. The Oceanside cell extends from Dana Point to Scripps/La Jolla canyon. Dr. Griggs stated that from what he has seen, San Juan Creek is the major sand source for San Clemente beaches (per a state study he recently finished). He believes San Juan Creek is the only significant up-coast source of sand to our area. Dr. Griggs also stated that there are two other unknowns: 1) Is sand mining an issue? and 2) Is sand being contributed from a paved channel? Committee Member Hannan interjected that the concrete channel goes about a mile and a half upstream. Dr. Griggs conceded, then, that this may not be a factor. Committee Member Ortega stated that there was sand mining being

done upstream. Committee Member Hannon agreed that mining is a factor, due to the '78, '79, '80 El Nino, sand was mined down to bedrock; a sink was formed, similar to having a dam. Committee Member Hannan further stated that if the sink was eliminated, we'd get more sand on the beach.

Dr. Griggs pointed out that, looking at the upper end of the littoral cell, Dana Point is a complete barrier with no sand coming down from the breakwater or into the harbor. As a result, the cell starts with San Juan Creek; you have to look there to see what might be happening to the San Clemente beaches. Dr. Griggs showed slides from 1972 of aerial views of the entire California coast. They showed wide beaches getting narrower and narrower towards San Juan Creek. According to Dr. Griggs, there's about a tenth of sand here (in San Clemente, the upper end of the cell) in comparison to the lower end of the cell. Great for a harbor, but not great for a beach. Dr. Griggs tried to estimate (by superimposing photographs he had which were not of the same precise beach locations, and were not over a regulated time-period) within the last 17year period (including the El Nino event) whether there has been a significant change in San Clemente. The several photographs Dr. Griggs showed did not show a significant reduction in beach widths. Dr. Griggs noted that a U.S. Geological survey of Southern California's coastline, was comparing 1870's survey sheets against 1930 sheets, and '70's and '80's surveys compared to now, to see what changes occurred over 130 years. Dr. Griggs stated that he could put us in touch with the people doing the study. Dr. Griggs posed the question, if there are long-term beach reductions, can we figure out the cause? Replenishment is one issue, but is very expensive, half-life is relatively short, and availability of sand can be difficult. A major concern is that with a high littoral drift rate this sand could be gone within a year or two. In regard to the retention, the question is can you hold it in place? Can we eliminate problems in San Juan Creek? Dr. Griggs cited a sand nourishment project where 2 million yards of sand (worth \$17.5 million) went to 12 sites; all that sand is now gone (there was 300,000 cubic yards of littoral drift) so there is no reason the sand would stay here without a groin. Dr. Griggs stated that a one-time nourishment is a short-term fix. He showed slides of soft groins (softer than rock) in Australia. Italy has similar problems (as San Clemente) with sand; they built groins & breakwaters every several hundred yards; Dr. Griggs conceded he doesn't recommend this massive a groin field.

Committee Member Barnes asked what the percentages of our sand budget would be; (i.e. 80% from San Juan Creek, 10% from the bluffs, some from local canyons)? Dr. Griggs replied that, from his observation from driving to San Clemente, he believes 95% of San Clemente's sand comes from the San Juan Creek, not really from the bluffs, until you reach San Onofre. Chairman Hart interjected that because of the freeway presence, which channels water, and contributes to greater bluff erosion, there are tremendous canyons in the State Park area. He also asked Dr. Griggs to provide pros and cons of groins or other sand retention devices, sand replenishment or new methods of retaining sand without any adverse impact. He asked what biological or recreational impacts sand replenishment would have. Dr. Griggs stated that by putting in a groin field or widening a beach you cover up whatever's living on

the seafloor, so there's an environmental impact. If you're only replacing sandy beach 50 feet out, vs. covering a rocky shelf, most people wouldn't have a problem. Dr. Griggs mentioned that public safety can be an issue with an artificial structure as you've created an "attractive nuisance"; if someone dies or is injured, you could be liable. However these groins on other beaches have done very well, and groins can be nourished with sand. In contrast, putting a lot of sand on the beach and covering up a zone means you're still covering up area anyway. To not hold it in place seems a short-term approach.

Committee Member Ortega mentioned widening the beach to pre 1982 – 83 widths. Committee Member Barnes thought that 82-83 was an arbitrary number and should be studied further. Chairman Hart agreed, and thought the interdecadal changes as shown on Dr. Grigg's chart were very revealing, and he stated we need to go back and look at some of the cycles, if the information is available. Dr. Griggs responded that aerial photos go back to the '40's, and Committee Member Hannon interjected that they go back to 1938. Dr. Griggs stated that 70 years will span at least 3 interdecedal cycles and will give us a good idea of the changes, and would be the first thing to look into. Chairman Hart asked about the USGS study and Dr. Griggs informed him that when he spoke to USGS, that they indicated that any local interest would make their case stronger to possibly focus their study in our area of the coastline first before studying, say, Washington. Chairman Hart asked Captain Humphreys about Coastal Frontiers, and Captain Humphreys responded that Coastal Frontiers' data only goes back to the late '80's, however, he has photos from Whittier College from the early '30's. He has done preliminary analysis using these photos, scaling them, which show an average of 50' of sand loss since 1947.

Committee Member Hulsizer wanted to clarify with Dr. Griggs that there was no validity to the idea that sand is sitting offshore waiting to return to the beach, and if that were true, how could the beach become wider 10-15 years from now, if no more sand was coming out of San Juan Creek. Dr. Griggs replied that may not be the case; delivery of sand from California rivers is episodic; there are 100-year events that produce millions of cubic yards of sand in a few weeks. Committee Member Hulsizer acknowledged this but asked for verification that sand sitting off the beach would not find its way back to the beach. Dr. Griggs doubted that water moving within 40-50 feet to or from the beach would bring in much sand.

Public Input:

Citizen Peter Ditto (1223 Las Posas, San Clemente) stated that San Clemente beaches seem to be shrinking, and he's noticed along Beach road, that wave action has changed drastically over the last 12-15 years, and has moved down the coast. Ditto said he used to surf in front of his house, but wave action now has moved down the coast.

Committee Member Hannan replied that it was a grain size issue, sand is crushed from sand mining, and we don't get the fines we used to. Sand material varies from coarse material to fine sand; there is more coarse sand now. Coarser sand makes a steeper beach, while finer sand makes a flatter beach.

Citizen John Burrell (declined to fill out address slip) asked if removal of riverbed vegetation would be an economical means of decreasing sand flow. Dr. Griggs responded that vegetation can stabilize it. Mr. Burrell acknowledges that removal of vegetation may offend environmentalists. Committee Member Barnes mentioned the effects of urban runoff and vegetation, and that water quality vs. sand transport can be a balancing act.

<u>Citizen Jack Tarr (35841 Beach Road, Capistrano Beach)</u> suggested maintaining the natural flow. He also asked about the adverse impact of dredging the river, and the possible objections by environmentalists.

Dr. Griggs stated that if a groin is fully charged (backfilled with sand) when it is built, it will only hold so much sand. Future sand will pass around the groin. At that point, "you're off the hook for being liable".

Chairman Hart requested clarification on using groins, suggesting that the consequence of depending upon them seems to be that you have to move further downstream and eventually you have a starvation of sand.

Dr. Griggs stated that this may not be true if you're putting the same amount of sand at the upper end. If a groin is 300 feet long and in deep water, there may be problems, but a 50-foot long groin should not cause starvation problems if the groin has been fully charged (backfilled) in the beginning.

Chairman Hart asked if Dr. Griggs would advocate a groin system that puts groins every 100-200 yards throughout that 2-3 mile stretch; he suggested that since groins decelerate sand, conceptually you could have just one at the northern end of your beach. Dr. Griggs said the sand doesn't really decelerate; it is slowed down up-coast of the groin.

Committee Member Ortega asked what impact groins would have on surfing resources.

Chairman Hart clarified for Dr. Griggs that we have a combination of beach breaks and point breaks with offshore reef systems. Dr. Griggs stated that these are the most sensitive areas, but with a 50-foot groin, on the north shore area, there are seasonal sandbars, so impact would be negligible. If you cover a reef break, you should be more careful as impact could be much greater.

Committee Member Hulsizer stated the likelihood (depending on the reef size) of scouring, and creating a rip current, which could make a good break, but is hard to predict.

<u>Citizen Jack Tarr</u> asked how 30,000 cubic yards could be measured.

Dr. Griggs said sand is carried in suspension which can be measured by how much sand is moving in suspension when a stream is running at 3 feet, or 10 feet or 20 feet deep, etc. This can be calculated at 1,000 cubic feet per second. One can also measure what's moving along the streambed. They study all the different flows a river/creek goes through during a year, and take many samples to calculate how much sediment (measured in tons per day) it should be carrying at each different flow. Streams are monitored by elevation on a regular basis. Accuracy is probably plus or minus 20 percent.

Committee Member Ortega asked Dr. Griggs if there are any new, innovative sand retention devices available. Dr. Griggs mentioned soft groins made of textile bags in Italy being buried under the sand which could not be seen most of the year. Also, submerged gravel groins are being done. Also big in Europe are off-shore breakwaters (submerged, T-shaped) but in Europe they dump tons of rocks in the water. Committee Member Ortega asked if textile bags stay in place, and Dr. Griggs responded that they haven't done well on our coast and they invite vandalism.

Committee Member Barnes mentioned that one problem the Committee is grappling with, in regard to sand replenishment, is the amount of "fines" acceptable in beach sand. He asked Dr. Griggs if there are guidelines regarding this. Dr. Griggs responded that the world is full of silt and clay. You could put yards of mud on the beach and the waves would filter it offshore. If the material is coming naturally out of the river, animals and plants will adapt.

<u>Citizen Wendy Morris (2310 Plaza la Playa, San Clemente)</u> observed that San Clemente's clarity of water is very good, and felt that silt, that would blow all over you, is an awful feeling.

Chairman Hart called a ten minute break, then thanked Dr. Griggs for his presentation.

7. **COMMUNICATIONS**

A. Parks and Recreation Commission Minutes, August 13, 2002

Received and filed.

B. <u>Bacteriological Monitoring Reports</u>

Received and filed.

8. ITEMS FROM STAFF

Beaches, Parks and Recreation Director, Bruce Wegner commented on the Calafia Beach entrance situation. Working on an interim access solution to Calafia, he met with OCTA, Metrolink, and the State Parks and stated that they'll allow us to build a temporary entrance without making insurance, etc., an issue. OCTA offered their flagmen, if needed, to do construction across the tracks. State Parks will maintain the entrance as long as it won't wash away each week. Director Wegner distributed a handout of a possible design. There are three options: 1) (has most potential for staying in place) pouring concrete from the rocks as a step down to the ground, but this would probably not pass muster with Railroad Education and Safety Committee. 2) Utilizing wood stairways/platforms and DG (decomposed granite) caps built into rocks. 3) Incorporating these 2 options into a wood and DG structure. California Coastal Commission requires a full permit for the process, which can take 6 months. The City would be required to survey of the land to determine elevation to prove that improvements would not be done to unstable property. Therefore, the entrance could not be built until spring or early summer.

Chairman Hart asked how long it would be before the City's beach trail is built. Director Wegner replied that the City Council will probably approve this without issue as the community has adopted the plan. We can probably get OCTA's approval too, by going through their process since the railroad recognizes its importance. Director Wegner also stated that OCTA has gone on record as opposing double-tracking. Problems may be with California Public Utilities Commission (PUC) being against the project. This may have to be overcome with legislative action. If we can get Metrolink and Amtrak on our side we may be able to put more pressure on the California Public Utilities Commission. If the California Public Utilities Commission doesn't approve, we must allow a year or two for legislative process. Could be one to four years. Chairman Hart said that PUC staff has quoted policy and really wants to shut down the upgraded pier crossing. We'd need to go to the PUC in a formal hearing process & have the five PUC members grant or deny the project. He agreed that if we unite with the railroads, the PUC may listen.

Committee Member Hannan asked what the reason is for not considering bridges like those at T-Street and Capo Beach. Committee Member Ortega responded that the reason is "cost and aesthetics". Chairman Hart said cost is not so much an issue as is the lateral transport; a trail would be designed laterally to the railroad tracks. The biggest danger, he stated, is that certain points force people onto the tracks, and the informal crossings are dangerous. Chairman Hart cited an example at Calafia where a man left a baby in a stroller, on the tracks, in order to cross to the beach. Director Wegner said the entire trail is at that grade; with a bridge, people would have to go upstairs and downstairs, so they're going to take the path of least resistance.

Chairman Hart acknowledged that it took a lot of explanation to make others see that our situation is unique and that normal engineering solutions are not appropriate, and we need a creative solution. The PUC, in San Francisco, dismissed this idea. Committee Member Ortega is concerned the entrance will get washed away.

Chairman Hart said that the Parks and Recreation proposed to build an access, but RCSCP said a compromise is delicate and it's wrong for us to act unilaterally; however if we could build a temporary solution while awaiting trail construction, they would agree. Therefore, we should not engineer a permanent solution, but an interim one. Chairman Hart surmised that if a trail is built, it will probably be concrete steps.

Chairman Hart mentioned that he and Director Wegner "picked their way down" the rocks at Calafia recently, and while there is a well-defined path, one must be careful. Director Wegner mentioned elevation changes are 8-10 feet, and Chairman Hart agreed, that one slip and you could break your back.

California Beach Restoration Study

Received and filed.

Communication Report from San Juan Watershed F4 Milestone Report

Captain Humphreys gave a copy to Chairman Hart and said comments from the committee should be directed to Tom Bonigut, Sr. Civil Engineer. He also said that Director Wegner will review the report in regard to sand mining, quantities, etc, which Captain Humphreys felt would be pertinent to this committee. Chairman Hart gave the report to Committee Member Hannan and suggested committee members contact Committee Member Hannan if they have questions regarding the report.

9. ITEMS FROM COMMITTEE MEMBERS

Committee Member Ortega cited the SANDAG sand replenishment project and said it did not negatively affect marine life near the shore area.

Chairman Hart spoke on the Urban Runoff election (ballot deadline is October 14) and stated that he received questions on what the funds would purchase. The major items would be two treatment facilities for the major storm drain channels. He mentioned an article in North County Times regarding Encinitas' success with a similar treatment system—they estimate they're removing 99% of runoff bacteria before it reaches the ocean. The California Coastal Coalition has this article on their web page.

Committee Member Hannan brought up the problem of massive mosquito infestation in the Talega basin. There are thousands of large mosquitoes (he is 500 feet from the basin) that invade homes whenever they open the door. Committee Member Hannan inquired as to who should be controlling the mosquito infestation. Forster Highlands is having the same problem and this is not even a wet year. As a resident, he is upset with this problem, he and the neighbors are using insecticides which will wind up in the basin. Director Wegner stated that Vector Control would handle this and suggested that Committee Member Hannan speak to his HOA.

Committee Member Barnes brought up the Army Corps, and suggested it's time to set up another Army Corps/Public meeting. Captain Humphreys said this may be a bad

time as they are in the process of an economic analysis, which should be finished by March. The bigger reason is that Joe Johnson, the project manager has left and moved to the Forestry service, so they now have no project manager assigned to San Clemente. Committee Member Barnes suggested we schedule a meeting for the first of the year. Captain Humphreys stated that he met with the Army Corps, recently and they stated they want to give a public workshop to present preliminary ideas in approximately 3 months.

Director Wegner stated that the Corps said if current erosion continues, what will OCTA do with waves washing up constantly on the rocks. OCTA was reluctant to comment, no matter how many times they were asked the question, but they will do whatever they have to do. When asked if they would consider relocating the tracks off the beach, they avoided committing to any position.

Committee Member Barnes asked about the Coastal Frontier survey. Captain Humphreys responded that the fall survey will be done October 23rd. They'll also provide him with a digital version of the studies that Captain Humphreys will make available to the Committee.

Committee Member Barnes announced that on October 21st, Orange County will meet on the Poche problem, at the Shorecliffs clubhouse, with Supervisor Tom Wilson chairing the meeting. He went on to say that the Surfrider Foundation will sponsor a candidates forum, on October 28, at 8:00 p.m., in the Ole Hanson room, of the Community Center.

ADJOURNMENT

MOTION BY CHAIRMAN HART, SECONDED BY COMMITTEE MEMBER BARNES, CARRIED (5-0-0) to adjourn at 10:00 p.m. to the regular meeting to be held on Thursday, November 14, 2002, at 7:00 p.m., in the Multi-Purpose room of the Senior Center, 242 Avenida Del Mar, San Clemente, CA

Respectfully submitted,

William Hart, Chairman

Attest:

Bill Humphreys, Marine Safety Captain

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