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Before the U.S. Commission on Ocean Policy
June 14, 2002
Seattle, Washington

Members of the Commission:

Thank you for the opportunity to testify before the U.S. Commission on Ocean Policy. I will speak on engaging the public to protect our beaches and oceans, and offer some specific recommendations.

The Surfrider Foundation is a non-profit environmental organization dedicated to the protection and enjoyment of the world's oceans, waves and beaches for all people, through conservation, activism, research and education. The Surfrider Foundation has over 31,000 members and 60 local chapters in the United States. The Surfrider Foundation also has organizations in Australia, Japan, Europe, and Brazil.

You heard from Surfrider representatives in Hawaii last April discussing our priority issues. My goal today is to quickly summarize those goals and supply some direct answers to questions you asked of Surfrider at the hearing in Hawaii. The State of the Beach Report is the Surfrider Foundation's principal publication to educate citizens and important decision makers on the health of the nation's beaches.

The Surfrider Foundation's State of the Beach Report is an annual report that assesses the health of each coastal state's beaches using the available information on selected beach health indicators. The selected beach health indicators are public beach access, surf zone water quality, coastal erosion, shoreline structures, beach nourishment, erosion response and threats to surf areas. The Surfrider Foundation started the State of the Beach Report in 1999 with a very simple question, "As a concerned citizen, what information can I find on the health of my local beach?" When we asked this question in 1999, we couldn't find much information on our selected indicators or when we did find data they were usually in a form difficult for a concerned citizen to digest, such as an engineering report or journal article. Each year we've seen improvement in the information available to assess beach health, however, there are still large gaps. Local citizens would significantly benefit from a concerted and coordinated effort by public agencies to make their data available in an understandable format.

Another important conclusion from the State of the Beach Reports is that the nation lacks a standardized set of beach health indicators that can be used to measure the effectiveness of coastal zone management. Other research has found similar results. In an evaluation of

state coastal management program effectiveness in protecting natural beaches, dunes, bluffs, and rocky shores, Bernd-Cohen and Gordon (1997) concluded, "there is insufficient nationally compatible outcome data to determine on-the-ground effectiveness." Another publication, the 1999 "State of the Nations Ecosystems" report states that, of the of the three ecosystems they covered, "coasts and oceans suffer most from a lack of comprehensive and consistent information on key ecosystem goods, services, and properties." Without such information, ecosystem status cannot be accurately established and we cannot evaluate the effectiveness of coastal zone management policies.

The Surfrider Foundation will recommend to the U.S. Commission on Ocean Policy actions in several areas, relating to the Coastal Zone Management Act, Clean Water Act, Beaches Environmental Assessment and Coastal Health (BEACH) Act, Army Corps of Engineers, and marine protected areas. Surfrider believes that the recommended actions will help protect the nation's important natural coastal assets and benefit our membership, wave riders, and the tourism industry.

COASTAL ZONE MANAGEMENT ACT:

Coastal Zone Management Act Coastal Zone Enhancement Grants Program should be amended to facilitate the creation of a national standard of beach health indicators and provide incentives for state coastal zone management agencies to maintain records on beach health indicators.

In addition, Coastal Zone Management Act Coastal Zone Enhancement Grants Program should be amended to provide incentives for state coastal zone management programs to increase public awareness regarding beach and coastal health.

BEACHES ENVIRONMENTAL ASSESSMENT AND COASTAL HEALTH ACT OF 2000:

Continue to fund completely the BEACH Act to ensure that the program is fully implemented by all states and territories. Not only will the monitoring of ocean water quality for recreational health protect the health of the beach going public, it will provide an important tool in measuring water quality problems and will raise awareness about this important issue for coastal ecosystem health.

CLEAN WATER ACT – 301(h) WAIVERS:

There are approximately 36 Sewage Treatment Facilities in the United States that are still granted 301(h) waivers from the Environmental Protection Agency that permits the dumping of partially treated sewage into the ocean. The 301(h) waivers should be stopped.

Recommendation 1: Amend the Clean Water Act to remove the 301(h) waiver program.

As I understand them, the Commission had the following questions for Surfrider based on our testimony in Hawaii.

Question 1: What are the justifications for the 301(h) waivers and is self monitoring acceptable?

Response:

1. Justifications for 301(h) Waivers:

It appears that each waste water treatment plant (WWTP) has a slightly different justification for seeking a 301(h) waiver. We can provide some examples from California and Puerto Rico that may be representative of common justifications.

In California, WWTP's justify pursuing extensions to their 301(h) waivers because according to their studies they believe that current discharge of blended effluent (primary and secondary) is not harming the environment. They believe that their discharge has not been the source of contamination in their respective areas. Nor would money spent on upgrading their facilities for secondary be money well spent to benefit the environment.

Here is a quote from Blake Anderson, the General Manager of the Orange County Sanitation District (OCSC), from an email dated May 15, 2002:

“The only two quality parameters that are significantly changed by secondary treatment are biochemical oxygen demand (BOD) and suspended solids. These two discharge parameters have no toxicological or pathogenic significance whatsoever. They have no human health significance whatsoever. They do measure the potential impact on the physical characteristics of the receiving waters, namely, dissolved oxygen content, water clarity, and organic enrichment characteristics of the sediments influenced by the discharge. In the Pacific Ocean off Huntington Beach, none of the physical characteristics of the receiving water environment is adversely effected by our discharge, In [*sic*] fact, conditions around our outfall are essentially normal with respect to dissolved oxygen, water column clarity and ocean bottom sediment enrichment.”

Secondary treatment does remove perhaps 90% of the incoming indicator bacteria. That sounds like a lot, but it isn't. That "90% reduction" reduces the indicator bacteria from several tens of millions per 100 cc to ones of millions per 100 cc. Removals of pathogenic bacteria have been characterized in some limited research work around the country, but I wouldn't rely on any of that for picking secondary treatment as a pathogen reduction technology. In other words, secondary treatment simply provides no reliable or significant disinfection or risk reduction from a sanitary engineering perspective.”

The OCSD and Goleta Sanitation District (GSD) believe that requiring their residents to pay higher sewer service charges would not be fair, when the benefits of upgrading to

secondary would be minimal. They believe that the funding required to upgrade treatment facilities would be better spent on other “more harmful” areas of concern on water quality, such as the Santa Barbara Slough.

GSD has specifically stated that there has been little public involvement in the area of Goleta. And that if the public would like the Goleta Sanitation District to end the waiver then they need to attend BOD meeting and public forums.

A further justification is that monitoring requirements at facilities operating under 301(h) waivers are more stringent than facilities that have been operating according to Clean Water Act requirements. Those agencies with waivers, such as Morro Bay, Ca, GSD and OCSD, believe that they in fact are doing a better job at protecting the environment because of their more frequent water monitoring along the shoreline as well as at the pipe outfall. They believe that removing the 301 (h) waiver would be less effective in protecting human health because less frequent monitoring would occur, thus less beach postings and advisories would be required.

In Puerto Rico it appears the waivers are justified based on the inability for the Commonwealth to afford the upgrade and federal priorities for funding Commonwealth issues.

Here is a synopsis from a Surfrider Foundation activist in Puerto Rico,

“In a public hearing I attended here when Jeanne Fox was regional director, she stated that immediate upgrading of the Puerto Rican regional WWTP's seeking waivers would not be possible without considerable federal funding and that she believed the federal funding provided to Puerto Rico could be put to better use elsewhere.

Ms. Fox and Governor Rossello signed a memorandum of agreement that set out a timetable for implementation of secondary treatment over a twenty-year period. The first target dates have of course passed with no action taken by either the federal government or the PR government to implement it.

In Puerto Rico, it could be argued that the federal government is granting waivers to avoid placing themselves in a position where they would almost certainly have to grant funding for construction of improved facilities. Puerto Rico is simply not in a position today to pay for the upgrade to the plants. They have borrowed heavily to build the urban train and the new coliseum complex (both very visible to the public) as the federal government allowed them to ignore more critical infrastructure problems. Why? Because few people ever see the damage being done beneath the coastal waters.

The reefs around the island are already dying or dead. When hurricanes hit, they crumble. This is not true of Puerto Rican islands such as Mona and Desecheo that are far enough out to escape the sewage flows from the main island. They are still beautiful places with apparently healthy sea life. The difference is shocking for anyone who

bothers to look. I have yet to find someone among the higher ups at the local EPA office to take me up on my offer to show them. It seems none of them scuba or snorkel.”

Ana Navarro, Water Quality Specialist, explained another justification University of Puerto Rico Sea Grant College Program,

“The principal reason for the waiver application in PR is money. They (EPA) argued that the updating of the six treatment plants to a secondary facilities will be very expensive. The other reason that they used is that 50% of the population has septic tanks and therefore their contribution to pollution (non-point source) is greater than the WWTP. We only have 6 primary treatment plants and 69 secondary plants, so it will be more realistic if you convert the 6 plants to a secondary plants and eliminate the problem. They waste a lot of money trying to comply the 301(h) waiver and the pollution continues. This money could be used to update the primary plants.”

“On other hand, the new treatment plants in construction and the improvements of the old plants are being completed to connect new development projects and not to connect the 50% of the population with septic tanks.”

In conclusion, Surfrider Foundation believes that we should live up to the intent of the Clean Water Act. In 1972, prior to the creation of the 301(h) waiver program, Congress passed the Federal Water Pollution Control Act Amendments, which required WWTP’s to achieve secondary treatment capability **by 1977**. As mentioned below, independent monitoring may not be an acceptable means of determining impact on the environment and WWTP effluent may be reaching the nearshore and impacting the health and safety of recreational ocean users.

The attached satellite image (Attachment 1, Plume from Waste Water Treatment Plant Aguada, Puerto Rico), taken March 26, 1999, illustrates the fact that the sewage plume for the WWTP in Aguada, Puerto Rico is reaching the surface; a clear violation of the 301(h) criteria. This WWTP has a 301(h) waiver. This attached image is from the NOAA Biogeography website:

<http://biogeo.nos.noaa.gov/cgi/aerial/viewer.cgi?key=785®ion=usvi>

Question 2: Is self monitoring acceptable?

Response: Our answer is no. Our experience with the Orange County Sanitation District (OCS D) issue in California has taught us that self monitoring is not acceptable. Due to the beach closures at Huntington Beach during the summer of 1999, almost five million dollars has been spent on independent monitoring in an effort to determine if the sewage plume from the treatment plant is causing the beach closures. While the answer is not yet certain, we have discovered some major discrepancies between the OCS D reporting and the findings of the scientists. For example, the OCS D monitoring reports claimed that their plume never got closer than 3.5 miles from the beach. Independent studies have demonstrated that the plume migrates within 0.5 miles of the beach and may get closer on

certain conditions. For these reasons, we feel that independent monitoring of all waste water treatment plants is mandatory.

Recommendation: Require independent monitoring as a requirement for sewage waiver discharge permits.

REFORM THE CORPS LEGISLATION:

Recommendation: Support legislation such as H. R. 1310 to reform the Corps of Engineers to better serve all coastal interests.

Protect Special Ocean and Coastal Places- Marine Protected Areas:

Recommendation 1: Congress should pass and the President should sign into law new legislation to establish a national system of fully protected marine reserves that protect, within biologically sound, viable borders, the "best places" in America's undersea lands and representative samples of all ecosystem types in each of the nation's marine biogeographic regions. The primary purpose of this system is to protect and recover biodiversity within America's Exclusive Economic Zone.

Question 3: What does Surfrider consider a "fully protected marine reserve"?

Response: Surfrider Foundation's definition of a fully protected marine reserve is a marine protected area that prohibits dredging, hooking, dragging, netting, blasting, drilling, spearing and dumping, has strict water quality protection provisions and is fully accessible to non-extractive vessel traffic and recreational use.

Conclusion: For several hundred years, humans have perceived the world's oceans as a resource to be exploited and as a vast and mysterious dumping ground to absorb our abuse. This paradigm has not served us well. This model has led us to our current difficulties.

For thousands of years before the industrial revolution, civilizations across the millennia have recognized a different paradigm. The ocean, the single defining feature of our planet, was regarded as sacred, habitat, and an elemental force in global life. A remarkable paradigm shift is now occurring. Michael Orbach, Director of Duke University's Marine Lab, asserts that there is a powerful resurgence toward the original ocean ethos. This is a good thing.

The U.S. Commission on Ocean Policy deliberates at an historic one thousand year opportunity to codify this paradigm shift. I strongly urge this Commission to use this paradigm shift as a filter when it writes its recommendations to the President. I urge the Commission to constantly ask the question, is each recommendation from the old paradigm, or from the new? In doing so, this Commission will advance the cause for global ocean health farther than anyone could of foreseen.

I appreciate the opportunity to present Surfrider Foundation's concerns and recommendations for protecting our oceans and beaches, and appreciate your work in this area.

References

Bernd-Cohen, T. and M. Gordon. 1997. State coastal management effectiveness in protecting beaches, dunes, bluffs, rocky shores: A national overview. Silver Spring, MD: NOAA/OCRM. 66 pp. + apps.