

- (IV) Storm drain clean-outs (include dumping fees separately);
- (V) Other costs (describe);
- (vii) Public information and participation program;
- (viii) Monitoring program; and
- (ix) Miscellaneous expenditures (describe).

PART 4 – Modifications/Revisions

1. No later than April 1, 2011 each Co-Permittee shall modify storm water management programs, protocols, practices, and municipal codes to make them consistent with the requirements herein, unless otherwise specified in this Order.
2. The Regional Water Board shall consider approval of requested modifications to the Management Plan annually or as the Regional Water Board decides is necessary.

PART 5 – Responsibilities of the Co-Permittees

1. Each Co-Permittee is required to comply with the requirements of this Order applicable to MS4 discharges within its boundaries. Each Co-Permittee shall:
 - (a) Comply with the requirements of this Order and any modifications thereto;
 - (b) Participate in intra-agency coordination (e.g., Planning Department, Fire Department, Building and Safety, Code Enforcement, Public Health, Parks and Recreation, and others) necessary to successfully implement the provisions of this Order;
 - (c) Report, in addition to the Annual Budget Summary, any supplemental dedicated budgets for the same categories;
 - (d) Participate in the Sonoma County Environmental Crimes Task Force, when possible;
 - (e) Provide technical and administrative support for committees that will be organized to implement this Order and its requirements;
 - (f) Evaluate, assess, and synthesize the results of the monitoring program and the effectiveness of the implementation of BMPs; and
 - (g) Provide personnel and fiscal resources for the collection, processing and submittal to the Regional Water Board of monitoring and annual reports, and summaries of other reports required under this Order.

E. SPECIAL PROVISIONS

PART 1 – General Requirements

1. This Order and the provisions herein are intended to assist the City of Santa Rosa, County of Sonoma, and the Sonoma County Water Agency in developing, implementing and achieving a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water to the MEP and achieve WQS.
2. The current Management Plan and updates, when developed by the Co-Permittees and approved by the Regional Water Board, after public review, are incorporated into this Order and are fully enforceable.
3. Best Management Practice Program Substitution
 - (a) The Regional Water Board Executive Officer may approve any specific BMP program substitution upon petition by a Co-Permittee(s) and after public notice, if the Co-Permittee can document that:
 - (1) The proposed alternative BMP program will meet or exceed the objective of the original BMP program in the reduction of storm water pollutants;
 - (2) The fiscal burden of the original BMP program is substantially greater than the proposed alternative and does not achieve a substantially greater improvement in storm water quality; and
 - (3) The proposed alternative BMP program will be implemented within a similar period of time.
4. Best Management Practice Substitution
 - (a) The Co-Permittees may substitute a site-specific BMP and will keep records of any site-specific BMP substitution and document the reasoning for the substitution, including a demonstration that:
 - (1) The proposed alternative BMP will meet or exceed the objective of the original BMP in the reduction of storm water pollutants;
 - (2) The fiscal burden of the original BMP is greater than the proposed alternative and does not achieve a greater improvement in storm water quality; and
 - (3) The proposed alternative BMP will be implemented within a similar period of time.

PART 2 – Public Information and Participation Program (PIPP)

1. The Co-Permittees shall implement a Public Information and Participation Program (PIPP) that includes, but is not limited to, the requirements listed in

this section. The Co-Permittees shall be responsible for developing and implementing the PIPP, and shall coordinate with other entities (such as Sonoma State University and the Santa Rosa Junior College) to implement specific requirements. The objectives of the PIPP are as follows:

- (a) To measurably increase the knowledge of the target audience about the MS4, the adverse impacts of storm water pollution on receiving waters and potential solutions to mitigate the impacts;
- (b) To measurably change behavior of target audiences regarding waste disposal and activities that generate storm water pollution by encouraging implementation of appropriate solutions;
- (c) To involve and engage communities in Sonoma County to participate in mitigating the impacts of storm water pollution; and
- (d) To regularly review PIPP program elements to ensure that efforts are effective in educating the public and changing behavior. At a minimum, the Co-Permittees shall devote one regular MS4 Co-Permittee meeting per year to discuss PIPP program effectiveness.

2. Residential Program

- (a) "No Dumping" Message
 - (1) Each Co-Permittee shall label all storm drain inlets in parking lots, gutters and streets that they own with a legible "no dumping" message. In addition, signs with prohibitive language discouraging illegal dumping shall be posted at selected designated public access points to creeks, and channels where dumping has occurred. Signage and storm drain messages shall be legible and maintained. The Co-Permittees shall label 20 percent of all unlabeled storm drain inlets each year, with a goal of 100 percent of all storm drain inlets to be labeled by October 1, 2013.
- (b) Public Reporting
 - (1) Co-Permittees shall include contact information in outreach efforts for reporting clogged storm drain inlets and illicit discharges/dumping, faded or missing storm drain inlet labels, and general storm water management information. This information must be updated by July 1st of each year in public information media, such as the government pages of the telephone book, and internet web sites. Each Co-Permittee is responsible for keeping current, updated contact information in an easily accessible page on their web sites.
- (c) Outreach and Education
 - (1) Co-Permittees shall implement the following activities:
 - (A) Conduct a storm water pollution prevention advertising campaign;

- (B) Conduct storm water pollution prevention public service announcements;
 - (C) Distribute storm water pollution prevention public education materials to:
 - (i) Automotive parts stores;
 - (ii) Home improvement centers, lumber yards, hardware stores, landscape supply stores, nurseries, and stores where fertilizers and pesticides are sold;
 - (iii) Pet shops and feed stores; and
 - (iv) Local fairs and events.
 - (D) Public education materials shall include, but are not limited to information on the proper disposal, storage, and use of:
 - (i) Vehicle waste fluids;
 - (ii) Household waste materials;
 - (iii) Construction waste materials;
 - (iv) Pesticides and fertilizers (including integrated pest management practices-IPM);
 - (v) Litter;
 - (vi) Green waste (including lawn clippings and leaves); and
 - (vii) Animal wastes.
 - (E) Using previously conducted public survey results, work with existing local watershed groups, or organize watershed citizen advisory groups or committees to educate the public about storm water pollution; and
 - (F) Organize or participate in events targeted to residents.
- (2) The Co-Permittees shall develop a strategy to educate Spanish-speaking communities through culturally effective methods. Details of this strategy should be incorporated into the PIPP, and implemented, no later than October 1, 2010;
 - (3) Each Co-Permittee shall continue the existing outreach program to residents on proper lawn care and water conservation practices;
 - (4) Each Co-Permittee shall conduct educational activities within its jurisdiction and participate in countywide events;
 - (5) The Co-Permittees shall make impressions on at least 25% of the permanent population within the permit area per year relating to storm water quality, with a minimum of (15%) impressions via newspaper, local TV access, billboard, local radio, internet access, and/or other advertising techniques or media;
 - (6) The Co-Permittees, shall provide schools with materials, including, but not limited to, videos, live presentations, and other

- information necessary to educate a minimum of 40% of all school children (K-12) every 2 years on storm water pollution;
- (7) The Co-Permittees shall develop and implement a strategy to measure the effectiveness of school educational programs. The protocol shall include assessment of students' knowledge of the adverse impacts of storm water pollution and its solutions before and after educational programs are conducted. The strategy shall be implemented no later than September 1, 2011; and
 - (8) The Co-Permittees shall develop and implement a behavioral change assessment strategy no later than October 1, 2012, to assess whether the PIPP is demonstrably effective in changing the behavior of the public.
- (d) Pollutant-Specific Outreach
- (1) The Co-Permittees shall coordinate to develop outreach programs that focus on watershed-specific pollutants identified in Table 1 in the Fact Sheet (Impaired Water Bodies) no later than October 1, 2011.
3. Businesses Program
- (a) Corporate Outreach
 - (1) The Co-Permittees shall work with other regional or statewide agencies and associations such as the California Storm Water Quality Association (CASQA), to develop and implement a Corporate Outreach program to educate and inform corporate and/or franchise operators and local facility managers about storm water regulations and BMPs. The program shall target a minimum of four retail gasoline outlets (RGOs) franchisers and cover a minimum of 80% of RGO franchisees in the county, four retail automotive parts franchisers, two home improvement center franchisers and six restaurant franchisers. Corporate Outreach for all target facilities shall be conducted not less than once during the term of this Order, with the first outreach contact to begin no later than October 1, 2013. At a minimum, this program shall include:
 - (A) Meetings with corporate management and/or facility operators and local facility managers to explain storm water regulations; and
 - (B) Distribution and discussion of educational material regarding storm water pollution and BMPs, and provide managers with recommendations to facilitate employee and facility compliance with storm water regulations.
 - (b) Business Assistance Program
 - (1) The Co-Permittees shall implement a Business Assistance Program to provide technical resource assistance to small

- shall be consistent with the requirements of this Order and shall include one or more of the following:
- (i) A simplified method using LID BMPs with accepted sizing criteria to provide hydromodification control;
 - (ii) A numerical model to predict the hydrological changes resulting from new development and provide mitigation; or
 - (iii) A numerical model to identify effective end of pipe or flow duration control mitigation strategies.
- (D) **The Hydromodification Control Plan shall:**
- (i) Minimize reduction of ground water recharge rates based on natural site conditions;
 - (ii) Describe authorized hydromodification management control BMPs;
 - (iii) Describe hydromodification management control BMP design criteria;
 - (iv) Describe the range of flows controllable with flow duration control methods;
 - (v) Describe the approved hydromodification method or model;
 - (vi) Describe any alternate hydromodification management model and design;
 - (vii) Describe stream restoration measures design criteria;
 - (viii) Allow a developer an exception to the hydromodification requirements if it can be adequately demonstrated to the Regional Water Board Executive Officer that the project runoff flows will have a positive impact on receiving waters (such as for sediment transport); and
 - (ix) **Include a monitoring and effectiveness assessment.**
- (E) The Co-Permittees shall provide Regional Water Board staff quarterly or more frequently if needed, verbal updates on the progress of the Hydromodification Control Plan and invite Regional Water Board staff to all meetings held to develop the Hydromodification Plan.
- (F) Interim Hydromodification Control Requirements
- (i) The Interim Hydromodification Control Requirements to protect receiving waters until Co-Permittees complete a Hydromodification Control Plan shall be provided to the Regional Water Board by July 1, 2010, and may include: the use

- (d) Mitigation Funding
 - (1) A Co-Permittee may create a management framework, for Executive Officer approval, to fund regional or subregional solutions to storm water pollution, if:
 - (A) A waiver for impracticability is granted by the Regional Water Board Executive Officer or by a Co-Permittee based on criteria approved by the Executive Officer;
 - (B) Funds become available;
 - (C) Off-site mitigation is required because of loss of environmental habitat;
 - (D) An approved watershed management plan, or an integrated water resources management plan, or a regional storm water mitigation plan, or a wetlands recovery plan exists that incorporates an equivalent or improved strategy for storm water pollution mitigation; and
 - (E) Mitigation projects are funded and implemented prior to the impact from the development project.

- 5. Standard Urban Stormwater Mitigation Plan (SUSMP)
 - (a) The Co-Permittees shall update their SUSMP¹⁹ or incorporate appendices or references by April 1, 2011,²⁰ and thereafter as needed, for Executive Officer approval, to include, at a minimum, the following:
 - (1) Conditions to require compliance with Parts 4, 5 and 6 of this Order;
 - (2) The New Development and Redevelopment Integrated Water Quality and Water Resource Plan (Part 5);
 - (3) Expected BMP pollutant removal performance including effluent quality and removal efficiency ranges (ASCE/U.S. EPA International BMP Database, CASQA New Development BMP Handbook, technical reports, local data on BMP performance, and the scientific literature appropriate for northern California geography and climate);
 - (4) Selection and prioritization of appropriate BMPs for storm water pollutants of concern and in accordance with the New Development and Redevelopment Integrated Water Quality and Water Resource Plan (Part 5);
 - (5) Data on observed local effectiveness and performance of implemented BMPs;
 - (6) BMP maintenance information;

¹⁹ Or equivalent document.

²⁰ Unless otherwise specified in this Order.

- (G) Potential for significant increases in erosion from storm water flows at the project site or surrounding areas; and
 - (H) Potential to cause or contribute to an exceedance of WQS.
2. General Plan Update
- (a) Each Co-Permittee shall amend, revise or update its General Plan to include watershed and storm water quality and quantity management considerations and policies as needed to remain consistent with this Order when any of the following General Plan elements are updated or amended:
 - (1) Land use;
 - (2) Housing;
 - (3) Conservation; and/or
 - (4) Open space.
 - (b) Each Co-Permittee shall provide the Regional Water Board with the draft amendment or revision when a listed General Plan element or General Plan is noticed for comment in accordance with Government Code section 65350 et seq.

PART 8 – Development Construction Program

1. The requirements in Part 8 – Development Construction Program apply to both public and private construction projects.
2. Grading Restrictions
- (a) Each Co-Permittee shall implement a program to control storm water discharges from construction activity at all construction sites within its jurisdiction. The program shall ensure that controls are adequate for full protection of water quality. During the wet season (November 1st – April 30th), the program shall ensure that the following requirements are effectively implemented at construction sites as listed below:
 - (1) No grading shall occur during the wet season for construction projects on hillsides with slopes 20%²¹ or steeper unless the project is granted an exception by a Co-Permittee as described in Part 8 – 2(c).
 - (2) If grading operations in these areas are not completed before the onset of the wet season and no exception is granted, grading shall be halted and effective erosion control measures shall be put in place to minimize erosion. Grading shall not resume until after April 30th. Depending on the project area, the developer/contractor/Co-Permittee shall implement the Erosion and Sediment Control BMPs listed in the following Tables 8 and 9.

²¹ Steepness is measured prior to land disturbance.

- (3) A Grading Restriction Exception may be granted by a Co-Permittee where the project proponent can demonstrate through plan review, inspections, monitoring and use of an iterative BMP process that the proposed BMP measures can be reasonably expected to meet the following goals:
 - (A) Keep storm water from causing or contributing to degradation of water quality or impairing beneficial uses;
 - (B) Ensure that the storm event daily average Total Suspended Solids discharged from the site is 100 mg/L or less; and
 - (C) Ensure that the storm event daily average turbidity of the discharge from the site is 50 NTU or less.
 - (4) If an exception is granted by a Co-Permittee, a monitoring program must also be required to ensure BMP effectiveness and compliance with the above goals.
3. Construction Sites Less than 1 Acre
- (a) Each Co-Permittee shall require the implementation of a minimum set of BMPs in combination at all construction sites (see Table 8 BMPs at Construction Sites Less than 1 Acre) to prevent erosion and sediment loss, and the discharge of construction wastes.²² Erosion Control BMPs for erosion avoidance shall be the highest priority. If the site soils, hydrology, and geography are such that the BMPs in Table 8 are not adequate to meet WQS, additional (treatment train, redundant, and/or advanced) BMPs shall be deployed.

Table 8. BMPs at Construction Sites Less than 1 Acre

Minimum Set of BMPs for All Construction Sites	CASQA Handbook	Caltrans Handbook²³
Erosion Control		
Scheduling	EC-1	SS-1
Preservation of Existing Vegetation	EC-2	SS-2
Sediment Controls		
Silt Fence	SE-1	SC-1
Sand Bag Barrier	SE-8	SC-8
Stabilized Construction Site Entrance/Exit	TR-1	TC-1
Non-Storm Water Management		
Water Conservation Practices	NS-1	NS-1

²² The BMPs are taken from the *California BMP Handbook, Construction, January 2003* and the *Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual, March 2003*, and addenda.

²³ And updates.

California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No. R1-2009-0050
NPDES No. CA0025054

For

The City of Santa Rosa, the County of Sonoma, and
the Sonoma County Water Agency

Storm Water and Non-Storm Water Discharges from Municipal Separate Storm Sewer
Systems

Sonoma County

Monitoring Program

1. The primary objectives of the Monitoring Program include, but are not limited to:
 - (a) Assessing the chemical, and biological impacts of storm water discharges on receiving waters resulting from urban storm water discharges;
 - (b) Assessing the overall health and evaluating long-term trends in receiving water quality;
 - (c) Assessing compliance with water quality standards;
 - (d) Characterization of the quality of storm water discharges;
 - (e) Identifying sources of pollutants; and
 - (f) Measuring and improving the effectiveness of requirements implemented under this Order and assessing the resultant reductions in pollutant loads.
2. The results of the monitoring requirements outlined below shall be used to refine BMPs for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters in Sonoma County.
3. The Co-Permittees shall implement the Monitoring Program described below.

A. Chemical Monitoring

1. Outfall Mass Chemical Monitoring
 - (a) For each outfall, samples shall be collected in accordance with 40 CFR 122.21(g)(7).
 - (b) The Co-Permittees shall submit detection limits to the Regional Water Board for annual approval in the Annual Reports.
 - (c) Frequency: The Co-Permittees will be responsible for annually monitoring six outfalls within the Laguna de Santa Rosa watershed. Wet weather samples shall be flow weighted composites, collected during the first 24 hours or for the duration of the storm event if it is less than 24 hours. Samples shall be collected from an outfall discharge resulting from a storm event that is 0.25 inches or greater. The flow-weighted composite sample for a storm water discharge shall be taken with a continuous sampler, or it shall be taken as a combination of a minimum of 3 sample aliquots, taken in each hour of discharge for the first 24 hours of the discharge or for the entire discharge if the storm event is less than 24 hours, with each aliquot being separated by a minimum of 15 minutes

4. Kelly Farm Nutrient Monitoring
 - (a) The Co-Permittees shall monitor the Laguna Subregional Water Reclamation System's Kelly Farm for nutrient runoff during storm events. This program shall monitor surface water runoff from the Kelly Farm in Duer Creek. The Co-Permittees shall sample two runoff events per year for two years. Multiple samples per event must be collected from Duer Creek as it enters and leaves the Kelly Farm for ammonia, nitrate nitrogen, total nitrogen and phosphorus. The draft study plan shall be submitted to the Regional Water Board for Executive Officer approval. The study shall be completed and results submitted to the Regional Water Board as part of the Year 4 annual report.
5. **BMP Effectiveness Special Study**
 - (a) The Co-Permittees are proposing to develop and implement a water quality based study to (1) provide storm drain outfall monitoring data, and (2) evaluate the effectiveness of specific BMPs through a controlled study. Storm water discharges will be collected and analyzed in response to rain events. **BMPs will be installed and monitoring will be completed to quantify the effectiveness of the BMPs.** The draft study proposal shall be submitted to the Regional Water Board for Executive Officer approval. Study results and findings and recommendations will be reported as part of the Year 4 annual report.
6. Volunteer Monitoring Programs
 - (a) The Co-Permittees shall encourage or support the development and implementation of volunteer monitoring programs in watersheds within the permit boundary.

E. Standard Monitoring and Reporting Provisions

1. All monitoring activities shall meet the following requirements:
 - (a) Monitoring and Records [40 CFR 122.41(j)(1)]
 - (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - (b) Monitoring and Records [40 CFR 122.41(j)(2)] [Water Code §13383(a)]
 - (1) The Co-Permittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge (ROWD) and application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board or U.S. EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.
 - (c) Monitoring and Records [40 CFR 122.21(j)(3)]
 - (1) Records of monitoring information shall include:
 - (A) The date, time and exact location of sampling or measurements, weather conditions, and rain fall amount;