

Appendix K

Load Reduction Analyses

For determination of the required load reductions to meet wasteload allocations for fecal coliform (FC), total coliform (TC), and *Enterococcus* (ENT), loading analyses were performed for the subwatershed draining to each impaired San Diego Bay (SDB) and Dana Point Harbor (DPH) shoreline segment (see Appendix J for subwatershed maps). These analyses provided a comprehensive assessment of varying storm loads over a 30-day period from January 7, 1993 through February 5, 1993, which represented various critical wet-weather events that impact the loading of bacteria from stormwater runoff.

An LSPC model was used to simulate storm volumes and associated bacteria loads over the 30-day period. Loading capacities for each day were calculated based on separate EFDC models of shoreline receiving waters. Determination of required load reductions assumed that all loads below the load-capacity curve (blue) are allowable and are therefore assigned wasteload allocations. All loads above the load-capacity curve (red) are not allowed and are therefore designated as required load reductions. The percent reduction is calculated by dividing the required load reduction (red) by the total load below the load-capacity curve.

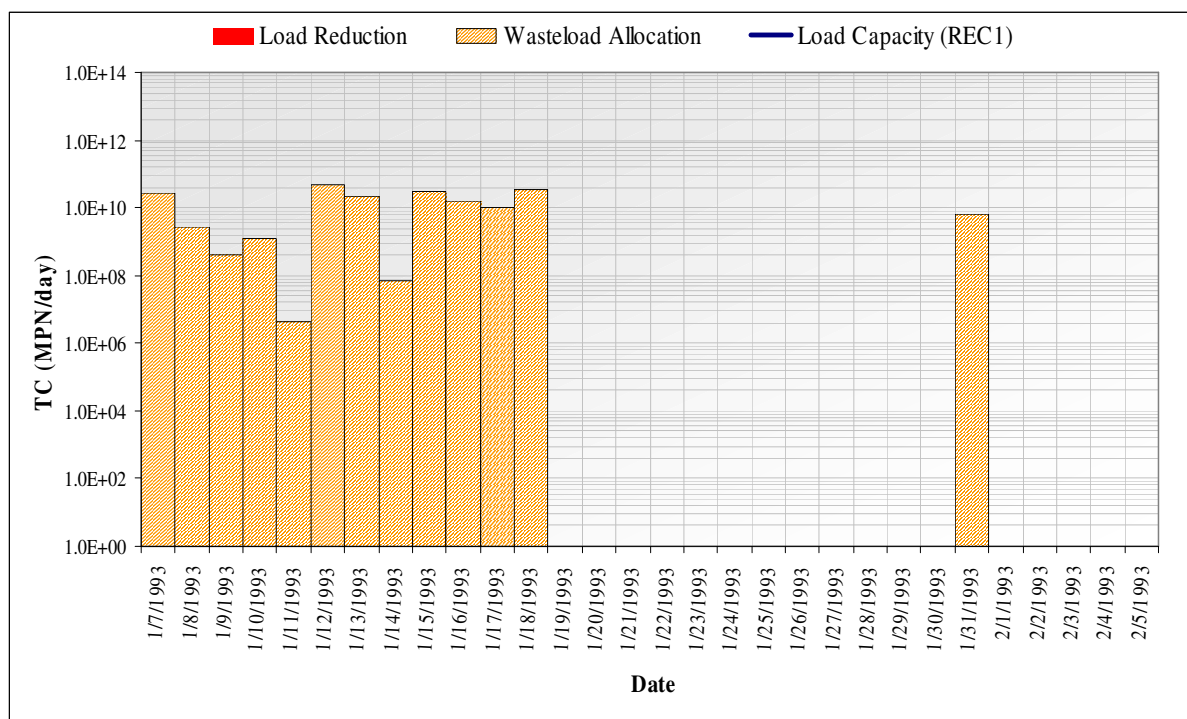


Figure K-1. Load Reduction Analysis at Shelter Island Shoreline Park-TC (REC1) (Subwatershed 2201).

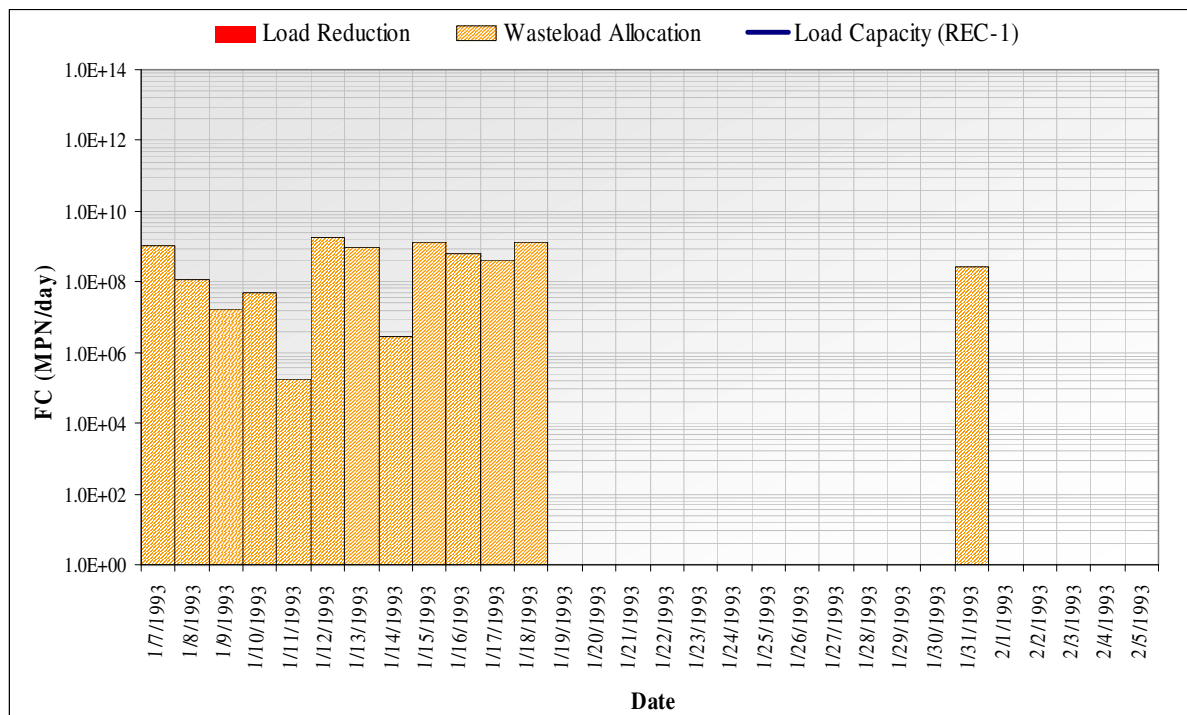


Figure K-2. Load Reduction Analysis at Shelter Island Shoreline Park-FC (REC1) (Subwatershed 2201).

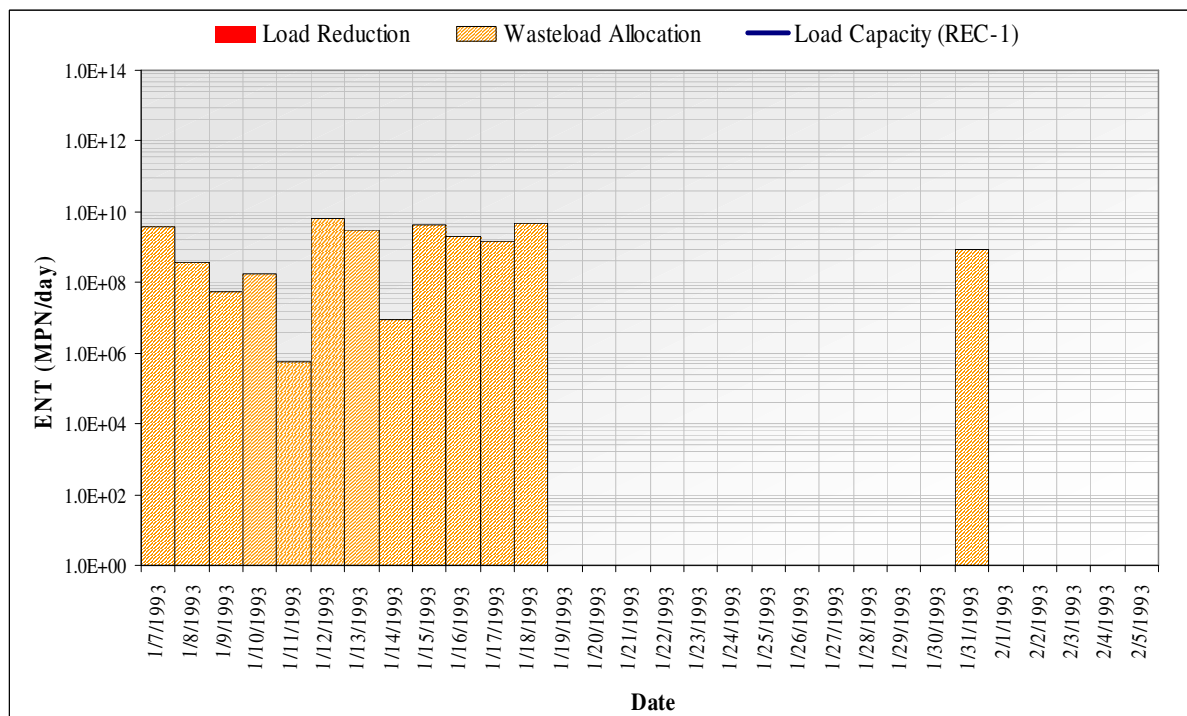


Figure K-3. Load Reduction Analysis at Shelter Island Shoreline Park-ENT (REC1) (Subwatershed 2201).

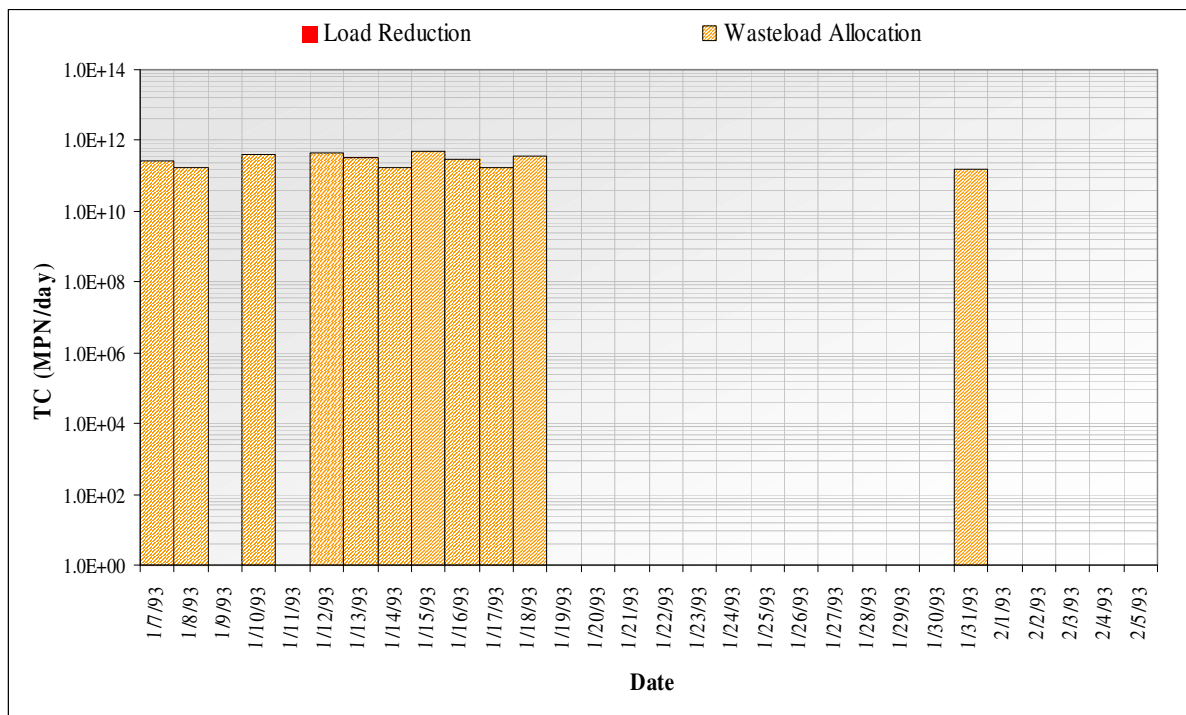


Figure K-4. Load Reduction Analysis at Baby Beach Shoreline-TC (REC1) (Subwatersheds 2101-2104).

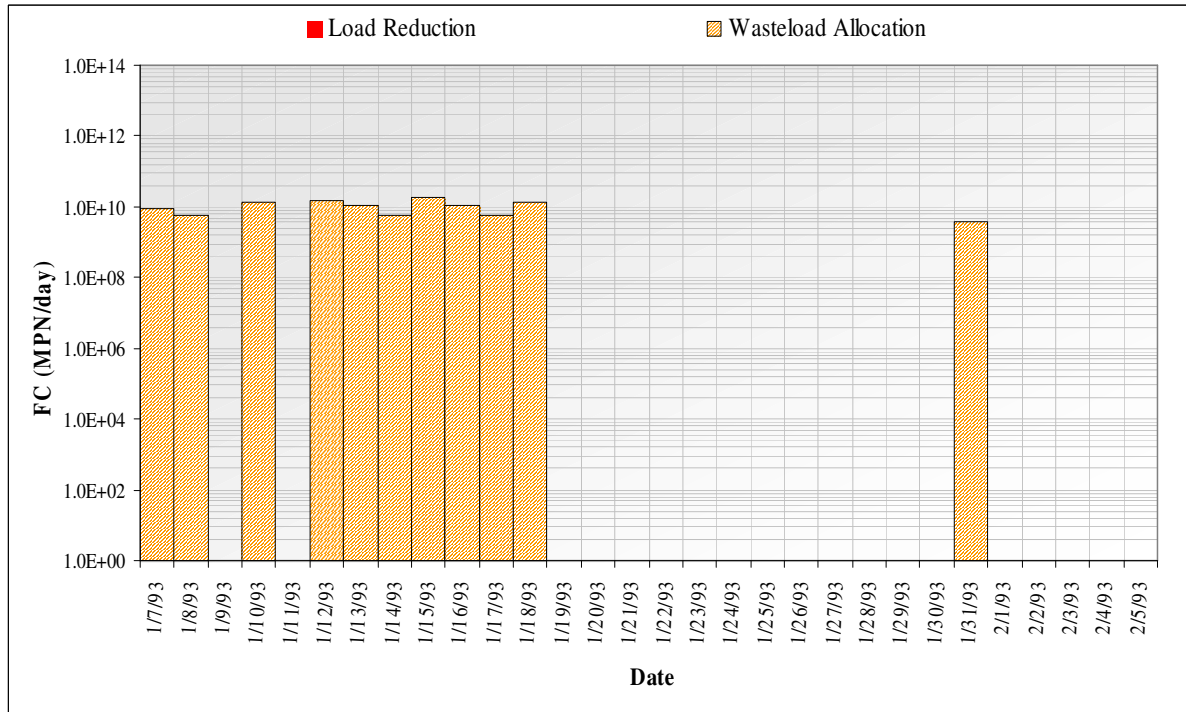


Figure K-5. Load Reduction Analysis at Baby Beach Shoreline-FC (REC1) (Subwatersheds 2101-2104)

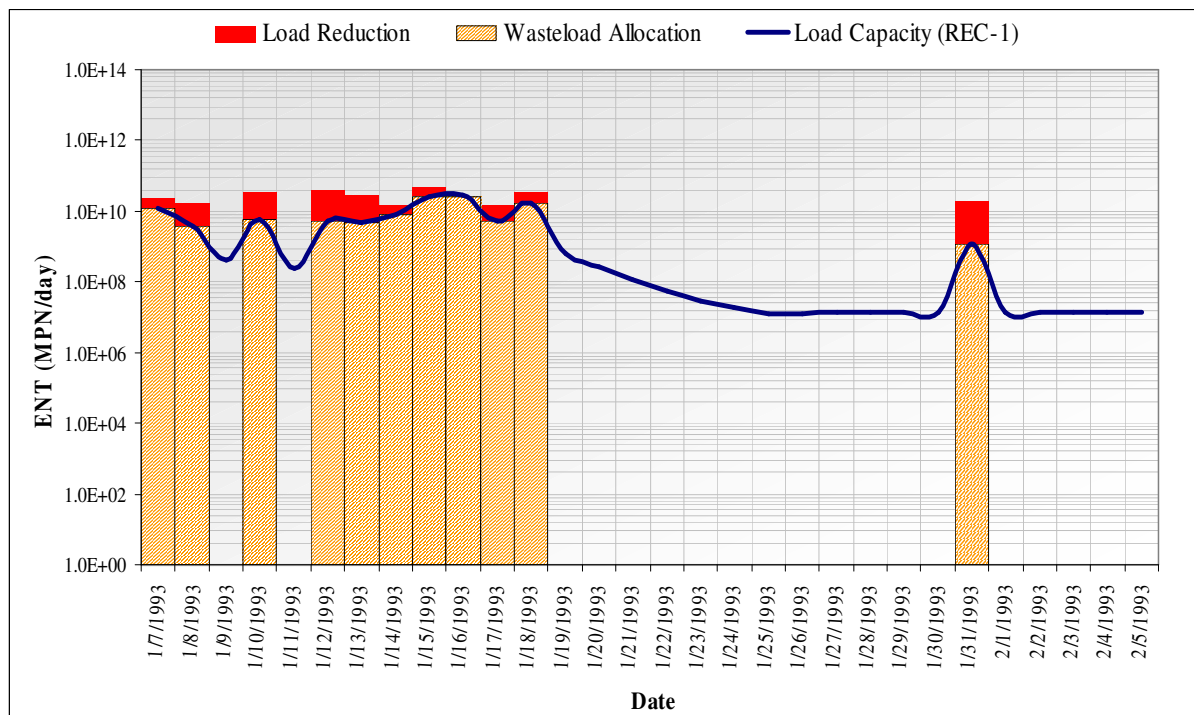


Figure K-6. Load Reduction Analysis at Baby Beach Shoreline-ENT (REC1) (Subwatersheds 2101-2104).