## **Executive Summary**

This Annual Report discusses the Permittees' Permit compliance activities for the period of July 1, 2016 to June 30, 2017, the seventh year of the NPDES Permit No. CAS004002/Order No. 10-108 (Permit). It includes a description of all activities conducted during the reporting period, and the efforts to improve water quality throughout Ventura County by the Permittees. The purpose of this Annual Report is to show compliance with the Permit, and to meet the reporting requirement of an Annual Stormwater Report be submitted by December 15<sup>th</sup> of each year; in its entirety this Report serves as the Receiving Water Limitations Report. Since the Permit did not require a Stormwater Management Plan this Report also serves as a way to clarify the Permit's requirements and the efforts put forth by the Permittees to meet them. Finally, program effectiveness assessment of the implementation of the Permit requirements are examined with potential areas for improvement identified.

The Permittees, who contributed the information and data regarding their programs, were instrumental in the preparation of this Annual Report. The Permittees cooperate through the Ventura Countywide Stormwater Quality Management Program (Program) to ensure information and workloads are shared, economies of scale achieved, and an efficient and effective Program is realized. The Permittees through implementation of various comprehensive program elements have strived for improved water quality through compliance with all requirements of the Permit.

Notable accomplishments made by the Permittees and the Program over this reporting period include:

- Water quality at beaches throughout Ventura County remained among the best in the state.
- The Program completed and publicly distributed a Countywide Municipal Stormwater Resources Plan including the development of eleven new concept projects. The State Water Resources Board approved this Plan and it is the foundation for future products such as Reasonable Assurance Analysis required to show compliance with water quality objectives through Watershed Management Plan implementation.
- Completed a new supplementary tool for updating the Stormwater Resource Plan (SRP). This tool
  allows stakeholders to submit new stormwater projects to be included in the SRP and automatically
  calculates quantitative and qualitative benefit scores.
- Continued to create and distribute communication tools to inform the highest levels of management about the potential programmatic and financial impacts of a new Permit modeled on the Los Angeles Permit.
- Continued a Bacteria Marker Study to identify human, dog, and bird genetic host-specific
  markers in MS4 outfalls and background sites. More samples are being collected to confirm
  previous results and help the Program identify the controllable sources of indicator bacteria.
- Public Outreach efforts made 6.7 million impressions through the Public Outreach program, 16% percent of those were made in Spanish.
- Held one pre-sale rain barrel event in February 2017. A total of 534 50-gallon rain barrels were sold at a discounted price directly to 323 residents of Ventura County.
- Coordination and participation of the Ventura County Coastal Cleanup Day Event, as part of the California Coastal Cleanup Day, recruiting 2,736 volunteers to 24 different beaches and inland locations covering a distance of 41.4 miles. A total of 10,186 pounds of trash were collected.

- Updated the Water Quality Index which distills the over 200 constituents monitored into an easy to communicate form, and continued the comprehensive data analysis effort to prioritize pollutants of concern in outfall and receiving waters that will in turn prioritize Program activities.
- Performed an assessment of the applicability of the Basin Plan's MUN\* beneficial use for waters monitored by the Principal Permittee.
- Twelve Total Maximum Daily Load Implementation Plans, Monitoring Plans, and Compliance Reports were submitted to the Regional Board.
- Active participation in the Stormwater Monitoring Coalition of Southern California, California
  Stormwater Quality Association, and the Southern California Coastal Water Research Project and
  it's Bight '13 Microbiology Study assessment of the extent of human fecal contamination from
  coastal drainages to the ocean.

The beginning of the 2016/17 water year was exceptionally dry in Ventura County. A series of storms in January and February resulted in above average rainfall for the year and reinstated flow to many previously dry waterways, however Ventura County remained in drought conditions. Three wet events were able to be sampled for thirteen of fourteen sites, but not all sites had flow for sampling in dry weather. E. coli was commonly found at elevated levels at most sites during wet-weather events and during dry-weather events at sites with flow. Other constituents that were found at elevated levels during the 2016/17 monitoring season include chloride and total dissolved solids (primarily dryweather), MBAS (Event 1 only), dissolved oxygen, dissolved copper, dissolved zinc, total selenium (dry weather only), ammonia (one sample, dry weather only), and pH. Aluminum, bis(2ethylhexyl)phthalate, and pentachlorophenol were seen at elevated levels at one or both of the two sites with applicable MUN designated WQO (MO-MEI and MO-OJA). Two Major Outfall stations exhibited greater than 50% mortality during the 2016/17 monitoring season, MO-CAM and MO-HUE. This triggered a toxicity identification evaluation (TIE) for MO-CAM, in which algae consuming the dissolved oxygen was determined to be the likely cause. A TIE was not conducted for MO-HUE, because the salinity was known to be higher than the upper tolerance level of C. dubia and therefore toxicity to this organism was expected. Biological assessments were performed in accordance with the allocations in the current Bioassessment Workplan, and at the Principal Permittee's fixed (Integrator) sites at the three mass emission stations.

Continued in this Annual Report are the Performance Standards for specific Permit requirements identified in each section along with the Permittees' status on achieving that standard. Permit compliance cannot be directly inferred solely by these Performance Standards as the complete effort of the Permittees cannot be reflected through these discrete metrics. Rather, the information is more suitable for use by the Permittees to gage their efforts and identify areas of needed improvement.

The Program uses California Stormwater Quality Association's (CASQA) six progressive outcome levels for effectiveness assessment ranging from documenting efforts to measurably protecting water quality. These show the Program is continually effective in the first two outcome levels of documenting efforts and raising awareness. As the Program continues, improvements in the outcome levels of changing behavior and reducing pollutant loads will be accurately measured and documented. The trends identified in the Water Quality Monitoring Section show real progress towards the Program's effectiveness at the ultimate goal - Outcome Level 6 improving and protecting receiving water quality.

Each program element has a subcommittee working to develop needed forms, protocols, and procedures to ensure future Permit compliance. The programs, methods, and this Annual Report are continually being refined to improve effectiveness, apply lessons learned, identify and address additional sources of stormwater pollutants, and therefore improve water quality.