

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401-7906**

**ORDER NO. R3-2012-0005  
NPDES PERMIT NO. CA0049981**

**WASTE DISCHARGE REQUIREMENTS**

**FOR**

**CITY OF SALINAS  
MUNICIPAL STORM WATER DISCHARGES  
Monterey County**

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## **XI. FINDINGS**

The Central Coast Regional Water Quality Control Board (Central Coast Water Board) finds that:

### **A. Incorporation of the Fact Sheet**

1. The Fact Sheet for Order No. R3-2012-0005, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0049981, Waste Discharge Requirements for City of Salinas Municipal Stormwater Discharges, includes cited regulatory and legal references and additional explanatory information in support of the requirements of this Order. See Attachment A – Acronyms for a list of acronyms used in this Order and Attachment B – Definitions for a list of definitions used in this Order. This information, including any supplements thereto, and any response to comments on the draft Order, is hereby incorporated by reference.

### **B. Permit Background**

2. The City of Salinas (Permittee) submitted a permit application (Report of Waste Discharge), dated September 30, 2009, for reissuance of its waste discharge requirements under the NPDES permit to discharge stormwater runoff from the Permittee's municipal separate storm sewer system (MS4). The Permittee is currently subject to NPDES Permit No. CA0049981 issued by Order No. 99-087 on October 22, 1999, and subsequently renewed and amended by Order No. R3-2004-0135 on February 11, 2005 for discharges of stormwater from its MS4.
3. This Order supersedes and rescinds Order Nos. 99-087 and R3-2004-0135. This Order serves as a NPDES permit, pursuant to Federal Clean Water Act (CWA) section 402, or amendments thereto, and shall become effective June 17, 2012.
4. The Permittee is defined as a medium municipality (i.e., a municipality with a population greater than 100,000) by 40 Code of Federal Regulations (CFR) 122.26(b)(7)(i), and operates a MS4. As such, the City must obtain an NPDES municipal stormwater permit.
5. The Permittee owns and operates a stormwater conveyance system that serves drainage areas within the Permit coverage area. The Permittee's MS4 discharges into the surface water bodies listed in Finding 30.
6. The Permit coverage area is the incorporated area of the City and defines the boundary of the City's MS4.

### **C. Basis for the Order**

7. This Order is based on the CWA, the Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code (CWC), commencing with section 13000), applicable state and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (SWRCB), the Water Quality Control Plan, Central Coast Region (Basin Plan), the California Toxics Rule, and the California Toxics Rule Implementation Plan.
8. Section 402(p) of the CWA, as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s),

stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, USEPA published regulations (40 CFR Part 122), which prescribe permit application requirements for MS4s pursuant to CWA 402(p). On May 17, 1996, the United States Environmental Protection Agency (USEPA) published an Interpretive Policy Memorandum on Reapplication Requirements for MS4s, which provided guidance on permit application requirements for regulated MS4s.

9. CWA section 402(p)(3)(B)(iii) requires MS4 operators to control pollution in stormwater to the “maximum extent practicable” (MEP). The Central Coast Water Board may use its discretion to impose other provisions beyond MEP, as it determines appropriate for the control of pollutants, including ensuring strict compliance with water quality standards. Requirements in this Order that are more explicit than the federal stormwater regulations are necessary to meet the MEP standard.
10. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. Coastal Zone Act Reauthorization Amendments addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Permittee from developing a non-point source plan, for the urban category, under Coastal Zone Act Reauthorization Amendments. The Central Coast Water Board addresses septic systems through the administration of other programs.
11. The Receiving Water Limitations language specified in this Order is consistent with language State Water Board Order No. 99-05, adopted on June 17, 1999. The Receiving Water Limitations in this Order require compliance with water quality standards, which for stormwater discharges is to be achieved through an iterative approach requiring the implementation of improved and better-tailored Best Management Practices (BMPs) over time. Compliance with receiving water limits based on applicable water quality standards is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality standards and the creation of conditions of pollution.
12. On May 18, 2000, the U.S. EPA established numeric criteria for priority toxic pollutants for the State of California (California Toxics Rule (CTR) 65 Fed. Reg. 31682 (40 CFR 131.38)) for the protection of human health and aquatic life. These apply as ambient water quality criteria for inland surface waters, enclosed bays, and estuaries.
13. This Order conforms with the federal Antidegradation Policy (40 CFR 131.12) and the state Antidegradation Policy (State Water Board Resolution No. 68-16). An activity that results in minor water quality lowering, even if incrementally small, can result in violation of Antidegradation Policies through cumulative effects, for example, when the waste is a cumulative, persistent, or bioaccumulative pollutant.
14. The Basin Plan is the Central Coast Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and

approved by the SWRCB, Office of Administrative Law and the USEPA, where required. The Basin Plan identifies the following beneficial uses for receiving waters within and downstream of the Order coverage area: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Ground Water Recharge (GWR), Contact Water Recreation (REC1), Non-contact Water Recreation (REC2), Wildlife Habitat (WILD), Cold Freshwater Habitat (COLD), Migration of Aquatic Organisms (MIGR), Warm Freshwater Habitat (WARM), Spawning Reproduction and/or Early Development (SPWN), Preservation of Biological Habitats of Special Significance (BIOL), Rare, Threatened, or Endangered Species (RARE), Estuarine Habitat (EST), Freshwater Replenishment (FRSH), Commercial and Sport Fishing (COMM) and Shellfish Harvesting (SHELL).

15. 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 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. The current section 303(d) list was approved by USEPA on October 11, 2011.
16. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, section (6) of the California Constitution.
17. Non-stormwater discharges contribute significant levels of pollutants and flow to receiving waters. Non-stormwater discharge from the MS4 is not considered a stormwater discharge and therefore is not subject to regulation under the MEP standard according to CWA section 402(p)(3)(b)(iii), which is explicitly for “municipal ... stormwater discharges” from the MS4. Non-stormwater discharges, per CWA section 402(p)(3)(b)(ii), are to be effectively prohibited. Non-stormwater discharges to the MS4 granted an influent exception (i.e., which are exempt from the effective prohibition requirement set forth in CWA section 402(p)(3)(b)(ii)) under 40 CFR 122. 26 are included within this Order. Any exempted discharges identified by the Permittee or the Central Coast Water Board Executive Officer as a significant source of pollutants are subsequently required to be addressed as illicit discharges through prohibition and incorporation into existing illicit discharge/illicit connection programs.
18. MS4 stormwater and non-stormwater discharges are likely to contain pollutants that cause or threaten to cause or contribute to a violation of water quality standards. Water quality standards must be complied with at all times, irrespective of the source and manner of discharge.
19. Historic and current development makes use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the Permittee’s MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both a MS4 and a receiving water.
20. Runoff treatment and/or mitigation must occur prior to the discharge of runoff into receiving waters. Treatment BMPs must not be constructed in waters of the U.S. or State unless the runoff flows are sufficiently pretreated to protect the values and functions of the water body.
21. This Order is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA).

22. Facilities discharging stormwater associated with industrial activities, construction projects that disturb one or more acres of soil, or construction projects that disturb less than one acre but are part of a larger common plan of development or sale that in total disturbs 1 or more acres, are all required to obtain individual NPDES permits for stormwater discharges, or be covered by the statewide General Permits by completing and filing a Notice of Intent (NOI) with the State Board. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (state and local) stormwater regulation. Under this dual system, the Central Coast Water Board is responsible for enforcing the individual or statewide General Permits. NPDES municipal regulations require the municipal Permittee develop and implement measures to address runoff from industrial and construction activities. Those measures may require the implementation of additional BMPs than are required under individual or the statewide General Permits for activities subject to both State and local regulation. The U.S. EPA guidance anticipates coordination of the state-administered programs for industrial and construction activities with the local agency program to reduce pollutants in stormwater discharges to the MS4.

#### **D. Nature of Discharge and Beneficial Use Impacts**

23. The City of Salinas is situated in northern Salinas Valley in Monterey County, approximately ten miles east of the Pacific Ocean and near the Salinas River. Stormwater runoff is generated from various land uses in the Permit coverage area and discharges into receiving waters, which in turn flow into Monterey Bay. Four major creeks and several minor tributaries pass through the Salinas area and receive stormwater discharges from the Permit coverage area northeast and adjacent to Highway 101. Santa Rita Creek carries stormwater discharges from a small portion of the Permit coverage area to the Espinosa Slough. The three other major creeks—Natividad, Gabilan, and Alisal Creeks—are interconnected. Alisal Creek becomes the Reclamation Ditch. Natividad and Gabilan Creeks flow through the northeastern portion of the City to Carr Lake. Carr Lake is often dry and is utilized for farming, but also functions to detain stormwater flows. Flows leaving Carr Lake discharge to the Reclamation Ditch. The Reclamation Ditch flows west from the Permit coverage area, paralleling the Alisal Slough and eventually discharges to the Tembladero Slough. Espinosa and Tembladero Sloughs discharge to the Old Salinas River. Stormwater from the southernmost portion of the City flows to a lift station which discharges to the Salinas River. The Salinas River, like Espinosa and Tembladero Sloughs, discharges to the Old Salinas River during low-flow periods, and directly to Monterey Bay during high flows. The Old Salinas River discharges into the Pacific Ocean at the downstream end of the Elkhorn Slough and Moro Cojo Slough estuary system near Moss Landing.

24. Stormwater discharges from urban and developing areas in the Permit coverage area are significant sources of certain pollutants that cause or may be causing or threatening to cause or contribute to water quality impairment in receiving waters. Furthermore, as delineated in the 2010 CWA section 303(d) list, the Central Coast Water Board has found that there is a reasonable potential that municipal stormwater discharges cause or may cause or contribute to an excursion above water quality standards for the impairments identified in the table below. In accordance with CWA section 303(d), the Central Coast Water Board is required to establish TMDLs for these pollutants to these waters to eliminate impairment and attain water quality standards. Therefore, certain early pollutant control actions and further pollutant impact assessments by the Permittee are warranted and required pursuant to this Order.

| Receiving Water   | CWA Section 303(d) Listed Impairments  |
|-------------------|--|
| Alisal Slough     | Low dissolved oxygen; Nitrate; Sediment Toxicity; Unknown Toxicity   |
| Santa Rita Creek  | Nitrate (source unknown); Ammonia, unionized; E. coli; Fecal coliform; Low dissolved oxygen; Nitrate; Sodium; Turbidity  |
| Gabilan Creek     | Fecal coliform (from natural, nonpoint, and urban runoff/sewer sources); Nitrate (source unknown); Ammonia, unionized; Fecal coliform; Nitrate; Sediment toxicity; Turbidity; Unknown toxicity; pH   |
| Natividad Creek   | Nitrate (source unknown); Ammonia, unionized; E. coli; Low dissolved oxygen; Nitrate; Sediment toxicity; Temperature, water; Turbidity; Unknown toxicity; pH   |
| Reclamation Ditch | Ammonia, unionized; Fecal coliform (from natural, agricultural grazing, and urban runoff/sewer sources); Low dissolved oxygen (source unknown); Pesticides (from agricultural, industrial, and nonpoint sources; Priority organics (from agricultural, industrial, non-point, urban runoff/sewer, and unknown sources); Chlorpyrifos; Copper; Diazinon; E. Coli; Nitrate; Sediment toxicity; Turbidity; Unknown toxicity; pH |
| Salinas River     | Fecal coliform (source unknown); Nitrate (source unknown); Pesticides (from agricultural and nonpoint sources); Toxaphene (source unknown); Chlordane; Chloride; Chlorpyrifos; DDD; Diazinon; Dieldrin; Electrical Conductivity; Enterococcus; E. coli; PCBs; Sodium; Total dissolved solids; Turbidity; Unknown toxicity; pH  |

25. CWA section 303(d) also lists Tembladero Slough, the Old Salinas River Estuary, the Old Salinas River, Salinas River Lagoon (North), and the Salinas River Refuge Lagoon (South) as impaired for various pollutants. Tembladero Slough is listed as impaired for chloryphyll-a, chlorpyrifos; diazinon, enterococcus, E. coli, fecal coliform, nitrate, nutrients, pesticides, pH, sediment toxicity, total coliform, turbidity, and unknown toxicity. The Old Salinas River Estuary is listed as impaired for nutrients and pesticides. The Old Salinas River is listed as impaired for chloryphyll-a, chlorpyrifos; diazinon, E. coli, fecal coliform, low dissolved oxygen, nitrate, sediment toxicity, turbidity, unknown toxicity, and pH. The Salinas River Lagoon (North) is listed as impaired for nutrients and pesticides. The Salinas River Refuge Lagoon (South) is listed as impaired for turbidity and pH.
26. Runoff discharged from an MS4 contains waste, as defined in the CWC, and pollutants that adversely affect the quality of the waters of the State. The discharge of runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the U.S. as defined in the CWA.
27. 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, and other anthropogenic pollutants, which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area is significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must

be controlled to protect downstream receiving water quality. The most common categories of pollutants in urban runoff include total suspended solids, sediment, pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., copper, lead, zinc and cadmium), petroleum products and polynuclear aromatic hydrocarbons, synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), detergents, and trash.

28. The discharge of pollutants and/or increased flows from MS4s can cause or threaten to cause exceedances of applicable receiving water quality objectives, impair or threaten to impair designated beneficial uses, and result in a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, hazard, or nuisance.

## **E. Implementation**

### **General**

29. This Order specifies requirements to protect the beneficial uses of Waters of the U.S. The intent of this permit is to regulate discharges of stormwater, identify and focus on those discharges that threaten beneficial uses, and implement BMPs to reduce stormwater pollutant discharges to the MEP and protect water quality and beneficial uses. The Permittee can satisfy the requirements through effective implementation of a Stormwater Management Program. MEP evolves through an iterative process that includes implementation of a Stormwater Management Program and modifications to the program based on effectiveness assessments and improved knowledge. This Order is consistent with and modeled after the evolving MEP standard.
30. This Order incorporates presumptive BMPs to reduce pollutants in stormwater discharges to the MEP. These BMPs include erosion control, sediment control, and construction site waste management practices; the implementation of good housekeeping practices designed to control pollutants at the source, promote the use of proper waste management practices, and implement control practices to keep pollutants away from any entrance to the storm drainage system; requirements for new development and redevelopment designed to preserve pre-developed hydrologic and pollutant conditions; requirements for development planning, and watershed characterization. These BMPs have been required on the basis of the state of the science of municipal stormwater management and the Central Coast Water Board's experience regulating municipal stormwater management programs. The BMPs identified in this Order are technically feasible, practicable, and designed to use resources efficiently.
31. As operator of the MS4, the Permittee cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the Permittee essentially accepts responsibility for discharges into the MS4 that it does not prohibit or control. These discharges may cause or contribute to a condition of contamination or a violation of water quality standards. However, discharges from agricultural lands that are comprised solely of return flows and/or stormwater are exempt from NPDES permitting. As such, the Permittee is not responsible for these discharges that enter its MS4. The Permittee is responsible for other agricultural-related discharges into its MS4.



32. Waste and pollutants which are deposited and accumulate in the Permittee's MS4 will be discharged from these structures to waters of the U.S. and waters of the State unless they are removed or treated. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. For this reason, pollutant discharges from stormwater into the MS4 must be reduced using a combination of management measures, including effective source control and MS4 maintenance.
33. Pollutants can be effectively reduced in stormwater runoff by the application of a combination of pollution prevention, source control, and treatment BMPs.
34. Runoff needs to be addressed during the three major phases of urban development (planning, construction, and use) in order to reduce the discharge of pollutants to the MEP, effectively prohibit non-stormwater discharges, and protect receiving waters. Development which is not guided by water quality planning policies and principles can unnecessarily result in increased pollutant load discharges and flow rates, volumes, and durations which can negatively impact receiving water beneficial uses. Construction sites without adequate BMP implementation result in sediment runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development generates substantial pollutant loads which are discharged in runoff to receiving waters.
35. Identification of sources of pollutants in runoff (e.g., municipal facilities and operations, industrial and commercial facilities and operations, construction sites, residential areas), development and implementation of BMPs to address those sources, and updating ordinances and approval processes are necessary for the Permittee to reduce the discharge of pollutants from its MS4 in stormwater to the MEP and to effectively prohibit illicit discharges from occurring. Inspections and other compliance verification methods are needed to verify minimum BMPs are implemented. Inspections are especially important at high risk areas for pollutant discharges.
36. New or modified requirements are necessary to improve the Permittee's efforts to reduce the discharge of pollutants in urban runoff to the MEP and achieve water quality standards.
37. Enforcement of local runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations is an essential component of an effective Stormwater Management Program and is specifically required in the federal stormwater regulations and this Order. The Permittee is responsible for adoption and enforcement of ordinances and/or policies, implementation of identified BMPs needed to prevent or reduce pollutants in stormwater discharges, and the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce required BMPs within the Permit coverage area.
38. This Order requires the Permittee to develop and implement an effective Stormwater Management Plan (SWMP) that demonstrates how the Permittee will comply with each requirement of this Order. This Order also requires the Permittee to develop an information management system to track compliance with the requirements of this Order. The SWMP and information management system are needed to guide the Permittee's urban runoff management efforts and aid the Permittee in tracking urban runoff management program implementation. Significant efforts to develop this program have already occurred during the previous permit terms.

39. Annual reporting requirements included in this Order are necessary to meet federal requirements and to evaluate the effectiveness and compliance of the Permittee's programs.
40. Training of municipal staff is critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and their specific roles and responsibilities for compliance with this Order.

### **Municipal Maintenance**

41. Pesticides are substances used to prevent, destroy, repel, or mitigate pests such as insects, weeds, and microorganisms. Their effects can be direct (e.g., fish die from exposure to a pesticide entering waterways, or birds do not reproduce after ingesting contaminated fish), or indirect (e.g., a hawk becomes sick from eating a mouse dying from pesticide poisoning). Pesticide categories include: Organochlorine, Organophosphorus, Organophosphate, and Pyrethroid.
42. The Permittee has one stormwater outfall pipe that discharges to the Salinas River. This outfall is a significant contributor to pollutants in the Salinas River and contains non-stormwater flows during dry weather. This pipe and outfall are part of the Permittee's MS4 and are therefore the responsibility of the Permittee to address.

### **Commercial and Industrial**

43. The facilities and operations listed in this Order that are to be inspected by the Permittee have the potential to discharge contaminated stormwater into the MS4. This stormwater can adversely impact the quality of receiving waters and beneficial uses. Industrial stormwater monitoring data indicate that industrial and commercial sites continue to contribute significant quantities of pollutants in stormwater runoff.
44. The Basin Plan, which designates beneficial uses and establishes water quality objectives for the Central Coast Region, recognizes that agricultural-related facilities and operations can generate pollutants such as sediment, pesticides, and nutrients, that upon discharge to receiving water can degrade water quality and impair beneficial uses.
45. Runoff from greenhouses and nurseries has a high potential for water quality impairment. Heavy pesticide use and fertilizer use, coupled with an intensive irrigation regime and leaching used by many nurseries may result in a discharge of waste and poses significant threat of pollution to surface water and groundwater from pesticides.

### **Parcel-Scale Development**

46. Maintenance and restoration of watershed processes impacted by stormwater management is necessary to protect water quality and beneficial uses. Watershed processes affected by stormwater, actions to manage stormwater, and/or land uses that alter stormwater runoff patterns include the following: 1) surface runoff, 2) groundwater recharge and discharge, 3) sediment processes, 4) chemical processes, and 5) evapotranspiration. These watershed processes must be maintained and protected in order to support beneficial uses throughout the Permittee's watersheds. Restoration of degraded watershed processes, impacted by stormwater management, is necessary to protect water quality and re-establish impacted beneficial uses. New development, redevelopment, and existing land use activities create alterations to stormwater runoff conditions which in turn result in changes to watershed

processes that can cause or contribute to impairment of beneficial uses and violations of water quality standards. Future growth planned within the Permit coverage area is likely to have adverse and permanent impacts on watershed processes if not managed properly.

47. A higher percentage of impervious area correlates to a greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, organic matter loads, toxic compounds, temperature increases, and increases of trash or debris.
48. Development and urbanization increase pollutant loading and volume, velocity, frequency, and discharge duration of stormwater runoff. First, natural vegetated pervious ground cover is converted to impervious surfaces such as highways, streets, rooftops and parking lots. While natural vegetated soil can both absorb rainwater and remove pollutants providing an effective natural purification process, in contrast, impervious surfaces can neither absorb water nor remove pollutants, and thus the natural purification characteristics are lost. Second, urban development creates new pollution sources as the increased density of human population brings proportionately higher levels of vehicle emissions, vehicle maintenance wastes, pesticides, household hazardous wastes, pet wastes, trash, and other anthropogenic pollutants.
49. The increased volume, increased velocity, and discharge duration of stormwater runoff from developed areas has the potential to accelerate downstream erosion and impair stream habitat in natural drainages.
50. Low Impact Development (LID) is an effective approach to managing stormwater to minimize the adverse effects of urbanization and development on watershed processes and beneficial uses resulting from changes in stormwater runoff conditions. LID strategies can achieve significant reductions in pollutant loading and runoff volume as well as greatly enhanced recharge rates. For example, LID strategies can routinely retain 100 percent of pollutants in stormwater runoff generated by the 85<sup>th</sup> percentile 24-hour storm event. Due to the widespread use and adaptability of LID strategies, their high level of retention performance generally defines the MEP standard for new development and significant redevelopment. When non-retention based treatment systems are implemented, 1.5 times the volume of runoff generated by the 85<sup>th</sup> percentile 24-hour storm event must be treated to achieve LID strategies' level of performance and the MEP standard. Non-retention based treatment systems can also achieve the MEP standard when designed to treat the flow of runoff produced by a rain event equal to at least two times the 85<sup>th</sup> percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths, or the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity. The proper implementation of LID techniques results in greater benefits than single purpose stormwater and flood control infrastructure.
51. Controlling urban runoff pollution by using a combination of onsite source control and LID BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: 1) many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events, but onsite source control BMPs can be applied during all runoff conditions; 2) end-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; 3) end-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; 4) end-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the source and the BMP; and 5) offsite end-

of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.

52. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff 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 transformation 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. However, in some circumstances, site conditions (i.e., historical soil contamination) and the type of development (i.e., urban infill) can limit the feasibility of retaining, infiltrating, and reusing stormwater at sites.
53. It is necessary to provide long-term operation and maintenance of structural flow/volume control and treatment BMPs so that the BMPs maintain their intended effectiveness at managing runoff flow/volume and removing pollutants. If BMPs are not properly maintained, new development and redevelopment will cause degradation of the Permittee’s watershed processes.
54. If not properly designed or maintained, certain BMPs implemented or required by municipalities for urban runoff management may create a habitat for vectors (e.g. mosquitoes and rodents).
55. Updated Stormwater Development Standards (SWDS), which include the Permittee’s urban runoff-related design and maintenance requirements for new development and redevelopment projects, are needed to manage changes in stormwater runoff conditions caused by new development and redevelopment that can affect watershed processes that impact water quality and beneficial uses. It is practicable for the Permittee to update the SWDS starting within three months of adoption of this Order, since significant efforts to develop these standards has already occurred.

#### **Development Planning and Stormwater Retrofits**

56. The Permittee has identified significant areas for future development. Development of these areas has the potential to cause changes in stormwater runoff conditions that can affect watershed processes and result in impacts to water quality and beneficial uses. Employing LID principles in the future development growth areas is an effective means to avoid these impacts to beneficial uses.
57. When water quality impacts are considered during the planning stages of a project, new development and many redevelopment projects can more efficiently incorporate measures to protect water quality and beneficial uses. It is important to consider potential stormwater impacts when making planning decisions to reduce pollutant loading and manage flows in order to maintain and restore watershed processes as necessary to protect water quality and beneficial uses.
58. Urban subwatershed-scale planning is necessary to address water quality protection in the Permittee’s coverage area and future growth areas. The objective of urban subwatershed-scale planning is to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed.

59. Since urban runoff does not recognize political boundaries, watershed-based urban runoff management can greatly enhance the protection of receiving waters within a watershed. Such management provides a means to focus on the primary watershed processes in each urban subwatershed. By focusing on the primary watershed processes, watershed efforts can maximize protection of beneficial uses in an efficient manner. Effective watershed-based urban runoff management 1) actively reduces pollutant discharges and abates pollutant sources causing or contributing to watershed water quality problems, and 2) actively mimics natural watershed processes.
60. Ecologically functioning riparian environments provide aquatic and terrestrial habitat and act both as filters that reduce pollutants in stormwater discharges and as sponges to reduce the impact of unnatural stormwater flows on the ecosystem's hydrology. These benefits can be achieved by protecting existing healthy riparian environments, or by restoring degraded areas into functioning ecosystems. Waterbodies within the Permittee's coverage area include both degraded riparian areas and functioning, at various degrees, riparian areas.
61. Coordination with other stakeholders, MS4s, and other entities to align stormwater management with regional water management, salt and nutrient management, and flood management will result in opportunities to protect, enhance, and/or restore natural resources.
62. The Permittee's coverage area has legacy impacts to water quality due to its existing conditions. It is necessary to begin addressing these legacy impacts, through retrofits of existing development, in order to restore degraded watershed processes impacted by stormwater management as necessary to protect water quality and beneficial uses.

### **Public Education and Public Involvement**

63. The implementation of effective public education and public involvement is a critical component of an effective stormwater management program and the basis for changes in public behavior. Activities conducted by the public such as vehicle maintenance, improper household waste materials disposal, improper pet waste disposal and the improper application of fertilizers and pesticides have the potential to generate a significant amount of pollutants that could be discharged in stormwater. Community-Based Social Marketing (CBSM) education techniques, which focus on removing barriers and providing incentives for desired behaviors, rather than simply providing information, are an effective means to achieve changes in public behavior.
64. Public participation during the development and implementation of urban runoff management programs is necessary so that all stakeholder interests and a variety of creative solutions are considered.

### **Trash Load Reduction**

65. Trash is a persistent pollutant which can enter receiving waters through the MS4, resulting in accumulation and transport in receiving waters over time. Trash is an aesthetic nuisance as well as a serious threat to rare, endangered, and other species, navigation, and human health and recreation in tributaries, estuaries, and oceans. Medical waste, human and pet waste, and broken glass pose significant threats to human health. Trash and litter can contain toxic substances. Trash that enters receiving waters through the MS4 impacts

beneficial uses in receiving waters and is carried by them to Monterey Bay. Data suggest that plastic from trash persists for hundreds of years in the environment and can leach potentially harmful chemicals to the aquatic environment. Pre-production plastic pellets, which are small enough to be easily ingested, have been found to carry persistent organic pollutants such as PCBs and DDT. Aquatic species can also become entangled and ensnared, or ingest plastic in a way that hinders their ability to feed properly.

66. The Permittee made trash reduction a primary emphasis during the previous permit term. Despite this effort, trash continues to be a persistent and noticeable problem in the MS4, particularly in the Reclamation Ditch. While the Permittee's Urban Watershed Management Program Annual Reports suggest that the Permittee's efforts are reducing the amount of trash and debris entering the MS4, the Permittee continues to document large volumes of trash removed from the MS4 and receiving waters.

### **Total Maximum Daily Loads**

67. TMDLs are numerical calculations of the maximum amount of a pollutant that a water body can assimilate and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations) and non-point sources (load allocations), background contribution, plus a margin of safety. Discharges from MS4s are point source discharges subject to TMDLs. It is necessary for the Permittee to establish a Wasteload Allocation Attainment Plan for every TMDL approved by the Office of Administrative Law, where the Permittee is assigned a wasteload allocation, and implement a component of any future TMDL implementation plan adopted by the Central Coast Water Board.

On September 2, 2010 the Central Coast Water Board adopted a Basin Plan amendment to incorporate the Lower Salinas River Watershed Fecal Coliform TMDL. On September 19, 2011, the SWRCB approved the Basin Plan amendment. This action meets requirements of section 303(d) of the Clean Water Act (CWA). The Basin Plan amendment process is authorized under section 13240 of the Water Code. The State's Office of Administrative Law approved the Lower Salinas River Watershed Fecal Coliform TMDL on December 20, 2011. The effective date of the Lower Salinas River Watershed Fecal Coliform TMDL is the date of OAL approval. USEPA approved the Lower Salinas River Watershed Fecal Coliform TMDL on January 31, 2012. This Order incorporates the City's wasteload allocation for the Lower Salinas River Watershed Fecal Coliform TMDL. The TMDL wasteload allocation in this Order is expressed as a receiving water limit in a manner consistent with the assumptions and requirements of the TMDL from which it is derived. The City's wasteload allocation for the Lower Salinas River Watershed Fecal Coliform TMDL is identified in the table below.

Lower Salinas River Watershed Fecal Coliform TMDL – Wasteload Allocation for the City of Salinas

| Waterbody  | Receiving Water Fecal Coliform (MPN/100mL)   |
|--|--|
| Gabilan Creek, Santa Rita Creek, Reclamation Ditch, Natividad Creek, and Lower Salinas River | Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN/100mL, nor shall more than ten percent of total samples during any 30-day period exceed 40 MPN/100mL. |

### **Monitoring, Effectiveness Assessment, and Program Improvement**

68. Municipal stormwater management programs must demonstrate protection of water quality and beneficial uses. Therefore programs must incorporate measures that are capable of showing the link between stormwater management actions and water quality and water quality improvements. To date, the Permittee has not effectively demonstrated that SWMP activities are protecting water quality and beneficial uses.
69. According to an analysis of Central Coast Ambient Monitoring Program (CCAMP) monitoring data collected from stormwater discharges and receiving waters in the vicinity of these discharges, the Permittee's stormwater discharges may be causing or contributing to water quality impairments in the Reclamation Ditch and in the Salinas River. To date, the Permittee has not identified its contribution to water quality problems in receiving waters in a way that can inform stormwater management decisions.
70. A better link is needed between the Permittee's SWMP activities and tangible water quality protection and improvements. Information is needed that will link the Permittee's SWMP activities to receiving water quality conditions in a way that enables to the Permittee to identify water quality needs and SWMP deficiencies, establish priorities for SWMP activities and expenditures, identify SWMP modifications that will improve the program's performance, and assess the effectiveness of SWMP modifications. To date the Permittee has not developed program effectiveness assessment tools capable of achieving these objectives. As a result, the Permittee has also been unable to justify reductions in effort or expenditure on the basis of current effectiveness assessment efforts. The Permittee needs more guidance on how to demonstrate protection of water quality, identify program modifications, and assess of the results of program modifications through program effectiveness assessment. The Permittee is one of many municipalities in the Central Coast Region that have expressed difficulty identifying useful effectiveness measures and have requested assistance from Central Coast Water Board staff in identifying useful effectiveness measures. The program effectiveness assessment requirements contained in the Order are designed to help the Permittee demonstrate the effectiveness of its program at protecting water quality and beneficial uses.
71. Program effectiveness assessment requirements contained in this Order (including General and Focused BMP Assessment, Pollutant Load and Water Quality Stressor Quantification, Action Levels, Stormwater Discharge Quality Monitoring, and Receiving Water Monitoring) are designed to provide information about the link between SWMP activities and water quality impacts and water quality improvements (i.e., tangible results), and inform stormwater quality management decisions. They are also designed to provide information that can be used to substitute prescriptive requirements for SWMP activities with more flexible performance-based requirements in future permit terms. Performance-based requirements require the identification of appropriate targets, measures, and required responses for substandard performance. To date, the Permittee has not identified and/or justified performance-based targets, measures, and responses that would allow less prescriptive requirements.
72. Continual modification and improvement of SWMP activities through adaptive management is essential for achieving compliance with the evolving MEP standard and protecting water quality and beneficial uses. Absent evidence to the contrary, the Central Coast Water Board expects this continual assessment, revision, and improvement of runoff management program implementation to ultimately achieve compliance with water quality standards in the

Central Coast Region. Requirements for adaptive management contained in this Order are designed to help the Permittee demonstrate a level of effort consistent with the MEP standard as well as demonstrate increasing program effectiveness at protecting water quality and beneficial uses.

73. Pollutant load reduction can be reasonably linked to water quality protection. Therefore this Order emphasizes BMP effectiveness assessment methodologies which focus on measuring pollutant load reductions, and proxies for pollutant load reduction, because such methodologies provide tangible results in the short term that can be linked to discharge and receiving water quality. While such assessments do not quantify the link between BMP performance and discharge or receiving water quality, it can reasonably be assumed that removing pollutants has a positive effect on water quality.
74. Monitoring requirements contained in this Order target pollutants that are common in municipal stormwater discharges, are causing or contributing to water quality impairments in receiving waters, or are emerging pollutants of concern in municipal stormwater discharges. Monitoring programs are essential elements in the evaluation and improvement of municipal stormwater management programs. Monitoring provides direct quantitative information about discharge and receiving water quality that can be used to assess the effectiveness of SWMP activities. Discharge and receiving water monitoring requirements contained in this Order are designed to achieve this objective in a way designed to use resources efficiently.
75. This Order establishes Action Levels for turbidity, nitrate and nitrite, copper, zinc, fecal coliform indicator bacteria, pyrethroid pesticides, and trash. When based on water quality thresholds that are easily recognized as in need of additional attention, and when linked to appropriate response actions, Action Levels are reasonable in municipal stormwater permits.

### **Legal Authority**

76. The Permittee is responsible for discharges from its MS4 to receiving waters. Therefore, the Permittee, to the fullest extent of its jurisdiction, must designate, require, and enforce BMPs to control discharges of pollutants into its MS4, and to establish, maintain, and enforce adequate legal authority to effectively control pollutant discharges into its MS4.

### **Watershed Characterization**

77. Creation and maintenance of a watershed characterization to identify baseline watershed characteristics and watershed conditions is necessary to develop and implement effective new development and redevelopment standards, development planning decisions, retrofits, and prioritization, modification of stormwater management program BMPs, and to maintain and improve watershed processes, impacted by stormwater management, that support and protect beneficial uses.

### **F. Public Process**

78. The Central Coast Water Board has notified the Permittee, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing discharge of urban runoff.



79. The Central Coast Water Board has, at public meetings on February 2, 2012, and on May 3, 2012, heard and considered all comments pertaining to the terms and conditions of this Order.

**THEREFORE, IT IS HEREBY ORDERED** that California Regional Water Quality Control Board Central Coast Region (Central Coast Water Board) Order No. R3-2004-0135, National Pollutant Discharge Elimination System Permit No. CA0049981 Waste Discharge Requirements for City of Salinas Municipal Storm Water Discharges (Order No. R3-2004-0135) is rescinded, and that the City of Salinas (hereafter the Permittee) shall comply with the following:

A. Discharge Prohibitions<sup>1</sup>

- 1) Discharges into and 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 California Water Code) in Waters of the State of California or Waters of the U.S. are prohibited.
- 2) Discharges of waste that are prohibited by the Statewide Water Quality Control Plans or the Water Quality Control Plan, Central Coast Region (Basin Plan) are prohibited.
- 3) Discharges from MS4s that cause or contribute to the violation of water quality standards are prohibited.
- 4) Discharges from MS4s containing pollutants that have not been reduced to the maximum extent practicable are prohibited.
- 5) Non-Stormwater Discharges - Discharges of material other than stormwater to Waters of the U.S. or another MS4 are prohibited except as allowed under this Section or unless such discharges are authorized by a separate NPDES permit. The following categories of non-stormwater discharges are not prohibited provided any significant pollutant discharges and significant impacts are identified and appropriate control measures are implemented to minimize identified significant pollutant discharges and impacts of such discharges:
  - a) Diverted stream flows;
  - b) Rising ground waters;
  - c) Uncontaminated ground water infiltration [as defined by 40 CFR section 35.2005(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 flushing;
  - l) Discharges from potable water sources;
  - m) De-chlorinated or debrominated swimming pool water;
  - n) Individual residential car washing;
  - o) Incidental Runoff from landscape irrigation and lawn watering; and
  - p) Incidental Runoff of irrigation water.

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<sup>1</sup> The prohibitions in this Section do not apply to discharges into and from portions of the MS4 that are also receiving waters when the discharges originate outside the Permit coverage area.

- 6) Discharges or flows from fire fighting activities are excluded from the non-stormwater discharge prohibition and need only be addressed where they are identified as significant sources of pollutants to Waters of the U.S.
- 7) When a non-stormwater discharge category listed above is identified by the Permittee or the Central Coast Water Board Executive Officer as a potential significant source of pollutants to Waters of the U.S. or physically interconnected MS4, or poses a threat to beneficial uses, the Permittee shall either:
  - a) Prohibit, via ordinance or other method, the discharge category from entering the Permittee's MS4; or
  - b) Not prohibit the discharge category and implement, or require the responsible parties to implement, BMPs that will reduce pollutants to the MEP; and
  - c) Submit the each item listed below to the Central Coast Water Board within 90-days upon identification of such discharge category.
    - i) The non-stormwater discharge category listed above that the Permittee elects not to prohibit.
    - ii) The BMPs for each discharge category listed above that the Permittee will implement, or require the responsible parties to implement, to prevent or reduce pollutants to the MEP. The Central Coast Water Board Executive Officer may require changes to the proposed BMPs.
- 8) Discharges of Incidental Runoff - The Permittee shall develop and implement an effective plan to reduce Incidental Runoff to the MEP per the requirements in Section H.10 (Illicit Discharge Detection and Elimination, Incidental Runoff and Excessive Water Application).

#### B. Effluent Limitations<sup>2</sup>

- 1) The Permittee shall implement BMPs that reduce the discharge of pollutants in stormwater to the MEP.
- 2) Stormwater discharges regulated by this Order shall not contain a hazardous substance in amounts equal to or in excess of a reportable quantity listed in 40 CFR Part 117 or 40 CFR Part 302.

#### C. Receiving Water Limitations<sup>3</sup>

- 1) Discharges from the MS4 that cause or contribute to the violation of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule, or the Basin Plan are prohibited.
- 2) Discharges from the MS4 shall not cause or contribute to a condition of pollution, contamination, or nuisance in receiving waters.

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<sup>2</sup> The effluent limitations in this Section do not apply to discharges from portions of the MS4 that are also receiving waters when the discharges originate outside the Permit coverage area.

<sup>3</sup> The Receiving Water Limitations C.1 and C.2 do not apply to discharges from portions of the MS4 that are also receiving waters when the discharges originate outside the Permit coverage area.

- 3) The Permittee shall comply with all of the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations through timely implementation of control measures/BMPs and other actions to reduce pollutants in the discharges in accordance with the requirements of this Order, including any modifications. The Permittee's Stormwater Management Program shall be designed to achieve compliance with all Discharge Prohibitions, Effluent Limitations and Receiving Water Limitations. If violation(s) of water quality standards persist notwithstanding implementation of the requirements of this Order, the Permittee shall assure compliance with all of the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations by implementing each of the items listed below.
  - a) Upon a determination by either the Permittee or the Central Coast Water Board that discharges are causing or contributing to a violation of an applicable water quality standard, the Permittee shall submit a Report of Receiving Water Quality Violation (Report) to the Central Coast Water Board 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 violation of water quality standards. The Report shall be incorporated in the next Annual Report unless the Central Coast Water Board Executive Officer directs an earlier submittal. The Report shall include an implementation schedule for new or improved BMPs, if applicable. The Central Coast Water Board Executive Officer may require modifications to the Report.
  - b) If the Central Coast Water Board Executive Officer requires modifications to the Report, the Permittee shall submit any modifications within 30 days of notification.
  - c) Within 30 days following approval of the Report by the Central Coast Water Board Executive Officer, the Permittee shall incorporate into its Stormwater Management Program the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required.
  - d) The Permittee shall implement the actions in accordance with the approved schedule.
- 4) The Permittee shall include in each Annual Report the effectiveness of BMPs in reducing violation(s) of water quality standards. The Central Coast Water Board Executive Officer may direct implementation of additional BMPs if there are continuing or recurring violation(s) of the same receiving water limitation.

#### D. General Provisions

- 1) General Requirements – The Permittee shall comply with each requirement listed below.
  - a) Comply with all of the requirements of this Order, including all Attachments. Implement all plans, reports, and other documents required by the Order, and any amendments or modifications to those plans, reports, and other documents as required by the Central Coast Water Board or Central Coast Water Board Executive Officer.
  - b) Coordinate among the Permittee's internal departments and agencies to facilitate the implementation of the requirements of this Order.
  - c) Participate in intra-agency coordination (e.g., Monterey County Water Resources Agency, Monterey County stormwater program) necessary to successfully implement the provisions of this Order.
  - d) Develop, maintain, implement, and enforce an effective stormwater management program that meets each requirement of this Order, reduces pollutants in discharges from the MS4 to the MEP, and protects watershed processes, water quality, and beneficial uses.

- 2) Permit Coverage Area - The Permit coverage area is the incorporated area of the City of Salinas. Any areas annexed into the City of Salinas shall become part of the Permit coverage area.
- 3) Stormwater Management Plan and Information Management Systems
  - a) The Permittee shall develop and implement an effective SWMP that demonstrates how the Permittee will comply with each requirement of this Order. The SWMP shall include the documents developed for compliance with this Order (e.g., Enforcement Response Plan, inventories, checklists, inspection forms, BMPs developed to comply with this Order, BMPs required by this Order, documents submitted to Central Coast Water Board staff, BMPs to achieve Wasteload Allocation Attainment Plan(s), developed assessment methodologies). The SWMP shall identify which staff position and department are responsible for implementing each requirement and the staff member responsible for stormwater management program coordination and Order compliance. This shall include an organization chart which identifies each staff position and department that will implement each requirement as well as the structure of management/leadership positions responsible for compliance with each requirement and responsible for compliance with the stormwater management program as a whole. The SWMP shall provide the contact information for the staff member responsible for stormwater management program coordination and the manager/leader responsible for Order compliance. The Permittee shall update the components of the SWMP as necessary to maintain an effective program and as required by the Central Coast Water Board Executive Officer. The current versions of the SWMP documents shall be kept on the Permittee's stormwater website. Except in the case with an earlier or later deadline specified in the Order, all the components of the SWMP shall be developed within 12 months of adoption of this Order.
  - b) The Permittee shall develop an information management system to track compliance with the requirements of this Order, including, but not limited to the information management system requirements specified in Sections of this Order.
  - c) Specific details tracked by the information management system (e.g., inspection dates, reports received of potential illicit discharges) do not need to be contained in the SWMP, however the SWMP shall contain information that identifies each component of the information management system, what types of information they contain, and how a municipal staff member or member of the public would obtain data from the information management system.
- 4) Electronic Submittals - Unless otherwise directed by the Central Coast Water Board Executive Officer, the Permittee shall electronically submit all plans, reports and any other documents required by this Order to: [r3\\_stormwater@waterboards.ca.gov](mailto:r3_stormwater@waterboards.ca.gov). Plans, reports and any other documents shall comply with the signatory requirements of Attachment I – Standard Provisions and be submitted with a cover letter that identifies all attachments.
- 5) Recordkeeping – The Permittee must keep records to document and demonstrate compliance with each requirement of this Order (including records specified by this Order and not specified by this order). The records must be kept for at least five years after the record development. If the Order is continued beyond the expiration date, the Permittee shall keep all records either the duration of the Order, or five years, whichever is longer. The Central Coast Water Board Executive Officer may specify a longer time for record retention.
- 6) Implementation - All plans, reports, and subsequent amendments submitted in compliance with this Order, which require implementation and require Central Coast Water Board

Executive Officer approval, shall be implemented immediately after Central Coast Water Board Executive Officer approval (or as otherwise specified). All plans, reports, and subsequent amendments submitted in compliance with this Order, which require implementation and do not require Central Coast Water Board Executive Officer approval, shall be implemented immediately following the submittal due date (or as otherwise specified). All submittals by the Permittee shall be adequate pursuant to the requirements of this Order.

- 7) Requirements of Order No. R3-2004-0135 - The Permittee shall continue to implement each component of each element of the Permittee's May 20, 2008 stormwater management plan (including BMP's 4.24 through 4.27 added by the Permittee's City Council on August 16, 2011) until the component is modified and implemented in compliance with this Order.

#### E. Municipal Maintenance

- 1) Inventory – By the end of Year 2, the Permittee shall develop a comprehensive municipal inventory per the requirements of this Section. The Permittee shall maintain the inventory in each subsequent year. At a minimum, the Permittee shall update the inventory each year. The inventory shall, at a minimum, include each item listed below.
- a) The MS4 Catch Basins.
  - b) Areas identified as High Priority Private Development (see Section G.5 [Residential: High Priority Private Development]).
  - c) Existing structural BMPs owned or operated by the Permittee that serve a water quality function (e.g., structural BMPs installed to comply with Order No. R3-2004-0135, other existing structural BMPs) or structural BMPs owned or operated by the Permittee installed to comply with this Order's requirements for Priority Development Projects as defined by Section J (Parcel-Scale Development).
  - d) Municipal Facilities – All Permittee-owned or operated facilities that are potential significant sources of pollution in stormwater, including, but not limited to, the following:
    - i) Public works yards and other areas for equipment and material storage or maintenance;
    - ii) Areas for vehicle fueling, vehicle storage, or maintenance;
    - iii) Pesticide storage facilities;
    - iv) Fuel farms;
    - v) Hazardous waste disposal facilities, handling facilities, and transfer facilities;
    - vi) Incinerators;
    - vii) Landfills, composting facilities, recycling facilities, solid waste handling, and transfer facilities;
    - viii) Public buildings, including schools, libraries, police stations, fire stations, municipal buildings, and similar buildings (i.e., buildings with a similar potential to be sources of stormwater pollution as the examples provided);
    - ix) Public parking lots;
    - x) Roads;
    - xi) Public golf courses; and
    - xii) Public swimming pools.
  - e) Municipal Maintenance Operations and Events
    - i) Road and parking lot maintenance including pothole repair, pavement marking and striping, saw cutting, concrete work, curb and gutter replacement, buried utility repairs and installation, sealing, and re-paving.
    - ii) Bridge maintenance, including re-chipping, grinding, and saw cutting.

- iii) Right-of-way maintenance, including mowing, herbicide and pesticide application, vegetation removal, and vegetation planting.
  - iv) Landscape maintenance operations on municipal property (e.g., public right-of-ways, parks, and landscaped areas).
  - v) Power washing.
  - vi) Graffiti removal as well as bridge or other structural maintenance operations conducted directly over water or where discharges from these activities can enter the MS4 or water bodies.
  - vii) Pesticide, herbicide, and fertilizer application, storage, and disposal.
  - viii) Flood channel maintenance (e.g., clearing, mowing, sediment removal, and vegetation removal).
  - ix) Outdoor public events that have the potential to generate significant pollutants (e.g., outdoor festivals, parades, farmers markets, and street fairs). The municipal inventory shall include reoccurring events (e.g., the annual Veterans Day parade, reoccurring farmers markets) and general categories of similar types of events that are non-reoccurring (e.g., various street fairs). The assessment and prioritization performed per Section E.1 (Municipal Facilities, Maintenance Operations, and Events Assessment) for events shall be based on typical conditions of reoccurring events and general categories of similar types of events that are non-reoccurring.
  - x) For the Municipal Maintenance Operations listed in Section E.1.e.i (Municipal Maintenance Operations and Events) through Section E.1.e.vii (Municipal Maintenance Operations and Events), the municipal inventory shall include the general Municipal Maintenance Operation (e.g., power washing, repaving) and not the specific implementation of Municipal Maintenance Operation (e.g., power washing of Main Street on September 2012, repaving of Main Street on September 2012). The assessment and prioritization performed per Section E.1 (Municipal Facilities, Maintenance Operations, and Events Assessment) shall be based on typical implementations of the Municipal Maintenance Operation. Maintenance operations not performed on municipal property or public right-of-ways/easements do not need to be included in the municipal inventory.
- 2) Municipal Facilities, Maintenance Operations, and Events Assessment – The Permittee shall perform an assessment of all inventoried Municipal Facilities, Maintenance Operations, and Events each year. Each assessment shall at a minimum include implementation of each requirement listed below. The first annual assessment shall occur by the end of Year 2. Subsequent annual assessments shall review the prior annual assessment and update it as needed.
- a) Assessment of Pollutant Discharge Potential – The Permittee shall review the inventoried Municipal Facilities, Maintenance Operations, and Events to identify typical urban pollutants that are likely to be associated with each facility, operation, or event and assess the potential for the material and pollutants to be discharged in stormwater. At a minimum, the assessment shall consider the following typical urban pollutants: sediment, nutrients, metals, hydrocarbons, pesticides, chlorides, trash, bacteria, chlorine, organic matter, and other pollutants that are likely to be discharged in stormwater.
  - b) Identification of High Priority Municipal Facilities, Maintenance Operations, and Events
    - i) Based on the Assessment of Pollutant Discharge Potential, the Permittee shall identify as High Priority those Municipal Facilities, Maintenance Operations, and Events that pose higher potential threat to water quality based on, but not limited to, the following factors:
      - (1) Type of activity;
      - (2) Materials used;

- (3) Wastes generated;
  - (4) Pollutant discharge potential;
  - (5) Non-stormwater discharges;
  - (6) Proximity of site, operation, or event to receiving water bodies;
  - (7) Sensitivity of receiving water bodies;
  - (8) Whether the facility is subject to the General Industrial Permit or an individual NPDES permit;
  - (9) Whether the facility has filed a No Exposure Certification/Notice of Non-Applicability;
  - (10) Site design;
  - (11) Total area of the site, area of the site where Maintenance Operations occur, and area of the site exposed to rainfall and runoff;
  - (12) Time since previous inspection;
  - (13) The facility, operation, or event's compliance history; and
  - (14) Any other relevant factors.
- ii) High Priority Municipal Facilities, Maintenance Operations, and Events - Municipal Facilities involved in vehicle or equipment maintenance or fueling, hazardous waste facilities, fuel or chemical storage locations, and any other facilities at which pollutants have a high potential to be discharged in stormwater shall be designated as High Priority Municipal Facilities. A minimum of 20 percent of the inventoried Municipal Facilities shall be designated as High Priority Municipal Facilities. A minimum of 20 percent of the inventoried Municipal Maintenance Operations and Events shall be designated as High Priority Municipal Maintenance Operations and Events. The Permittee may submit to the Central Coast Water Board Executive Officer for approval a High Priority Municipal Facility and/or a High Priority Municipal Maintenance Operations and Events alternative that is less than 20 percent of inventoried Municipal Facilities, Operations, and Events. If the Permittee chooses to submit an alternative, the alternative must include demonstration that it will be as effective at reducing the discharge of pollutants to the MEP and protecting water quality as identifying 20 percent of inventoried Municipal Facilities, Operations, and Events as High Priority. The Permittee shall implement its program in accordance with a High Priority of no less than 20 percent of inventoried Municipal Facilities and Maintenance Operations and Events until approval of the alternative by the Central Coast Water Board Executive Officer.
- 3) Minimum BMPs for Municipal Facilities, Maintenance Operations, and Events – The Permittee shall develop and ensure the implementation of an effective set of BMPs for each inventoried Municipal Facility, Maintenance Operation, and Event, to reduce the discharge of pollutants in runoff to the MEP. For Events, the BMPs may be developed for types of similar events (e.g., parades, farmers markets) and do not need to be developed for specifically for each particular event occurrence. The BMPs shall be combined into a manual, or equivalent, to facilitate use by field staff. The Permittee shall implement, or require implementation of, all BMPs by the end of Year 2. These BMPs shall include, but not be limited to, each item listed below.
- a) Minimum BMPs listed in Section F.2 (Commercial and Industrial: Minimum BMPs) that are relevant to Municipal Facilities, Maintenance Operations or Events.
  - b) Fueling Operation BMPs consisting of standard operating procedures for vehicle fueling and receiving of bulk fuel deliveries at Municipal Facilities to reduce the likelihood of spills and provide spill controls and clean up in the event that accidental spills do occur.
  - c) Vehicle Maintenance BMPs consisting of standard operating procedures for vehicle maintenance and repair activities that occur at Municipal Facilities to reduce the

likelihood of spills or releases and providing controls and clean up in the event that accidental spills do occur. Vehicle maintenance shall occur indoors or under covered areas.

- d) Equipment and Vehicle Washing BMPs that prohibits the discharge of equipment and vehicle wash wastewater to the MS4 or directly to receiving waters from municipal facilities. The Permittee shall meet this requirement by either installing a vehicle wash reclaim system, capturing and hauling the wastewater for proper disposal, connecting to the Salinas Industrial Wastewater Facility or Monterey Regional Water Pollution Control Agency's regional wastewater treatment plant (with appropriate approvals and any pretreatment standards met), ceasing the activity, washing the equipment or vehicles at another properly managed location such as a private car wash, and/or applying for and obtaining a separate stormwater permit.
- e) BMPs to replace materials/chemicals with more environmentally benign materials or methods (e.g., use mechanical methods rather than herbicides, use water-based paints or thermoplastics rather than solvent-based paints for striping).
- f) BMPs to change operations to minimize the exposure or mobilization of pollutants (e.g., mulch, compost, or landfill grass clippings) to prevent pollutants from entering surface waters.
- g) BMPs for daily sweeping of roads and parking lots during maintenance operations that produce or disturb sediment or debris.
- h) BMPs for pesticide, herbicide, and fertilizer application, storage, and disposal, including the following:
  - i) Training activities, permits, certifications, and other measures for municipal applicators and distributors;
  - ii) Integrated pest management measures that rely on non-chemical solutions for all municipal areas;
  - iii) Eliminating the use of pesticides and fertilizers within 48 hours prior to a likely precipitation event or irrigation. A likely precipitation event is any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the application area;
  - iv) Collection and proper disposal of unused pesticides, herbicides, and fertilizers;
  - v) A standardized protocol for the routine and non-routine application of pesticides, herbicides (including pre-emergents), and fertilizers;
  - vi) Prohibition of storage or application of banned or unregistered pesticides;
  - vii) Implementation of procedures to encourage the retention and planting of native vegetation to reduce water, pesticide, herbicide, and fertilizer needs;
  - viii) Limiting or replacing pesticide use (e.g., manual weed and insect removal);
  - ix) Limiting or eliminating the use of fertilizers. Prohibiting fertilizer application within 5 feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a water body;
  - x) Reducing mowing of grass to allow for greater pollutant attenuation, but not jeopardizing motorist safety;
  - xi) Storage of pesticides and fertilizers indoors or under cover on paved surfaces or use of secondary containment;
  - xii) Reduction in the use, storage, and handling of hazardous materials to reduce the potential for spills;
  - xiii) Regular inspection of storage areas;
  - xiv) Prohibition of use of pesticides on the CWA section 303(d) list for any water bodies the Permittee's MS4 is tributary to; and
  - xv) Provide direct supervision by a pesticide applicator, certified in the appropriate category, of municipal employees or contractors applying restricted use pesticides.



- i) BMPs for graffiti removal as well as bridge and other structural maintenance operations to prevent polluted discharges, including the following:
    - i) Prevention of debris, including structural materials and coating debris, such as paint chips, or other debris and pollutants generated in bridge and structure maintenance or graffiti removal, from entering storm drains or water bodies;
    - ii) Prevention of discharge of debris, cleaning compound waste, paint waste, or wash water due to graffiti removal from entering storm drains or water bodies, through protection of nearby storm drain inlets or other means; and
    - iii) Proper disposal of wastes generated from these activities.
  - j) BMPs for all pavement washing, mobile cleaning, and pressure washing that prevent the discharge of wash water and non-stormwater to storm drains (the Permittee shall coordinate with the Salinas Industrial Wastewater Facility managers or Monterey Regional Water Pollution Control Agency's regional wastewater treatment plant to determine if disposal to these facilities is available for the wastewater generated from these activities, provided that appropriate approvals and any pretreatment standards are met).
  - k) All applicable BMPs that are described in the California Association of Stormwater Quality (CASQA) Handbook for Municipal Operations and the Caltrans Stormwater Quality Handbook Maintenance Staff Guide, May 2003 and its addenda (in the case where a conflict exists between the BMPs described in this Order and BMPs in the CASQA or Caltrans handbooks, the Permittee shall apply the BMP that is more protective of water quality).
- 4) High Priority Municipal Facilities, Maintenance Operations, and Events
- a) High Priority Municipal Facilities and Events Stormwater Pollution Prevention Plans - The Permittee shall develop, update, and implement an effective stormwater pollution prevention plan (SWPPP) for each High Priority Municipal Facility and Event by the end of Year 2. For Events, a SWPPP may be developed for types of similar events (e.g., parades, farmers markets) and do not need to be developed specifically for each particular event occurrence. The SWPPP shall, at a minimum:
    - i) Identify BMPs (i.e., structural and non-structural BMPs, and operational improvements) installed, implemented, and maintained to minimize pollutants in runoff;
    - ii) Include the appropriate stormwater BMPs described in Section E.3 (Minimum BMPs for Municipal Facilities, Maintenance Operations, and Events), any standard operating procedures, as well as inspection procedures, checklists, and schedules described in Section E.8 (Inspections of Municipal Facilities, Maintenance Operations and Events);
    - iii) Include specific inspection checklists for each High Priority Municipal Facility and Event that identifies each designated BMP. The inspection checklist shall include implementation, installation, and maintenance requirements for each BMP so the inspector can make an objective assessment of whether each BMP is properly implemented, installed, and maintained;
    - iv) Contain procedures for quarterly visual observation of stormwater discharges;
    - v) Contain records of activities performed to comply with this Order;
    - vi) Contain inspection schedules and all inspection records including weekly observations and quarterly inspections and visual observations of stormwater discharges;
    - vii) Be maintained and be available for review by Central Coast Water Board staff;
    - viii) For High Priority Facilities, be kept on-site at the facility for which it was completed; and

- ix) Be reviewed and updated each year, at a minimum, and more frequently if conditions change.
  - b) High Priority Maintenance Operations - The Permittee shall develop, update, and implement effective standard operating procedures for stormwater pollution prevention for each High Priority Maintenance Operation by the end of Year 2. The standard operating procedures shall, at a minimum:
    - i) Identify BMPs (i.e., structural and non-structural BMPs, and operational improvements) installed, implemented, and maintained to minimize pollutants in runoff;
    - ii) Include the appropriate stormwater BMPs described in Section E.3 (Minimum BMPs for Municipal Facilities, Maintenance Operations, and Events), as well as inspection procedures, checklists, and schedules described in Section E.8 (Inspections of Municipal Facilities, Maintenance Operations and Events);
    - iii) Include specific inspection checklists for each High Priority Maintenance Operation that identifies each designated BMP in the standard operating procedures. The inspection checklist shall include implementation, installation, and maintenance requirements for each BMP so the inspector can make an objective assessment of whether each BMP is properly implemented, installed, and maintained;
    - iv) Contain procedures for quarterly visual observation of stormwater discharges;
    - v) Be maintained and be available for review by Central Coast Water Board staff; and
    - vi) Be reviewed and updated each year, at a minimum, and more frequently if conditions change.
- 5) MS4 System Operation and Maintenance – The Permittee shall properly operate and maintain the MS4 system to reduce the discharge of pollutants to the MEP. The Permittee shall implement each maintenance operation listed below, at a minimum, at all Permittee-owned and/or maintained MS4 system features.
- a) Catch Basins
    - i) Beginning in Year 1, the Permittee shall inspect all catch basins each year during the dry season. The Permittee shall remove all sediment and debris in each catch basin found with its outlet pipe at least 40-percent occluded. The Permittee shall clean catch basins found to require cleaning within 14 days of inspection, except where use of a vacuum truck is required, and in every case prior to the first storm event of the subsequent wet season.
      - (1) The Permittee shall determine and record the depth of sediment and debris detected in each catch basin during each inspection.
      - (2) The Permittee shall measure and record the total volume of sediment and debris removed from all catch basins each year.
    - ii) By the end of Year 2, the Permittee shall identify modifications to the catch basin inspection and cleaning program to optimize the total volume of sediment and debris removed from catch basins each year. The identified modifications shall include the following elements, at a minimum:
      - (1) Modification of the Cleaning Threshold – The Permittee shall identify a new threshold for catch basin cleaning that is more protective of water quality than the 40-percent occlusion threshold used during Years 1 and 2. The modified threshold shall be designed to redistribute the Permittee’s inspection and cleaning efforts to maximize the number of catch basins cleaned each year by reducing the number of catch basins inspected each year, consistent with all other elements of the modified inspection and cleaning program.
      - (2) Identification of High Priority Catch Basins – The Permittee shall use sediment and debris depth data collected during Years 1 and 2, as well as municipal staff’s

knowledge of local conditions, to identify catch basins most likely to exceed the modified cleaning threshold on a consistent basis.

- (3) Inspection of all high priority catch basins each year.
  - (4) Inspection of Non-High-Priority Catch Basins – The Permittee shall inspect a percentage of non-high-priority catch basins each year. The percentage shall be designed to achieve rotating inspection of each non-high-priority catch basins at a frequency of at least once every five years.
  - (5) Cleaning of all Catch Basins Exceeding the Threshold – The Permittee shall remove all sediment and debris from each catch basin found during inspection to exceed the modified cleaning threshold each year. The Permittee shall clean catch basins found to require cleaning within 14 days of inspection, except where use of a vacuum truck is required, and in every case prior to the first storm event of the subsequent wet season.
- iii) Beginning in Year 3, the Permittee shall implement the modified catch basin inspection and cleaning program each year during the dry season. In addition, the Permittee shall continue to determine and record the depth of sediment and debris detected in each catch during each inspection, and shall continue to measure and record the total volume of sediment and debris removed from all catch basins each year.
    - (1) The Permittee shall assess and modify the catch basin prioritization each year, as necessary, on the basis of data collected.
  - iv) Beginning in Year 3, the Permittee shall measure and track the total volume of solids removed from catch basins each year and the total volume of solids removed in each Urban Subwatershed each year. (See Section Q.2 for watershed delineation [Watershed Characterization: Watershed Delineation]).
  - v) The Permittee may propose an alternative method for removing sediment and debris from the MS4 for approval by the Executive Officer. The City must demonstrate that the proposed alternative will remove an equal or greater amount of sediment and debris as the modified inspection and cleaning program detailed in Section E.5.a.ii. The Permittee shall adhere to the requirements of this Section until such time as the alternative plan is approved and implemented.
- b) Wastes, debris, and water removed during normal and emergency maintenance operations shall not be placed into the MS4 and shall be properly disposed.
- 6) Street Sweeping and Cleaning
- a) Within 12 months of adoption of this Order, the Permittee shall develop and keep current a map that indicates all sweeping routes, of all municipally-owned or operated streets, and the priority designation of each route. The map shall also indicate the location of all municipal parking lots swept in accordance with Section E.6.i.
    - i) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall integrate sweeping routes into the Permittee's watershed characterization map developed according to Section Q.1 (Watershed Characterization: Watershed Data Information Management).
  - b) The Permittee shall track the following information each year:
    - i) The number of route miles swept for each sweeping event for each route;
    - ii) The volume of solids collected for each sweeping event during the dry season for each route;
    - iii) The total volume of solids collected for all sweeping events during the dry season for each route; and
    - iv) The total volume of solids collected for all sweeping events during the dry season for all routes combined.

- c) Beginning in Year 1, the Permittee shall calculate the average volume of solids collected per route mile swept during the dry season each year for each of the 24 routes the Permittee currently sweeps biweekly. By the end of Year 2, the Permittee shall use this information to identify modifications to the sweeping schedule for these routes to optimize total sediment removal, using the following procedure. The Permittee may propose, for Central Coast Water Board Executive Officer approval, an alternative methodology for increasing the effectiveness of street sweeping efforts that is at least equivalent to the following procedure.
  - i) The Permittee shall designate for weekly sweeping, instead of biweekly sweeping, those routes which were found to have the highest volumes of solids removed per route mile swept.
  - ii) The Permittee shall designate for monthly sweeping, instead of biweekly sweeping, those routes which were found to have the lowest volumes of solids removed per route mile swept.
  - iii) The Permittee may designate for sweeping twice per month, instead of biweekly, the remainder of the 24 routes the Permittee currently sweeps biweekly.
  - iv) The Permittee shall not decrease the total number of route miles swept per year.
  - v) The Permittee shall not be required to increase the total number of route miles swept per year beyond the small incremental increase resulting from the difficulty of matching exactly the total miles swept.
- d) Sweeping Frequency
  - i) During Year 1 and Year 2, the Permittee shall sweep all sweeping routes in accordance with their existing frequency (i.e., as specified in the most recently approved SWMP for Order No. R3-2004-0135).
  - ii) Beginning in Year 3, the Permittee shall sweep all municipally-owned or maintained streets each year in accordance with the frequencies developed according to Section E.6.c. The Permittee shall continue to sweep weekly the 4 routes which the Permittee currently sweeps weekly.
- e) In areas where street sweeping is technically infeasible (e.g., streets without curbs), the Permittee shall increase implementation of other trash/litter BMP procedures to minimize pollutant discharges to storm drains and water bodies. The Permittee shall show on its street sweeping map the location of these areas.
- f) Sweeping Equipment Selection and Operation
  - i) When replacing existing sweeping equipment, the Permittee shall select and operate high-performing sweepers that are efficient in removing pollutants, including fine particulates, from impervious surfaces.
  - ii) The Permittee shall track equipment design performance specifications to ensure that street sweeping equipment is operated at the proper equipment design speed with appropriate verification, and that equipment is properly maintained.
  - iii) The Permittee shall operate sweepers to optimize pollutant removal by providing sweepers access to the curb through the use of parking restrictions that clear the curb or through effective public outreach to inform citizens of sweeping days and times so that voluntary curb clearing can occur.
    - (1) Beginning in Year 1, the Permittee shall estimate the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations. The estimate must exclude curb miles sweeping equipment was unable to access due to parked cars or trash cans. The estimate must be supported by data, but may be based on assessments provided by equipment operators.
    - (2) By the end of Year 2, the Permittee shall develop a strategy designed to increase over time the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations. The Permittee shall consider both

short-term and long-term objectives, including elements such as parking restrictions and public outreach efforts. The strategy shall include a methodology for determining whether the strategy achieves an increasing percentage of curb miles actually swept during sweeping operations over time.

- (3) Beginning in Year 3, the City shall implement the strategy developed in accordance with Section E.6.f.iii.2.
- g) Sweeper Waste Material Disposal – Within 12 months of adoption of this Order, the Permittee shall develop and implement an effective procedure to properly dispose of street sweeper waste material. This procedure shall ensure that water and material will not reenter the MS4 or enter water bodies.
  - h) Tracking of Dirt and Other Debris onto Streets – By the end of Year 2, the Permittee shall develop and implement effective BMPs to reduce the tracking of dirt and other debris onto streets, regardless of its source (e.g., construction sites, commercial operations, landscape operations, agricultural operations). By the end of Year 2, the Permittee shall develop and utilize its legal authority (e.g., municipal codes, ordinances, statutes, standards, specifications, permits, contracts, or other means) to enforce the reduction of dirt and other debris tracked onto streets. The Permittee shall implement the progressive Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement Measures and Tracking]) and take all necessary follow-up actions (e.g., warnings, notices, escalated enforcement, follow-up) to bring operations into compliance. The Permittee shall respond to and document all complaints received from third-parties and document any required corrective actions and the implementation of corrective actions. The Permittee shall utilize the reporting system described in Section H.4 (Illicit Discharge Detection and Elimination: Illicit Discharge Reporting System) to facilitate third-party complaints of tracking of dirt and other debris onto streets.
  - i) Parking Lots
    - i) Beginning in Year 1, the Permittee shall sweep the following municipal parking lots on a weekly basis: Lots #1, #2, #3, #5, #8, #10, #13, #16; the Salinas Street Garage (upper and lower); and the Monterey Street Garage (all stories). The Permittee shall sweep the Union Pacific Transit Center parking lot on a monthly basis.
    - ii) Beginning in Year 1, the Permittee shall conduct daily visually inspections of all municipal parking lots and shall remove visible trash, litter, and debris during each inspection.
- 7) Maintenance of Structural BMP Verification
- a) The requirements of Section E.7 (Maintenance of Structural BMP Verification) apply to the following structural BMPs:
    - i) Owned or operated by the Permittee and privately owned or operated that were installed to comply with Order No. R3-2004-0135;
    - ii) Owned or operated by the Permittee and privately owned or operated that were installed to comply with this Order's requirements for Priority Development Projects; and
    - iii) Owned or operated by the Permittee that serve a water quality function.
  - b) The Permittee shall implement, within 12 months of adoption of this Order, effective verification of the maintenance of structural BMPs that at a minimum, includes the requirements contained in Section E.7.c through Section E.7.k.
  - c) Each structural BMP shall be maintained such that it continues to fully achieve its intended function for the life of the project. Structural BMPs designed to achieve a quantitative stormwater management objective shall be maintained such that they continue to achieve the specifications they were designed to achieve.

- d) The Permittee shall develop and maintain an effective information management system to track all structural BMPs that contains, at a minimum:
  - i) Name and address of the structural BMP;
  - ii) The owner and operator of the structural BMP;
  - iii) Urban Subwatershed where the BMP is located;
  - iv) A site level map showing the location and extent of the installed structural BMPs that depicts the BMPs in relation to other site features and landmarks;
  - v) Date(s) the structural BMPs were installed;
  - vi) Designation of the BMP as a structural BMP designed to achieve a quantitative stormwater management objective or not;
  - vii) Designation of whether or not an O&M Plan (see Section J.4.i [Parcel Scale Development: Operation and Maintenance Plans for Flow Control and Treatment BMPs]) or maintenance agreement is required for the BMP;
  - viii) For structural BMPs designed to achieve a quantitative stormwater management objective: the stormwater management objective and any other maintenance requirements necessary to achieve the quantitative objective;
  - ix) For BMPs with O&M Plans or maintenance agreements: Plan or agreement requirements;
  - x) For BMPs without O&M Plans: Maintenance procedures required for the BMP to continue to fully achieve its intended function;
  - xi) Dates and findings of inspections (routine and follow-up) including any corrective or enforcement actions taken.
- e) Structural BMP Rapid Assessment - Within 24 months of adoption of this Order, the Permittee shall develop a Structural BMP Rapid Assessment methodology to assess the maintenance needs of each structural BMP. The Permittee shall use the Lake Tahoe BMP Maintenance Rapid Assessment Methodology<sup>4</sup> (BMP RAM), or equivalent, to develop the Structural BMP Rapid Assessment methodology. The methodology shall establish maintenance thresholds and benchmarks necessary to maintain BMP performance and generate a BMP RAM score for each BMP at each inspection.
- f) The Permittee shall implement a prioritized plan for inspecting all structural BMPs that, at a minimum, implements each item listed below.
  - i) Inspection of Installed Privately-Owned or Operated Structural BMPs – The Permittee shall inspect all installed privately-owned or operated structural BMPs at least once every 5 years. The Permittee shall use the developed Structural BMP Rapid Assessment methodology and shall effectively require private owners or operators to maintain the BMP such that it fully achieves its intended function and to perform inspections and maintenance as required by the O&M Plan or maintenance agreement.
  - ii) Beginning in Year 1, inspection by the Permittee of all installed Permittee owned or operated structural BMPs at least once each year. Once the Structural BMP Rapid Assessment is developed, the annual inspections shall include the BMP Rapid Assessment (starting no later than Year 3).
- g) For privately owned or operated BMPs, the Permittee shall follow an enforcement strategy using the Enforcement Response Plan to bring owners and operators into compliance.
- h) The Permittee shall perform required maintenance for all Permittee-owned or operated BMPs receiving a BMP RAM score less than “acceptable,” as defined in the BMP RAM, at any inspection.

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<sup>4</sup> 2NDNATURE LLC et. al. September 2009. *BMP RAM Technical Document, Lake Tahoe Basin*. Prepared for the U.S. Army Corps of Engineers, Sacramento District.

- i) For Permittee-owned or operated structural BMPs with O&M Plans, the Permittee shall implement the O&M Plan. If the O&M Plan is not effective at keeping the BMP in a condition to continue to fully achieve its intended function, the Permittee shall make improvements to the O&M Plan.
  - j) For all other Permittee-owned or operated structural BMPs, the Permittee shall perform maintenance as needed for the structural BMP so that the structural BMP continues to fully achieve its intended function.
  - k) The Permittee shall maintain legal authority to inspect privately owned or operated structural BMPs and enforce maintenance standards so these structural BMPs are maintained such that the structural BMPs continue to fully achieve the structural BMPs intended function.
  - l) It is recommended, but not required, that the Permittee keep photographic records of structural BMP to aid in future assessments and inspections.
- 8) Inspections of Municipal Facilities, Maintenance Operations, and Events – By the end of Year 2, the Permittee shall develop effective municipal inspections that at a minimum meet each item listed below. Beginning in Year 3, the Permittee shall implement the municipal inspection requirements each year.
- a) Weekly Visual Observations – The Permittee shall weekly perform visual observations of all inventoried Municipal Facilities (excluding roads) and Maintenance Operations to ensure materials and equipment are clean and orderly, and to minimize the potential for pollutant discharge. The Permittee shall look for evidence of spills and debris and immediately clean them up to prevent contact with precipitation or runoff. The Permittee shall identify any corrective actions and verify the corrective action is completed. For Maintenance Operations that are occurring in multiple locations simultaneously, the weekly visual observations do not need to occur at every location but can be weekly rotating spot checks of some operations such that all crews are observed frequently.
  - b) Annual Inspections – The Permittee shall perform inspections each year of all Municipal Facilities and Maintenance Operations not designated as High Priority to ensure all minimum BMPs identified in Section E.3 (Minimum BMPs for Municipal Facilities, Maintenance Operations and Events) are implemented effectively. The inspections shall identify any modifications or additions required to reduce the pollutants in runoff to the MEP. The Permittee shall identify any corrective actions and verify the corrective action is completed.
  - c) Quarterly Inspections for High Priority Municipal Facilities, Maintenance Operations, and Events – The Permittee shall conduct quarterly inspections of all High Priority Municipal Facilities, Maintenance Operations, and Events.
    - i) Inspection Procedures
      - (1) Inspections shall include, but not be limited to the following:
        - (a) Assessment of the effective implementation of the Municipal Facility, Operation or Event SWPPP;
        - (b) Assessment of compliance with this Order, Permittee ordinances and permits related to runoff;
        - (c) Assessment of BMP implementation, maintenance, and effectiveness;
        - (d) Visual observations for non-stormwater discharges, potential illicit connections, and potential pollutants in runoff ; and
        - (e) Education and training on stormwater pollution prevention, as conditions warrant.
      - (2) The Permittee shall complete the specific inspection checklist contained in the SWPPP or standard operating procedures.

- (3) Inspection Rating – The Permittee shall determine the Inspection Rating for each inspected facility, operation, and event using the methodology described in Attachment G, or an equivalent methodology developed by the Permittee and approved by the Central Coast Regional Water Board Executive Officer.
- ii) The Permittee shall identify any BMPs that are not implemented effectively, or are not properly installed or maintained, and any additional BMPs required at each High Priority Municipal Facility, Operation, or Event to reduce pollutant discharges to the MEP and protect water quality.
- iii) The Permittee shall notify the responsible party of each High Priority Municipal Facility, Operation, or Event of the results of inspection, including the Compliance Percentage, any BMPs that are not implemented effectively, and any required additions or modifications to BMPs.
- iv) Low-Performing High Priority Municipal Facilities and Operations – The Permittee shall reinspect each High Priority Municipal Facility and Operation with an Inspection Rating of “E” or less within 30 days. The Permittee shall calculate the Inspection Rating for each reinspected facility and operation. The Permittee shall continue to reinspect the low-performing facility or operation as necessary, at intervals not to exceed 30 days, until there is a demonstrable quantifiable improvement in Inspection Rating.
- v) Visual Observation of Stormwater Discharges - The quarterly inspections shall include visual observations of the quality of the runoff discharges from each High Priority Municipal Facility, Maintenance Operation, and Event (unless climate conditions preclude doing so, in which case the Permittee shall evaluate the discharges four times during the rainy season). For Events that are less than 3 months in duration, one observation shall occur. Observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or BMPs shall be remedied. Within three days, the observed problem shall be remedied, or for complex problems, a plan to promptly remedy the observed problem shall be developed within three days.
- d) Information Management – The Permittee shall develop and maintain an information management system to record and track the following inspection information for each Municipal Facility, Operation, and Event:
  - i) Required inspection frequency and type (e.g., weekly visual observation, annual inspection, High Priority quarterly inspection and visual observation of stormwater discharge);
  - ii) Dates of all inspections and reinspections and type of inspection performed;
  - iii) For each inspection: corrective actions or any additional/modified BMPs required;
  - iv) Dates that corrective actions or additional/modified BMPs were implemented;
  - v) Whether the recorded inspection is a reinspection;
  - vi) If the responsible party was notified of the results of the inspection; and
  - vii) For High Priority Municipal Facilities, Maintenance Operations, and Events:
    - (1) The number of specific BMPs required at each site;
    - (2) Results of inspections, including the inspection checklist, the number of BMPs implemented effectively or properly installed and maintained and the Compliance Percentage;
    - (3) Sites requiring reinspection within 30 days; and
    - (4) Results of the quarterly visual observations of stormwater discharges.
- 9) New Flood Management Projects – Within 12 months of adoption of this Order, the Permittee shall develop and implement a process to assess and reduce the water quality impacts in the design of all new flood management projects that are associated with the



Permittee or that discharge to the MS4. This process shall include implementation of BMPs that will reduce the impacts to site water quality and hydrology.

- 10) Information Management – The Permittee shall develop and maintain an effective information management system to record and track the information required in this Section. Outputs from the information management system are to be made available to Central Coast Water Board staff upon request. In addition to the inventory and information management requirements specified in Sections E.6 (Street Sweeping and Cleaning), E.7 (Maintenance of Structural BMP Verification) and E.8 (Inspections of Municipal Facilities, Maintenance Operations, and Events), the information management system shall at a minimum include each requirement listed below. The information management system shall be implemented within 12 months of adoption of this Order, unless otherwise specified or where this Order does not require the Permittee to acquire the required information until a later date.
- a) MS4 System – For catch basins, the information management system shall include the department and personnel (staff position) responsible for inspections. In addition, the information management system shall include:
    - i) Catch Basins
      - (1) Identification of which catch basins have been designated as High Priority Catch Basins according to Section E.5 (Municipal Maintenance: MS4 System Operation and Maintenance)
      - (2) The date each catch basin was inspected
      - (3) The result of the inspection (i.e., did the catch basin require cleaning)
      - (4) The date and a description of maintenance performed, including cleaning
    - ii) Surface Drainage Structures (see Section N.2 [Trash Load Reduction: Trash Reduction BMPs])
      - (1) Identification of all open channel and other surface drainage structure segments
      - (2) Identification of problem areas
      - (3) Required inspection schedule for each structure segment
      - (4) Dates structure segment was inspected and the inspection findings
      - (5) Dates trash or other debris was removed from structure segment
  - b) Structural BMPs
    - i) The date each structural BMP was inspected
    - ii) The RAM score for each BMP at each inspection
    - iii) Maintenance performed, including date and description of maintenance
    - iv) Urban Subwatershed location
  - c) Structural BMPs designed to achieve a quantitative stormwater management objective
    - i) The pollutants targeted by the BMP
    - ii) The expected pollutant removal for each targeted pollutant, expressed as an effluent concentration
    - iii) The expected hydrologic benefit of the BMP (e.g., runoff volume reduction)
    - iv) The date each BMP was inspected
    - v) The RAM score for each BMP at each inspection
    - vi) Maintenance performed, including date and description of maintenance
    - vii) The RAM score for each BMP following maintenance
    - viii) Urban Subwatershed location
  - d) Municipal Facilities, Municipal Maintenance Operations, and Events
    - i) Assessments performed per Section E.2 (Municipal Facility, Maintenance Operations, and Event Assessment)
    - ii) Identification of High Priority Municipal Facilities, Municipal Maintenance Operations, and Events

- iii) BMPs required
  - iv) Location of SWPPP and date last updated (if SWPPP required)
  - v) Inspections of High Priority Municipal Facilities, Operations, and Events
    - (1) Dates of all inspections and reinspections
    - (2) Results of all inspections and reinspections, including the Inspection Rating and any required corrective actions
  - vi) Pesticide, Herbicide and Fertilizer Use
    - (1) The amount of pesticide, herbicide, and/or fertilizer applied by the Permittee (or staff not employed by the Permittee), by type (i.e., pesticide, herbicide, or fertilizer), product name or primary chemical constituent, and date
    - (2) The dates of all rain events that produce runoff – When pesticides or fertilizers are used, the Permittee shall retain records of precipitation forecast from the National Weather Service Forecast Office (e.g., by entering the location zip code at <http://www.srh.noaa.gov/forecast>).
  - vii) Urban Subwatershed location
  - e) New Flood Management Projects
    - i) Flood management projects being planned in the Permit coverage area
    - ii) BMPs implemented for each project
- 11) Coordination With Monterey County Water Resources Agency – Within 2 years of adoption of this Order, the Permittee shall collaborate with Monterey County Water Resources Agency to identify each MS4's contributions, roles and responsibilities, jurisdictions, and legal authority regarding stormwater management and maintenance of the Reclamation Ditch.
- 12) Salinas River Outfall – Within 12 months of adoption of this Order, the Permittee shall develop and submit to the Central Coast Water Board Executive Officer for approval, a plan to decrease the pollutant loads (including nutrients, salts, pathogen indicators, and pesticides) discharged from the Salinas River outfall. The plan shall include:
- a) Pollutant source identification;
  - b) Ranking of pollutant sources in terms of priority;
  - c) Identification of actions that will provide measurable pollutant load reduction outcomes;
  - d) Ranking of actions in terms of expected effectiveness;
  - e) Identification of actions to be implemented;
  - f) An implementation schedule;
  - g) Measurable pollutant load reduction outcomes;
  - h) Monitoring plan to monitor the Salinas River Outfall that is designed to quantitatively demonstrate the reduction of discharged pollutant loads due to the corrective actions implemented by the Permittee (or others). Monitoring data shall be CCAMP compatible; and
  - i) Identification of how the Permittee will assess effectiveness of the implemented actions and make any needed modifications to the plan.
- 13) Training – The Permittee shall ensure that all municipal staff whose job duties are related to implementing the municipal maintenance requirements of this Order have the knowledge and understanding necessary to effectively implement this Order. All applicable municipal staff shall be trained each year. New municipal staff, or municipal staff new to a position related to municipal maintenance operations or events, shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of municipal stormwater program implementation and shall revise the training to address any deficiencies each year. Training documents shall be

available for review by Central Coast Water Board staff. The training shall, at a minimum, include each item listed below.

- a) The requirements of this Order that relate to the municipal staff's job duties
- b) The connection between municipal operations and water quality impacts
- c) How to effectively implement municipal BMPs specific to the municipal staff's job duties
- d) The administrative requirements of this Order, such as reporting and tracking
- e) For street sweeper operators (both Permittee employees and contractors): Training to enhance operations for water quality benefit
- f) For municipal staff or contractors applying or storing pesticides or fertilizers: Training in Integrated Pest Management techniques and the BMPs described in Section E.3.h (BMPs for pesticide, herbicide, and fertilizer application, storage, and disposal).
- g) Illicit discharge training as described in Section H.12 (Illicit Discharge Detection and Elimination: Illicit Discharge Training)
- h) For inspectors: The knowledge to readily identify deficiencies and evaluate the appropriateness and effectiveness of deployed BMPs and SWPPPs
- i) Refresher training for existing municipal staff each year to fill any knowledge gaps identified in the annual training assessment and to update municipal staff on preferred BMPs, current advancements in BMP technologies, regulation changes, Order updates, and policy or standards updates.
- j) Throughout the year municipal staff shall be kept up-to-date if changes occur.

#### 14) Staff Not Employed by the Permittee

- a) The Permittee is responsible for the effective implementation of the requirements in this Section regardless if the work is performed by municipal staff or contracted to others. Contracts for the performance of any municipal activity shall include requirements to comply with applicable BMPs and any other applicable requirements of this Order.
- b) The Permittee shall perform oversight of operations performed by others to ensure the effective implementation of the requirements of this Order.

#### 15) Reporting

- a) In the Year 1 Annual Report, the Permittee shall include:
  - i) A description of the information management system(s) developed to track the information required by this Section;
  - ii) A summary of the results of catch basin inspection and cleaning activities, including the total number of catch basins in the Permit coverage area, verification that all catch basins were inspected and cleaned as required, verification that sediment/debris depth was determined and recorded for each catch basin, and the total volume of sediment and debris removed from all catch basins;
  - iii) Street sweeping map showing the sweeping frequency assigned to each street and parking lot;
  - iv) The strategy developed in accordance with Section E.6.f.iii.2;
  - v) A description of the procedure developed to dewater and dispose of street sweeper waste material;
  - vi) A description of the developed Maintenance of Structural BMP Verification;
  - vii) A description of the process developed to assess new flood management projects; and
  - viii) The plan developed for the Salinas River outfall.
- b) In the Year 2 Annual Report, the Permittee shall include:
  - i) The municipal inventory;
  - ii) A list of minimum BMPs developed for each inventoried Municipal Facility, Maintenance Operation, and Event;

- iii) Verification of SWPPPs development for each High Priority Municipal Facility, and Event;
  - iv) Verification of standard operating procedures developed for each High Priority Maintenance Operation;
  - v) The checklists developed for each High Priority Municipal Facility, Maintenance Operation, and Event;
  - vi) A summary of the results of catch basin inspection and cleaning activities, including the total number of catch basins in the Permit coverage area, verification that all catch basins were inspected and cleaned as required, and verification that all data was collected, recorded, and tracked as required;
  - vii) A summary of the results of catch basin inspection and cleaning activities, including the total number of catch basins in the Permit coverage area, verification that all catch basins were inspected and cleaned as required, verification that sediment/debris depth was determined and recorded for all catch basins, and the total volume of sediment and debris removed from all catch basins;
  - viii) A description of the process used to modify the catch basin inspection and cleaning program, including a description of the modified program and the rationale for believing that the modified program will optimize the total volume of sediment and debris removed from catch basins each year;
  - ix) A description of the process used to modify street sweeping schedules in accordance with Section E.6.c, including the rationale used to identify routes for more frequent or less frequent sweeping, identification sweeping frequency for each route, and the total number of route miles swept per year before and after modifications; and
  - x) A description of the BMPs developed and legal authority developed to reduce tracking of dirt and other debris onto streets;
- c) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include:
- i) A description of progress made implementing the strategy developed in accordance with Section E.6.f.iii.2;
  - ii) A description of the Structural BMP Rapid Assessment methodology developed and the maintenance needs of each structural BMP (Year 2 Annual Report only);
  - iii) Maintenance of Structural BMPs
    - (1) For each structural BMP inspected during the reporting period, the Permittee shall report the following information in electronic tabular format (i.e., displayed in a table):
      - (a) Name of facility/site inspected;
      - (b) Location (street address) of facility/site inspected;
      - (c) Name of owner of installed BMPs; and
      - (d) For each inspection:
        - (i) Date of inspection;
        - (ii) Type of inspection (e.g., initial, annual, follow-up, spot);
        - (iii) Type(s) of BMPs inspected (e.g., swale, bioretention unit, tree well) and an indication of whether BMPs are in an onsite or offsite system;
        - (iv) Inspection findings or results (e.g., proper installation, proper O&M, system not operating properly because of plugging, bypass of stormwater because of improper installation, maintenance required immediately); and
        - (v) Enforcement action(s) taken, if any (e.g., verbal warning, notice of violation, administrative citation, administrative order).

- (2) The total number of structural BMPs that have been installed to date to comply with Order No R3-2004-0135 or to comply with the requirements for Priority Development.
  - (3) The number structural BMPs inspected each year and the number of structural BMPs found to have a BMP RAM score of less than “acceptable” (Year 3 Annual Report and subsequent Annual Reports only).
  - (4) Verification that structural BMPs were maintained, as required, to achieve a BMP RAM score of at least “acceptable” (Year 3 Annual Report and subsequent Annual Reports only).
  - (5) A summary of information management system updates including measures the Permittee implements to ensure the system is kept up to date.
  - (6) A discussion of the inspection findings for the year and any common problems encountered with various types BMPs. This discussion shall include a general comparison to the inspection findings from the previous year.
  - (7) A discussion of the effectiveness of the Permittee’s O&M BMPs and any proposed changes to improve the O&M BMPs (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness of BMPs).
  - (8) A list of all newly installed (installed within the reporting period) BMPs. This list shall include the facility locations and a description of the BMPs installed.
- iv) A list of all flood management projects in the planning stage and how water quality impact reduction measures are being incorporated into the design; and
  - v) A summary of the progress on the Salinas River outfall plan.
- d) In the Year 3 Annual Report, the Permittee shall include a summary of the developed Structural BMP Rapid Assessment methodology.
  - e) In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall include:
    - i) A description of updates made to the municipal inventory including the reasoning for the update;
    - ii) A description of updates made to the minimum BMPs including the reasoning for the update;
    - iii) A description of updates made to High Priority Municipal Facility and Event SWPPPs and Maintenance Operation standard operating procedures including the reasoning for the update;
    - iv) A description of updates made to the checklists for each High Priority Municipal Facility, Maintenance Operation, and Event including the reasoning for the update;
    - v) A description of the implementation of the BMPs to reduce tracking of dirt and other debris onto streets including a description of any corrective actions taken;
    - vi) Summary of the weekly visual observations procedures at Municipal Facilities, Maintenance Operations, and Events and how the Permittee ensured the weekly observations occur and that identified issues were resolved;
    - vii) Quarterly and Annual Inspections of Municipal Facilities, Maintenance Operations, and Events
      - (1) A summary of the quarterly and annual inspections for minimum BMP implementation including percentage of facilities, operations and events inspected and the inspection results and follow-up actions;
      - (2) The number of municipally owned and/or maintained High Priority Municipal Facilities, Operations, and Events, and the number of High Priority Municipal Facilities, Operations and Events inspected quarterly;
      - (3) Verification that site-specific inspection checklists were used for all inspections;
      - (4) Results of all inspections, including Inspection Rating;

- (5) Identification of Low-Performing High Priority Municipal Facilities and Operations, including the results of all reinspections conducted and identification of improvements in Inspection Rating achieved at each facility and operation;
  - (6) Verification that all inspected sites were notified of the inspection results as required;
  - (7) Verification that the information management system has been updated as required;
  - (8) A summary of the results of the visual observations of stormwater discharges;
  - viii) A summary of the results of the Municipal Facility, Maintenance Operations, and Event assessments including the list of High Priority Municipal Facilities, Maintenance Operations, and Events as well as the criteria used to designate facilities, operations, and events as High Priority;
  - ix) A summary of the results of catch basin inspection and cleaning activities, including the total number of catch basins in the Permit coverage area, the number of high priority catch basins, the number of catch basins inspected, the number of catch basins cleaned, verification that all catch basins were inspected and cleaned as required, and verification that all data was collected, recorded, and tracked as required, the total volume of sediment and debris removed from all catch basins; and the total volume of sediment and debris removed from all catch basins within each Urban Subwatershed;
  - x) Verification of the assessment of catch basin prioritization, including the number of any catch basins newly identified as high priority and the number of any catch basins reduced from high priority; and
  - xi) A description of progress made implementing the strategy to increase the percentage of curb miles actually swept, including an assessment of the effectiveness of the strategy at achieving the intended objective.
- f) In each Annual Report, the Permittee shall include:
- i) MS4 System Operation and Maintenance
    - (1) A summary of information management system updates;
    - (2) Whether the information management system has been updated to include all required information;
  - ii) Street Sweeping
    - (1) All data tracked in accordance with Section E.6.b;
    - (2) A summary of street sweeping activities performed, including verification that all routes were swept in accordance with the required schedule;
    - (3) A summary of parking lot cleaning activities performed, including verification that all municipal parking lots and garages were inspected and cleaned as required, and that parking lots identified in Section E.6.i were swept in accordance with the required schedule;
    - (4) The average volume of solids collected per route mile swept during the dry season for each of the 24 routes the Permittee currently sweeps biweekly;
    - (5) The estimate of the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations, developed in accordance with Section E.6.f.iii.1, including a description of the method used to develop the estimate;
    - (6) The types of sweepers used;
    - (7) A summary of the equipment design performance tracking;
    - (8) The use of additional resources in sweeping seasonal leaves or pick-up of other material;
    - (9) A description of the methods for addressing areas identified in Section E.6.g (Street Sweeping and Cleaning), considered infeasible for street sweeping;

- (10) A description of any sweeping equipment replacement;
- iii) A summary of the oversight procedures the Permittee implemented for all operations performed by staff not employed by the Permittee;
- iv) A training report that includes at a minimum:
  - (1) List of all staff whose job duties are related to implementing the municipal stormwater requirements of this Order, the date(s) training occurred and the topics covered;
  - (2) Results of the annual training assessment and a summary of any implemented revisions to training; and
  - (3) A summary of the Permittee's compliance with the training requirements of this Section.

## F. Commercial and Industrial

### 1) Commercial and Industrial Inventory

- a) By the end of Year 2, the Permittee shall revise its Commercial and Industrial Inventory in accordance with this Section. The Permittee shall keep the inventory current by including and/or updating the following minimum information each year, as necessary for each facility or operation on the inventory:
  - i) Facility or operation name (i.e., the name of the business);
  - ii) Address;
  - iii) Urban Subwatershed in which the facility or operation is located;
  - iv) Nature of business or activity;
  - v) Pollutants potentially generated by the facility or operation;
  - vi) Standard Industrial Classification (SIC) codes;
  - vii) A description of the facility or operation activities that have the potential to contaminate stormwater;
  - viii) Principal stormwater contact; and
  - ix) Whether the facility or operation is enrolled in the General Industrial Permit.
- b) The Permittee shall include a minimum of 1,250 commercial and industrial facilities and/or operations on the Commercial and Industrial Inventory. The Permittee shall identify facilities and/or operations for inclusion in the inventory according to the order listed below (i.e., Industrial Facilities first, followed by Commercial Food Facilities and Operations, etc.). The Permittee shall include all facilities and/or operation in each of the categories listed below in the Permit coverage area until the inventory includes at least 1,250 facilities and/or operations.
  - i) Industrial Facilities
    - (1) Industrial facilities, as defined by 40 CFR section 122.26(b)(14), including those subject to the General Industrial Permit or other individual NPDES permit.
    - (2) Facilities subject to section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023 (commonly known as SARA Title III); and
    - (3) Hazardous waste treatment, disposal, storage, and recovery facilities.
  - ii) Commercial Food Facilities and Operations
    - (1) Eating or drinking establishments, including food markets; and
    - (2) Meat cutting, packing, and processing.
  - iii) Commercial Automotive Repair Facilities and Operations
    - (1) Automobile and other vehicle body repair or painting;
    - (2) Automobile repair, maintenance, fueling, or cleaning; and
    - (3) Trucking centers, including repair, maintenance, fueling, or cleaning.
  - iv) Retail or Wholesale Gasoline Outlets

- v) Commercial Car Washes
- vi) Livestock operations within the Permit coverage area that discharge into the Permittee's MS4
- vii) Nurseries and greenhouses
- viii) Commercial Retail Centers
  - (1) Shopping malls, strip malls, and shopping centers; and
  - (2) Big box stores and warehouse stores.
- ix) Commercial Mobile Operations
  - (1) Mobile automobile or other vehicle washing, including commercial car washes;
  - (2) Mobile carpet, drape, or furniture cleaning;
  - (3) Mobile tallow services;
  - (4) Mobile sanitary services (e.g., septic and grease trap pumping, portable toilet servicing);
  - (5) Mobile water damage services;
  - (6) Power washing services; and
  - (7) Street and parking lot mobile sweeping services.
- x) Commercial Trash and Garbage Facilities or Operations
  - (1) Refuse haulers, transfer stations, and tallow rendering facilities; and
  - (2) Recycling centers.
- xi) Aviation, Marine, and Equipment Facilities and Operations
  - (1) Airplane repair, maintenance, fueling, or cleaning;
  - (2) Boat repair, maintenance, fueling, or cleaning; and
  - (3) Equipment repair, maintenance, fueling, or cleaning.
- xii) Commercial Construction Facilities or Operations
  - (1) Cement mixing or cutting;
  - (2) Masonry operations;
  - (3) Granite, marble, and tile cutting;
  - (4) Building material retailers and storage; and
  - (5) Painting and coating.
- xiii) Commercial Landscaping and Pest Control Operations
  - (1) Agricultural chemical dealers and fertilizer/pesticides mixing facilities;
  - (2) Botanical or zoological gardens and exhibits;
  - (3) Cemeteries; and
  - (4) Golf courses, parks, and other recreational areas/facilities.
- xiv) Miscellaneous Commercial Facilities or Operations
  - (1) Animal and veterinary facilities;
  - (2) Commercial laundries; and
  - (3) Other facilities with a history of un-authorized discharges to the MS4.
- xv) All other commercial and industrial facilities or operations that the Permittee determines may contribute a significant pollutant load to the MS4.
- c) The Permittee shall make an exception to the order contained in Section F.2.b for commercial and industrial facilities and/or operations known or suspected by the Permittee to be a significant potential source of pollutants, and shall include such facilities and/or operations in the Commercial and Industrial Inventory.
- d) The Permittee shall update the Commercial and Industrial Inventory each year.
- e) When developing the revised Commercial and Industrial Inventory by the end of Year 2 in accordance with Section F.1.a, Section F.1.b, and Section F.1.c, the Permittee shall acquire the necessary facility and/or operation information from existing knowledge about each facility or operation or through extrapolation of knowledge about similar facilities and/or operations (i.e., the Permittee is not required to conduct an inspection of the facility or operation prior to the revising the inventory). The Permittee may use



information gathered during prior inspections of the facility or operation, or during inspection of similar facilities and/or operations. For types of facilities and operations the Permittee has not previously inspected, the Permittee may use information from its own research or from other stormwater programs in conducting the initial Commercial and Industrial Inventory revision.

- f) The Permittee may propose, for Central Coast Water Board Executive Officer Approval, an alternative methodology of developing the Commercial and Industrial Inventory that is at least equivalent to the procedure identified in this Section.
- 2) Minimum BMPs – By the end of Year 2, the Permittee shall designate and require the effective implementation of minimum BMPs for all facilities and operations included in the Commercial and Industrial Inventory. Minimum BMPs shall be specific to facility or operation types and pollutant-generating activities for the facility or operation type, and shall, at a minimum, include the BMPs listed below, for each facility or operation identified in the commercial and industrial inventory. Each year, the Permittee shall update the minimum BMPs for consistency with trash reduction ordinances.
- a) Implement source control BMPs. Minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rainfall, stormwater run-on, and stormwater runoff by collectively locating these materials and activities inside, protecting them with storm resistant coverings, diverting run-on and runoff away from the materials and activities, and/or implementing other similarly effective measures.
  - b) Locate materials, equipment, and activities so that leaks are contained in containment and diversion systems.
  - c) Implement leak and spill prevention procedures and clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants. Train employees who may cause, detect, or respond to a spill or leak in these procedures and have necessary spill response equipment available.
  - d) Use drip pans and absorbents under or around leaky vehicles and equipment, or, where feasible, store leaky vehicles and equipment indoors.
  - e) Use spill/overflow protection equipment.
  - f) Drain fluids from equipment and vehicles prior to on-site storage or disposal.
  - g) Perform all cleaning operations indoors, under covered areas, or in bermed areas that prevent runoff and run-on and capture any overspray.
  - h) Direct all wash water and process water drains to a proper collection system and not into the MS4.
  - i) Follow good housekeeping practices. Keep clean all exposed areas that are potential sources of pollutants, by regularly implementing BMPs (e.g., sweeping), keeping materials orderly and labeled, and storing materials in appropriate containers.
  - j) Conduct maintenance. Regularly inspect, test, maintain, and repair all commercial and industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in urban runoff discharges.
  - k) Implement procedures, for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies (e.g., Monterey County Certified Unified Program Agency (CUPA), Environmental Health, and Central Coast Water Board).
  - l) Implement erosion and sediment control BMPs. Stabilize exposed areas and contain stormwater runoff using structural and/or nonstructural BMPs to minimize onsite erosion and sedimentation and the resulting discharge of pollutants.
  - m) Eliminate illicit discharges (as defined by Attachment B [Definitions]).
  - n) Control waste, trash, and debris. Manage waste, trash, and debris to reduce its discharge in stormwater into the MS4 or receiving waters to the MEP.

- o) Control dust generation and vehicle tracking of industrial materials. Minimize generation of dust and tracking of raw, final, and waste materials offsite.
  - p) Label drains/inlets that convey discharges to the MS4 with a stormwater awareness message (e.g., a label, stencil, marker or pre-cast message such as “drains to the creek”).
  - q) Implement any additional BMPs required to effectively reduce pollutants discharged from these operations to the MEP.
- 3) Notification – By the end of Year 2, the Permittee shall notify the owner/operator, of each facility and operation in the Commercial and Industrial Inventory, of the stormwater requirements in this Section. For facilities and operations added to the inventory subsequent to the first 24 months after adoption of this Order, the Permittee shall notify the owner/operator of each facility and operation of these requirements within one month of the addition.
- 4) Inspection of Facilities and Operations – The Permittee shall inspect facilities and operations in the Commercial and Industrial Inventory for compliance with this Order.
- a) Beginning in Year 3, the Permittee shall prioritize facilities and operations in the Commercial and Industrial Inventory for inspection each year. The Permittee shall prioritize facilities and operations based on potential threat to water quality and watershed health, accounting for, but not limited to, the following factors:
    - i) Type of activity;
    - ii) Materials used;
    - iii) Wastes generated;
    - iv) Pollutant discharge potential;
    - v) Non-stormwater discharges;
    - vi) Proximity to receiving water bodies (e.g., if the facility is adjacent to a receiving water body this should be considered);
    - vii) Sensitivity of receiving water bodies (e.g., if the facility discharges to a 303(d) listed waterbody and the facility has the potential to generate the pollutant the waterbody is listed for, this should be considered);
    - viii) Whether the facility is subject to the General Industrial Permit or an individual NPDES permit;
    - ix) Facility design;
    - x) Total area of the facility or operation, area where industrial or commercial activities occur, and area of the facility or operation exposed to rainfall and runoff;
    - xi) Time since previous inspection;
    - xii) The facility or operation’s compliance history; and
    - xiii) Any other relevant factors.
  - b) When prioritizing facilities and operations for inspection in Year 3 in accordance with Section F.4.a, the Permittee shall base its prioritization on existing knowledge about each facility or operation or through extrapolation about similar facilities and/or operations (i.e., the Permittee is not required to conduct an inspection of facilities or operations prior to prioritizing the inventory). The Permittee may use information gathered during prior inspections of the facility or operation, or during inspection of similar facilities and/or operations. For types of facilities and operations the Permittee has not inspected previously, the Permittee may use information from its own research or from other stormwater programs to conduct the initial prioritization.
  - c) Inspection Procedures
    - i) By the end of Year 2, the Permittee shall develop and implement effective inspection procedures that achieve the following for each inspected operation or facility:

- (1) For facilities that monitor runoff (e.g., facilities covered by the General Industrial Permit, facilities covered by other NPDES permits), review of facility monitoring data;
  - (2) Verification of coverage under the General Industrial Permit (e.g., Waste Discharge Identification [WDID] Number and SWPPP), if applicable.
  - (3) Assessment of BMP selection, implementation, installation, and maintenance in accordance with minimum BMPs designated by the Permittee and with guidance contained in the California Stormwater Quality Association Stormwater Best Management Practices Handbook for Industrial and Commercial;<sup>5</sup>
  - (4) Assessment of compliance with Permittee stormwater regulations (e.g., municipal codes, ordinances, statutes, standards, specification, permits, contracts);
  - (5) Determination of the Inspection Rating using the methodology described in Attachment G – Inspection Ratings, or an equivalent methodology approved by the Central Coast Water Board Executive Officer;
  - (6) Assessment of additional BMPs that must be required to reduce the discharge of pollutants to the MEP;
  - (7) Visual observations for non-stormwater discharges, potential illicit connections, and potential pollutants in urban runoff discharges;
  - (8) Education on effective stormwater pollution prevention, as conditions warrant; and
  - (9) Identification of required corrective actions and verification that corrective actions have been implemented.
- ii) Inspection Rating – The Permittee shall determine the Inspection Rating for each inspected facility and operation using the methodology described in Attachment G – Inspection Ratings, or an equivalent methodology developed by the Permittee and approved by the Central Coast Regional Water Board Executive Officer.
  - iii) The Permittee shall determine two separate Inspection Ratings for fast food restaurants in accordance with the approved methodology. One Inspection Rating shall be determined related to requirements contained in this Section for Commercial Food Facilities and Operations. The second Inspection Rating shall be determined related to trash and litter control. The Permittee shall document and track both Inspection Ratings determined for each inspected fast food restaurant.
- d) Inspection Frequency
- i) Beginning in Year 3, the Permittee shall inspect a minimum of 20 percent of the facilities and operations included in the Commercial and Industrial Inventory each year. The Permittee shall identify facilities for inspection each year on the basis of the prioritization conducted in accordance with Section F.4.a. When calculating the percentage of facilities or operations inspected, multiple inspections of the same facility, conducted in accordance with Section F.4.d.ii, shall be considered as one facility inspection.
  - ii) Low-Performing Facilities and Operations – The Permittee shall reinspect each Commercial and Industrial Facility and Operation with an Inspection Rating of “E” or lower within thirty days. The Permittee shall calculate the Inspection Rating for each reinspected facility and operation. The Permittee shall continue to reinspect the low-performing facility or operation as necessary, at intervals not to exceed thirty days,

<sup>5</sup> CASQA. *California Stormwater Quality Association Stormwater Best Management Practice Handbook: Industrial and Commercial*, January 2003. Web. 23 August 2011  
<<http://www.cabmphandbooks.com/documents/Industrial/IndustrialCommercial.pdf>>.

- until there is a demonstrable improvement in Inspection Rating. The Permittee shall reinspect fast food restaurants when either or both of the Inspection Ratings determined during inspection is “E” or lower. The reinspection shall focus on BMPs related to the Inspection Rating(s) necessitating the reinspection.
- e) The Permittee shall notify the principal stormwater contact of each inspected facility or operation of the results of each inspection, including the compliance level, Inspection Rating(s), any BMPs that were not implemented effectively, any required corrective actions, and any additional required BMPs.
- 5) Facility Monitoring Data Reported under the General Industrial Permit - The Permittee shall obtain, track, and analyze parameter results reported by industrial facilities within the Permit coverage area enrolled under the General Industrial Permit each year. The Permittee shall obtain the data using the Stormwater Multiple Application and Report Tracking System (SMARTS) as well as by requesting from the Central Coast Water Board any additional data submitted by enrollees in the General Industrial Permit. The Permittee shall use this data to assess the effectiveness of the Permittee’s BMP designation, education, inspection, and enforcement activities for industrial facilities according to Section P.1.b.iii (Monitoring, Effectiveness Assessment, and Program Improvement: Industrial Facilities).
- 6) Information Management – Within 12 months of adoption of this Order, the Permittee shall develop and maintain an information management system to record and track the following information:
- a) Commercial and Industrial Inventory;
  - b) Dates of all inspections and reinspections;
  - c) Results of inspections, including Inspection Ratings and any required corrective actions;
  - d) Any additional required BMPs;
  - e) Documentation of the implementation of identified corrective actions;
  - f) Facilities or operations requiring reinspection within 30 days;
  - g) Whether the recorded inspection was a reinspection or new inspection;
  - h) Any enforcement actions taken to bring the facility or operation into compliance; and
  - i) Records of inspection-result notifications provided to the primary stormwater contact.
- 7) Process to Refer Non-Filers and Noncompliance to Central Coast Water Board
- a) When the Permittee has exhausted its progressive Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement Measures and Tracking]) and cannot bring an operation into compliance with its regulations (e.g., municipal codes, ordinances, statutes) or this Order, or otherwise deems an operation to pose an immediate and significant threat to water quality, the Permittee shall provide oral notification to the Central Coast Water Board within five business days of such determination. Such oral notification shall be followed by written notification within 10 business days of the incident.
  - b) For industrial facilities subject to the requirements of the General Industrial Permit that cannot demonstrate coverage under that permit, the Permittee shall notify the Central Coast Water Board of those non-filers within 10 business days of discovery. In making such notifications, the Permittee shall provide, to the Central Coast Water Board, at a minimum, the following information:
    - i) Facility name and location including address;
    - ii) Facility contact and owner;
    - iii) Facility SIC code; and
    - iv) Records of communication with the responsible party regarding filing requirements.

- 8) Enforcement of Commercial and Industrial Facilities and Operations – The Permittee shall utilize its legal authority to enforce appropriate ordinances, statutes, permits, contracts or other means to control pollutant discharges from all commercial and industrial facilities and operations. The Permittee shall implement the progressive Enforcement Response Plan and take all necessary follow-up actions (e.g., warnings, notices, escalated enforcement, follow-up) to bring facilities and operations into compliance. The Permittee shall respond to and document all complaints received from municipal staff and third-parties and document any required corrective actions that have been implemented. The Permittee shall utilize the reporting system described in Section H.4 (Illicit Discharge Detection and Elimination: Illicit Discharge Reporting System) to facilitate public complaints of commercial and industrial facilities and operations.
- 9) Training - The Permittee shall ensure that any municipal staff, whose job duties are related to implementing the commercial and industrial stormwater requirements of this Order, have the knowledge and understanding necessary to effectively implement the requirements of the Order. All applicable municipal staff shall be trained each year. New municipal staff, or municipal staff new to a position related to commercial or industrial activities, shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of implementation of the commercial and industrial stormwater requirements of this Order and shall revise the training to address any deficiencies each year. The training shall, at a minimum, include each item listed below.
- a) The requirements of this Order that relate to municipal staff's job duties;
  - b) The connection between commercial and industrial activities and water quality impacts;
  - c) How to readily identify deficiencies and evaluate the appropriateness and effectiveness of deployed BMPs;
  - d) How to properly select, install, implement, and maintain effective BMPs for commercial and industrial activities;
  - e) The administrative requirements of this Order, such as reporting and tracking and use of the Permittee's Enforcement Response Plan;
  - f) Inspection procedures;
  - g) Tools to raise awareness and change the behaviors of non-compliant dischargers;
  - h) Information on the requirements in the General Industrial Permit;
  - i) Effective analysis of monitoring data;
  - j) Illicit discharge training as described in Section H.12 (Illicit Discharge Detection and Elimination: Illicit Discharge Training);
  - k) Refresher training for existing municipal staff each year to fill any knowledge gaps identified in the annual training assessment, update municipal staff on preferred BMPs, current advancements in BMP technologies, regulation changes, Order updates, and policy or standards updates;
  - l) Throughout the year municipal staff shall be updated if changes occur; and
- 10) Staff Not Employed by the Permittee
- a) The Permittee is responsible for the effective implementation of the requirements in this Section regardless if the work is performed by municipal staff or contracted to others. Contracts for the performance of any commercial and industrial stormwater activity shall include requirements to comply with applicable BMPs and any other applicable requirements of this Order.
  - b) The Permittee shall perform oversight of activities performed by others to ensure the effective implementation of the requirements of this Order.

## 11) Reporting

- a) In the Year 1 Annual Report, the Permittee shall include:
  - i) A description of the information management system(s) developed to track the information required by this Section.
- b) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) The Commercial and Industrial Inventory;
  - ii) A summary of the information management system updates including a description of measures the Permittee implemented to ensure the system is kept up-to-date;
  - iii) A summary of BMPs designated for all facilities and operations on the Commercial and Industrial Inventory; and
  - iv) A summary of the notification procedure used for owners and operators of facilities and operations of the requirements of this Section including the percentage of inventoried facilities and operations that have been provided notice.
  - v) The developed inspection procedures.
- c) In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) A summary of the Commercial and Industrial Inventory and prioritization updates, including a description of measures the Permittee implemented to ensure the inventory and prioritization are kept up-to-date;
  - ii) Any updates to the BMPs required for each facility and operation;
  - iii) The percentage of newly inventoried facilities and operations that the Permittee has provided notice to of the requirements of this Section;
  - iv) The number of facilities and/or operations inspected each year and the total number of facilities and/or operations included in the Commercial and Industrial Inventory;
  - v) Results of all inspections, including the Inspection Rating;
  - vi) Identification of facilities and operations requiring reinspection within 30 days, and the results of all reinspections conducted; and
  - vii) Verification of notifications to facility and operation owner/operators of inspection results.
- d) In each Annual Report, the Permittee shall include:
  - i) Verification that the Permittee has obtained and tracked facility monitoring data reported under the General Industrial Permit and the results of the analysis (including how the Permittee used the data to inform their program);
  - ii) A summary of any referrals provided to the Central Coast Water Board for non-filers or non-compliance;
  - iii) A summary of the implementation of the Enforcement Response Plan including all enforcement actions taken during the reporting period;
  - iv) A description of the oversight procedures the Permittee implemented for all activities performed by staff not employed by the Permittee; and
  - v) A training report that includes at a minimum:
    - (1) A list of all staff whose job duties are related to implementing the municipal stormwater requirements of this Order, the date(s) training occurred and the topics covered;
    - (2) Results of the annual training assessment and a summary of any implemented revisions to the training; and
    - (3) A description of the Permittee's compliance with the training requirements of this Section.
  - vi) A summary of any letters sent to commercial and industrial facility/operation owners/operators pertaining to the requirements of this Order. The summary will include a sample copy of letters.

## G. Residential

- 1) **Prioritization of Residential Areas and Activities** – By the end of Year 2, the Permittee shall identify High Priority Residential Areas and Activities that pose a threat to water quality. Annually, the Permittee shall review and update the High Priority Residential Areas and Activities. At a minimum, the High Priority Residential Areas and Activities shall include:
  - a) Residential automobile repair, maintenance, washing, and parking;
  - b) Home and garden care activities and product use (e.g., pesticides, herbicides, and fertilizers);
  - c) Disposal of trash, pet waste, green waste, and household hazardous waste (e.g., paints, cleaning products);
  - d) Other residential activities, determined by the Permittee, that may contribute a significant pollutant load to the MS4; and
  - e) Any residential areas tributary to a CWA section 303(d) listed impaired water body, where the area generates pollutants for which the water body is impaired.
- 2) **Minimum BMPs**
  - a) Beginning in Year 3 and each subsequent year, the Permittee shall designate minimum BMPs for each High Priority Residential Area and Activity. The designated minimum BMPs shall be area or activity specific.
  - b) The minimum BMPs shall include household hazardous waste management. The Permittee shall coordinate with the Salinas Valley Solid Waste Authority and/or other disposal entity, to facilitate the proper management and disposal of all used oil, vehicle fluids, toxic materials, and other household hazardous wastes. Such facilitation shall include educational activities, public information activities, and establishment of collection sites operated by the Permittee or a private entity. Curbside collection of household hazardous wastes is encouraged.
  - c) The Permittee shall implement, or require implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order.
  - d) The Permittee shall implement, or require implementation of, BMPs for residential areas and activities that have not been designated as high priority, as necessary.
- 3) **Training** – The Permittee shall ensure that all municipal staff that are likely to observe activities related to the residential stormwater BMPs, based on the municipal staff's typical job duties, have the knowledge and understanding necessary to identify residential activities that have the potential to cause a threat to water quality and to implement the residential stormwater BMPs effectively. All applicable municipal staff shall be trained each year. New municipal staff, or municipal staff new to a position related to implementing the residential stormwater BMPs, shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of residential stormwater BMP implementation and revise the training to address any deficiencies each year. Training documents shall be available for review by Central Coast Water Board staff.
- 4) **Enforcement of Residential Areas and Activities** – The Permittee shall utilize its legal authority to enforce appropriate ordinances, statutes, permits, contracts or other means to control pollutant discharges from all residential areas and activities. The Permittee shall implement the progressive Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement Measures and Tracking]) and take necessary follow-up actions (e.g., warnings, notices, escalated enforcement, follow-up) to obtain compliance with requirements for residential areas and activities. The Permittee shall respond to and document all complaints received from municipal staff and third-parties and document any required corrective actions

that have been implemented. The Permittee shall utilize the reporting system described in Section H.4 (Illicit Discharge Detection and Elimination: Illicit Discharge Reporting System) to facilitate public complaints of residential areas and activities. The Permittee may prioritize complaints received and adjust their level of response in accordance with the potential impact to water quality. For complaints that will not impact water quality, the Permittee's response may consist of documenting the complaint and documenting why no further action was taken.

5) High Priority Private Development

- a) By the end of Year 2, the Permittee shall establish criteria for new private residential areas to be designated as High Priority Private Development. The Permittee shall designate as High Priority Private Development, all Common Interest Area, Home Owner Association, and other residential areas where stormwater conveyance system components (e.g., streets, parking areas, catch basins, storm drains) are not owned or operated by the Permittee that have the largest potential to impact beneficial uses and water quality. The criteria shall include, but not be limited to, the size and number of conveyance system components (e.g., an apartment/condominium complex may not be considered a High Priority Private Development but a residential subdivision with privately operated streets would). The Permittee shall submit the criteria for High Priority Private Development areas to the Central Coast Water Board. The Central Coast Water Board Executive Officer may require modifications to the criteria used by the Permittee to designate High Priority Private Development areas.
- b) Beginning in Year 3, the Permittee shall implement, or require the implementation of the requirements in Sections E.5 (Municipal Maintenance: MS4 System Operation and Maintenance) and E.6 (Municipal Maintenance: Street Sweeping and Cleaning) for High Priority Private Development in new developments.
- c) Beginning in Year 3, the Permittee shall maintain a list of private residential areas. The list shall be updated each year to include all new residential areas where stormwater conveyance system components are not managed by the Permittee. The list shall indicate which areas are designated as High Priority Private Development.

6) Reporting

- a) In the Year 2 Annual Report, the Permittee shall include:
  - i) A summary of identified High Priority Residential Areas and Activities and a description of the selection criteria used to identify High Priority Residential Areas and Activities;
  - ii) The selection criteria used to determine if new private residential areas will be designated as High Priority Private Development.
- b) In the Year 3 Annual Report, the Permittee shall include:
  - i) A description of minimum BMPs designated for each High Priority Residential Area and Activity;
  - ii) A description of how the Permittee obtained legal authority to implement the requirements of Sections E.5 (Municipal Maintenance: MS4 System Operation and Maintenance) and E.6 (Municipal Maintenance: Street Sweeping and Cleaning) in High Priority Private Development; and
  - iii) A summary of the implementation of Sections E.5 (Municipal Maintenance: MS4 System Operation and Maintenance) and E.6 (Municipal Maintenance: Street Sweeping and Cleaning) in High Priority Private Development.
- c) In the Year 3 Annual Report and each subsequent year, the Permittee shall include:



- i) A description of the High Priority Residential Area and Activity annual review and updates to the prioritization implemented by the Permittee including the reasoning for the update;
  - ii) A description of any updates to the list of High Priority Private Development including the reasoning for the update; and
  - iii) A description of how the minimum BMPs were implemented for each High Priority Residential Area and Activity.
- d) In the Year 1 Annual Report and each subsequent Annual Report, the Permittee shall include:
- i) A training report that contains, at a minimum:
    - (1) A list of all staff members whose job duties are related to implementing the residential requirements of this Order, the date(s) training occurred, and the topics covered;
    - (2) Results of the annual training assessment and a summary of any implemented revisions to training; and
    - (3) A summary of the Permittee's compliance with the training requirements of this Section.
  - ii) A summary of any letters sent to residents pertaining to the requirements of this Order. The summary will include a sample copy of letters.

#### H. Illicit Discharge Detection and Elimination

- 1) Illicit Discharge Detection and Elimination BMP Development - The Permittee shall use the Center for Watershed Protection's guide on Illicit Discharge Detection and Elimination (IDDE): A Guidance Manual for Program Development and Technical Assistance<sup>6</sup> (Center for Watershed Protection IDDE Manual) or equivalent, to develop and implement effective ongoing activities to detect, investigate, and eliminate illicit connections and illicit discharges into the MS4. The illicit discharge detection and elimination activities shall, at a minimum, implement the requirements of this Section.
- 2) MS4 System Map – By the end of Year 2, the Permittee shall develop an up-to-date and accurate MS4 System Map, and shall keep the map up-to-date in all subsequent years. In addition to the requirements in Section Q.2 (Watershed Characterization: Watershed Delineation), the map shall at a minimum include:
  - a) High Priority IDDE areas identified under Section H.3 (Prioritization); and
  - b) Dry Weather screening stations identified under Section H.6 (Dry weather screening).
- 3) Prioritization
  - a) By the end of Year 2, the Permittee shall develop and implement effective procedures for identifying High Priority IDDE areas within the MS4 likely to have illicit discharges or illicit connections.
  - b) The Permittee shall maintain a map of the identified High Priority IDDE areas. The map shall be updated each year at a minimum, beginning in Year 2, as needed to be kept current. The Permittee, shall assess the following in the prioritization:
    - i) Areas with older infrastructure that are more likely to have illicit connections;

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<sup>6</sup> Brown, Edward, Deb Caraco, and Robert Pitt. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment*. Ellicott City, MD: The Center for Watershed Protection; University of Alabama, October 2009. Web. 17 August 2011  
<<http://www.cwp.org/documents.html>>.

- ii) Areas containing facilities on the Permittee's Commercial and Industrial Inventory;
  - iii) Areas with a history of past illicit discharges;
  - iv) Areas with a history of illegal dumping;
  - v) Areas with onsite sewage disposal systems;
  - vi) Areas with older sewer lines or with a history of sewer overflows or cross-connections;
  - vii) Areas with Industrial sites covered under the State Water Resource Control Board (State Water Board) General Industrial Permit or an individual NPDES permit within the Permit coverage area; and
  - viii) Any other areas likely to have illicit discharges or illicit connections.
- c) A minimum of 20 percent of the Permit coverage area shall be designated as High Priority IDDE areas. The Permittee may submit to the Central Coast Water Board Executive Officer for approval a High Priority IDDE area alternative that is less than 20 percent of the Permit coverage area. If the Permittee chooses to submit an alternative, the alternative must include demonstration that the alternative will be as effective at reducing the discharge of pollutants to the MEP and protecting water quality as a High Priority IDDE area of no less than 20 percent of the Permit coverage area. The Permittee shall implement its program in accordance with a High Priority IDDE area of no less than 20 percent of the Permit coverage area until approval of the alternative by the Central Coast Water Board Executive Officer.
- d) The list of High Priority IDDE areas shall identify which Urban Subwatershed each area is located in per Section Q.2 (Watershed Characterization: Watershed Delineation).
- 4) Illicit Discharge Reporting System – The Permittee shall promote, publicize, and facilitate public reporting of suspected illicit discharges or other water quality concerns associated with discharges into or from the MS4 through the development and implementation of an effective central contact point reporting system. Within 12 months of adoption of the Order, the Permittee shall assess the percentage of the Permittee's residents who are not fluent in English and determine if the promotion and publicity of the reporting system must be bilingual to be effective. If the Permittee determines the promotion and publicity of the reporting system will be bilingual, the illicit discharge reporting system shall accommodate non-English speaking callers.
- a) The Permittee shall promote and publicize the illicit discharge reporting system contact information to both internal Permittee staff and the public. At a minimum, telephone numbers for the system shall be printed on all education, training, and public participation materials required under this Order, and clearly listed in the telephone book and on the Permittee website.
  - b) The Permittee shall develop and maintain an effective information management system to track all reports of potential illicit discharges. The information management system shall at a minimum include the following for all reports of potential illicit discharges:
    - i) The follow-up actions conducted by the Permittee (e.g., investigations, enforcement);
    - ii) Type of discharge, approximate discharge quantity, and discharge location (including Urban Subwatershed); and
    - iii) The resolution of the report.
  - c) The Permittee shall develop and maintain a written response procedure. The procedure shall contain a flow chart for internal use, that shows the procedures for responding to reports of potential illicit discharges, the various responsible agencies and their contacts, and who would be involved in illicit discharge incidence response, even if it is an entity other than the Permittee. The Permittee's response procedure shall include a plan that identifies how plugs or other diversions would be installed to contain illicit discharges or spills within the MS4.

- d) Notification of Sewage Spills – The Permittee shall develop and implement an effective mechanism whereby the reporting system is notified of all sewage spills. The Permittee shall respond to, contain, and clean up sewage from any such notification.
  - e) Permittee shall conduct source investigations per Section H.7 (IDDE Source Investigation and Elimination) in response to reports.
  - f) This reporting system shall incorporate the requirements to respond to public complaints of stormwater concerns at construction sites (see Section K.8 [Construction Site Management: Enforcement of Construction Site Management]).
  - g) The Permittee shall test the reporting system to ensure it is operating as intended each year.
  - h) The procedure for reporting a potential illicit discharge shall be included in the Permittee's fleet vehicles.
- 5) Illicit Discharge Drive-By Inspections and Identification – By the end of Year 2, the Permittee shall develop and implement effective procedures for illicit discharge identification.
- a) The Permittee shall conduct drive-by inspections of the High Priority IDDE areas for illicit discharge screening at least quarterly. Drive-by inspections shall be conducted at times likely to have illicit discharges (e.g. illicit discharges from restaurant cleaning operations are likely to occur in the evening or at night).
  - b) The Permittee shall develop and maintain an effective information management system to track drive-by inspections. The information management system shall at a minimum include the following for all drive-by inspections:
    - i) Date and location of inspection;
    - ii) Observed or suspected discharges;
    - iii) Cause or responsible party; and
    - iv) Follow-up actions conducted to identify and/or eliminate any discharge.
  - c) At the end of Year 2 and in each subsequent year, the Permittee shall review the data in the information management system and determine which specific areas or sites require drive-by inspections at an increased frequency. The Permittee shall increase the frequency of inspections at these locations.
- 6) Dry Weather Screening – By the end of Year 2, the Permittee shall develop and implement effective dry weather screening BMPs to detect illicit discharges. The Permittee shall implement and revise if necessary, written procedures for dry weather field screening including field observations and field monitoring. The dry weather screening BMPs shall be designed to emphasize frequent, geographically widespread field monitoring to detect and eliminate illicit discharges and illicit connections to the MS4. Dry weather screening shall consist of field observations and field screening monitoring at selected stations. At a minimum, the procedures shall be based on each of the following guidelines and criteria.
- a) Beginning in Year 3, dry weather field screening shall be conducted at each identified station once per year during dry weather (no sooner than 72 hours following any rain event), between May 1st and September 30th.
  - b) If flow or ponded runoff is observed at a dry weather field screening station and there has been at least 72 hours of dry weather, the Permittee shall make observations and conduct the required field sampling. General information shall be recorded and included in the information management system such as time since last rain, quantity of last rain, site descriptions (e.g., conveyance type, dominant watershed land uses), flow estimation (e.g., width of water surface, approximate depth of water, approximate flow velocity, flow rate), and visual observations (e.g., odor, color, clarity, floatables, deposits/stains, vegetation condition, structural condition, and biology).

- c) The Permittee shall use the Center for Watershed Protection IDDE Manual, or equivalent to develop parameters to dry weather field screen and benchmark concentration levels for results whereby exceedance of the benchmark will require the Permittee to conduct follow-up investigations to identify and eliminate the source causing the exceedance of the benchmark.
  - d) The Permittee shall conduct a follow-up investigation within two days to identify and eliminate the source if the benchmarks are exceeded.
  - e) If the station is dry (no flowing or ponded runoff) during two subsequent field screening observations have been completed, the Permittee shall make and record all applicable observations and select another station from the list of alternate stations for monitoring.
  - f) By the end of Year 2, the Permittee shall identify dry weather screening stations and include the station location on the MS4 System Map.
    - i) The Permittee shall select stations according to one of the methods listed below.
      - (1) Stations shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the MS4 by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the MS4 or major outfall. This random selection shall use the guidelines and criteria listed below.
        - (a) A grid system consisting of perpendicular north-south and east-west lines spaced  $\frac{1}{4}$  mile apart shall be overlaid on a map of the MS4, creating a series of cells.
        - (b) All cells that contain a segment of the MS4 shall be identified and one dry weather field screening monitoring station shall be selected in each cell.
        - (c) The Permittee shall determine alternate stations to be sampled in place of selected stations that do not have flow.
      - (2) The Permittee may select stations non-randomly provided adequate coverage of the entire MS4 system is ensured and that the selection of stations meets, exceeds, or provides equivalent coverage to the requirements given above.
    - ii) To select dry weather field screening monitoring stations, the Permittee shall:
      - (1) Locate stations downstream of any sources of suspected illegal or illicit activity;
      - (2) Locate stations to the degree practicable at the farthest manhole or other accessible location downstream in the system within each cell;
      - (3) Give priority to locating stations in High Priority IDDE areas; and
      - (4) Determine alternate stations to be sampled in place of selected stations that do not have flow.
  - g) Beginning in Year 3, the Permittee shall develop and maintain an effective information management system to track dry weather screening. The information management system, at a minimum, shall include the following for all dry weather screening activities:
    - i) Date and station screened;
    - ii) Date of last rain event;
    - iii) Results of screening; and
    - iv) Follow-up actions conducted to identify and/or eliminate discharge.
- 7) IDDE Source Investigation and Elimination – Beginning in Year 3, the Permittee shall develop and implement effective IDDE source investigation and elimination BMPs.
- a) The Permittee shall develop and implement effective procedures for tracing the source of an illicit discharge and for eliminating the source of the discharge.
  - b) The Permittee shall maintain written standard operating procedures for conducting investigations into the source of all identified illicit discharges, including approaches to requiring such discharges to be eliminated.

- c) Abatement and Cleanup – The Permittee shall respond within 1 business day of discovery or a report of a suspected illicit discharge with actions to abate, contain, and/or clean up all illicit discharges.
  - d) Determining the Source of the Illicit Discharge – The Permittee shall conduct an investigation(s) to identify and locate the source of all illicit discharges during or immediately following containment and cleanup activities.
  - e) Corrective Action to Eliminate Illicit Discharge – Once the source of the illicit discharge has been determined, the Permittee shall immediately notify the responsible party of the problem, and require the responsible party to conduct all necessary corrective actions to eliminate the illicit discharge within one week. Upon being notified that the discharge has been eliminated, the Permittee shall conduct a follow-up investigation and field screening, to verify that the discharge has been eliminated. The Permittee shall document the follow-up investigation. The Permittee shall implement the Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement Measures and Tracking]) and take all necessary follow-up actions to eliminate illicit discharges.
  - f) The Permittee's information management system shall document all investigations. The information management system, at a minimum, shall include the following for all source investigations:
    - i) Date and type of action that triggered the investigation;
    - ii) Dates investigation occurred;
    - iii) Follow-up actions conducted by the Permittee (e.g., enforcement);
    - iv) The results of the investigation; and
    - v) Date the investigation was closed.
  - g) The Permittee shall report immediately the occurrence of any illicit discharges believed to be an immediate threat to human health or the environment to the Central Coast Water Board, including the discharge of sewage into the MS4.
- 8) Facilitate Disposal of Used Oil and Toxic Materials - Within 12 months of adoption of this Order, the Permittee shall facilitate the proper management and disposal of all used oil, vehicle fluids, toxic materials, and other household hazardous wastes. The Permittee may coordinate with the Salinas Valley Solid Waste Authority (SVSWA), or other designated disposal company that currently implements program(s) to achieve this requirement. The Permittee shall ensure the availability of collection sites and publicize their availability each year.
- 9) MS4 System Inlet Labels and Illegal Dumping Signs – By the end of Year 5, the Permittee shall label all MS4 system inlets in areas with foot traffic (e.g., areas with sidewalks or footpaths) within the Permit coverage area with a legible stormwater awareness message (e.g., a label, stencil, marker or pre-cast message such as “drains to the creek”). Within 12 months of adoption of this Order, the Permittee shall identify the inlets that shall be labeled that don't already contain a legible message. Beginning in Year 2, the Permittee shall label a minimum of 25 percent of the identified inlets each year. In addition, by the end of Year 2, the Permittee shall post signs with prohibitive language discouraging illegal dumping at designated public access points to creeks, other relevant water bodies, and channels. Signage and storm drain messages shall be legible and maintained. Within 12 months of adoption of the Order, the Permittee shall assess the percentage of the Permittee's residents who are not fluent in English and determine if signage and storm drain messages must be bilingual to be effective. If the Permittee determines signage and storm drain message will be bilingual, signage and storm drain messages installed under this Order shall be bilingual.

- 10) Incidental Runoff and Excessive Water Application – Incidental Runoff shall be reduced and excessive water application shall be prohibited (or reduced to Incidental Runoff). By the end of Year 2, the Permittee shall prohibit the excessive application of potable and recycled water (e.g., over-watering of lawns or gardens causing water to escape from irrigated areas and run off into gutters, ditches, streets, sidewalks and other MS4 system components). In addition, by the end of Year 2, the Permittee shall develop and implement an effective plan to reduce Incidental Runoff to the MEP. The plan shall include each component listed below to control the Incidental Runoff.
- a) Leak detection (for example, from broken sprinkler heads) and correction of leaks.
  - b) Proper design and aiming of sprinkler heads.
  - c) Management of ponds containing recycled water such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater.
  - d) City staff informing responsible parties of observed incidental runoff.
  - e) Installation of moisture sensing irrigation controllers by new development.
  - f) Any other actions necessary to reduce to the MEP the discharge of Incidental Runoff to the MS4 or Waters of the U.S.
- 11) Enforcement to Eliminate Illicit Discharges – The Permittee shall utilize its legal authority to enforce appropriate ordinances, statutes, permits, contracts or other means to eliminate illicit discharges within the Permit coverage area. The Permittee shall implement the progressive Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement Measures and Tracking]) and take all necessary follow-up actions (e.g., warnings, notices, escalated enforcement, follow-up) to bring responsible parties into compliance. The Permittee shall respond to and document all complaints received from third-parties and document any required corrective actions have been implemented. The Permittee shall utilize the reporting system described in Section H.4 (Illicit Discharge Reporting System) to facilitate public complaints of illicit discharges.
- 12) Illicit Discharge Training - The Permittee shall ensure that all municipal staff that may come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4 based on the municipal staff's typical job duties, have the knowledge and understanding necessary to identify potential illicit discharges and to implement the IDDE BMPs effectively. All applicable municipal staff shall be trained each year. New municipal staff, or municipal staff new to a position related to municipal maintenance activities or events shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of implementation of IDDE requirements of this Order and revise the training to address any deficiencies each year. Training documents shall be available for review by the Central Coast Water Board. The training shall, at a minimum include the following:
- a) The requirements of this Order that relate to staff's job duties;
  - b) The connection between illicit discharges and water quality impacts;
  - c) Investigation, remediation, and spill response procedures;
  - d) The illicit discharge reporting system;
  - e) How to readily identify, report, and correct a potential illicit discharge;
  - f) Use of the Permittee's Enforcement Response Plan;
  - g) The administrative requirements of this Order, such as reporting and tracking;
  - h) For individuals designated to answer calls for the IDDE reporting system, training in proper emergency and non-emergency procedures;
  - i) Each year, provide refresher training for existing staff to fill any knowledge gaps identified in the annual training assessment, update staff on preferred BMPs, current

advancements in BMP technologies, regulation changes, Order updates, and policy or standards updates; and

- j) Updates throughout the year if changes in the above requirements occur.

#### 13) Staff Not Employed by the Permittee

- a) The Permittee is responsible for the effective implementation of the requirements in this Section regardless if the work is performed by in-house staff or contracted out to others. Contracts for the performance of any IDDE activity shall include requirements to comply with applicable BMPs and any other applicable requirements of this Order.
- b) The Permittee shall perform oversight of activities performed by others to ensure the effective implementation of the requirements of this Order.

#### 14) Reporting

- a) In the Year 1 Annual Report, the Permittee shall include:
  - i) A summary of the IDDE BMPs developed including how the Center for Watershed Protection IDDE Manual or equivalent guidance was implemented;
  - ii) A description of the information management system(s) developed to track the information required by this Section including a description of measures the Permittee implemented to ensure the system is kept up-to-date;
  - iii) A description of the illicit discharge reporting system;
  - iv) A summary of the MS4 system inlets that will be labeled with a stormwater awareness message and the label details (e.g., size, message, materials);
  - v) A list of the locations the Permittee will post signs discouraging illegal dumping, an explanation the location selection criteria, and the sign details (e.g., size, message, materials); and
  - vi) The Permittee's plan to reduce Incidental Runoff to the MEP.
- b) In the Year 2 Annual Report, the Permittee shall include:
  - i) A list of locations where signs discouraging illegal dumping have been posted. The list shall verify if signs have been posted at all designated public access points to creeks, channels and other relevant water bodies;
  - ii) Map showing High Priority IDDE areas and dry weather screening station locations;
  - iii) A summary of the identified High Priority IDDE areas including the methodology used to identify High Priority IDDE areas;
  - iv) A description of the dry weather screening benchmarks developed;
  - v) A description of dry weather screening station selection methodology; and
  - vi) A description of how the Permittee has prohibited the excessive application of potable and recycled water.
- c) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) A description of the MS4 System Map updates including the reasoning for the update;
  - ii) A description of updates to the map of High Priority IDDE areas including the reasoning for the update;
  - iii) Percentage of the Permit coverage area that has been designated as High Priority IDDE areas;
  - iv) A summary of the drive-by inspections performed including frequency of inspection, inspection findings, and follow-up actions conducted;
  - v) A description of any modifications implemented to the drive-by inspection frequency based on the analysis of data collected the previous year including the reasoning for the modification; and
  - vi) The actions implemented by the Permittee to reduce Incidental Runoff.

- d) In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) A description of the dry weather field screening conducted including frequency of inspection, inspection findings and when benchmarks were exceeded;
  - ii) A description of procedures developed for conducting IDDE source investigations.
  - iii) A description of the source investigations performed including corrective actions implemented; and
- e) In each Annual Report, the Permittee shall include:
  - i) A summary of the reports received (e.g., calls, e-mails, other reports) by the illicit discharge reporting system and follow-up actions conducted;
  - ii) Results of the illicit discharge reporting system testing and any reporting system improvements implemented;
  - iii) A description of activities implemented to facilitate used oil and toxic material disposal;
  - iv) The percentage of identified MS4 inlets requiring a stormwater awareness message that were labeled;
  - v) A description of implementation of the Enforcement Response Plan including all enforcement actions taken during the reporting period;
  - vi) A summary of the oversight procedures the Permittee implemented for all activities performed by staff not employed by the Permittee; and
  - vii) A training report that includes each item listed below.
    - (1) A list of all staff whose job duties are related to implementing the municipal stormwater program, the date(s) training occurred, and the topics covered.
    - (2) Results of the annual training assessment and a summary of any implemented revisions to training.
    - (3) A summary of the Permittee's compliance with the training requirements of this Section.

#### I. Not Used

#### J. Parcel-Scale Development

- 1) Development Review and Approval Process – The Permittee shall develop and implement effective development plan review and permitting procedures to impose conditions of approval or other enforceable mechanisms to implement the requirements of this Section. The Permittee shall inform applicable project applicants of the requirements of this Section at the pre-application or first meeting with the applicant.
- 2) Stormwater Development Standards
  - a) Stormwater Development Standards Structure –
    - i) By the effective date of this Order, the Permittee shall develop an accompanying guidance document for the SWDS to identify which sections of the SWDS are requirements and which sections of the SWDS are information for the applicant.
    - ii) Within 21 weeks of Central Coast Water Board's adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall revise the SWDS to separate the document into two elements, SWDS Requirements and SWDS Guidance.



- (1)SWDS Requirements – This element shall include the post-construction requirements specified by this Section. Applicability thresholds shall be included in this element. This element shall be subdivided into requirements for Priority Development Projects and requirements for Non-Priority Development Projects
- (2)SWDS Guidance – This element shall include guidance related to SWDS compliance (i.e., guidance for project applicants for how to comply with the SWDS) and compliance verification (i.e., guidance for municipal staff for how to verify new development and redevelopment projects comply with the SWDS).
- b) Maintain Current SWDS – The Permittee shall implement all current requirements for Priority Development Projects contained in the SWDS until revisions required per this Section are completed. The Permittee shall submit SWDS updates required per this Section to the Central Coast Water Board for review 30 days prior to due dates prescribed in this Order. If the Central Coast Water Board Executive Officer does not comment on the SWDS updates or issue a modified review and revision schedule within 10 days of receipt of the SWDS updates, the Permittee shall implement SWDS revisions as prescribed in this Section. If at any point during the coverage period of this Order, the Permittee proposes to make other changes to the SWDS, the Permittee shall submit proposed draft SWDS changes in the Permittee’s Annual Report. When the Permittee updates the SWDS to include the final flow control and treatment requirements, the Permittee shall replace the existing applicability thresholds and numeric criteria for stormwater management with the final applicability thresholds and final flow control and treatment requirements per Sections J.4.f (Final Flow Control Requirements) and J.4.g (Final Treatment Requirements).
- c) Apply SWDS to Projects – The Permittee shall apply the requirements in the SWDS to all applicable projects, both private development requiring municipal permits and public projects.
  - i) Private Development Projects
    - (1)Discretionary Projects – If a project receives a vesting tentative map or development agreement, the Permittee shall require that project to adhere to the version of the SWDS that is most current at the time of vesting tentative map or development agreement approval. The Permittee shall require all applicable development projects, which require discretionary approvals that do not receive a vesting tentative map or development agreement or which have an expired vesting tentative map or development agreement, to adhere to the version of the SWDS that is most current at the time of each discretionary approval. Discretionary approvals include, but are not limited to, the following: general plan amendment, tract or parcel map, subdivision map, zoning change or rezoning, tentative map, conditional use permit, or other development approval.
    - (2)Ministerial Projects – The Permittee shall require all applicable projects, which do not require discretionary approvals, to adhere to the version of the SWDS that is most current at the time the project application for the ministerial approval is complete. Ministerial approvals include, but are not limited to, building permits, site engineering improvements, and grading permits. If the applicable project receives multiple ministerial approvals, the Permittee shall require that project to adhere to the version of the SWDS that is most current at the time the project application for the first ministerial approval is complete.
  - ii) Public Development Projects
    - (1)The Permittee shall develop and implement an equivalent approach, to the approach used for private development projects, to apply the most current version of the SWDS to applicable public development projects.
  - iii) Future Growth Area Projects

- (1) Until the Permittee updates the SWDS to include revisions specified by Section J, the Permittee shall apply the requirements in Sections J.4.a, J.4.b, J.4.c, J.4.d, J.4.e.i, and J.4.e.ii to all applicable private and public development projects in Future Growth Areas. This provision applies only to projects in Future Growth Areas that, per the requirements in Section J.2.c.i (Private Development Projects) and Section J.2.c.ii (Public Development Projects), would be required to adhere to the most current version of the SWDS.
- 3) Requirements for Non-Priority Development Projects – Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall develop and implement an effective program for requiring Non-Priority Development Projects to manage stormwater as described below.
- a) All new development and redevelopment projects creating and/or replacing 2,000 square feet or more of impervious surfaces (excludes roof replacement and solar panel installation projects), and not considered to be a Priority Development Project, shall be considered a Non-Priority Development Project. The Permittee shall exempt projects meeting the infeasibility criteria in Section J.4.h.ii (Alternative Compliance Justification) from the requirements in Section J.3.a.ii. The Permittee may allow offsite compliance alternatives per Section J.3.a.iv (Offsite Compliance Alternative). Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall revise the SWDS to require all Non-Priority Development Projects to include the following:
- i) Source control BMPs including each item, where applicable, listed below.
- (1) Storm drain stenciling and signage;
  - (2) Minimize impervious areas;
  - (3) Landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers;
  - (4) Application methods of irrigation water that minimize runoff of excess irrigation water into the storm drain;
  - (5) Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas;
  - (6) Trash storage areas designed to minimize the exposure of trash storage areas to stormwater runoff by either locating these inside or protecting them with storm resistant coverings; and
  - (7) BMPs (e.g., directing discharge to an onsite vegetated area, plumbing discharge to the sanitary sewer) that prevent and effectively prohibit the following discharges from entering receiving waters or the MS4:
    - (a) Discharges from indoor floor mat/equipment/hood filter wash racks or outdoor wash racks for restaurants;
    - (b) Dumpster drips from trash and food compactor enclosures;
    - (c) Discharges from outdoor wash areas for vehicles, equipment, and accessories;
    - (d) Swimming pool water that has not been de-chlorinated or de-brominated; and
    - (e) Fire sprinkler test water.
- ii) At least two of the items listed below.
- (1) Driveway Design – For the entire driveway area, including the parking area and the drive surface leading to the parking area, achieve at least one of the following:

- (a) Install permeable surfaces<sup>7</sup>; or
  - (b) Slope impervious surfaces to drain toward permeable areas. The ratio of impervious area to permeable area shall be no less than 2:1.
- (2) Landscape Feature(s) Design – At least 50 percent of the hardscape (e.g., patio, walkways) on the project, not associated with the driveway area or roof, shall be permeable surfaces.
- (3) Downspout Routing – Each roof downspout shall be directed to one of the BMPs listed below.
  - (a) Cistern/Rain Barrel – Projects shall direct roof downspouts to rain barrels or cisterns. The stored stormwater can then be used for irrigation or other non-potable uses as permitted by local, State, and Federal regulations.
  - (b) Rain Garden/Planter Box – Projects shall direct roof downspouts to rain gardens or planter boxes that provide retention and treatment of stormwater.
- (4) Amended Soils – Projects shall amend soils with at least 30 percent compost, to an 18-inch depth, in all areas allotted for landscape requirements. For landscape areas where a geotechnical engineer determines that a soil with 30 percent compost could compromise the structural stability of a structure, other soil mixes are allowed in close proximity to the structure. The compost mix shall comply with compost specifications included in the Model Biofiltration Soil Media Specifications.
- iii) The Permittee may propose, for Central Coast Water Board Executive Officer approval, additional stormwater control features that achieve comparable benefits to water quality as the stormwater control features included in Section J.3.a.ii. Upon approval by the Central Coast Water Board Executive Officer, the Permittee may add the additional stormwater control features to the list of options identified in Section J.3.a.ii.
- iv) Offsite Compliance Alternative - The Permittee shall require project applicants to implement the stormwater control features required by Section J.3.a.ii onsite. The Permittee shall only permit a project applicant to use offsite compliance alternatives per Section J.3.a.iv.a (Offsite Compliance Alternatives for Non-Priority Development Projects) if the project applicant can demonstrate that the sole purpose of the project is to bring the project into compliance with the City's codes and ordinances.
  - (a) Offsite Compliance Alternatives for Non-Priority Development Projects
    - (i) Offsite Project in the Same Urban Subwatershed – The offsite project shall retrofit a site, with at least 2,000 square feet of impervious surface, to include a minimum of two stormwater control feature items listed in Section J.3.a.ii; or
    - (ii) In-Lieu Fee Towards Permittee Retrofit Project – The project applicant shall pay an in-lieu fee that goes towards a retrofit project per Section J.4.h.i.2 (In-Lieu Fee Towards Permittee Retrofit Project).
- b) Legal Authority for Long-Term Maintenance of BMPs – Within 21 weeks of Central Coast Water Board's adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall establish the legal authority (e.g., in municipal code or ordinance) to require Non-Priority Development Projects to maintain the installed BMPs in perpetuity. The Permittee may allow Non-Priority Development Project property owners to modify BMPs or install alternate BMPs from the original design, so long as the alternate BMPs meet the requirements for Non-Priority Development Projects.

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<sup>7</sup> Permeable surfaces allow rainwater to infiltrate through it. These surfaces include, but are not limited to, pervious concrete, porous asphalt, un-grouted unit pavers, and granular materials.

- c) Guidance for Long-Term Maintenance of BMPs – Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall develop guidance for maintenance of the Non-Priority Development Project BMPs, in order to maintain the original designed effectiveness. The Permittee shall provide this education material to Non-Priority Development Project owners prior to final approval/occupancy or transfer of ownership.
- 4) Requirements for Priority Development Projects – The Permittee shall implement each procedure and requirement listed below to effectively require that all new development and redevelopment projects that are considered Priority Development Projects adhere to the applicable requirements and operate and maintain any BMPs constructed pursuant to these requirements.
- a) Initial Priority Development Project Applicability Thresholds – For applicable projects in Future Growth Areas, by the effective date of this Order, the Permittee shall use the following applicability thresholds to specify that in addition to the Priority Development Project Categories included in the April 13, 2010 version of the SWDS, and any future amendments thereto, the following projects shall also be considered Priority Development Projects.
- i) All new development and redevelopment projects that create or replace 10,000 square feet or more of impervious surface. The Permittee may remove any project categories and/or thresholds that conflict with this new threshold. Where a portion of a new development project falls into a Priority Development Project Category, such as a parking lot, the entire project footprint is subject to SWDS requirements.
- ii) All projects that are significant redevelopment as defined in the current SWDS.
- b) Stormwater Control Plan (SWCP) – By the effective date of this Order, the Permittee shall require all applicable projects in Future Growth Areas to submit a comprehensive SWCP to detail how the applicant will meet applicable stormwater management requirements. Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall require Priority Development Project applicants to submit a comprehensive SWCP to detail how the applicant will meet applicable stormwater management requirements. The Permittee shall maintain copies of SWCPs, for every project required to adhere to requirements in this Section, in its records. The Permittee shall identify at what point(s) in the plan review process the applicant must submit its conceptual and final SWCP. The Permittee shall develop and implement an effective SWCP review process to verify Priority Development Projects are designed to meet all the applicable requirements in this Section. The Permittee shall maintain documentation to demonstrate the Permittee reviewed each SWCP for inclusion and adequacy of the information identified below.
- i) At a minimum, the Permittee shall require the applicant to include the following components in its SWCP:
- (1) Site Information, including the following:
- (a) Project and applicant name;
- (b) Project type (land use);
- (c) Project description;
- (d) Project location including address and Assessor’s Parcel Number;
- (e) Project size including total project size and impervious area before and after construction (in acres);
- (f) Topographic base map;

- (g) Natural features (e.g., existing wetlands/streams, natural drainage routes, riparian areas);
  - (h) Identification of the manner that runoff is conveyed to receiving water (e.g., direct discharge to creek, municipal storm drain);
  - (i) Required water body setbacks per Section L (Development Planning and Stormwater Retrofits);
  - (j) Existing drainage infrastructure (e.g, pipes, vaults, ditches);
  - (k) Depth to average and seasonal high groundwater;
  - (l) Soil classification and infiltration rate;
  - (m) Pollutants of concern for proposed project per Section J.4.g.ii (Pollutants of Concern); and
  - (n) Opportunities and constraints for stormwater control;
- (2) Site Condition Calculations – Calculations based on site conditions 1) prior to the development project, at the point in hydrologic history (i.e., pre-development, pre-project, or somewhere in between) determined by the Permittee based on the current flow control and treatment requirements, and 2) post-development, for:
- (a) Surface runoff conditions including peak flow rate, volume, velocity, and time of concentration; and
  - (b) Loading of pollutants identified in Section J.4.b.i.1.m.
- (3) Site design, including:
- (a) Site layout – Documentation to demonstrate project applicant followed methodology, per Section J.4.c (Site Layout), for maximizing LID at the site and explanation for areas of site where LID design principles could not be met and where LID structural BMPs could not be used as the method of compliance for meeting flow control and treatment requirements;
  - (b) Flow Control and Treatment BMPs (both structural and non-structural BMPs) – Design specifications, installation details, BMP placement and sizing, and anticipated BMP effectiveness at managing flow and removing pollutants;
  - (c) Source control BMPs;
  - (d) Areas with amended and/or engineered soils; and
  - (e) Landscaping plan.
- (4) Permitting and code compliance issues; and
- (5) Owner's certification verifying project design meets the applicable SWDS requirements (includes signature of owner or representative appointed by the owner).
- ii) Alternative Compliance – The Permittee shall require all applicants proposing to use alternative compliance, to submit alternative compliance justification per Section J.4.h.ii (Alternative Compliance Justification). If an applicant is using an offsite location to achieve the requirements of this Section, the Permittee shall require the applicant to include all applicable SWCP information required for the onsite measures. If an applicant is paying in-lieu fees to achieve the requirements of this Section, the Permittee shall require the applicant to provide information to demonstrate the applicant will achieve the requirements outlined in Section J.4.h.i.2 (In-Lieu Fee Towards Permittee Retrofit Project).
- c) Site Layout – By the effective date of this Order, the Permittee shall apply LID design principles to all applicable projects in Future Growth Areas. Within 21 weeks of Central Coast Water Board's adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall apply LID design principles to all Priority Development Projects. The Permittee shall require project applicants to follow a process to maximize LID at the site. The Permittee shall use Attachment E - Steps for a Successful LID Design, or an

equivalent methodology, when working with project applicants to meet the SWDS requirements. The Permittee shall update this process, and documents related to the process, to align with the most updated version of the SWDS requirements. The Permittee shall require the applicant to demonstrate compliance with this process in its SWCP. At a minimum, to implement LID design principles, the Permittee shall require Priority Development Projects to:

- i) Conserve natural areas, including existing trees, other vegetation, and soils;
  - ii) Construct streets, driveways, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety is not compromised;
  - iii) Minimize the impervious footprint of the project, including:
    - (1) Implementing measures to make development more compact (e.g., site layout characteristics, densities, parking allocation, open space); and
    - (2) Implementing measures to limit directly connected impervious area (e.g., selection of paving materials, use of self-retaining areas).
  - iv) Avoid excess grading and disturbance to soils;
  - v) Concentrate development where soils are least permeable;
  - vi) Minimize soil compaction to landscaped areas;
  - vii) Minimize disturbances to natural drainages (e.g., natural swales, topographic depressions);
  - viii) Disconnect impervious surfaces through distributed pervious areas; and
  - ix) Direct runoff into cisterns or rain barrels for reuse, onto vegetated areas, or through infiltrative surfaces.
- d) Source Control – By the effective date of this Order, the Permittee shall require all applicable projects in Future Growth Areas to implement the source control BMPs (where applicable), listed in Provision J.4.d, to reduce pollutants in urban runoff. Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall require Priority Development Projects to implement the following source control BMPs (where applicable) to reduce pollutants in urban runoff:
- i) Storm drain stenciling and signage;
  - ii) Landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers;
  - iii) Application methods of irrigation water that minimize runoff of excess irrigation water into the storm drain
  - iv) Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas;
  - v) Trash storage areas designed to minimize the exposure of trash storage areas to stormwater runoff by either locating these inside or protecting them with storm resistant coverings; and
  - vi) BMPs (e.g., directing discharge to an onsite vegetated area, plumbing discharge to the sanitary sewer) that prevent and effectively prohibit the following discharges from entering receiving waters or the MS4:
    - (1) Discharges from indoor floor mat/equipment/hood filter wash racks or outdoor wash racks for restaurants;
    - (2) Dumpster drips from trash and food compactor enclosures;
    - (3) Discharges from outdoor wash areas for vehicles, equipment, and accessories;
    - (4) Swimming pool water that has not been de-chlorinated or de-brominated; and
    - (5) Fire sprinkler test water.
- e) Initial SWDS Modifications for Flow Control and Treatment Requirements –

- i) Uniformly Decentralized Controls – By the effective date of this Order, the Permittee shall require all applicable projects in Future Growth Areas to manage rainfall at the source using uniformly distributed decentralized controls, natural treatment, and volume reduction BMPs (e.g., bioretention, vegetated swales, filter strips) as first means of compliance for meeting the numeric criteria for stormwater management. Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall update the SWDS to require Priority Development Project applicants to manage rainfall at the source using uniformly distributed decentralized controls, natural treatment, and volume reduction BMPs (e.g., bioretention, vegetated swales, filter strips) as first means of compliance for meeting the numeric criteria for stormwater management. Where the applicant cannot meet flow control and treatment requirements using uniformly distributed decentralized controls, natural treatment, and volume reduction BMPs, because of site constraints or challenges removing certain pollutant types, the Permittee may allow the applicant to use centralized, mechanical, and/or synthetic flow control and treatment BMPs.
  - ii) Initial Flow Control Numeric Criteria – By the effective date of this Order, the Permittee shall require all applicable projects in Future Growth Areas to adhere to the revisions to the April 13, 2010 SWDS Section, ‘1.5.3 Numeric Criteria for Stormwater Management’, item number 3, to incorporate the changes indicated in Attachment J - Modifications to SWDS: Initial Flow Control Criteria.
- f) Final Flow Control Requirements – Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall submit to the Central Coast Water Board Executive Officer for approval, revised Priority Development Project applicability thresholds and numeric criteria for stormwater management in the SWDS to require Priority Development Projects to achieve each requirement listed below. The Permittee shall implement its final flow control applicability thresholds and numeric requirements within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control.
- i) Applicability Thresholds – The Permittee shall develop applicability criteria consistent with the Central Coast Water Board Joint Effort for Hydromodification Control to designate which project types will be required to adhere to the final flow control requirements. The applicability thresholds shall capture all project types [e.g., nature of development (i.e., new development or redevelopment), land use], sizes, and locations, accounting for cumulative effects of development, which have the potential to alter the primary watershed processes through stormwater management. The Permittee shall amend the Priority Development Project definition in the SWDS to specify that the projects meeting the revised applicability criteria shall adhere to the final flow control requirements.
  - ii) Final Flow Control Numeric Requirements – Using methodology developed through the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall derive and apply post-construction numeric criteria for controlling stormwater runoff to maintain, protect and, where necessary, restore beneficial uses of waters affected by stormwater. The Permittee shall ensure the numeric criteria for Priority Development Projects addresses the following desired conditions for primary watershed processes within the Permittee’s watersheds as necessary to protect and restore beneficial uses of water affected by stormwater:

- (1) Surface Runoff – Maintain runoff volume, rate, duration, and surface storage at pre-development levels;<sup>8</sup>
  - (2) Groundwater Recharge and Discharge – Maintain infiltration to support baseflow and interflow to wetlands and surface waters, and deep vertical infiltration to groundwater at pre-development levels;
  - (3) Sediment Processes – Maintain hillslope (rilling, gullying, sheetwash, creep, and other mass movements); riparian (bank erosion); and channel (fluvial transport and deposition) processes within natural ranges;
  - (4) Chemical Processes – Maintain chemical attenuation through sequestration, degradation, and rate of chemical delivery to receiving waters at pre-development levels; and
  - (5) Evapotranspiration – Maintain evapotranspiration volume and rate at pre-development levels.
- iii) Modeling – The Permittee shall require all projects greater than 10,000 square feet of impervious area to use a continuous simulation hydrologic computer model, such as USEPA’s Hydrograph Simulation Program – Fortran (HSPF), to simulate the post-development runoff (including the effect of proposed post-construction BMPs) and runoff at the point in hydrologic history prior to the development per Section J.4.b.i.2 (Site Condition Calculations), to demonstrate compliance with the final flow control requirements. The Permittee shall require the project applicant use a rainfall record of at least 30 years (if available) to populate the model.
- g) Final Treatment Requirements – Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall revise the Priority Development Project applicability thresholds and numeric criteria for stormwater management in the SWDS to require Priority Development Projects to achieve each requirement listed below. The Permittee shall implement its final treatment applicability thresholds and numeric requirements within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control.
- i) Applicability Thresholds – The Permittee shall amend the Priority Development Project definition in the SWDS to specify that the categories listed below shall adhere to the Final Treatment Requirements. These categories apply to public or private land that fall under the planning and permitting authority of the Permittee.
- (1) All new development or redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface and/or create 5,000 square feet or more of turf surface (collectively over the entire project site).
  - (2) Road Projects – Widening of existing streets or roads with additional traffic lanes including the following:
    - (a) The addition of traffic lanes results in an alteration of more than 50 percent of the impervious surface of an existing street or road, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, shall be included in the treatment system design.
    - (b) The addition of traffic lanes results in an alteration of less than 50 percent of the impervious surface of an existing street or road, only the runoff from new and/or replaced impervious surface of the project shall be included in the treatment system design. However, if the runoff from the existing traffic lanes

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<sup>8</sup> Numeric criteria shall identify the point in hydrologic history (i.e., pre-development, pre-project, or somewhere in between) for which the applicant shall design its site, consistent with and using the Central Coast Water Board Joint Effort for Hydromodification Control methodology.



and the added traffic lanes cannot be separated, any onsite treatment system shall be designed and sized to treat runoff from the entire street or road. If an offsite treatment system is installed or in-lieu fees paid, the offsite treatment system or in-lieu fees shall address only the runoff from the added traffic lanes.

- (3) Exclusions – The following exclusions apply:
  - (a) Interior remodels;
  - (b) Detached single-family home projects that are not part of a larger plan of development, and create or replace less than 20,000 square feet of new impervious and/or turf surfaces; and
  - (c) Sidewalk, bicycle lane, and trail projects including the following:
    - (i) Sidewalks built as part of new streets or roads and built to direct stormwater runoff to adjacent vegetated areas;
    - (ii) Bicycle lanes that are built as part of new streets or roads that direct stormwater runoff to adjacent vegetated areas;
    - (iii) Impervious trails built to direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees; and
    - (iv) Sidewalks, bicycle lanes, or trails constructed with permeable surfaces.
  - (d) Routine maintenance or repair such as:
    - (i) Roof or exterior wall surface replacement; and
    - (ii) Pavement resurfacing within the existing footprint.
- (4) Redevelopment Conditions –
  - (a) Where a redevelopment project in the categories specified above results in an alteration of more than 50 percent of the impervious surface of a previously existing development, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, shall be included in the treatment system design.
  - (b) Where a redevelopment project in the categories specified above results in an alteration of less than 50 percent of the impervious surface of a previously existing development, only runoff from the new and/or replaced impervious surface of the project shall be included in the treatment system design.
- ii) Pollutants of Concern – The Permittee shall require each Priority Development Project addressed in Section J.4.g.i (Applicability Thresholds) to:
  - (1) Identify the potential pollutants of concern for the proposed project, including, at a minimum:
    - (a) Pollutants for which receiving waters are listed as impaired under CWA section 303(d);
    - (b) Pollutants associated with the land use type of the development; and
    - (c) Pollutants expected to be generated by activities occurring on site.
  - (2) Implement treatment BMPs that target and have a medium or high removal effectiveness for total suspended solids (i.e., sediment) and pollutants of concern in Priority Development Project runoff, as documented in the California Stormwater Quality Association (CASQA) BMP Handbooks, updated versions of the CASQA BMP Handbook, or an equivalent source. The City shall get approval from the Central Coast Water Board Executive Officer for any equivalent source(s) used for BMP designs, prior to approving projects that rely on a source other than the CASQA BMP Handbooks; and
  - (3) For projects discharging directly to CWA section 303(d) listed water bodies for which TMDLs have been approved, implement measures consistent with

strategies for pollutant load reductions outlined in the Permittee's Waste Load Allocation Attainment Plan(s) per Section O (TMDL).

- iii) Final Treatment Numeric Requirements – The Permittee shall require each Priority Development Project addressed in Section J.4.g.i (Applicability Thresholds) to manage the total amount of runoff identified in Sections J.4.g.iii.1 or J.4.g.iii.2 for the Priority Project's drainage area, using the below onsite measures in the order listed below. The Permittee shall only permit a project applicant to use the measures included in Section J.4.g.iii.2 (Non-Retention Based Treatment Systems) if the project applicant can demonstrate that LID measures are infeasible per Section J.4.g.iii.3 (Treatment Feasibility Determination).
  - (1) LID Systems – Implement harvesting and re-use, infiltration, evapotranspiration, or bioretention BMPs that collectively achieve the hydraulic sizing criteria for LID systems listed below. Bioretention systems shall meet the design specifications in Section J.4.g.iii.2.a.
    - (a) Hydraulic Sizing Criteria for LID Systems – LID systems shall be designed to retain stormwater runoff equal to the volume of runoff generated by the 85<sup>th</sup> percentile 24-hour storm event, based on local rainfall data.
  - (2) Non-Retention Based Treatment Systems – Implement BMPs that (1) meet the requirements in Sections J.4.g.iii.2.a and/or J.4.g.iii.2.b, and (2) collectively achieve at least one of the hydraulic sizing criteria for non-retention based treatment systems provided in Section J.4.g.iii.2.c.
    - (a) Implement treatment BMPs that meet the BMP selection requirements in Section J.4.g.ii.2.
    - (b) Biofiltration – If using a soil layer to cleanse or filter stormwater (e.g., bioretention with underdrain, planter box), the system shall be designed to have a stormwater runoff surface loading rate not exceeding 5 inches/hour and a minimum soil depth of 24 inches. The planting and soil media for biofiltration systems shall be designed to sustain healthy, vigorous plant growth and maximize stormwater runoff retention and pollutant removal. The system shall meet the design specifications for biofiltration systems, as documented in the City of Los Angeles Low Impact Development Handbook<sup>9</sup>, updated versions of the City of Los Angeles Low Impact Development Handbook, or an equivalent source. The City shall get approval from the Central Coast Water Board Executive Officer for any equivalent source(s) used for BMP designs, prior to approving projects that rely on a source other than the City of Los Angeles Low Impact Development Handbook.
    - (i) Model Biofiltration Soil Media Specifications – Within 21 weeks of Central Coast Water Board's adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall submit to the Central Coast Water Board a report containing, at a minimum, the below information.
      - 1. Proposed soil media specifications (including compost specifications) for biofiltration systems;
      - 2. Proposed soil testing methods to verify a long-term infiltration rate of 5 inches/hour;

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<sup>9</sup> *Development Best Management Practices Handbook: Working Draft of LID Manual – Part B Planning Activities Fourth Edition*. City of Los Angeles, June 2011. Web. 7 December 2011. <<http://www.lastormwater.org/Siteorg/program/LID/lidintro.htm>>.

3. Relevant literature and field data showing the feasibility of the minimum design specifications;
  4. Relevant literature, field, and analytical data showing adequate pollutant removal and compliance with the hydraulic sizing criteria in Section J.4.g.iii.2.c (Hydraulic Sizing Criteria for Non-Retention Based Treatment Systems); and
  5. Guidance for the Permittee to apply the minimum specifications in a consistent and appropriate manner.
- (ii) Within 21 weeks of Central Coast Water Board's adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall effectively require that biofiltration systems installed comply with the biofiltration soil media specifications and soil infiltration testing methods.
- (c) Hydraulic Sizing Criteria for Non-Retention Based Treatment Systems –
- (i) Volume Hydraulic Design Basis – Treatment systems whose primary mode of action depends on volume capacity shall be designed to treat stormwater runoff equal to 1.5 times the volume of runoff generated by the 85<sup>th</sup> percentile 24-hour storm event, based on local rainfall data.
  - (ii) Flow Hydraulic Design Basis – Treatment systems whose primary mode of action depends on flow capacity shall be sized to treat:
    1. The flow of runoff produced by a rain event equal to at least two times the 85<sup>th</sup> percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or
    2. The flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.
- (3) Treatment Feasibility Determination – To utilize non-retention based treatment systems for satisfying the final treatment numeric requirements, the Permittee shall require the project applicant to demonstrate that utilization of LID measures would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. The Permittee shall require the applicant to collectively demonstrate the applicant has optimized all LID BMP options for stormwater retention, and then for any portion(s) of the site and/or volume of stormwater remaining, the Permittee may allow the applicant to address those portions of the site and/or volume using non-retention based treatment systems.
- h) Offsite Compliance Alternative – The Permittee shall require project applicants meet the SWDS using onsite flow control and treatment BMPs. The Permittee shall only permit a project applicant to use offsite compliance alternatives if the project applicant can demonstrate that onsite controls are infeasible per Section J.4.h.ii (Alternative Compliance Justification). A project applicant successfully uses onsite controls when all source control, treatment, and flow control collectively result in the SWDS being met at the project site, in accordance with Section J.4.e.i (Uniformly Decentralized Controls).
- i) Offsite Compliance Alternatives
- (1) Offsite Flow Control and Treatment Project in the Same Urban Subwatershed - The offsite project shall provide flow control and treatment BMPs to meet the SWDS requirements of the calculated equivalent quantity of both stormwater runoff control and pollutant load reduction and a net environmental benefit. Offsite projects shall be constructed by the end of construction of the development project. If more time is needed to construct the offsite project, for each additional year, up to three years, after the construction of the development

project, the offsite project shall provide an additional 10 percent of the calculated equivalent quantity of both stormwater runoff control and pollutant load reduction. Such offsite projects shall be completed within three years of the end of development project construction. The project applicant shall be responsible for the long-term O&M of the offsite project unless the project applicant develops an agreement with the Permittee that the Permittee will take responsibility for the offsite project in perpetuity.

- (2) In-Lieu Fee Towards Permittee Retrofit Project - The Permittee may develop an in-lieu fee option that may include a sliding scale to fund Permittee retrofit projects. The fee shall go towards a retrofit project that meets the following criteria:
  - (a) Is a candidate project for retrofitting per Section L (Development Planning and Stormwater Retrofits);
  - (b) Is located within the same Urban Subwatershed as the development project being mitigated or in an Urban Subwatershed deemed to have a more critical need for restoration of riparian vegetation and habitat;
  - (c) Provides equal or greater contribution towards desired conditions for watershed processes, per Section J.4.f.ii (Final Flow Control Numeric Requirements), as the portion of the development project being mitigated;
  - (d) Includes a complete implementation schedule and project plan;
  - (e) Is scheduled to commence construction within one year of the construction commencement of the development project being mitigated; and
  - (f) The Permittee accepts responsibility for project completion and long-term maintenance.
- ii) Alternative Compliance Justification – To utilize alternative compliance measures, the Permittee shall require the project applicant to demonstrate that compliance with the applicable requirements of this Section would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from the examples listed below. One of these examples alone does not necessarily demonstrate infeasibility for implementing all the requirements of this Section. The Permittee shall require the applicant to collectively demonstrate the applicant has optimized all onsite BMP and site layout options, and then for any portion(s) of the site and/or volume of stormwater remaining, the Permittee may allow the applicant to address those portions of the site and/or volume using offsite compliance alternatives.
  - (1) Brownfield development sites or other locations where pollutant mobilization is a documented concern; and
  - (2) Smart growth and infill or redevelopment locations where one of the following applies:
    - (a) The density and/ or nature of the project would create significant difficulty for compliance with the onsite flow control and treatment requirements; or
    - (b) A greater pollutant load reduction and/or greater quantity of runoff could be managed by offsite stormwater management features in the near vicinity of the subject project. The offsite stormwater management features must at least manage the runoff from the subject project required to be managed by this Order. The offsite stormwater management features must be within 100 yards of the subject project or be at a location prior to where the runoff from the subject project discharges to a subgrade stormwater system.
- iii) The Permittee may propose, for Central Coast Water Board Executive Officer approval, modifications to Section J.4.h (Offsite Compliance Alternative) that are

consistent with the Central Coast Water Board Joint Effort for Hydromodification Control.

- i) Operation and Maintenance Plans for Flow Control and Treatment BMPs – Within 21 weeks of Central Coast Water Board’s adoption of the numeric criteria for stormwater management identified by the Central Coast Water Board Joint Effort for Hydromodification Control, the Permittee shall revise the SWDS to require all private and public Priority Development Projects that include flow control and treatment BMPs to develop and implement in perpetuity a written O&M Plan that, at a minimum, includes each component listed below. The Permittee may allow the Priority Development Project applicant to include the O&M Plan components in the SWCP in place of developing a separate document. The Permittee shall approve the O&M Plan prior to final approval/occupancy.
  - i) Components Required for All Applicants of Priority Development Projects (Public and Private)
    - (1) Site map identifying all flow control and treatment BMPs requiring long-term maintenance to remain effective
    - (2) Design specifications, including structural design and anticipated BMP effectiveness at managing flow and removing pollutants, for all flow control and treatment BMPs requiring long-term maintenance
    - (3) Maintenance procedures and schedule
    - (4) Self inspection program to verify BMPs continue to function as designed and a strategy for fixing and/or replacing BMPs if inspections identify BMPs not functioning as designed
  - ii) Components Required for All Applicants of Private Priority Development Projects (does not apply to Public)
    - (1) Conditions of approval or other legally enforceable agreements or mechanisms that, at a minimum, require at least one of the following from all project owners and their successors in control of the project or successors in fee title:
      - (a) The project owner’s signed statement accepting responsibility for the O&M of the installed onsite and/or offsite flow control and treatment BMPs until such responsibility is legally transferred to another entity;
      - (b) Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the O&M of the onsite and/or offsite installed flow control and treatment BMPs until such responsibility is legally transferred to another entity;
      - (c) Written text in project deeds, or conditions, covenants and restrictions for multi-unit residential projects that require the homeowners association or, if there is no association, each individual owner to assume responsibility for the O&M of the installed onsite and/or offsite flow control and treatment BMPs until such responsibility is legally transferred to another entity; or
      - (d) Any other legally enforceable agreement or mechanism, such as recordation in the property deed, that assigns the O&M responsibility for the installed onsite and/or offsite flow control and treatment BMPs to the project owner(s) or the Permittee
    - (2) Conditions of approval or other legally enforceable agreements or mechanisms that require the granting of site access to all representatives of the Permittee, local mosquito and vector control agency staff, and Central Coast Water Board staff, for the sole purpose of performing O&M inspections of the installed flow control and treatment BMPs

- 5) Information Management System – Within 3 months of adoption of this Order, the Permittee shall develop and maintain an effective information management system to manage and document projects required to implement the requirements of this Section. The Permittee shall be able to retrieve each item of information listed below for all projects.
- a) Tracking information for the following project types:
    - i) Non-Priority Development Projects; and
    - ii) Priority Development Projects
  - b) Completion date, for the above project types, of the following project stages, where applicable:
    - i) Permittee notified of project;
    - ii) Project application submitted;
    - iii) Project planning application deemed complete;
    - iv) Permittee determines project meets the requirements of this Section;
    - v) Building permit issued by Permittee;
    - vi) Construction commences;
    - vii) Final approval/occupancy; and
    - viii) Maintenance plan approved by Permittee [Note: Tracking O&M addressed in Section E (Municipal Maintenance)]
  - c) Data used to determine if the project met the applicability threshold for Non-Priority or Priority Development Project [(e.g., impervious area created or replaced, number of housing units, type of project (e.g., automotive repair shop, restaurant, hillside development, or gasoline outlet)]
  - d) The SWCP
  - e) Documentation of the plan review and SWCP review (for Priority Development Projects), to demonstrate the Permittee verified each project met all applicable requirements of this Section, for each approved Non-Priority Development Project and Priority Development Project
- 6) Training – The Permittee shall ensure that all municipal staff whose job duties are related to implementing the requirements of this Section (e.g., development and planning review staff, engineers, enforcement staff, inspectors, maintenance staff, Elected Officials, City Council, Planning Commission) have the knowledge and understanding necessary to effectively implement the new development and redevelopment provisions. New municipal staff, or municipal staff new to a position related to this Section, shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of implementation of the requirements of this Section and shall revise the training to address any deficiencies each year. Training documents shall be available for review by the Central Coast Water Board. The training shall, at a minimum, address each item listed below.
- g) The requirements of this Section and other topics that relate to the municipal staff's job duties, including:
    - i) Federal, State, and local water quality laws and regulations applicable to development projects (including most current version of the SWDS);
    - ii) The connection between land use decisions and short-term and long-term water quality impacts (i.e., impacts from land development and urbanization);
    - iii) Detailed understanding of the water body setback requirements in Section L (Development Planning and Stormwater Retrofits) and the environmental benefit of healthy water body buffers;
    - iv) Detailed understanding of the site design review and approval process for compliance with the requirements of this Section. This includes an understanding of

- which municipal staff/departments are responsible for each portion of the site design review;
- v) SWCP development and review;
  - vi) O&M Plan development and review;
  - vii) Enforceable mechanisms related to insufficient installation and long-term maintenance of flow control and treatment BMPs;
  - viii) Methods of minimizing impacts to receiving water quality resulting from development, including:
    - (1) Identification of local sensitive water bodies, including CWA section 303(d) listed-impairments, and methods to manage pollutant loading to these receiving waters;
    - (2) Methods to maintain and restore watershed processes impacted by stormwater management as necessary to protect water quality and beneficial uses;
    - (3) Selection of the most effective BMPs to maintain and restore watershed processes impacted by stormwater management as necessary to protect water quality and beneficial uses at the site level;
    - (4) Identification of pollutants of concern;
    - (5) LID site planning and BMP design techniques (e.g., plant pallet selections, soil mixtures, pervious surface designs, bioretention and biofiltration facility designs);
    - (6) Source control BMPs; and
    - (7) Selection of the most effective treatment BMPs for the pollutants of concern.
  - ix) Public health concerns related to stormwater management infrastructure; and
  - x) Methods for properly installing and maintaining flow control and treatment BMPs.
- h) The administrative requirements of this Order, such as reporting and tracking.
  - i) Refresher training for existing municipal staff each year to fill any knowledge gaps identified in the annual training assessment and to update municipal staff on preferred BMPs, current advancements in BMP technologies, regulation changes, Order updates, and policy or standards updates.
  - j) Throughout the year municipal staff shall be updated if changes occur.
  - k) Staff not Employed by the Permittee – If the Permittee contracts out to others to implement portions of the municipal stormwater requirements of this order, these outside staff shall be trained per the requirements listed in this Section.

## 7) Reporting

- a) In each Annual Report, the Permittee shall include each requirement listed below.
  - i) Any SWDS revisions the Permittee proposes, in addition to the SWDS updates required pursuant to this Order
  - ii) Any changes to the Permittee's plan review process, regulations, or other components of the New Development and redevelopment provisions to effectively require development projects to adhere to requirements in this Order
  - iii) A description of the guidance (i.e., workshops, manuals, brochures, face-to-face discussions) provided to development project applicants to provide assistance in meeting the requirements in the SWDS. Explain the effectiveness of the guidance tool(s), who received the guidance, and when in the project development process the development project applicant received the guidance.
  - iv) Tracking reports detailing new project information uploaded during reporting year based on information identified in Section J.5 (Information Management System)
  - v) For every Non-Priority Development Project and Priority Development Project approved during the reporting period, the Permittee shall report the following information in electronic tabular format:
    - (1) Type of project (e.g., Non-Priority or Priority Development Project, applicability threshold category);

- (2) Data used to determine if the project met the applicability threshold for Non-Priority or Priority Development Project;
- (3) Requirements related to LID, source control, flow control, and water quality control imposed on project, including the following:
  - (a) Explanation of requirements achieved by project;
  - (b) Explanation of requirements not achieved by project; and
  - (c) Explanation of how the project achieved the requirements; and
- (4) Alternative compliance options pursued by project.
- vi) Description of enforcement activities applicable to implementing the requirements of this Section and a description of the effectiveness of those activities, including an explanation of the process used to evaluate the effectiveness of those activities.
- vii) A training report that includes at a minimum:
  - (1) List of all staff whose job duties are related to implementing the requirements of this Section, the date(s) training occurred, and the topics covered;
  - (2) Results of the annual training assessment and a summary of any implemented revisions to training; and
  - (3) A summary of the Permittee's compliance with the training requirements of this Section.
- b) Model Biofiltration Soil Media Specifications – In the Year 1 Annual Report, the Permittee shall submit the model biofiltration soil media specifications per Section J.4.g.iii (Final Treatment Numeric Requirements).

#### K. Construction Site Management

- 1) Construction Site Management and Information Inventory - By the end of Year 2, the Permittee shall develop and maintain a construction site inventory to track all construction sites the Permittee has jurisdictional authority over in the Permit coverage area in accordance with this Order. See Section K.6.e (Information Management) and Section K.10 (Information Management System) for information management requirements for the inventoried construction sites.
- 2) High Priority Construction Sites
  - a) By the end of Year 2, the Permittee shall establish criteria for High Priority Construction Sites, which at a minimum shall consider the following factors:
    - i) Site size and size of disturbed area;
    - ii) Site slope;
    - iii) Soil erosion potential;
    - iv) Proximity to CWA section 303(d) listed water bodies impaired by sediment;
    - v) Sensitivity of receiving water bodies;
    - vi) Non-stormwater discharges; and
    - vii) Past record of non-compliance by the operators of the construction site.
  - b) At a minimum, sites that are required to enroll in the General Construction Permit that have not obtained an Erosivity Waiver from the State Water Board shall be identified as High Priority Construction Sites.
- 3) Minimum Construction BMPs for All Construction Sites
  - a) By the end of Year 2, the Permittee shall require all construction sites to implement the following BMPs:
    - i) For construction sites with earth disturbance activities:
      - (1) Stabilized construction entrance/exit;



- (2) Scheduling of grading activities to minimize bare graded areas during the Rainy Season;
  - (3) Preservation of existing vegetation where possible;
  - (4) For sites with exposed slopes, erosion control BMPs during the Rainy Season or before a likely precipitation event (any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the area);
  - (5) Down slope sediment control BMPs (e.g., sediment logs, silt fence, sand bag barrier);
  - (6) Stockpile management; and
  - (7) Protection of slopes and channels.
  - ii) Concrete waste management;
  - iii) Solid waste management;
  - iv) Sanitary/septic waste management;
  - v) Storm drain inlet protection; and
  - vi) Good housekeeping practices (e.g., trash management, proper material storage).
  - b) The Permittee shall designate additional BMPs as minimum BMPs at construction sites as necessary to comply with the requirements of this Order.
- 4) Minimum Requirements for High Priority Construction Sites
- a) For construction sites subject to the General Construction Permit, the Permittee shall require construction permittees to submit their WDID number as proof of coverage pursuant to the General Construction Permit prior to issuance of a building or grading permit. For sites that have obtained an Erosivity Waiver from the State Water Board, the Permittee shall require construction permittees to submit a copy of the State Water Board Erosivity Waiver approval.
  - b) By the end of Year 2, the Permittee shall require construction permittees for all High Priority Construction Sites to submit source control and erosion and sediment control plans. The Permittee shall require that each of the minimum requirements listed below, in addition to the requirements in Section K.3 (Minimum Construction BMPs for All Construction Sites), are effectively implemented for High Priority Construction Sites.
    - i) Erosion and Sediment Control BMPs – Erosion control and sediment control BMPs shall be designed, installed, and maintained to reduce the discharge of pollutants from construction sites to the MEP and protect water quality. Erosion and sediment from slopes and channels shall be controlled by implementing an effective combination of erosion control (source control) and other sediment control BMPs, consistent with erosion and sediment control BMPs described in the San Francisco Regional Water Quality Control Board's Erosion and Sediment Control Field Manual, the CASQA Construction Stormwater BMP Handbook, or equivalent manual. At a minimum, such erosion and sediment control BMPs shall be designed, installed, and maintained to effectively:
      - (1) Control stormwater volume and velocity within the site to minimize soil erosion;
      - (2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;
      - (3) Minimize the amount of soil exposed during construction activity;
      - (4) Minimize the disturbance of steep slopes;
      - (5) Minimize sediment discharges from the site by designing, installing, and maintaining erosion and sediment control BMPs that address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;

- (6) Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible;
  - (7) Minimize soil compaction for areas that will remain pervious and, unless infeasible, preserve topsoil; and
  - (8) Provide adequate redundancy of upslope BMP and temporary stabilization and not rely solely on perimeter control BMPs.
- ii) Soil Stabilization – Stabilization of disturbed areas shall, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 consecutive calendar days. In areas where initiating vegetative stabilization BMPs immediately is infeasible, alternative equivalent stabilization BMPs shall be employed. Slope stabilization shall occur on all inactive slopes during the rainy season and during rain events in the dry season. Slope stabilization shall occur on all active slopes during rain events regardless of the season.
  - iii) Dewatering – Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate BMPs.
  - iv) Source Control BMPs – The Permittee shall require dischargers to design, install, implement, and maintain BMPs to minimize the discharge of pollutants. At a minimum, such BMPs shall be designed, installed, implemented and maintained to:
    - (1) Eliminate discharges from equipment and vehicle washing, wheel wash water, and other wash waters;
    - (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater runoff; and
    - (3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
  - v) Surface Outlets – The Permittee shall require dischargers to utilize outlet structures that withdraw water from the surface when discharging from basins and impoundments, unless infeasible.
  - vi) Source control and erosion and sediment control plans shall contain, at a minimum, the following:
    - (1) Provisions to effectively comply with the requirements in Section K.3 (Minimum Construction BMPs for All Construction Sites) and Section K.4 (Minimum Requirements for High Priority Construction Sites);
    - (2) A vicinity map showing nearby roadways, the construction site perimeter, and the geographic features and general topography surrounding the site;
    - (3) A site map showing the construction site in detail including: the existing and planned site elements (e.g., buildings, landscaped areas); general topography both before and after construction; drainage patterns across the site; location of physical BMPs; delineation of areas where soils disturbance activities will occur; and anticipated stormwater discharge locations (e.g., the receiving water, a conduit to receiving water, drain inlets);
    - (4) A detailed, site-specific listing of the potential sources of stormwater pollution;
    - (5) A description of the type of source control and erosion and sediment control BMPs to be employed at the site;
    - (6) The rationale used for selecting BMPs, including how the BMP protects a waterway or stormwater conveyance;

- (7) The name and telephone number of the qualified person responsible for implementing the source control and erosion and sediment control plans; and
  - (8) Certification/signature by the landowner or an authorized representative.
- 5) Construction Plan Review – By the end of Year 2, the Permittee shall begin reviewing construction plans for all construction sites per the requirements listed below.
- a) For High Priority Construction Sites without a State Water Board Erosivity Waiver, prior to issuing a grading or building permit, the Permittee shall:
    - i) Review source control and erosion and sediment control plans and ensure that the plans contain adequate and appropriate site-specific construction site BMPs and other provisions that meet the requirements in Section K.3 (Minimum Construction BMPs for All Construction Sites) and Section K.4 (Minimum Requirements for High Priority Construction Sites); and
    - ii) Complete a documented review of each source control and erosion and sediment control plan using a checklist or similar process.
  - b) For construction sites not identified as High Priority Construction Sites, prior to issuing a grading or building permit, the Permittee shall:
    - i) Review plans and ensure that the plans contain the required minimum construction BMPs in Section K.3 (Minimum Construction BMPs for All Construction Sites); and
    - ii) Complete a documented review of each construction plan using a checklist or similar process.
- 6) Inspections – By the end of Year 3, the Permittee shall conduct inspections of construction sites per the requirements listed below.
- a) Construction Phases - The Permittee shall adequately inspect all phases of construction. In addition to the requirements specified in Section K.7 (Inspections of Structural BMP Installation), the Permittee shall perform each action item listed below.
    - i) Prior to Land Disturbance – Prior to allowing an operator to commence land disturbance activities, the Permittee shall perform an inspection to ensure all necessary sediment control BMPs are in place. For all Priority Development Projects, the Permittee shall verify sites have installed appropriate barriers to delineate areas where the contractor shall conserve natural areas and avoid excess grading and soil disturbance.
    - ii) During Active Construction – During active construction, the Permittee shall conduct inspections in accordance with the frequencies specified in Section K.6.c (Frequency) and Section K.6.d (High Priority Construction Sites).
    - iii) Following Active Construction – The Permittee shall not deem the construction site project complete or issue final building or occupancy permits until an inspection is performed to verify that all graded areas have reached final stabilization and that all temporary BMPs are no longer needed and have been removed (e.g., silt fence, waddles). Where vegetation is used for final stabilization, a uniform vegetative cover with minimum of 70 percent coverage shall be established.
  - b) Personnel and Procedures - The Permittee shall have trained and qualified personnel performing inspections. The Permittee shall follow, and revise as applicable, written procedures outlining the inspection and enforcement procedures. Inspections of construction sites shall, at a minimum:
    - i) Review the applicable source control and erosion and sediment control plans and conduct a thorough site inspection to determine if adequate BMPs have been selected, and if the BMPs have been installed, implemented, and maintained according to the plan;

- ii) Require corrective actions for sites where adequate and effective BMPs have not been installed and maintained;
  - iii) Assess compliance with the Permittee's ordinances, permits, or other requirements, and this Order, including the implementation and maintenance of designated minimum BMPs;
  - iv) Assess the appropriateness of BMPs and their effectiveness;
  - v) Visually observe and record non-stormwater discharges, potential illicit connections, and potential pollutants in runoff;
  - vi) Provide education and outreach on stormwater pollution control BMPs, as needed;
  - vii) Use the Enforcement Response Plan to effectively require sites to implement corrective actions and come into compliance; and
  - viii) Provide a written or electronic inspection report generated from findings in the field.
- c) Frequency - By the end of Year 3, the Permittee shall inspect all active construction sites within the Permit coverage area a minimum of once a month during the rainy season to require and obtain compliance with local ordinances and this Order. During the remainder of the year, the Permittee shall inspect all active construction sites a minimum of once every other month.
- d) High Priority Construction Sites - The Permittee shall inspect High Priority Construction Sites a minimum of once a week during the rainy season and within 48 hours after a 1/2-inch rain event.
- i) Inspection Procedures for High Priority Construction Sites – In addition to the inspection procedures listed in Section K.6.b (Personnel and Procedures), the Permittee shall develop and implement inspection procedures for High Priority Construction Sites that achieve the following:
    - (1) Inspection Rating – The Permittee shall determine the Inspection Rating for each inspection of each High Priority Construction Site using the methodology described in Attachment G, or an equivalent methodology approved by the Central Coast Water Board Executive Officer.
    - (2) High Priority Construction Sites Ready for a Rain Event – The Permittee shall determine the percentage of High Priority Construction Sites ready for a rain event using the following procedure.
      - (a) The Permittee shall document and track all 1/2-inch rain events, as measured at the Permittee's primary rain gauge.
      - (b) For each 1/2-inch rain event, the Permittee shall determine the number of sites with an Inspection Rating of "B" or higher at the inspection immediately prior to the rain event, provided that the inspection occurred not more than 7 days prior to the start of the rain event.
      - (c) The Permittee shall calculate the percentage of High Priority Construction Sites ready for each 1/2-inch rain event by dividing the number of sites with an Inspection Rating of "B" or higher within 7 days prior to the rain event by the total number of active sites at the time of the rain event.
      - (d) If the Permittee's follow-up efforts lead to the reinspection of a site that results in an Inspection Rating of "B" or higher for the site, the Permittee may use the reinspected Inspection Rating in calculating the percentage of sites that are ready for a rain event, provided that the reinspection occurred prior to the start of the rain event.
    - (3) For inspections conducted within 48 hours after a 1/2-inch rain event, the Permittee shall assess the following:
      - (a) The scope of sediment discharges from the site, if any, and their potential impact on water quality;

- (b) The effectiveness of BMPs at controlling erosion and sediment discharge; and
  - (c) The effectiveness of the Permittee's determination of Inspection Ratings that accurately represent actual threat of discharge of sediment and other pollutants.
- ii) The Permittee shall identify any source control and erosion and sediment control BMPs that are not implemented effectively or properly installed or maintained and any additional BMPs required at each site to prevent pollution and control erosion and sediment to the MEP and to protect water quality.
  - iii) The Permittee shall notify the responsible party of each inspected site of the results of inspection, including the compliance percentage, any BMPs that were not implemented effectively or properly installed or maintained, and any additional BMPs required.
- e) Information Management – The Permittee shall develop and maintain an effective information management system to record and track the following inspection information:
- i) Construction site information management as required in Section K.10 (Information Management System);
  - ii) Dates of all inspections;
  - iii) The number of inspections to verify that the sites are inspected at the minimum frequencies required;
  - iv) Dates of rain events resulting in at least ¼ inch of rainfall, preceded by at least 72 hours without rainfall;
  - v) The number of specific erosion and sediment control BMPs required at each High Priority Construction Site;
  - vi) Results of inspections, including the number of erosion and sediment control BMPs implemented effectively or properly installed and maintained and the compliance percentage for each High Priority Construction Site inspection;
  - vii) Any additional BMPs required, including required revisions to the site's source control and erosion and sediment control plan, as applicable;
  - viii) That the site's responsible party was notified of the results of the inspection; and
  - ix) Follow-up inspections and enforcement actions.
- 7) Inspections of Structural BMP Installation - The Permittee shall inspect all structural BMPs (owned/operated by the Permittee and privately owned/operated) both during and after installation. The inspections shall identify any required corrective actions. The Permittee shall verify all corrected actions are implemented.
- a) During Construction – The Permittee shall inspect all structural BMPs during installation, to verify proper BMP installation. The inspection shall also verify appropriate safeguards are in place to prevent construction site pollutants and flows from compromising structural BMPs long-term performance.
  - b) After the Installation is Complete – The Permittee shall inspect all structural BMPs upon completion of BMP installation. The Permittee shall not issue final approval/occupancy for the site until it has verified proper installation of all structural BMPs.
  - c) Long-Term Inspections – The Permittee shall inspect structural BMPs after construction is complete according to Section E.7 (Municipal Maintenance: Maintenance of Structural BMP Verification).
- 8) Enforcement of Construction Site Management – The Permittee shall utilize its legal authority to enforce appropriate ordinances, statutes, permits, contracts or other means to control pollutant discharges from all construction sites. The Permittee shall implement the progressive Enforcement Response Plan (Section S.2 [Legal Authority: Enforcement

Measures and Tracking]) and take all necessary follow-up actions (e.g., warnings, notices, escalated enforcement, follow-up inspections) to bring construction sites into compliance and require implementation of effective BMPs. The Permittee shall respond to and document all complaints received from third-parties and document any required corrective actions have been implemented. The Permittee shall utilize the reporting system described in Section H.4 (Illicit Discharge Detection and Elimination: Illicit Discharge Reporting System) to facilitate public complaints of construction sites.

- 9) Process to Refer Noncompliance and Non-filers to the Central Coast Water Board
  - a) When the Permittee has exhausted its progressive Enforcement Response Plan and cannot bring a construction site or construction operator into compliance with its ordinances, permits, other requirements, or this Order, or otherwise deems the site to pose an immediate and significant threat to water quality, the Permittee shall provide oral notification to the Central Coast Water Board within five business days of such determination. Such oral notification shall be followed by written notification within ten business days of the incident.
  - b) For construction sites requiring coverage under the General Construction Permit that cannot demonstrate coverage under that permit, the Permittee shall notify the Central Coast Water Board of those non-filers within ten business days of discovery. In making such notifications, the Permittee shall provide to the Central Coast Water Board, at a minimum, the following information:
    - i) Site location including address;
    - ii) Site contact and owner;
    - iii) Estimated size of the site; and
    - iv) Records of communication with the responsible party regarding filing requirements.
  - c) The Permittee shall notify the Central Coast Water Board when the Permittee issues a stop work order or other high level enforcement action to a construction site as a result of stormwater violations. The Permittee shall notify the Central Coast Water Board, prior to the commencement of the rainy season, of all construction sites with alleged current violations each year. Information provided shall include, at minimum, the following:
    - i) WDID number if enrolled under the General Construction Permit;
    - ii) Site location, including address;
    - iii) Site contact and owner;
    - iv) Estimated size of the site;
    - v) Current violations or suspected violations; and
    - vi) Records of communication with the responsible party regarding violations.
  
- 10) Information Management System – Within 6 months of adoption of this Order, the Permittee shall develop and maintain an effective information management system to track all construction sites in the Permit coverage area and the Permittee’s implementation of the stormwater construction site management for each site. The Permittee shall keep the information management system up-to-date. Outputs from the system shall be available to the Central Coast Water Board upon request. The information management system shall at a minimum include the following for all construction sites:
  - a) Relevant contact information for each site (e.g., name address, phone, for owner and contractor);
  - b) Site address;
  - c) Status of the site in the Permittee’s permit/approval process (i.e., what permits or other approvals have been applied for by the applicant and the status of those approvals);
  - d) Size of site and area of disturbance;

- e) Documentation of the site information used to determine if the site shall be designated as a High Priority Construction Site;
  - f) Designation of construction sites that are considered Non-Priority Development Projects and Priority Development Projects per Section J (Parcel-Scale Development);
  - g) Construction site start date and anticipated completion dates;
  - h) For High Priority Construction Sites - BMPs required for the site;
  - i) Documentation of the construction plan review;
  - j) Documentation of the structural BMP installation inspections;
  - k) Documentation of Enforcement Response Plan implementation (e.g. warnings, notices, escalated enforcement, follow-up);
  - l) Designation of High Priority Construction Sites – For these sites, the information system shall include source control and erosion and sediment control plans (unless the site has obtained a Erosivity Waiver from the State Water Board);
  - m) Designation of which sites are required to obtain permit coverage under the General Construction Permit – For these sites, the information system shall include:
    - i) State Water Board WDID for the site; and
    - ii) Designation of which sites have obtained an Erosivity Waiver from the State Water Board;
  - n) Required inspection frequency;
  - o) Inspection information required by K.6.e (Information Management); and
  - p) Sites referred to the Central Coast Water Board for noncompliance or not enrolling in the General Construction Permit.
- 11) Staff Training – The Permittee shall ensure that all staff members whose job duties are related to implementing the construction stormwater requirements of this Order, including but not limited to permitting, plan review, construction site inspections, and enforcement, have the knowledge and understanding necessary to implement construction stormwater activities effectively. All appropriate staff members shall be trained each year. New staff, or staff new to a position related to construction, shall be trained within one year of hire or attainment of the new position. The Permittee shall perform an assessment of trained staff's knowledge of implementation of the construction stormwater requirements of this order and shall revise the training as needed each year. Training documents shall be available for review by the Central Coast Water Board. The training shall, at a minimum include each item listed below.
- a) All staff whose Duties are Related to Implementing the Construction Stormwater Requirements of this Order
    - i) Federal, state, and local water quality laws and regulations applicable to construction and grading activities
    - ii) The requirements of this Order that relate to staff's job duties
    - iii) The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization and impacts from construction material such as sediment)
    - iv) The administrative requirements of this Order, such as inspection and plan review reporting/tracking and use of the Permittee's Enforcement Response Plan
    - v) Illicit discharge training as described in Section H.12 (Illicit Discharge Detection and Elimination: Illicit Discharge Training)
    - vi) Refresher training each year for existing staff to fill any knowledge gaps identified in the annual training assessment, update staff on preferred BMPs, current advancements in BMP technologies, regulation changes, Order updates, and policy or standards updates
    - vii) Throughout the year staff shall be updated if changes occur

- b) Construction Inspectors – Inspectors shall be certified by the State Water Board as a Qualified SWPPP Developer (QSD)
  - i) How to readily identify deficiencies and evaluate the appropriateness of and effectiveness of deployed BMPs, erosion and sediment control plans, and SWPPPs
  - ii) Proper erosion and sediment control BMP selection, installation, implementation, and maintenance
  - iii) Proper source control BMP selection, installation, implementation, and maintenance
  - iv) How to verify Priority Development Project sites have installed appropriate barriers to delineate natural areas that are being conserved and to avoid excess grading and soil disturbance
  - v) How to identify appropriate installation of the types of Structural BMPs that could be installed in the Permit coverage area (e.g., be familiar with effective soil mixtures, installation of pervious surfaces, appropriate plant selection, and common mistakes in Structural BMP installation)
  - vi) How to verify appropriate safeguards are in place to prevent construction site pollutants and flows from compromising structural BMPs' long-term performance
- c) Plan Reviewers – Plan reviewers shall be certified as a QSD or as a Qualified SWPPP Practitioner (QSP) working under the supervision of a plan reviewer certified as a QSD.
  - i) How to readily identify deficiencies and evaluate the appropriateness of proposed BMPs, erosion and sediment control plans, and SWPPPs
  - ii) Proper erosion and sediment control BMP selection, and installation
  - iii) Proper source control BMP selection and installation

#### 12) Staff Not Employed by the Permittee

- a) The Permittee is responsible for the effective implementation of the requirements in this Section regardless if the work is performed by in-house staff or contracted out to others. Contracts for the performance of any construction stormwater activity shall include requirements to comply with applicable requirements of this Order.
- b) The Permittee shall perform oversight of activities performed by others to ensure the effective implementation of the requirements of this Order.

#### 13) Reporting

- a) In the Year 2 Annual Report, the Permittee shall include:
  - i) Criteria established for High Priority Construction Sites;
  - ii) A description of the process developed by the Permittee to effectively require implementation of minimum construction BMPs at all construction sites; and
  - iii) A description of the process developed by the Permittee to review erosion and sediment control plans for compliance with the requirements of this Section including the documentation process.
- b) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) A summary of the source control and erosion and sediment control plan reviews conducted by the Permittee including the number of sites required to submit a plan and the number of sites with plans reviewed by the Permittee;
- c) In the Year 3 Annual Report, the Permittee shall include:
  - i) A description of the information management system(s) developed to track the information required by this Section.
- d) In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall include:
  - i) The number of construction sites that did/did not implement the minimum construction BMPs;



- ii) A summary of all inspections including the follow-up actions performed by the Permittee that includes:
  - (1) The percentage of High Priority Construction Sites that were inspected each week throughout the rainy season;
  - (2) The Inspection Rating of each High Priority Construction Site at each inspection;
  - (3) Dates of ½-inch rain events;
  - (4) The number of active High Priority Construction Sites at the time of each ½-inch rain event;
  - (5) The number and percentage of High Priority Construction Sites ready for each rain event, determined according to Section K.6.d.i. (Inspection Procedures for High Priority Construction Sites);
  - (6) A summary of the Permittee's assessment of sediment discharges from sites deemed unready for a rain event, and of impacts to water quality resulting from these discharges;
  - (7) A summary of the results of inspections conducted within 48 hours after a ½-inch rain event, including a description of any sediment discharges and their potential impact on water quality, a discussion of the effectiveness of BMPs at controlling erosion and sediment discharge, and a discussion of the effectiveness of the Permittee's determination of Inspection Ratings that accurately represent actual threat of discharge of sediment and other pollutants; and
  - (8) Verification the information management system was kept updated with all required information in this Section and a description of measures the Permittee implemented to ensure the system is kept up-to-date.
- e) In each Annual Report, the Permittee shall include:
  - i) The number of structural BMPs constructed that are owned/operated by the Permittee and privately owned/operated;
  - ii) A summary of structural BMPs (both owned/operated by the Permittee and privately owned/operated) inspected during construction including the percentage of BMPs inspected, corrective actions identified, and corrective actions implemented;
  - iii) A summary of structural BMPs (owned/operated by the Permittee and privately owned/operated) inspected after construction was complete including the percentage of BMPs inspected, corrective actions identified, and corrective actions implemented;
  - iv) A summary of how the Enforcement Response Plan was used for construction sites including all enforcement actions taken during the reporting period;
  - v) A summary of any referrals to the Central Coast Water Board for noncompliance or non-filers;
  - vi) A summary of the oversight procedures the Permittee implemented for all activities performed by staff not employed by the Permittee; and
  - vii) A training report that includes at a minimum:
    - (1) A list of all staff members whose job duties are related to implementing construction stormwater requirements of this Order, the date(s) training occurred and the topics covered;
    - (2) Results of the annual training assessment and a summary of any implemented revisions to training; and
    - (3) A summary of the Permittee's compliance with the training requirements of this Section.
  - viii) A summary of any letters sent to construction site owners or operators pertaining to the requirements of this Order. The summary will include a sample copy of letters.

## L. Development Planning and Stormwater Retrofits

- 1) Planning and Building Document Updates – The Permittee shall modify, at a minimum, General Plans, Specific Plans, Zoning, Building Codes, and SWDS to control impacts to watershed processes impacted by stormwater management to protect water quality and beneficial uses in existing urban areas and in new growth areas within the Permit coverage area.
  - a) Specific Plan Conditions for Future Growth Areas – Within 3 months of adoption of this Order, the Permittee shall require any subsequent Specific Plans or other master planning documents adopted for Future Growth Areas to meet the following minimum requirements:
    - i) The Permittee shall require the distribution, location, extent, and intensity of major components of public and private stormwater drainage facilities proposed to be located within the area covered by the Specific Plan and needed to support the land uses described in the Specific Plan to be selected and/or designed according to LID principles.
      - (1) Site Layout – The Permittee shall require use of Attachment E – UC Davis ‘Steps for a Successful LID Design’, or an equivalent methodology, when working with applicants to select and/or design stormwater drainage facilities in Future Growth Area Specific Plans.
      - (2) LID Principles – The Permittee shall require Future Growth Area Specific Plans to follow LID design principles. The Future Growth Area Specific Plans shall:
        - (a) Conserve natural areas, including existing trees, other vegetation, and soils;
        - (b) Minimize disturbances to natural drainages (e.g., natural swales, topographic depressions);
        - (c) Avoid excess grading and disturbance to soils;
        - (d) Avoid compaction and impervious cover in zones that allow stormwater infiltration;
        - (e) Minimize the impervious footprint of the project;
        - (f) Disconnect impervious surfaces through distributed pervious areas;
        - (g) Specify vehicular zones (e.g., streets, driveways, parking lot aisles) to the minimum widths/areas necessary, provided that public safety is not compromised; and
        - (h) Use green infrastructure for conveying stormwater runoff, in place of conventional curb, gutter, and subgrade enclosed pipe runoff systems, in locations where such use does not conflict with other Permittee development goals and requirements.
      - (3) The Permittee shall require run-off volume calculations used in design of infrastructure (e.g., stormwater conveyance systems, regional flood management facilities) to be based on managing rainfall at the source using distributed decentralized controls that use LID design principles as described in Section L.1.a.i.1 (Site Layout) and L.1.a.i.2 (LID Principles).
      - (4) The Permittee shall review Future Growth Area Specific Plan language and effectively require it to include, at a minimum:
        - (a) Provisions for protecting and/or utilizing groundwater recharge zones;
        - (b) Maintenance agreements or easements for stormwater management-related landscaping features;
        - (c) Reduced parking ratios from existing Permittee standards to take advantage of shared parking opportunities and mixed use;
        - (d) Parking allowed in building setbacks; and

- (e) Reduced parking requirements for any assisted living, low income housing, or other housing units likely to have lower parking demand.
- (5) The Permittee shall review Future Growth Area Specific Plan language and include:
  - (a) Language that allows alternatives to conventional curb, gutter, and subgrade enclosed pipe runoff conveyance as required improvements;
  - (b) Language that allows shared drainage among properties and shared public/private drainage handling and treatment;
  - (c) Language that allows pervious alternatives to driveway paving materials such as asphalt, Portland cement, or some other highly impervious material;
  - (d) Language that allows flexible building setbacks;
  - (e) Landscaping requirements that promote infiltration, in lieu of elevated landscaped beds, compaction specifications, or required materials; and
  - (f) Language that promotes narrower rights of way and the use of LID techniques in rights of way.
- b) Parcel-Scale Development Projects – Within 12 months of adoption of this Order, the Permittee shall complete each action item listed below to revise planning and building requirements for development projects subject to the parcel-scale development requirements in Section J (Parcel-Scale Development).
  - i) The Permittee shall conduct an analysis of all applicable codes, regulations, standards, and/or specifications to identify modifications and/or additions necessary to remove gaps and impediments to effective implementation of parcel-scale development requirements.
  - ii) The Permittee shall modify codes, regulations, standards, and/or specifications as applicable to fill identified gaps and remove identified impediments to effective implementation of parcel-scale development requirements.
    - (1) The Permittee shall review and modify planning and building requirement language so that it includes, at a minimum:
      - (a) Provisions for protecting and/or utilizing groundwater recharge zones;
      - (b) Maintenance agreements or easements for stormwater management-related landscaping features;
      - (c) Reduced parking ratios from existing Permittee standards to take advantage of shared parking opportunities and mixed use;
      - (d) Parking allowed in building setbacks; and
      - (e) Reduced parking requirements for any assisted living, low income housing, or other housing units likely to have lower parking demand.
    - (2) The Permittee shall review planning and building requirement language and include:
      - (a) Language that allows alternatives to conventional curb, gutter, and subgrade enclosed pipe runoff conveyance as required improvements;
      - (b) Language that allows shared drainage among properties and shared public/private drainage handling and treatment;
      - (c) Language that allows pervious alternatives to driveway paving materials such as asphalt, Portland cement, or some other highly impervious material;
      - (d) Language that allows flexible building setbacks;
      - (e) Landscaping requirements that promote infiltration, in lieu of elevated landscaped beds, compaction specifications, or required materials; and
      - (f) Language that promotes narrower rights of way and the use of LID techniques in rights of way.
- c) Urban Subwatershed-Scale Stormwater Planning

- i) Within 3 years of adoption of this Order, the Permittee shall conduct, at the appropriate scale, an assessment of the predicted dominant watershed process impacts of the below land use actions, prior to taking either of the listed actions. The assessment shall include a quantification of predicted impacts (e.g., runoff volume changes, pollutant loading, loss and addition of riparian and wetland cover, changes to drainage network, groundwater recharge rate changes) using computer modeling and other methods selected in consultation with the Central Coast Water Board.
  - (1) A cumulative annexation of the City of greater than 40 acres within an Urban Subwatershed; or
  - (2) A planned land use action that is projected to increase the total impervious surface area of an Urban Subwatershed by 5 percent of existing impervious area (e.g. from 10 percent to 10.5 percent or from 20 percent to 21 percent).
- ii) The Permittee shall develop a plan, for each land use action, to demonstrate numerically how the land use action will mitigate identified stormwater management impacts to watershed processes to protect water quality and beneficial uses. The plans shall, at a minimum, include the following:
  - (1) Assessment of a combination of site, structural, and managerial approaches to minimize the impacts to water quality (i.e., pollution prevention, treatment, and LID measures);
  - (2) Identification of measurable targets established to protect the dominant watershed processes of the Urban Subwatershed;
  - (3) Identification of minimum performance measures to demonstrate attainment of measurable targets to protect dominant watershed processes of the Urban Subwatershed; and
  - (4) Strategy to conduct a public process for review and comment of plan, which may be part of the CEQA review associated with the land use action.
- d) Riparian Protection Policies and Requirements –
  - i) Within 12 months of adoption of this Order, the Permittee shall modify as necessary its codes, regulations, standards, and/or specifications to require project applicants to establish and maintain setbacks, for any new development or redevelopment, around waterbodies identified in Section Q.3 (Watershed Characterization: Water Body Identification). At a minimum, the Permittee shall modify its codes, regulations, standards, and/or specifications to include each requirement listed below:
    - (1) The Permittee shall retain the 100-foot setback area along Gabilan and Natividad Creeks and other creeks as established by Salinas General Plan COS-17, and establish a 30-foot setback for all other streams identified per Section Q.3 (Watershed Characterization: Water Body Identification). The setback shall be measured from the top of streambank, or from the outside edge of riparian vegetation, whichever is farthest from the centerline of the stream.
    - (2) The Permittee shall retain the 100-foot setback along wetlands not associated with streams as established by Salinas General Plan COS-17, and establish a 30-foot setback for all other wetlands identified per Section Q.3 (Watershed Characterization: Water Body Identification). The Permittee shall measure the wetland setback from the outside edge of the wetland.
    - (3) Except as set forth below, the Permittee shall prohibit development activities in the setback area; however, the Permittee may grant exceptions for passive recreation uses (e.g., trails, playfields, and picnic areas) within the 30- and 100-foot setback, so long as the Permittee establishes and enforces specific development standards to protect beneficial uses from potential impacts of stormwater runoff associated with these land uses.

- (4) If the Permittee allows recreational trails to be located within the setback, the Permittee shall implement a re-vegetation program wherein a vegetative buffer is established between the trail and the outside edge of the riparian vegetation.
- (5) The Permittee shall protect existing riparian and wetland vegetation and habitat from construction disturbance. The Permittee shall place fencing temporarily at the outside edge of the setback area during construction. This fencing shall remain in place until construction is complete, after which it shall be removed.
- (6) Where a redevelopment is being conducted within the 30- and 100-foot setback area, the Permittee shall not allow the developer to increase the building footprint within the 30- and 100-foot setback.
- (7) The Permittee may consider approval of development activities within the setback if a biotic resources study (prepared for the Permittee's City Planner by his or her designee) makes the findings listed below. The Permittee shall notify Central Coast Water Board staff 15 days prior to approval of new development or redevelopment within a setback area.
  - (a) The encroachment would have no adverse impact on the riparian and/or wetland resources' capacity to attenuate the effects of urban storm runoff on the receiving water, or,
  - (b) The implementation of alternative mitigation measures will achieve comparable or better attenuation of the effects of urban storm runoff than the strict application of the 30- and 100-foot setback.
- ii) Within 4 years of adoption of this Order the Permittee shall review all riparian protection policies and requirements for appropriateness relative to identified areas of existing riparian vegetation and habitat and areas of potential for growth of riparian vegetation and habitat, per Section Q.4.b (Watershed Characterization: Riparian Vegetation and Habitat). The Permittee shall make changes to its riparian protection policies and requirements, as necessary, to effectively require that all applicable development projects adhere to the following requirements:
  - (1) All new development projects proposed on parcels where there is existing riparian vegetation and habitat, identified per Section Q.4.b.i (Watershed Characterization: Riparian Vegetation and Habitat), shall not conduct ground disturbance, except for riparian vegetation and habitat restoration-related activities, in the existing riparian vegetation and habitat. The Permittee shall require the project applicant to protect the existing riparian vegetation and habitat on the applicant's land, in perpetuity. The Permittee may delegate the responsibility of protecting existing riparian vegetation and habitat to itself or another entity, so long as the project applicant and responsible entity are in agreement.
  - (2) All new development projects proposed on parcels where the areal and/or lineal extent of existing riparian vegetation and habitat is less than site potential, identified per Section Q.4.b.ii (Watershed Characterization: Riparian Vegetation and Habitat), shall create riparian vegetation and habitat to establish optimal riparian vegetation and habitat coverage. The Permittee shall require the project applicant to maintain any restored riparian areas until the area reaches optimal riparian function and an equilibrium state.
  - (3) Alternative Compliance – The Permittee may develop an in-lieu fee alternative compliance program for projects required to establish optimal riparian vegetation and habitat coverage. If a project applicant can demonstrate that it is not feasible to achieve the requirements for vegetation and habitat, or, that a greater watershed benefit could be attained by restoring riparian vegetation and habitat off-site, then the Permittee may allow the project applicant to pay an in-lieu fee

towards a Permittee-managed retrofit project. The fee shall go towards a retrofit project that meets the following criteria:

- (a) Is a candidate project for retrofitting per Section L.2 (Retrofit Existing Development);
  - (b) Is located within the same Urban Subwatershed as the development project being mitigated or in an Urban Subwatershed deemed to have a more critical need for restoration of riparian vegetation and habitat;
  - (c) Provides equal or greater quality and quantity of watershed processes as the portion of the development project being mitigated;
  - (d) Includes a complete implementation schedule and project plan;
  - (e) Is scheduled to commence construction within one year of the construction commencement of the development project being mitigated; and
  - (f) The Permittee accepts responsibility for project completion and long-term maintenance.
- e) CEQA Process Update – Within 12 months of adoption of this Order, the Permittee shall review its CEQA process and make revisions as applicable. At a minimum, the Permittee shall perform each action item listed below:
- i) Review the Permittee’s CEQA process for consistency with the Governor’s Office of Planning and Research guidance, ‘CEQA and Low Impact Development Stormwater Design: Preserving Stormwater Quality and Stream Integrity through CEQA Review.’<sup>10</sup> The Permittee shall make changes to its CEQA process to remove any identified inconsistencies.
  - ii) Update the Permittee’s CEQA checklist to include each question listed below:
    - (1) Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).
    - (2) Could the proposed project result in a decrease in treatment and retention capacity for the site’s stormwater run-on?
    - (3) Could the proposed project result in significant alteration of receiving water quality during or following construction?
    - (4) Could the proposed project result in increased impervious surfaces and associated increased urban runoff?
    - (5) Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in urban runoff flow rates and/or volumes?
    - (6) Could the proposed project result in increased erosion downstream?
    - (7) Could the proposed project alter the natural ranges of sediment supply and transport to receiving waters?
    - (8) Is the project tributary to an already impaired water body, as listed on the CWA Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?
    - (9) Could the proposed project have a potentially significant environmental impact on surface water quality, to either marine, fresh, or wetland waters?
    - (10) Could the proposed project result in decreased baseflow quantities to receiving surface waterbodies?

<sup>10</sup> *Technical Advisory: CEQA and Low Impact Development Stormwater Design: Preserving Stormwater Quality and Stream Integrity Through California Environmental Quality Act (CEQA) Review*. Sacramento, CA: Governors Office of Planning and Research, 5 August 2009. Web. 17 August 17, 2011 <[http://www.opr.ca.gov/ceqa/pdfs/Technical\\_Advisory\\_LID.pdf](http://www.opr.ca.gov/ceqa/pdfs/Technical_Advisory_LID.pdf)>.

- (11) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?
- (12) Does the proposed project adversely impact the hydrologic or water quality function of the 100-year floodplain area?
- (13) Does the proposed project site layout adhere to the Permittee's waterbody setback requirements?
- (14) Can the proposed project impact aquatic, wetland, or riparian habitat?

## 2) Retrofit Existing Development

- a) Retrofit Project Types and Objectives – The Permittee shall develop and implement procedures to retrofit existing development with the purpose of restoring degraded watershed processes affected by urban stormwater discharges to protect water quality and beneficial uses. The Permittee may coordinate the retrofit procedures with flood control projects to determine the feasibility of retrofitting existing structural flood control devices to provide additional flow control and pollutant removal from stormwater. The Permittee shall adhere to the following criteria when developing the deliverables outlined in Section L.2.b (Long-Term Retrofit Plan) and Section L.2.c (Pilot Retrofit Project Design):
  - i) In developing and implementing the retrofit procedures, the Permittee shall emphasize the following objectives:
    - (1) Restoring watershed processes impacted by stormwater management to protect water quality and beneficial uses;
    - (2) Reducing pollutants in stormwater discharges; and
    - (3) Emphasizing controls that infiltrate, evapotranspire, or harvest/reuse stormwater discharges.
  - ii) The Permittee shall assess, at a minimum, the following Permittee-owned land uses/features as candidates for retrofitting:
    - (1) Streets;
    - (2) Parking lots; and
    - (3) Stormwater management facilities and conveyance systems (e.g., detention basins, flood management structures/devices).
  - iii) The Permittee shall assess a range of types of modifications to candidate land uses/features for retrofitting.
  - iv) The Permittee shall develop numeric performance goals to demonstrate how retrofit projects are expected to reduce pollutant loads and/or restore watershed processes. Each project shall provide benefits to watershed processes equivalent to the benefits generated by a project meeting its associated performance goals as listed in Table H.1 in Attachment H – Qualifying Retrofit Projects.
  - v) The Permittee shall effectively require retrofit projects to be designed to meet or exceed performance goals.
- b) Long-Term Retrofit Plan – Within 5 years of adoption of this Order, the Permittee shall develop a Long-Term Retrofit Plan that addresses the retrofit objectives, candidate land uses/features, types of modification, and performance goals. At a minimum, the Long-Term Retrofit Plan shall include each element listed below:
  - i) An inventory of potential retrofit locations based on an assessment that considered, at a minimum:
    - (1) The Urban Subwatershed Program Effectiveness Rating per Section P.6 (Monitoring, Effectiveness Assessment, and Program Improvement: Program Effectiveness Rating); and

- (2) The broad range of areas, projects, and programs presenting opportunities for retrofit projects.
- ii) An evaluation and ranking of the inventoried projects to identify High Priority Areas for Retrofitting.
- iii) An investigation of available funding resources and potential funding methods for retrofitting, including grants, incentives, subsidies, and fees (e.g., in-lieu fees for off-site compliance alternative per Section J.4.h (Parcel-Scale Development: Onsite/Offsite Compliance Alternative)) for existing discharges to the MS4.
- iv) Provisions for tracking, inspecting, and maintaining BMPs implemented at retrofit projects.
- v) An implementation plan that identifies a minimum of five projects the City will implement. Each project shall have performance goals and a schedule to complete the project within 5 years of Long-Term Retrofit Plan completion.
- c) Pilot Retrofit Project Design –
  - i) Within 2 Years of adoption of this Order, the Permittee shall derive a list of a minimum of 5 candidates for pilot retrofit projects. This list shall be based on the criteria outlined in Section L.2.a (Retrofit Project Types and Objectives) that is available at the time of the list development and shall take into account the prioritization conducted according to Section L.2.b.ii. The Permittee shall maintain an updated list, with a minimum of 5 projects, until Long-Term Retrofit Plan completion.
  - ii) The Permittee shall direct Priority Development Projects that qualify for the in-lieu fee compliance alternative to this list.
  - iii) Within 5 years of adoption of this Order, the Permittee shall complete 60 percent design of at least one qualifying retrofit project from the list of 5 candidates.
  - iv) The Permittee shall require that retrofit projects initiated before completion of the Long-Term Retrofit Plan adhere to the same standards as Priority Development Projects for operation and maintenance plan development and maintenance protocols. The Permittee shall inspect retrofit projects using the same protocols as required for the Priority Development Projects.
- 3) Aligning Stormwater Management with Related Planning Goals and Requirements
  - a) Integrated Regional Water Management –
    - i) Within 12 months of adoption of this Order, the Permittee shall coordinate with other stakeholders to pursue the Environmental Enhancement Objectives of the May 2006 Integrated Regional Water Management Functionally Equivalent Plan Update,<sup>11</sup> or comparable water supply, water quality, and flood protection and flood management goals and objectives of the Integrated Regional Water Management Plan in use, through the Permittee's stormwater management program.
    - ii) Within 2 years of adoption of the Order, the Permittee shall identify opportunities to protect, enhance, and/or restore natural resources including streams, groundwater, watersheds, and other resources consistent with the Integrated Regional Water Management Plan. At a minimum, the Permittee shall examine opportunities for stormwater capture and reuse, and stormwater infiltration for aquifer recharge.
  - b) Salt and Nutrient Management –
    - i) Within 2 years of adoption of this Order, the Permittee shall coordinate with local water and wastewater entities, together with local salt/nutrient contributing stakeholders, to fund locally driven and controlled, collaborative processes open to

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<sup>11</sup> *Salinas Valley Integrated Regional Water Management Functionally Equivalent Plan Summary Document Update*. The Monterey County Water Resources Agency, May 2006. Web. 17 August 2011 <[http://www.mpwmd.dst.ca.us/Mbay\\_IRWM/IRWM\\_library/Salinas\\_Valley\\_FEP\\_May\\_2006.pdf](http://www.mpwmd.dst.ca.us/Mbay_IRWM/IRWM_library/Salinas_Valley_FEP_May_2006.pdf)>.



- all stakeholders that will prepare salt and nutrient management plans for groundwater basins underlying the Permit coverage area, per State Water Board Recycled Water Policy (State Water Board Resolution No. 2009-0011).
- ii) Within 4 years of adoption of this Order, the Permittee shall evaluate opportunities to include a significant stormwater use and recharge component within the salt/nutrient management plan(s). At a minimum, the Permittee shall coordinate with other stakeholders to include stormwater recharge/use goals and objectives in salt and nutrient management plan(s).
- c) Flood Management – Upon the next revision of the General Plan Housing Element, the Permittee shall:
- i) Identify areas that may accommodate floodwater for groundwater recharge and stormwater management; and
  - ii) Consider the location of resources that are used for groundwater recharge and stormwater management.
- 4) Reporting
- a) Planning and Building Document Updates
    - i) Specific Plan Conditions for Future Growth Areas – In Year 1 Annual Report and each subsequent Annual Report, the Permittee shall provide an inventory of all Specific Plans for Future Growth Areas submitted to the Permittee for approval, in the approval process, or approved by the Permittee in the reporting year. For each approved Specific Plan for Future Growth Areas, the Permittee shall describe how the Plan meets the requirements of Section L.1.a (Specific Plan Conditions for Future Growth Areas).
    - ii) Parcel-Scale Development Projects – In the Year 1 Annual Report, the Permittee shall describe the modifications the Permittee made to the planning and building requirements pursuant to Section L.1.b (Parcel-Scale Development Projects).
    - iii) Urban Subwatershed-Scale Stormwater Planning – In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall submit the following:
      - (1) A list of the land use actions described in Section L.1.c.i taken for the reporting year; and
      - (2) The assessment of predicted dominant watershed process impacts for each land use action and the plan to demonstrate numerically how the land use action will mitigate for the identified watershed process impacts.
    - iv) Riparian Protection Policies and Requirements –
      - (1) In the Year 1 Annual Report, the Permittee shall submit copies of all the codes, regulations, standards, and/or specifications that the Permittee modified to comply with Section L.1.d.i.
      - (2) In each Annual Report, the Permittee shall provide verification that all applicable projects approved in the reporting year adhered to the setback requirements.
      - (3) In the Year 4 Annual Report and each subsequent Annual Report, the Permittee shall provide the following:
        - (a) A description of any modifications to the Permittee’s riparian protection policies and requirements based on the Watershed Physical Condition Assessment per Section Q.4.b (Watershed Characterization: Riparian Vegetation and Habitat);
        - (b) An inventory of all new development projects, approved during the reporting year, proposed on parcels where the areal extent of riparian vegetation and habitat is less than site potential; and

- (c) A summary of on-site and/or alternative compliance achieved by project applicants pursuant to Section L.1.d (Riparian Protection Policies and Requirements).
- v) CEQA Process Update –
  - (1) In the Year 1 Annual Report, the Permittee shall submit the following:
    - (a) A summary of inconsistencies of the Permittee’s CEQA process with the guidance, CEQA and Low Impact Development Stormwater Design: Preserving Stormwater Quality and Stream Integrity Through CEQA Review – The summary shall include the revisions the Permittee made to remove any identified inconsistencies; and
    - (b) The Permittee’s updated CEQA checklist.
  - (2) In each Annual Report, the Permittee shall include a description of any updates to the CEQA process that relate to maintenance and/or restoration of watershed processes impacted by stormwater management which protect water quality and beneficial uses. The Permittee shall also report on the effectiveness of the CEQA process at getting development projects to incorporate project components at early stages in project review process, so that project achieves flow control and treatment BMP requirements, incorporates LID principles, and adheres to water body setback requirements.
- b) Retrofit Existing Development
  - i) Long-Term Retrofit Plan
    - (1) In each Annual Report, the Permittee shall submit a summary of its progress toward developing its Long-Term Retrofit Plan. The summary shall include a description of the portion of the plan completed and a schedule the Permittee will follow for completing the remainder of the plan.
    - (2) In the Year 5 Annual Report, the Permittee shall submit the Long-Term Retrofit Plan.
  - ii) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall submit the most up-to-date list of candidates for pilot retrofit projects.
  - iii) In the Year 5 Annual Report, the Permittee shall submit a description of the retrofit project for which the Permittee completed 60 percent design, including the following:
    - (1) A description of the project, including information sufficient to demonstrate that the project meets the criteria outlined in Sections L.2.a (Retrofit Project Types and Objectives) and L.2.b (Long-Term Retrofit Plan);
    - (2) An explanation of why the Permittee selected the project for retrofitting;
    - (3) Identification of retrofit objectives the retrofit project was selected to achieve; and
    - (4) The expected water quality benefit (i.e., include justification).
- c) Aligning Stormwater Management with Related Planning Goals and Requirements – In each Annual Report, the Permittee shall report on the progress of aligning stormwater management with related planning goals and requirements to maintain and restore the Permittee’s watershed processes impacted by stormwater management to protect water quality and beneficial uses, and the effectiveness of those efforts.
  - i) In each Annual Report, the Permittee shall submit a description of the Permittee’s participation in the Salinas Valley Integrated Regional Water Management (IRWM) process, including the number of meetings at which the Permittee has been represented and a description of the results of the participation.
  - ii) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall submit a description of the opportunities the Permittee and other IRWM stakeholders have examined for stormwater capture and reuse and stormwater infiltration for aquifer recharge.

- iii) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall submit a description of the Permittee's participation in developing salt and nutrient management plan(s) for all applicable groundwater basins underlying the Permit coverage area, including a description of the results of the participation.
- iv) In the Year 4 Annual Report, the Permittee shall submit the language from the salt and nutrient management plan(s) identifying stormwater recharge/use goals and objectives.
- v) In each Annual Report following revision of the General Plan Housing Element, the Permittee shall submit the Element language identifying areas in the Permit coverage area that may accommodate floodwater for groundwater recharge and stormwater management, and the location of resources that are used for groundwater recharge and stormwater management.

#### M. Public Education and Public Involvement

- 1) General – The Permittee shall implement effective comprehensive stormwater public education that complies with the requirements of this Section. The public education shall be designed to reduce pollutant discharges to the MS4 through changes in target audiences' behavior.
- 2) Collaboration – The Permittee may comply with requirements of this Section by collaborating with other entities. The Permittee is responsible for the implementation of the requirements of this Section regardless of who conducts the activities.
- 3) Priority Stormwater Issues – By the end of Year 2, the Permittee shall identify a minimum of six highest Priority Stormwater Issues to be addressed by the public education BMPs. At least three of the Priority Stormwater Issues shall be residential issues and at least three of the Priority Stormwater Issues shall be commercial or industrial issues. Trash shall be identified as a Priority Stormwater Issue.
- 4) Target Audiences
  - a) By the end of Year 2, the Permittee shall identify the target audience(s) for each identified Priority Stormwater Issue. The public education BMPs shall include education of underserved target audiences, including various ethnic and socioeconomic groups. The public education BMPs shall educate ethnic communities through culturally effective and appropriate methods (i.e., methods that are effective for the ethnic communities present in the Permit coverage area).
  - b) School Children shall be identified as a target audience for at least one Priority Stormwater Issue. The Permittee shall collaboratively conduct or participate in development and implementation of a plan to educate school children (grades 3-6 are preferred but not required). The plan shall include use of classroom education, field trips, hands-on experiences, or other educational methods. If the Permittee makes two attempts to offer educational opportunities to each of the K-12 schools in the Permit coverage area and is denied the opportunity by all of the schools, the Permittee shall offer education opportunities to educate school children through other existing programs that serve children (e.g., after school programs, girl/boys scout groups, camps). If the Permittee is also denied the opportunity by the other programs, the Permittee is not required to identify school children as a target audience for any of their Priority Stormwater Issues.

- 5) Outcomes – Using all appropriate media, the Permittee’s public education BMPs shall:
  - a) Measurably increase the knowledge of the target audiences regarding each identified Priority Stormwater Issue; and
  - b) Measurably change the behavior of target audiences for each identified Priority Stormwater Issue so that they implement desired behaviors and stop undesirable behaviors.
  
- 6) Assessment – Beginning in Year 3, the Permittee shall assess the effectiveness of public education efforts at changing awareness and behavior using the plan developed in accordance with Section P.1.a.ii.
  
- 7) Education Strategies and Methods – The Permittee shall incorporate the use of Community-Based Social Marketing<sup>12</sup> techniques or equivalent into its public education BMPs to effectively change the behavior of the identified target audiences regarding each Priority Stormwater Issue.
  - a) At a minimum, the Permittee shall use the following Community-Based Social Marketing or equivalent techniques:
    - i) Research on barriers to desired behaviors and benefits of desired behaviors (e.g., literature review, observation, focus groups);
    - ii) Elicit commitment to implement desired behavior from target audience;
    - iii) Remove barriers to desired behavior;
    - iv) Provide incentives for desired behavior;
    - v) Use the concept of social norms/modeling of desired behavior;
    - vi) Use education messages that are specific, easy to remember, from a credible source, and appropriate for the target audience; and
    - vii) Use prompts reminding target audience of desired behavior.
  - b) Pilot Projects
    - i) In Year 3, Year 4 and Year 5, the Permittee shall implement pilot projects for one Priority Stormwater Issue per year using CBSM or equivalent techniques.
    - ii) In Year 4 and each subsequent year, the Permittee shall expand effective pilot projects throughout the Permit coverage area. Pilot projects found to be ineffective shall be revised and a replacement pilot project implemented. In Year 4 and Year 5, the replacement pilot projects shall be implemented in addition to the new pilot project.
  
- 8) Development Planning and Stormwater Controls for New Development and Redevelopment Projects – Within 12 months of adoption of this Order, the Permittee shall develop and implement effective education for project applicants, developers, contractors, property owners, and other responsible parties that are required to adhere to laws and regulations applicable to stormwater management on development projects. Education shall occur as early in the planning and development as possible and all through the permitting and construction process. The Permittee shall design the education such that each audience, as applicable, maintains an updated understanding of the following:
  - a) Requirements and applicability thresholds for Non-Priority and Priority Development Projects related to, but not limited to, site planning, source control, LID, flow control, and treatment control;
  - b) LID strategies and design tools for achieving flow control and treatment control requirements for Non-Priority and Priority Development Projects;

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<sup>12</sup> A variation of social marketing, referred to as Community-Based Social Marketing by Canadian environmental psychologist Doug McKenzie-Mohr.

- c) Stormwater Control Plan development;
  - d) Operation and Maintenance Plan development and implementation;
  - e) Enforceable mechanisms related to insufficient installation and long-term maintenance of flow control and treatment control BMPs;
  - f) Water body setback requirements in Section L (Development Planning and Stormwater Retrofits);
  - g) The process for project submittals and Permittee review and approval related to the stormwater management portion of the site design; and
  - h) Federal, State, and local water quality laws and regulations applicable to construction and grading activities (e.g., General Construction Permit, 401 Water Quality Certification).
- 9) Public Involvement – The Permittee shall involve the public in the development and implementation of the Stormwater Management Program. At a minimum, the Permittee shall:
- a) By the end of Year 2, the Permittee shall implement a public involvement process by:
    - i) Inviting the public to participate in the planning and implementation of all parts of the Stormwater Management Program throughout the term of this Order;
    - ii) Notifying the general public of opportunities to participate in the planning and implementation of the Stormwater Management Program;
    - iii) Directly notifying a maintained list of interested parties of opportunities to participate in the planning and implementation of the Stormwater Management Program;
    - iv) Actively seeking interested parties to participate such that a balanced representation of all affected parties is achieved, including but not limited to: residents, business owners, ethnic and cultural minority communities, environmental organizations, and the broad public in the MS4 area and/or affected watershed; and
    - v) Providing multiple opportunities each year for the public to participate in the planning and implementation of the Stormwater Management Program in a setting conducive to public participation.
  - b) Create opportunities each year for the public to participate in the implementation of stormwater management activities (e.g., stream clean-ups, storm drain stenciling, volunteer monitoring, education activities); and
  - c) Ensure the public can easily find information about the Permittee's Stormwater Management Program throughout the term of this Order.
- 10) Website – By the end of year 2, the Permittee shall maintain an up-to-date stormwater website, which shall include material to facilitate implementation of the public education and involvement BMPs. The website shall, at a minimum, include the following information:
- a) How the public can get involved in planning and implementation of activities related to the Stormwater Management Program;
  - b) Contact information for the illicit discharge and reporting system described in Section H.4 (Illicit Discharge Detection and Elimination: Illicit Discharge Reporting System);
  - c) Details of school children education;
  - d) Who to contact for each aspect of the Stormwater Management Program;
  - e) A copy of this Order, the Stormwater Management Plan (not as a link to one large file but as a table of contents that contains links to individual SWMP components) and SWDS; and
  - f) Resources related to the Priority Stormwater Issues.
- 11) Reporting
- a) In each Annual Report, the Permittee shall include:

- i) A summary of education efforts and accomplishments for development planning and stormwater controls for new development and redevelopment projects, including:
  - (1) Education topic;
  - (2) Audience;
  - (3) Education mode (e.g., workshops, manuals, brochures, verbal education at planning counter);
  - (4) Quantity of people informed; and
  - (5) A report on specific guidance provided to new development and redevelopment project applicants on how to achieve and demonstrate compliance with flow control, treatment control, and LID requirements.
- ii) A description of any collaborations the Permittee participated in to implement the requirements of this Section;
- iii) A description of the involvement opportunities the Permittee created for the public to participate in the implementation of stormwater management activities and any other public involvement activities implemented to comply with this Order; and
- iv) A link to the stormwater website, verification the website complies with the requirements of this Order, and a summary of website updates implemented.
- b) In the Year 2 Annual Report, the Permittee shall include:
  - i) A description of the Priority Stormwater Issues identified by the Permittee and the basis of selection;
  - ii) The target audience(s) identified for each Priority Stormwater Issue; and
  - iii) A description of the established public involvement process .
- c) In the Year 3 Annual Report and subsequent Annual Reports, the Permittee shall include:
  - i) A description of the pilot projects implemented and the techniques used to measurably increase knowledge and change behavior; and
  - ii) A description of the public involvement activities held during the year.
- d) In the Year 4 Annual Report and subsequent Annual Reports, the Permittee shall include an assessment of each pilot project and a justification for each pilot project that was expanded and each pilot project that was replaced with a different pilot project. The Permittee shall include an explanation of how any replacement pilot projects were selected. The Permittee shall describe each pilot project and expanded project and the CBSM or equivalent techniques used to measurably increase knowledge and change behavior.

#### N. Trash Load Reduction

- 1) Trash Load Reduction Program - The Permittee shall develop and implement effective structural and non-structural BMPs, including trash reduction ordinances, as necessary, to reduce trash discharges to the MS4 and remove trash that has entered the MS4. The Permittee shall consider the results of trash assessments conducted according to Section P.2.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Quantification) in the selection of BMPs and to direct and focus its trash reduction efforts and resources.
- 2) Trash Reduction BMPs
  - a) Municipally Owned or Operated Areas – Within 12 months of adoption of this Order, the Permittee shall designate and implement BMPs to control trash and litter from the following sites and sources, at minimum:
    - i) Public parks;

- ii) Permittee owned or operated public venues (e.g., the Municipal Stadium); and
  - iii) Municipal facilities (as defined in Section E.1 [Municipal Maintenance: Inventory]).
- b) Inspection and Cleaning of Surface Drainage Structures
- i) Within 12 months of adoption of this Order, the Permittee shall visually inspect all open channels and other surface drainage structures,<sup>13</sup> which are part of the Permittee's MS4 or part of receiving waters within the Permit coverage area that are not owned and operated by MCWRA, for trash and other debris. The Permittee shall also identify and prioritize problem areas, such as those with recurrent illegal dumping, for inspection at least three times per year. This requirement shall not limit the Permittee's performance of Trash Assessments in accordance with Section P.3.b.
  - ii) Beginning in Year 2, the Permittee shall visually inspect priority problem areas at least three times each year, and all other areas at least once each year.
  - iii) The Permittee shall remove, within 14 working days, trash and other debris found during visual inspections, except as required in Section P.3.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Action Level). The Permittee shall document surface drainage structure maintenance in a log that is to be made available for review by the Central Coast Water Board upon request.
- c) Source Identification and Abatement
- i) By the end of Year 2, the Permittee shall analyze the results of visual monitoring conducted according to Section N. 2 (Inspection and Cleaning of Surface Drainage Structures). For surface drainage structures found to contain significant deposits of trash, the Permittee shall identify potential sources of the trash. The Permittee shall evaluate the implementation and effectiveness of existing BMPs targeting the identified sources, and identify and implement BMP modifications necessary to abate the identified sources. For modifications requiring more than 12 months to complete, the Permittee shall develop and adhere to a schedule for implementing identified modifications.
  - ii) By the end of Year 3, the Permittee shall implement BMP modifications identified according to Section N.2.c (Source Identification and Abatement). For modifications requiring more than 12 months for completion, the Permittee shall adhere to the implementation schedule.
- d) Trash Reduction Ordinance – By the end of Year 3, the Permittee shall have developed, adopted, and be enforcing enforcement mechanisms, such as a trash reduction ordinance, to effectively reduce trash discharges to the Permittee's MS4 and remove trash and litter loads from the Permittee's MS4. The ordinance shall address the following sites and sources and types of trash typically generated by these sites and sources, at a minimum:
- i) Commercial retail centers (as defined in Section F.1.b.vi [Commercial and Industrial: Commercial Retail Centers]);
  - ii) Shopping districts;
  - iii) Transportation hubs (e.g., bus stations);
  - iv) Fast food restaurants;
  - v) Private schools and areas surrounding public schools;
  - vi) Garbage and waste handling and storage areas;
  - vii) Loading areas;

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<sup>13</sup> "Surface drainage structure" means 1) any surface device constructed to convey stormwater that is owned or operated by the Permittee (with the exception of streets, gutters, inlets, catch basins, and outfalls), such as basins, structural BMPs, culverts, trash/debris screens, and pump stations; and 2) any surface feature within the MS4 where trash or debris may collect.

- viii) Illicit dumping; and
  - ix) Littering and litter.
- 3) Trash Reduction Plan
- a) High Priority Trash Areas - By the end of Year 2, the Permittee shall prioritize areas for trash reduction on the basis of their potential for trash discharges to the MS4. The Permittee shall review and update the prioritization each year. The Permittee shall identify High Priority Trash Areas according to the following criteria:
    - i) Land uses listed in Sections N.2.a (Municipally Owned or Operated Areas) and N.2.d (Trash Reduction Ordinance);
    - ii) Visual inspections performed according to Section N.2.b (Inspection and Cleaning of Surface Drainage Structures);
    - iii) Results of potential source analysis conducted according to Section N.2.c (Source Identification and Abatement);
    - iv) Results of trash quantification performed according to Section P.2.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Quantification);
    - v) Results of trash assessments conducted according to Section P.3.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Action Level);
    - vi) Areas known to be potential sources of trash (e.g., illegal dumping areas); and
    - vii) Results of MS4 cleaning activities, such as catch basin cleaning conducted according to Section E.5.a (Municipal Maintenance: Catch Basins).
  - b) By the end of Year 2, the Permittee shall develop and implement an effective Trash Reduction Plan to significantly reduce trash entering the MS4 and remove trash that has entered the MS4. The Trash Reduction Plan shall focus on the High Priority Trash Areas. The plan shall include an implementation schedule. The Plan shall incorporate Trash Reduction BMPs and establish short-term and long-term objectives for the following activities, at a minimum:
    - i) Trash capture at the stormwater pump station to the Salinas River;
    - ii) Trash capture at catch basins and other inlets to the MS4;
    - iii) Trash capture at flood management facilities, including detention basins; and
    - iv) Trash and litter control in municipally-owned and maintained streets and sidewalks in downtown commercial and shopping districts.
  - c) The Trash Reduction Plan shall include installation of trash capture devices in accordance with Section P.3.b.vii, as applicable.
- 4) Trash Reduction Tracking Methodology – By the end of Year 4, the Permittee shall develop a Trash Reduction Tracking Methodology that will be used to assess the effectiveness of trash load reduction actions. The methodology shall quantify trash load reductions in a manner that is consistent with the methodology developed according to Section P.2.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Quantification).
- 5) Reporting
- a) In each Annual Report, the Permittee shall include:
    - i) Verification that the Permittee implemented all designated BMPs at all sites and sources identified according to Section N.2.a (Municipally Owned or Operated Areas);
    - ii) A summary of visual inspection and abatement activities conducted according to Section N.2.b (Inspection and Cleaning of Surface Drainage Structures), including the following:
      - (1) A list of open channels and other surface drainage structures inspected, including indication of priority problem areas inspected three times each year;



- (2) Dates of all visual monitoring and inspection events;
  - (3) Verification that the Permittee removed all trash and debris found within 14 working days of each inspection;
  - (4) A summary of the results of visual inspection and cleaning events, including the amount of material removed on an Urban Subwatershed basis; and
  - (5) Identification of areas containing significant deposits of trash.
- b) In the Year 1 Annual Report, the Permittee shall include:
    - i) A list of BMPs designated to control trash and litter from sites and sources identified in Section N.2.a (Municipally Owned or Operated Areas);
    - ii) Verification that the Permittee visually inspected all open channels and other surface drainage structures for trash and other debris, and removed all trash and other debris within 14 working days of inspection except as required in Section P.3.b (Monitoring, Effectiveness Assessment, and Program Improvement: Trash Action Level); and
    - iii) Identification of priority problem areas identified according to Section N.2.b (Inspection and Cleaning of Surface Drainage Structures) that the Permittee will visually inspect three times each year.
  - c) In the Year 2 Annual Report, the Permittee shall include:
    - i) A description of surface drainage structures found to contain significant deposits of trash, a description of the process used to identify potential sources of the trash, and identification of the potential sources;
    - ii) A description of the process used to evaluate the effectiveness of BMPs targeting identified sources, including a list of BMP modifications identified and the schedule for implementing the modifications;
    - iii) A description of the Permittee's enforcement mechanisms;
    - iv) A description of High Priority Trash Areas, including a discussion of the rationale used to identify High Priority Trash Areas; and
    - v) The Trash Reduction Plan.
  - d) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include:
    - i) A summary of the Permittee's progress implementing BMP modifications identified according to Section N.2.c (Source Identification and Abatement), according to identified implementation schedules;
    - ii) A description of the Permittee's implementation of the Trash Reduction Plan, including verification that activities identified in the Plan were implemented in accordance with the Plan; and
    - iii) Quantification of trash removed from the MS4 each year.
  - e) In the Year 4 Annual Report, the Permittee shall include:
    - i) Verification that the Permittee has implemented BMP modifications targeting identified sources of trash, according to the identified schedule.
  - f) In the Year 4 Annual Report, the Permittee shall include:
    - i) The Trash Reduction Tracking Methodology.

#### O. Total Maximum Daily Loads

- 1) For each Total Maximum Daily Load (TMDL) that assigns the Permittee a wasteload allocation due to its MS4 discharges, the Permittee shall achieve its assigned wasteload allocation according to the schedule specified in the TMDL.

- a) Lower Salinas River Watershed Fecal Coliform TMDL - The Permittee shall implement BMPs capable of achieving its Lower Salinas River Watershed Fecal Coliform TMDL wasteload allocation by December 20, 2024. The Permittee's Lower Salinas River Watershed Fecal Coliform TMDL wasteload allocation is:  
Lower Salinas River Watershed Fecal Coliform TMDL – Wasteload Allocation for the City of Salinas

| Waterbody  | Receiving Water Fecal Coliform (MPN/100mL)  |
|--|---|
| Gabilan Creek, Santa Rita Creek, Reclamation Ditch, Natividad Creek, and Lower Salinas River | Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN/100mL, nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN/100mL. |

- 2) Within one year of TMDL approval by the Office of Administrative Law, the Permittee shall submit a plan for meeting its wasteload allocation to the Central Coast Water Board, for every TMDL that assigns the Permittee a wasteload allocation due to its MS4 discharges. Within 60 days of submitting the plan to the Central Coast Water Board, the Permittee shall start implementing the plan. The Permittee shall incorporate new BMPs (structural, non-structural, and/or other measures to attain the required source control) and other stormwater management program modifications identified in the Wasteload Allocation Attainment Plan(s) into the Permittee's stormwater management program. The Wasteload Allocation Attainment Plan(s) shall include, at a minimum, each of the principle components listed below, unless the Permittee provides justification for why specific components are in conflict with specific TMDL provisions.
- a) A detailed description of the Permittee's strategy for BMP selection, assessment, and implementation, to ensure that implemented BMPs will effectively abate pollutant sources, reduce pollutant discharges, and achieve wasteload allocations according to TMDL schedule.
  - b) Identification of sources of the impairment within the Permit coverage area, including specific information on various source locations and their magnitude within the Permit coverage area.
  - c) Prioritization of sources within the Permit coverage area, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors.
  - d) Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants.
  - e) Prioritization of BMPs, based on expected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors.
  - f) A detailed BMP implementation schedule. For each BMP, identify milestones the Permittee will use for tracking implementation, measurable goals the Permittee will use to assess implementation efforts, and measures the Permittee will use to assess BMP effectiveness. The Permittee shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained.
  - g) A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on published BMP pollutant removal performance estimates, best professional judgment, and other available tools, the Permittee's wasteload allocation according to the schedule identified in the TMDL. This analysis will most likely necessitate modeling efforts. The Permittee shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the Permittee has water quality data from the TMDL monitoring

program per Section O.2.h; the Permittee shall incorporate water quality data into the numeric analyses to validate BMP implementation plans.

- h) A detailed description, including a schedule, of the monitoring program the Permittee plans to implement or use to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the Permittee's wasteload allocation. The monitoring program shall be consistent with any monitoring program information included in the TMDL documentation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate interim target and wasteload allocation attainment. If the approved TMDL does not explicitly include interim targets, the Permittee shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL compliance schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measure of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the five-year term of this Order. The Permittee shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Plan. If the Permittee does not achieve its interim target by the date specified, the Permittee shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target.
  - i) A detailed description of how the Permittee will assess BMP and plan effectiveness. The description shall incorporate assessment methods described in the CASQA Municipal Stormwater Program Effectiveness Assessment Guide and this Order.
  - j) A description of how the Permittee will modify the plan to improve upon BMPs that the effectiveness assessment highlights as ineffective.
  - k) A detailed description of information the Permittee will include in Annual Reports to illustrate progress towards meeting wasteload allocations according to TMDL schedule.
  - l) A detailed description of how the Permittee will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Plan.
  - m) Any other items identified by TMDL Project Reports or Resolutions or currently being implemented to address TMDL provisions.
- 3) Reporting
- a) Within one year of TMDL approval by the Office of Administrative Law, the Permittee shall submit a plan for meeting its wasteload allocations, pursuant to the requirements of this Section, for every TMDL where the Permittee is assigned a wasteload allocation due to its MS4 discharges.
  - b) In each Annual Report after the Permittee has submitted at least one Wasteload Allocation Attainment Plan, the Permittee shall provide a summary of Wasteload Allocation Attainment Plan implementation pursuant to Section O.2.k. The Annual Report shall describe all activities implemented by the Permittee to attain its wasteload allocation. The Annual Report shall provide all monitoring data results and include an analysis of the data to determine progress towards attaining the Permittee's interim targets and its wasteload allocation.

## P. Monitoring, Effectiveness Assessment, and Program Improvement

- 1) BMP Effectiveness Assessment
  - a) General BMP Effectiveness Assessment

- i) The Permittee shall assess the effectiveness of BMPs specified in this Order and developed by the Permittee in compliance with this Order, except for those BMPs where Focused Assessment measures are identified in this Section. For BMPs where Focused Assessment measures are identified in this Section, the Permittee shall conduct effectiveness assessments according to Section P.1.b (Focused BMP Effectiveness Assessment).
- ii) Public Education and Municipal Staff Training
  - (1) By the end of Year 2, the Permittee shall develop a plan for assessing the effectiveness of public education and municipal staff training BMPs specified in this Order and developed by the Permittee in compliance with this Order. The plan shall include assessment measures capable of providing quantitative information about the following:
    - (a) Changes in knowledge about the impacts of stormwater discharges and steps that can be taken to reduce pollutants in stormwater runoff, for specific target audiences;
    - (b) Changes in behavior of specific target audiences; and
    - (c) The proficiency of the Permittee's municipal staff at performing stormwater-related responsibilities in compliance with this Order.
  - (2) Quantitative assessment measures used by the Permittee may include, but need not be limited to, surveys, interviews, inspections, and tests taken before and after training events.
  - (3) By the end of Year 3, the Permittee shall evaluate the effectiveness of public education and municipal staff training efforts using the plan developed according to Section P.1.a.ii (Public Education and Municipal Staff Training). The Permittee shall use the results of this evaluation to identify modifications to public education and municipal staff training efforts that achieve increasing changes in knowledge and behavior of specific target audiences. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified improvements.
  - (4) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall conduct a follow-up assessment of the effectiveness of the Permittee's public education and municipal staff training efforts using quantitative assessment measures developed according to Section P.1.a.ii (Public Education and Municipal Staff Training).
- b) Focused BMP Effectiveness Assessment –The Permittee shall conduct Focused BMP Effectiveness Assessment according to the requirements of this Section. The Permittee may propose alternative assessment measures and methods that are equivalent or better for approval by the Central Coast Water Board Executive Officer.
  - i) Inspections – The Permittee shall analyze inspection results collected for High Priority Municipal Facilities, Operations, and Events; Commercial and Industrial Facilities; Fast Food Restaurants and Commercial Retail Centers; and High Priority Construction Sites (collectively, "Sites") according to Section E.8.c (Municipal Maintenance: Quarterly Inspections for High Priority Municipal Facilities, Maintenance Operations, and Events), Section F.4 (Commercial and Industrial: Inspection of Facilities and Operations), Section K.6.d (Construction Site Management: High Priority Construction Sites), and Attachment G – Inspection Ratings. The Permittee shall use the results of this analysis to determine the effectiveness of the Permittee's efforts at designating effective BMPs for controlling pollutant sources and removing pollutants from stormwater; educating applicable target audiences in the effective implementation, installation, and maintenance of

required BMPs; educating applicable municipal staff in the effective inspection of required BMPs; achieving compliance with requirements of this Order; and improving compliance at low-performing sites through follow-up activities. The Permittee shall apply the following assessment measures and track the results of assessments separately for High Priority Municipal Facilities, Operations, and Events; Commercial and Industrial Facilities; Fast Food Restaurants and Commercial Retail Centers; and High Priority Construction Sites.

- (1) Beginning in Year 3, the Permittee shall analyze Inspection Ratings determined during inspections each year for Sites in each Site category, and evaluate the effectiveness of the Permittee's efforts at achieving an Inspection Rating of "B" or higher at each inspection of each Site.
- (2) Beginning in Year 3, the Permittee shall analyze improvements in Inspection Ratings achieved through reinspection of low-performing Sites each year, and evaluate the effectiveness of the Permittee's follow-up efforts at achieving demonstrable improvements in Inspection Ratings at low-performing Sites in each Site category. The Permittee is not required to conduct this analysis for High Priority Construction Sites or High Priority Municipal Events.
- (3) Beginning in Year 4, the Permittee shall compare Inspection Ratings with Inspection Ratings determined in previous years for Sites in the same Site category, and shall evaluate the effectiveness of the Permittee's efforts at improving Inspection Ratings over time for Sites within each Site category.
  - (a) The Permittee shall use the results of this evaluation to identify and implement BMP modifications related to each Site category that achieve increasing Inspection Ratings over time for Sites within each Site category. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
  - (b) If the average of all Inspection Ratings determined each year is "B" or higher, determined according to Attachment G.3, the Permittee shall continue to implement actions designed to improve Inspection Ratings, but is not required to achieve further increases in annual average Inspection Rating.
- (4) Beginning in Year 4, the Permittee shall calculate the average increase in Inspection Rating achieved each year through reinspection of low-performing Sites in each Site category, and shall compare the result with the average increase in Inspection Rating achieved in previous years. The Permittee shall use the results of this comparison to identify and implement BMP modifications related to each Site category that achieve an increasing trend over time in the degree of improvement achieved through reinspection of low-performing sites in each Site category. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications. The Permittee is not required to conduct this analysis for High Priority Construction Sites or High Priority Municipal Events.
- (5) Beginning in Year 4, the Permittee shall compare the percentage of High Priority Construction Sites that were ready for each rain event each year with the percentage of High Priority Construction Sites that were ready for each rain event in previous years. The Permittee shall evaluate the effectiveness of construction site management BMPs at increasing, over time, the percentage of High Priority Construction Sites ready for each rain event.

- (a) The Permittee shall use the results of this evaluation to identify and implement modifications to construction site management BMPs that will achieve an increasing trend over time in the percentage of High Priority Construction Sites ready for each rain event. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
  - (b) If the number of High Priority Construction Sites ready for a rain event exceeds 90 percent each year, the Permittee shall continue to implement actions designed to attain 100 percent readiness for each rain event, but is not required to achieve further increases in the number of High Priority Construction Sites ready for a rain event.
- ii) Municipal Maintenance Program
- (1) Catch Basin Cleaning
    - (a) By the end of Year 3, the Permittee shall compare sediment and debris depth data and the total volume of sediment removed from all catch basins each year with data collected in previous years. The Permittee shall use the results of this comparison to evaluate whether the catch basin inspection and cleaning program is achieving optimal removal of sediment and debris. The Permittee shall use the results of this evaluation to identify and implement modifications as necessary to achieve optimal removal of sediment and debris. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
    - (b) At the end of Year 4, the Permittee shall determine the volume of solids removed in Years 1 through 4 from catch basins in each Urban Subwatershed. The Permittee shall identify the two Urban Subwatersheds with the most solids removed.
    - (c) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall analyze and identify potential sources of sediment discharges to the MS4 in the two Urban Subwatersheds identified according to Section P.1.b.ii.1 (Catch Basin Cleaning). The Permittee shall incorporate the results of this analysis into the determination of Program Effectiveness Ratings according to Section P.6 (Program Effectiveness Rating). In addition, the Permittee shall evaluate the effectiveness of BMPs at controlling sediment discharges to the MS4 in the two identified Urban Subwatersheds, and shall identify and implement BMP modifications, including identification of additional BMPs, as necessary, to control sediment discharges to the MS4 from the two identified Urban Subwatersheds. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
  - (2) Structural BMPs – Beginning in Year 2, the Permittee shall analyze the structural BMP inspection and maintenance records each year to ensure that all structural BMPs were inspected and maintained according to the methodology developed in Section E.7 (Municipal Maintenance: Maintenance of Structural BMP Verification). The Permittee shall evaluate the effectiveness of the structural BMP inspection and maintenance at ensuring that all structural BMPs are maintained at the required level. The Permittee shall modify the structural BMP inspection and maintenance procedures, as necessary, to ensure that all

structural BMPs are maintained at the required level. For modifications requiring more than 12 months to complete, the Permittee shall develop and adhere to a schedule for implementing identified improvements.

(3) Street Sweeping and Cleaning

(a) Beginning in Year 3, the Permittee shall compare the total volume of solids collected each dry season for the 24 routes identified in Section E.6.c with the total volume of solids collected in Year 1 and Year 2. The Permittee shall determine whether the street sweeping frequency modifications made in accordance with Section E.6.c have achieved an increase in the total volume of solids collected for these routes over the total volume of solids collected for these routes in Year 1.

(b) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall analyze the information collected according to Section E.6.b in preceding years. The Permittee shall use the results of this analysis to identify modifications to the sweeping schedule for all routes that optimizes the total volume of solids collected during the dry season for all routes for the same total number of route miles.

(4) Pesticide, Herbicide, and Fertilizer Use

(a) Beginning in Year 1, the Permittee shall use information collected according to Section E.10.d.v (Municipal Maintenance: Inspections of High Priority Municipal Facilities, Operations, and Events) each year to determine the total amount and primary chemical constituent of each type of pesticide, herbicide, and fertilizer applied by the Permittee within 7 days prior to all rain events that produced runoff.

(b) Beginning in Year 2, the Permittee shall compare the amount of pesticide, herbicide, and fertilizer used each year determined according to Section P.1.b.ii.4 (Pesticide, Herbicide, and Fertilizer Use) to the amount of pesticide, herbicide, and fertilizer used in previous years. The Permittee shall evaluate the effectiveness of efforts to reduce the amount of pesticide, herbicide, and fertilizer applied within seven days prior to rain events. The Permittee shall use the results of this evaluation to identify and implement modifications to pesticide, herbicide, and fertilizer application activities that achieve a decreasing trend over time in the amount of pesticide, herbicide, and fertilizer applied within seven days prior to rain events. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.

iii) Industrial Facilities

(1) By the end of Year 2, the Permittee shall analyze stormwater discharge parameter results obtained according to Section F.5 (Commercial and Industrial: Facility Monitoring Data Reported under the General Industrial Permit) for Years 1 and 2 to identify the pollutant having the greatest number of reported exceedances, using the following procedure.

(a) The Permittee shall identify exceedances by comparing the stormwater discharge parameter results for each parameter with the exceedance limits established by the General Industrial Permit;

(b) The Permittee shall determine the total number of reported exceedances for each reported pollutant for Years 1 and 2.

(c) The Permittee shall identify the pollutant with the greatest number of reported exceedances as the Target Pollutant.

- (d) The Permittee shall determine the annual average number of exceedances of the Target Pollutant by dividing the total number of exceedances of the Target Pollutant by the total number of annual reports submitted through the Stormwater Multiple Application and Report Tracking System (SMARTS) for Years 1 and 2.
- (2) By the end of Year 3, the Permittee shall evaluate the effectiveness of the Permittee's efforts to reduce discharges of the Target Pollutant. The Permittee's evaluation shall include, at minimum, an assessment of the adequacy of BMPs designated according to Section F.2 (Commercial and Industrial: Minimum BMPs), educational efforts, and the Permittee's inspection and follow-up procedures. The Permittee shall use the results of the evaluation to identify and implement modifications and/or additions to the Commercial and Industrial Program designed to reduce exceedances of the Targeted Pollutant in stormwater discharges from industrial facilities. The Permittee shall consider both short-term and long-term modifications. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
- (3) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall divide the number of exceedances of the Target Pollutant reported in the General Industrial Permit reporting period immediately prior to the submittal of the Permittee's Report of Waste Discharge by the number of annual reports submitted through SMARTS in the reporting period. The Permittee shall compare this result with the annual average number of exceedances of the Target Pollutant determined in Year 2 according to Section P.1.b.iii (Industrial Facilities). The Permittee shall use the results of this comparison to evaluate the effectiveness of modifications and/or additions made to the Commercial and Industrial Program at reducing exceedances of the Target Pollutant. At a minimum, the evaluation shall analyze of the objective of each modification, the effectiveness of each modification at achieving its intended objective, and the reasons each modification was (or was not) able to achieve its intended objective.
- iv) Riparian Protection – Beginning in Year 1, the Permittee shall record and track all exceptions, exemptions, and variances from the Riparian Protection Policies and Requirements contained in Section L.1.d (Development Planning and Stormwater Retrofits: Riparian Protection Policies and Requirements) allowed each year for development activities.
  - (1) The Permittee shall record the following information for each exception, exemption, or variance:
    - (a) The location of the development activity awarded the exception or variance, including site location and identification of the Urban Subwatershed;
    - (b) The justification for allowing the exception, exemption, or variance;
    - (c) The size of the permitted encroachment into riparian buffers established by this Order;
    - (d) A quantitative and qualitative description of riparian area lost or damaged due to the permitted encroachment;
    - (e) A quantitative and qualitative description of riparian area created, restored, or enhanced as mitigation for the permitted encroachments; and
    - (f) A description of measures established to protect riparian areas created, restored, or enhanced as mitigation for the permitted encroachments.
  - (2) Beginning in Year 1, the Permittee shall also determine the following each year:



- (a) The total area of encroachment permitted into riparian buffers established by this Order, for the Permit coverage area as a whole and for each Urban Subwatershed; and
  - (b) The total amount of riparian area created, restored, or enhanced as mitigation for the permitted encroachments, for the Permit coverage area as a whole and for each Urban Subwatershed.
- (3) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall review the exceptions, exemptions, and variances from the Riparian Protection Policies and Requirements contained in Section L.1.d (Development Planning and Stormwater Retrofits: Riparian Protection Policies and Requirements) allowed during the term of this Order up to that time.
- (a) The Permittee shall determine the total area of encroachment permitted into riparian buffers established by this Order, for the Permit coverage area as a whole and for each Urban Subwatershed.
  - (b) The Permittee shall determine the total amount of riparian area created, restored, or enhanced as mitigation for the permitted encroachments, for the Permit coverage area as a whole and for each Urban Subwatershed.
  - (c) The Permittee shall inspect each riparian area created, enhanced, or restored as mitigation for permitted encroachments. The Permittee shall evaluate the size and quality of each mitigation area compared with the original mitigation requirements and the value of the riparian area lost or damaged by the permitted encroachment, and shall assess whether each mitigation area complies with the original mitigation requirements and whether it successfully replaces the riparian values lost or damaged.
  - (d) The Permittee shall evaluate the effectiveness of its development planning and review process at protecting riparian areas within the Permit coverage area. The evaluation shall include analysis of the number and scope of exceptions, exemptions, and variances permitted, the amount of riparian area lost or reduced in quality, potential impacts to water quality and beneficial uses from the encroachments, and size and quality of mitigation areas.
- c) Programmatic BMP Improvement – Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall identify modifications to program BMPs needed to achieve measurable goals for improving targeted watershed processes according to Section P.7 (Program Improvement Needs).
- 2) Pollutant Load and Water Quality Stressor Quantification
- a) Pollutant Load Quantification
    - i) Within 12 months of adoption of this Order, the Permittee shall quantify annual Urban Subwatershed pollutant loads using the following procedure. The Permittee may propose an alternative method for quantifying annual Urban Subwatershed pollutant loads that is equivalent or better for approval by the Central Coast Water Board Executive Officer.
      - (1) The Permittee shall use the CWP Watershed Treatment Model,<sup>14</sup> or an equivalent method approved by the Central Coast Water Board Executive Officer, to estimate annual pollutant loads and pollutant load reductions on the basis of annual average rainfall. The Permittee shall also quantify any reductions associated with BMPs and other program elements. The Permittee shall use pollution concentration and BMP removal efficiency data from the National

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<sup>14</sup> The Stormwater Manager's Resource Center. *The Watershed Treatment Model, Version 3.1*. Web. 18 August 2011 <<http://www.stormwatercenter.net>>.

Stormwater Quality Database, local monitoring data, and/or other centralized databases (e.g., the American Society of Civil Engineers International Stormwater BMP Database). In estimating pollutant load reductions from BMPs, the Permittee shall count pollutant load reductions only for structural BMPs that are designed to achieve a quantitative stormwater management objective and are maintained at least to an “acceptable” level, or equivalent, using the methodology developed according to Section E.7.e (Municipal Maintenance: Structural BMP Rapid Assessment). In estimating pollutant load reductions from such BMPs, the Permittee shall assume that the BMP is achieving its design quantitative stormwater objective. The Permittee shall justify all assumptions used to model BMP pollutant reductions on the basis of appropriate data.

- (2) At a minimum, the Permittee shall quantify annual loads for the following pollutants:
  - (a) Sediment;
  - (b) Fecal coliform bacteria;
  - (c) Total nitrogen;
  - (d) Copper;
  - (e) Lead;
  - (f) Zinc; and
  - (g) Additional pollutants as identified by the Permittee in consultation with the Central Coast Water Board.
- (3) The Permittee shall quantify annual pollutant loads and pollutant load reductions for the entire Permit coverage area and for each Urban Subwatershed identified in Section Q.2 (Watershed Characterization: Watershed Delineation).
- ii) Prior to the submittal of the Permittee’s Report of Waste Discharge, the Permittee shall repeat the procedure developed according to Section P.2.a (Pollutant Load Quantification). The Permittee shall use Stormwater Discharge Trend Monitoring data, and other data collected according to this Section, to modify the assumptions used to model pollutant loads and BMP pollutant reductions. The Permittee shall apply information obtained through the modeling exercise in developing Urban Subwatershed Program Effectiveness Ratings according to Section P.6.a.i (Risk of Impact to Watershed Processes and Beneficial Uses).
- b) Trash Quantification
  - i) Baseline Trash Load (BTL) – By the end of Year 4, the Permittee shall determine the BTL in stormwater discharges from the MS4 to establish the basis for assessing the effectiveness of trash reduction efforts. The Permittee shall determine the BTL using the following formula, or an equivalent method approved by the Central Coast Water Board Executive Officer:

$$BTL = \sum [(area\ by\ land\ use) \times (TGR\ for\ the\ land\ use)]$$

- (1) Area by Land Use – The Permittee shall determine the total land area tributary to the MS4 occupied by each land use, in acres. The Permittee shall use the actual existing land use for developed parcels using aerial photography, development records, direct observation, or other means. In the case of undeveloped parcels, the Permittee shall use the zoned land use.
- (2) Trash Generation Rate (TGR) – The Permittee shall determine the (TGR) for each land use using one of the following methods, or an equivalent method approved by the Central Coast Water Board Executive Officer:

- (a) The Permittee may use the TGRs shown in Table P.1. Street acreage is considered to have a TGR equivalent to that of the adjacent land use.

Table P.1. Trash Generation Rates (TGR)<sup>15</sup>

| Land Use                               | TGR (lbs/acre/year) |
|--|---------------------|
| Commercial <sup>16</sup>               | 16.90               |
| Industrial <sup>17</sup>               | 13.45               |
| High Density Residential <sup>18</sup> | 5.98                |
| Low Density Residential <sup>19</sup>  | 3.52                |
| Open Space/Parks <sup>20</sup>         | 5.27                |

OR

- (b) The Permittee may determine TGRs per unit area by land use type through a baseline monitoring program similar to that employed by Los Angeles County for its trash baseline monitoring study.<sup>21</sup>
- (3) In the determination of applicable areas that generate trash loads for inclusion in the BTL, the Permittee may propose, with supporting documentation, areas for exclusion which do not discharge rubbish, refuse, bark, sawdust, or other solid wastes into surface waters, into the MS4, or at any place where they could eventually be conveyed to the MS4 or surface waters, including floodplain areas.
- (4) The Permittee shall determine the BTL for the entire Permit coverage area and for each Urban Subwatershed identified in Section Q.2 (Watershed Characterization: Watershed Delineation).
- ii) Trash Load Reduction – By the end of Year 4, the Permittee shall determine the annual Trash Load Reduction achieved by Trash Load Reduction activities, using the Trash Reduction Tracking Methodology developed in accordance with Section N

<sup>15</sup> TGRs used in Table P.1 were determined according to Attachment C - Trash Generation Rates by Land Use.

<sup>16</sup> Commercial includes retail stores, shopping centers and districts, restaurants, hotels, personal services, business services, financial services, movie theaters, building materials sales, and wholesale stores open to the public.

<sup>17</sup> Industrial includes automobile dealerships and repair shops, light manufacturing, distribution, warehousing, large wholesale stores not open to the public, public facilities, medical care facilities, libraries, large religious facilities, museums, community centers, public auditoriums, observatories, live indoor and outdoor theaters, convention centers, communication facilities, utility facilities (electrical, solid waste, liquid waste, water storage and water transfer, natural gas, and petroleum), educational facilities, preschools and daycare centers, trade schools (including police and fire training academies), transportation facilities (airports, railroads, freeways and major roads, park and ride lots, bus terminals and yards, truck terminals, mixed transportation, and mixed transportation and utility), mixed urban (mixed commercial, industrial, and/or residential), business parks, offices (professional, legal, medical, financial, administrative, research and development, corporate, and general business).

<sup>18</sup> High Density Residential includes all residential uses having 2 or more units per acre.

<sup>19</sup> Low Density Residential includes all residential uses having less than 2 units per acre.

<sup>20</sup> Open Space/Parks includes golf courses, local and regional parks and recreation facilities, cemeteries, wildlife preserves and sanctuaries, designated open space, botanical gardens, agriculture, and animal intensive operations.

<sup>21</sup> *Trash Baseline Monitoring Results Los Angeles River and Ballona Creek Watersheds*. County of Los Angeles Department of Public Works, Watershed Management Division, 17 February 2004. Web. 18 August 2011 <<http://dpw.lacounty.gov/wmd/TrashBaseline/links.cfm>>.

- (Trash Load Reduction: Trash Load Reduction). The Permittee shall determine the Trash Load Reduction for the entire Permit coverage area and for each Urban Subwatershed identified in Section Q.2 (Watershed Characterization: Watershed Delineation). The Permittee shall compare the Trash Load Reduction amount to the Baseline Trash Load for each Urban Subwatershed and identify Urban Subwatersheds that are significant sources of trash.
- iii) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall evaluate the effectiveness of the Trash Load Reduction Program at reducing trash discharges.
- (1) The Permittee shall identify and implement modifications to the Trash Load Reduction program that achieve increasing trash load reductions over time, and shall identify short-term and long-term quantitative objectives for Trash Load Reduction that the Permittee shall achieve, emphasizing Urban Subwatersheds identified as significant sources of trash. For modifications requiring more than 12 months for completion, the Permittee shall develop and adhere to a schedule for implementing the identified modifications.
  - (2) The Permittee shall apply information about trash conditions in each Urban Subwatershed in developing Urban Subwatershed Program Effectiveness Ratings according to Section P.6.a.i (Risk of Impact to Watershed Processes and Beneficial Uses).
- c) Runoff Volume Quantification – The Permittee shall quantify average annual runoff volume for the entire Permit coverage area and for each Urban Subwatershed identified in Section Q.2 (Watershed Characterization: Watershed Delineation). The Permittee shall use the CWP Watershed Treatment Model, the Rational Method, or equivalent simplified spreadsheet method approved by the Central Coast Water Board Executive Officer, to calculate annual runoff volume on the basis of average annual rainfall. The Permittee shall justify all assumptions used to model runoff volume and runoff volume reductions on the basis of appropriate data.
- i) Pre-developed Runoff Volume – Within 12 months of adoption of this Order, the Permittee shall quantify the average annual runoff volume for the entire Permit coverage area and for each Urban Subwatershed using Pre-developed land conditions.
  - ii) Developed Runoff Volume – Within 12 months of adoption of this Order, the Permittee shall quantify the average annual runoff volume for the entire Permit coverage area and for each Urban Subwatershed using land conditions currently existing within the Permit coverage area. The Permittee shall also quantify any runoff volume reductions associated with BMPs and other program elements. The Permittee shall justify all assumptions used to model runoff volume and BMP runoff volume reductions on the basis of appropriate data.
    - (1) Within 12 months of adoption of this Order, the Permittee shall subtract the Developed Runoff Volume from the Pre-developed Runoff Volume in each Urban Subwatershed to determine the runoff volume attributed to development in each Urban Subwatershed. The Permittee shall calculate the percent change in runoff volume in each Urban Subwatershed using the following formula:

$$\text{Percent Change in Runoff Volume} = \frac{\text{Runoff Volume Attributed to Development}}{\text{Pre-developed Runoff Volume}}$$

- (2) Within 12 months of adoption of this Order, the Permittee shall prioritize Urban Subwatersheds for runoff volume reduction improvements on the basis of the Percent Change in Runoff Volume in each Urban Subwatershed. The Permittee

shall apply this prioritization in the identification of candidate retrofit projects according to Section L.2 (Development Planning and Stormwater Retrofits: Retrofit Existing Development).

- iii) Runoff from the 24-Hour, 85<sup>th</sup> Percentile Storm Event – Within 12 months of adoption of this Order, the Permittee shall quantify the average annual runoff volume from the 24-Hour, 85<sup>th</sup> Percentile Storm Event, for the entire Permit coverage area and for each Urban Subwatershed, using land conditions currently existing within the Permit coverage area. The runoff volume determined shall take into account runoff volume reductions associated with BMPs and other program elements. The Permittee shall justify all assumptions used to model runoff volume and BMP runoff volume reductions on the basis of appropriate data.
- iv) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall recalculate the Developed Runoff Volume, the Percent Change in Runoff Volume, and the runoff from the 24-hour, 85<sup>th</sup> percentile storm event for each Urban Subwatershed using land conditions existing in the Permit coverage area at that time. The Permittee shall recalibrate the model by modifying the assumptions used to model runoff volume and BMP runoff volume reductions on the basis of data collected, runoff volume reducing retrofits, and/or other stormwater management activities. The Permittee shall justify all assumptions used to model runoff volume and BMP runoff volume reductions on the basis of appropriate data.
  - (1) The Permittee shall compare the Developed Runoff Volume determined prior to the submittal of the Permittee's Report of Waste Discharge with the Developed Runoff Volume determined in Year 1, for the Permit coverage area as a whole and for each Urban Subwatershed.
  - (2) The Permittee shall compare the runoff volume from the 24-hour, 85<sup>th</sup> percentile storm event determined prior to the submittal of the Permittee's Report of Waste Discharge with the runoff volume from the 24-hour, 85<sup>th</sup> percentile storm event determined in Year 1, for the Permit coverage area as a whole and for each Urban Subwatershed.
  - (3) The Permittee shall apply this information in developing Urban Subwatershed Program Effectiveness Ratings according to Section P.6.a.i (Risk of Impact to Watershed Processes and Beneficial Uses).

### 3) Action Levels

#### a) Urban Catchment Action Level Pilot Projects

- i) The Permittee shall conduct Urban Catchment Action Level Pilot Projects in four urban catchments within the Permit coverage area, in accordance with this Section and Attachment D - Monitoring and Reporting Program. The purpose of Urban Catchment Action Level Pilot Projects is to assess the water quality of discharges from representative urban catchments in relation to Stormwater Discharge Action Levels identified in this Order.
- ii) The Permittee shall analyze the results of samples collected and tested each year to determine the number of exceedances of any Stormwater Discharge Action Level identified in Table P.2.

Table P.2. Stormwater Discharge Action Levels

| <b>Pollutant (unit)</b>     | <b>Action Level <sup>22</sup></b> |
|-----------------------------|-----------------------------------|
| Turbidity (NTUs)            | 126                               |
| Orthophosphate (mg/L)       | 0.44                              |
| Copper total (ug/L)         | 129                               |
| Zinc total (ug/L)           | 982                               |
| Fecal Coliform (MPN/100 ml) | 13,000                            |

- iii) Beginning in Year 3, the Permittee shall implement required actions each year in response to the second exceedance within the coverage period of this Order of any Stormwater Discharge Action Level in any Urban Catchment Action Level Pilot Project catchment. If the second exceedance of any Stormwater Discharge Action Level of any constituent occurs before Year 3, the Permittee shall implement required actions in Year 3. The Permittee shall implement the following required actions in an iterative manner to reduce discharges of pollutant(s) in exceedance of Stormwater Discharge Action Levels to the MEP.
- (1) Identify potential sources of the pollutant(s) in the sampled urban catchment(s) where exceedances occurred, and evaluate the sources to determine whether they are unique to the urban catchment(s) in which the exceedances occurred or are likely to be present in other urban catchment(s) within the Permit coverage area on the basis of similar land uses, pollutant sources, and other factors.
  - (2) Prioritize potential pollutant sources for corrective action in the urban catchment(s) where the sources are likely to be present. The Permittee shall assign highest priority to sources with the greatest potential for contributing the relevant pollutant(s) to stormwater discharges.
  - (3) Evaluate the implementation and effectiveness of existing BMPs targeting the potential pollutant sources, and identify and implement, in the urban catchment(s) where the sources are likely to be present, improvements to existing BMPs that reduce the discharge of pollutant(s) from priority pollutant sources to the MEP.
  - (4) Identify and implement additional BMPs, as necessary, in all applicable urban catchment(s) where the sources are likely to be present, that reduce the discharge of pollutant(s) from priority pollutant sources to the MEP.
- iv) Absence of a detected exceedance of a Stormwater Discharge Action Level for any pollutant or condition, as described in this Section, does not indicate the absence of a water quality problem or relieve the Permittee from implementing all other required elements of this Order.
- v) This Order does not regulate natural sources and conveyances of constituents listed in Table P.2. To be relieved of the required actions for exceedances, the Permittee shall demonstrate that the likely and expected cause of the Stormwater Discharge Action Level exceedance is not anthropogenic in nature.
- b) Trash Action Level
- i) Beginning in Year 2, the Permittee shall conduct Trash Assessments each year at four sites using the most current version of the Rapid Trash Assessment Methodology (RTAM) developed by the San Francisco Bay Regional Water Quality

<sup>22</sup> Action levels for turbidity, orthophosphate, copper, zinc, and fecal coliform bacteria are derived from the 90<sup>th</sup> percentile of data contained in the National Stormwater Quality Database (see Table Fact Sheet P.2: Source Data for Stormwater Discharge Action Levels). For the purposes of this Section, the Permittee shall consider MPN/100 ml to be equivalent to colonies/100 ml.

Control Board,<sup>23</sup> or as approved by the Central Coast Water Board Executive Officer. The purpose of Trash Assessments is to assess the level of trash in the Permittee's water bodies, particularly in relation to the Trash Action Level. An additional purpose is to reduce the amount of trash in surface waterways. The Permittee shall identify a Trash Assessment Site within each location described in Table P.3 in accordance with RTAM and use the same sites for all subsequent Trash Assessments.

Table P.3. Trash Assessment Sites and Locations

| Site | Location   |
|------|--|
| 1    | Reclamation Ditch between Market St. and its confluence with Natividad Creek |
| 2    | Reclamation Ditch between Victor St and N. Davis Rd.                         |
| 3    | Gabilan Creek between Constitution Blvd. and E. Laurel Dr.                   |
| 4    | Natividad Creek between Garner Ave. and E. Laurel Dr.                        |

- (1) Dry Weather Assessment – The Permittee shall assess and collect trash at each site listed in Table P.3 each year between August 1 and September 30, beginning within 12 months of adoption of this Order.
  - (2) Rainy Season Assessment – The Permittee shall, in addition to dry season assessment and collection, assess and collect trash at each site listed in Table P.3 each year between February 1 and March 30, beginning within 12 months of adoption of this Order.
- ii) The Trash Action Level at all sites is defined as a RTAM Trash Assessment Score of 79 points, or equivalent.
  - iii) Beginning in Year 3, the Permittee shall implement required actions each year in response to any Trash Assessment at any Trash Assessment Site that results in a Trash Assessment Score below the Trash Action Level. The Permittee shall implement the following required actions in an iterative manner to reduce discharges of trash to the MEP.
    - (1) Identify potential sources of trash in the Urban Subwatersheds tributary to the Trash Assessment Site where the Trash Assessment Score fell below the Trash Action Level, and evaluate the sources to determine whether they are unique to the Urban Subwatersheds tributary to the assessment site or are likely to be present in other Urban Subwatersheds within the Permit coverage area on the basis of similar land uses, pollutant sources, and other factors.
    - (2) Prioritize potential trash sources for corrective action in the Urban Subwatersheds where the sources are likely to be present. The Permittee shall assign highest priority to sources with the greatest potential for contributing trash to stormwater discharges.
    - (3) Evaluate the implementation and effectiveness of existing BMPs targeting trash, and identify and implement, in the Urban Subwatersheds where the sources are likely to be present, improvements to existing BMPs that reduce trash in stormwater discharges to the MEP.
    - (4) Identify and implement additional BMPs, as necessary, in all applicable Urban Subwatersheds where the sources are likely to be present, that reduce trash in stormwater discharges to the MEP.

<sup>23</sup> *Rapid Trash Assessment Protocol, Version 8*. San Francisco Bay Regional Water Quality Control Board; Surface Water Ambient Monitoring Program, 15 November 2004. Web. 17 August 2011.

- iv) The Permittee shall collect all visible trash detected in the Trash Assessment Site during each assessment.
- v) Throughout the duration of this Order, the Permittee shall not conduct any trash collection activities within the boundaries of any of the locations, defined in Table P.3, except for trash collection within the Trash Assessment Site associated with Trash Assessments required in this Section.
- vi) Absence of a Trash Assessment Score below the Trash Action Level at any Trash Assessment Site, as described in this Section, does not indicate the absence of a water quality problem or relieve the Permittee from implementing all other required elements of this Order.
- vii) The Permittee shall obtain authorization from the Monterey County Water Resources Agency to conduct Trash Assessments in locations in the Reclamation Ditch. As an alternative to obtaining authorization, or if the Permittee is not able to obtain authorization in order to conduct Year 2 Trash Assessments, the Permittee shall annually remove from the MS4, or from areas likely to discharge to the MS4, the amount of trash and litter equivalent to that generated by 20% of the commercial and industrial land area in the Permit coverage area.
  - (1) For the purposes of this requirement, trash and litter shall be defined as any improperly discarded waste material, in accordance with California Government Code Section 68055.1(g).
  - (2) The Permittee shall use the methodology developed according to Section P.2.b (Trash Quantification) to determine the amount of trash that is equivalent to that generated by 20% of the commercial and industrial land area in the Permit coverage area.
  - (3) The Permittee may use any lawful means for trash and litter removal, including structural and non-structural mechanisms, except that the Permittee shall not count trash and litter collected by means of street sweeping or catch basin cleaning activities toward achievement of the trash and litter removal objective.<sup>24</sup> Trash and litter shall be removed from the MS4 and disposed of properly to count toward compliance with this trash capture requirement.
  - (4) The Permittee shall achieve the required trash load reduction each year beginning in Year 5.
  - (5) The Permittee shall remove captured trash from the MS4 and dispose of it properly.
  - (6) The Permittee shall develop a tracking methodology, similar to that developed in accordance with Section N.4 (Trash Reduction Tracking Methodology) that is capable of demonstrating compliance with this trash load reduction requirement. The Permittee shall count only trash that is removed from the MS4 and disposed of properly toward compliance with this trash load reduction requirement. The tracking methodology shall clearly state and/or describe the trash and litter removal activities the Permittee shall count toward compliance.
  - (7) The Permittee shall continue to conduct Trash Assessments in Gabilan Creek and Natividad Creek in accordance with Section P.3.b.

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<sup>24</sup> Consistent with the definition contained in California Government Code Section 68055.1(g), only removal of "improperly discarded waste material" shall be counted toward compliance with the trash load reduction requirement. Trash placed in residential garbage cans and commercial garbage bins and removed as part of regular waste management activities shall not qualify as improperly discarded waste material. However, trash and litter placed in receptacles installed by the Permittee during the term of this Order for the purpose of preventing litter (e.g., trash receptacles on downtown commercial and/or business district sidewalks) may be counted.



- 4) Stormwater Discharge Quality Monitoring
  - a) The Permittee shall conduct stormwater discharge quality monitoring according to the requirements of this Section. The Permittee may propose an alternative stormwater discharge quality monitoring program that is equivalent or better for approval by the Central Coast Water Board Executive Officer.
  - b) Urban Catchment Action Level Pilot Projects Monitoring – The Permittee shall conduct Urban Catchment Action Level Pilot Projects Monitoring in accordance with Attachment D - Monitoring and Reporting Program.
  - c) Stormwater Discharge Trend Monitoring
    - i) The Permittee shall conduct Stormwater Discharge Trend Monitoring in accordance with Attachment D - Monitoring and Reporting Program.
    - ii) The Permittee shall determine event mean average concentrations and total loads of measured pollutants for each parameter listed in Table Attachment D.3 (Stormwater Discharge Trend Monitoring Parameters) for each sampling event.
      - (1) The Permittee shall use Stormwater Discharge Trend Monitoring results to modify the assumptions used to model pollutant loads and BMP pollutant reductions according to Section P.2.a (Pollutant Load Quantification).
  - d) Prior to the submittal of the Permittee’s Report of Waste Discharge, the Permittee shall analyze Stormwater Discharge Quality Monitoring data for stormwater discharge quality trends. The Permittee’s analysis shall include the following elements, at a minimum:
    - (1) Assessment of water quality trends, using nonparametric approaches such as the Mann-Kendall test, multiple regression models including exogenous variables (e.g., precipitation, flow), or other applicable statistical approaches, for each parameter listed in Table Attachment D.3 (Stormwater Discharge Trend Monitoring Parameters), where supported by the data;
    - (2) Evaluation of stormwater discharge water quality pollutant loads, concentrations, and trends generated through Urban Catchment Action Level Pilot Projects Monitoring and Stormwater Discharge Trend Monitoring, relative to upstream land uses, population, sources, and stormwater management activities, using tools such as multiple linear regression, correlation analysis, and/or other applicable univariate and multivariate statistical approaches;
    - (3) Assessment of the time-based relationship between precipitation (rainfall hyetograph) and discharge (runoff hydrograph);
    - (4) Extrapolation of the results of analysis of Stormwater Discharge Trend Monitoring data to other Urban Subwatersheds, as appropriate; and
    - (5) Conclusions.
  - e) The Permittee shall apply the results of analysis of Stormwater Discharge Trend Monitoring data in developing Urban Subwatershed Program Effectiveness Ratings according to Section P.6.a.i (Risk of Impact to Watershed Processes and Beneficial Uses).
- 5) Receiving Water Monitoring and Background Receiving Water Monitoring
  - a) The Permittee shall conduct Receiving Water Monitoring and Background Receiving Water Monitoring in accordance with Attachment D - Monitoring and Reporting Program. The Permittee may propose an alternative receiving water monitoring program that is equivalent or better for approval by the Central Coast Water Board Executive Officer.
  - b) The Permittee shall determine event mean average concentrations and total loads of measured pollutants at each Receiving Water Monitoring site and each Background Receiving Water Monitoring site for each sampling event. The Permittee shall also determine the change in pollutant load between the Background Receiving Water

- Monitoring sites and the Receiving Water Monitoring site for each sampling event for each of the following parameters: nitrate plus nitrite (as N), orthophosphate, zinc (total), copper (total), and fecal coliform.
- c) Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall analyze Receiving Water Monitoring and Background Receiving Water Monitoring data for receiving water quality trends. The Permittee's analysis shall include the following elements, at a minimum:
    - i) An analysis of Receiving Water Monitoring results over the term of this Order, including identification and discussion of short-term patterns and long-term trends in receiving water quality and beneficial use protection;
    - ii) Assessment of trends in the change in pollutant load between the Background Receiving Water Monitoring sites and the Receiving Water Monitoring site for the identified parameters;
    - iii) An evaluation of all pesticide and toxicity analyses results;
    - iv) An evaluation of all bioassessment results;
    - v) Extrapolation of the results of analysis to other receiving waters, as appropriate; and
    - vi) Conclusions.
  - d) The Permittee shall apply the results of analysis of Receiving Water Monitoring data in developing Urban Subwatershed Program Effectiveness Ratings according to Section P.6.a.i (Risk of Impact to Watershed Processes and Beneficial Uses).
- 6) Program Effectiveness Rating – Prior to the submittal of the Permittee's Report of Waste Discharge, the Permittee shall rate the overall effectiveness of the Stormwater Management Program in protecting, maintaining, and/or restoring beneficial uses and watershed processes affected by urban runoff.
- a) For each Urban Subwatershed delineated per Section Q.2 (Watershed Characterization: Watershed Delineation), the Permittee shall evaluate the full array of information collected, compiled, and managed per this Order to establish an Urban Subwatershed Program Effectiveness Rating. The Urban Subwatershed Program Effectiveness Ratings shall be based on risk of impact to, and degree of alteration of, watershed processes and beneficial uses in each Urban Subwatershed.
    - i) Risk of Impact to Watershed Processes and Beneficial Uses – The Permittee shall evaluate risk of impact to dominant watershed processes (identified through the Central Coast Joint Effort for Hydromodification Criteria) and beneficial uses for each of the Permittee's Urban Subwatersheds. The Permittee shall establish a single gradient of risk from low to high, based on information collected and developed on an Urban Subwatershed basis per this Order. The Permittee shall identify where each Urban Subwatershed is located on the gradient of risk in relation to all other Urban Subwatersheds, based on a combined evaluation of the following attributes and characteristics:
      - (1) Stormwater Pollutant Source-Generating Land Uses and Sites – The Permittee shall quantitatively evaluate information developed and tracked for each Urban Subwatershed per this Order, including the following:
        - (a) Municipally Owned and/or Operated High Priority Facilities, Operations, and Events;
        - (b) IDDE Priority Areas;
        - (c) Commercial and Industrial Facilities and Operations (including: Food Facilities; fast food restaurants and commercial retail center trash level scores; and Other Commercial and Industrial Facilities and Operations;
        - (d) Industrial Sites/Sources, including sites/sources and the number of reported exceedances reported each year at industrial facilities; and

- (e) High Priority Construction Sites.
- (2) Pollutant Load Quantification. The Permittee shall:
  - (a) Evaluate Urban Subwatershed pollutant loads developed according to Sections P.2.a (Pollutant Load Quantification), P.2.b (Trash Quantification), P.4.c (Stormwater Discharge Trend Monitoring), and P.4.d.2;
  - (b) Use Action Level exceedance data, developed according to Section P.3.a (Urban Catchment Action Level Pilot Projects), to attempt to extrapolate target pollutants and loading characteristics from Pilot Project Urban Subwatersheds to other Urban Subwatersheds;
  - (c) Use extrapolation of Stormwater Discharge Trend Monitoring data, developed according to Sections P.4.c (Stormwater Discharge Trend Monitoring) and P.4.d, to estimate target pollutants and loading characteristics to other Urban Subwatersheds; and
  - (d) Identify Urban Subwatersheds that are significant sources of trash.
- (3) Exposure of Receiving Waters to Pollutant Delivery – The Permittee shall evaluate exposure, including:
  - (a) Urban Subwatershed runoff volume attributed to development;
  - (b) Distribution and number of outfalls and channels conveying stormwater, plugs and diversions, and related attributes of the MS4 that indicate exposure; and
  - (c) Receiving Water and Background Receiving Water Monitoring data.
- (4) Zones of Hydrologic Continuity between Surface and Groundwater – The Permittee shall consider the location and condition of undeveloped, pervious land, groundwater recharge areas, floodplains and other areas that provide direct routes for surface runoff to enter groundwater basins.
- (5) Development Potential – The Permittee shall quantify the number of acres of undeveloped parcels zoned for developed (non-open space) uses.
- ii) Extent and Degree of Alteration of Watershed Processes and Beneficial Uses – The Permittee shall evaluate the extent and degree of alteration of dominant watershed processes (identified through the Central Coast Joint Effort for Hydromodification Criteria) and beneficial uses for each of the Permittee’s Urban Subwatersheds. The Permittee shall establish a single gradient of alteration from low to high, based on information collected and developed on an Urban Subwatershed basis per this Order. The Permittee shall identify where each Urban Subwatershed is located on the gradient of alteration in relation to all other Urban Subwatersheds, based on a combined evaluation of the following attributes and characteristics:
  - (1) Imperviousness – The Permittee shall evaluate imperviousness, as determined per this Order, in terms of both total area, and percentage of total Urban Subwatershed area;
  - (2) Existing and Potential Extent of Riparian Habitat and Vegetation – The Permittee shall evaluate areal extent and condition of existing riparian habitat and vegetation, relative to potential riparian habitat and vegetation associated with all first and second order streams developed per this Order; and
  - (3) Stream Condition – The Permittee shall evaluate, on an Urban Subwatershed basis, totals of stream area and/or length in various conditions as determined by the assessment of stream condition required per this Order.
- b) The Permittee shall develop and apply the Urban Subwatershed Program Effectiveness Rating by integrating, combining, or otherwise synthesizing the data and information developed according to Section P.6 (Program Effectiveness Rating) on Urban Subwatershed status in a consistent manner.

- i) Based on where each Urban Subwatershed is located on the gradients of risk of impact to, and degree of alteration of, watershed processes and beneficial uses, the Permittee shall group each Urban Subwatershed into one of four categories:
    - (1) Low Risk/Low Alteration;
    - (2) Low Risk/High Alteration;
    - (3) High Risk/Low Alteration; and
    - (4) High Risk/High Alteration.
  - ii) These categories will be the Urban Subwatershed Program Effectiveness Ratings, unless the Permittee develops an alternative rating system and receives approval from the Central Coast Water Board Executive Officer to use it.
- 7) Program Improvement Needs – In the preparation of the Permittee’s Report of Waste Discharge, the Permittee shall use the Urban Subwatershed Program Effectiveness Rating as the basis for identifying and reporting on Stormwater Management Program improvements needed to effectively manage the effects of urban stormwater on beneficial uses and watershed processes. For each Urban Subwatershed, the Permittee shall:
- a) Identify specific watershed processes targeted for improvement.
  - b) Demonstrate that proposed program improvements are adequately targeting Urban Subwatersheds with effectiveness ratings that combine higher risk of alteration and lower degrees of alteration of watershed processes.
  - c) Establish measureable goals for improving targeted watershed processes. For dominant watershed processes, the Permittee shall establish appropriate measurable goals derived from the following:
    - i) Surface Runoff – Maintain runoff volume, rate, duration, and surface storage at pre-development levels;<sup>25</sup>
    - ii) Groundwater Recharge and Discharge – Maintain infiltration to support baseflow and interflow to wetlands and surface waters, and deep vertical infiltration to groundwater at pre-development levels;
    - iii) Sediment Processes – Maintain hillslope (e.g., rilling, gullying, sheetwash, creep, and other mass movements); riparian (e.g., bank erosion); and channel (e.g., fluvial transport and deposition) processes within natural ranges;
    - iv) Chemical Processes – Maintain capacity of watershed to attenuate the effect of water quality constituents on beneficial uses in receiving waters at pre-development levels; and
    - v) Evapotranspiration – Maintain evapotranspiration volume and rate at pre-development levels.
  - d) Identify improvements in the following program areas necessary to achieve measurable goals:
    - i) Municipal Maintenance;
    - ii) Commercial and Industrial;
    - iii) Residential;
    - iv) Illicit Discharge Detection and Elimination;
    - v) Parcel-Scale Development;
    - vi) Construction Site Management;
    - vii) Development Planning and Stormwater Retrofits;
    - viii) Public Education and Public Involvement; and
    - ix) Trash Load Reduction.

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<sup>25</sup> Numeric criteria shall identify the point in hydrologic history (i.e., pre-development, pre-project, or somewhere in between) for which the applicant shall design the site, if the pre-development condition is not realistic.

## 8) Reporting

- a) In each Annual Report, the Permittee shall include the following:
  - i) The total amount of pesticide, herbicide, and fertilizer applied within 7 days prior to all rain events that produce runoff, as well as the total amount of each product or primary chemical constituent of each type;
  - ii) A tabular summary of all information recorded and tracked according Section P.1.b.iv (Riparian Protection);
  - iii) Monitoring
    - (1) A tabular summary of event mean average concentrations and total loads of measured pollutants determined for Stormwater Discharge Trend Monitoring for each sampling event;
    - (2) A tabular summary of event mean average concentrations and total loads of measured pollutants at each Receiving Water Monitoring site and each Background Receiving Water Monitoring site for each sampling event; and
    - (3) A tabular summary changes in pollutant load between the Background Receiving Water Monitoring sites and the Receiving Water Monitoring site for each sampling event for the identified parameters.
- b) In the Year 1 Annual Report, the Permittee shall include the following:
  - i) Pollutant Load Quantification
    - (1) A description of the model used for Pollutant Load Quantification, including a discussion of all assumptions used to quantify pollutant loads and pollutant load reductions;
    - (2) A summary of the results of Pollutant Load Quantification, including annual loads calculated for each pollutant for the entire Permit coverage area and for each Urban Subwatershed;
  - ii) Runoff Volume Quantification
    - (1) A description of the model used to quantify Pre-developed and Developed Runoff Volume, including a discussion of all assumptions used to quantify runoff volume and runoff volume reductions;
    - (2) The Pre-developed Runoff, Developed Runoff before subtracting runoff volume reductions, and Developed Runoff after subtracting runoff volume reductions for the Permit coverage area as a whole and for each Urban Subwatershed;
    - (3) The Percent Change in Runoff Volume for each Urban Subwatershed, including identification of Urban Watersheds that are high priority for runoff volume reduction improvements; and
    - (4) The runoff from the 24-hour, 85<sup>th</sup> percentile storm event, determined according to Section P.2.c.iii (Runoff from the 24-Hour, 85<sup>th</sup> Percentile Storm Event), for the Permit coverage area as a whole and for each Urban Subwatershed.
- c) In the Year 2 Annual Report, the Permittee shall include the following:
  - i) A description of the Permittee's plan for assessing the effectiveness of public education and municipal staff training efforts, including identification of quantitative assessment measures the Permittee will use;
  - ii) The number of exceedances reported for industrial facilities through SMARTS for Years 1 and 2 per annual report submitted through SMARTS in Years 1 and 2, and identification of the Target Pollutant;
  - iii) Trash Action Level
    - (1) A detailed description of each Trash Assessment Site, including a description of how the Permittee marked each site to ensure that subsequent Trash Assessments are conducted on the same site; and

- (2) A description of steps the Permittee took during Year 1, and will take throughout the coverage period of this Order, to prevent the Trash Assessment Locations from being subject to any trash collection activities except for trash collection associated with Trash Assessments.
- d) In the Year 2 Annual Report and each subsequent Annual Report, the Permittee shall include the following:
  - i) Structural BMPs
    - (1) Verification that all structural BMPs were found to have a BMP RAM score of at least the required minimum, or have been maintained as necessary to achieve at least the minimum score;
    - (2) A description of the process used to evaluate the effectiveness of structural BMP maintenance efforts at maintaining all structural BMPs at the required level, and the results of this evaluation;
    - (3) A description of program modifications made to ensure that all structural BMPs are maintained at the required level;
  - ii) Pesticide, Herbicide, and Fertilizer Use
    - (1) The change from year to year in the total amount of pesticide, herbicide, and fertilizer applied within 7 days prior to rain events that produce runoff, as well as the total amount applied of each product or primary chemical constituent of each type;
    - (2) A description of the process used to evaluate the effectiveness of efforts to reduce the amount of pesticide, herbicide, and fertilizer applied within seven days prior to rain events, the results of the evaluation, a description of program modifications the Permittee will implement to achieve such decreasing trends, and the schedule the Permittee will follow to implement the modifications;
  - iii) The number of industrial facilities that reported data through SMARTS, the total number of exceedances of each reported pollutant, and the average number of exceedances per industrial facility reporting;
  - iv) Urban Catchment Action Level Pilot Projects
    - (1) A tabular summary of monitoring results from each monitored urban catchment for each monitoring event;
    - (2) A tabular summary of Stormwater Discharge Action Level exceedances, including the number of exceedances of each Stormwater Discharge Action Level detected at each monitored urban catchment over the coverage period of this Order, and identification of each Stormwater Discharge Action Level exceeded at least twice at any monitored urban catchment;
  - v) Trash Action Level
    - (1) A summary of Trash Assessment results, including Trash Assessment Scores for each assessment conducted at each site and identification of scores that fall below the Trash Action Level;
    - (2) Verification that the Permittee removed all visible trash during each assessment at each Trash Assessment Site; and
    - (3) Verification that the Permittee did not remove any trash from within the boundaries of any Trash Assessment Location except for trash collection within the Trash Assessment Site associated with required Trash Assessments.
- e) In the Year 3 Annual Report, the Permittee shall include the following:
  - i) A description of the process used to evaluate the effectiveness of public education and municipal staff training BMPs, including a description of BMPs evaluated, the results of the evaluation, a description of BMP modifications identified by the Permittee to achieve increasing changes in knowledge and behavior of specific

- target audiences, and the schedule the Permittee will follow to implement the modifications; and
- ii) A description of the process used to evaluate the effectiveness of the Permittee's efforts to reduce discharges of the Target Pollutant, including a summary of the assessment of adequacy of existing BMPs, identification of BMP modifications and/or additions the Permittee will implement to exceedances of the Target Pollutant, the specific objective of each BMP modification and/or addition, and the schedule the Permittee will follow to implement the modifications.
- f) In the Year 3 Annual Report and each subsequent Annual Report, the Permittee shall include the following:
- i) Inspections
    - (1) A description of the process used to analyze Inspection Ratings determined during inspections of High Priority Municipal Facilities, Operations, and Events and to evaluate the effectiveness of Permittee's efforts at achieving an Inspection Rating of "B" or higher at each inspection of each High Priority Municipal Facility, Operation, and Event, including the results of the evaluation;
    - (2) A description of the process used to analyze Inspection Ratings determined during inspections of Commercial and Industrial Facilities and Operations and to evaluate the effectiveness of Permittee's efforts at achieving an Inspection Rating of "B" or higher at each inspection of each Commercial and Industrial Facility and Operation, including the results of the evaluation;
    - (3) A description of the process used to analyze Inspection Ratings determined during inspections of fast food restaurants and commercial retail centers and to evaluate the effectiveness of Permittee's efforts at achieving an Inspection Rating of "B" or higher at each inspection of each fast food restaurant and commercial retail center, including the results of the evaluation;
    - (4) A description of the process used to analyze Inspection Ratings determined during inspections of High Priority Construction Sites and to evaluate the effectiveness of Permittee's efforts at achieving an Inspection Rating of "B" or higher at each inspection of each High Priority Construction Site, including the results of the evaluation;
    - (5) A description of the process used to analyze improvements in Inspection Ratings achieved through reinspection of Low Performing High Priority Municipal Facilities and Operations each year and to evaluate the effectiveness of follow-up efforts at achieving demonstrable improvements in Inspection Ratings at Low Performing High Priority Municipal Facilities, Operations, and Events, including the results of the evaluation;
    - (6) A description of the process used to analyze improvements in Inspection Ratings achieved through reinspection of Low Performing Commercial and Industrial Facilities and Operations each year and to evaluate the effectiveness of follow-up efforts at achieving demonstrable improvements in Inspection Ratings at Low Performing Commercial and Industrial Facilities and Operations, including the results of the evaluation;
    - (7) A description of the process used to analyze improvements in Inspection Ratings achieved through reinspection of low performing fast food restaurants and commercial retail centers each year and to evaluate the effectiveness of follow-up efforts at achieving demonstrable improvements in Inspection Ratings at low performing fast food restaurants and commercial retail centers, including the results of the evaluation;
  - ii) A description of the process used to evaluate whether the catch basin inspection and cleaning program is achieving optimal removal of sediment and debris, including the

- method used to evaluate the effectiveness of the program, the results of the evaluation, and a description of any BMP modifications identified by the Permittee;
- iii) The results of the comparison of the total volume of solids collected each dry season for the 24 routes identified in Section E.6.c with the total volume of solids collected in Year 1 and Year 2;
  - iv) A description of progress made implementing modifications to BMPs related to municipal pesticide, herbicide, and fertilizer use according to the schedule developed according to Section P.1.b.ii.4 (Pesticide, Herbicide, and Fertilizer Use);
  - v) Urban Catchment Action Level Pilot Projects -- A description of all actions taken in response to the second exceedance of any Stormwater Discharge Action Level, including the following:
    - (1) A description of known and potential sources of the relevant pollutant in the urban catchment(s) where the exceedances occurred;
    - (2) Identification of all urban catchment(s) where sources are likely to be present, and in which the Permittee will be taking required actions, including a discussion of the reasons for so identifying each urban catchment;
    - (3) The prioritized list of actions proposed by the Permittee to address identified sources;
    - (4) A description of steps taken to evaluate the implementation and effectiveness of existing BMPs in urban catchment(s) where sources are likely to be present;
    - (5) A description of improvements to existing BMPs the Permittee identified and will implement to reduce the pollutant(s) in stormwater discharges to the MEP standard;
    - (6) A description of additional BMPs the Permittee considered to improve program effectiveness and reduce the discharge of the pollutant(s) in stormwater discharges to the MEP standard, and a list of additional BMPs, if any, selected by the Permittee for implementation; and
    - (7) Demonstration that the BMP modifications and/or additions will be effective at reducing the discharge of the pollutant(s) to the MEP standard;
  - vi) Trash Action Level – A description of all actions taken in response to Trash Assessment Scores that fall below the Trash Action Level at any site, including the following:
    - (1) A description of known and potential sources of trash in the Urban Subwatersheds tributary to the receiving water reach in which the Trash Assessment Score fell below the Trash Action Level;
    - (2) Identification of all Urban Subwatersheds where sources are likely to be present, and in which the Permittee will be taking required actions, including a discussion of the reasons for so identifying each Urban Subwatershed;
    - (3) The prioritized list of actions proposed by the Permittee to address identified sources;
    - (4) A description of steps taken to evaluate the implementation and effectiveness of existing BMPs in Urban Subwatersheds where sources are likely to be present;
    - (5) A description of improvements to existing BMPs the Permittee identified and will implement to reduce trash in stormwater discharges to the MEP standard;
    - (6) A description of additional BMPs the Permittee considered to improve program effectiveness and reduce trash in stormwater discharges to the MEP standard, and a list of additional BMPs, if any, selected by the Permittee for implementation; and
    - (7) Demonstration that the BMP modifications and additions will be effective at reducing trash discharges to the MEP standard.
  - g) In the Year 4 Annual Report, the Permittee shall include the following:



- i) A description of the process used to analyze the volume of solids removed from catch basins in each Urban Subwatershed and identification of the two Urban Subwatersheds with the most solids removed;
- ii) Trash Quantification
  - (1) A discussion of Trash Generation Rates used;
  - (2) A description of areas proposed for exclusion from Baseline Trash Load calculations, including the justification for their exclusion;
  - (3) A description of the method used to calculate the Baseline Trash Load, including a discussion of Trash Generation Rates used and the acreage of each land use;
  - (4) The Baseline Trash Load for the entire Permit coverage area and for each Urban Subwatershed;
  - (5) The annual Trash Load Reduction for the entire Permit coverage area and for each Urban Subwatershed;
  - (6) A summary of the comparison of the annual Trash Load Reduction with the Baseline Trash Load, for the entire Permit coverage area and for each Urban Subwatershed; and
  - (7) Identification of Urban Subwatersheds identified as significant sources of trash.
- h) In the Year 4 Annual Report and each subsequent Annual Report, the Permittee shall include the following:
  - i) Inspections
    - (1) The results of the comparison of Inspection Ratings determined during inspections of High Priority Municipal Facilities, Operations, and Events each year with Inspection Ratings determined during previous years; a description of the process used to evaluate the effectiveness of the Permittee's efforts at improving Inspection Ratings over time for High Priority Municipal Facilities, Operations, and Events; the results of the evaluation; a description of BMP modifications the Permittee will implement to achieve increasing Inspection Ratings over time at High Priority Municipal Facilities, Operations, and Events; and the schedule the Permittee will follow to implement the modifications;
    - (2) The results of the comparison of Inspection Ratings determined during inspections of Commercial and Industrial Facilities and Operations each year with Inspection Ratings determined during previous years, a description of the process used to evaluate the effectiveness of the Permittee's efforts at improving Inspection Ratings over time for Commercial and Industrial Facilities and Operations, the results of the evaluation, a description of BMP modifications the Permittee will implement to achieve increasing Inspection Ratings over time at Commercial and Industrial Facilities and Operations, and the schedule the Permittee will follow to implement the modifications;
    - (3) The results of the comparison of Inspection Ratings determined during inspections of fast food restaurants and commercial retail centers each year with Inspection Ratings determined during previous years, a description of the process used to evaluate the effectiveness of the Permittee's efforts at improving Inspection Ratings over time for fast food restaurants and commercial retail centers, the results of the evaluation, a description of BMP modifications the Permittee will implement to achieve increasing Inspection Ratings over time at fast food restaurants and commercial retail centers, and the schedule the Permittee will follow to implement the modifications;
    - (4) The results of the comparison of Inspection Ratings determined during inspections of High Priority Construction Sites each year with Inspection Ratings determined during previous years, a description of the process used to evaluate the effectiveness of the Permittee's efforts at improving Inspection Ratings over

- time for High Priority Construction Sites, the results of the evaluation, a description of BMP modifications the Permittee will implement to achieve increasing Inspection Ratings over time at High Priority Construction Sites, and the schedule the Permittee will follow to implement the modifications;
- (5) The average increase in Inspection Rating achieved through reinspection of Low Performing High Priority Municipal Facilities and Operations, the results of the comparison of this average increase with the average increase achieved in previous years, a description of BMP modifications the Permittee will implement to achieve an increasing trend over time in the degree of improvement achieved through reinspection of Low Performing High Priority Municipal Facilities and Operations, and the schedule the Permittee will follow to implement the modifications;
  - (6) The average increase in Inspection Rating achieved through reinspection of Low Performing Commercial and Industrial Facilities and Operations, the results of the comparison of this average increase with the average increase achieved in previous years, a description of BMP modifications the Permittee will implement to achieve an increasing trend over time in the degree of improvement achieved through reinspection of Low Performing Commercial and Industrial Facilities and Operations, and the schedule the Permittee will follow to implement the modifications;
  - (7) The average increase in Inspection Rating achieved through reinspection of low performing fast food restaurants and commercial retail centers, the results of the comparison of this average increase with the average increase achieved in previous years, a description of BMP modifications the Permittee will implement to achieve an increasing trend over time in the degree of improvement achieved through reinspection of low performing fast food restaurants and commercial retail centers, and the schedule the Permittee will follow to implement the modifications;
  - (8) The results of the comparison of the percentage of High Priority Construction Sites that were ready for each rain event each year with the percentage of High Priority Construction Sites that were ready for each rain event in previous years, a description of the process used to evaluate the effectiveness of construction site management BMPs at increasing the percentage of High Priority Construction Sites ready for each rain event over time, the results of the evaluation, a description of BMP modifications identified and implemented to achieve an increasing trend in the percentage of High Priority Construction Sites ready for each rain event over time, and the schedule the Permittee will follow to implement the modifications;
- ii) A description of progress made implementing any modifications to the catch basin inspection and cleaning program identified by the Permittee to achieve optimal sediment and debris removal; and
  - iii) Verification that the Permittee implemented modifications and/or additions to the Commercial and Industrial Program to reduce exceedances of the Targeted Pollutant in stormwater discharges from industrial facilities.
- i) The Permittee shall submit the following items with the Report of Waste Discharge:
    - i) A description of the process used to evaluate the effectiveness of public education and municipal staff training BMPs, including a description of BMPs evaluated, the results of modifications identified and implemented subsequent to Year 2, and the results of the evaluation;
    - ii) A description of the process used to analyze and identify potential sources of sediment to the MS4 in the two Urban Subwatersheds identified according to Section

- P.1.b.ii.1 (Catch Basin Cleaning), a description of sediment sources identified, a description of the process used to evaluate the effectiveness of BMPs at controlling sediment discharges to the MS4 in the two identified Urban Subwatersheds; a description of BMP modifications the Permittee will implement to control sediment discharges, and the schedule the Permittee will follow to implement the modifications;
- iii) A description of the process used to analyze information collected according to Section E.6.b in preceding years, including a summary of the information and modifications to the sweeping schedule proposed by the City to optimize the total volume of solids collected during the dry season for all routes for the same total number of route miles;
  - iv) A description of the process used to evaluate the effectiveness of BMP modifications and/or additions at reducing exceedances of the Target Pollutant, including the number of exceedances of the Target Pollutant reported in Year 5 per industrial facility reporting in Year 5, a discussion of the specific objectives of BMP modifications and/or additions selected, a summary of the reasons each modification was (or was not) able to achieve its intended objective, and verification of whether the number of exceedances of the Target Pollutant per annual report submitted increased or decreased;
  - v) Riparian Protection
    - (1) The total area of encroachment permitted into riparian buffers established by this Order, for the Permit coverage area as a whole and for each Urban Subwatershed;
    - (2) The total amount of riparian area created, restored, or enhanced as mitigation for the permitted encroachments, for the Permit coverage area as a whole and for each Urban Subwatershed;
    - (3) A tabular summary of the results of inspection of each riparian area created, restored, or enhanced as mitigation for the permitted encroachments, including the size and quality of each mitigation area compared with the original mitigation requirements and the value of the riparian area lost or damaged by the permitted encroachment, whether each mitigation area complies with the original mitigation requirements, and whether each mitigation area successfully replaces the riparian values lost or damaged;
    - (4) A description of the evaluation of the development planning and review process at protecting riparian habitat, including an analysis of the number and scope of exceptions, exemptions, and variances permitted, the amount of riparian area lost or reduced in quality, and potential impacts to water quality and beneficial uses from the encroachments;
  - vi) Identification of modifications to program BMPs needed to achieve measurable goals for improving targeted watershed processes according to Section P.7 (Program Improvement Needs);
  - vii) Pollutant Load Quantification
    - (1) A discussion of all assumptions used to quantify pollutant loads and pollutant load reductions, including a discussion of how Stormwater Discharge Trend Monitoring data and other data collected according to this Section were used to modify the assumptions;
    - (2) A discussion of the results of Pollutant Load Quantification, including annual loads calculated for each pollutant for the entire Permit coverage area and for each Urban Subwatershed;
    - (3) A comparison of annual loads calculated prior to the submittal of the Permittee's Report of Waste Discharge with annual loads calculated in Year 1;

## viii) Trash Quantification

- (1) A description of short-term and long-term Trash Load Reduction objectives developed according to Section P.2.b (Trash Quantification);
- (2) A description of the process used to evaluate the effectiveness of the Trash Load Reduction program at achieving increasing trash load reductions over time, the results of the evaluation, and a description of program modifications the Permittee will implement to achieve such a decreasing trend over time, and the schedule the Permittee will follow to implement the modifications;

## ix) Runoff Volume Quantification

- (1) A description of the model used to quantify Developed Runoff Volume according to Section P.2.c (Runoff Volume Quantification), including a discussion of all assumptions used to quantify runoff volume and runoff volume reductions;
- (2) The Pre-developed Runoff, Developed Runoff before subtracting runoff volume reductions, and Developed Runoff after subtracting runoff volume reductions for the Permit coverage area as a whole and for each Urban Subwatershed;
- (3) The Percent Change in Runoff Volume for each Urban Subwatershed;
- (4) The change in Developed Runoff Volume, including volume reductions associated with BMPs and other program elements, over time for the Permit coverage area as a whole and for each Urban Subwatershed;
- (5) The runoff volume from the 24-hour, 85<sup>th</sup> percentile storm event, determined according to Section P.2.c (Runoff Volume Quantification), for the Permit coverage area as a whole and for each Urban Subwatershed;
- (6) The change in runoff volume from the 24-hour, 85<sup>th</sup> percentile storm event, including volume reductions associated with BMPs and other program elements, over time for the Permit coverage area as a whole and for each Urban Subwatershed;

## x) Stormwater Discharge Trend Monitoring

- (1) A description of the process used to analyze Stormwater Discharge Trend Monitoring data for stormwater discharge quality trends, including identification of stormwater discharge trends for each parameter;
- (2) A discussion of the time-based relationship between precipitation and discharge;
- (3) A description of the process used to evaluate stormwater discharge water quality pollutant loads, concentrations, and trends relative to upstream land uses, population, sources, and stormwater management activities, including identification and discussion of the results of the evaluation;
- (4) A description of the process used to extrapolate the results of Stormwater Discharge Trend Monitoring data to other Urban Subwatersheds, including identification and discussion of target pollutants and loading characteristics from other Urban Subwatersheds suggested by the extrapolation;
- (5) A discussion of conclusions reached;

## xi) Receiving Water and Background Receiving Water Monitoring

- (1) A description of the process used to analyze Receiving Water Monitoring data for trends in receiving water quality and beneficial use protection, including identification of water quality trends for each parameter, if any;
- (2) A description of the process used to assess trends in the change in pollutant load between the Background Receiving Water Monitoring sites and the Receiving Water Monitoring site for the identified parameters, including identification of trends, if any;
- (3) A description of the process used to extrapolate the results of Receiving Water Monitoring data to other receiving waters, as appropriate, including a discussion of the results of the extrapolation;

- (4) A discussion of conclusions reached;
- xii) Program Effectiveness Ratings
  - (1) A detailed description of the evaluation performed to establish Urban Subwatershed Program Effectiveness Ratings, addressing each required evaluation element, including the results of the evaluation;
  - (2) The Urban Subwatershed Program Effectiveness Rating of each Urban Subwatershed;
- xiii) Program Improvement Needs – A detailed description of Stormwater Management Program improvements needed to effectively manage the effects of urban stormwater on beneficial uses and watershed processes, including the following for each Urban Subwatershed:
  - (1) Identification of specific watershed processes targeted for improvement;
  - (2) Measurable goals for improving targeted watershed processes; and
  - (3) Identification of specific improvements in each program area identified in Section P.7 Program Improvement Needs) necessary to achieve measurable goals for improving targeted watershed processes.
- j) In the Year 5 Annual Report, the Permittee shall include the following:
  - i) Inspections
    - (1) A description of progress made implementing identified modifications to municipal BMPs according to the schedules identified according to Section P.1.b.i (Inspections);
    - (2) A description of progress made implementing identified improvements to commercial and industrial BMPs, including modifications to trash and litter control BMPs for fast food restaurants and commercial retail centers, according to the schedules identified according to Section P.1.b.i (Inspections); and
    - (3) A description of progress made implementing identified improvements to construction BMPs according to the schedules identified according to Section P.1.b.i (Inspections).

#### Q. Watershed Characterization

- 1) Watershed Data Information Management – The Permittee shall characterize its watersheds for the purpose of stormwater management and compile and manage information in digital format, by completing the components described in Sections Q.2 (Watershed Delineation) – Q.5 (Meteorological Information). The Permittee shall develop and maintain capacity for spatial data management, analysis, and display (mapping) - functions commonly provided by Geographic Information System software. At least once every two years, the Permittee shall update information on current conditions of watershed characteristics described in Sections Q.2 – Q.5 (Watershed Delineation) – Q.5 (Meteorological Information) [The Permittee shall update the map each year for items identified in Section Q.2.b (MS4 System Map)], using the most accurate information available. The Permittee shall use the compiled watershed information as indicated in this Order and make the information available for review by Central Coast Water Board staff.
- 2) Watershed Delineation
  - a) Within 12 months of adoption of this Order, the Permittee shall delineate and map each feature listed below. The Permittee may propose an alternative delineation scheme and use it upon approval by the Central Coast Water Board Executive Officer.

- i) Existing Urban Subwatersheds – The Permittee shall delineate developed areas grouped into Existing Urban Subwatersheds according to Attachment F – Salinas Existing Urban Subwatersheds.
  - ii) Future Urban Subwatersheds – The Permittee shall delineate all areas within the Permittee’s sphere of influence not captured by Existing Urban Subwatersheds, based on NHDPlus<sup>26</sup> Catchments (USEPA and United States Geological Survey [USGS]).
- b) MS4 System Map – Within 12 months of adoption of this Order, the Permittee shall complete an accurate MS4 System Map. The map shall be of sufficient detail so as to assist the Permittee with tracing illicit discharges and other sources of urban stormwater pollution, tracking BMP operation and maintenance, and assessing the physical condition of water bodies. The Permittee shall update the map each year with all connections to the MS4 authorized or allowed by the Permittee after adoption of this Order. The MS4 System Map, at a minimum, shall include the following:
- i) The MS4 and all conveyances. The map shall identify which portions of the system are open channels (or other surface drainage features);
  - ii) Inlets to the MS4. Each inlet shall be given an individual identifier, noted on the map, indicating the Urban Subwatershed in which it is located and the type of inlet (e.g., catch basin);
  - iii) Outfalls (or outlets) to receiving waters, and/or the MS4. Each outfall shall be given an individual identifier, noted on the MS4 System Map, indicating the Urban Subwatershed in which it is located and the type of outfall (e.g., discharge to stream, discharge to detention and/or retention facilities);
  - iv) Drainage areas contributing to all outfalls that receive and discharge urban runoff from and to the MS4; and
  - v) Within 2 years of adoption of this Order, the Permittee shall map existing, known connections over 8 inches in diameter to MS4 conveyances tributary to all storm drain outfalls with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems.
- 3) Water Body Identification
- a) For all Urban Subwatersheds, within 12 months of adoption of this Order, identify and map all ephemeral, intermittent, and perennial water bodies based on existing information including, but not limited to, the following:
    - i) NHD Flow Line<sup>27</sup> (USEPA and USGS);
    - ii) NHD Water Body<sup>28</sup> (USEPA and USGS);
    - iii) National Wetlands Inventory<sup>29</sup> (USFWS); and
    - iv) Relevant environmental documents (e.g., developed per CEQA, NEPA) that include waterbody delineations reflecting current conditions.
  - b) For all Urban Subwatersheds, within 2 years of adoption of this Order, identify and map zones that infiltrate stormwater to support baseflow and interflow to wetlands and

<sup>26</sup> NHDPlus is an integrated suite of application-ready geospatial data sets including an elevation-based catchment for each flowline in the stream network of the National Hydrography Dataset (NHD) (download instructions available at <http://www.horizon-systems.com/nhdplus/HSC-wth18.php>).

<sup>27</sup> NHD linear features of types: stream/river, canal/ditch, pipeline, artificial path, coastline, and connector.

<sup>28</sup> NHD polygonal features of types: Playa, Ice Mass, Lake, Pond, Reservoir, Swamp, Marsh, and Estuary.

<sup>29</sup> The National Wetlands Inventory is a national program established by the United States Fish and Wildlife Service to map wetlands (available at <http://www.fws.gov/wetlands/>).

surface waters, and deep vertical infiltration to groundwater, based on available information that describes conditions including, but not limited to, the following:

- i) Groundwater basins
- ii) Groundwater recharge areas;
- iii) Soil type;
- iv) Surface geology; and
- v) Land cover type and condition affecting rainfall infiltration.

#### 4) Watershed Physical Condition Assessment

- a) By the end of Year 3, the Permittee shall conduct a rapid assessment<sup>30</sup> of all second and higher order streams within the Permit coverage area, with the exception of Gabilan and Natividad Creeks, for which the Permittee shall conduct this assessment by the end of Year 2.
- b) Riparian Vegetation and Habitat – By the end of Year 3, the Permittee shall identify and map riparian vegetation and habitat associated with water bodies delineated per Section Q.3 (Water Body Identification), with the exception of Gabilan and Natividad Creeks, for which the Permittee shall identify and map riparian vegetation and habitat by the end of Year 2. In addition to maps, the Permittee shall collect and maintain information on riparian vegetation and habitat condition, including the following:
  - i) Existing riparian vegetation and habitat based on the following:
    - (1) Aerial and ground-level photography of sufficient quality, detail, and scale to conduct this analysis;
    - (2) Results of the rapid assessment of second and higher order streams conducted per Section Q.4.a.
    - (3) General condition and quality of riparian vegetation and habitat expressed as good, fair, or poor on the basis of multiple factors, including, but not limited to the following:
      - (a) Presence or absence of riparian vegetation
      - (b) Canopy cover of low flow channel expressed in terms of shading (i.e., 1. Channel completely shaded at noon; 2. Most of the channel shaded most of the day; 3. Some of the channel shaded part of the day; 4. Very little of the channel shaded; 5. No shade);
      - (c) Presence of multiple vegetation layers (i.e., canopy, understory, and ground cover);
      - (d) Ratio of native to exotic plant species;
      - (e) Pollutant filtering capacity (e.g., grassy strips along the top of streambank); and
      - (f) Human impact (e.g., channelization, stabilization, levies, worn and compacted footpaths); and
    - (4) Acreage and/or lineal feet of good, fair, and poor quality for riparian vegetation and habitat on an Urban Subwatershed basis and for each second and higher order stream that the Permittee conducted a rapid assessment for per Section Q.4.a.
  - ii) Areas with potential for growth of riparian vegetation and habitat, based on the following:
    - (1) Historical aerial and ground-level photography;
    - (2) Stream flow characteristics;

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<sup>30</sup> The Permittee shall use the Center for Watershed Protection's manual for the Unified Stream Assessment (available at <http://www.cwp.org/>) or equivalent when conducting rapid assessment of stream corridors.

- (3) Groundwater characteristics;
  - (4) Available reference conditions; and
  - (5) Other available information.
- c) By the end of Year 2, the Permittee shall acquire and map impervious cover data based on NLCD 2006 Percent Developed Imperviousness,<sup>31</sup> or equivalent.
  - d) Within 12 months of adoption of this Order, the Permittee shall report dominant watershed processes for each Urban Subwatershed in accordance with those dominant watershed processes identified through the Central Coast Water Board Joint Effort for Hydromodification Control.
- 5) Meteorological Information – Within 2 years of adoption of this Order, the Permittee shall maintain meteorological data for all Urban Subwatersheds based on information from multiple sources, including, but not limited to, the following:
- a) National Climatic Data Center summary of precipitation data;
  - b) Near-Real-Time Monthly High-Resolution Precipitation Climate Data Set for the Conterminous United States (Oregon State University, Parameter-elevation Regressions on Independent Slopes Model PRISM);
  - c) Existing local rain gages; and
  - d) Evapotranspiration data from California Irrigation Management Information Management System.
- 6) Reporting – In Year 1 through Year 3 Annual Reports, the Permittee shall submit electronic files with the most up-to-date data for each data collection requirement identified in this Section, pursuant to deadlines outlined in this Section. In Annual Reports following Year 3, the Permittee shall submit any data sets that have been modified to reflect changes to the Permittee's Urban Subwatersheds.

#### R. Fiscal Analysis

- 1) The Permittee shall secure the resources necessary to meet all requirements of this Order. Inability to secure financial or other resources shall not excuse violation with any provision of this Order.
- 2) Reporting – In each Annual Report, the Permittee shall submit the following: 1) an Annual Budget Summary for the current reporting year and 2) an Annual Fiscal Analysis for the upcoming reporting year (estimated expenditures). Both analyses shall detail the expenditures, including, but not limited to, the figures breakdown of expenditures, expenditure funding source(s) (including any limitations on the use of such funds), and identification of resource sharing with other collaborators involved in Program implementation (including volunteer programs or programs of other agencies), for the following categories:
  - a) Program Management Activities – Overall administrative costs; and
  - b) Program Implementation Activities (activities related to this Order only), including the following:
    - i) Municipal maintenance;

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<sup>31</sup> The National Land Cover Database (NLCD) is produced by the Multi-Resolution Land Characteristics Consortium – a group of federal agencies. The NLCD provides an updated circa 2006 continuous imperviousness estimate layer (raster) for the conterminous United States (available at [http://www.mrlc.gov/nlcd2006\\_downloads.php](http://www.mrlc.gov/nlcd2006_downloads.php)).



- ii) Commercial and industrial facilities;
- iii) Residential;
- iv) Illicit discharge detection and elimination;
- v) Parcel-scale development;
- vi) Construction site management;
- vii) Development planning and stormwater retrofits;
- viii) Public education and public involvement;
- ix) Trash load reduction;
- x) Total maximum daily load;
- xi) Monitoring, effectiveness assessment, and program improvement;
- xii) Watershed characterization; and
- xiii) Miscellaneous expenditures (describe).

#### S. Legal Authority

- 1) General – The Permittee shall establish, maintain, and enforce adequate legal authority to effectively implement all requirements of this Order and control pollutant discharges into and from the Permittee’s MS4. Legal authority shall be obtained through municipal codes, ordinances, statutes, standards, specifications, permits, contracts, or similar means. The Permittee shall review and revise as necessary the existing municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations to ensure proper authority exists to effectively implement and enforce all of the requirements of this Order. If needed, all revisions shall be made and adopted within 12 months of adoption of this Order. This legal authority shall, at a minimum, authorize the Permittee to perform each requirement listed below.
  - a) The Permittee shall control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to the Permittee’s MS4. This requirement applies both to industrial and construction sites which have coverage under the General Industrial Permit or General Construction Permit, as well as to those sites which do not. The Permittee shall upgrade and enforce grading ordinances as necessary to comply with this Order.
  - b) The Permittee shall prohibit illicit discharges to the MS4 not otherwise allowed pursuant to Section A.5 (Discharge Prohibitions), including, but not limited to, the following:
    - i) Sewage;
    - ii) Wash water from the cleaning of gas stations, auto repair garages, or other types of automotive service facilities;
    - iii) Discharges from areas where machinery and equipment are visibly leaking oil, fluid, or antifreeze;
    - iv) Discharges from the cleaning, repair, or maintenance of any type of equipment, machinery, vehicle, or facility;
    - v) Discharges of concrete truck cement and discharges from concrete-related pumps, tools, and equipment washout;
    - vi) Discharges from mobile operations such as mobile automobile washing, steam cleaning, power washing, carpet cleaning, sandblasting, and other such mobile commercial and industrial operations;
    - vii) Discharges from stationary and mobile port-a-potty servicing;
    - viii) Discharges from stationary and mobile pet grooming facilities;
    - ix) Wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including, but not limited to, the

- following: parking lots, streets, sidewalks, driveways, patios, plazas, work yards, and outdoor eating or drinking areas;
- x) Discharges from material storage areas containing chemicals, fuels, grease, oil, or other uncovered receptacles containing hazardous materials;
  - xi) Discharges from decorative fountains and ponds;
  - xii) Discharges from swimming pools or other bodies of water used for recreation or bathing, containing chlorine, biocides, or other chemicals;
  - xiii) Discharges of swimming pool filter backwash;
  - xiv) Discharges of excess landscape irrigation;
  - xv) Discharges of trash container leachate;
  - xvi) Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water); and
  - xvii) Discharges from spills, dumping, or disposal of materials, such as litter, landscape and construction debris, sediment, garbage, animal waste, fuel or chemical waste, batteries, any pesticides, fungicide, or herbicide, and any other materials which have the potential to adversely impact water quality.
- c) The Permittee shall prohibit and eliminate illicit connections to the MS4.
  - d) The Permittee shall control the discharge of spills, dumping, or disposal of materials other than stormwater to the MS4.
  - e) The Permittee shall require compliance with conditions in Permittee urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations (i.e., hold dischargers to the Permittee's MS4 accountable for the dischargers' contributions of pollutants and flows).
  - f) The Permittee shall utilize enforcement mechanisms as outlined in Section S.2 (Enforcement Measures and Tracking) to require compliance with Permittee urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations.
  - g) The Permittee shall control the contribution of pollutants and flows between its MS4 and other MS4s (e.g., Monterey County, the State of California Department of Transportation, Monterey County Water Resources Agency, Non-Traditional Small MS4s, rail, United States Department of Defense).
  - h) The Permittee shall carry out all inspections, surveillance, and monitoring necessary to determine compliance with and violation of urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations, and with this Order, including the prohibition on illicit discharges to the MS4. The Permittee shall have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from commercial, industrial, and other sites/sources discharging into the Permittee's MS4, including construction sites.
  - i) The Permittee shall require the use of BMPs to prevent or reduce the discharge of pollutants into MS4s to the MEP and protect water quality.
  - j) The Permittee shall require documentation on the effectiveness of BMPs implemented to reduce the discharge of pollutants to the MS4 and to the MEP and to protect water quality.
- 2) Enforcement Measures and Tracking
- a) Within 12 months of adoption of this Order, the Permittee shall develop and implement an effective progressive Enforcement Response Plan. The Enforcement Response Plan shall outline the Permittee's potential responses to violations (e.g. non-compliance of municipal codes, ordinances, statutes, standards, specifications, permits, contracts) and shall address repeat and continuing violations through progressively stricter responses as needed to achieve compliance. The Enforcement Response Plan shall describe how

the Permittee will use each enforcement response type listed below, based on the type of violation.

- i) Verbal Warnings – Verbal warnings are primarily consultative in nature. At a minimum, verbal warnings shall specify the nature of the violation and required corrective action.
  - ii) Written Notices – Written notices of violation (NOVs) shall stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
  - iii) Escalated Enforcement Measures – The Permittee shall have the legal ability to employ any combination of the enforcement actions listed below (or their functional equivalent) and to escalate enforcement responses where necessary to correct persistent violations, repeat or escalating violations, or incidents that have the potential to cause significant detrimental impacts to human health or the environment:
    - (1) Citations (with Fines) – The Enforcement Response Plan shall indicate when the Permittee will assess monetary fines, which may include civil and administrative penalties.
    - (2) Stop Work Orders – The Permittee shall have the authority to issue stop work orders that require construction, industrial and commercial activities to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate BMPs.
    - (3) Withholding of Plan Approvals or Other Authorizations – Where a facility, site or operation is in violation, the Enforcement Response Plan shall address how the Permittee's own approval process affecting the facility, site or operation's ability to discharge to the MS4 can be used to abate the violation.
    - (4) Additional Measures – The Permittee may also use other escalated measures provided under local legal authorities. The Permittee may perform work necessary to improve BMPs and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond or directly billing the responsible party to pay for work and materials.
  - b) Enforcement Information Management System – Within 3 months of adoption of this Order, the Permittee shall track instances of violations. The enforcement information management system shall, at a minimum, include the following:
    - i) Name of owner/operator of site/source;
    - ii) Location of stormwater source (e.g., construction site, industrial facility);
    - iii) Description of violation;
    - iv) Required schedule for returning to compliance;
    - v) Description of enforcement response used, including escalated responses if repeat violations occur or violations are not resolved in a timely manner;
    - vi) Accompanying documentation of enforcement response (e.g., citations, NOVs);
    - vii) Any referrals to different departments or agencies; and
    - viii) Date violation was resolved.
  - c) Recidivism Reduction – Within 3 months of adoption of this Order, the Permittee is required to identify chronic violators of any component of this Order and reduce the rate of violation recidivism. The Permittee shall summarize inspection results of these chronic violators and include incentives, disincentives, or an increased inspection frequency at the violator's site(s).
- 3) Certified Statement – Within 12 months of adoption of this Order, the Permittee shall submit a statement certified by the Permittee's chief legal counsel that the Permittee has taken the necessary steps to obtain and maintain full legal authority to implement and enforce each of the requirements contained in this Order. This statement shall include:

- a) Identification of all departments within the Permit coverage area that conduct urban runoff related activities and their roles and responsibilities under this Order and an up-to-date organizational chart specifying these departments and key personnel;
  - b) Citation of urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations, and the reasons they are enforceable;
  - c) Identification of the local administrative and legal procedures available to mandate compliance with urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations, and therefore with the conditions of this Order;
  - d) A description of how urban runoff-related municipal codes, ordinances, statutes, standards, specification, permits, contracts, and other regulations are implemented and appealed; and
  - e) A description of whether the Permittee can issue administrative orders and injunctions or if it shall go through the court system for enforcement actions.
- 4) Training – The Permittee shall ensure that all municipal staff whose job duties are related to implementing the requirements of this Section have the knowledge and understanding necessary to effectively implement this Order. New municipal staff, or municipal staff new to a position related to this Section, shall be trained within one year of hire or attainment of new position. The Permittee shall perform an assessment of trained municipal staff's knowledge of implementation of the requirements of this Section and shall revise the training to address any deficiencies each year. Training documents shall be available for review by the Central Coast Water Board. The training shall, at a minimum, address each item listed below.
- l) The requirements of this Section that relate to the municipal staff's job duties, including, but not limited to, the following:
    - i) Legal authority to establish, maintain, and enforce all requirements of this Order;
    - ii) Prohibited illicit discharges identified in this Section and protocol to eliminate identified illicit discharges; and
    - iii) The Enforcement Response Plan.
  - m) The administrative requirements of this Order, such as reporting and tracking.
  - n) Refresher training for existing municipal staff each year to fill any knowledge gaps identified in the annual training assessment.
  - o) Throughout the year municipal staff shall be updated if changes occur.
  - p) Staff not Employed by the Permittee – If the Permittee contracts out to others to implement portions of the municipal stormwater requirements of this order, these outside staff shall be trained per the requirements listed in this Section.
- 5) Reporting
- a) In each Annual Report, the Permittee shall include an update on any revisions to the Permittee's urban runoff-related municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations per Section S.1 (General); and
  - b) In the Year 1 Annual Report, the Permittee shall include a statement certified by chief legal counsel per Section S.3 (Certified Statement).
  - c) In each Annual Report, the Permittee shall provide an inventory of every identified illicit discharge to the MS4 (identified in Section S.1.b) and shall include a description of actions taken by the Permittee to eliminate the discharge.
  - d) Enforcement Measures and Tracking –
    - i) Enforcement Response Plan – In the Year 1 Annual Report, the Permittee shall submit the Permittee's Enforcement Response Plan. In the Year 2 and each

- subsequent Annual Report, the Permittee shall include any modifications to the Enforcement Response Plan.
- ii) Enforcement Tracking – In each Annual Report, the Permittee shall submit a copy of the enforcement case documentation per Section S.2.b (Enforcement Information Management System).
  - iii) Recidivism Reduction – In each Annual Report, the Permittee shall provide an inventory of chronic violators of any component of this Order. The Permittee shall submit a summary of inspection results of these chronic violators and include incentives, disincentives, or an increased inspection frequency at the violator's site(s).
- e) A training report that includes at a minimum:
- i) List of all staff whose job duties are related to implementing the requirements of this Section, the date(s) training occurred, and the topics covered;
  - ii) Results of the annual training assessment and a summary of any implemented revisions to training; and
  - iii) A summary of the Permittee's compliance with the training requirements of this Section.

#### T. Changes to this Order

- 1) Review and Revision of Order - The Central Coast Water Board may reopen and revise this Order at any time prior to its expiration upon application by any affected person, or on its own motion.
- 2) The Permittee shall comply with Attachment D - Monitoring and Reporting Program of this Order and any revisions or modifications thereto as ordered by the Central Coast Water Board Executive Officer. The Central Coast Water Board Executive Officer is authorized to revise the Monitoring and Reporting Plan and also to allow the Permittee to participate in regional, statewide, national, or other monitoring programs.

#### U. Expiration and Reapplication

- 1) This Order expires on May 2, 2017. If a new order is not adopted by that date, the Permittee shall continue to implement the requirements of this Order until a new one is adopted. The Permittee shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, no later than 180 days in advance of this date in application for renewal of waste discharge requirements. The Report of Waste Discharge shall, at a minimum, include the following:
  - a) Any revisions to the SWMP and Quality Assurance Project Plan including, but not limited to, all the activities the Permittee proposes to undertake during the next order coverage period, justification, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs;
  - b) Items identified in Section P (Monitoring, Effectiveness Assessment and Program Improvement) to be included with the Report of Waste Discharge;
  - c) Changes in land use and/or population including map updates;
  - d) Any significant changes to the MS4, outfalls, detention or retention basins or dams, or other urban runoff controls including map updates of the MS4; and
  - e) New or revised elements and compliance schedules necessary to comply with the Section C (Receiving Water Limitations).

## V. Standard Provisions

The Permittee shall comply with the Attachment I - Standard Provisions.

## W. Certification

I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region, on May 3, 2012.



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Roger W. Briggs  
Executive Officer

5/24/12

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Date

## Attachment A - Acronyms

|         |  |
|---------|--|
| BMP     | Best Management Practice   |
| BMP RAM | BMP Maintenance Rapid Assessment Methodology   |
| CASQA   | California Association of Stormwater Quality   |
| CBSM    | Community-Based Social Marketing   |
| CCAMP   | Central Coast Ambient Monitoring Program   |
| CEQA    | California Environmental Quality Act   |
| CFR     | Code of Federal Regulations  |
| CWA     | Federal Clean Water Act  |
| CWC     | California Water Code  |
| CWP     | Center for Watershed Protection  |
| GIS     | Geographic Information System  |
| IDDE    | Illicit Discharge Detection and Elimination  |
| LID     | Low Impact Development   |
| O&M     | Operation and Maintenance  |
| MEP     | Maximum Extent Practicable   |
| MRP     | Monitoring and Reporting Program   |
| MS4     | Municipal Separate Storm Sewer System  |
| NPDES   | National Pollutant Discharge Elimination System (e.g., Industrial and Construction Stormwater General Permits, Low Threat Discharge Permits) |
| PRISM   | Parameter-elevation Regressions on Independent Slopes Model  |
| QAPP    | Quality Assurance Project Plan   |
| QSD     | Qualified SWPPP Developer  |
| QSP     | Qualified SWPPP Practitioner   |
| SIC     | Standard Industrial Code   |
| SWAMP   | Surface Water Ambient Monitoring Program   |
| SWCP    | Stormwater Control Plan  |
| SWDS    | Stormwater Development Standards   |
| SWMP    | Stormwater Management Plan   |
| SWRCB   | State Water Resource Control Board   |
| SWPPP   | Stormwater Pollution Prevention Plan   |
| ROWD    | Report of Waste Discharge  |
| RTAM    | Rapid Trash Assessment Methodology developed by the San Francisco Bay Regional Water Quality Control Board.                                  |
| TMDL    | Total Maximum Daily Load   |
| TGR     | Trash Generation Rate  |
| USEPA   | United States Environmental Protection Agency  |
| USGS    | United States Geological Survey  |
| WDID    | Waste Discharge Identification   |

## Attachment B - Definitions

**Action Level** – A pollutant concentration, pollutant load, or set of conditions specified by the Order at which the Permittee must take certain required actions defined by the Order. The Order identifies Action Levels for trash and a limited number of pollutants in MS4 stormwater discharges.

**Bank Erosion** – Direct delivery of sediment from stream banks into flowing channels; normally a combination of direct erosion and mass failure of the bank sediment.

**Basin Plan** – Water Quality Control Plan, Central Coast Basin, Region 3, and amendments, adopted by the Central Coast Water Board.

**Beneficial Uses** – The uses of waters of the state protected against quality degradation including, but not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or reserves [CWC Section 13050(f)]. The Basin Plan identifies beneficial uses for Salinas Hydrologic Unit waterbodies.

**Best Management Practices** – Physical structures, activities, prohibitions of practices, maintenance procedures, and other management practices or control measures to prevent or reduce the pollution of receiving waters and hydrologic process and beneficial use impacts to watersheds.

**Biofiltration** – Any structural or non-structural method, technique, or process that relies on biological and biochemical processes in soil media and vegetation to remove pollutants and/or solids from polluted stormwater runoff.

**Catch Basin** - A catch basin (sometimes called a storm drain inlet) is an inlet to the storm drain system that typically includes a grate or curb inlet where stormwater enters the catch basin and an area to capture sediment, debris and associated pollutants. Catch basins can act as pretreatment for other treatment practices by capturing large sediments. The performance of catch basins at removing sediment and other pollutants depends on the design of the catch basin (e.g., the size of the capture area), and routine maintenance to retain the storage available to capture sediment.

**Central Coast Ambient Monitoring Program** – The Central Coast Water Board's regionally scaled water quality monitoring and assessment program ([www.ccamp.org](http://www.ccamp.org)).

**Channel** – An open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two waterbodies.

**Chemical Reactions** – Any chemical alteration of natural or artificial materials on or near the ground surface. Includes very slow processes (e.g., weathering) of normally little regulatory concern and other reactions that can attenuate the biological effects of pollutants over time.

**Clean Water Act Section 303(d)** – A list of impaired waterbodies in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of runoff to these waterbodies by the Permittee is significant because these discharges can cause or contribute to violations of applicable water quality standards.



**Creep** – The slow downslope movement of the upper soil layer under the influence of gravity; it can incorporate such factors as freeze-thaw, shrink-swell, and animal disturbances that cannot be individually resolved at a hillslope (or larger) scale.

**Daylighting** – Restoring a covered or enclosed waterbody or section of storm drain infrastructure to an open channel, typically a channel in which primary hydrologic processes have also been restored.

**Development Project** – New development or redevelopment of any public or private project with land disturbing activities (e.g., structural development, including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, or land subdivision).

**Discharger** – The City of Salinas and any other responsible party or site owner or operator within the Permit coverage area whose site or activity discharges stormwater or non-stormwater.

**Dry Season** – From May 1<sup>st</sup> through September 30<sup>th</sup>.

**Effluent Limitation** – Any restriction imposed on quantities, discharge rates, concentrations, and/or mass loadings of pollutants which are discharged from point sources into receiving waters.

**Ephemeral** – A stream that flows only in direct response to precipitation, storm events, or seasonally, but normally lasts no longer than 30 days following the event.

**Erosion** – The diminishing or wearing away of land due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via stormwater runoff. Erosion occurs naturally, but can be intensified by land disturbing and grading activities such as farming, development, road building, and timber harvesting.

**Evapotranspiration** – The return of water to the atmosphere from the soil and soil surface by direct drying and the respiration of plants.

**Floodplain** – Any land area susceptible to being inundated by water from any source.

**Flow Control BMP** – Any structural or non-structural method, technique, or process designed to detain and/or retain stormwater runoff flow.

**Fluvial Transport and Deposition** – The patterns, volumes, and rates of movement and deposition of sediment (including adsorbed pollutants) within a flowing stream or river channel, including its ultimate deposition in a lake, wetland, or marine nearshore.

**Future Growth Areas** – Areas identified, by the Permittee in its General Plan, to plan for and manage future growth, including the areas north and east of the City in the sphere of influence amendment and annexation identified in the November 19, 2007 Final Supplement for the Salinas General Plan Final Program EIR.

**General Construction Permit** – The general NPDES permit adopted by the State Water Resources Control Board (Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002 for

Storm Water Discharges Associated with Construction and Land Disturbance Activities [or subsequent updates]), which authorizes the discharge of storm water from construction activities under certain conditions.

**General Industrial Permit** – The general NPDES permit adopted by the State Water Resources Control Board (Order No. 97-03-DWQ, NPDES Permit No. CAS000001 for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities [or subsequent updates]), which authorizes the discharge of storm water from certain industrial activities under certain conditions.

**General Plan** – A statement of policies, including text and diagrams, setting forth objectives, principles, standards, and plan proposals, for the future physical development of a city.

**Green Infrastructure** – Any of a variety of technologies or practices that use natural systems (such as vegetation or infiltration), or engineered systems (such as bioswales or rain gardens) which mimic natural systems, to manage stormwater.

**Groundwater Recharge** – Vertical movement of water into “deep” (10s to 100s of feet) aquifers to support year-round baseflow to wetlands and surface waters, and for water supply.

**Hydromodification Impacts** – Geomorphic alterations to the bed and/or banks of waterbodies (such as erosion, sedimentation, headcutting, and channel incision) resulting from changes in flow and sediment transport regimes caused by development.

**Illicit Connection** - Pipes, drains, open channels, or other conveyances that have the potential to allow an illicit discharge to enter the MS4.

**Illicit Discharges** - All non-stormwater discharges except those authorized under a separate NPDES permit or Section A (Discharge Prohibitions) of the Order. Any discharge that is prohibited under local, state, or federal statutes, ordinances, codes, regulations, or the Discharge Prohibitions Section of this Order.

**Impervious Surface** – A surface covering or pavement of a developed parcel of land that prevents the land’s natural ability to absorb and infiltrate precipitation/stormwater. Impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering.

**Incidental Runoff** - Unintended small amounts (volume) of runoff from potable and recycled water used for irrigation and lawn watering, such as unintended, minimal over-spray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow, or if it is due to negligence.

**Infiltration** – Absorption of water at the ground surface into the soil.

**Interflow** – Vertical movement of water into “shallow” (1 to 10 feet) soil layers to support return flow to wetlands and surface waters.

**Intermittent** – A stream that flows only certain times of the year. Intermittent streams should usually have flow at least 30 days after a storm event or throughout seasonal periods. Intermittent streams should have a defined stream channel and evidence of sediment transport.

**Joint Effort** – The Joint Effort for Hydromodification Control is an effort to 1) create a methodology for developing hydromodification control criteria, 2) derive criteria by applying the methodology, and 3) support implementation of the resulting criteria throughout the Central Coast for new and redevelopment projects. The effort includes oversight by the Central Coast Water Board; a team of subject area experts to execute the scope of work; and participating municipalities. This project is a key step in the Central Coast Water Board's progressive, stepwise process to protect watershed processes affected by urban stormwater runoff, and similarly, the State Board's goals in its Strategic Plan for statewide healthy watersheds.

**Low Impact Development (LID)** – A collection of stormwater management design strategies and BMP techniques used to address new development or redevelopment. The goal of LID is to mimic the pre-development natural hydrologic condition of the site. This means that the stormwater does what it would have done before development; such as infiltrate into the ground and evapotranspire into the air. Additional community and environmental benefits may be achieved with the use of LID.

**Mass Movements** – The downslope movement of rock and soil under the direct influence of gravitational forces.

**Maximum Extent Practicable (MEP)** – The minimum required performance standard for implementation of municipal stormwater management programs to reduce pollutants in stormwater. Clean Water Act 402(p)(3)(B)(iii) requires that municipal stormwater permits "shall require controls to reduce the discharge of 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." MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the iterative process.

**Municipal Separate Storm Sewer System (MS4)** – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), as defined in 40 CFR 122.26(b)(8): (1) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law ... including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization or a designated and approved management agency under section 208 of the CWA) that discharges into waters of the United States; (2) Designed or used for collecting or conveying stormwater; (3) Which is not a combined sewer; and (4) Which is not part of a Publicly Owned Treatment Works (POTW), as defined in 40 CFR 122.26. When used without qualification, means the MS4 owned or operated by the Permittee.

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

**Natural** – (1) Conditions on site prior to human-induced land activities; (2) not anthropogenic in origin.

**New Development** – Land disturbing activities (e.g., structural development, including construction or installation of a building or structure, the creation of impervious surfaces, public agency projects, or land subdivision). Projects meeting the definition of redevelopment shall not be considered new development.

**Non-Priority Development Project** – Any new development or redevelopment project meeting the Non-Priority Development applicability criteria per Section J.3 (Parcel-Scale Development: Requirements for Non-Priority Development Projects) of the Order.

**Non-Stormwater Discharge**– All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges from a MS4 other than stormwater). Non-stormwater includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges.

**Non-Structural BMP** – BMPs with no associated physical structures that are used to manage flow and reduce pollutants in stormwater.

**Nuisance** –Anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) Occurs during, or as a result of, the treatment or disposal of wastes.

**Offsite Project** – A project constructed at a different location from the subject development project that mitigates for watershed process and water quality and beneficial use impacts caused by the subject development project.

**Order** – When used without qualification, means Order No. R3-2012-0005 (NPDES Permit No. CA0049981).

**Perennial** – A stream that normally continues to flow throughout the year through wet and dry seasons.

**Post-development** – The condition after completion of the proposed project.

**Pre-development** – The native vegetation and soil conditions of a development site that existed prior to modern human influence (e.g., urbanization, agriculture, grazing, timber harvest).

**Pre-project** – The condition of a development site immediately prior to the proposed project. The condition includes, but is not limited to, soil type, vegetation, and amount of impervious surface.

**Priority Development Project** – Any new development or redevelopment project meeting the applicability criteria pursuant to Section J.4 (Parcel-Scale Development: Requirements for Priority Development Projects) of this Order. The April 2010 version of the SWDS refers to these projects as Priority Projects.

**Project Applicant** – A property owner or representative of a property owner (includes both public and private projects) who has filed an application for a City development permit.

**Qualified Personnel** – A person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact stormwater quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity. Qualified personnel include: California registered professional civil engineers, California registered professional geologists or engineering geologists, California registered landscape architects, professional hydrologists registered through the American Institute of Hydrology, Certified Professionals in Erosion and Sediment Control (CPESC) registered through Enviro Cert International, Certified Professionals Storm Water Quality (CPSWQ) registered through Enviro Cert International, or professionals in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET).

**Rainy Season** – From October 1 to April 30<sup>th</sup>. Same as Wet Season.

**Receiving Waters** – Waters of the United States

**Redevelopment** – Land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious and/or turf surface area that is not part of a routine maintenance activity; and land disturbing activities related to structural, impervious, or turf surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

**Restore** – Return to a natural condition, or to a state approaching a natural condition.

**Retain** – To keep or hold runoff in a particular place, condition, or position without discharging to surface waters.

**Retrofit** – Modification of existing development with the purpose of restoring watershed processes degraded by alteration of urban stormwater discharges.

**Rilling and Gullying** – Concentrated surface erosion of hillslopes by running water, giving rise to features that can (rills) or cannot (gullies) be readily crossed by vehicles or animals.

**Riparian Area** – The vegetated area adjacent to a watercourse or other body of water.

**Run-on** – Stormwater or non-stormwater that drains to the subject area.

**Runoff** – All flows that consist of stormwater or non-stormwater that drain from the subject area (includes run-on leaving the area).

**Section** – When used without qualification, refers to the entire section of Permit Provisions contained in this Order. For example, “this Section” used in the Municipal Maintenance section refers to the entire Municipal Maintenance section (Section E).

**Sheetwash** – Downslope soil movement by the unchanneled flow of water over the ground surface.

**Source Control BMP** – Land use or site planning practices, or structural or nonstructural measures that aim to prevent runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and precipitation and runoff.

**Specific Plan** – A plan addressing land use disturbance, open space availability, infrastructure, and infrastructure financing for a portion of the community. Specific plans put the provisions of the local general plan into action.

**Sphere of Influence** – The probable physical boundaries and service area of a local government agency. The following factors must be considered when developing the sphere: 1) The present and planned uses in the area, including agricultural and open-space lands; 2) The present and probable need for public facilities and services in the area; 3) The present capacity of public facilities and the adequacy of public services which the agency provides or is authorized to provide; and 4) The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

**Stormwater** – Runoff generated during and following precipitation and snowmelt events, including surface runoff, drainage, and interflow.

**Stormwater Control Plan** – A plan, developed by Priority Development Project applicant, detailing how the project will achieve the applicable post-construction stormwater management requirements (for both onsite and offsite systems).

**Stormwater Development Standards** – A written document containing the Permittee's stormwater management requirements and guidance for development and redevelopment projects pursuant to requirements in this Order.

**Stormwater Discharge Action Level** – A specified concentration of an identified pollutant in stormwater discharges from the MS4 which, if exceeded according to the provisions of the Order, require the Permittee to take required actions.

**Stressor, Water Quality Stressor** – Any factor impacting water quality, beneficial uses, or watershed processes. Water quality stressors include, at a minimum, pollutants, elevated runoff rates and volumes resulting from development, and development or maintenance practices that reduce riparian habitat quantity or quality.

**Structural BMP** – Physical structures used to manage flow and reduce pollutants in stormwater.

**Subwatershed** – A subsection of a watershed as delineated per Section Q.2 (Watershed Characterization: Watershed Delineation) of the Order.

**Surface Runoff** – Flow over the ground surface, characterized by volume, rate, and duration.

**Surface Water Ambient Monitoring Program (SWAMP)** – The State Water Board's program to monitor surface water quality; coordinate consistent scientific methods; and design strategies for improving water quality monitoring, assessment, and reporting.

**Time of Concentration** – The time needed for water to flow from the most remote point in a catchment to the catchment outlet

**Top of Streambank** – The break in slope at the top of a streambank, where the streambank meets the floodplain. The streambanks are the slopes of the active channel, between which streamflow is normally confined.

**Total Maximum Daily Loads** – The maximum amounts of a pollutant that can be discharged into a waterbody from all sources (point and nonpoint) and still maintain water quality standards. Under CWA Section 303(d), TMDLs must be developed for all waterbodies that do not meet water quality standards even after application of technology-based controls, more stringent effluent limitations required by a state or local authority, and other pollution control requirements such as BMPs.

**Toxicity** – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies. The water quality objectives for toxicity provided in the Basin Plan, state in part that “all waters shall be maintained free of toxic substances in concentrations that are toxic to, or which produce detrimental physiological responses in human, plant, animal, or aquatic life.....Survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors shall not be less than that for the same waterbody in areas unaffected by the waste discharge.”

**Toxicity Identification Evaluation (TIE)** – A series of laboratory procedures used to identify the chemical(s) responsible for toxicity to aquatic life. These procedures are designed to decrease, increase, or transform the bioavailable fractions of contaminants to assess their contributions to sample toxicity. TIEs are conducted separately on water column and sediment samples.

**Trash** – Trash consists of litter and particles of litter. California Government Code Section 68055.1 (g) defines litter as all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic, and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

**Trash Action Level** – A numeric action level for trash. The trash action level is established by the Order as a trash assessment score of 79 points. The Order requires the Permittee to take required actions when trash assessment scores fall below the Trash Action Level.

**Trash Assessment** – A rapid measurement of trash at a trash assessment site according to the methodology specified in the Order.

**Trash Assessment Score** – The numeric score associated with the amount of trash detected at a trash assessment site during a trash assessment.

**Trash Assessment Site** – A reach of a water body designated for conducting trash assessments.

**Treatment BMP** – Any structural or non-structural method, technique, or process designed to remove pollutants and/or solids from polluted stormwater runoff. Structural systems designed to remove pollutants and/or solids from polluted stormwater runoff may use settling, filtration, biological degradation, plant uptake, media absorption/adsorption or other physical, biological, or chemical process. This includes landscape-based systems such as grassy swales and bioretention units as well as proprietary systems.

**Urban Catchment** – A sub-drainage area within an Urban Subwatershed in which stormwater drains through the MS4 to a single discharge point.

**Urban Subwatershed** – A watershed delineated per Attachment F that includes existing and future urbanized areas, defined by both natural topographic divides and anthropogenic features such as constructed portions of the MS4.

**Wasteload Allocations** – The portion of a receiving water's TMDL that is allocated to one of its existing or future point sources of pollution.

**Water Quality Objectives** – The limits or levels of water quality elements or biological characteristics established to reasonably protect the beneficial uses of water or to prevent pollution problems within a specific area. Water quality objectives may be numeric or narrative.

**Water Quality Standards** – State-adopted and USEPA-approved water quality standards for waterbodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses. Water quality standards also include the federal and state anti-degradation policy.

**Waters of the State** – Any water, surface or underground, including saline waters within the boundaries of the State [CWC section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a MS4 is always considered to be a Waters of the State.

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



**Watershed** – All the land area that contributes runoff to a particular point along a waterway. Watersheds typically consist of numerous catchments defined by either natural or manmade topographic divides. Undeveloped watersheds are typically defined by natural topographic divides, such as mountain and/or hill ridgelines. All of the rainfall and runoff that occurs within the boundaries of a watershed is eventually conveyed to a discharge location, such as a river system that discharges into the ocean.

**Watershed Processes** – For the purposes of this Order, watershed processes are those affected by: stormwater, actions to manage stormwater, and/or land uses that alter stormwater runoff patterns. Watershed processes must be protected to attain water quality standards. Watershed processes include the following:

- (1) Surface Runoff – Runoff volume, rate, duration, and surface storage;
- (2) Groundwater Recharge and Discharge – Infiltration to support baseflow and interflow to wetlands and surface waters, and deep vertical infiltration to groundwater;
- (3) Sediment Processes – Hillslope (rilling, gullying, sheetwash, creep, and other mass movements); riparian (bank erosion); and channel (fluvial transport and deposition) processes;
- (4) Chemical Processes – Chemical attenuation through sequestration, degradation, and rate of chemical delivery to receiving waters; and
- (5) Evapotranspiration – The return of water to the atmosphere from the soil and soil surface by direct drying and the respiration of plants.

**Wetland** – An area is wetland if, under normal circumstances, it (1) is saturated by groundwater or inundated by shallow surface water for a duration sufficient to cause anaerobic conditions within the upper substrate; (2) exhibits hydric substrate conditions indicative of such hydrology; and (3) either lacks vegetation or the vegetation is dominated by hydrophytes.

**Year 1** – May 3, 2012 through May 2, 2013

**Year 2** – May 3, 2013 through May 2, 2014

**Year 3** – May 3, 2014 through May 2, 2015

**Year 4** – May 3, 2015 through May 2, 2016

**Year 5** – May 3, 2016 through May 2, 2017

Attachment C - Trash Generation Rates (TGRs) by Land Use

| Land Use                               | Drainage Area (acres) <sup>1</sup> |               | Litter (pounds) <sup>1</sup> |                |                |                | TGR <sup>2</sup><br>(lbs/acre / year) |                 |             |
|--|------------------------------------|---------------|------------------------------|----------------|----------------|----------------|---------------------------------------|-----------------|-------------|
|  | LA River                           | Ballona Creek | Total                        | LA River       |                | Ballona Creek  |                                       | Total           |             |
|  |                                    |               |                              | 2002-03        | 2003-04        | 2002-03        |                                       | 2003-04         |             |
| Commercial                             | 136.77                             | 108.86        | 245.63                       | 1924.96        | 582.26         | 1138.24        | 504.50                                | 4149.96         | 16.90       |
| High Density Single Family Residential | 113.99                             | 165.24        | 279.23                       | 480.20         | 186.49         | 658.47         | 345.07                                | 1670.23         | 5.98        |
| Industrial                             | 119.89                             | 216.82        | 336.71                       | 2586.60        | 984.18         | 674.10         | 283.15                                | 4528.03         | 13.45       |
| Low Density Single Family Residential  | 164.38                             | 179.97        | 344.35                       | 124.08         | 84.97          | 728.82         | 273.03                                | 1210.90         | 3.52        |
| Open Space/Parks                       | 141.78                             | 143.47        | 285.25                       | 549.79         | 221.13         | 514.90         | 216.95                                | 1502.77         | 5.27        |
| <b>Total</b>                           | <b>676.81</b>                      | <b>814.36</b> | <b>1491.17</b>               | <b>5665.63</b> | <b>2059.03</b> | <b>3714.53</b> | <b>1622.70</b>                        | <b>13061.89</b> | <b>8.76</b> |

<sup>1</sup> Data derived from Trash Baseline Monitoring Results for the Los Angeles River and Ballona Creek Watersheds (Supplemental Report), County of Los Angeles Department of Public Works Watershed Management Division, May 2004.

<sup>2</sup> The Trash Generation Rate (TGR) is the weight of trash generated per acre of a particular land use.

## Attachment D - Monitoring and Reporting Program

- 1) General Provisions
  - a) All sampling shall be conducted by a qualified professional. All laboratory analyses shall be conducted according to USEPA approved methods unless otherwise noted, and at a State certified laboratory or at a laboratory approved by the Central Coast Water Board Executive Officer. State certified laboratories can be found at <http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls>.
  - b) The Permittee shall comply with the monitoring and Quality Assurance requirements in this Attachment. The Permittee may choose to comply with any requirement of this Attachment through a collaborative effort with other entities. If the Permittee elects to comply with monitoring requirements of this Order through a collaborative effort, the Permittee shall provide documentation to the Central Coast Water Board, such as a written agreement, letter, or similar document that confirms the collaborative arrangement. Regardless of any collaborative efforts, the Permittee is solely responsible for complying with this Attachment and this overall Order.
  
- 2) Quality Assurance Plan Development
  - a) Within 3 months of adoption of this Order, the Permittee shall develop and submit a Quality Assurance Project Plan (QAPP) for approval by the Central Coast Water Board Executive Officer. The QAPP will also serve as the sampling plan for this Monitoring and Reporting Program (MRP).
  - b) The QAPP shall include receiving water and site-specific information, project organization and responsibilities, and quality assurance components of the MRP. The QAPP shall also include the laboratory and field requirements to be used for analyses and data evaluation. Specifically, the QAPP must include all site locations (including map and Geographic Information System [GIS] locations) for sites proposed to fulfill MRP requirements. The QAPP must propose specific catchment monitoring site locations, describe catchment trend monitoring instrumentation, and other details necessary to best assess water quality conditions. The QAPP must contain adequate detail for Permittee and Central Coast Water Board staff to identify and assess the technical and quality objectives, measurement and data acquisition methods, and limitations of the data generated under the monitoring program. All sampling and laboratory methodologies and QAPP content must be consistent with USEPA methods, State Water Board's Surface Water Ambient Monitoring Program (SWAMP) protocols, and CCAMP. The QAPP shall include the following minimum required components, in accordance with USEPA guidelines<sup>1</sup> and SWAMP templates.<sup>2</sup>
    - i) Project Management – The Project Management component must address basic project management, including the project history and objectives, roles and responsibilities of the participants, and other aspects.
    - ii) Data Generation and Acquisition – The Data Generation and Acquisition component must address all aspects of project design and implementation. The component must include maps and specific GIS coordinates of proposed monitoring locations to fulfill MRP requirements, and describe methods for sampling, measurement and analysis, instrumentation, data collection or generation, and data handling. The

<sup>1</sup> EPA Requirements for Quality Assurance Project Plans; EPA QA/R-5. Washington, D.C.; Office of Environmental Information; USEPA, March 2001. Web. 17 August 2011 <<http://www.epa.gov/quality/qs-docs/r5-final.pdf>>.

<sup>2</sup> SWAMP resources for developing QAPPs, including QAPP templates, can be found at [http://www.waterboards.ca.gov/water\\_issues/programs/swamp/tools.shtml#qa](http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#qa) (Quality Assurance).

- QAPP must ensure that quality control activities are employed and properly documented. Quality control requirements are applicable to all the constituents sampled as part of the MRP, as described in the relevant method.
- iii) Assessment and Oversight – The Assessment and Oversight component must describe activities for assessing the effectiveness of the implementation of the MRP and associated QA and QC activities. The purpose of the assessment is to provide project oversight that will ensure that the QAPP is implemented as prescribed.
  - iv) Data Validation and Usability – The Data Validation and Usability component must address the quality assurance activities that occur after the data collection, laboratory analysis and data generation phases are complete. Implementation of these elements ensures that the data conform to the specified criteria, thus achieving MRP objectives.
- c) The Central Coast Water Board may conduct an audit of the Permittee’s contracted laboratories at any time in order to evaluate compliance with the QAPP.
- 3) Urban Catchment Action Level Pilot Projects Monitoring
- a) Beginning in Year 2, the Permittee shall initiate Urban Catchment Action Level Pilot Projects Monitoring of stormwater discharges from identified urban catchments, in accordance with the QAPP/Sampling Plan approved by the Central Coast Water Board Executive Officer. The Urban Catchment Action Level Pilot Projects Monitoring program shall be designed to assess attainment of Stormwater Discharge Action Levels identified in Section P (Monitoring, Effectiveness Assessment, and Program Improvement).
  - b) The Permittee shall select one urban catchment from each of the four urban catchment categories identified in Table Attachment D.1. The selected urban catchments shall be representative of the associated primary land use in each category and of urban catchments within the Permit coverage area with the same primary land use.
  - c) The Permittee shall conduct stormwater discharge sampling for each selected urban catchment prior to the point where the urban catchment discharges to the associated receiving water, and as close to the point of discharge as is practical. Where there are concerns for human health and safety or sampling is not feasible due to conditions in the receiving water, the Permittee may conduct sampling at the lowest manhole in the urban catchment in which stormwater discharge water is not mixed with backflow from the receiving water. The Permittee shall indicate sampling site identifiers and locations in the QAPP/Sampling Plan and on the watershed map developed according to Section Q.2 (Watershed Characterization: Watershed Delineation). The QAPP shall include maps delineating the upstream drainages and primary urban land uses of each urban catchment selected for sampling.
  - d) The Permittee shall conduct Urban Catchment Action Level Pilot Projects Monitoring during two rain events each rainy season, including the first significant rain event of the season. For the purposes of this Attachment, a significant rain event shall be defined as an event predicted to exceed ½ inch of rainfall within a 24 hour period, or resulting in significant runoff from the urban catchment. The Permittee shall collect samples within the first three hours of flow of increased flow.
  - e) Urban Catchment Action Level Pilot Projects Monitoring shall include the monitoring parameters and requirements identified in Table Attachment D.2.
- 4) Stormwater Discharge Trend Monitoring
- a) Within 12 months of adoption of this Order, the Permittee shall initiate Stormwater Discharge Trend Monitoring of a single urban catchment for long-term loading trends, in accordance with the QAPP/Sampling Plan approved by the Central Coast Water Board Executive Officer. The purpose of Stormwater Discharge Trend Monitoring is to

characterize storm loading of pollutants with sufficient frequency that changes in event mean average pollutant concentrations and loads can be detected over time. The Permittee shall conduct Stormwater Discharge Trend Monitoring at the stormwater pump station to the Salinas River unless otherwise approved by the Central Coast Water Board Executive Officer. The Permittee shall identify a specific sampling location at the pump station, and include a description of the sampling location in the QAPP.

- b) The Permittee shall conduct Stormwater Discharge Trend Monitoring during at least three significant rain events each rainy season, including the first significant storm event of the season. For the purposes of this Attachment, a significant rain event shall be defined as an event predicted to exceed ½ inch of rainfall within a 24 hour period, or resulting in significant runoff to the pump station.
  - c) The sampling site shall be instrumented with an automated water sampling device (such as manufactured by Teledyne Isco, or equivalent) that is configured with a depth/flow sensor that enables flow integrated sampling of discharge. Samples shall be flow-weighted composites, collected into a single 2-gallon (or larger) glass bottle for analysis. The sampling device shall be programmed prior to each sampling event to collect samples at flow-proportioned intervals throughout the storm event once water depth in the storm drain begins to rise. Each composite shall consist of a minimum of 5 discrete samples collected throughout the event, with more samples preferable, and sufficient total volume must be collected to provide adequate water volume for analytical purposes. The sample shall be homogenized and in suspension when subsampled for analytical purposes. Flow volume shall be estimated for the entire period of each sampled storm rain event and average concentrations and total loads of measured pollutants must be reported for each sampled rain event.
  - d) Stormwater Discharge Trend Monitoring shall include the monitoring parameters and requirements identified in detail in Table Attachment D.3.
- 5) Receiving Water Monitoring
- a) Within 12 months of adoption of this Order, the Permittee shall initiate Receiving Water Monitoring in accordance with the QAPP/Sampling Plan approved by the Central Coast Water Board Executive Officer. The purpose of Receiving Water Monitoring is to track status and long-term trends (five years or more) in receiving water quality and beneficial uses.
  - b) The Permittee shall conduct Receiving Water Monitoring for the Reclamation Ditch. The Permittee shall identify a monitoring site in a location downstream of urban influences. In identifying monitoring sites, the Permittee shall assess the applicability of existing monitoring sites included in past monitoring by the Permittee or by related monitoring programs (e.g., CCAMP and the Cooperative Monitoring Program for Agriculture) and sampling consistency with past data collection for purposes of trend evaluation. Where doing so would comply with the requirements of this Attachment, the Permittee shall maintain monitoring continuity by using existing monitoring sites, such as CCAMP sampling station 309ALD, for Receiving Water Monitoring.
  - c) The Permittee shall include a sampling schedule in the QAPP/Sampling Plan. At a minimum, Receiving Water Monitoring shall include the sampling frequencies, parameter lists, and other requirements described in Table Attachment D.4, unless approved by the Central Coast Water Board Executive Officer.
    - i) The Receiving Water Monitoring water column sampling schedule shall consist each year, at a minimum, of monthly sampling November through May (inclusive), including two significant storm events each rainy season, and in July and September. Storm event sampling shall include the first rain event of the season that results in significant increase in stream flow. For the purposes of this Attachment, a significant

- rain event shall be defined as an event predicted to exceed ½ inch of rainfall within a 24 hour period, or resulting in significant runoff to the sampled receiving water.
- ii) Storm event sampling shall be conducted within 18 hours of each sampled storm event.
  - iii) The Receiving Water Monitoring sampling schedule shall be coordinated with the Background Receiving Water Monitoring sampling schedule to achieve time-paired sampling at the upstream and downstream sampling sites.
- d) Receiving Water Monitoring shall include the following types of monitoring, evaluation parameters, and other requirements listed below and described in detail in Table Attachment D.4:
- i) Flow Monitoring;
  - ii) Water Quality (physical parameters, metals, nutrients, pesticides);
  - iii) Toxicity (water and sediment); and
  - iv) Assessment of Benthic Invertebrates.
- e) Water column toxicity analyses shall be conducted on 100 percent (undiluted) sample. If the source of toxicity is unresolved, the Central Coast Water Board Executive Officer may require a Toxicity Identification Evaluation to identify the cause of the toxicity.
- f) Where doing so would comply with all other requirements of this Attachment, the Permittee may use monitoring data collected by CCAMP at monitoring site 309ALD.
- 6) Background Receiving Water Monitoring
- a) Within 12 months of adoption of this Order, the Permittee shall initiate Background Receiving Water Monitoring in accordance with the QAPP/Sampling Plan approved by the Central Coast Water Board Executive Officer. The purpose of Background Receiving Water Monitoring is to provide a basis for comparing pollutant loads between points upstream and downstream of the Permit coverage area for identified pollutants.
  - b) The Permittee shall conduct Background Receiving Water Monitoring for the Reclamation Ditch system. The Permittee shall identify monitoring sites in locations upstream of urban influences in Gabilan Creek, Natividad Creek, and the Reclamation Ditch. In identifying monitoring sites, the Permittee shall assess the applicability of existing monitoring sites included in past monitoring by the Permittee or by related monitoring programs (e.g., CCAMP and the Cooperative Monitoring Program for Agriculture) and sampling consistency with past data collection for purposes of trend evaluation.
  - c) The Permittee shall include a sampling schedule in the QAPP/Sampling Plan. At a minimum, Background Receiving Water Monitoring shall include the sampling frequencies, parameter lists, and other requirements described in Table Attachment D.5, unless approved by the Central Coast Water Board Executive Officer.
    - i) The Background Receiving Water Monitoring sampling schedule shall consist each year, at a minimum, of monthly sampling November through May (inclusive), including two significant storm events each rainy season, and in July and September. Storm event sampling shall include the first rain event of the season that results in significant increase in stream flow. For the purposes of this Attachment, a significant rain event shall be defined as an event predicted to exceed ½ inch of rainfall within a 24 hour period, or resulting in significant runoff to the sampled receiving water.
    - ii) Storm event sampling shall be conducted within 18 hours of each sampled storm event.
    - iii) The Background Receiving Water Monitoring sampling schedule shall be coordinated with the Receiving Water Monitoring sampling schedule to achieve time-paired sampling at the upstream and downstream sampling sites.

- d) The Permittee may coordinate with the Cooperative Monitoring Program for Agriculture to obtain monitoring data required by this Section.
- e) Background Receiving Water Monitoring shall include the monitoring parameters and requirements identified in detail in Table Attachment D.5.

7) Reporting

- a) Within three months of adoption of this Order, the Permittee shall submit the QAPP.
- b) Within three months following the collection of the first quarter of monitoring data, and quarterly thereafter (i.e., by January 1, April 1, July 1, and October 1), the Permittee shall submit all water quality monitoring data collected in accordance with this Order to the Central Coast Water Board. Data shall include all stormwater discharge and receiving water monitoring data, and shall be submitted electronically through the California Data Upload and Checking System (CalDUCS) (currently available at <http://www.ccamp.info/ceden/index.html>; Central Coast Water Board staff will notify the Permittee if the website address changes). Data shall be submitted in a format that successfully passes the CalDUCS checking requirements, and shall include proper documentation of site locations, quality assurance data, methods, equipment identifications, and other information specified by CalDUCS templates. Each quarter, the Permittee shall notify Central Coast Water Board staff via e-mail once final data delivery is achieved.
- c) In each Annual Report, the Permittee shall include:
  - i) Monitoring objectives and design;
  - ii) Urban catchments selected for Urban Catchment Action Level Pilot Project monitoring;
  - iii) Sampling site descriptions and rainfall records for the time period covered;
  - iv) Location of sampling sites and map(s);
  - v) Sampling and analytical methods used;
  - vi) Identification of the method used to obtain flow at each monitoring site during each monitoring event, as required;
  - vii) Identification of the location of any discharges observed discharging directly to surface receiving water;
  - viii) Copies of chain-of-custody forms;
  - ix) Field data sheets, signed laboratory reports, and laboratory raw data;
  - x) Associated laboratory and field quality control samples results;
  - xi) A summary of Quality Assurance Evaluation results;
  - xii) Electronic or hard copies of photos obtained from all monitoring sites, clearly labeled with site ID and date;
  - xiii) A summary of water quality data for any sites monitored as part of related monitoring programs that have also been used to evaluate receiving water as described;
  - xiv) A discussion of the data which clearly illustrates compliance with this Order and all applicable water quality standards;
  - xv) Results of all analyses arranged in tabular form so that the required information is readily discernible;
  - xvi) An evaluation of pesticide and toxicity analyses results, as applicable;
  - xvii) An evaluation of bioassessment results;
  - xviii) A description of each method used to evaluate and analyze all monitoring results; and
  - xix) Identification and prioritization of potential water quality and beneficial use issues based on analysis of all monitoring results.

Table Attachment D.1. Urban Catchment Action Level Pilot Project Locations<sup>1</sup>

| Urban Catchment Category | Urban Catchment Number <sup>2</sup> |
|--------------------------|-------------------------------------|
| Residential              | RD-0800                             |
|                          | GC-1000                             |
|                          | NC-4000                             |
|                          | CL-3000                             |
| Industrial               | RD-6000                             |
|                          | RD-6400                             |
|                          | RD-7600                             |
|                          | RD-9600                             |
| Retail Center            | MS-1000                             |
|                          | MS-2000                             |
|                          | MS-3000                             |
|                          | RD-2400                             |
| Mixed Use                | RD-1200                             |
|                          | RD-2000                             |
|                          | RD-3200                             |
|                          | RD-5600                             |

<sup>1</sup> At a minimum, one site must be selected from each urban catchment category on this list for Urban Catchment Action Level Pilot Project Monitoring.

<sup>2</sup> Urban catchment numbers correspond to MS4 subsystems identified on the City of Salinas Modeled Storm Drainage System Map, April 2004.

Table Attachment D.2. Urban Catchment Action Level Pilot Project Monitoring Parameters

| Parameter               | Analytical Method <sup>1</sup> | RL   | Units <sup>3</sup> | Min Sampling Frequency   |
|-------------------------|--------------------------------|--|--------------------|--|
| Temperature (water)     | Field Measure                  | 0.1  | ° Celsius          | Grab sample taken during two storm events including the first flushing storm of the season |
| pH                      | Field Measure                  | 0.1  | pH units           |  |
| Electrical Conductivity | Field Measure                  | 100  | µS/cm              |  |
| Turbidity               | Field Measure                  | 0.5  | NTUs               |  |
| Orthophosphate          | EPA 365.1                      | 0.01   | mg/L               |  |
| Fecal coliform          | MPN/100 ml                     | 25-tube dilution to allow max. detection of 160,000 MPN/100 ml | MPN/100 ml         |  |
| Zinc (total)            | EPA 200.8                      | 1.0  | ug/L               |  |
| Copper (total)          | EPA 200.8                      | 0.05   | ug/L               |  |

<sup>1</sup> In-field water testing instruments/equipment as a substitute for laboratory analysis if the method is approved by EPA, meets RL/PQL specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met to ensure accuracy of the test.

<sup>2</sup> Unionized ammonia must be calculated from field temperature, field ph, and Total Ammonia.

<sup>3</sup> NTU – Nephelometric turbidity unit; RL – Reporting Limit; NA – Not applicable; uS/cm – microSiemens per centimeter; ug/L – micrograms per liter; MPN/100 ml – Most Probable Number per 100 milliliters.



Table Attachment D.3. Stormwater Discharge Trend Monitoring Parameters<sup>1</sup>

| Parameter                       | Analytical Method <sup>2</sup>                                 | Sampling Method   | RL    | Units      | Min Sampling Frequency  |
|---------------------------------|--|---|-------|------------|---|
| Temperature (water)             | Grab   | Grab  | 0.1   | ° Celsius  | During three storm events including the first major storm event of the season. Flow weighted composite samples to be collected throughout storm using automated water sampling device (Isco or other) on half hour intervals and composited for the entire storm. |
| pH                              | Field Measure and lab measure                                  | Grab (for unionized ammonia calculations) and Composite | 0.1   | pH units   |   |
| Hardness                        | See Note <sup>6</sup>  | “   | 1.0   | mg/L       |   |
| Electrical Conductivity         | Field Measure  | “   | 100   | µS/cm      |   |
| Turbidity                       | Field Measure  | “   | 0.5   | NTUs       |   |
| Nitrate + Nitrite (as N)        | EPA 300.0, EPA 353.2   | “   | 0.1   | mg/L       |   |
| Ammonia, Total                  | EPA 350.1  | “   | 0.1   | mg/L       |   |
| Ammonia, Unionized <sup>3</sup> | Calculated   | “   |       | mg/L       |   |
| Fecal and Total Coliform        | 25-tube dilution to allow max. detection of 160,000 MPN/100 ml | “   |       | MPN/100 ml |   |
| Ortho-phosphate                 | EPA 365.1  | “   | 0.01  | mg/L       |   |
| Zinc (total)                    | EPA 200.8  | “   | 0.1   | ug/L       |   |
| Copper (total)                  | EPA 200.8  | “   | 0.05  | ug/L       |   |
| <b>Pyrethroid Pesticides</b>    |  |   |       |            |   |
| Gamma-cyhalothrin               | See Note <sup>5</sup>  | “   | 0.002 | ug/L       |   |
| Lambda-cyhalothrin              | “  | “   | 0.002 | ug/L       |   |
| Bifenthrin                      | “  | “   | 0.002 | ug/L       |   |
| Beta-cyfluthrin                 | “  | “   | 0.004 | ug/L       |   |
| Cyfluthrin                      | “  | “   | 0.004 | ug/L       |   |
| Esfenvalerate                   | “  | “   | 0.002 | ug/L       |   |
| Permethrin                      | “  | “   | 0.005 | ug/L       |   |
| Cypermethrin                    | “  | “   | 0.004 | ug/L       |   |
| Fenvalerate                     | “  | “   | 0.002 | ug/L       |   |

Table Attachment D.3 - Continued. Stormwater Discharge Trend Monitoring Parameters<sup>1</sup>

| Parameter     | Analytical Method <sup>2</sup>                   | Sampling Method            | RL | Units                     | Min Sampling Frequency  |
|---------------|--|----------------------------|----|---------------------------|---|
| Discharge     | 30-minute interval (or greater) throughout storm | Depth and velocity sensors | NA | CFS and total flow volume | Three significant storms (> 0.5"); total volume of storm to be calculated |
| Precipitation | Total for storm                                  |                            | NA | Tenths of inches          | Three significant storms (> 0.5")   |

<sup>1</sup> Stormwater Discharge Trend Monitoring occurs at the stormwater pump station to the Salinas River only.

<sup>2</sup> In-field water testing instruments/equipment as a substitute for laboratory analysis if the method is approved by EPA, meets RL/PQL specifications in the MRP, and appropriate sampling methodology and quality assurance checks can be applied to ensure that QAPP standards are met to ensure accuracy of the test.

<sup>3</sup> Unionized ammonia must be calculated from field temperature, field ph, and Total Ammonia.

<sup>4</sup> CFS – Cubic feet per second; NTU – Nephelometric turbidity unit; RL - Reporting Limit; uS/cm – microSiemens per centimeter; ug/L – micrograms per liter; MPN/100 ml – Most Probable Number per 100 milliliters.

<sup>5</sup> Extraction by Separatory Funnel Extraction, EPA 3510C; analysis by EPA 8081 Modified.

<sup>6</sup> Several analytical methods can be used, including EPA 200.7, EPA 130.1-2, EPA 2340B, EPA SM2340C, or EPA SM3120.

Table Attachment D.4. Receiving Water Monitoring Parameters<sup>1</sup>

| Parameters and Tests <sup>6</sup>                          | Analytical Method      | RL <sup>3</sup> | Monitoring Frequency <sup>2</sup>  |
|--|------------------------|-----------------|--|
| <b>Photo Monitoring</b>                                    |                        |                 |  |
| Upstream and downstream photographs at monitoring location |                        |                 | With every monitoring event  |
| <b>WATER COLUMN SAMPLING</b>                               |                        |                 |  |
| <b>Physical Parameters and General Chemistry</b>           |                        |                 |  |
| Flow (CFS) <sup>4</sup>                                    | Field Measure          | 0.25            | Monthly November through May, including 2 stormwater events; also July and September |
| pH   | Field Measure          | 0.1             |  |
| Electrical Conductivity (uS/cm)                            | Field Measure          | 2.5             |  |
| Dissolved Oxygen (mg/L)                                    | Field Measure          | 0.1             |  |
| Temperature (°C)   | Field Measure          | 0.1             |  |
| Turbidity (NTU)  | Field Measure          | 0.5             |  |
| Hardness (mg/L)  | See Note <sup>10</sup> | 1.0             |  |
| Total Dissolved Solids (mg/L)                              | EPA 160.1              | 10              |  |
| Total Suspended Solids (mg/L)                              | EPA 160.2              | 0.5             |  |
| <b>Nutrients</b>   |                        |                 |  |
| Total Nitrogen (mg/L)                                      | Calculation            | 0.5             | Monthly November through May, including 2 stormwater events; also July and September |
| Nitrate + Nitrite (as N) (mg/L)                            | EPA 300.0, EPA 353.2   | 0.1             |  |
| Total Ammonia (mg/L)                                       | EPA 350.1              | 0.1             |  |
| Unionized Ammonia, (mg/L)                                  | Calculation            | NA              |  |
| Total Phosphorus (as P) (mg/L)                             | EPA 365.4              | 0.06            |  |

Table Attachment D.4 - Continued. Receiving Water Monitoring Parameters<sup>1</sup>

| Parameters and Tests <sup>6</sup>   | Analytical Method  | RL <sup>3</sup> | Monitoring Frequency <sup>2</sup>  |  |
|---|--|-----------------|--|--|
| Orthophosphate (mg/L)   | EPA 365.1  | 0.01            | Monthly November through May, including 2 stormwater events; also July and September   |  |
| <b>Other</b>  |  |                 |  |  |
| Zinc (total) (ug/L)   | EPA 200.8  | 1.0             |  |  |
| Copper (total) (ug/L)   | EPA 200.8  | 0.05            |  |  |
| Fecal and Total Coliform (MPN/100 ml)   | 25-tube dilution to allow max. detection of 160,000 MPN/100 ml |                 |  |  |
| Algae cover, Floating Mats, Percent coverage <sup>8</sup>                               | see note <sup>8</sup>  | -               |  |  |
| Algae cover, Attached, Percent coverage <sup>9</sup>                                    | see note <sup>9</sup>  | -               |  |  |
| <b>Water Column Toxicity Test</b>   |  |                 |  |  |
| Algae - <i>Selenastrum capricornutum</i> , 4 day  | EPA 1003.0   | SWAMP SOP       | Once in dry season, once in rainy season, from grab samples  |  |
| Water Flea – <i>Ceriodaphnia dubia</i> (7-day chronic)                                  | EPA 1002.0   |                 |  |  |
| Fathead Minnow - <i>Pimephales promelas</i> (7-day chronic)                             | EPA 1000.0   |                 |  |  |
| Toxicity Identification Evaluation  | N/A  |                 | As directed by Central Coast Water Board Executive Officer   |  |
| <b>Pesticides and Herbicides (ug/L)</b>   |  |                 |  |  |
| Diuron  | EPA 632  | 0.05            | Once in dry season, once in rainy season, from grab samples, concurrent with water toxicity monitoring, during Year 2 and Year 4 |  |
| Glyphosate  | EPA 547  | 2.0             |  |  |
| Simazine  | EPA 536; 619   | 0.05            |  |  |
| Carbaryl  | EPA 531; 632   | 0.05            |  |  |
| Malathion   | EPA 8141; 614  | 0.05            |  |  |
| 2,4-D   | EPA 8270D SIM or 8151  | 0.1             |  |  |
| Triclopyr   | EPA 8270D SIM or 8151  | 0.1             |  |  |
| Dicamba   | EPA 8151A  | 0.1             |  |  |
| <b>Metals (ug/L)</b>  |  |                 |  |  |
| Arsenic (total)   | EPA 200.8  | 0.3             |  |  |
| Cadmium (total)   | EPA 200.8  | 0.01            |  |  |
| Copper (total)  | EPA 200.8  | 0.05            |  |  |
| Lead (total)  | EPA 200.8  | 0.01            |  |  |
| Nickel (total)  | EPA 200.8  | 0.02            |  |  |
| Zinc (total and dissolved)  | EPA 200.8  | 0.10            |  |  |
| <b>Other (ug/L)</b>   |  |                 |  |  |
| Total Phenolic Compounds  | EPA 8270   | 10              |  |  |
| <b>SEDIMENT SAMPLING</b>  |  |                 |  |  |
| Benthic Invertebrate Assessment and Associated Physical Habitat Assessment <sup>5</sup> | SWAMP SOP  | SWAMP SOP       | Annually, during May - July  |  |

Table Attachment D.4 - Continued. Receiving Water Monitoring Parameters<sup>1</sup>

| Parameters and Tests <sup>6</sup>                 | Analytical Method          | RL <sup>3</sup>  | Monitoring Frequency <sup>2</sup>                                 |
|---|----------------------------|------------------|---|
| Sediment Toxicity - <i>Hyalella azteca</i> 10-day | EPA 100.1                  | Survival; Growth | Annually, concurrent with bioassessment                           |
| <b>Pyrethroid Pesticides in Sediment</b>          |                            |                  |   |
| Gamma-cyhalothrin (ug/kg)                         | See Note <sup>7</sup>      | 2                | Annually, concurrent with bioassessment, during Year 2 and Year 4 |
| Lambda-cyhalothrin (ug/kg)                        | "                          | 2                |   |
| Bifenthrin (ug/kg)                                | "                          | 2                |   |
| Beta-cyfluthrin (ug/kg)                           | "                          | 2                |   |
| Cyfluthrin (ug/kg)                                | "                          | 2                |   |
| Esfenvalerate (ug/kg)                             | "                          | 2                |   |
| Permethrin (ug/kg)                                | "                          | 2                |   |
| Cypermethrin (ug/kg)                              | "                          | 2                |   |
| Danitol (ug/kg)                                   | "                          | 2                |   |
| Fluvalinate (ug/kg)                               | "                          | 2                |   |
| <b>Other Parameters in Sediment</b>               |                            |                  |   |
| Sediment Grain Size Analysis                      | % clay, silt, sand, gravel | 1%               |   |
| Total Organic Carbon                              | EPA 415.1                  | 0.01%            |   |

<sup>1</sup> At a minimum, Receiving Water Monitoring shall occur downstream of urban influences in the Reclamation Ditch (monitoring location 309ALD).

<sup>2</sup> Monitoring is ongoing through all five years of the Order, unless otherwise specified.

<sup>3</sup> Reporting Limit, taken from SWAMP where applicable. Any EPA method may be used that achieves this limit.

<sup>4</sup> See SWAMP field measures SOP, p. 17

<sup>5</sup> Ode, P.R. 2007. Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California, State Water Board Surface Water Ambient Monitoring Program (SWAMP), as subsequently revised (<http://swamp.mpsl.miml.calstate.edu/resources-and-downloads/standard-operating-procedures>). The Permittee may petition the Central Coast Water Board Executive Officer to modify their sampling procedures if these referenced procedures change during the term of this Order.

Biological assessments shall include benthic macroinvertebrates and algae. Bioassessment sampling method shall be multihabitat reach-wide. Macroinvertebrates shall be identified according to the Standard Taxonomic Effort Level II of the Southwestern Association of Freshwater Invertebrate Taxonomists, using the most current SWAMP approved method. Current guidelines are documented in (1) SWAMP Standard Operating Procedure (SOP) and Interim Guidance on Quality Assurance for SWAMP Bioassessments, Memorandum to SWAMP Roundtable from Beverly H. van Buuren and Peter R. Ode, 5-21-07, and (2) Amendment to SWAMP Interim Guidance on Quality Assurance for SWAMP Bioassessments, Memorandum to SWAMP Roundtable from Beverly H. van Buuren and Peter R. Ode, 9-17-08. For algae, include mass (ash-free dry weight), chlorophyll a, diatom and soft algae taxonomy, and reachwide algal percent cover. Physical Habitat (PHab) Assessment shall include the SWAMP basic method plus 1) depth and pebble count + CPOM, 2) cobble embeddedness, 3) discharge measurements, and 4) in-stream habitat. The Permittee may petition the Central Coast Water Board Executive Officer to modify these sampling procedures if SWAMP procedures change during the term of this Order.

<sup>6</sup> mg/L – milligrams per liter; ug/L – micrograms per liter; ug/kg – micrograms per kilogram; NTU – Nephelometric Turbidity Units; CFS – cubic feet per second

<sup>7</sup> Extraction by Pressurized Fluid Extraction, EPA 3545A with optional Cleanups 3620 Florisil, 3640 Gel Permeation; analysis by EPA 8720 Modified.

<sup>8</sup> An estimate of the percent of the flowing water surface upstream from the sample location that is occupied by floating mats of filamentous algae.

<sup>9</sup> An estimate of the percent of substrate in the wetted channel upstream from the sample location that is covered in periphyton. Periphyton is defined here as the living community attached to the substrate, including algae, aquatic mosses, fungi, diatoms, and sessile invertebrates.

<sup>10</sup> Several analytical methods can be used, including EPA 200.7, EPA 130.1-2, EPA 2340B, EPA SM2340C, or EPA SM3120.

Table Attachment D.5. Background Receiving Water Monitoring Parameters<sup>1</sup>

| Parameters and Tests <sup>2</sup> | Analytical Method  | RL <sup>3</sup> | Monitoring Frequency <sup>4</sup>  |
|-----------------------------------|--|-----------------|--|
| Nitrate + Nitrite (as N) (mg/L)   | EPA 300.0 or<br>EPA 353.2                                      | 0.1             | Monthly November through May, including 2 stormwater events; also July and September |
| Orthophosphate (mg/L)             | EPA 365.1  | 0.01            |  |
| Zinc (total) (ug/L)               | EPA 200.8  | 1.0             |  |
| Copper (total) (ug/L)             | EPA 200.8  | 0.05            |  |
| Fecal Coliform (MPN/100 ml)       | 25-tube dilution to allow max. detection of 160,000 MPN/100 ml |                 |  |
| Flow (CFS) <sup>5</sup>           | Field Measure  | 0.25            |  |
| Hardness (mg/L)                   | See Note <sup>6</sup>  | 1.0             |  |

<sup>1</sup> At a minimum, Background Receiving Water Monitoring shall occur upstream of urban influences in Gabilan Creek, Natividad Creek, and the Reclamation Ditch.

<sup>2</sup> mg/L – milligrams per liter; ug/L – micrograms per liter; ug/kg – micrograms per kilogram; NTU – Nephelometric Turbidity Units; CFS – cubic feet per second

<sup>3</sup> Reporting Limit, taken from SWAMP where applicable. Any EPA method may be used that achieves this limit.

<sup>4</sup> Monitoring is ongoing through all five years of the Order, unless otherwise specified.

<sup>5</sup> See SWAMP field measures SOP, p. 17

<sup>6</sup> Several analytical methods can be used, including EPA 200.7, EPA 130.1-2, EPA 2340B, EPA SM2340C, or EPA SM3120.

**Attachment E - Steps for a Successful LID Design**  
**Developed by the Low Impact Development Initiative, UC Davis Extension**  
**Low Impact Development (LID) for Stormwater Control:**  
**New and Redevelopment Project Design Guidance**

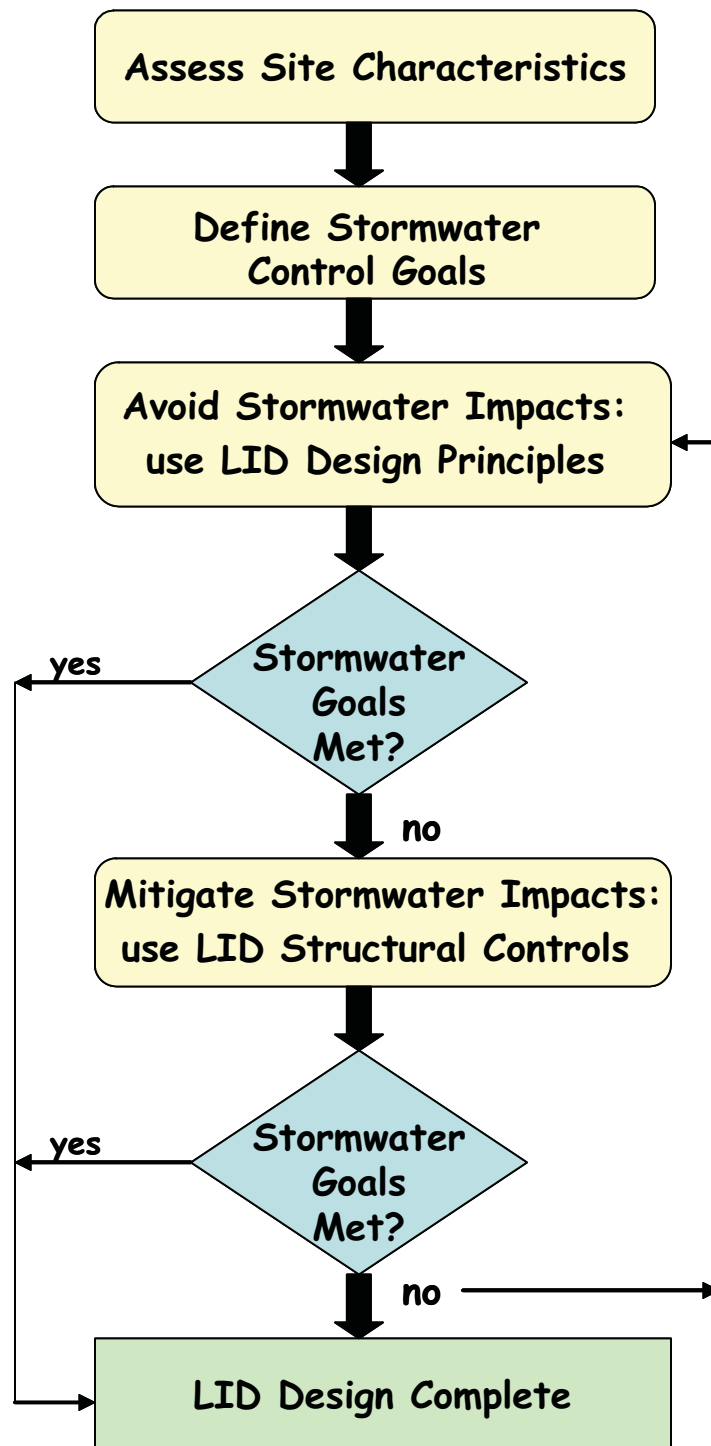
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The purpose of this document is assist project applicants and reviewers (e.g. city, county, state) understand the basic steps involved to successfully integrate LID into a project design as part of their stormwater management for new and redevelopment.

There is a general understanding that LID is a type of site design that strives to protect the natural hydrology once the site is developed. However, there is a common misconception that LID is only about the use of structural practices such as rain gardens, pervious pavements, and bioswales. In fact, a good LID design incorporates both site planning principles and structural practices to achieve site performance objectives. Neglecting to incorporate LID design principles throughout the site planning and design process often results in the designer attempting to fit LID structural practices to the site after all other site design has been defined. This can result in higher costs as well as a reduced ability to meet stormwater management objectives.

Lastly, LID design is often an iterative process that includes evaluating the stormwater benefits (e.g., reduced surface runoff, improved water quality) during the design and going back to the design to revise and then recalculate benefits. The applicant will need to understand any specific stormwater management requirements. By following and documenting the steps outlined in this guidance, the applicant will have conducted their due diligence in creating the best LID design possible for the project.

# The LID Site Design Process



## Step 1 Assess Site Characteristics

A significant part of conducting Low Impact Development is integrating the site characteristics with the project design in ways that help minimize environmental impacts. Site features that provide opportunities to reduce stormwater runoff include: protected areas, setbacks, easements, riparian areas, soil types, and topographic features.

### Design Tips:

- Avoid excessive grading and disturbance of vegetation and soils,
- Concentrate development on portions of the site with less permeable soils, and preserve areas that can promote infiltration.
- Where possible, conform the site layout along natural landforms, and replicate the site's natural drainage patterns.

## Step 2 Define Stormwater Control Goals and the LID Evaluation Approach

An understanding of the project site drainage/hydrology provides the initial information from which further analysis can be conducted. The applicant will need to compare baseline stormwater runoff characteristics (i.e., flow and/or water quality) to various LID design alternatives to determine the level of stormwater management that can be achieved. The hydrologic condition baseline will be defined by the local government agency reviewing and approving the project and may be defined as either: 1) pre-development<sup>1</sup>, 2) pre-project<sup>2</sup>, or 3) some condition in between pre-development and pre-project. The local government agency may require the applicant to use different baselines for different stormwater runoff characteristics (e.g., pre-development for flow characteristics and pre-project for water quality characteristics).

Step 2a: The applicant should clarify with the project permitting agency the acceptable manner in how the storm and runoff scenarios will be calculated and modeled. This may include defining:

- The storm events to be evaluated (e.g., 2-, 5-, 10-yr, 24-hour storms)
- The runoff parameters to be estimated (e.g., runoff volumes, peak, duration, time of concentration, water quality)
- The approach to evaluating the interaction between precipitation and land response (e.g., single event or continuous simulations)

<sup>1</sup> Pre-development: The native vegetation and soil conditions that existed prior to human influence (e.g., urbanization, agriculture, grazing, timber harvest).

<sup>2</sup> Pre-project: The condition immediately prior to the proposed project. The condition includes, but is not limited to, soil type, vegetation, and amount of impervious surface.



- The calculations and models to be used to describe stormwater runoff and or water quality scenarios (e.g., Rational Method, TR-55, HSPF, SWMM)

Step 2b: For each subdrainage area as well as the total project area, conduct baseline stormwater runoff calculations using methods and parameters determined appropriate by the review/approval agency.

#### **Step 4 Avoid Stormwater Impacts: use LID design principles**

Impervious surfaces such as buildings, roads, and parking lots are big offenders in changing how rainwater acts on the land. An increase in impervious area impedes rainwater from naturally infiltrating into the ground and causes high volumes and rates of stormwater runoff, which can cause flooding and environmental damage. During the project design, techniques to reduce the amount of impervious surfaces will help greatly in managing stormwater.

##### Design Tips:

- Reduce the number of parking spaces
- Narrow the road width
- Reduce sidewalks to one side of the street
- Design residential driveways to be shared, narrow
- Evaluate an alternative roadway layout

For necessary impervious surfaces, techniques can be used to reduce their impact.

##### Design Tips:

- Disconnect roof drains and direct flows to vegetated areas
- Direct flows from paved areas to stabilized vegetated areas
- Break up flow direction from large paved surfaces

#### **Step 5 Evaluate Design to Determine if Stormwater Goals have been Achieved**

Once the project site has been delineated, analysis tools defined, and the site layout established, a hydrologic analysis can be conducted to compare the stormwater runoff characteristics of the specified hydrologic condition baseline (Step 2) with the initial site layout (Step 3). This hydrologic analysis will quantify the level of control that has been provided through the site planning process and will provide information as to the additional level of control, if any, required to meet stormwater control objectives for the project.

Step 4a: Calculate the runoff parameters (e.g., volume, rate, peak, duration, water quality) for the initial site layout. Use the same type of calculations and modeling methods as defined in Step 2a in order to compare the results with the baseline conditions.

## Step 6 Mitigate Stormwater Impacts: use LID Structural Controls

After completing Steps 1 and 2, additional structural stormwater controls may be required to meet the LID site design objectives. Examples of LID BMPs include bioretention systems (e.g. swales, rain gardens), pervious pavements and pavers, and green roofs. There are several technical BMP manuals that provide design specifications. The permitting agency for your project can guide you to an appropriate manual.

### Design Tips:

- To more easily manage the stormwater from the entire site, conduct decentralized management: divide the site into discrete drainage areas within the project site (e.g. roof runoff) and design the BMP(s) as necessary to control that runoff.
- Use simple, small scale practices, such as rain gardens, which mimic nature and manage stormwater at the source.
- Make landscape and infrastructure multifunctional to leverage space and reduce costs. For example, use pervious pavement for a parking lot and direct any runoff to vegetated planting strips designed to provide stormwater benefits.

## Step 7 Evaluate Design to Determine if Stormwater Goals have been Achieved

Repeat Step 5 to determine if stormwater goals have been met. If not, reassess Step 4 and 7. An iterative approach to the design may be required to meet or establish maximum extent feasible.

## Attachment F - Salinas Existing Urban Subwatersheds

- 1) Natividad Creek Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Natividad Creek
  - a) NC-6000<sup>1</sup>
  - b) NC-3000
  - c) NC-1500
  - d) NC-5000
  - e) NC-4000
  - f) NC-2000
  - g) NC-1000
  - h) Other existing urban areas draining to Natividad Creek
  
- 2) Chavez Park Detention Basin Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Chavez Park Detention Basin
  - a) CL-3000
  - b) CL-2000
  - c) CL-1000
  - d) Other existing urban areas draining to Chavez Park Detention Basin
  
- 3) East Reclamation Ditch Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to the Reclamation Ditch east of Carr Lake
  - a) RD-4000
  - b) RD-4800
  - c) RD-6800
  - d) RD-7200
  - e) RD-8000
  - f) RD-8400
  - g) RD-9000
  - h) RD-9200
  - i) RD-9600
  - j) RD-7600
  - k) RD-6400
  - l) RD-6000
  - m) RD-5600
  - n) RD-5200
  - o) RD-4400
  - p) Other existing urban areas draining to the Reclamation Ditch east of Carr Lake
  
- 4) Gabilan Creek Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Gabilan Creek
  - a) GC-6000
  - b) GC-5000
  - c) GC-4000
  - d) GC-3000
  - e) GC-2000
  - f) GC-0500
  - g) Other existing urban areas draining to Gabilan Creek

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<sup>1</sup> Urban catchments are derived from “Modeled Existing Storm Drainage Subareas,” City of Salinas Stormwater Master Plan, April 2004.

- 5) Carr Lake Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Carr Lake
  - a) GC-1000
  - b) RD-3800
  - c) Other existing urban areas draining to Carr Lake
  
- 6) Santa Rita Creek Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Santa Rita Creek
  - a) SRC-1000
  - b) SRC-2000
  - c) SRC-3000
  - d) SRC-4000
  - e) SRC-5000
  - f) Other existing urban areas draining to Santa Rita Creek
  
- 7) Markeley Swamp Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to Markeley Swamp
  - a) MS-1000
  - b) MS-2000
  - c) MS-3000
  - d) Other existing urban areas draining to Markeley Swamp
  
- 8) West Reclamation Ditch Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to the Reclamation Ditch west of Carr Lake
  - a) RD-0800
  - b) RD-1600
  - c) RD-2400
  - d) RD-2800
  - e) RD-3600
  - f) RD-3200
  - g) RD-2600
  - h) RD-2000
  - i) RD-1200
  - j) RD-0400
  - k) Other existing urban areas draining to the Reclamation Ditch west of Carr Lake
  
- 9) Salinas River Existing Urban Subwatershed – Existing urban catchments and other developed areas draining to the stormwater pump station to the Salinas River
  - a) SR-0500
  - b) Other existing urban areas draining to the Salinas River

## Attachment G – Inspection Ratings

- 1) The Permittee shall determine Inspection Ratings during inspections of High Priority Municipal Facilities, Operations, and Events; Commercial and Industrial Facilities and Operations; and High Priority Construction Sites (collectively, “Sites”) as required according to Sections E.8.c (Municipal Maintenance: Quarterly Inspections for High Priority Municipal Facilities, Maintenance Operations, and Events), F.4 (Commercial and Industrial: Inspection of Facilities and Operations), and K.6.d (Construction Site Management: High Priority Construction Sites). The Permittee shall determine the Inspection Rating for each inspected Site using the following procedure, or an equivalent method approved by the Central Coast Water Board Executive Officer.
- a) The Permittee shall determine the Inspection Rating for each inspected Site, according to the Site’s level of compliance with the provisions of this Order and the Permittee’s BMP implementation requirements, and the level of risk of pollutant discharge from the Site, using the matrix contained in Table Attachment G.1.

Table Attachment G.1 – Inspection Rating

| Compliance Level           | Pollutant Discharge Risk Level |     |          |      |
|----------------------------|--------------------------------|-----|----------|------|
|                            | None                           | Low | Moderate | High |
| In Compliance              | A                              | B   | C        | --   |
| Minor Non-Compliance       | B                              | C   | D        | F    |
| Significant Non-Compliance | E                              | E   | F        | F    |

- b) Pollutant Discharge Risk Level – The Permittee shall determine the Pollutant Discharge Risk Level for each Site using Tables Attachment G.2, G.3, and G.4.
- i) High Priority Municipal Facilities, Operations, and Events; and Commercial and Industrial Facilities and Operations

Table Attachment G.2 – Pollutant Discharge Risk Level Definitions

| Risk Level | Definition   |
|------------|--|
| None       | No pollutant exposure to stormwater, and no reasonable possibility of pollutant discharge in runoff resulting from a ½-inch rain event               |
| Low        | Minor pollutant exposure to stormwater, and little or no reasonable expectation of pollutant discharge in runoff resulting from a ½-inch rain event  |
| Moderate   | Minor pollutant exposure to stormwater, and potential for minor pollutant discharge in runoff resulting from a ½-inch rain event                     |
| High       | More than minor pollutant exposure to stormwater, and potential for more than minor pollutant discharge in runoff resulting from a ½-inch rain event |

## ii) Fast Food Restaurants and Commercial Retail Centers

Table Attachment G.3 – Pollutant Discharge Risk Level Definitions

| <b>Risk Level</b> | <b>Meaning</b>   |
|-------------------|--|
| None              | On first glance, no trash visible  |
| Low               | On first glance, little or no trash visible; after close inspection, small levels of trash are evident |
| Moderate          | Trash is evident on first glance in parking, loading, and/or garbage areas                             |
| High              | Trash distracts the eye on first glance; substantial levels of trash are present                       |

## iii) High Priority Construction Sites

Table Attachment G.4 – Pollutant Discharge Risk Level Definitions

| <b>Risk Level</b> | <b>Meaning</b>   |
|-------------------|--|
| None              | No risk of sediment mobilization or discharge in runoff resulting from a ½-inch rain event                             |
| Low               | Little or no reasonable expectation of sediment mobilization or discharge in runoff resulting from a ½-inch rain event |
| Moderate          | Potential for minor sediment mobilization or discharge in runoff resulting from a ½-inch rain event                    |
| High              | Potential for more than minor sediment mobilization or discharge in runoff resulting from a ½-inch rain event          |

## c) Compliance Level – The Permittee shall determine the Compliance Level for each Site using Tables Attachment G.5, G.6, G.7, and G.8.

## i) High Priority Municipal Facilities, Operations, and Events – The Permittee shall determine the Compliance Level of each High Priority Municipal Facility, Operation, and Event in relation to the specific inspection checklist developed for each facility, operation, and event in accordance with Section E.4 (Municipal Maintenance: High Priority Municipal Facilities, Maintenance Operations, and Events).

Table Attachment G.5 – Compliance Level Definitions

| <b>Compliance Level</b>    | <b>Definition</b>   |
|----------------------------|---|
| In Compliance              | All BMPs identified in the Site-specific inspection checklist are properly implemented, installed, and maintained   |
| Minor Non-Compliance       | The Site contains only a small number of minor deviations from BMP implementation, installation, and maintenance requirements detailed in the Site-specific inspection checklist                      |
| Significant Non-Compliance | The Site contains significant deviations, or more than a few minor deviations, from BMP implementation, installation, and maintenance requirements detailed in the Site-specific inspection checklist |

## ii) Commercial and Industrial Facilities and Operations – The Permittee shall determine the Compliance Level of each Commercial and Industrial Facility and Operation in

relation to minimum BMPs designated by the Permittee in accordance with Section F.2 (Commercial and Industrial: Minimum BMPs) (for the type of Site under inspection) and guidance contained in the CASQA BMP Handbook for Industrial and Commercial,<sup>1</sup> or equivalent manual, that is appropriate for the type of Site.

Table Attachment G.6 – Compliance Level Definitions

| <b>Compliance Level</b>    | <b>Definition</b>  |
|----------------------------|--|
| In Compliance              | All BMP selection, implementation, installation, and maintenance is in accordance with minimum BMPs and with CASQA guidance, or equivalent |
| Minor Non-Compliance       | The Site contains only a small number of minor deviations from minimum BMPs or from CASQA guidance, or equivalent                          |
| Significant Non-Compliance | The Site contains significant deviations, or more than a few minor deviations, from minimum BMPs or from CASQA guidance, or equivalent     |

- iii) Fast Food Restaurants and Commercial Retail Centers – The Permittee shall determine the Compliance Level of each Fast Food Restaurant and Commercial Retail Center in relation to minimum trash and litter source control and clean-up BMPs designated by the Permittee in accordance with Section F.2 (Commercial and Industrial: Minimum BMPs), and in relation to selection, implementation, installation, and maintenance guidance for trash and litter source control and clean-up BMPs contained in the CASQA BMP Handbook for Industrial and Commercial, or equivalent manual.

Table Attachment G.7 – Compliance Level Definitions

| <b>Compliance Level</b>    | <b>Definition</b>  |
|----------------------------|--|
| In Compliance              | All trash and litter source control and clean-up BMPs are selected, implemented, installed, and maintained in accordance with minimum BMPs and with CASQA guidance, or equivalent  |
| Minor Non-Compliance       | The Site contains only a small number of minor deviations from minimum trash and litter source control and clean-up BMPs or from CASQA guidance, or equivalent, for trash and litter source control and clean-up BMPs                      |
| Significant Non-Compliance | The Site contains significant deviations, or more than a few minor deviations, from minimum trash and litter source control and clean-up BMPs or from CASQA guidance, or equivalent, for trash and litter source control and clean-up BMPs |

- iv) High Priority Construction Sites – The Permittee shall determine the Compliance Level of each High Priority Construction Site in relation to minimum requirements for erosion and sediment control designated by the Permittee in accordance with Sections K.3 (Construction Site Management: Minimum Construction BMPs for All

<sup>1</sup> California Stormwater Quality Association (CASQA). *Stormwater Best Management Practices Handbook for Industrial and Commercial*. CASQA, 2003.

Construction Sites) and K.4 (Construction Site Management: Minimum Requirements for High Priority Construction Sites), and in relation to selection, implementation, installation, and maintenance guidance for erosion and sediment control BMPs contained in the CASQA BMP Handbook for Construction,<sup>2</sup> or equivalent manual.

Table Attachment G.8 – Compliance Level Definitions

| <b>Compliance Level</b>    | <b>Definition</b>   |
|----------------------------|---|
| In Compliance              | All erosion and sediment control BMPs are selected, implemented, installed, and maintained in accordance with minimum BMPs and with CASQA guidance, or equivalent             |
| Minor Non-Compliance       | The Site contains only a small number of minor deviations from minimum BMPs or from CASQA guidance, or equivalent, for erosion and sediment control BMPs                      |
| Significant Non-Compliance | The Site contains significant deviations, or more than a few minor deviations, from minimum BMPs or from CASQA guidance, or equivalent, for erosion and sediment control BMPs |

- 2) The procedure for determining Inspection Ratings contained in this Attachment results in two Inspection Ratings for fast food restaurants, one related to general requirements for commercial and industrial facilities and operations and the other related to requirements for trash and litter control. The Permittee shall document and track both Inspection Ratings determined for each inspection of a fast food restaurant.
- 3) For the purpose of calculating average Inspection Rating or average increase in Inspection Rating, as required in this Order, the Permittee shall assign numeric point values to Inspection Ratings as follows: A = 5 points, B = 4 points, C = 3 points, D = 2 points, E = 1 point, and F = 0 points.
  - a) The Permittee shall determine the average Inspection Rating by computing the average of the point values assigned to Inspection Ratings, and then rounding down to the nearest whole number. The Inspection Rating corresponding to the resulting whole number shall be the average Inspection Rating.

Example: For five Sites with Inspection Ratings of “A,” “A,” “B,” “D,” and “F,” respectively, the average Inspection Rating is found by dividing the sum of corresponding point values (i.e.,  $5 + 5 + 4 + 2 + 0 = 16$ ) by the number of Inspection Ratings ( $16 / 5 = 3.2$ ) and rounding down to the nearest whole number. The resulting average Inspection Rating for these sites is therefore “C.”

- b) The Permittee shall determine the average increase in Inspection Rating by computing the average of increases over time in the point values assigned to the Inspection Ratings. The average increase in Inspection Rating is expressed as a numeric value.

Example: For five Sites with Inspection Ratings of “E,” “E,” “F,” “E” and “F,” respectively at one inspection, and Inspection Ratings of “D,” “E,” “E,” “C,” and “C,” respectively at a subsequent inspection, the average increase in Inspection Rating is computed as shown

<sup>2</sup> California Stormwater Quality Association (CASQA). *Stormwater Best Management Practices Handbook for Construction*. CASQA, 2003.



in the table below. The average increase in Inspection Rating for these sites is therefore 1.4.

| Site   | Inspection 1 |        | Inspection 2 |        | Increase in Points |
|--|--------------|--------|--------------|--------|--------------------|
|  | Rating       | Points | Rating       | Points |                    |
| 1  | E            | 1      | D            | 2      | 1                  |
| 2  | E            | 1      | E            | 1      | 0                  |
| 3  | F            | 0      | E            | 1      | 1                  |
| 4  | E            | 1      | C            | 3      | 2                  |
| 5  | F            | 0      | C            | 3      | 3                  |
| <b>Average Increase in Inspection Rating</b> |              |        |              |        | <b>1.4</b>         |

## Attachment H - Qualifying Retrofit Projects

Table Attachment H.1. Qualifying Retrofit Projects

| <b>Project Type</b>   | <b>Performance Goal(s)</b>  |
|---|---|
| Retrofits to existing retention or detention basins that reduce the volume  | 20 percent reduction in volume of discharge generated by the 10-year 24-hour storm  |
| Retrofits to existing retention or detention basins that reduce pollutant discharge   | 50 percent reduction in discharge, generated by the 10-year 24-hour storm, of particular POC  |
| Retrofits to existing storm drain infrastructure that reduce pollutants in discharges from a minimum of one Urban Subwatershed            | 50 percent reduction in discharge, generated by the 10-year 24-hour storm, of particular POC  |
| Retrofits to existing storm drain infrastructure that reduce trash in discharges from a minimum of one Urban Subwatershed                 | Installation of a trash capture device (or combination of devices) that screens 100 percent of the discharge, generated by the 10-year 24-hour storm, through a 2" screen |
| Retrofits to existing storm drain infrastructure that reduce the volume of stormwater discharges from a minimum of one Urban Subwatershed | 20 percent reduction in volume of discharge generated by the 10-year 24-hour storm  |
| Retrofits to existing streets that reduce volume of discharges to the MS4   | 20 percent reduction in volume of discharge, generated by the 10-year 24-hour storm, from at least 10,000 ft <sup>2</sup> existing impervious of surface                  |
| Retrofits to existing streets that reduce pollutants in discharges to the MS4   | 50 percent reduction in discharge, generated by the 10-year 24-hour storm, of particular POC from at least 10,000 ft <sup>2</sup> of existing impervious surface          |

Table Attachment H.1- Continued. Qualifying Retrofit Projects

| <b>Project Type</b>  | <b>Performance Goal(s)</b>   |
|--|--|
| Retrofits incorporated into road projects, provided that the retrofit treats the stormwater runoff from existing or replaced impervious surface (not new or additional impervious surface) | 20 percent reduction in volume of discharge, generated by the 10-year 24-hour storm, or 50 percent reduction in discharge, generated by the 10-year 24-hour storm, of particular POC from at least 10,000 ft <sup>2</sup> of existing impervious surface |
| Replace existing underground storm drain infrastructure with above-ground swales   | 0.25 miles of underground storm drain infrastructure replaced with above-ground swales (with natural bottom), designed to provide stormwater volume reduction and pollutant attenuation  |
| Floodplain acquisition   | Acquisition of 5 acres of floodplain, currently zoned for development, and rezone to prohibit future development   |
| Replacement of existing culvert  | Reduce erosion, improve fish passage, and restore natural stream geomorphology of one culvert  |
| Aquatic and riparian habitat enhancement projects  | Restore the degraded watershed processes impacted by stormwater management to protect water quality and beneficial uses, within 100 feet from both sides of a stream (measured from top of the bank), for 100 linear feet of stream                      |

## Attachment I – Standard Provisions

- 1) Duty to Comply [40 CFR 122.41(a)] and [40 CFR 122.41 (f)]
  - a) The Permittee shall comply with all of the provisions, terms, requirements and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action, Order termination, Order revocation and reissuance, Order modification, denial of renewal application, or a combination thereof. [40 CFR 122.41(a), California Water Code § 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350].
  - b) Any discharge of wastes other than specifically described in this Order is prohibited, and constitutes a violation of this Order.
  - c) The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
  - d) The filing of a request by the Permittee for an Order modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. [40 CFR 122.41(f)]
- 2) Duty to Mitigate [40 CFR 122.41(d)] - The Permittee shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
- 3) Inspection and Entry [40 CFR 122.41(i)] - The Permittee shall allow the Central Coast Water Board, State Water Resources Control Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon presentation of credentials and other documents as may be required by law, to:
  - a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
  - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
  - c) Inspect and photograph or videotape, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order or that are related to or may impact any stormwater or non-stormwater discharge; and
  - d) Sample or monitor, at reasonable times, for the purpose of assuring Order compliance or as otherwise authorized by the Clean Water Act or the California Water Code, any substances or parameters at any location.
- 4) Property Rights [40 CFR 122.41(g)] - This Order does not convey any property rights of any sort, or any exclusive privilege. This Order does not authorize any injury to person or property or invasion of other private rights, or any infringement of federal, State, or local law or regulations.
- 5) Signatory Requirements [40 CFR 122.22(b)], [40 CFR Section 122.22(c)], and [40 CFR 122.22(d)]
  - a) All applications, reports, or other information that are submitted to the Central Coast Water Board or USEPA shall be signed by a principal executive officer, ranking elected official of the Permittee, or by a duly authorized representative of that person and shall contain the following certification:

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. "

- b) A person is a duly authorized representative only if:
    - i) The authorization is made in writing by the principal executive officer or ranking elected official of the Permittee;
    - ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and,
    - iii) The written authorization is submitted to the Central Coast Water Board.
  - c) Changes to authorization - If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Central Coast Water Board prior to or together with any reports or information, to be signed by an authorized representative.
- 6) False Reporting [40 CFR 122.41(k)(2)] - Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment of not more than six months per violation, or by both.
- 7) Duty to Provide Information [40 CFR 122.41(h)] - The Permittee shall furnish the Central Coast Water Board or USEPA, during normal business hours, any requested information to determine compliance with this General Permit. The Permittee shall also furnish, upon request, copies of records required to be kept by this Order.
- 8) Proper Operation and Maintenance [40 CFR 122.41(e)] - The Permittee shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Order and with the requirements of the stormwater program. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by the Permittee when necessary to achieve compliance with the conditions of this Order.
- 9) Provisions of this Order are severable. If any provision of this Order or the application of any provision of this Order to any circumstance is found invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected.

- 10) Upset [40 CFR 122.41(n)]<sup>1</sup>
- a) Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
  - b) A Permittee that wishes to establish the affirmative defense of an upset in an action brought for non compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - i) An upset occurred and that the Permittee can identify the cause(s) of the upset;
    - ii) The permitted facility was being properly operated by the time of the upset;
    - iii) The Permittee submitted notice of the upset as required; and,
    - iv) The Permittee complied with any remedial measures required.
  - c) No determination made before an action for noncompliance, such as during administrative review of claims that non-compliance was caused by an upset, is final administrative action subject to judicial review.
  - d) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.
- 11) Modification, Reissuance or Termination [40 CFR 122.41(f)] - This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for an Order modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- 12) Public Review - All documents submitted to the Central Coast Water Board in compliance with the terms and conditions of this Order shall be made available to members of the public pursuant to the Freedom of Information Act (5 U.S.C. § 552), as amended, and the Public Records Act (California Government Code § 6250 et seq.). This Order, the SWDS, and the SWMP shall be made available for public review as well as by Permittee employees.
- 13) Noncompliance Reporting [40 CFR 122.41(l)(6)] –The Permittee shall report to the Central Coast Water Board any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the time schedule and corrective measures taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The time schedule and corrective measures are subject to modification by the Central Coast Water Board Executive Officer.
- 14) Other Noncompliance [40 CFR 122.41(l)(7)] - The Permittee shall report to the Central Coast Water Board within 30 days when they cannot certify compliance and/or when they have had other instances of noncompliance. The report shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the time schedule and corrective measures taken or planned to reduce, eliminate, and prevent reoccurrence of the

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<sup>1</sup> This provision applies to incidents where effluent limitations (numerical or narrative) as provided in this Order are exceeded, and which endanger public health or the environment.

noncompliance. The time schedule and corrective measures are subject to modification by the Central Coast Water Board Executive Officer.

- 15) Anticipated Noncompliance [40 CFR 122.41(l)(7)] - The Permittee shall give advance notice to the Central Coast Water Board of any planned changes in the regulated MS4 activity that may result in noncompliance with Order requirements.
- 16) Other Information [40 CFR 122.41(l)(8)] - Where the Permittee becomes aware that it failed to submit any relevant facts in an order application, or submitted incorrect information in an order application or in any report (including documents and other submitted information) to the Central Coast Water Board, it shall promptly submit such facts or information.
- 17) Duty to Reapply [40 CFR 122.41(b)] - If the Permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Permittee must apply for and obtain a new order.
- 18) Need to Halt or Reduce Activity Not a Defense [40 CFR 122.41(c)] - It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
- 19) Enforcement
  - a) The Central Coast Water Board is authorized to enforce the terms of this Order under several provisions of the California Water Code, including but not limited to, Sections 13385, 13386, and 13387.
  - b) The enforcement provisions contained in this Order shall not act as a limitation on the statutory or regulatory authority of the State Water Board or the Central Coast Water Board.
  - c) Nothing in this Order shall be construed to protect the Permittee from its liabilities under federal, State or local laws.
  - d) Except as provided for in 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.
  - e) Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the Clean Water Act.
  - f) Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.
  - g) Any violation of this Order constitutes violation of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act, and is the basis for enforcement, Order termination, Order revocation and reissuance, denial of an application for Order reissuance; or a combination thereof.
  - h) SWRCB and the Central Coast Water Board may impose administrative civil liability, may refer a discharger to the State Attorney General to seek civil monetary penalties, may seek injunctive relief or take other appropriate enforcement action as provided in the California Water Code or federal law for violation of Board orders.
  - i) Significant penalties may be imposed for violation of this Order, pursuant to California Water Code section 13385 and other State and federal statutes. Court-imposed liability may exceed \$25,000 per day, and the Central Coast Water Board may impose administrative fines exceeding \$10,000 per day. [40 CFR 122.41(a)(2)&(3)].

- j) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. Higher penalties may be imposed for repeat offenders. [40 CFR 122.41(j)(5)].
- k) Part 309 of the Clean Water Act provides significant penalties for any person who violates an Order condition implementing Parts 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act or any condition or limitation implementing any such section in an order issued under Part 402. Any person who violates any condition of this Order is subject to a civil penalty not to exceed \$27,500 per calendar day of such violation, as well as any other appropriate sanction provided by Part 309 of the Clean Water Act.
- l) The California Water Code also provides for administrative, civil, and criminal penalties, which in some cases are greater than those under the Clean Water Act.
- m) Any person failing to file a Report of Waste Discharge or other report or other document as required by this Order shall be subject to a civil penalty not to exceed \$5,000 per day.

## 20) Monitoring

- a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR Section 122.41(j)(1)].
- b) Monitoring results must be conducted according to test procedures under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR Section 122.41(j)(4)][40 CFR Section 122.44(i)(1)(iv)].
- c) Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all monitoring reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time.
- d) Records of monitoring information shall include:
  - i) The date, exact place, and time of sampling or measurements;
  - ii) The individual(s) who performed the sampling or measurements;
  - iii) The date(s) analyses were performed;
  - iv) The individual(s) who performed the analyses;
  - v) The analytical techniques or methods used; and
  - vi) The results of such analyses.

## 21) Reporting [40 CFR 122.42(c)] – The Permittee shall submit an Annual Report by July 3<sup>rd</sup> of each year. The Annual Report shall be compiled into one document. Each Annual Report shall include:

- a) A detailed table of contents that specifies each section, subsection and attachment;
- b) The specific permit requirement each piece information is supporting;
- c) The status of implementing the components of the storm water management program that are established as permit conditions;
- d) All changes made to the stormwater management program or SWMP;
- e) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and 40 CFR 122.26(d)(2)(v);



- f) A summary and analysis of data, including monitoring data, that is accumulated throughout the reporting year;
  - g) Annual expenditures and budget for year following each annual report;
  - h) A summary describing the number and nature of enforcement actions, inspections, and public education programs;
  - i) Identification of water quality improvements or degradation; and
  - j) Information satisfying all reporting requirements specified in this Order.
- 22) Transfers - This Order is not transferable. The Permittee shall submit written notification to the Central Coast Water Board to terminate coverage of this Order.
- 23) Duty to Minimize or Correct Adverse Impacts - The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- 24) Interim Effluent Limitations - The Permittee shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been, or may be, adopted by this Regional Board.
- 25) Minor Modifications of Order [40 CFR 122.63] – The Central Coast Water Board Executive Officer may modify this order to make the corrections or allowances for changes in the permitted activity following the procedures of 40 CFR 122.63 if processed as a minor modification. Minor modifications correct typographical errors or require more frequent monitoring or reporting by the Permittee.
- 26) Discharge is a Privilege [CWC section 13263(g)] - No discharge of waste into the waters of the State, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the State are privileges, not rights.

## Attachment J - Modifications to Stormwater Development Standards: Initial Flow Control Criteria

### 1.5.3 Numeric Criteria for Stormwater Management

3. The project applicant shall prepare an exhibit showing the entire site divided into discrete drainage areas and demonstrate in submitted site stormwater control plans (SWCPs) that for each discrete drainage area the following numeric criteria are met:
  - A. Volume Reduction Requirements: Runoff from impervious areas produced by the 24-hour 85<sup>th</sup> percentile storm (currently 0.6 inches of rainfall for the City of Salinas) is ~~either (1) retained.~~ If the project cannot retain the entire volume of runoff produced by the first 0.6 inches of rainfall on the impervious areas of the project in each drainage area, the project may detain the remaining portion of water. Detained runoff shall, ~~or (2) detained and allowed to infiltrate and/or seep away slowly, as occurs in a bioretention/retention facility, with biofiltration features,~~ designed with a minimum of 18 inches of soil, a design surface loading rate not exceeding 5 inches/hour, and a total volume (including surface detention, soil interstices, and subsurface storage) equal to the volume of runoff produced by the first 0.6 inches of rainfall on the drainage area tributary to the impervious areas of the project in each drainage area facility. The detention BMP(s) shall be unlined and designed to allow infiltration. If a project utilizes detention for meeting the volume reduction requirements, the project applicant shall demonstrate why full retention of the volume of runoff produced by the first 0.6 inches of rainfall on the impervious areas of the project in each drainage area is not practicable.

| Provision Section   | Submittal Date | Continuous Task | Task   |
|---|----------------|-----------------|--|
| <b>45 Days</b>  |                |                 |  |
| J.2   | 45 days        |                 | Develop a guidance document for the SWDS that identifies SWDS requirements and SWDS guidance                               |
| J.4   | AR             |                 | Apply interim applicability thresholds to Future Growth Areas  |
| J.4   | AR             | X               | Require applicable projects in Future Growth Areas to submit Stormwater Control Plans                                      |
| J.4   | AR             | X               | Require applicable projects in Future Growth Areas to apply LID design principles  |
| J.4   | AR             | X               | Require applicable projects in Future Growth Areas to implement source control measures                                    |
| J.4   | AR             | X               | Require applicable projects in Future Growth Areas to use decentralized controls   |
| J.4   | AR             |                 | Require applicable projects in Future Growth Areas to adhere to interim flow control criteria                              |
| <b>3 Months</b>   |                |                 |  |
| J.5   | AR             | X               | Develop and maintain an information management system  |
| L.1   | AR             | X               | Require Specific Plans or other master planning documents to meet requirements specified in Order                          |
| S.2   | AR             | X               | Enforcement information management system that tracks instances of violations  |
| S.2   | AR             | X               | Identify chronic violators   |
| Attach. D.2   | 3 months       |                 | Submit QAPP  |
| <b>6 Months</b>   |                |                 |  |
| H.3   | 6 months       |                 | Submit alternative to minimum of 20 percent of Permit coverage area designated as High Priority IDDE areas (optional task) |
| K.10  | AR             | X               | Develop and maintain information management system for construction sites  |
| <b>21 Weeks After Central Coast Water Board's Adoption of Joint Effort Criteria</b> |                |                 |  |
| J.2   | *              |                 | Revise SWDS to separate the document into SWDS Requirements and SWDS Guidance  |
| J.3   | *              |                 | Revise SWDS to include Non-Priority Development Project requirements   |
| J.3   | AR             |                 | Establish legal authority to require long-term maintenance of Non-Priority Development Project BMPs                        |
| J.3   | AR             | X               | Develop guidance for long-term BMP maintenance and provide to Non-Priority Development Project owners                      |
| J.4   | *              |                 | Revise SWDS to include requirement for Priority Development Project applicants to submit a Stormwater Control Plan         |
| J.4   | *              |                 | Revise SWDS to include requirement for Priority Development Project applicants to adhere to site layout requirements       |
| J.4   | *              |                 | Revise SWDS to include requirement for Priority Development Project applicants to implement source control measures        |
| J.4   | *              |                 | Revise SWDS to include requirement for Priority Development Projects to use decentralized controls                         |

| Provision Section   | Submittal Date | Continuous Task | Task   |
|---|----------------|-----------------|--|
| <b>21 Weeks After Central Coast Water Board's Adoption of Joint Effort Criteria - Continued</b> |                |                 |  |
| J.4   | *              |                 | Revise SWDS to include Priority Development Project final flow control criteria (includes: applicability criteria, numeric flow control criteria, modeling requirements)   |
| J.4   | *              |                 | Revise SWDS to include Priority Development Project final treatment criteria (includes: applicability criteria, pollutant identification and reduction criteria, numeric treatment criteria)   |
| J.4   | *              |                 | Submit model biotreatment soil media specifications report   |
| J.4   | *              |                 | Revise SWDS to include Priority Development Project requirements for operation and maintenance plans   |
| <b>33 Weeks</b>   |                |                 |  |
| O.2   | 33 weeks       | X               | Submit a Wasteload Allocation Attainment Plan to document how the Permittee will achieve its wasteload allocation for the Lower Salinas River Watershed Fecal Coliform TMDL. Start implementing the Wasteload Allocation Attainment Plan for the Lower Salinas River Watershed Fecal Coliform within 60 days of submitting the plan. |
| <b>Year 1</b>   |                |                 |  |
| D.3   | AR             |                 | Develop all components of Stormwater Management Plan   |
| E.5   | AR             | X               | Inspect all catch basins and clean as required   |
| E.5   | AR             | X               | Measure and record the depth of sediment and debris in catch basins and the total volume of sediment and debris removed from catch basins  |
| E.6   | AR             | X               | Develop and keep current sweeping map  |
| E.6   | AR             | X               | Sweep streets and parking lots   |
| E.6   | AR             | X               | Track the number of route miles swept for each sweeping event for each route   |
| E.6   | AR             | X               | Track the volume of solids collected for each sweeping event during the dry season for each route  |
| E.6   | AR             | X               | Track the total volume of solids collected for all sweeping events during the dry season for each route  |
| E.6   | AR             | X               | Track the total volume of solids collected for all sweeping events during the dry season for all routes  |
| E.6   | AR             | X               | Track the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations   |
| E.6   | AR             | X               | Develop and implement procedure to dispose of street sweeper waste material  |
| E.7   | AR             | X               | Verification of the maintenance of structural BMPs   |
| E.9   | AR             | X               | Develop and implement assessment and reduction of water quality impacts in new flood management projects   |
| E.10  | AR             | X               | Develop and maintain information management system   |
| E.12  | AR             |                 | Develop plan for Salinas River Outfall   |
| E.13  | AR             | X               | Staff training and assessment  |

| Provision Section         | Submittal Date | Continuous Task | Task  |
|---------------------------|----------------|-----------------|---|
| <b>Year 1 - Continued</b> |                |                 |   |
| F.5                       | AR             | X               | Obtain, track and analyze monitoring data collected by enrollees in the General Industrial Permit   |
| F.6                       | AR             | X               | Develop and maintain information management system  |
| F.9                       | AR             | X               | Staff training and assessment   |
| G.3                       | AR             | X               | Staff training and assessment   |
| H.4                       | AR             |                 | Assess the percentage of residents who are not fluent in English and determine if the promotion and publicity of the reporting system must be bilingual to be effective |
| H.4                       | AR             | X               | Develop, implement, promote and publicize illicit discharge reporting system.   |
| H.4                       | AR             | X               | Develop information management system to track reports of illicit discharges  |
| H.4                       | AR             | X               | Develop and maintain written response procedure   |
| H.4                       | AR             | X               | Develop mechanism for sewage spill notification   |
| H.4                       | AR             | X               | Test reporting system   |
| H.4                       | AR             | X               | Include illicit discharge reporting procedure in fleet vehicles   |
| H.8                       | AR             | X               | Facilitate disposal of household hazardous waste  |
| H.9                       | AR             |                 | Identify storm drains to be labeled and dumping signs to be installed   |
| H.9                       | AR             |                 | Assess the percentage of residents who are not fluent in English and determine if signage and storm drain messages must be bilingual to be effective                    |
| H.11                      | AR             | X               | Enforcement of illicit discharges   |
| H.12                      | AR             | X               | Staff training and assessment   |
| J.6                       | AR             | X               | Staff training  |
| K.7                       | AR             | X               | Inspect structural BMP installation   |
| K.9                       | AR             | X               | Enforcement of construction site management   |
| K.11                      | AR             | X               | Staff training and assessment   |
| L.1                       | AR             |                 | Revise planning and building requirements related to new development and redevelopment projects subject to parcel-scale development requirements                        |
| L.1                       | AR             | X               | Modify and implement riparian setback requirements  |
| L.1                       | AR             |                 | CEQA process updates  |
| L.3                       | AR             | X               | Participate in the Salinas Valley Integrated Regional Water Management process  |
| L.3                       | AR             | X               | Upon next revision of General Plan Housing Element, identify areas to address stormwater in flood management decisions  |
| M.8                       | AR             | X               | Implement education for new development and redevelopment projects  |
| N.2.a                     | AR             | X               | Identify and implement trash control BMPs   |
| N.2.b                     | AR             | X               | Inspect surface drainage structures   |

| Provision Section         | Submittal Date | Continuous Task | Task   |
|---------------------------|----------------|-----------------|--|
| <b>Year 1 - Continued</b> |                |                 |  |
| P.1.b                     | AR             | X               | Track pesticide, herbicide, and fertilizer usage data  |
| P.1.b                     | AR             | X               | Record and track all exceptions, exemptions, and variances from Riparian Protection Policies and Requirements  |
| P.1.b                     | AR             | X               | Determine the total amount of riparian encroachment and mitigation/creation  |
| P.2.a                     | AR             |                 | Quantify annual Urban Subwatershed pollutant loads   |
| P.2.c                     | AR             |                 | Quantify Pre-developed, Developed, and 24-Hour 85th Percentile Storm Event runoff volume   |
| P.4.c                     | AR             | X               | Conduct Stormwater Discharge Trend Monitoring  |
| P.5                       | AR             | X               | Conduct Receiving Water Monitoring and Background Receiving Water Monitoring   |
| Q.2                       | AR             | X               | Delineate existing and future urban subwatersheds  |
| Q.2                       | AR             | X               | Create and maintain a MS4 system map   |
| Q.3                       | AR             | X               | Identify and map all ephemeral, intermittent, and perennial water bodies   |
| Q.4                       | AR             |                 | Submit the dominant watershed processes for each urban subwatershed  |
| R.2                       | AR             | X               | Annual Budget Summary for the current reporting year   |
| R.2                       | AR             | X               | Annual Fiscal Analysis for the upcoming reporting year   |
| S.1                       | AR             | X               | Review and revise the existing municipal codes, ordinances, statutes, standards, specifications, permits, contracts, and other regulations in order to implement and enforce all of the requirements of this Order |
| S.2                       | AR             |                 | Enforcement Response Plan  |
| S.3                       | AR             |                 | Statement certified by the Permittee's chief legal council   |
| S.4                       | AR             | X               | Staff training   |
| <b>Year 2</b>             |                |                 |  |
| E.1                       | AR             | X               | Municipal maintenance inventory  |
| E.2                       | AR             | X               | Municipal facilities, maintenance operations, and events assessment  |
| E.3                       | AR             | X               | Develop and implement minimum BMPs for municipal facilities, maintenance operations, and events  |
| E.4                       | AR             | X               | Develop, update, and implement a stormwater pollution prevention plan for High Priority Municipal Facilities and Events  |
| E.4                       | AR             | X               | Develop, update, and implement standard operating procedures for High Priority Maintenance Operations  |
| E.5                       | AR             | X               | Develop and implement a tiered catch basin inspection and cleaning schedule  |
| E.6                       | AR             |                 | Identify modifications to the sweeping schedule for the 24 routes the Permittee currently sweeps biweekly to optimize total sediment removal   |

|                          |                       | <b>Year 2 - Continued</b> |  |
|--------------------------|-----------------------|---------------------------|--|
| <b>Provision Section</b> | <b>Submittal Date</b> | <b>Continuous Task</b>    | <b>Task</b>  |
| E.6                      | AR                    | X                         | Develop a strategy designed to increase over time the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations   |
| E.6                      | AR                    | X                         | Develop and implement BMPs to reduce the tracking of dirt and other debris onto streets.   |
| E.6                      | AR                    | X                         | Develop and utilize legal authority for tracking of dirt and other debris onto streets   |
| E.8                      | AR                    |                           | Develop inspections of Municipal Facilities, Maintenance Operations, and Events  |
| E.11                     | AR                    | X                         | Coordinate with Monterey County Water Resources Agency   |
| F.1                      | AR                    | X                         | Commercial and industrial inventory  |
| F.2                      | AR                    | X                         | Designate and require implementation of minimum BMPs   |
| F.3                      | AR                    | X                         | Notify commercial and industrial owners and operators of stormwater requirements   |
| F.4                      | AR                    |                           | Develop inspection procedures including Inspection Ratings   |
| G.1                      | AR                    | X                         | Prioritize residential areas and activities  |
| H.2                      | AR                    | X                         | Update MS4 System Map  |
| H.3                      | AR                    | X                         | High Priority IDDE areas: develop and implement procedures, identify and map.  |
| H.5                      | AR                    | X                         | Develop and implement procedures for illicit discharge identification  |
| H.5                      | AR                    | X                         | Conduct drive-by inspections   |
| H.5                      | AR                    | X                         | Develop and maintain information management system for drive-by inspections  |
| H.5                      | AR                    | X                         | Review results of drive-by inspections   |
| H.6                      | AR                    | X                         | Develop dry weather screening procedures, parameters, stations, and information management system  |
| H.6                      | AR                    | X                         | Identify dry weather screening stations and include the station location on the MS4 System Map   |
| H.9                      | AR                    | X                         | Label storm drains   |
| H.9                      | AR                    |                           | Post signs discouraging illegal dumping  |
| H.10                     | AR                    | X                         | Prohibit excessive water application   |
| H.10                     | AR                    | X                         | Develop and implement an effective plan to reduce Incidental Runoff  |
| K.1                      | AR                    | X                         | Develop and maintain a construction site inventory to track all construction sites the Permittee has jurisdictional authority over in the Permit coverage area |
| K.2                      | AR                    |                           | Establish criteria for High Priority Construction Sites  |
| K.3                      | AR                    | X                         | Require minimum BMPs for all construction sites  |
| K.4                      | AR                    | X                         | Implement minimum requirements for High Priority Construction Sites  |
| K.5                      | AR                    | X                         | Review construction plans  |
| L.2                      | AR                    | X                         | Derive a list of a minimum of 5 candidate retrofit projects  |
| L.3                      | AR                    | X                         | Identify stormwater management opportunities consistent with the Integrated Regional Water Management Functionally Equivalent Plan Update                      |

| Provision Section         | Submittal Date | Continuous Task | Task  |
|---------------------------|----------------|-----------------|---|
| <b>Year 2 - Continued</b> |                |                 |   |
| L.3                       | AR             | X               | Participate in development of salt and nutrient management plan(s) for all applicable groundwater basins per State Water Board Recycled Water Policy (State Water Board Resolution No. 2009-0011) |
| M.3                       | AR             |                 | Identify Highest Priority Stormwater Issues   |
| M.4                       | AR             |                 | Identify target audiences for each identified Priority Stormwater Issue   |
| M.9                       | AR             | X               | Implement public advisory group   |
| M.10                      | AR             | X               | Keep website up-to-date   |
| N.2.c                     | AR             |                 | Identify sources of trash; evaluate and modify trash control BMPs   |
| N.3                       | AR             | X               | Prioritize areas for trash reduction  |
| N.3                       | AR             | X               | Develop and implement Trash Reduction Plan  |
| P.1.a                     | AR             |                 | Develop plan for assessing effectiveness of public education and municipal staff training BMPs  |
| P.1.b                     | AR             | X               | Evaluate and modify structural BMP maintenance efforts  |
| P.1.b                     | AR             |                 | Compare pesticide, herbicide, and fertilizer usage over time; evaluate and modify BMPs to reduce usage prior to rain events   |
| P.1.b                     | AR             |                 | Analyze industrial stormwater data submitted under the General Industrial Permit; identify Target Pollutant   |
| P.3.b                     | AR             | X               | Conduct Trash Assessments   |
| P.4.b                     | AR             | X               | Conduct Urban Catchment Action Level Pilot Projects Monitoring  |
| Q.2                       | AR             | X               | Map existing connections  |
| Q.3                       | AR             | X               | Identify and map zones that infiltrate stormwater   |
| Q.4                       | AR             | X               | Conduct a rapid assessment for Gabilan and Natividad Creeks   |
| Q.4                       | AR             | X               | Identify and map riparian vegetation and habitat for Gabilan and Natividad Creeks   |
| Q.4                       | AR             | X               | Acquire and map impervious cover data   |
| Q.5                       | AR             | X               | Maintain meteorological data  |
| <b>Year 3</b>             |                |                 |   |
| E.5                       | AR             |                 | Implement modified catch basin inspection and cleaning program  |
| E.6                       | AR             | X               | Implement modifications to the sweeping schedule for the 24 routes the Permittee currently sweeps biweekly to optimize total sediment removal   |
| E.6                       | AR             | X               | Implement strategy designed to increase over time the percentage of curb miles covered by sweeping routes that are actually swept during sweeping operations                                      |
| E.8                       | AR             | X               | Implement inspections of Municipal Facilities, Maintenance Operations, and Events   |



| <b>Year 3 - Continued</b> |                       |                        |  |
|---------------------------|-----------------------|------------------------|--|
| <b>Provision Section</b>  | <b>Submittal Date</b> | <b>Continuous Task</b> | <b>Task</b>  |
| F.4                       | AR                    | X                      | Implement inspections of commercial and industrial facilities or operations  |
| G.2                       | AR                    | X                      | Designate and require implementation of minimum BMPs   |
| G.5                       | AR                    | X                      | Implement or require implementation of minimum BMPs for High Priority Private Development  |
| G.5                       | AR                    | X                      | Keep updated list of residential areas where stormwater conveyance system components are not owned or operated by the Permittee and designation of which areas are High Priority Private Development                                     |
| H.6                       | AR                    | X                      | Conduct dry weather screening  |
| H.6                       | AR                    | X                      | Develop and maintain an effective information management system to track dry weather screening   |
| H.7                       | AR                    | X                      | Develop and implement illicit discharge source investigation   |
| K.6                       | AR                    | X                      | Develop and implement inspections of construction sites and information management system to track inspections   |
| L.1                       | AR                    | X                      | Urban watershed-scale planning for specified land use actions  |
| N.2.c                     | AR                    |                        | Implement modifications to trash and litter control BMPs   |
| N.2.d                     | AR                    | X                      | Adopt and implement Trash Reduction Ordinance  |
| P.1.a                     | AR                    |                        | Assess effectiveness of public education and municipal staff training BMPs; modify BMPs to increase effectiveness  |
| P.1.b                     | AR                    | X                      | Evaluate effectiveness of BMPs at achieving target Inspection Ratings during inspections of High Priority Municipal Facilities and Operations, Commercial and Industrial Facilities and Operations, and High Priority Construction Sites |
| P.1.b                     | AR                    | X                      | Evaluate effectiveness of follow-up efforts at increasing Inspection Ratings through reinspections of low-performing High Priority Municipal Facilities and Operations and Commercial and Industrial Facilities and Operations           |
| P.1.b                     | AR                    | X                      | Compare the total volume of solids collected each dry season for the 24 routes identified in Section E.6.c with the total volume of solids collected in Year 1 to determine if the total volume of solids collected increased            |
| P.1.b                     | AR                    |                        | Evaluate effectiveness of BMPs and modify to reduce discharges of the Target Pollutant   |
| P.3.a                     | AR                    | X                      | Implement actions in response to Stormwater Discharge Action Level exceedances, as required  |
| P.3.b                     | AR                    | X                      | Implement actions in response to Trash Assessment Scores, as required  |
| Q.4                       | AR                    | X                      | Conduct a rapid assessment (except for Gabilan and Natividad Creeks)   |

| Provision Section         | Submittal Date | Continuous Task | Task  |
|---------------------------|----------------|-----------------|---|
| <b>Year 3 - Continued</b> |                |                 |   |
| Q.4                       | AR             | X               | Identify and map riparian vegetation and habitat (except for Gabilan and Natividad Creeks)  |
| <b>Year 4</b>             |                |                 |   |
| L.1                       | AR             | X               | Review and update riparian protection policies and requirements based on existing riparian vegetation and habitat and growth potential  |
| L.3                       | AR             |                 | Submit language from salt and nutrient management plan(s) identifying stormwater recharge/use goals and objectives  |
| M.6                       | AR             |                 | Assessments of knowledge increase in target audiences for each Priority Stormwater Issue  |
| M.7                       | AR             | X               | Pilot projects expanded throughout the Permit coverage area.  |
| M.7                       | AR             | X               | Replacement pilot projects shall be implemented   |
| N.4                       | AR             | X               | Develop and implement Trash Reduction Tracking Methodology  |
| P.1.b                     | AR             | X               | Evaluate effectiveness of BMPs and modify to achieve increasing Inspection Ratings at High Priority Municipal Facilities and Operations, Commercial and Industrial Facilities and Operations, and High Priority Construction Sites                                  |
| P.1.b                     | AR             | X               | Evaluate effectiveness of BMPs and modify to achieve an increasing trend in Inspection Rating improvement achieved through reinspection of low-performing High Priority Municipal Facilities and Operations and Commercial and Industrial Facilities and Operations |
| P.1.b                     | AR             | X               | Evaluate effectiveness of BMPs and modify to increase percentage of High Priority Construction Sites ready for rain events  |
| P.1.b                     | AR             |                 | Identify two Urban Subwatersheds for sediment source analysis   |
| P.2.b                     | AR             |                 | Determine Baseline Trash Load and annual Trash Load Reduction   |
| <b>Year 5</b>             |                |                 |   |
| E.6                       | AR             |                 | Integrate sweeping routes into the watershed characterization map   |
| H.9                       | AR             |                 | Label all MS4 system inlets in areas with foot traffic  |
| L.2                       | AR             |                 | Submit long-term retrofit plan  |
| L.2                       | AR             |                 | Complete 60% design of at least one qualifying retrofit project   |
| P.1.a                     | ROWD           |                 | Re-assess effectiveness of public education and municipal staff training BMPs   |
| P.1.b                     | ROWD           |                 | Analyze and identify sources of sediment to identified Urban Subwatersheds; evaluate and modify sediment control BMPs   |
| P.1.b                     | ROWD           |                 | Identify modifications to the sweeping schedule to optimize the total volume of solids collected  |

| Provision Section  | Submittal Date | Continuous Task | Task  |
|--|----------------|-----------------|---|
| <b>Year 5 Continued</b>  |                |                 |   |
| P.1.b  | ROWD           |                 | Evaluate effectiveness of modifications made to reduce discharges of the Target Pollutant   |
| P.1.b  | ROWD           |                 | Evaluate exceptions, exemptions, and variances permitted; inspect each riparian area created, enhanced, or restored; evaluate the effectiveness of its development planning and review process at protecting riparian areas |
| P.2.a  | ROWD           |                 | Re-quantify annual Urban Subwatershed pollutant loads   |
| P.2.b  | ROWD           |                 | Evaluate and modify Trash Load Reduction Program  |
| P.2.c  | ROWD           |                 | Re-quantify Pre-developed, Developed, and 24-Hour 85th Percentile Storm Event runoff volume   |
| P.4.d  | ROWD           |                 | Analyze Stormwater Discharge Trend Monitoring data for stormwater discharge quality trends  |
| P.5  | ROWD           |                 | Analyze Receiving Water Monitoring data for receiving water quality trends  |
| P.6  | ROWD           |                 | Determine Urban Subwatershed Program Effectiveness Ratings  |
| P.7  | ROWD           |                 | Identify Urban Subwatershed Stormwater Management Program improvements needed   |
| U.1  | ROWD           |                 | Report of Waste Discharge application for renewal of waste discharge requirements.  |
| <b>To Be Determined</b>  |                |                 |   |
| O.2  | TBD            |                 | Within one year of TMDL approval by the Office of Administrative Law, submit a plan for meeting the Permittee's wasteload allocation for every TMDL where the Permittee is listed as a responsible party                    |
| O.2  | AR             | X               | Within 60 days of submitting a Wasteload Allocation Attainment Plan start implementing the plan. Submit a summary of Wasteload Allocation Attainment Plan implementation.   |
| <b>Notes:</b>  |                |                 |   |
| * = Due 30 days prior to 21 weeks after Central Coast Water Board's adoption of Joint Effort criteria  |                |                 |   |
| AR = Due with the Permittee's Annual Report  |                |                 |   |
| ROWD = Due with the Report of Waste Discharge on August 6, 2016  |                |                 |   |
| In the Submittal Date column, dates that are listed in terms of months (e.g., 3 months) are due the specified months after the adoption of this Order  |                |                 |   |
| Items with an "X" in the Continuous Task column, have additional submittal dates and/or implementation requirements in subsequent years.   |                |                 |   |
| This table contains a brief summary of requirements contained in the Provisions. If a conflicting date is found in the Provisions, the Provisions shall prevail. If the Provisions include a requirement not included in this table, the Permittee shall implement that requirement. |                |                 |   |