



20 January 2005

via email: 5 pgs.

**TO: Members of the Stormwater Quality Standards Review Task Force**  
**FROM: Tim Moore**  
**RE: Final Summary of Phase 1**

### Consensus Conclusions

- 1) REC-1 uses are generally not attainable in most of the valley rivers, creeks, streams, washes and flood control channels in the Santa Ana watershed during high storm flow conditions that result in unsafe physical conditions. This finding does not generally apply to ocean beaches or freshwater lakes.
- 2) In some instances, the current beneficial use categories specified in the Santa Ana Region Basin Plan do not adequately describe the range of potential recreational activities likely to occur in or on the water. In particular, the REC-1 beneficial use should be subdivided into two subcategories: Unlimited REC-1 to protect primary contact recreation and Limited REC-1 to protect secondary contact recreation.
- 3) Key factors to be considered when differentiating between "Unlimited" REC-1 uses and "Limited REC-1" uses should include all of the following:
  - a) The actual recreational activities that have occurred in the stream segment since November of 1975, including the type of water contact, number of people and frequency of recurrence (per 40 CFR 131.10i). Where full body contact and/or immersion is occurring or likely to occur, especially by children, the segment should be designated REC-1. Where the probability of full body contact or immersion is very low now and in the foreseeable future, the waterbody should be designated Limited REC-1. In general, fishing activities would be considered Limited REC-1 where only incidental water contact is expected to occur.
  - b) Hydrologic modifications and related changes in physical conditions, such as concrete channel lining, fencing, and steep side-slopes, that may restrict safe access to the waterbody (per 40 CFR 131.10[g]4).

- c) Low or intermittent baseflow conditions that may inhibit body contact recreational activities (per 40 CFR 131.10[g]2
  - d) Human-caused sources of pollution that cannot be remedied without causing more environmental damage to correct than to leave in place; specifically, where the only means of assuring consistent compliance (after implementing reasonable BMPs, is to intercept and divert flows thereby dehydrating the stream (per 40 CFR 131.10[g]3
  - e) Naturally occurring concentrations of pollutants (e.g. such as those from non-human animal sources), preclude attainment of the applicable water quality standard even after implementing all reasonable Best Management Practices. ((per 40 CFR 131.10[g]1
- 4) In some instances, the factors identified above may occur in such a way or in such combinations so as to preclude recreational uses entirely. Although infrequent, such cases may merit a full Use Attainability Analysis to affirm or revise the designated beneficial uses.

### **Recommendations**

- 1) Revise the description of the Santa Ana River (beginning on page 1-6) in the current Basin Plan to include a discussion of the Recreational Uses that have occurred or are occurring in the watershed (see suggested text attached as Appendix A)
- 2) Amend Chapter 3 of the Basin Plan to add "Limited Water Contact Recreation (LREC1)" as a subcategory of the REC1 beneficial use. The definition of LREC1 should be:
 

*"Limited Water Contact Recreation waters support only incidental body contact activities with an extremely low risk of immersion or ingestion. Naturally low flow conditions and/or hydrological modifications severely restrict the potential for human recreational activities to occur in or on the water in segments designated Limited-REC1."*
- 3) Identify all of the small streams, creeks, washes and stormwater channels in the watershed using state-of-the-art GIS mapping techniques. Designate beneficial uses for each reach, segmenting as necessary to facilitate consistent and accurate application of the relevant classifications..

- 4) Revise Table 3-1 in the Basin Plan to indicate that the REC1 (and LREC1, if adopted) beneficial use may be suspended when extreme high flow conditions preclude safe access to the water. Unsafe flow conditions occur during and for a short while after storm events and are defined as volumes and velocities sufficient to create a substantial risk of injury or drowning. Unsafe conditions may also occur in the mountain reaches when summer thunderstorms increase the risk of flash floods. In general, "extreme high flow conditions" occur at or above the 98<sup>th</sup>-percentile on the site-specific hydrograph for each stream segment.
- 5) Reaffirm that all of the following waterbodies as examples of full-time, unlimited REC1:
  - a) All ocean beaches
  - b) Big Bear Lake and Lake Elsinore
- 6) Designate all of the following as examples of Suspendable REC1 (unlimited):
  - a) Reach 2 of the Santa Ana River mainstem (Prado Dam to 17<sup>th</sup> St.)
  - b) Reach 1 of Chino Creek (approx, Prado Dam to Central Ave)
  - c) Mill Creek below Helman Ave. (unlined section in Prado wetlands)
- 7) Designate all of the following as examples of Suspendable, Limited REC1:
  - a) Reach 1 of the Santa Ana River mainstem (Ocean to 17<sup>th</sup> St.)
  - b) Reach 5 of the Santa Ana River mainstem (I-10 to 7 Oaks Dam)
- 8) Perform a UAA to consider deleting REC1 designations from all of the following:
  - a) Temescal Creek from Magnolia Ave to Rincon Rd.
  - b) Greenville Channel
- 9) Develop and apply appropriate water quality objectives to protect each of the designated recreational uses (including the various subcategories) per 40 CFR 131.11[a]. Continue to ensure that downstream uses will remain fully protected (per 40 CFR 131.10[b]).
- 10) Economic impacts should be considered at the time water quality objectives are being developed for each of the recreational use subcategories (per CWC Sec. 13241 and 40 CFR 131.10[g]6).
- 11) Establish a formal review process Identify other examples similar to those described in consensus items #5, #6, #7 & #8 (above). Designate the waterbodies accordingly. Perform UAA where necessary as required by 40 CFR 131.10[j]..

## **Revised Appendix A:**

*(insert in Chapter 1, Introduction, after subsection entitled "Aquatic Environment in the Santa Ana River" and before section entitled "Water Supply and Wastewater Reclamation")*

### **Water Recreation in the Santa Ana River Watershed**

A wide range of recreational activities occurs in the Santa Ana River watershed. The nearby beaches of the Pacific Ocean are world renowned for the swimming, surfing, fishing and boating opportunities available. Many of the inland lakes in the area also serve as recreation destinations for millions of California residents and other out-of-state visitors.

The level of recreational activity varies greatly with the conditions at any given location. Ocean beaches and freshwater lakes offer perennial recreational opportunities even during severe drought conditions. In addition, discharges of large quantities of reclaimed water have made previously ephemeral segments of the Santa Ana River flow perennially, making them more attractive and inviting for those seeking fun and relaxation. In the warm summer months, it is not unusual to observe adults and children lie fully submerged in the middle segments of the Santa Ana River's main channel.

Many of the major and minor tributaries to the Santa Ana River remain largely ephemeral with little or no flow except during and after storm events. Recreational opportunities in these streams are severely limited by the lack of sufficient flow during the times people are most likely to engage in water contact activities.

In addition, many of the natural creeks and streams were heavily modified as part of on-going efforts to manage stormwater flows. In some cases, the channels have been armored with concrete, steel piles, rock rip-rap or other material. Such flood control modifications serve to protect property and infrastructure in urban areas but, at the same time, also tend to reduce or restrict public access to the modified channels. In most cases, the modifications are sufficient to limit recreational opportunities and, in some instances, recreation may be precluded entirely.

Even easily accessible river reaches that support recreational uses under normal flow conditions may not be suitable for such uses when stormwater runoff causes the creeks to rise. Greater volume and higher velocities often make it very dangerous to be in or near the water when it rains. Nevertheless, when the weather permits, these same stream segments pose no significant threat to swimmers and waders recreating in the water.

Finally, fishing is a common recreational activity and is especially so in the lakes and mountain streams within the watershed. However, fishing rarely occurs in most of the smaller valley tributaries due to shallow, naturally ephemeral, flows. Generally, fishing rarely results in more than incidental water contact for shoreline anglers.

There is a growing trend, particularly in Orange County, to intercept and divert dry weather nuisance flows that are the by-product of runoff from landscape irrigation, residential car-washing, etc. Such flows have been found to be relatively high in pathogen concentrations and are therefore diverted to wastewater plants for treatment rather than allowed to discharge into the Santa Ana river, its tributaries, or the nearby ocean beaches. This management strategy for urban runoff has the advantage of protecting downstream waters such as the ocean beaches where recreation is likely. But, it may also limit recreational activities and other uses, such as wildlife habitat, in the immediate receiving waters. The Board evaluates potential conflicts between beneficial uses on a case-by-case basis.