Stormwater Quality Standards Task Force Subcommittee
Recreational Beneficial Use Strawman
June 23, 2003

Potential Beneficial Use Definitions

1. "***Water contact recreation (REC-1)***" would be defined as any water body where conditions reasonably allow recreational or other water use in which there is **routine, prolonged and intimate contact** with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant acute health hazard and where wildlife sources of pathogens do not render the usage unsafe. REC-1 uses would include **swimming, water-skiing, skin and scuba diving, surfing, whitewater activities, and uses of natural hot springs** (but NOT wading and fishing).

   Water contact recreation (REC-1) uses would apply only when and where conditions reasonably allow recreational use. For example, REC-1 uses would not apply when high flows render water contact recreation unsafe (e.g., this could be determined based upon a rainfall amount or a flow depth or velocity) or when there is insufficient water in the channel to allow immersion (e.g., water depth less than 3' or some other suitable number). REC-1 uses also would not apply when access to a water body is prohibited by the governing agency and when appropriate efforts are made to restrict or eliminate public access to the water body (e.g., by fencing, gates, and/or signage). Careful consideration of certain activities (e.g., wading by children) may be required to determine appropriate beneficial use categories.

   The objectives applied to REC-1 uses should reflect the level of use (e.g., ranging from designated beach area to infrequently used body contact recreation area). US EPA (1986) bacteria criteria could be considered for use, and could incorporate different sampling frequencies and criteria depending upon level of use. Note that EPA's criteria were developed based upon a strict definition of swimming activity – "having all upper body orifices exposed to the water" – and primarily involved interviews with people with wet hair. REC-1 objectives should be risk (health) based.

   Note that in light of recent research, exceedances based upon single samples may not be appropriate. One way to address exceedances (caused either by single sample results or by persistent, elevated background concentrations) would be to conduct an analysis of the cost of achieving differing standards under different conditions, and defining an appropriate frequency of excursion. (In other words, to ***use cost or feasibility concerns to address the frequency, magnitude, and duration aspects of establishing water quality objectives.***)

2. "***Limited-contact recreation (REC-2)***" would be defined as any recreational or other water use in which contact with the water is either incidental or accidental and in which the probability of ingesting appreciable quantities of water is minimal, such as **commercial and recreational boating, and any limited contact incident to shoreline activity, such as wading, fishing, and tidepool and marine life study**.

   REC-2 uses would NOT apply when access to a water body is prohibited by the governing agency and when appropriate efforts are made to restrict or eliminate public access to the water body (e.g., by fencing, gates, and/or signage). In addition, REC-2 uses are intended to apply to the possibility of incidental ingestion of water and are not intended to regulate fish consumption.

   A variety of water quality objectives are applied in other states for non-contact recreation, and are generally taken from EPA (1986). Note that several states have REC-2 objectives less stringent than EPA's 1986 recommendations, and these may be more appropriate. As with REC-1, the ***allowable frequency of excursion*** could be defined based upon cost or feasibility considerations.

3. "***Non-contact recreation (REC-3)***" would be defined as any recreational or other water use involving proximity of water but in which **contact with the water is unlikely to occur** and where fishing occurs only infrequently, if at all. REC-3 activities would include, but are not limited to, **picnicking, sunbathing, hiking, ~~beachcombing~~, camping, ~~pleasure boating~~, hunting on land, and sightseeing**.

   REC-3 uses would apply to water bodies otherwise designated for REC-1 and/or REC-2 during high and low flow exclusion time periods. REC-3 uses would apply when access to a water body could occur only infrequently, if at all, and where fishing activities are highly unlikely to occur. Covered or enclosed stormwater conveyances would be given a REC-3 designation, as would water bodies where fish aren't present (e.g., limited access channels with flow only in response to storm events). In addition, many water bodies where access is prohibited and where appropriate efforts are made to restrict or eliminate public access would be designated REC-3.

   Waters with REC-3 designations would likely trigger no bacteria objectives. We note that downstream waters would still have to be protected. Note that CTR human health criteria would not apply to REC-3 waters because there is minimal, or no, fishing activity in these waters. Any water quality objectives would likely be based upon aesthetics or other criteria. A REC-3 category would also help avoid non-sensical tributary rule considerations.

Issues and Considerations

1. **Information submitted by: Mark Adelson, Calif. Regional Water Quality Control Board, Santa Ana Region**

   Defining "water contact recreation": ***If we didn't have a Basin Plan, how would we go about defining "water contact recreation?"***

   Includes an expectation on the part of the user of no, or acceptably low, level of risk of infection if exposed to the water, such as not more than 19 additional illnesse/1000 exposed users

   Takes place in waters that comply with, and that are protected by, a pathogen indicator density that is analogous to the acceptable risk rate if additional illnesses

   It includes full (or nearly full) immersion or similar levels of contact (e.g., splashing) implying waters of a depth suitable for immersion; equates to a high likelihood of ingestion and exposure of mucous membranes, ears & other orifices, and wounds to water

   Includes full immersion activities such as swimming, surfing, water skiing, use of personal water craft, snorkeling, SCUBA diving, etc.

   Includes activities such as boating, wading, fishing, tide pool exploration, etc., and may include hiking, bike riding, off-road vehicle riding, etc., when partial immersion, incidental splashing and ingestion is probable.

   Includes taking of fin fish or shell fish for human consumption

   Takes place in waters that are accessible to the public… Improperly designed or inadequately maintained exclusion systems may allow public access for full or partial immersion

   Takes place in waters not posted with public health advisories against entrance

   Takes place in waters were exclusionary signs are posted, but barriers to access or other enforcement are lacking