



CITY OF ORANGE

Public Comment
Bacterial Stds - REC-1 Waters
Deadline: 11/5/08 by 12 noon

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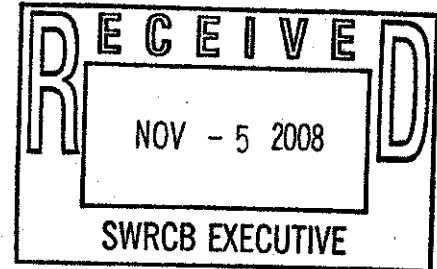
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NOV 04 2008

Ms. Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street 24th Floor
Sacramento, CA 95814

Subject: Bacterial Standards for REC-1 Waters

Dear Ms. Townsend:



The City of Orange (City) appreciates the opportunity to provide comments on those items the City believes need to be included in the environmental analysis for the proposed statewide fresh water REC-1 bacterial objectives. The City recognizes the importance of updating existing bacterial standards to reflect current standards and conditions.

For five years the City has been a part of the Stormwater Quality Standards Task Force (Task Force) in the Santa Ana River watershed working alongside a number of stakeholders that include municipalities, the Santa Ana Regional Water Quality Control Board, environmental organizations and other interested parties to adopt appropriate bacterial objectives for REC-1 water bodies. As such, the City fully supports the comments submitted by the Task Force and would like to reiterate that any statewide policy should include provisions that allow local efforts to determine its own objectives based on local conditions.

The City has a great interest in the selection and use of the bacterial objectives to ensure that any water quality objectives adopted are scientifically based and reflect the latest knowledge. These objectives will also be the basis for compliance with existing and new TMDLs that may directly affect municipal storm water discharges.

In addition to the Task Force comments, other items the City feels should be analyzed within the CEQA documents for the bacterial objectives include: the definition of REC-1, physical characteristics of REC-1 water bodies and appropriate selection of risk levels. These items are fully discussed in the following Attachment.

Sincerely,

Joe DeFrancesco,
Deputy Public Works Director/Field Operations

Attachment: Comments on Fresh Water Bacterial Objectives

cc: Gail Farber, Public Works Director

ATTACHMENT

Comments on Fresh Water Contact REC-1 Bacterial Objectives

Definition of REC-1

The City believes adoption of the proposed bacterial objectives is incomplete without defining REC-1.

EPA's studies carried out in the 40's and 50's and later in the late 70's applied to swimming in sewage and sewage treated waters. Swimming was defined as "having all upper body orifices fully immersed." In those studies, swimming was the only activity evaluated. However, the definition REC-1 in existing Basin Plans contain a number of other activities besides swimming such as wading, water skiing and other activities that were never included in EPA's studies. An analysis of the activities to be included in REC-1 should be supported by appropriate studies that support their use and evaluated in the environmental analysis of the bacterial objectives.

Physical Channel Characteristics

The definition of REC-1 needs to include the type of water bodies that it applies to along with a seasonal component when the bacterial objectives apply. When California Basin Plans were developed in the early 70's, there was no consideration of the type of water bodies that should be designated REC-1 and by default all water bodies were assumed to be REC-1 and meet bacterial objectives for those waters:

However, there are a number of water bodies (particularly flood control channels) that should not be designated REC-1 because they do not support recreational water uses during the dry season: when there is only nuisance flow (1 - 2" in most urban channels); and during storm events when they pose extreme danger because of high flow conditions. The environmental analysis should include a safety analysis if the bacterial objectives are to be met year round. The City recommends adding a seasonal component where bacterial objectives are suspended during high flow conditions.

Risk Level - 8-10 illness/1000 appropriate

EPA's risk illness levels were developed based on studies conducted in the 40's and 50's where gastrointestinal illnesses were observed when coliform counts reached 2300. Based on the studies carried out in the late 70's, it was shown that fecal coliform had no relation to the illnesses observed and fecal coliform was replaced by Ecoli for fresh water and Enterococci for marine water.

ATTACHMENT

The fresh water studies conducted in the 70's showed high variation for highly credible illnesses between swimmers and nonswimmers for the indicators studied. In particular, there were 2 points that skewed the best fit line on which the risk limits were set for Ecoli and Enterococci. The two points are shown in Table 3 of EPA's 1986 Ambient Water Quality Criteria for Bacteria. Omitting these two outliers provides significantly higher risk illness levels for EPA's Ecoli adopted geometric mean of 126. The environmental analysis should include a discussion of the data used to support the proposed risk levels and an economic analysis justifying their use.