



City of Ventura Receiving Water Limitation Compliance Report

During reporting year 2024-2025, it was determined that the City's MS4 discharge at Major Outfall Ventura (MO-VEN) may have caused or contributed to an exceedance of fecal indicator bacteria and selenium objectives. See details below for constituents in accordance with 2021 Regional MS4 Permit – Att. E (MRP) Part XIV.C.

Fecal Indicator Bacteria

The Countywide Stormwater Quality Management Program collected wet and dry weather samples from major outfalls and mass emission stations during the reporting period. MO-VEN discharge exceeded the E.coli receiving water limitation of 320 MPN/100mL on January 26, 2025 and February 5, 2025 with reported concentrations of 2,613 MPN/100mL and 4,611 MPN/100mL, respectively. The January 26, 2025 and February 5, 2025 wet weather monitoring events had reported E.coli receiving water concentration of 4,611 MPN/100mL and 959 MPN/100mL, respectively, at the upstream mass emission station ME-SCR. There is no downstream mass emission station from MO-VEN, therefore making a cause and contribute relationship between MO-VEN and ME-SCR complex.

The Santa Clara River Bacteria Total Maximum Daily Load (TMDL) has an approved In-stream Compliance Bacteria Water Quality Monitoring Plan (CMP), as well as an Implementation Plan (including an Outfall Monitoring Plan) outlining how TMDL Responsible Agencies assess progress and compliance with Waste Load Allocations and Load Allocations assigned to the lower Santa Clara River. MO-VEN discharge exceeded the enterococcus receiving water limitation of 104 MPN/100mL on September 17, 2024 and February 18, 2025 with reported concentrations of 2,420 MPN/100mL and 517 MPN/100mL, respectively. The September 17, 2024 and February 18, 2025 dry weather monitoring events had reported enterococcus receiving water concentration of 166 MPN/100mL and 192 MPN/100mL, respectively, at the downstream TMDL receiving water location SCRE-R005. Since SCRE-R005 is downstream of MO-VEN, a cause and contribute relationship between these two locations is reasonable. It is believed that during the reporting period, Santa Clara River Reaches 2 and 1 were hydraulically connected to the Santa Clara River estuary via surface flows. It is unclear if MO-VEN was hydraulically connected to the mainstem of the Santa Clara River on September 17, 2024 and February 18, 2025. During these sampling events, it was not confirmed that MO-VEN had surface flow connection to the Santa Clara River mainstem, as outfalls can be hundreds of feet from the wetted floodplain and sample collection locations are typically upgradient of outfall termination. Because hydraulic connectivity is unconfirmed during these dry weather monitoring events, connectivity is assumed and there is potential that MO-VEN possibly caused or contributed to exceedances of receiving water limitation for fecal indicator bacteria in the Santa Clara River during this reporting period.

Current City best management practices (BMPs) that focus on prevention and reduction of fecal indicator bacteria are primarily non-structural programmatic processes and include non-stormwater discharge elimination, sanitary sewer collection system maintenance (SSO prevention), water waste prohibitions, illicit discharge response and elimination, enhanced bacteria source controls and residential/commercial outreach and education. Structural control measures are being explored by the City and include regional stormwater capture projects (two



currently in CIP 5-year plan) as well as additional sanitary sewer diversions. The Olivas Park Drive Regional Stormwater Capture project is currently in the second round of conceptual engineering.

It is believed that very little flows from urban areas are contributing to the Santa Clara River during dry weather. During the non-stormwater outfall based investigation and screening process, the City investigated 19 major outfalls and all minor/subminor outfalls within its jurisdiction that discharge to the Santa Clara River watershed. Of 19 major outfalls investigated, four had observed significant non-stormwater discharges. Of the significant non-stormwater flows, all were allowable sources under the 2021 Regional MS4 Permit and were either passive natural flows/infiltration or authorized non-stormwater discharges from conditional waivers or WDRs for agricultural lands.

In the Ventura River Watershed, all major and minor/subminor outfalls investigated were either dry or had ponded water present. Outfalls with ponded water present in this area of the City are typically representative of a high groundwater table, as outfall invert elevations for many of the outfalls along the Ventura River are below current river bottom/floodplain elevation. This condition is due to floodplain bed elevation changes year-to-year due to scour and sedimentation occurring during the wet season. It is believed that little to no urban flows contribute to the Ventura River during dry weather from the City's jurisdiction.

In the Ventura Coastal Watershed, all major and minor/subminor outfalls were investigated. Five major outfalls had observed significant non-stormwater discharges during City staff outfall investigations and screenings. Of the five major outfalls with significant non-stormwater discharges, three outfalls were identified as having authorized non-stormwater discharges of high groundwater, which is a natural flow not requiring NPDES coverage. One major outfall was identified as having authorized non-stormwater discharges from conditional waiver or WDRs for agricultural lands. One major outfall (City of Ventura responsibility) with significant non-stormwater discharge has ongoing source identification that is hoped to be completed and source abated by June 30, 2026.

The City of Ventura has an industrial, commercial and construction inspection program designed to prohibit unauthorized non-stormwater discharges and reduce pollutants in stormwater runoff from these operations. Stormwater runoff information and BMP educational materials are provided to sites during inspections. Furthermore, the City of Ventura has been working with the business and development community to enroll required businesses in the General Permit for Stormwater Discharges Associated with Industrial Activities and General Permit for Stormwater Discharges Associated with Construction Activities with high success. City of Ventura has a street sweeping program to reduce pollutants, such as metals, salts, gross solids, nutrients, etc. from accumulating in the public right of way and discharging to receiving waters. Reduction in these gross solids is believed to aid in bacteria abatement as well. Our catch basin cleaning program is also highly effective at removing gross solids and organic materials, that can further reduce bacteria loading.

The Lower Santa Clara River Bacteria TMDL became effective on March 21, 2012 with dry and wet weather compliance 11 and 17 years after effective date of TMDL, respectively. The Lower Santa Clara River Bacteria TMDL Implementation Plan was submitted to the Los Angeles Regional Water Quality Control Board on March 20, 2015 and approved December 26, 2017. The City of Ventura is

currently implementing some BMPs identified in the Implementation Plan and looking for additional measures to achieve bacteria loading reductions to receiving waters. The City is following the implementation schedule established by the TMDL. The City is also using the strategies within the Ventura Countywide Watershed Management Program, not currently being implemented for deemed compliance by the City of Ventura, as a guide for human waste source investigation and elimination strategies to achieve outcomes desired by the TMDL.

Selenium

The Countywide Stormwater Quality Management Program collected wet and dry weather samples from major outfalls and mass emission stations during the reporting period. MO-VEN discharge exceeded the selenium California Toxics Rule (CTR) chronic dry weather objective of 3.1 ug/L on May 8, 2025 with a reported concentrations of 7.67 ug/L. The May 8, 2025 dry weather monitoring events had a reported selenium receiving water concentration of 4.24 ug/L at the upstream mass emission station ME-SCR. There is no downgradient mass emission station from MO-VEN that samples for selenium, therefore making a cause and contribute relationship between MO-VEN and ME-SCR complex and untrue. More discussion is provided below.

The exact sources of selenium are elusive. Sources of selenium include discharge from petroleum and metal refineries, agricultural runoff, manufacturing, erosion of natural deposits, and discharge from mines. Sources of selenium in the built environmental could be from multiple discharge permits and orders such as Industrial General, Construction General, Caltrans, MS4 and irrigated lands. Selenium is also known to occur at elevated levels in Monterey Formation rocks (Miocene marine mudstone) which are common in Ventura County. Elevated selenium concentrations are detected routinely at MO-VEN since 2010, however receiving water concentrations have seldom been above the CTR objective. Selenium concentrations in local shallow groundwater in/around MO-VEN are above the CTR objective of 3.1 ug/L. The most recent shallow groundwater report accessed by the City dated October 23, 2025 noted selenium concentrations of 18 ug/L. This groundwater report was generated for groundwater dewatering for a capital improvement project directly next to the MO-VEN monitoring location.

The City of Ventura has an industrial and commercial facilities inspection program designed to prohibit unauthorized non-stormwater discharges and reduce pollutants in stormwater runoff from these businesses. Stormwater runoff information and best management practices educational materials are given to business owners during industrial and commercial facilities inspections. In addition, City of Ventura has an effective street sweeping program to reduce pollutants, such as selenium and copper, from accumulating in the public right-of-way. In the reporting period over 12,000 miles of total curb area was swept in City of Ventura's jurisdiction.

Based upon the above information about selenium sources and shallow groundwater selenium concentrations around MO-VEN, the City is not proposing any implementation schedule or additional BMPs to address selenium exceedances at this time. Concentrations above the CTR chronic dry weather objective of 3.1 ug/L are believed to be the result of native shallow groundwater influence on the MS4 system and the Santa Clara River Watershed in general, thus resulting in natural sources of selenium causing MO-VEN and Santa Clara River receiving waters to be above the noted objective.