



Memorandum

DATE: October 24, 2017
TO: Khalid Bazmi, County Engineer/Assistant Director
FROM: Amanda Carr, Deputy Director, OC Environmental Resources *ALARR*
SUBJECT: Santa Ana River Water Quality Considerations

Encampments along the Santa Ana River and other flood control channels throughout the County have the potential to generate pollutants that may cause or contribute to exceedences of water quality objectives. If exceedences occur, state and federal regulators may seek to enforce remediation activities and or penalties through the National Pollutant Discharge Elimination System (NPDES) permits issued by the Santa Ana and San Diego Regional Water Quality Control Boards (Water Boards).

The primary pollutants of concern are trash and debris, and bacteria from human waste. The primary condition of concern, particularly for the area of the Santa Ana River from Ball Road to Chapman Avenue, is storm conditions. During dry weather, limited to no flow extends south of Ball Road or north of Garfield Avenue. During storm flow conditions however, creeks and channels throughout the County experience high flow discharges that mobilize pollutants, including trash and bacteria. Storm flows from the Santa Ana River impact the ocean at Newport Beach and Huntington Beach.

The State Water Resources Control Board has recently adopted statewide Trash Provisions that establish a water quality objective for trash and a prohibition of trash discharge, or deposition where it may be discharged, to surface waters of the state. Both Water Boards have issued orders to the County and its 34 cities to take certain initial implementing steps, and which indicate that the Trash Provisions will be included in the next generation NPDES permits issued. We estimate this will occur sometime next year. Thus, as NPDES permit holders, these provisions apply to the County and the 34 Orange County cities. While the Trash Provisions defined specific "Priority Land Uses" from which discharges of trash are to be regulated (high-density residential areas, commercial and industrial areas, etc.), the Water Boards were also given authority to determine that other specific land uses or locations generate substantial amounts of trash and apply the Trash Provisions to those locations. It is possible that, as a result of the encampment, locations along the Santa Ana River could be designated by the Water Boards as a land use or location which generates substantial amounts of trash.

Bacteria water quality objectives (i.e., numeric water quality limits) have been designated by the Water Boards to protect the public during recreational activities in waterbodies, including rivers, channels, creeks, and ocean beaches. These objectives are based on fecal indicator bacteria (FIB), which serve as proxy measurements for viruses and pathogens that cause illness in humans. FIB can come from both human and non-human sources. Epidemiological studies have shown a correlation between measured FIB levels above water quality objectives and elevated illness rates in swimmers where sources of

human waste are impacting a waterbody. During storm flow conditions, improperly disposed human waste from encampments could impact the Santa Ana River and downstream beaches water quality.

Please direct any questions to Amanda Carr, Deputy Director, OC Environmental Resources, at 714-955-0601.