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Mr. Charles R. Hoppin, Chair
State Water Resources Control Board
Attn: Jeanine Townsend, Clerk of the Board
By FAX

June 28, 2010
Subj: Comment letter-
Malibu Septic Prohibition

Mr. Hoppin and Board Members

Based on results of current studies, Malibu Township Council does not support the Los Angeles Regional Board's Onsite Wastewater system prohibition in the Malibu Civic Center. Current studies need to be completed and verifiable results obtained to prove if a nexus exists between lagoon water pollution and septic system use – especially residential. No studies to date show this. Attached are copies of test results from the City's April request for reconsideration of the Reg. Water Board's action. Each study described verifies that OWDSs and OWTSs are NOT significant sources of groundwater contamination of water quality in the ocean or Creek. Further test results are expected in the near future.

Water Code 13280 states "A determination that discharge of waste from existing or new individual disposal systems or from community collection and disposal systems which utilize subsurface disposal should not be permitted shall be supported by substantial evidence in the record that discharge of waste from such disposal systems will result in violation of water quality objectives, will impair present or future beneficial uses of water, will cause pollution, nuisance, or contamination, or will unreasonably degrade the quality of any waters of the state." This requirement has not been met - especially for residential use. L.A. Regional Water Technical memos used estimates based on unverified assumptions, conclusions, and extrapolations of data from other areas. Environmental background for their studies was based on 1970-80's data that has been superseded. Counting roofs, assuming a person occupies each bedroom, assuming water use amounts and percent of water entering septic systems, fails to meet code 13280. Many homes house 1 or 2 people – there are second homes unoccupied much of the year. Discharge amounts and flow direction are estimates. There is NO verifiable data that residential systems pollute the ocean or groundwater.

Prohibiting on-site systems unnecessarily limits new technology options for resolving any pollution problem identified. LARWQCB failed to evaluate any other options. Limiting options to the 100+ year old technology of collector sewer systems is costly and irresponsible since geologic conditions in the prohibition area could make a sewer more of a liability than a cure. In addition, adequate area is not available to dispose of the amount of effluent generated by a sewer system serving the entire prohibition area. Roadbeds that already carry potable water mains would also hold the maze of pipes to collect sewage. If these mains, one for water and one for raw sewage should break in the same area, such as in Pacific Coast Hwy., contamination of the community's potable water and loss of raw sewage into the ocean could occur. Sewers rely on electricity, and have a woeful history of failure. The prohibition area, in particular Pacific Coast Hwy., has had numerous incidents of geological instability. Water mains break on a regular basis. Because the proposed system would operate almost wholly by force mains, if there was an electrical outage, sewer service would cease, causing a considerable health hazard. If the community is instead, using individual systems, only the immediate area would be affected by either occurrence.

Using drinking water standards is inappropriate. Malibu's water table has not been a source of potable water for 50 years, and even then had salt water intrusion and so much fluoride that it was not useable drinking quality. There is no distribution system to enable use of that water for emergencies. No source of potable water has been identified in the prohibition area.

The first step is to DOCUMENT with actual test results from current data to factually determine if any systems are malfunctioning and polluting the ocean or groundwater. Attempting to solve a problem without knowing the cause could not only result in NOT solving the problem, but wasting limited funds. There are many potential causes for the pollution. The Creek drains a 109 square mile watershed containing among other things, a sewage treatment plant serving several cities, a great deal of wildlife - especially birds, a large horse farm and many miles of runoff. The causes of the pollution MUST first be determined before deciding how to prevent it.

Reports for the commercial areas focus on 2002-05 showing increased bacteria in waterways. It doesn't acknowledge that during 2007-08, there was a great decline in bacteria counts. This occurred because of the installation of an up-to-date septic system in Malibu Colony Plaza. This demonstrates that using current technology and design of septic systems will decrease bacterial counts.

Causes of high nitrogen nutrients in waterways was not adequately analyzed. Nitrogen pollution in waterways has several sources. The report would have you conclude OWSDs are the only source of this pollution. Nitrogen can occur naturally in the air, soil, animal waste, and plant materials. Nitrogen also comes from watershed, manure, fertilizers, and these causes were not analyzed in the LARWQCB prohibition studies. Watershed and fertilizers play a major role contributing nitrogen to Malibu Creek, the Lagoon and ocean. There is also Z traffic on Malibu Canyon Road to Pacific Coast Hwy., often in gridlock, which contribute atmospheric nitrogen from vehicle exhaust into the Lagoon, Creek and ocean The Chesapeake Bay study shows atmospheric nitrogen is a more important contributor to nitrogen pollution in our waterways than originally thought (R. Howarth Chesapeake Bay study).

When property owners are assessed there needs to be a determination that they will receive value for the service for which they are assessed. Unless it can be proven that residential on-site systems are causing pollution this will not occur. In the meantime, the septic prohibition creates great uncertainty and potential for loss of property value and sales of the properties affected.

Please make decisions based on current fact – not estimates and assumptions. Please do not support LARWQCB prohibition of onsite systems in the Malibu Civic Center.

Thank you for your consideration.

Lucile Keller

Lucile Keller, Secretary

Attachment 1: Pgs. 3,4,5 of City of Malibu Request for Reconsideration to RWQCB April 2010

cc: California Governor Arnold Schwarzenegger
Linda Adams, Secretary, California Environmental Protection Agency

CITY OF MALIBU REQUEST FOR RECONSIDERATION RESO R4-2009-007 APRIL 2010 LARWQCB

SCIENTIFIC EVIDENCE THAT JUSTIFIES THE CITY'S REQUEST

The City's underlying purpose for reconsideration is to have science lead the solution to improved water quality. Resolution No. R4-2009-007 was presented to the Board based on studies and data that have been superseded by more recent and more specific scientific data and analysis.

The environmental background from which the studies were based has changed over the past fifteen years and as a result, those historical studies and data, dating as far back as 1970 and1985,[2] have been superseded by the more complete and specific studies recently conducted. Copies or preliminary summaries of some of the following studies, and others, are submitted with this request and incorporated herein by this reference. Each of these studies supports the conclusion that Civic Center OWDSs and OWTSs are *not* a significant source of groundwater contamination or degradation of water quality in the ocean or the Creek. In other words, disinfection in the OWTSs works and should be considered as a realistic option for protecting water quality.

An independent UCLA study conducted in 2009 determined that human bacteria rarely exist in the area water bodies during dry weather. 95% of samples (58 out of 61) taken during the dry weather study do not show any human bacteria. 85% of samples (11 out of 13) taken during the wet weather do not show any human bacteria. This data strongly supports the conclusion that bacteria from the area's OWDSs and OWTSs are not impacting the bacteria at Malibu Creek and the ocean and that stormwater runoff is a much higher cause of concern. The purpose of the UCLA study is to increase understanding of the dynamics of bacteria in Malibu Lagoon and the adjacent ocean waters by looking at spatial and temporal patterns of bacteria concentrations as well as the sources as they may exist today. During a 2 week study of Malibu Creek and Lagoon in April/May of 2009, there were no detections of human bacteria in the samples. Keep in mind the FIB during this same time reportedly exceeded TMDL standards. Further, data reports for other dates show virtually no human specific bacteria markers exist during dry weather, indicating that OWTSs may have little to no effect on the cause of the bacteria levels in the lagoon. Human specific bacteria markers were found in a few wet weather samples **indicating stormwater is a potential significant source of human bacteria.**[3] Finally, the UCLA study concluded that there is no correlation between Fecal Indicator Bacteria and Human Bacteria Markers.

A USGS study conducted in July 2009 has shown that Fecal Indicator Bacteria (FIB) increased during high tide at three sampled beaches. USGS concluded this is consistent with the washing of FIB from the rack line and beach sands. Levels of FIB during low tide were within acceptable water quality standards. Previous work had shown that FIB, indicative of fecal contamination,

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[2] See e.g. Table 7, Technical Memo No. 3 -Pathogens in Wastewater that are in Hydraulic Connection with Beaches Represent a Source of Impairment for Water Contact Recreation (November 5, 2009); RWQCB Staff Presentation, Proposed Prohibition On-site Wastewater Disposal Systems (Septics) Malibu Civic Center Area, slide 21 (November 5, 2009).

[3] Importantly, the City has constructed a stormwater treatment facility in the Civic Center area that has been online since February 2, 2007, and is well along in construction of its stormwater treatment facility in Legacy Park, which will substantially help to address the pathogens in stormwater.

STATE WATER BOARD MTG LTR 6/28/10 ATTACHMENT 1 Pg. 1

CITY OF MALIBU REQUEST FOR RECONSIDERATION RESO R4-2009-00 LARWQCB APRIL 2010

are present in Malibu Lagoon and at ocean beaches near Malibu, at concentrations that exceed recreational water-quality standards.

The source, or combination of sources, of fecal material to the lagoon and near-shore ocean water is not precisely known but may include: (1) natural sources either directly deposited by birds and other wildlife, or indirectly mobilized as tides and wave wash beach sands and material accumulated at the high-tide line (rack line) along the beach; (2) surface flow into the Malibu Lagoon; and/or (3) groundwater containing residential or commercial treated effluent. FIB present in the lagoon could be a source of contamination to the near-shore ocean by surface flow from the lagoon to the ocean or by groundwater flow from the lagoon through the berm separating the lagoon from the ocean. Data collected during the sampling period included: (1) groundwater-level data; (2) Radon-222 (222Rn) data and direct-current (DC) resistivity data to estimate groundwater discharge to Malibu Lagoon and the near-shore ocean; (3) fecal indicator bacteria concentrations in groundwater, Malibu Lagoon, and near-shore ocean water; and (4) bacterial source tracking data including genetic, molecular, and chemical data. FIB were present at only low concentrations, in 10 of 11 sampled water-table wells. In contrast, high concentrations of FIB were present in Malibu Lagoon. Given the general absence of FIB in groundwater, measured rates of groundwater discharge to the lagoon, and other hydrologic conditions at the time of sample collection, **groundwater discharge was not a likely source of FIB to the lagoon.** Enterococcus concentrations in excess of the U.S. EPA single sample standard for recreational water (104 MPN per 100 ml) in near-shore ocean water near the lagoon berm were related to movement of water through the berm at the mouth of the lagoon during low tide. FIB concentrations in near-shore ocean water at three sampled beaches were higher at high tide and are more consistent with FIB associated with wave run-up washing fecal material from beach sands and the rack line at high tide, than with discharge of groundwater contaminated with septic wastewater which would be expected to be greater at low tide. Enterococcus concentrations occasionally exceeded the U.S. EPA single sample standard for recreational water at the three beaches during the sample period.

Stone Environmental conducted a study of groundwater impacts that demonstrated that the groundwater levels in the Civic Center are neither increasing nor decreasing. Groundwater levels are determined by seasonal rainfall and tidal influences. Stone Environmental conducted a civic center wide mounding study, the purpose of which is to determine the influence of wastewater dispersal on groundwater and other OWTSs within the Civic Center Area. **This study was required by the RWQCB at a cost to the City of $350k.** The study is nearing completion and the final report is expected by Summer of 2010. Any prohibition without due consideration of this study would certainly be premature and a waste of limited taxpayer funds. Why rush to judgment on a basin plan amendment and a multimillion dollar wastewater treatment facility, when many of the impacts from the existing and future systems are unknown?

ADDITIONAL JUSTIFICATIONS FOR THE CITY'S REQUESTS

There are two additional studies underway which will shed light on how to address effectively the water quality issues in the area.

1. Southern California Coastal Water Research Project (SCWRRP) - Malibu Source ID Study/Ramirez and Escondido Creeks

STATE WATER BOARD MTG LTR 6/28/10 ATTACHMENT 1 PG. 2

CITY OF MALIBU REQUEST FOR RECONSIDERATION RESO 04-2009-00 APRIL 2010 LARWQCB

The Los Angeles County Board of Supervisors allocated funding ($1 million) for bacterial source assessments to be conducted in Escondido Canyon Creek (ECC) and Ramirez Canyon Creek (RCC). The goal of this project is to use Ramirez and Escondido Canyons as prototypes to develop bacteria source identification protocols, and while doing so, identify the primary bacterial sources in these two watershed systems. This project is headed into its fourth year of analysis and creek testing. The two key findings from this first phase were that 1) the high bacterial counts observed at the beach during the summers of 2004-2006 were no longer prevalent; and 2) the few beach exceedances observed did not appear to result from the watershed, which generally had low bacterial concentrations. This study appears to be in concert with the findings from the USGS study and UCLA study on Malibu Creek.

2. SCCWRP – Epidemiology Study/Surfrider Beach

Over the next three years, epidemiology studies will be conducted in Southern California at three study sites: Doheny (Dana Point), Avalon (Catalina Island), and Surfrider (Malibu) beaches, which cover a spectrum of contamination sources. SCCWRP is undertaking epidemiology studies for two reasons: (1) EPA's national criteria for beach water quality were based on studies conducted at beaches with known wastewater sources reaching the beach and studies were needed to assess whether their findings were applicable to beaches with nonpoint source inputs, which is the predominant beach type in California; and (2) several organizations, including SCCWRP were developing improved approaches based on molecular methods for measuring beach water quality, including measurement of organisms such as viruses, phages, and anaerobic bacteria, but there is a need to establish health risk relationships for these methods before they can be used for public health protection. Sampling and surveys have been completed and analysis is underway. The City expects a draft report in 2010 and final report in early 2011.

The current science demonstrates that there is not a rational relationship between the proposed prohibition and the goal of improved water quality in Malibu Creek and Lagoon, which are impaired for nutrients and bacteria. The forthcoming SCCWRP studies will assist in source identification, which in turn will reveal an effective course of action.

The prohibition is calculated to force a centralized wastewater treatment system for the Civic Center and surrounding area. However, the prohibition is not rational given that the City's proposed centralized wastewater system utilizes the same technology that is used currently in other advanced systems in the Civic Center. As currently configured, the prohibition prohibits OWTSs until the Civic Center property owners construct a larger OWTS; however, the size of the OWTS has no effect on its performance and the treatment technology in the smaller systems is sufficient to meet the Board's goals.

The prohibition boundaries are not based upon impaired water. The boundaries include areas along Malibu Road, the Colony, the Knolls, and other areas that drain into the Winter Canyon groundwater regime and not to Malibu Creek. The Winter Canyon area along the coast has not been tested for water quality by the RWQCB. Preliminary results from the USGS study indicate that this entire region will easily meet water quality standards for bacteria.

The prohibition does not account for the fact that many property owners have converted to OWTSs (with disinfection) since the studies from the 1980s and 90s were conducted. A preliminary review shows that in the prohibition area more than fifty OWTSs have been installed

STATE WATER BOARD MTC LTR 6/28/10 ATTACHMENT 1 PG. 3