

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2013-\_\_\_\_

NPDES NO. CA0083399

WASTE DISCHARGE REQUIREMENTS

CITY OF BAKERSFIELD  
AND  
COUNTY OF KERN  
STORM WATER DISCHARGES FROM  
MUNICIPAL SEPARATE STORM SEWER SYSTEM  
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. The City of Bakersfield and the County of Kern, hereafter jointly referred to as Permittees, submitted a Report of Waste Discharge (ROWD) on 12 March 2007, requesting renewal of waste discharge requirements, National Pollutant Discharge Elimination System (NPDES) Permit CA0083399, area-wide municipal separate storm sewer system (MS4) permit, to discharge storm water runoff from storm drains within their jurisdictions. The ROWD included a Storm Water Management Program, dated 2006 (SWMP). The SWMP is required as part of the application pursuant to 40 CFR 122.26(2)(d)(iv) and is an integral and enforceable component of the MS4 permit.
2. Prior to issuance of this Order, the Permittees were covered under the NPDES area-wide MS4 permit, Waste Discharge Requirements (WDR) Order 5-01-130 (NPDES Permit No. CA0083399), adopted on 14 June 2001.
3. The City of Bakersfield (hereafter City) is defined as a medium municipality (population greater than 100,000) in the 40 Code of Federal Regulations (CFR) section 122.26 (b)(4). As such, the City must obtain an NPDES municipal storm water permit for the area under its jurisdiction.
4. The County of Kern (hereafter County) contains urbanized areas and areas of potential growth, which are enclosed within the limits of the City or surround the City. Due to the proximity of the County's urbanized areas to the City, the physical interconnections to the City's storm sewer system, and the locations of the discharges relative to the City's system, the County is designated as part of the medium MS4 in accordance with 40 CFR 122.26(b)(4)(iii). The urbanized areas of the County that are enclosed within the City, the urbanized areas which surround the City, and the urbanized areas within the City of Bakersfield are hereafter referred to as the **Bakersfield Urbanized Area** and subject to the permit requirements. Attachment A shows the permit coverage area.

5. The **Bakersfield Urbanized Area** is defined by the Census 2010 Urban Area map and covers 138.44 square miles (88,576 acres).
6. The Permittees have jurisdiction over and/or maintenance responsibilities for a storm drainage system in the Bakersfield Urbanized Area. The system includes approximately 2 to 3 miles of major storm drain open channels and approximately 40 miles of major closed conduit conveyances. Approximately 80% of the Bakersfield Urbanized Area discharges storm water to terminal basins. Urban storm water runoff from the remaining 20% of the Bakersfield Urbanized area drains to the Kern River, including drainage through the East Side Canal, Carrier Canal, Stine Canal, and Kern Island Canal. The East Side Canal, Stine Canal, and the Kern Island Canal are owned and operated by the Kern Delta Water District. The Carrier Canal is jointly owned by the City of Bakersfield and the Kern Delta Water District, and operated by the City of Bakersfield. The Kern River and distribution canals are considered to be waters of the United States (waters of the U.S.) and/or tributaries to waters of the U.S. The Kern River and distribution canals are also waters of the State. Drainage watersheds that drain to waters of the U.S. and the State are shown on Attachment B and described on Attachment C.
7. No formal analysis has been done to show the Stine and Kern Island Canals are not tributaries to waters of the U.S., or that water in the canals are not or cannot be diverted back into a water of the U.S. In addition to being regulated under the NPDES program, discharges of waste to the Stine and Kern Island Canals are also regulated under authority of the Water Code as discharges to waters of the State.
8. The Permittees' land use authority allows urban developments that may generate pollutants and runoff that could impair receiving water quality and beneficial uses. The Permittees are, therefore, responsible for considering potential storm water impacts when making planning decisions in order to fulfill the Clean Water Act (CWA) requirement to reduce the discharge of pollutants in municipal storm water to the maximum extent practicable (MEP) from new development and redevelopment activities. In addition, the Permittees must exercise their legal authority to ensure that the increased pollutant loads and flows do not impact the beneficial uses of the receiving waters.
9. This Order is not intended to prohibit the inspection for or abatement of vectors by the California Department of Public Health or local vector control agencies in accordance with California Health and Safety Code § 2270 *et seq.* and §116110 *et seq.* Certain Treatment Control Best Management Practices (BMPs) if not properly designed, operated, or maintained may create habitats for vectors (e.g. mosquitos and rodents). This Order expects that the Permittees will closely cooperate and collaborate with local vector control agencies and the California Department of Public Health for the implementation, operation, and maintenance of Treatment Control BMPs in order to minimize the risk to public health from vector borne diseases.

10. There are portions of the City and County that are mainly agricultural, rural, and open space lands. It is not the intent of the federal storm water regulations to regulate storm water discharges from land uses of these types. Therefore, these areas are exempt from the requirements of this Order unless they are a point source discharge to the Permittees' conveyance system. Discharges from these sources may be subject to TMDL allocations and control programs.
11. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed urban area is typically greater in runoff volume, velocity, and peak flow rate than pre-development runoff from the same area. Runoff durations can also increase as a result of flood control and other efforts to control peak flow rates. Increased volume, velocity, rate, and duration of runoff can greatly accelerate the erosion of downstream natural channels. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. The increased runoff characteristics from new development must be controlled to protect against increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force. The Permittees have incorporated water quality and watershed protection principles into their planning procedures and policies, such as development of drainage standards that effectively requires new development and significant redevelopment projects in areas without existing storm drain systems to drain to terminal sumps, eliminating storm water discharges and the associated pollutants from entering surface waters.
12. Urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc., which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area may be significantly greater in pollutant load than the pre-development runoff from the same area.
13. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not "inject" runoff (injection bypasses the natural processes of filtering and transformations that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; (3) protecting footings and foundations; and (4) ensuring that each drainage feature is adequately maintained in perpetuity.

### **DISCHARGE CHARACTERISTICS**

14. The quality and quantity of MS4 discharges vary considerably because of the effects of hydrology, geology, land use, season, and sequence and duration of precipitation

events. Urban storm water runoff may contain pollutants that may lower the quality of receiving waters and adversely impact beneficial uses of the Kern River, East Side Canal, Carrier Canal, Stine Canal, and Kern Island Canal.

15. Pollutants that may be contained in storm water include, but are not limited to, certain heavy metals; sediments; petroleum hydrocarbons from sources such as used motor oil; microbial pathogens; pesticides; sources of acute and chronic aquatic toxicity; and nutrients that cause or contribute to the depletion of dissolved oxygen and/or toxic conditions in the receiving water. Excessive flow rates of storm water may cause or contribute to downstream erosion and/or excessive sediment discharge and deposition in stream channels.
16. The discharge of wash waters and polluted storm water from industries and businesses is an environmental threat and can also adversely impact public health and safety. The pollutants of concern in such wash waters include food waste, oil and grease, and toxic chemicals. Other storm water/industrial waste programs in California have reported similar observations and have identified illicit discharges from automotive and food service facilities as a major cause of water quality problems.
17. Certain pollutants present in storm water and/or urban runoff may be derived from extraneous sources that Permittees have no or limited jurisdiction over. Examples of such pollutants and their respective sources are: polynuclear aromatic hydrocarbons which are products of internal combustion engine operation; nitrates; bis (2-ethylhexyl) phthalate; pesticides; metals and mercury from wet and dry atmospheric deposition; lead from fuels; copper from brake pad wear; zinc from tire wear; bacteria from natural sources including wildlife; dioxins as products of combustion; and natural-occurring minerals from local geology. However, the implementation of the measures set forth in this Order is intended to reduce the entry of these pollutants into storm water and their discharge to receiving waters to the MEP.
18. The City and County have identified 62 outfalls within their jurisdictions that discharge to the Kern River or one of the canals. The Permittees began monitoring of their storm water discharge as part of their original permit application in 1992/93. Since adoption of their initial permit in June 1994, the Permittees have implemented a storm water monitoring plan that includes wet weather, dry weather, and receiving water monitoring. This data has been reported in the Permittees' annual reports.
19. Central Valley Water Board staff analyzed the data submitted by the Permittees in the Annual Storm Water Pollutant Load Estimation reports submitted from 2006 to 2012 and determined that concentrations of copper and zinc in their storm water discharge may be at levels that require additional management activities and observation to ensure they do not negatively impact water quality. Specifically, the Permittees are required to develop a plan to document how discharges of copper and zinc will be reduced in storm water discharge to surface waters.

20. As measured at the Meadows Field weather station, the Bakersfield area receives an average of less than 6 inches of precipitation per year. The maximum probable precipitation from a 5-year, 24-hour storm event is 1.34 inches. The maximum probable precipitation from a 100-year, 24-hour storm event is 2.94 inches. The 85th percentile average 24-hour storm event is 0.33 inches.
21. Estimates by the Permittees show that during an average year, the MS4 retains ninety percent of the urban runoff from the permit area in storm water retention basins located through the permit area. The remaining 10% is discharged either directly to a receiving water or is detained in a storm water detention basin and then discharged.

### **STATUTORY AND REGULATORY CONSIDERATIONS**

22. The CWA authorizes the U.S. Environmental Protection Agency (U.S. EPA) to permit a state to serve as the NPDES permitting authority in lieu of the U.S. EPA. The State of California has in-lieu authority for the NPDES program. The Porter-Cologne Water Quality Control Act or Water Code (WC) authorizes the State Water Resources Control Board (State Water Board), through the Regional Water Boards, to regulate and control the discharge of pollutants into waters of the State. On 22 September 1989, the State Water Board entered into a memorandum of agreement with the U.S. EPA to administer the NPDES Program governing discharges to waters of the U.S.
23. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under federal Clean Water Act section 402, subdivision (p)(3)(B). (33 U.S.C. § 1342(p)(3)(B).) This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (Natural Resources Defense Council, Inc. v. U.S. EPA (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (cf. Burbank v. State Water Resources Control Bd. (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region (2006) 135 Cal.App.4th 1377, 1389; Building Industry Ass'n of San Diego County v. State Water Resources Control Bd. (2004) 124 Cal.App.4th 866, 882-883.)

Second, the local agency permittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers

who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne Water Quality Control Act regulates the discharge of waste (Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the “costs incurred by local agencies” to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and nongovernmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Water Quality Control Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Except for municipal separate storm sewer systems, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Board decisions, this Order does not require strict compliance with water quality standards. (State Water Board Order WQ 2001-15, p. 7.) The Order, therefore, regulates the discharge of waste in municipal storm water more leniently than the discharge of waste from non-governmental sources.

Third, the local agency permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. The fact sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., *Apartment Ass’n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

Fourth, the permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in federal Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their discharges. To the extent, the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (*Accord County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.) Likewise, the permittees have voluntarily sought a program-based municipal storm water permit in lieu of a numeric limits approach. (See *City of Abilene v. U.S. EPA* (5th Cir. 2003) 325 F.3d 657, 662-663 [noting that municipalities can choose between a management permit or a permit with numeric limits].) The local agencies’ voluntary decision to file a report of waste discharge proposing a program-based permit is a voluntary decision

not subject to subvention. (See *Environmental Defense Center v. U.S. EPA* (9th Cir. 2003) 344 F.3d 832, 845-848.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIII B, Section (6) of the California Constitution.

24. The Water Quality Act of 1987 added Section 402(p) to the Clean Water Act (CWA 33 U.S.C. § 1251-1387). This section requires the U.S. EPA to establish regulations setting forth NPDES requirements for storm water discharges in two phases:

- The U.S. EPA Phase I storm water regulations were directed at MS4s serving a population of 100,000 or more, including interconnected systems and storm water discharges associated with industrial activities, including construction activities. The Phase I Final Rule was published on November 16, 1990 (55 *Fed. Reg.* 47990).
- The U.S. EPA Phase II storm water regulations are directed at storm water discharges not covered in Phase I, including small MS4s (serving a population of less than 100,000), small construction projects (one to five acres), municipal facilities with delayed coverage under the Intermodal Surface Transportation Efficiency Act of 1991, and other discharges for which the U.S. EPA Administrator or the State determines that the storm water discharge contributes to a violation of a water quality standard, or is a significant contributor of pollutants to waters of the U.S. The Phase II Final Rule was published on December 8, 1999 (64 *Fed. Reg.* 68722).

25. This Order specifies requirements necessary for the Permittees to reduce the discharge of pollutants in urban runoff to the maximum extent practicable (MEP).<sup>1</sup> On 11 February 1993, the State Board's Office of Chief Counsel (OCC) issued a memorandum interpreting the meaning of MEP to include effectiveness, regulatory compliance, public acceptance, technical feasibility, and cost. The burden is on the municipality to demonstrate compliance with MEP by showing that a BMP is not technically feasible in the locality or that BMPs costs would exceed any benefit to be derived. However, since MEP is a dynamic performance standard which evolves over time as urban runoff management knowledge increases, the Permittees' storm water programs must continually be assessed and modified to incorporate improved programs, control measures, best management practices, etc., in order to achieve the evolving MEP standard. This continual assessment, revision, and improvement of

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<sup>1</sup> The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology based standards establish the level of pollutant reductions that dischargers must achieve; typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily in combination with treatment methods serving as a backup. MEP considers economics and is generally, but not necessarily, less stringent than BAT.

storm water management program implementation is expected to ultimately achieve compliance with water quality standards.

26. This Order is intended to develop, achieve, and implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water to the MEP from the permitted areas in the Bakersfield Urbanized Area subject to the Permittees' jurisdiction.
27. Section 402(p)(3)(B)(ii) of the CWA requires that NPDES permits effectively prohibit non-storm water discharges into MS4s. Federal regulation 40 CFR 122.26(d)(2)(iv)(B)(1) requires control programs to prevent illicit discharges to MS4s and allows certain categories of non-storm water discharges to MS4s provided that the Permittees eliminate such discharges once they are identified as sources of pollutants to waters of the U.S.
28. The Permittees have adopted their own respective storm water ordinances. These ordinances provide the Permittees the authority to protect and enhance the water quality of watercourses, water bodies, and wetlands in the Bakersfield Urbanized Area in a manner pursuant to and consistent with the CWA and the Porter-Cologne Water Quality Control Act.
29. Federal regulations 40 CFR 122.26(d)(2)(iv)(A) and 40 CFR 122.26(d)(2)(iv)(C) require that MS4 permittees implement a program to monitor and control pollutants in discharges to the municipal system from industrial and commercial facilities that contribute a substantial pollutant load to the MS4. Federal regulations require that permittees establish priorities and procedures for inspection of industrial facilities and priority commercial establishments. This Order, consistent with the U.S. EPA policy, specifies minimum expectations between the Central Valley Water Board and the Permittees for the inspection of industrial facilities and priority commercial establishments to control pollutants in storm water discharges (58 Fed. Reg. 61157).
30. The State Water Board has issued two statewide general NPDES permits for storm water discharges: one for storm water from industrial sites [NPDES Permit CAS000001, Order 97-03-DWQ, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activity (Industrial General Permit)] and the other for storm water from construction sites [NPDES Permit CAS000002, No. 2010-0014-DWQ, General Permit for Storm Water Discharges Associated with Construction and Land Disturbing Activities (Construction General Permit)]. The current Industrial General Permit is expired and its replacement is undergoing public review. The current Construction General Permit became effective on 1 July 2010. In addition, the Central Valley Water Board has issued General Permit R5-2013-0074 for dewatering and other low threat discharges, which authorizes such discharges to the MS4s owned and operated by Permittees. This Order requires the Permittees to conduct compliance inspections at industrial and construction sites that discharge to their MS4s. Many of these sites are currently covered under State NPDES General Permits.

31. U.S. EPA conducted a comprehensive program evaluation of the SWMP in November of 2002, an audit of the construction component of the City of Bakersfield's SWMP in November of 2009, and an audit of the illicit discharge control and construction site planning elements of the SWMP in August of 2012. From the November 2002 evaluation, the auditors found that both the City and the County were not ensuring that private and public construction projects were in compliance with local ordinances and the State Construction General Permit per WDR Order 5-01-130, Provisions D.20, D.21, and D.22. The auditors found the City and the County were not implementing BMPs at municipal facilities and not conducting inspections at industrial facilities. In the November 2009 audit, the auditors found the City was not inspecting private construction projects, not requiring the submittal of Storm Water Pollution Prevention Plans (SWPPP) or reviewing SWPPPs for private projects, not able to provide an inventory of active construction projects, and not issuing any enforcement actions against noncompliant project sites. Furthermore, the City was not adequately conducting and documenting inspections of public projects. The City's lack of construction program implementation did not adequately ensure compliance with the City's local ordinances, the Construction General Permit, or WDR Order 5-01-130. The August 2012 audit found the City and the County were not facilitating public reporting or fully implementing the storm drain stenciling program, as required by WDR Order 5-01-130, Provision D.26 and SWMP Part 9; the City did not have written protocols for dry weather field screening and sampling, as required by Provision D.8 and SWMP Part 11; and the City and County were not ensuring compliance with the Construction General Permit.
32. In response to the 2002 U.S. EPA program evaluation the Permittees submitted an updated SWMP in 2003. The SWMP proposed updates to the procedures the Permittees are using to implement BMPs at municipal facilities, investigate illicit discharges, track inspections, and train inspectors. In response to the 2009 audit, the City of Bakersfield implemented additional practices to comply with WDR Order 5-01-130, Provision D.22. Construction Inspection and Engineering staff attended storm water compliance training and obtained certification as Qualified SWPPP Developers and Practitioners. In response to the 2012 audit, the Permittees have developed a phone hotline and website link to allow the public to report potential storm water issues and this Order requires the Permittees to submit a revised SWMP that will address the additional deficiencies from the 2012 audit.
33. When industrial or construction site discharges occur in violation of local permits and ordinances, the Central Valley Water Board in most cases refers first to the municipality where the discharge occurs for appropriate actions. If the municipality has demonstrated a good faith effort to educate and enforce but remains unsuccessful, the Central Valley Water Board may assist the municipality and conduct a cooperative investigation and/or enforcement effort including enforcement of the applicable statewide General Permit. If the municipality has not demonstrated a good faith enforcement effort, the Central Valley Water Board may initiate enforcement action against both the industrial or construction discharger under the statewide General Permits, as well as against the authorizing municipal Permittee for violations of this

Order. Each Permittee must also provide the first level of investigation and mitigation against illegal discharges from other land uses it has authorized, such as commercial and residential developments.

34. This Order includes requirements to ensure discharges shall not cause or contribute to exceedences of water quality standards that would cause or create a condition of nuisance, pollution, or water quality impairment in receiving waters. These requirements must be addressed through the effective implementation of Best Management Practices (BMPs) to reduce pollutants in storm water.
35. Federal, state, regional, or local entities within the Permittees' boundaries, not currently named in this Order, operate storm drain facilities and/or discharge storm water to the storm drains covered by this Order. The Permittees may lack legal jurisdiction over these entities under applicable state and federal authorities. Consequently, the Central Valley Water Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Caltrans is currently designated as such an entity. On 19 September 2012, the State Water Board issued a separate statewide NPDES storm water permit to Caltrans (NPDES Permit CAS000003, Order 2012-0011-DWQ). The Permittees will work cooperatively with Caltrans for the purpose of maintaining mutually beneficial storm water management program coordination, cooperation and communication. The State and the Central Valley Water Board may consider issuing separate NPDES storm water permits to other federal, state, or regional entities operating and discharging within the Permittees' boundaries that may not be subject to direct regulation by the Permittees.
36. The Central Valley Water Board adopted the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004*, (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. This Order implements the Basin Plan.
37. The beneficial uses of the Kern River below the Kern River Powerhouse No. 1, as designated in the Basin Plan, are municipal and domestic supply; agricultural supply; industrial service supply; industrial process supply; hydropower generation; groundwater recharge; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; and rare, threatened, or endangered species habitat.
38. Man-made conveyances such as the East Side Canal, Carrier Canal, Stine Canal, and Kern Island Canal do not have specifically designated beneficial uses in in the Tulare Lake Basin Plan. State Water Board Resolution No. 88-63 establishes that all waters, with certain exceptions, shall be considered suitable or potentially suitable for municipal or domestic supply. In addition, the canals, as tributaries to navigable waters, are themselves waters of the U.S. and the quality of water in the canals must

be maintained to meet the federal Clean Water Act threshold of “swimmable and fishable.” The existing uses of the canals include agricultural supply and groundwater recharge. The beneficial uses of water in the canals are, therefore, municipal and domestic supply, agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, and warm freshwater habitat.

39. The beneficial uses of the underlying groundwater beneath the Bakersfield Urbanized Area, as identified in the Basin Plan, are municipal and domestic supply; agricultural supply; industrial service supply; industrial process supply; water contact recreation; non-contact water recreation; and wildlife habitat.
40. Congress has determined that it is not feasible at this time to establish numeric effluent limits for pollutants in storm water discharges from MS4s [Clean Water Act (CWA)<sup>2</sup> Section 402(p)(3)(B)(iii)<sup>3</sup>]. In addition, the California Superior Court ruled; “Water quality-based effluent limitations are not required for municipal storm water discharges [33 USC §1342(p)(3)(B)] and [40 CFR §122.44(k)(3)]. For municipal storm water discharges, the Permits must contain best management practices (BMPs), which reduce pollutants to the maximum extent practicable [33 USC §1342(p)(3)(B)]. These Permits do contain these through the Storm Water Management Plan which is incorporated into the Permits by reference.” (San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region, Case No. 500527, 14 November 2003). Therefore, the effluent limitations in this Order are narrative, and include the requirement to reduce pollutants in storm water discharges to the MEP. In lieu of numeric effluent limitations, this Order requires the implementation of BMPs identified in the Permittees’ SWMP to control and abate the discharge of pollutants in storm water discharges. Implementation of BMPs, compliance with long-term performance standards in accordance with the Permittees’ SWMP and its schedules, and an established maintenance program with enforcement procedures constitutes compliance with the MEP standard.
41. 40 CFR 122.26(d)(2)(iv)(B)(1)<sup>4</sup> lists several non-storm water flows that are not required to be prohibited unless such discharges are specifically identified by the Phase I MS4

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<sup>2</sup> The U.S. Environmental Protection Agency (EPA) published the regulation entitled “National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges” (Federal Register, Volume 64, Number 235, pages 68722-68852) on December 8, 1999 as required by Section 402(p) of the Clean Water Act (CWA).

<sup>3</sup> CWA Section 402(p)(3)(B)(iii): “...controls to reduce pollutants to the maximum extent practicable, including management practices, control techniques, and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

<sup>4</sup> 40 CFR 122.26(d)(2)(iv)(B)(1) A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description shall address all types of illicit discharges, however the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space

Permittees as sources of pollutants to waters of the U.S.

42. The State Water Board convened a Storm Water Panel (Blue Ribbon Panel) of experts to address the issue of numeric effluent limits<sup>5</sup>. The study also concluded that it is not feasible at this time to set enforceable numeric effluent criteria for storm water and non-storm water discharges from MS4s.
43. The U.S. EPA published an 'Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits' on August 26, 1996 (61 Fed. Reg. 43761). This policy discusses the appropriate kinds of water quality-based effluent limitations to be included in NPDES storm water permits to provide for the attainment of water quality standards.
44. On 12 March 2001, the U.S. Court of Appeals ruled that it is necessary to obtain an NPDES permit for application of aquatic pesticides to waterways [Headwaters, Inc. vs. Talent Irrigation District, 243 F.3d. 526 (Ninth Cir., 2001)]. The U.S. EPA issued a Final Rule on 17 October 2006, that exempts the application of a pesticide to or over, including near, waters of the U.S. if conducted consistent with all relevant requirements under the Federal Insecticide and Fungicide Rodenticide Act (FIFRA), from an NPDES permit under the Clean Water Act in the following two circumstances: (a) the application of pesticides directly to waters of the U.S. in order to control pests,<sup>6</sup> and (b) the application of pesticides to control pests that are present over waters of the U.S., including near such waters,<sup>7</sup> that results in a portion of the pesticides being deposited to waters of the U.S. (40 CFR 122.3(h)). On 7 January 2009, the Sixth Circuit Court of Appeals vacated U.S. EPA's Final Rule and granted a two-year stay of the effect of the decision until 9 April 2011 in order to provide agencies time to develop, propose, and issue NPDES general permits for pesticide applications covered by the ruling. Subsequently, U.S. EPA was granted an extension of the stay until 31 October 2011. The State Water Board has adopted and is adopting NPDES general permits for various types of pesticide applications.
45. On 17 June 1999, the State Water Board adopted Order WQ 99-05 (SBO 99-05), a precedent setting-decision, which identifies acceptable receiving water limitations language to be included in municipal storm water permits issued by the State and the

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pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, and street wash water (program descriptions shall address discharges or flows from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States).

<sup>5</sup> Recommendations of the Blue Ribbon Panel were finalized as *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities*, dated 19 June 2006.

<sup>6</sup> Water Quality Order No. 2004-0008-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Discharges of Aquatic Pesticides to Surface Waters of the United States for Victor Control, General Permit No. CAG990004

<sup>7</sup>Water Quality Order No. 2004-0008-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Discharges of Aquatic Pesticides for Aquatic Weed Control in Waters of the United States, General Permit No. CAG990005

regional water Boards. The receiving water limitations included herein are consistent with the State Water Board Order, U.S. EPA policy, and the U.S. Court of Appeals decision in *Defenders of Wildlife v. Browner* (Ninth Cir., 1999). The State Water

Board's OCC has determined that the federal court decision did not conflict with SBO 99-05 (memorandum dated October 14, 1999).

46. Federal regulation 40 CFR 122.42(c)(7) requires the Permittees to submit an annual report that identifies water quality improvements or degradation.
47. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (Public Resources Code, Section 21100, et. seq.) in accordance with Section 13389 of the Water Code.
48. This Order serves as an NPDES permit, pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect 50 days from the date of hearing, provided that U.S. EPA has no objections.
49. This Order does not authorize any take of endangered species. To ensure that endangered species issues have been raised to the responsible agencies, the Central Valley Water Board notified the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the California Department of Fish and Wildlife of Central Valley Water Board's consideration of this Order.

### **STORM WATER MANAGEMENT PROGRAM**

50. The 12 March 2007 Report of Waste Discharge (ROWD) included a draft revised SWMP dated 2006, a template for a construction storm water pollution prevention plan (SWPPP), and a model SWPPP for Industrial Activities. The ROWD also included information for the Order reapplication, including proposed changes to the SWMP and monitoring programs.
51. Federal regulations at 40 CFR 122.26(d)(2)(iv) require the Permittees to submit a SWMP to reduce the discharge of pollutants in storm water to the MEP, and to effectively prohibit non-storm water discharges into municipal storm drain systems within the Permittees' jurisdictions during the 5-year duration of the permit. During the third term permit period, the Permittees shall continue to demonstrate substantial compliance with their respective SWMP and this Order through the information and data supplied in the Annual Reports. The SWMP shall remain in effect, as an integral and enforceable component of this Order, until revised and approved by the Central Valley Water Board. If there are conflicts between the SWMP and this Order, then the Order supercedes the SWMP.
52. This Order requires evaluation of water quality impacts of storm water discharges from industrial and construction sites, existing urbanized areas, and new developments. This Order also requires implementation and evaluation of the SWMP and related

programs to reduce the discharge of pollutants in storm water runoff to MEP and to improve water quality and protect beneficial uses.

53. Implementation of the SWMP shall result in:
  - a. Identification and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the U.S. and their beneficial uses;
  - b. Compliance with the federal regulations to eliminate or control to the MEP the discharge of pollutants from urban runoff associated with the storm drain system;
  - c. Achievement of water quality standards;
  - d. Development of a cost-effective program which focuses on pollution prevention of urban storm water;
  - e. Implementation of effective alternative solutions where prevention is not a practical solution for a significant problem; and
  - f. Coordination of control measures with other agencies.
  
54. The draft revised SWMP (dated June 2006) submitted in the ROWD largely followed requirements in 40 CFR 122.26 and contained the following program elements:
  - a. Maintenance of Structural Controls
  - b. Master Plan to Develop, Implement, and Enforce Controls for New Development and Significant Redevelopment
  - c. Operation and Maintenance of Roads, Streets, and Highways
  - d. Assessment of Existing and Proposed Flood Management Projects
  - e. Controls for Landfills and Other Treatment, Storage or Disposal Facilities
  - f. Controls for Pesticides, Herbicides, and Fertilizer
  - g. Illicit Discharge Controls
  - h. Spill Prevention, Containment, and Response Procedures
  - i. Illegal Dumping Controls
  - j. Leaking Sanitary Sewage Controls
  - k. Storm Drain System Inspections and Control Measures
  - l. Monitoring Program for Industrial Activities
  - m. Site Planning Procedures
  - n. Structural and Non-Structural BMPs
  - o. Identifying Site Inspection Priorities and Enforcing Control Measures
  - p. Education and Training for Construction Site Operators
  
55. Since the publication of the storm water Phase II regulations in 1999, most municipal storm water programs have been organized to follow the six minimum control measures (e.g., public education, public involvement, illicit discharge detection and elimination, construction, post-construction, and municipal maintenance). Phase I municipal storm water programs include control measures for industrial and commercial facilities, program management, and monitoring/evaluation. The Permittees' proposed June 2006 SWMP addresses many of these measures; however, it does not address program management and does not fully address measures such

as public education, post-construction, and industrial and commercial facilities. To ensure all major control measures are addressed and to provide consistency with other

municipal storm water programs (including guidance from the California Stormwater Quality Association), the Permittees' SWMP will be revised to include the following:

- a. Program Management
  - i. Legal Authority
  - ii. Fiscal Analysis
  
- b. Core Program
  - i. Construction
  - ii. Industrial and Commercial
  - iii. Municipal Operations
  - iv. Illicit Connections/Illicit Discharges
  - v. Public Outreach
  - vi. Planning and Land Development (Development Standards)
  - vii. Monitoring Program
  - viii. Water Quality Based Program
  - ix. Program Effectiveness Assessment and Reporting

56. The Permittees are required to submit a revised SWMP by **< 9 months after the adoption of the third term permit>**. The existing SWMP fulfills the Central Valley Water Board's permit application requirements subject to the condition that it will be improved and revised in accordance with the provisions of this Order. The revised SWMP will describe the framework for management of storm water discharges during the term of this Order. The revised SWMP will also describe the goals and objectives; legal authorities; source identification process; funding sources; fiscal analysis; assessment controls; BMPs evaluation and improvement process effectiveness assessment strategy; and monitoring plan of the Permittees' storm water management program. The revised SWMP will include program elements and control measures that each Permittee will implement to reduce the discharge of pollutants in storm water to the MEP, and to effectively prohibit non-storm water discharges into MS4s and watercourses within each Permittees' jurisdiction. The various components of the revised SWMP, taken as a whole rather than individually, are expected to reduce pollutants in storm water and urban runoff to the MEP.
57. The Permittees' revised SWMP will contain control measures that identify the specific BMPs that each Permittee will implement to reduce the discharge of pollutants from their respective MS4s to the MEP. The SWMP will also include measurable goals for each Control Measure to establish the level of effort required to comply with this Order and the federal MEP standard and an implementation schedule to identify when certain activities must be completed. Each BMP control program will also identify effectiveness assessments that the Permittees will utilize to ensure the program is meeting the desired objectives and that the resources expended are providing

commensurate benefits and are protective of water quality.

58. On 15 August 2012, the Permittees submitted to the Central Valley Water Board a City-County Agreement No. 12-105 (Agreement) written to formalize the partnership between Kern County and the City of Bakersfield in the control of pollutants from one portion of the shared MS4 to another portion of the storm sewer system. This Agreement met the requirements under WDR Order 5-01-130, Provision D.9. This Agreement expires on 1 July 2018. This Order requires the Permittees to provide an evaluation report regarding whether the current Agreement contains sufficient enforcement tools and accurately reflects the actual working relationships between the Permittees and to update the Agreement, as necessary, to ensure implementation of the SWMP and Monitoring Programs.
59. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 incorporates the federal antidegradation policy (40 CFR 131.12) where the federal policy applies under federal law. The proposed discharge complies with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Resolution 68-16 requires in part:
  - a. High quality waters be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies; and
  - b. Any activity, which produces or may produce a waste or increased volume or concentration of waste, and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.
60. Storm water runoff can include such pollutants as sediment, fertilizers/nutrients, pathogens, hydrocarbons, and metals. Beginning in 1994, the Permittees have conducted dry weather and wet weather receiving water monitoring to determine the current effect of storm water and non-storm water discharges from the Bakersfield Urbanized Area on Kern River water quality. Receiving water monitoring results are included in the Fact Sheet. As shown by the monitoring results, there is no significant difference between the upstream and downstream concentration levels for the sampled constituents, indicating minimal impact to Kern River water quality from the MS4 storm water discharge.
61. There is a need in the Bakersfield Metropolitan Area to accommodate growth. The Central Valley Water Board does not have the jurisdiction to control growth in the region, but is required to assure that the receiving waters are adequately protected as a result of any increased urban discharges due to growth. The Bakersfield Urban Area

has continued to develop since adoption of the previous permit. The proposed Order allows the expansion of service necessary to accommodate housing and economic expansion in the area and is considered to be a benefit to the people of the State.

62. The Permittees' development standards require that all new development within the Bakersfield Urban Area that cannot be served by the existing storm sewer system include retention basins to contain and infiltrate runoff from the development. Any development or redevelopment in areas currently served by the existing storm sewer system requires installation of detention basins sized so runoff from the newly developed area does not exceed the capacity of the drainage system. Detention basins allow for sediment to settle and minimize sediment and pollutants entering waters of the U.S. The development standards ensure any increase in discharge that results from continued urban development will result in minimal degradation of waters of the State and navigable waters of the United States. The development standards for new development and re-development, along with the other requirements in this Order represent best practicable treatment or control.
63. As demonstrated by receiving water monitoring described in Finding 59, discharge of storm water to the Kern River does not adversely change the surface water quality and does not unreasonably threaten present and future anticipated beneficial uses or results in water quality that exceeds water quality objectives set forth in the Basin Plan.
64. Economic prosperity of valley communities is of maximum benefit to the people of the State. As described in Finding 60, the proposed Order allows the expansion of service necessary to accommodate housing and economic expansion in the area
65. This Order requires continued monitoring to evaluate potential surface water impacts from the discharge and to confirm that the best practicable treatment or control measures are sufficiently protective of present and future anticipated beneficial uses.
66. The discharge and potential for surface water degradation allowed in this Order are consistent with the Antidegradation Policy since: (a) the Order requires best practicable treatment or control measures to minimize degradation; (b) the minimal degradation allowed by this Order will not unreasonably affect present and anticipated beneficial uses of surface waters, or result in water quality less than water quality objectives; and (c) the limited degradation is of maximum benefit to the people of the State.

### **DEVELOPMENT STANDARDS**

67. On 5 October 2000, the State Water Board adopted Order WQ 2000-11, a precedent setting decision concerning the use of Standard Urban Storm Water Mitigation Plans (SUSMP) in municipal storm water permits for new developments and significant redevelopments. The State Water Board recognized that the decision includes significant legal or policy determinations that are likely to recur (Gov. Code §11425.60). Due to the precedent setting nature of Order WQ 2000-11, the Central Valley Water Board's MS4 permits must be consistent with applicable portions of the State Water

Board's decision and include SUSMP.

68. Since the 1980, the Permittees have required new and redevelopment projects in areas not served by existing storm sewers to contain and infiltrate storm water runoff in detention basins. Kern County requires basins be sized to retain the Intermediate Storm Design Discharge 5-day storm event, which is equivalent to the 10-year, 24-hour storm times a factor of 1.44. The City of Bakersfield requires basins to retain a 100-year, 24-hour storm event, draining by percolation or evaporation within 7 days.
69. Several of the MS4 permits for areas around the State that are on their second and third terms contain or have given consideration to Standard Urban Storm Water Mitigation Plans (SUSMPs) for specific categories of new development and redevelopment. In general, the SUSMPs require that 85% of the runoff from the subject sites be infiltrated or treated and recommend or require other BMPs. The State Water Board has found that the provisions in the SUSMPs constitute MEP. As summarized in the Fact Sheet, the MS4 captures approximately 90% of the runoff from all urban land uses, providing a substantially broader coverage than that created by the SUSMPs. Additionally, many of the BMPs included in the SUSMPs are already addressed in the Discharger's SWMP.
70. The Permittees submitted to the Central Valley Water Board a technical report comparing the new development and redevelopment requirements in the existing SWMP with the Development Standards (SUSMP) effective at that time. This report met the requirements under WDR Order 5-01-030, Provision D.4., and demonstrated that the existing new development and redevelopment requirements met the requirements of the SUSMP applicable at that time.
71. Federal regulation 40 CFR 131.10(a) prohibits states from designating waste transport or waste assimilation as a use for any water of the United States. Authorizing the construction of a storm water/urban runoff treatment facility in a jurisdictional water body would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the construction and operation of a pollution control facility in a water body can impact the physical, chemical, and biological integrity as well as the beneficial uses of the water body. Therefore, storm water treatment and/or mitigation in accordance with Development Standards and any other requirements of this Order must occur prior to the discharge of storm water into a water of the United States.
72. Low Impact Development (LID) is a storm water management strategy concerned with maintaining or restoring the natural hydrologic functions of a site to achieve natural resource protection objectives and fulfill environmental regulatory requirements. LID employs a variety of natural and built features that reduce the rate of runoff, filter out its pollutants, and facilitate the infiltration of water into the ground. By reducing water pollution and increasing groundwater recharge, LID helps to improve the quality of receiving surface waters and stabilize the flow rates of nearby streams. Therefore, LID design concepts should be promoted for new developments and significant

redevelopments.

73. Hydromodification is the alteration of the natural flow of water, and often takes the form of channelizing former stream or riverbeds. When development projects that modify hydrology are carried out without protecting soil and water resources, a variety of problems can result, including: excess sediment flowing into our watersheds; downstream erosion; disruption of natural drainage; irregular stream flows; and elevated water temperatures. Due to the flat topography associated with the Bakersfield Urbanized Area, low annual rainfall, and the Permittees use of regional detention/retention basins, discharges from the MS4 do not cause hydromodification issues in the receiving waters.
74. Studies indicate that facilities with paved surfaces subject to frequent motor vehicle traffic (such as parking lots and fast food restaurants), or facilities that perform vehicle repair, maintenance, or fueling (automotive service facilities) are potential sources of pollutants of concern in storm water. [References: Pitt et al., Urban Storm Water Toxic Pollutants: Assessment, Sources, and Treatability, Water Environment Res., 67, 260 (1995); Results of Retail Gas Outlet and Commercial Parking Lot Storm Water Runoff Study, Western States Petroleum Association and American Petroleum Institute, (1994); Action Plan Demonstration Project, Demonstration of Gasoline Fueling Station Best Management Practices, Final Report, County of Sacramento (1993); Source Characterization, R. Pitt, In Innovative Urban Wet-Weather Flow Management Systems (2000) Technomic Press, Field, R et al. editors; Characteristics of Parking Lot Runoff Produced by Simulated Rainfall, L.L. Tiefenthaler et al. Technical Report 343, Southern California Coastal Water Research Project (2001)]
75. Retail Gasoline Outlets (RGOs) are significant sources of pollutants in urban runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other urban areas. To meet MEP, source control, and treatment control BMPs are needed at RGOs that meet the following criteria: (a) 5,000 square feet or more. Due to the potential threat to storm water quality from RGOs, Development Standards for RGOs are included in this Order.
76. Each Permittee is individually responsible for adopting and enforcing local ordinances necessary to implement effective BMPs to prevent or reduce pollutants in storm water, and for providing funds for capital, operation, and maintenance expenditures necessary to implement such BMPs for the storm drain system that it owns and/or operates. Enforcement actions concerning this Order will, whenever necessary, be pursued only against the individual Permittee responsible for specific violations of this Order.

## **IMPAIRED WATER BODIES**

77. Section 303(d)(1)(A) of the CWA requires that “Each state shall identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard (WQS) applicable to such waters.” The CWA also requires states to establish a priority ranking of impaired waterbodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired waterbodies is called the Section 303(d) List.
78. CWA Section 303(d) and 40 CFR 130.7 require states to list water quality-impaired water bodies and pollutants of concern, and develop Total Maximum Daily Loads (TMDLs). A TMDL is a quantitative assessment of the total pollutant load that can be discharged from all sources each day while still meeting water quality objectives. The Central Valley Water Board is currently in the process of developing TMDLs for listed water bodies within the Region. Prior to TMDL’s being adopted and approved, Permittees must implement actions and/or assessments to address their contribution to the water quality impairments. Once the Central Valley Water Board and U.S. EPA approve TMDLs, this Order may be reopened to incorporate provisions consistent with waste load allocations established under the TMDLs.
79. The Central Valley Water Board has not identified any impaired waterbodies nor established TMDLs for the Kern River and distribution canals that receive discharges from the Permittees.
80. The Water Code allows the Central Valley Water Board to require dischargers submit technical and monitoring reports where the burden of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. The Central Valley Water Board may require the monitoring and technical reports that are identified as necessary in the Findings above specifically in this Order or in a separate Order under authority of the Water Code.

### **PUBLIC PROCESS**

81. The Central Valley Water Board has notified the Permittees and interested parties of its intent to prescribe waste discharge requirements for this discharge. These parties have been given an opportunity to address the Central Valley Water Board at a public hearing and an opportunity to submit their written views and recommendations to the Central Valley Water Board.
82. The Central Valley Water Board has considered the information in the attached Fact Sheet in developing the Findings of this Order. The attached Fact Sheet is part of this Order.
83. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that WDR Order 5-01-130 is rescinded, and that the Permittees, their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions – Storm Water Discharges**

1. Discharges from the MS4 in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in Section 13050 of the Water Code are prohibited.
2. Discharges from the MS4 which cause or contribute to exceedance of water quality standards (designated beneficial uses in the Basin Plan and the water quality objectives developed to protect those uses) for surface water or groundwater, are prohibited.
3. Discharges from the MS4 containing pollutants, which have not been reduced to the MEP, are prohibited.

**B. Discharge Prohibitions – Non-Storm Water Discharges**

1. Each Permittee shall have and implement the legal authority necessary to effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate NPDES permit; or not prohibited in accordance with this Order.
2. Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1), the following categories of non-storm water discharges need only be prohibited from entering the MS4 if such categories of discharges are identified by the Permittees as a source of pollutants to waters of the U.S.:
  - a. Diverted stream flows;
  - b. Rising groundwater;
  - c. Uncontaminated groundwater infiltration as defined by 40 CFR 35.2005(b)(20);
  - d. Uncontaminated pumped groundwater;
  - e. Foundation drains;
  - f. Springs;
  - g. Water from crawl space pumps;
  - h. Footing drains;
  - i. Air conditioning condensation;
  - j. Flows from riparian habitats and wetlands;
  - k. Water line and hydrant flushing;
  - l. Landscape irrigation;
  - m. Discharges from potable water sources other than water main breaks;

- n. Irrigation water;
  - o. Individual residential car washing;
  - p. De-chlorinated swimming pool discharges;
  - q. Lawn watering; and
  - r. Street wash water.
3. When a non-storm water discharge category above is identified as a source of pollutants to waters of the U.S., the Permittees shall either:
- a. Prohibit the discharge category from entering its MS4s; or
  - b. Not prohibit the discharge category and implement, or require the responsible party(ies) to implement, BMPs which will reduce pollutants to the MEP; and
  - c. Submit the following information to the Central Valley Water Board as part of the Annual Report:
    - i. The non-storm water discharge category listed above that the Permittee elects not to prohibit; and
    - ii. The BMPs for each discharge category listed above that the Permittee will implement, or require the responsible party(ies) to implement, to prevent or reduce pollutants to the MEP.
4. Emergency fire-fighting flows (i.e., flows necessary for the protection of life or property) do not require immediate implementation of BMPs and are not prohibited. However, each Permittee should coordinate with other agencies to develop a response plan to minimize the impact of fire-fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire-fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant sources of pollutants to waters of the State. The response plan and BMPs shall be updated as needed and incorporated into the SWMP.
5. Each Permittee shall examine all dry weather analytical monitoring results collected in accordance with the Monitoring and Reporting Program of this Order to identify water quality problems that may be the result of any non-storm water discharge, including any non-prohibited discharge category(ies). Follow-up investigations shall be conducted as necessary to identify and control any non-storm water discharges that are sources of pollutants. Non-prohibited discharges listed above containing pollutants that cannot be reduced to the MEP by the implementation of BMPs shall be prohibited on a categorical or case-by-case basis.

### **C. Receiving Water Limitations**

1. Receiving water limitations are site-specific interpretations of water quality standards from applicable water quality control plans. As such they are required as part of the permit. However, a receiving water condition not in conformance with the limitation is not necessarily a violation of this Order. The Central Valley Water Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred. Discharges from MS4s shall not cause the following in receiving waters:
  - a. Concentrations of dissolved oxygen to fall below 5.0 mg/l.
  - b. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
  - c. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
  - d. Aesthetically undesirable discoloration.
  - e. Fungi, slimes, or other objectionable growths.
  - f. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:
    - i. Where natural turbidity is between 0 and 5 NTUs, increases shall not exceed 1 NTU.
    - ii. Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.
    - iii. Where natural turbidity is equal to or between 50 and 100 NTUs, increases shall not exceed 10 NTUs.
    - iv. Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.
  - g. The normal ambient pH to fall below 6.5, exceed 8.3, or change by more than 0.3 units from normal ambient pH.
  - h. Deposition of material that causes nuisance or adversely affects beneficial uses.
  - i. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.

- j. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of Radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
  - k. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
  - l. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bio accumulate in aquatic resources at levels which are harmful to human health.
  - m. Pathogen/Bacteria concentrations to be present that exceed criteria or threaten public health. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, nor more than ten percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.
  - n. Violation of any applicable water quality standard for receiving waters adopted by the Central Valley Water Board or the State Water Board pursuant to the CWA and regulations adopted there under.
2. The discharge shall not cause or contribute to an exceedance of any applicable water quality standards.
  3. The Permittees shall comply with Discharge Prohibition A.2 and Receiving Water Limitations C.1 and C.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP and other requirements of this Order, including any modifications. The SWMP shall be designed to achieve compliance with Receiving Water Limitations C.1 and C.2. If exceedance(s) of water quality objectives or water quality standards (collectively, WQS) persist notwithstanding implementation of the SWMP and other requirements of this Order, the Permittees shall assure compliance with Discharge Prohibition A.2 and Receiving Water Limitations C.1 and C.2 by complying with the following procedure:
    - a. Upon a determination by either the Permittees or Central Valley Water Board that discharges are causing or contributing to an exceedance of an applicable WQS, the Permittees shall promptly notify and thereafter submit a report to the Executive Officer that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQS. This Report of Water Quality Exceedance (RWQE) shall be incorporated in the

Annual Report unless the Central Valley Water Board directs an earlier submittal. The RWQE shall include proposed revisions to the SWMP and an implementation schedule containing milestones and performance standards for new or improved BMPs, if applicable. The RWQE shall also include a monitoring program and the rationale for new or improved BMPs, including a discussion of expected pollutant reductions and how implementation of additional BMPs will prevent future exceedance of WQSs. The Central Valley Water Board may require modifications to the RWQE.

- b. The Permittees shall submit any modifications to the RWQE required by the Central Valley Water Board within **30 days** of receipt of all data from analytical laboratories.
- c. Within **30 days** following approval of the RWQE by the Executive Officer, the Permittees shall revise the SWMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, implementation schedule, and any additional monitoring required.
- d. The Permittees shall implement the revised SWMP and monitoring program in accordance with the approved schedule.

If the Permittees have complied with the procedures set forth above and are implementing the revised SWMP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Executive Officer to develop additional BMPs.

#### **D. Provisions**

1. Within its geographic jurisdiction, each Permittee shall:
  - a. Comply with the requirements of this Order, the SWMP, and any modifications to the SWMP;
  - b. Coordinate among its internal departments and agencies, as appropriate, to facilitate the implementation of the requirements of the SWMP applicable to such Permittee in an efficient and cost effective manner;
  - c. Participate in intra-agency coordination (e.g. Public Works, Planning, Building, Fire Department, Code Enforcement, Public Health) necessary to successfully implement the provisions of this Order and the SWMP.
  - d. As part of the Annual Report and Annual Work Plan, the Permittees shall jointly prepare an annual fiscal analysis identifying the expenditures made during the Annual Report reporting period and projecting the planned future expenditures for the storm water management program. The analysis shall include a summary that identifies the storm water budget for both the previous year and

estimates expenditures for the upcoming year using estimated percentages and written explanations where necessary, for the specific categories noted below:

- i. Program Management (administrative costs)
- ii. SWMP Development
  - a) Construction Program
  - b) Commercial and Industrial Program
  - c) Municipal Operations and Facilities Program  
- Maintenance of Structural BMPs and Treatment Control BMPs
  - d) Illicit Discharge and Detection Elimination Program
  - e) Public Involvement and Education Program
  - f) Planning and Land Development Program
- iii. Monitoring Program
- iv. Water Quality Based Programs
- v. Training
- vi. Other Services and Expenses
- vii. Performance and Effectiveness Evaluations

### **STORM WATER MANAGEMENT PROGRAM**

2. The SWMP is required as part of the application pursuant to 40 CFR 122.26(2)(d)(iv); therefore, it is an integral and enforceable component of this Order.

By **(nine months after the Order is adopted)** the Permittees shall modify the SWMP to address the requirements of this Order, including but not limited to the Provisions below, and submit a revised SWMP for public review and comment, and Central Valley Water Board approval. New or revised BMPs may be based upon special studies or other activities conducted by the Permittees, literature review, or special studies conducted by other programs or dischargers. The SWMP shall contain the rationale for any new or revised BMPs and may include a discussion of baseline conditions, expected reductions in mass loading, and methods to be used to verify that BMPs have been successfully implemented. The SWMP shall include an implementation schedule containing identifiable milestones, detailed performance standards, and a compliance monitoring and reporting program.

The performance standards shall be used as assessment tools to gauge the success of the program in achieving measurable benefits and improving water quality. The Permittees shall incorporate newly developed or updated BMPs and assessment tools/performance standards into applicable annual revisions to the SWMP and adhere to implementation of the new/revised BMPs. The approved SWMP shall serve as the framework for identification, assignment, and implementation of BMPs. Each Permittee shall implement or require

implementation of BMPs in the approved SWMP to ensure that pollutant discharges from its MS4s are prevented or reduced to the MEP.

Each Permittee shall implement a SWMP that contains the following components:

- a. Program Management
  - i. Annual Work Plan
  - ii. Annual Reporting
  - iii. Departmental Coordination
  - iv. Training
  - v. Legal Authority
  - vi. Fiscal Analysis
  
- b. Core Programs
  - i. Construction Program
  - ii. Commercial and Industrial Program
  - iii. Municipal Operations Program
  - iv. Illicit Connection and Detection Program
  - v. Public Involvement and Education Program (Public Outreach)
  - vi. Planning and Land Development Program
  - vii. Storm Water Quality Monitoring Program
  - viii. Program Effectiveness Assessment and Reporting Program

### **PROGRAM MANAGEMENT**

3. The Program Management component of the SWMP shall involve ensuring that all elements of the SWMP are implemented on schedule and all requirements of this Order are complied with.

**SWMP Implementation:** Each Permittee shall continue implementation of their current SWMP until such time that the SWMP has been modified to be consistent with this Order and approved by the Central Valley Water Board. Once approved, the Permittees shall implement the modified SWMP consistent with the schedule specified within this Order. The SWMP, with modifications, revisions, or amendments as may be approved by the Executive Officer or Central Valley Water Board, is an enforceable component of this Order.

**SWMP Modification:** The Permittees' SWMP may need to be modified, revised, or amended from time to time to respond to a change in conditions and to incorporate more effective approaches to pollutant control. Provisions of this Order require review and/or revision of the certain components of the Permittees' SWMP. Proposed SWMP revisions will be part of the annual review process and incorporated in the Annual Report. In addition, the Permittees shall revise their

SWMP to comply with regional or watershed-specific requirements, and/or waste load allocations developed and approved pursuant to the process for the designation and implementation of TMDLs for impaired water bodies, and/or amendments to the Basin Plan when the amendments become effective. A 30-day public notice and comment period shall apply to all proposed significant revisions to the SWMP. Significant SWMP revisions shall be brought before the Central Valley Water Board for review and approval. Minor SWMP revisions may be approved by the Executive Officer.

- a. **Annual Work Plan:** The Permittees shall submit an Annual Work Plan as part of the Annual Report. The Annual Work Plan shall describe in detail the SWMP's and the Permittees' proposed activities for the upcoming reporting year.
- b. **Annual Report:** The Permittees shall submit an Annual Report by **1 September** of each year beginning with the 2013-2014 reporting period. The Annual Report shall document the status of the SWMP's and the Permittees' activities during the previous fiscal year, including the results of a qualitative and quantitative field level assessment of activities implemented by the Dischargers, and the performance of tasks contained in the SWMP. The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the SWMP and Annual Work Plan. Per 40 CFR 122.42(c), the Annual Report shall include a program effectiveness assessment and recommended modifications for each Program Element/Control Measure. Each Annual Report shall build upon the previous year's efforts. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SWMP, which shall be complied with under this Order.
- c. **City-County Agreement:** The Permittees shall collaborate with each other to address common issues, promote consistency between SWMP and Monitoring Programs, and to plan and coordinate activities required under this Order.
  - i. The Permittees shall review their existing City-County Agreement (Agreement) to ensure that it provides for a management structure that includes the items below and submit a letter stating the existing agreement is adequate, or submit an updated agreement that is adequate, to the Central Valley Water Board no later than **< six months after adoption of the Order>**.

The Agreement should address the following:

- a) Designation of Joint Responsibilities;

- b) Decision making;
  - c) Information management of data and reports, including the requirements under this Order; and
  - d) Any and all other collaborative arrangements for compliance with this Order.
- ii. The Permittees shall jointly develop and/or update the standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be used by all Permittees and shall include protocols for electronic reporting, specifically data reporting.
- d. **Departmental Coordination:** The Permittees shall identify all departments within the Permittees' jurisdiction that conduct storm water pollution prevention related activities and their roles and responsibilities under this Order. The Annual report shall include an up-to-date organizational chart specifying these departments and key personnel responsible for issuance of enforcement actions.
- e. **Training:** The Permittees are required to evaluate the existing training protocols and submit in the updated SWMP a summary of how the protocols shall be changed to meet the requirements of this permit.
- f. **Legal Authority:** The Permittees shall review, revise, maintain, and enforce adequate legal authority to control pollutant discharges from their MS4s through ordinance, statute, permit, contract, or similar means.
- i. This legal authority must, at a minimum, authorize the Permittees to:
    - a) Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to the MS4. This requirement applies both to industrial and construction sites, which have coverage under the statewide general industrial or construction general storm water permits, as well as to those sites that do not require permit coverage;
    - b) Effectively prohibit identified illegal discharges (e.g., discharges of wash water from gas stations, mobile businesses, parking lots, storage areas containing equipment, discharges of pool water containing chlorine or bromine, discharges of sediment, pet waste, vegetation, food related wastes, toxic materials, pesticides, construction debris, etc.);

- c) Prohibit and eliminate illicit connections to the MS4;
  - d) Prohibit the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
  - e) Use enforcement mechanisms to require compliance with the Permittees storm water ordinances, permits, contracts, or orders;
  - f) Control the contribution of pollutants from one portion of the shared MS4 to another portion of the storm sewer system through interagency agreements among the Permittees (and other owners of the storm sewer system such as Caltrans);
  - g) Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition on illicit discharges to the MS4;
  - h) Require the use of BMPs to prevent or reduce the discharge of pollutants from MS4 to the MEP; and
  - i) Require that Treatment Control BMPs be properly operated and maintained to prevent the breeding of vectors.
- ii. Each Permittee shall amend its existing ordinances as needed, to enforce all the requirements of this Order within **one year** after adoption of the SWMP. The ordinance(s) shall contain implementable and progressive enforcement procedures.
- iii. Each Permittee shall provide to the Executive Officer by **(18 months after adoption of this Order)** a statement certified by its chief legal counsel that it has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement shall be included in Permittees' revised SWMP(s), which shall describe the following:
- a) All urban runoff related ordinances adopted by the Permittees and appropriate citations thereof and the reasons they are enforceable;
  - b) The Permittees' Progressive Enforcement Policy and how it will be effectively implemented;
  - c) The local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and, therefore, with the conditions of this Order;

- d) Descriptions of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
- e) A description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.
- g. **Fiscal Analysis:** Each Permittee shall secure the resources necessary to meet the requirements of this Order and shall prepare an annual fiscal summary as part of the SWMP Annual Report. This summary shall, for each fiscal year covered by this Order, identify the expenditures necessary to accomplish the activities of the SWMP. Such summary shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

### **SWMP CORE PROGRAMS**

#### **4. Construction Program**

- a. The objectives of the Construction Program shall be to:
  - i. Provide adequate legal authority to control pollutants to the MS4 from construction sites;
  - ii. Require review of construction plans and grading permits consistent with Permittee requirements;
  - iii. Require BMPs to control sediment and pollutants from construction sites to the MS4;
  - iv. Maintain a tracking system (inventory) of active construction sites;
  - v. Inspect construction sites to ensure proper BMP implementation and compliance with local requirements and applicable Provisions of this Order;
  - vi. Bring forth enforcement actions for sites in violation of Permittee requirements and advise the Central Valley Water Board of potential violations of Construction General Permit requirements;
  - vii. Provide regular internal and external training on applicable components of the SWMP and related Permits; and
  - viii. Conduct an assessment as a part of the annual reporting process to determine the effectiveness of the Construction Program and identify

any necessary modifications.

- b. Each Permittee shall update its SWMP to reduce pollutants in runoff from construction sites during all construction phases to the MEP. At a minimum

the Construction Program shall address the objectives listed above, as well as include the following control measures:

- i. Source Identification;
  - ii. Threat to water quality prioritization;
  - iii. Progressive enforcement of non-compliant sites; and
  - iv. Reporting of recalcitrant non-compliant sites to the Central Valley Water Board.
- c. Each Permittee shall continue to implement and enforce a program to control runoff from all construction sites. The program shall ensure the following minimum requirements are effectively implemented at construction sites:
- i. Sediments generated on the project site shall be retained using adequate source control BMPs;
  - ii. Construction-related materials, wastes, spills, or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;
  - iii. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site;
  - iv. Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs such as limiting grading during the wet season; inspecting graded areas during rain events; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes;
  - v. Prior to issuing a grading permit for a construction site, an erosion and sediment control plan must be submitted to the permitting agency that contains, at a minimum, the following:
    - a) If applicable to the site, a certification that a Notice of Intent has been submitted to the State Water Board;
    - b) A vicinity map showing nearby roadways, the construction site perimeter, and the geographic features and general topography

surrounding the site;

- c) A site map showing the construction project in detail, including the existing and planned paved areas and buildings; general topography both before and after construction; drainage patterns across the project area; and anticipated storm water discharge locations (i.e., the receiving water, a conduit to receiving water, and/or drain inlets);
  - d) A description of BMPs to address contractor activities that generates pollutants including, at a minimum, vehicle washing, equipment maintenance, and waste handling;
  - e) A description of the type and location of erosion and sediment control BMPs, including, but not limited to, limited grading during the wet season, and planting and maintenance of vegetation on slopes, to be employed at the site; and
  - f) The name and telephone number of the qualified person responsible for implementing the Storm Water Pollution Prevention Plan (SWPPP);
- vi. If applicable, all environmental permits must be obtained from agencies such as the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and the Central Valley Water Board's 401 Water Quality Certification Program; and
  - vii. The Permittees shall inspect construction sites within the MS4 Permit boundaries for compliance with local ordinances and SWMP and to confirm the Construction General Permit required SWPPP documents are on site. Sites shall be re-inspected at a frequency determined to be effective by the Permittees, based on the site's threat to water quality, and/or record of compliance until site completion and termination from coverage under the Construction General Permit. Sites in chronic noncompliance shall be reported to the Central Valley Water Board.
- d. The Permittees submitted a Grading Inspection Checklist to the Central Valley Water Board per WDR Order 5-01-130, Provision D.4. The checklist must be updated to include items in 4.c above. An updated copy shall be included in the Annual Report.

**5. Commercial and Industrial Program:**

- a. The objectives of the Commercial and Industrial Program shall be to:

- i. Provide adequate legal authority to control pollutants from industrial and commercial facilities to the MS4;
  - ii. Develop and maintain an inventory of industrial and commercial facilities located within the Permittees' jurisdiction;
  - iii. Prioritize the industrial and commercial facilities within the inventory, based on their threat to water quality;
  - iv. Conduct inspections of the industrial and commercial facilities that pose a significant threat to water quality with an inspection frequency based on the prioritization of the facility and conduct follow-up inspections to bring the facility into compliance;
  - v. Implement a progressive enforcement policy to ensure that adequate enforcement is conducted, and, if necessary, to refer potential non-filers to the Central Valley Water Board;
  - vi. Provide regular internal and external training on components of the SWMP and related Permits; and
  - vii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Commercial and Industrial Program and identify any necessary modifications.
- b. Each Permittee shall update the Commercial and Industrial Program of its SWMP to reduce pollutants in runoff from commercial and industrial sites to the MEP. At a minimum, the Commercial and Industrial Program shall address the objectives listed above, as well as the following control measures:
- i. At a minimum, the Permittees shall inventory restaurants, automotive service facilities, retail gasoline outlets, and industrial facilities not covered by the General Industrial Permit. The Permittees are required to inventory any additional facilities which may pose a threat to water quality.
  - ii. The Permittees must prioritize all facilities into high, medium, and low categories on the basis of the potential for water quality impact using criteria such as pollutant sources on site, pollutants of concern, proximity to a water body, and violation history of the facility. The different priority categories will be assigned different inspection frequencies, with the highest priority facilities receiving more frequent inspections. The Permittees must describe the process for prioritizing inspections and frequency of inspections. High priority facilities must be inspected a minimum of once per year. If any geographical areas are to be targeted for inspections due to high potential for storm water pollution, these areas

must be listed in the SWMP. Further the SWMP must explain how the priority assigned to any one facility may be modified based on the site inspection findings and the facility's potential to discharge pollutants.

- iii. Each Permittee shall require implementation of pollutant reduction and control measures at high priority industrial and commercial facilities with the objective of effectively prohibiting non-storm water runoff and reducing pollutants in storm water runoff. Except as specified in other sections of this Order, pollutant reduction and control measures can be used alone or in combination, and can include Source and Treatment Control BMPs, which can be applied before, during, and/or after pollution generating activities.
- iv. Inspections must at a minimum:
  - a) Evaluate the facility's compliance with the requirement to select, design, install, and implement storm water control measures;
  - b) Conduct a visual observation for evidence of unauthorized discharges, illicit connections, and potential discharge of pollutants to storm water;
  - c) Verify whether the facility is required to obtain coverage under the General Industrial Permit, and whether the facility has in fact obtained such permit coverage; and
  - d) Evaluate the facility's compliance with any other relevant local storm water requirements.
- v. At a minimum, the Permittees must document the following for each inspection:
  - a) The inspection date and time; the name(s) and signature(s) of the inspector(s);
  - b) Weather information and a description of any discharges occurring at the time of the inspection;
  - c) Any previously unidentified discharges of pollutants from the site;
  - d) Any control measures needing maintenance or repairs;
  - e) Any failed control measures that need replacement;
  - f) Any incidents of noncompliance observed; and

- g) Any additional control measures needed to comply with the Permit Requirements.

Further, inspection findings must be tracked to ensure inspections are conducted at the frequency required, to highlight and document the recidivism of noncompliant facilities, and to aid follow up and enforcement activities.

- vi. The Permittees must ensure that all necessary follow up and enforcement activities are conducted, as necessary, to require necessary implementation and maintenance of the control measures implemented by industrial/commercial facilities.
- vii. The Permittees must ensure that all staff whose primary job duties are implementing the industrial storm water program is trained to conduct facility inspections. The training must cover what is required under this permit in terms of storm water control measures, the requirements of other applicable Industrial storm water general permits or other related local requirements, the Permittees' site inspection and documentation protocols, and enforcement procedures. Follow-up training must be provided every other year to address changes in procedures, techniques, or staffing. Permittees must document and maintain records of the training provided and the staff trained.
- viii. The Permittees must conduct an assessment as a part of the Annual Report process to determine the effectiveness of the program and identify any necessary modifications.

## 6. **Municipal Operations Program**

- a. The objectives of the Municipal Operations Program shall be to:
  - i. Prevent sanitary sewer overflows (SSO) or spills from entering the storm drain system and respond quickly and appropriately if an SSO or spill does enter the storm drain system;
  - ii. Implement development standards that require source and treatment control BMPs to reduce pollutants from Permittee owned construction projects;
  - iii. Implement pollution prevention BMPs for public facilities (e.g., corporation yards) and Facility Pollution Prevention Plans (FPPPs) for public facilities to minimize or eliminate pollutant discharges to the storm drain system;
  - iv. Implement a standard protocol for storage, usage, and disposal of pesticides, herbicides (including pre-emergents), and fertilizers on Permittee-owned property such as park sites, landscaped medians, and

- golf courses;
  - v. Promote the use of integrated pest management methods and less toxic alternatives;
  - vi. Clean and maintain catch basin inlets to prevent debris accumulation and flooding;
  - vii. Ensure that catch basin inlets are properly stenciled or permanently imprinted, or have legible curb markers to discourage illicit discharges into the storm drain system, and promote the 24 hour hotline number;
  - viii. Maintain and inspect detention basins and pump stations;
  - ix. Conduct street sweeping activities;
  - x. Clean and inspect Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system;
  - xi. Provide regular internal training on applicable components of the SWMP; and
  - xii. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update the Municipal Operations Program component in its SWMP to effectively prohibit non-storm water discharges and prevent or reduce pollutants in runoff from all municipal land use areas, facilities, and activities to the MEP. At a minimum, the Municipal Operations Program shall address the objectives listed above, as well as the following control measures:
- i. Sanitary sewer overflow and spill response;
  - ii. Construction requirements for municipal capital improvement projects;
  - iii. Pollution prevention at Permittee facilities;
  - iv. Landscape and pest management;
  - v. Storm drain system maintenance;
  - vi. Street cleaning and maintenance;
  - vii. Parking facilities maintenance;

- viii. Retention/detention basin construction and maintenance;
  - ix. Public industrial activities management;
  - x. Emergency procedures;
  - xi. Non-emergency firefighting flows;
  - xii. Training; and
  - xiii. Effectiveness assessment.
- c. The Permittees submitted a summary of standard operation procedures (SOPs) of inspection maintenance schedules for drainage facilities per WDR Order 5-01-130, Provision D.14. The Permittees are required to update this SOP and schedule to include a process for prioritizing the inspection and maintenance of drainage facilities based upon water quality impacts. The updated SOPs shall be included in the Annual Report.

## **7. Illicit Discharge Detection and Elimination Program**

- a. The objectives of the Illicit Discharge Detection and Elimination Program shall be to:
- i. Provide adequate legal authority to control and/or prohibit pollutants from being discharged to the municipal storm drain system;
  - ii. Proactively detect illicit discharges and illegal connections through a variety of mechanisms including, but not limited to, public reporting, dry weather monitoring, and field crew inspections;
  - iii. Upon identification of an illegal connection, investigate and eliminate the connection through a variety of mechanisms including, but not limited to, permitting or plugging the connection;
  - iv. Upon identification of an illicit discharge, investigate the discharge and conduct any necessary follow up actions to mitigate the impacts of the discharge; and
  - v. Conduct an assessment as a part of the annual reporting process; determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update the Illicit Discharge Detection and Elimination Program in the SWMP to actively seek and eliminate illicit discharges and connections. At a minimum, the Illicit Discharge Detection and Elimination Program shall address the objectives listed above and include the following

control measures:

- i. Detection of Illicit Discharges and Illegal Connections;
  - ii. Illegal Connection Identification and Elimination;
  - iii. Investigation/Inspection and Follow-up Procedures;
  - iv. Enforcement of Local Codes and Ordinances;
  - v. Training; and
  - vi. Effectiveness Assessment.
- c. The Permittees submitted a proposed training program covering storm water pollution prevention and illicit discharge detection and elimination to the Central Valley Water Board per WDR Order 5-01-130, Provision D.11. Permittees are required to update the training program in the SWMP to include training necessary for personnel to meet the objectives described in Provision 7.
- d. The Permittees submitted a proposed program to further control illegal dumping to the Central Valley Water Board per WDR Order 5-01-130, Provision D.13. The Permittees are required to continue to implement this enhanced program as a part of the Illicit Discharge Detection and Elimination Program described in Provision 7.

**8. Public Outreach and Public Education Program (Public Outreach Program):**

- a. The objectives of the Public Outreach Program shall be to:
  - i. Encourage the public to actively participate in the implementation of the storm water program as well as the various outreach events;
  - ii. Promote the use of the 24-hour public reporting hotline;
  - iii. Implement a public education strategy for the overall program that includes developing and distributing materials, conducting a mixed media campaign, participating in community outreach events, and conducting public opinion surveys to gauge the level of awareness and behavior change within a community and/or target audience;
  - iv. Evaluate the ability to interface and coordinate with school education programs on a regional or local level;
  - v. Implement a business outreach program; and

- vi. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Public Outreach Program and identify any necessary modifications.
- b. The Permittees shall add a Public Outreach Program to its SWMP, incorporating the public outreach activities in the current SWMP. At a minimum, the Public Outreach Program shall address the objectives listed above and include the following control measures:
  - i. Public Participation
  - ii. Hotline/ website
  - iii. Public Outreach Implementation
  - iv. Public School Education
  - v. Business Outreach
  - vi. Effectiveness Assessment
- c. The Permittees shall incorporate a mechanism for public participation in the implementation of the SWMP (i.e., programs that engage the public in cleaning up creeks, removal of litter in river embankments, stenciling of storm drains, etc.).
- d. The Permittees submitted a public outreach program for users of pesticides and fertilizers per WDR Order 5-01-130, Provision D.16. The Permittees are required to update and implement this program to:
  - i. Coordinate with the County Agriculture Commission and Extension Service and environmental organizations, and interested stakeholders;
  - ii. Provide targeted information concerning proper pesticide use and disposal, potential adverse impacts on water quality, and alternative, less toxic methods of pest prevention and control, including IPM; and
  - iii. Continue coordination with household hazardous waste collection agencies.

**9. Planning and Land Development Program:**

- a. The objectives of the Planning and Land Development Program shall be to:
  - i. Incorporate water quality and watershed protection principles into the Permittees' policies and planning procedures;
  - ii. Ensure that selected post-construction storm water controls will remain effective upon project completion by requiring a maintenance agreement and transfer or establishing a maintenance district zone for

- all priority development projects;
  - iii. Provide a comprehensive review of development plans to ensure that storm water quality controls are properly selected to minimize storm water quality impacts;
  - iv. Provide regular internal training on applicable components of the SWMP; and
  - v. As a part of the annual reporting process, conduct an assessment (at least annually) to determine the effectiveness of the Program Element and identify any necessary modifications.
- b. Each Permittee shall update the Planning and Land Development Component of its SWMP to minimize the short and long-term impacts on receiving water quality from new development and redevelopment. At a minimum, the Planning and Land Development Program shall address the objectives listed above and include the following control measures:
- i. New/Revised Development Standards;
  - ii. Plan Review Sign-Off;
  - iii. Maintenance Agreement and Transfer;
  - iv. Training; and
  - v. Effectiveness Assessment.
10. **Water Quality Protection Principles** - In order to further reduce pollutants and runoff flows from new development and redevelopment, each Permittee shall encourage the following concepts:
- a. Minimization of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible to maximize on-site infiltration of runoff (low impact development concepts).
  - b. Implementation of pollution prevention methods supplemented by pollutant source controls and treatment, and where practical, use of strategies that control the sources of pollutants or constituents (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into MS4s.
  - c. Preservation, and where possible, creation or restoration of areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones.
  - d. Limiting disturbances of natural water bodies and natural drainage systems by development including roads, highways, and bridges.
  - e. Identification and avoidance of development in areas that are particularly susceptible to erosion and sediment loss; or establishment of guidance that protects areas from erosion and sediment loss.

- f. Coordination with local traffic management programs to reduce pollutants associated with vehicles and increased traffic resulting from development.
  - g. Implementation of source and structural controls as necessary and appropriate to protect downstream receiving water quality from increased pollutant loads and flows (hydromodification concepts) from new development and significant redevelopment.
  - h. Control of the post-development peak storm water run-off discharge rates and velocities to maintain or reduce pre-development downstream erosion, and to protect stream habitat.
  - i. Low Impact Development - New development and redevelopment projects shall consider integration of Low Impact Development (LID) principles into project design.
11. **Development Standards** - Permittees shall review and revise their current Development Standards **by 16 Months from the adoption of this Order** as necessary to address the following:
- a. **Post Development Standards** - Each Permittee shall ensure that all new development and significant redevelopment projects falling under the priority project categories listed below and not draining to terminal drainage basins meet Development Standards.
  - b. **Priority Development Project Categories** – For projects which do not drain to a terminal drainage basin, Development Standards requirements shall apply to: (1) significant redevelopment; (2) home subdivisions of 10 housing units or more; (3) commercial developments great than 100,000 square feet; (4) automotive repair shops; (5) restaurants; (6) parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to urban runoff; (7) streets and roads; and (8) retail gasoline outlets (RGO).

Significant redevelopment is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to, expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where significant redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to the Development Standards, the numeric sizing criteria discussed below applies only to the addition, and not the entire development.

- c. **BMP Requirements** – The Development Standards shall include a list of recommended pollution prevention, source control, and/or structural treatment control BMPs. The Development Standards shall require all new development and significant redevelopment projects falling under the above priority project categories or locations to implement a combination of BMPs selected from the recommended BMP list, including at a minimum: (1) source control BMPs and (2) structural treatment control BMPs.
  
- d. **Numeric Sizing Criteria** – The Development Standards shall require structural treatment BMPs, including LID BMPs where feasible, to be implemented for all priority development projects. In addition to meeting the BMP requirements listed above, all structural treatment BMPs for a single priority development project shall be sized collectively to comply with either the volume-based or flow-based numeric sizing criteria:
  - i. Volume-based BMPs shall be designed to mitigate (infiltrate or treat) either:
    - a) The volume of runoff produced from a 85th percentile, 24-hour storm event, as determined from the local historical rainfall record; or
    - b) The volume of runoff produced by the 85th percentile, 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87*, (1998); or
    - c) The volume of annual runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in *California Storm Water Best Management Practices Handbook – Industrial/Commercial*, (1993); or
    - d) A Permittee justified design storm volume that is determined as part of the Development Standard development and approved by the Executive Officer. The treatment of this volume shall achieve approximately the same reduction in pollutant loads achieved by treatment of the 85<sup>th</sup> percentile, 24-hour runoff event.
  - ii. Flow-based BMPs shall be designed to mitigate (infiltrate or treat) either:
    - a) The maximum flow rate of runoff produced by the 85<sup>th</sup> percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
    - b) The maximum flow rate of runoff, as determined from local historical rainfall records, that achieves approximately the same reduction in

pollutant loads and flows as achieved by mitigation of the 85<sup>th</sup> percentile hourly rainfall intensity multiplied by a factor of two.

- e. **Equivalent Numeric Sizing Criteria** - Each Permittee may develop any equivalent numeric sizing criteria or performance-based standard for post-construction structural treatment BMPs as part of the Development Standards. Such equivalent sizing criteria may be authorized for use in place of the above criteria. In the absence of development and subsequent authorization of such equivalent numeric sizing criteria, the above numeric sizing criteria requirement shall be implemented.
- f. **Pollutants and Activities of Concern** – As part of the Development Standards, each Permittee shall identify pollutants and/or activities of concern for each new development or significant redevelopment project. The Permittees shall identify the pollutants of concern by considering the following (1) receiving water quality, including pollutants for which receiving waters are listed as impaired under CWA Section 303(d); (2) land use type of the development project and pollutants associated with that land use type; (3) pollutants expected to be present on site at concentrations that pose potential water quality concerns; (4) activities expected to be on the site; and (5) changes in flow rates and volumes resulting from the development project and sensitivity of receiving waters to changes in flow rates and volumes.
- g. **Restaurants Less than 5,000 Square Feet** - New development and significant redevelopment restaurant projects where the land area development is less than 5,000 square feet shall meet all Development Standards except for structural treatment BMP.
- h. **Infiltration and Groundwater Protection** – To protect groundwater quality, each Permittee shall consider the type of development and resulting storm water discharge and, if appropriate, apply restrictions to the use of structural BMPs, which are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins).
- i. **Maintenance Agreement and Transfer**- Each Permittee shall require that all developments subject to Development Standards and site specific plan requirements provide verification of maintenance provisions for Structural Treatment Control BMPs, including but not limited to legal agreements, covenants, California Environmental Quality Act (CEQA) mitigation requirements, and or conditional use permits. Verification at a minimum shall include:
  - i. The developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either

- ii. A signed statement from the public entity assuming responsibility for Structural Treatment Control BMP maintenance and that it meets all local agency design standards; or
  - iii. Written conditions in the sales or lease agreement, which requires the recipient to assume responsibility for maintenance and conduct a maintenance inspection at least once a year; or
  - iv. Written text in project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to the Home Owners Association for maintenance of the Structural Treatment Control BMPs; or
  - v. Any other legally enforceable agreement that assigns responsibility for the maintenance of post-construction Structural Treatment Control BMPs.
12. **California Environmental Quality Act (CEQA) Document Update-** Each Permittee shall incorporate into its CEQA process, procedures for considering potential storm water quality impacts and providing for appropriate mitigation when preparing and reviewing CEQA documents. The procedures shall require consideration of the following:
- a. Potential impact of project construction on storm water runoff;
  - b. Potential impact of project post-construction activity on storm water runoff;
  - c. Potential for discharge of storm water from areas from material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;
  - d. Potential for discharge of storm water to impair the beneficial uses of the receiving waters or areas that provide water quality benefit;
  - e. Potential for the discharge of storm water to cause significant harm on the biological integrity of the waterways and water bodies;
  - f. Potential for significant changes in the flow velocity or volume of storm water runoff that can cause environmental harm; and
  - g. Potential for significant increases in erosion of the project site or surrounding areas.
13. **General Plan Update**
- a. Each Permittee shall amend, revise, or update its General Plan to include watershed and storm water quality and quantity management considerations and

policies when any of the following General Plan elements are updated or amended: (i) Land Use, (ii) Housing, (iii) Conservation, and (iv) Open Space.

- b. Each Permittee shall provide the Central Valley Water Board with the draft amendment or revision when a listed General Plan element or the General Plan is noticed for comment in accordance with California Government Code § 65350 et seq.
14. **Planning Department Coordination, Enforcement and Tracking-** The Permittees submitted a description of the procedures for incorporating storm water BMPs into the site planning process for new developments and public works projects per WDR Order 5-01-130, Provision D.15. The Permittees are required to update these procedures as a part of the Municipal Operations Program described in Provision 6.
- a. Each Permittee shall provide for the review of proposed project plans and require measures to ensure that all applicable development will be in compliance with storm water ordinances, local permits, and all other applicable ordinances and requirements.
  - b. Each Permittee shall develop a process by which its Development Standards will be implemented. The process shall identify at what point in the planning process development projects will be required to meet Development Standards. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the Development Standards, as well as any other measures necessary for the implementation of Development Standards.
  - c. Each Permittee shall develop and implement no later than **(9 months from this Order's adoption)** the following:
    - i. A GIS or other electronic system for tracking projects that have been conditioned for post-construction treatment control BMPs. The electronic system, at a minimum, should contain the following information:
      - a) Municipal Project ID.
      - b) State WDID No.
      - c) Project Acreage.
      - d) BMP Type and Description.
      - e) BMP Location (coordinates).
      - f) Date of Acceptance.
      - g) Date of O&M Certification.
      - h) Inspection Dates and Summaries.
      - i) Corrective Actions Taken.
      - j) Date Certificate of Occupancy Issued.

15. **Targeted Employee Training-** Each Permittee shall periodically train its employees in targeted positions (whose jobs or activities are engaged in development planning) to ensure they can adequately implement the Planning and Land Development Program requirements.
16. **Outreach and Guidance for Developers-** Each Permittee, individually or in collaboration, shall develop and provide information to the development community promoting water quality protection principles and LID designs for new development and redevelopment projects.

### **MONITORING PROGRAM**

17. **Monitoring and Reporting Program:** The Permittees shall comply with Monitoring and Reporting Program No. R5-2013-\_\_\_\_, which is part of this Order, and any revisions thereto approved by the Central Valley Water Board.
18. **Additional Studies:** The Permittees shall conduct any additional studies described herein, within the Monitoring and Reporting Program, or as described in the revised SWMP, once approved by the Central Valley Water Board.
19. **Program Effectiveness Assessment**
  - a. The Permittees shall assess the effectiveness of their SWMP in their Annual Reports. The assessment shall identify the direct and indirect measurements that the Permittees used to track the effectiveness of their programs as well as the outcome levels at which the assessment is occurring consistent with this Order. Direct and indirect measurements shall include, but not limited to, conformance with established Performance Standards, quantitative monitoring to assess the effectiveness of Control Measures, measurements or estimates of pollutant load reductions or increases from identified sources, raising awareness of the public, and/or detailed accounting/documentation of SWMP accomplishments.
  - b. The Permittees shall track the long-term progress of their SWMP towards achieving improvements in receiving water quality.
  - c. The Permittees shall use the information gained from the program effectiveness assessment to improve their SWMPs and identify new BMPs, or modification of existing BMPs. This information shall be reported within the Annual Reports consistent with this Order.
  - d. Long Term Effectiveness Assessment (LTEA) Strategy: The Permittees shall collaborate to develop a LTEA strategy, which shall build on the results of the Permittees' Annual Reports and the initial program effectiveness assessments. The LTEA shall be submitted to the Central Valley Water Board no later than 180 days prior to the permit expiration date (by **DATE**)

and shall identify how the Permittees will conduct a more comprehensive effectiveness assessment of the storm water program as part of the SWMP. The strategy will address the storm water program in terms of achieving both programmatic goals (raising awareness, changing behavior) and environmental goals (reducing pollutant discharges, improving environmental conditions).

### ADDITIONAL REQUIREMENTS

20. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows: a) to address significant changed conditions identified in the technical reports required by the Central Valley Water Board which were unknown at the time of the issuance of this Order; b) to incorporate applicable requirements of statewide water quality control plans adopted by the State Water Board or amendments to the Basin Plan approved by the State Water Board; c) to comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order, or d) if new information is provided that indicates a potential groundwater quality problem. The Order as modified or reissued under this paragraph shall also contain any other requirement of the CWA when applicable.
21. Each Permittee shall comply with all applicable items of the “Standard Provisions and Monitoring Requirements for Waste Discharge Requirements (NPDES),” dated February 2004, which are part of this Order. This attachment and its individual paragraphs are referred to as “Standard Provisions.”
22. This Order expires on **(five years following adoption date)**. The Permittees must file a Report of Waste Discharge (RWD) in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for re-issuance of waste discharge requirements. U.S. EPA 40 CFR Part 122 *Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems* states the fourth year annual report may be used as the RWD reapplication package. The reapplication package must identify any proposed changes or improvement to the SWMP, an assessment of the effectiveness of the program, and monitoring activities for the upcoming five year term of the permit, if those proposed changes have not already been submitted pursuant to 40 CFR 122.42 (c).

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **DATE**.

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PAMELA C. CREEDON, Executive Officer

WASTE DISCHARGE REQUIREMENTS ORDER R5-2013-\_\_\_\_\_  
CITY OF BAKERSFIELD AND COUNTY OF KERN  
MUNICIPAL SEPARATE STORM SEWER SYSTEM  
KERN COUNTY