VOLUME VI:

GLOSSARY

RIVERSIDE COUNTY
WATERSHED PROTECTION

GLOSSARY OF COMMMONLY USED TERMS

acute toxicity – A test consisting of a control and single or multiple concentrations of sample. The tests are designed to provide dose-response information, expressed as the percent effluent concentration that is lethal to 50 percent of the test organisms (LC_{50}) within the prescribed period of time (24-96 hours), or the highest effluent concentration in which survival is not statistically significantly different from the control. Acute toxicity units (TU_a) are calculated as follows:

$$TU_a = 100/LC_{50},$$

where the LC_{50} is the concentration of sample estimated to cause an adverse effect to 50 percent of the test organisms.

bacterial indicator – Bacterial species used to indicate potential contamination with human waste: *E. coli,* Enterococcus, and Fecal Coliform.

Basin Plan – Water Quality Control Plan, for a given drainage basin or watershed, as presented by a local Regional Water Quality Control Board. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater.

beneficial use – The uses of water necessary for the survival or well-being of man, plants, and wildlife. These uses of water serve to promote tangible and intangible economic, social, and environmental goals. "Beneficial Uses" of the waters of the State that may be protected include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or groundwater on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

benthic – A term describing the substrate on a stream or river bottom.

bioassessment – The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bioassessment is the collection and analysis of samples of the benthic macroinvertebrate community together with physical habitat quality measurements associated with the sampling site and the watershed to evaluate the biological condition (i.e., biological integrity) of a water body.

bioassessment monitoring station – A location that is within a receiving water and has been selected to collect water quality, bioassessment, and observational data under the Bioassessment Monitoring Program, specific to the SAR. This requirement of the Santa Ana MS4 Permit is typically satisfied through the regional monitoring program, and thus the station is referred to as a regional monitoring station (see regional monitoring station). Also see stream assessment monitoring station for the SMR.

biological integrity – A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region. [Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68]

biostimulatory substances – Substances that in certain concentrations can promote aquatic growths to the extent that such growths cause nuisance or can adversely affect beneficial uses of a receiving water. This typically refers to excess concentrations of nutrients.

California Stream Condition Index (CSCI) – A biological scoring tool that helps aquatic resource managers translate complex data about benthic macroinvertebrates found living in a stream into an overall measure of stream health. The CSCI score indicates whether, and to what degree, the ecology of a stream is altered from a healthy state.

chemistry – For the purposes of the monitoring programs described herein, chemistry may refer to both aqueous (water) and sediment chemistry as determined by laboratory analysis. Unless otherwise specified, chemistry typically refers to aqueous chemistry. See also water chemistry.

chronic toxicity – A test consisting of a control and single or multiple concentrations of sample. The test is designed to provide dose-response information, expressed as the percent effluent concentration that affects the hatchability, gross morphological abnormalities, survival, growth, and/or reproduction within the prescribed period of time (4 to 7 days). The results of the tests are expressed in terms of the highest concentration that has no statistically significant observed effect on those responses when compared to the control or the estimated concentration that causes a specified percent reduction in responses versus the control. Growth inhibition (i.e., algal cell concentration) is the endpoint used to measure chronic toxicity. Toxicity is determined using a No Observed Effect Concentration (NOEC) value, which is defined as the highest concentration tested where no toxicity is statistically discernible. The NOEC is used to calculate chronic toxicity units (TU_c), which can range from a lower limit of 1.0 (in the case of no Toxicity) to values much greater than 1.0 (in the case of a very high Toxicity). TU_c are calculated as follows:

$$TU_c = 100 / NOEC.$$

Clean Water Act (CWA) – The objective of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), a United States federal law passed in 1972 is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and non-point pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. [USEPA. Clean Water Act (CWA). http://www.epa.gov/agriculture/lcwa.html#Summary, last updated March 12, 2013.]

conventionals – For the purposes of the monitoring programs described herein, conventionals refers to a common suit of chemical constituents targeted for sample and analysis. It will vary by region based on the requirements of a given MS4 permit, but in general may include: chemical oxygen demand (COD); dissolved organic carbon (DOC); sulfate (SO_4); total dissolved solids (TDS); total hardness; total organic carbon (TOC); total suspended solids (TSS); biological oxygen demand (BOD); and nutrients (see nutrients).

Co-Permittees – Agencies in a given region that are jointly subject to an MS4 permit (e.g., Agencies in the Santa Margarita Region subject to Order No. R9-2010-0016: Cities of Murrieta, Temecula, and Wildomar, the County of Riverside and the District). Sometimes simply referred to as Permittees.

'Core' monitoring station – This term, specific to the mass emissions monitoring required by the SAR MS4 Permit, is sometimes used interchangeably in reference to the historical MS4 outfall stations.

County – County of Riverside, a legal subdivision of the State of California.

District – Riverside County Flood Control and Water Conservation District, a special district to the County of Riverside, created by the State of California in July 1945.

dry weather – In general, weather is considered dry if the preceding 72 hours has accumulated less than 0.1 inch of precipitation.

dry season – The definition for dry season is dependent on the region-specific MS4 Permit for which it will be applied:

- Santa Margarita Watershed: May 1st through September 30th, annually;
- Santa Ana Watershed: June 1st through September 30th, annually; or
- Whitewater River Watershed: There is no defined dry season in the WWR.

effect concentration (EC_{50}) – The concentration of sample estimated to cause an adverse effect to 50 percent of the toxicity test organisms.

ephemeral – "A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity, and in which the channel is at all times above the groundwater reservoir." [USEPA. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. EPA/600/R-08/134. November 2008.]

field measurements – Measurements collected with a field water quality meter (typically *in-situ)* during monitoring events, and may include: pH; turbidity; temperature; specific conductance; dissolved oxygen (DO). Sometimes referred to as field parameters.

hydrologic connectivity – "Natural hydraulic connections of surface and subsurface flow between source, headwater, or contributing areas and downstream/down gradient receiving waters… In arid land streams, this hydrologic connection occurs episodically during flood pulses, yet still provides a substantial amount of the mass, momentum, energy and organisms delivered to downstream perennial waters…" [USEPA. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. EPA/600/R-08/134. November 2008.]

hydromodification – In general, hydromodification is the alteration of the hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) of coastal and non-coastal waters, which may cause degradation of water resources. It may be caused by urbanization or other land use changes that result in increased stream flows and sediment transport. Refer to the relevant MS4 permit for a region-specific definition.

illegal discharge – Any discharge to the MS4 that is not composed entirely of stormwater except discharges pursuant to an NPDES permit, discharges that are identified in the MS4 Permit and discharges resulting from firefighting activities. Refer to the relevant MS4 permit for a region-specific definition.

illicit connection – In general, any connection to the MS4 that conveys an illegal discharge and/or is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. Refer to the relevant MS4 permit for a region-specific definition.

impairment – Where water quality conditions are not adequate to support all designated existing or potential beneficial uses of a waterbody.

intermittent – "A stream where portions flow continuously only at certain times of the year, for example when it receives water from a spring, groundwater source or from a surface source, such as melting snow (i.e., seasonal). At low flow there may be dry segments alternating with flowing segments." [USEPA. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. EPA/600/R-08/134. November 2008.]

lethal concentration (LC_{50}) – The concentration of sample estimated to cause a lethal effect to 50 percent of the test organisms. A measure of toxicity.

major outfall – In general, a major outfall is an MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more, or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres). It is also commonly referred to as a Major MS4 Outfall. Refer to the relevant MS4 permit for a region-specific definition.

mass emissions – A term understood in the context of the SAR MS4 Permit to refer to instantaneous mass loadings from urban runoff pollutant discharges to receiving waters. Also see mass loadings.

mass loadings – The mass or weight of a pollutant transported in a specific unit of time from pollutant sources to a water body. The loading rate is the instantaneous rate at which the load is passing a point of reference on a river, such as a sampling station, and has units of mass/time (i.e., kg/s). [USEPA. National Management Measure to Control Nonpoint Pollution from Agriculture, Chapter 7: Load Estimation Techniques. EPA 841-B-03-004, July 2003.] Estimated mass loading of pollutants discharged at a monitoring station is calculated by multiplying the concentration of the constituent by the instantaneous flow rate. Also see mass emissions.

metals – For the purposes of the monitoring programs described herein, metals refers to a common suit of chemical constituents targeted for sample and analysis. It will vary by region based on the requirements of a given MS4 permit, but in general it may include total and dissolved fractions of: antimony (Sb), arsenic (As); barium (Ba), beryllium (Be), boron (B); cadmium (Cd); chromium in various valences (Cr); copper (Cu); iron (Fe); lead (Pb); manganese (Mn); mercury (Hg); nickel (Ni); selenium (Se); silver (Ag); thallium (Tl); and Zinc (Zn).

method blank – A laboratory quality assurance/quality control analysis of a known clean sample matrix that has been subjected to the same complete analytical procedure as the field sample to determine if potential contamination has been introduced during processing. Blank analysis results are evaluated by checking against reporting limits for that analyte. Results obtained should be less than the reporting limit for each analyte.

Model Monitoring Program (MMP) – The model guidance for MS4s in southern California, as developed by the Southern California Stormwater Monitoring Coalition's Model Monitoring Technical Committee in 2004. The purpose of developing the MMP was to provide "a common framework for municipal urban runoff programs and Regional Board staff to use in developing and/or revising program requirements for monitoring Receiving Waters for impacts, status and trends, toxicity, mass emissions, and source identification". The CMP is designed to follow the guidelines and structure of the MMP.

monitoring year – The definition of monitoring year is dependent on the region-specific MS4 Permit for which it will be applied:

- Santa Margarita Watershed: October 1st through September 30th in a given year, not to be confused with the reporting period (see reporting period);
- Santa Ana Watershed: There is no defined monitoring year according to the SAR MS4 Permit; however, it is typically acknowledged as July 1st through June 30th in a given year
- Whitewater River Watershed: July 1st through June 30th in a given year.

Measurement Quality Objective (MQO) – The objective establishes acceptable levels of uncertainty for each measurement process by addressing the major components of data quality: accuracy, precision, and completeness. Previously this was commonly referred to as the Data Quality Objective.

MS4 outfall station – A location that is a major outfall, as defined by 40 CFR 122.26(b)(5), and has been selected to collect water quality and observational data under one of the respective monitoring programs.

Municipal Separate Storm Sewer System (MS4) – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under Section 208 of the CWA that discharges to Waters of the U.S.; (ii) Designated or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; (iv) Which is not part of the POTW as defined at 40 CFR 122.26.

National Pollutant Discharge Elimination System (NPDES) – The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402 and 405 of the CWA.

non-point source - Any source of water pollution that does not meet the definition of a point source. Non-point sources, include but are not limited to urban, agricultural or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. Non-point source of pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up natural or man-made Pollutants from numerous, diffuse sources and deposits them into rivers, lakes and coastal waters or introduces them into groundwater. [USEPA. What is Non-point Source Pollution? http://water.epa.gov/polwaste/nps/whatis.cfm, last updated August 27, 2012.]

non-stormwater – Non-stormwater consists of all discharges to and from an MS4 that do not originate from precipitation events (i.e., all discharges from an MS4 other than stormwater). Non-stormwater includes illicit discharges, non-prohibited discharges and NPDES permitted discharges.

nutrients – For the purposes of the monitoring programs described herein, nutrients refers to a common suit of chemical constituents targeted for sample and analysis. It will vary by region based on the requirements of a given MS4 permit, but in general it may include: ammonia (total and unionized), total Kjeldahl nitrogen (TKN); nitrate (NO_3); nitrite (NO_2); total nitrogen (N); phosphorus (total and dissolved) (P), and phosphate (ortho- and total) (PO_4).

Nutrient Numeric Endpoint (NNE) – This term refers to an approach for the development of nutrient (i.e., nitrogen and phosphorus) numeric endpoints for use in the water quality programs of the California's State Water Resources Control Board and Regional Water Quality Control Boards. It provides a methodology to support several water quality program components including: setting numeric limits for NPDES permits; development of TMDL-specific nutrient numeric endpoints; as well as for those Regional Water Boards, such as the San Diego Regional Water Quality Control Board, that opt for development of numeric nutrient criteria. This process includes a Technical Advisory Group and collaboration from a Stakeholder Advisory Group. The NNE process is used to select nutrient response indicators that can be used to evaluate risk of use impairment, rather than using pre-defined nutrient limits.

perennial – Commonly defined as flow that persists through the water-year, which ends September 30th. Formally defined as "A stream or portion of a stream that flows year-round, is considered a permanent stream, and for which base flow is maintained by groundwater discharge to the streambed due to the groundwater elevation adjacent to the stream typically being higher than the elevation of the streambed."

[USEPA. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. EPA/600/R-08/134. November 2008.]

Permit/Order – In general this refers to the Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) draining the County of Riverside and the incorporated cities within a given watershed. Refer to Volume I for a description of the current MS4 permits.

Permittees – Agencies in a given region that are jointly subject to an MS4 permit. Sometimes referred to as Co-Permittees.

pH – An expression of the intensity of the basic or acidic condition of a liquid. Mathematically, pH is the logarithm (base 10) of the reciprocal of the hydrogen ion concentration, [H+]:

$$pH = \log (1/[H+]).$$

The pH may range from 0 to 14, where 0 is most acidic, 14 most basic, and 7 neutral. Natural waters usually have a pH between 6.5 and 8.5. [USEPA, 2006].

physical habitat – A measurement collected as part of stream assessment monitoring.

point source – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which Pollutants are or may be discharged. Dependent upon region this term may not include return flows from irrigated agriculture or agricultural stormwater runoff.

pollutant – Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

pollution – The alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects either of the following: 1) The waters for beneficial uses; or 2) facilities that serve these beneficial uses. [Porter-Cologne Water Quality Control Act]

Principal Permittee - The District. Also considered a Co-Permittee.

Quantitative Precipitation Forecast (QPF) – "A spatial and temporal precipitation forecast that will predict the potential amount of future precipitation for a specified region, or area." [NWS Website: http://forecast.weather.gov/glossary.php?letter=q, last visited 9/2013.]

rainy season – This term is sometimes used interchangeably with wet season. See wet season.

receiving water(s) - Waters of the U.S. within the respective permit area.

receiving water station – A location that is within a receiving water and has been selected to collect water quality and observational data under one of the respective monitoring programs.

receiving water limitations – In general, these requirements are included in the Orders issued by the Regional Boards to assure that the regulated discharges do not violate water quality standards established in the Basin Plan at the point of discharge to Waters of the U.S. Receiving water limitations are used to implement the requirement of CWA Section 301(b)(1)(C) that NPDES permits must include more stringent limitations necessary to meet water quality standards. Refer to the relevant MS4 permit for further definition.

Regional Monitoring Program – This term is typically used in reference to the SMC's Regional Monitoring of Southern California Watersheds, as well as other programs conducted by Southern California Coastal Water Research Project (SCCWRP) and contributed to by the District and/or Co-Permittees. The SMC Regional Monitoring Program (i.e., Regional Bioassessment Monitoring) aims at assessing the regional health of southern California's rivers and streams and is motivated by the State's SWAMP and the Southern California SMC. The goal of the Regional Monitoring Program is to increase the effectiveness of existing NPDES monitoring programs by collaboration among member agencies and integration of SWAMP protocols to achieve a standard monitoring approach for a large-scale assessment of the watershed condition.

regional monitoring station – Locations selected for sample collection and/or visual observations as part of a Regional Monitoring Program. This term is typically used in reference to the SMC Regional Monitoring Program and other programs conducted by SCCWRP and contributed to by the District and/or Co-Permittees.

reporting period – For the purposes of the Monitoring Annual Report(s) it is typically the period of monitoring which is dependent on the region-specific MS4 Permit for which it will be applied:

- Santa Margarita Watershed: October 1st through September 30th
- Santa Ana Watershed: July 1st through June 30th
- Whitewater River Watershed: July 1st through June 30th

reference station – Monitoring stations located within receiving waters that are upstream of areas with urban land uses (i.e., reference stream) and that are used to characterize background water quality.

reference stream – A stream with a low level of anthropogenic disturbance or influence and similar natural conditions (e.g., slope, physical habitat, underlying geology, etc.) to a site of interest.

Regional Board – Regional Water Quality Control Board (e.g., San Diego, Santa Ana, or Colorado).

Reporting Limit (RL) – The limit at which a certified laboratory reports detected results.

rising groundwater – When the head of groundwater moves upward in elevation toward the surface (i.e., a spring).

Santa Ana Region (SAR) – The area of the Santa Ana River Watershed within Riverside County.

Santa Margarita Region (SMR) – The Santa Margarita Region, under the Regional Permit is commonly referred to as the Santa Margarita River (SMR) Watershed Management Area (WMA), see WMA below, which consists the watershed area that includes the Upper and Middle SMR subwatershed areas within Riverside County as well as the Lower SMR subwatershed area within San Diego County. The SMR WMA is one of the many Watershed Management Areas in the greater San Diego Region under the jurisdiction of the San Diego Regional Water Quality Control Board. For purposes of the QAPP (CMP Volume II), as applicable to the SMR, the procedures and guidance therein are applicable to the Riverside County Co-Permittees. The QAPP is also part of the WQIP (see WQIP below).

Santa Margarita River Nutrient Initiative Group (SMRNIG) – The Santa Margarita River Nutrient Initiative Group includes cities and counties, utility districts, Caltrans, scientists, tribes, non-governmental organizations, United States Geological Survey, Camp Pendleton, Farm Bureau, and Regional Water Quality Control Board staff that periodically meet to focus on nutrient-related issues in the Santa Margarita River Estuary. Under the direction of this group several special studies are implemented, often

in coordination with the Southern California Coastal Water Research Project. This includes studies such as the Nutrient Management Study, as well as the Nutrient Numeric Endpoint (NNE) framework, an alternative regulatory approach advocated by SWRCB staff and United States Environmental Protection Agency (USEPA) Region 9.

sediment – Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e., human induced land disturbance activities) is considered a pollutant. The MS4 Permits regulate only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Southern California Stormwater Monitoring Coalition (SMC) – A coalition consisting of member agencies made up of various local municipal agencies, California Department of Transportation, SCCWRP, and Regional Boards. The goal of the SMC is to increase the effectiveness and compliance of existing NPDES monitoring programs by collaboration among member agencies, SWAMP, and other interested parties. Permittees of Riverside County's three MS4 Permits are represented on the SMC by the District.

State Board – California State Water Resources Control Board.

storm event – In general, a precipitation event that requires at least 72 hours of dry weather (<0.1 inch) prior to at least 0.1 inch forecasted within 24 hours. Refer to the relevant MS4 permit for a region-specific definition. Also refer to further guidelines in the CMP, which have been developed based on field experience, and may be further amended in the future.

stormwater – Per 40 CFR 122.26(b)(13), means storm water [*or stormwater*] runoff, snowmelt runoff and surface runoff and drainage. Surface runoff and drainage pertains to runoff and drainage resulting from precipitation events.

stream assessment – This form of monitoring commonly includes bioassessment, aquatic chemistry, and aqueous toxicity. See bioassessment for further details.

stream assessment monitoring station – A location that is within a receiving water and has been selected to collect water quality, bioassessment, and observational data under the Stream Assessment Monitoring Program, specific to the SMR. Also see bioassessment monitoring station for the SAR.

Surface Water Ambient Monitoring Program (SWAMP) - The California Surface Water Ambient Monitoring Program was created to fulfill the State Legislature's mandate for a unifying program that would coordinate all water quality monitoring conducted by the State and Regional Water Boards. The three core implementation priorities of SWAMP are: (1) monitoring and assessment, (2) infrastructure and tools, and (3) coordination. SWAMP implements both statewide and regional monitoring and assessment programs, and special studies, to investigate key water quality concerns and inform management decisions. In addition to monitoring and assessment activities, SWAMP develops, implements, and maintains a monitoring infrastructure and associated tools. Key components of this infrastructure include Quality Assurance/Quality Control (QA/QC) protocols, database and data management tools, water quality indicators, methods, and standard operating procedures. These tools are available to SWAMP partners and other interested parties via the SWAMP website (http://www.waterboards.ca.gov/water_issues/programs/swamp/).

Total Maximum Daily Load (TMDL) – The maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under CWA Section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

triad station – Receiving water stations and reference stations that are monitored long-term for analytical parameters, toxicity, and bioassessment lines of evidence. Under the Santa Margarita MS4 Permit these are commonly known as the mass loading stations.

urban runoff – In general, urban runoff includes those discharges from residential, commercial, industrial, and construction areas within the respective permit area and excludes discharges from open space, feedlots, dairies, publically owned treatment works (POTWs), and farms and agricultural fields. Urban runoff discharges consist of stormwater and non-stormwater surface runoff from drainage sub-areas with various, often mixed, land uses within all of the hydrologic drainage areas that discharge into the Waters of the U.S. In addition to urban runoff, the MS4s regulated by the MS4 permits receive flows from open space, agricultural activities, agricultural fields, state and federal properties, and other non-urban land uses not under the control of the Co-Permittees. The quality of the discharges from the MS4s varies considerably and is affected by, among other things, past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed disposal practices and illicit connections. The Permittees lack legal jurisdiction over stormwater discharges into their respective MS4 facilities from agricultural activities, California and federal facilities, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by or under the jurisdiction of the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in urban runoff are beyond the ability of the Permittees to eliminate. Refer to the respective MS4 Permit for further definition.

visited not sampled (VNS) – A term used to clarify that a site was visited, but that samples were not collected for analysis, and no field measurements were recorded. Monitoring data from sites that are visited and not sampled include observations of monitoring locations that are either dry or have insufficient flow for sample collection, based on field observations during monitoring events.

waste discharge requirements – As defined in Section 13374 of the California Water Code, the term "waste discharge requirements" is the equivalent of the term "permits" as used in the Federal Water Pollution Control Act, as amended. The Regional Board usually reserves reference to the term "permit" to waste discharge requirements for discharges to Waters of the U.S.

water chemistry – Analysis of the composition of chemicals present in water.

Water Code – California Water Code.

Water Quality Improvement Plan – Included in the new SMR permit are provisions for Water Quality Improvement Plans (WQIP) that Copermittees must implement. The WQIP's are responsible for restoring water quality and protecting the beneficial uses of water owned by the state. Copermittees are responsible for prioritizing water quality conditions and develop strategies that improve the quality of discharges from MS4's and receiving waters. Included in the strategies is the demand for an Adaptive Monitoring Plan

that is held throughout the implementation of the WQIP's. These adaptive plans are meant to address the goals set by the Copermittees, as well as the water quality and the overall effort placed into the WQIP by said Copermittees.

water quality objectives – Water quality objectives (WQO) are specified in the respective Basin Plans for receiving waters within a particular watershed. Numeric or narrative limits on constituents (specifically pollutants) or characteristics of water designated to protect designated beneficial uses of the water [California Water Code Section 13050 (h)]. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). California's WQOs are established by the State and Regional Water Boards in the Water Quality Control Plans. WQOs are also called water quality criteria in the CWA. Refer to the relevant MS4 permit for further definition. There are also water quality objectives based on the California Toxics Rule (CTR WQOs).

water quality standards – In general these are the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.,) of water and the WQOs necessary to protect those uses. Refer to the relevant MS4 permit for further definition.

watershed – That geographical area which drains to a specified point on a watercourse, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Watershed Management Area – In general, it is a term used to describe the process of implementing land use practices and water management practices to protect and improve the quality of the water and other natural resources within a watershed by managing the use of those land and water resources in a comprehensive manner. Under the San Diego Regional Permit, this term is used to delineate the main watershed areas under the jurisdiction of the Regional Board within the San Diego Region.

Waters of the U.S. – As defined in the 40 CFR 122.2, the "Waters of the U.S." are defined as: (a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands"; (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as Waters of the U.S. under this definition**:** (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

wet season – The definition for wet season (a.k.a rainy season) is dependent on the region-specific MS4 Permit for which it will be applied:

- Santa Margarita Watershed: October 1st through April 30th, annually;
- Santa Ana Watershed: October 1st through May 31th, annually; or
- Whitewater River Watershed: There is no defined wet season in the WWR.

wet weather – In general, a precipitation event that produces at least 0.1 inch of rainfall within 24 hours [District, CMP Volume II. June 2014.]. Wet weather monitoring is confined to the wet season for each region, and is conducted per the frequencies specified within each region-specific MS4 permit.

Whitewater River Region (WWR) – The area of the Whitewater River Watershed (Colorado River Basin) that is within Riverside County.

wildfire – An unplanned fire especially in a wilderness or a rural area that is fueled by natural vegetation. [http://www.smokeybear.com/wildfire-science.asp, last visited 6/2014].