Via Certified Mail:
No. 7008 1830 0002 6279 7299
Return Receipt Requested

Chuck Della Sala
Mayor
City of Monterey
580 Pacific Street
Monterey, CA 93940

Re: City of Monterey Municipal Separate Storm Sewer System (MS4) Compliance Audit Report

Dear Mr. Della Sala:

Enclosed is the final audit report for the City of Monterey's Storm Water Management Program (SWMP or Program). During the week of September 21, 2009, PG Environmental, LLC, an EPA contractor, and staff from EPA Region 9 (EPA) and the Central Coast Regional Water Quality Control Board (Regional Board) conducted an audit of the City's SWMP to evaluate the compliance with the California NPDES General Permit for Storm Water Discharges from Small MS4s, General Permit CAS000004 (Permit).

The Permit establishes minimum requirements for SWMPs to address the water quality impacts from storm water and non-storm water discharges. The audit included document reviews, interviews with City program managers and staff, as well as field verification inspections. The City's failure to develop, implement, and enforce an effective construction site storm water runoff control program was determined to be the most significant Program deficiency. This finding is emphasized due to the scope of the construction program deficiencies, and as a result of the City's role in providing site plan review and/or construction site inspection services to the communities of Sand City, Del Rey Oaks, and Pacific Grove. Specifically, the audit identified the following deficiencies in the City's construction site storm water runoff control program:

- failure to implement an adequate construction site plan review program incorporating consideration of potential water quality impacts; and
- lack of an effective erosion and sediment control inspection program.

Additionally, through field observations of storm water detention basins, drainage channels, streams and creeks, EPA learned the City has conducted extensive excavation of a natural drainage channel to accommodate storm water flow (i.e. upstream of the Highway 68 detention pond), and stream channel alteration activities to control erosion and minimize the discharge of sediment to the Monterey Bay (i.e. Crandall and Windmere Creeks). These activities may result in increased discharge of sediment to Monterey Bay and may have been conducted in violation of §§ 404 and 401 of the Clean Water Act. EPA requests that the City contact Cameron Johnson of the U.S. Army Corps of Engineers, San Francisco District Office at (415) 503-6773 to determine if these projects, or any future planned efforts, require a § 404 permit and an associated § 401 water quality certification from the Regional Water Quality Control Board.

EPA will follow up separately with the Central Coast Regional Water Quality Control Board on the deficiencies noted above and in the audit report. The final audit report will be posted on EPA's website at http://www.epa.gov/region09/water/npdes/ms4audits.html. Your staff may wish to review the case studies that EPA has developed for each of the minimum control measures to help MS4s improve their storm water management programs at http://cfpub1.epa.gov/npdes/stormwater/casestudies.cfm.

If you have any questions, please call me at (415) 972-3572 or refer staff to Greg Gholson at (415) 947-4209 or via email at gholson.greg@epa.gov. For legal questions, please contact Jessica Kao, Assistant Regional Counsel, at (415) 972-3922 or by email at kao.jessica@epa.gov.

Sincerely,

Alexis Strauss, Director
Water Division

Enclosure:
City of Monterey MS4 Compliance Audit Report

ecc (w/encl):
David Pendergrass, Mayor, Sand City
Jerry Edelen, Mayor, Del Rey Oaks
Carmelita Garcia, Mayor, Pacific Grove
Roger W. Briggs, Executive Officer, Central Coast RWQCB
Jennifer Epp, Water Resource Control Engineer, Central Coast RWQCB

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) COMPLIANCE INSPECTION

EVALUATION CONDUCTED:
September 21–22, 2009

FINAL DRAFT REPORT DATE:
February 3, 2010

CITY OF MONTEREY, CALIFORNIA

Prepared For:
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

CONTENT

Section 1.0 Introduction

On September 21–22, 2009, an inspection team composed of staff from U.S. Environmental Protection Agency (EPA) Region 9 and an EPA contractor, PG Environmental, LLC, with participation from the State of California's Central Coast Regional Water Quality Control Board, or RWQCB, (hereafter, collectively, the EPA Inspection Team) conducted an inspection of the City of Monterey's Municipal Separate Storm Sewer System (MS4) program.

The City of Monterey is a participating entity in the Monterey Regional Storm Water Permit Participants Group (hereafter, the Group), which includes the cities of Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, Seaside, and the County of Monterey. Through Resolution No. R3-2006-0076, adopted and approved on September 7, 2006, the RWQCB issued coverage to the Group under Water Quality Order No. 2003-0005-DWQ for the State of California's National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004 for Storm Water Discharges from Small MS4s (hereafter, the Permit). The Permit expired on May 1, 2008, after the end of its first 5-year term but has been administratively continued and remains in full force and effect until it is rescinded or a new general permit is issued.

The City of Monterey (hereafter, City or permittee) encompasses approximately 12 square miles of land (7,680 acres) along the Pacific coast. The City's economy is largely influenced by the natural beauty surrounding the City. The City has a waterfront that is situated along the Monterey Bay National Marine Sanctuary. The City has a strong tourism base that provides jobs and tax dollars. In 2000, the total population of the City was estimated to be 29,674 people.

The primary purpose of the inspection was to assess the City's compliance with the requirements of the Permit through an assessment of the City's implementation of its current Storm Water Management Program (SWMP). The inspection schedule is presented in Appendix A, inspection photographs are presented in Appendix B, and a copy of the Permit is provided in Appendix C.

Specifically, the inspection included an evaluation of the City's compliance with the following program elements which are described in the Permit:

Part D.2.c	Illicit Discharge Detection and Elimination
Part D.2.d	Construction Site Storm Water Runoff Control
Part D.2.e	Post-Construction Storm Water Management in New Development and Redevelopment
Part D.2.f	Pollution Prevention/Good Housekeeping for Municipal Operations

The EPA Inspection Team evaluated compliance through a series of interviews with City staff, along with several site visits and field verification inspections. Dry weather

conditions were experienced throughout the inspection activities. The primary representatives involved in the inspection were the following:

City Representatives:	Chuck Della Sala, Mayor Nancy Selfridge, Vice Mayor Fred Meurer, City Manager Fred Cohn, Assistant City Manager Tom Reeves, City Engineer Hans Uslar, Assistant Director of Public Works Chip Renig, Chief of Planning, Engineering and Environmental Compliance John Kuehl, Building Official Kevin Anderson, Environmental Regulatory Analyst Sam Mazza, Fire Chief Doug Stafford, Parks and Maintenance Superintendent Bret Johnson, Streets and Utilities Manager Heidi Niggemeyer, MRSWMP Project Manager
RWQCB Representatives:	Jennifer Epp, RWQCB 3
EPA Representatives:	Greg Gholson, EPA Region 9 Rick Sakow, EPA Region 9
EPA Contractors:	Wes Ganter, PG Environmental, LLC Bobby Jacobsen, PG Environmental, LLC

Section 2.0 Permit Compliance Review

The EPA Inspection Team conducted an evaluation of the City's compliance with the requirements of the Permit through an assessment of the implementation status of the City's SWMP. As required by Part D of the Permit, entitled "Stormwater Management Program Requirements," the permittee must "maintain, implement, and enforce an effective SWMP...to reduce the discharge of pollutants from the permitted MS4 to the maximum extent practicable to protect water quality." The City is in its fourth year of program implementation.

The Group has developed, adopted, and received approval from the RWQCB for the Monterey Regional Storm Water Management Program (MRSWMP), which serves as the SWMP for all the participating entities. The last formal update of the document is dated November 15, 2006. The MRSWMP states that each participating entity of the Group is responsible for complying with all "applicable NPDES permit conditions within its jurisdictional boundaries." The best management practices (BMPs) selected to be

implemented by the Group are described in Table 4-1 of the MRSWMP document. For the purposes of this report, the MRSWMP document is hereafter referred to as "the SWMP."

The EPA Inspection Team noted several positive elements of the City's MS4 program, including the following:

Extensive and effective efforts to proactively clean the curb and gutter in the City through an aggressive street-sweeping program;

Effective efforts to identify and remove illicit discharges and connections to the storm drain system; and

Thorough knowledge and use of the Hansen™ electronic management system in conjunction with a geographic information system (GIS) to schedule maintenance activities to its sewer system.

Notwithstanding the items listed above, the EPA Inspection Team identified several deficiencies (hereafter, inspection findings) regarding the City's compliance with the Permit and its SWMP. The presentation of inspection findings in this section of the report does not constitute a formal compliance determination or violation. For clarity, items that require the City's response are underlined while recommendations are presented in *italic*. All referenced photo documentation is provided in Appendix B.

Section 2.1 Illicit Discharge Detection and Elimination

Part D.2.c of the Permit requires the City to develop, implement, and enforce a program to detect and eliminate illicit discharges to the MS4 in accordance with the specific requirements at Part D.2.c (1)–(6) of the Permit. Overall, the City appeared to have implemented an effective program to identify and eliminate illicit discharges to the MS4. The City's staff appeared to have a good general awareness of the City's storm water program and how to identify and respond to illicit discharges. However, as described below, the EPA Inspection Team noted areas for improvement with regard to the City's illicit discharge detection and elimination program.

2.1.1 Need to Develop and Implement Enforcement Procedures to Effectively Eliminate Illicit Discharges. As required by Part D.2.c.3 of the Permit, the City must "effectively prohibit, through an ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions." As described by City staff, the City does not have a specific set of written enforcement procedures or an enforcement response plan (ERP) for responding to illicit discharges, spills, or illegal dumping.

The City has adopted City Code, Chapter 31.5, "Storm Water Management" (hereafter, the Ordinance) to prohibit non-storm water discharges to the MS4. As stated at Section 24 of the Ordinance, "Enforcement and Administration," the City may address violations of the Ordinance through the procedures stated at City Code, Chapter 1, Article 2.

However, the procedures stated at City Code, Chapter 1, Article 2, are not specifically related to response to illicit discharges, spills, or illegal dumping.

Upon review of the SWMP, the EPA Inspection Team noted that BMP No. 3-3.d listed in Table 4-1 of the SWMP states that the City should use the protocols[1] contained in Appendix E of the SWMP (page E-78) to "take action as necessary to eliminate 100% of the illicit connections and illegal discharges that are identified" in each year of SWMP implementation. The City staff members did not describe this as a tool or guide for conducting enforcement proceedings. *The City should develop a written ERP or equivalent for enforcing the City's Ordinance as it relates to illicit discharges. In addition, the City should promote the expanded use of its existing Code Enforcement Officers to respond to and eliminate illicit discharges.*

2.1.2 Need for Additional Monitoring for Typical Wet Weather Flows. The City has identified the existence of 33 MS4 outfalls to receiving waters within its jurisdiction. City staff explained that the City does not conduct routine inspections of these 33 outfalls, nor does the City itself perform monitoring of discharges from the MS4. Instead, the City contracts with the Urban Watch Water Quality Monitoring Program, a program administered by the Monterey Bay Sanctuary Citizen Watershed Monitoring Network, to sample a select number of outfalls during the first rain event (i.e., first flush) of the year. The goal of this effort is to characterize the first-flush storm water runoff that is flowing into the Monterey Bay National Marine Sanctuary.

The Monterey Bay National Marine Sanctuary's Urban Watch Web site states, "This continuing program has helped the cities of Monterey, Pacific Grove, and Capitola and the Monterey Bay National Marine Sanctuary identify and implement targeted educational programs aimed at addressing urban pollutants entering the Monterey Bay National Marine Sanctuary."[2] The City stated that this information could be used to track sources upstream in response to issues identified through the Urban Watch Monitoring Program. However, the process for using the data and how frequently the data is used for tracking purposes was unclear to the EPA Inspection Team. *The City should consider conducting additional MS4 monitoring of select outfalls at additional times throughout the rainy season. Ideally, the monitoring program would be designed to fulfill several objectives such as: (1) measuring the effectiveness of the storm water program; (2) measuring the effectiveness of selected BMPs and post-construction controls; (3) characterizing discharges from watersheds and sub-watersheds to aid BMP selection; and (4) assisting in the identification of illicit connections and/or discharges.*

Section 2.2 Construction Site Storm Water Runoff Control

As stated at Part D.2.d of the Permit, the City must "develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the Small MS4 from

[1] Protocols include enforcement escalation as follows: (1) warning; (2) administrative action; (3) administrative action with fine, cost recovery, and/or compensatory action; and (4) legal action.

[2] http://montereybay.noaa.gov/monitoringnetwork/about_us.html

construction activities that result in a land disturbance of greater than or equal to one acre." The program must include, at a minimum, the specific requirements at Part D.2.d (1)–(6) of the Permit. Based on the implementation plan and time frames described in the SWMP, the construction-related program elements should have been fully implemented at the time of the inspection. However, the City has failed to develop, implement, and enforce an effective construction site storm water runoff control program that includes the full extent of the requirements of the Permit to reduce pollutants in storm water runoff from construction activities. This claim is substantiated by the following inspection findings.

The EPA Inspection Team conducted three inspections of individual private construction sites served by the City's MS4 and one drive-by inspection of a public construction project. City staff explained that Monterey has had only three active construction sites larger than one acre within the past year. Overall, the EPA Inspection Team noted inadequate or inadequately maintained erosion and sediment controls or other BMPs at three of the four construction sites observed. Summary observations pertaining to these sites are presented below in a series of individual construction site assessments. Following the individual construction site assessments is an assessment of the City's implementation of the individual requirements for construction storm water runoff control.

Private Site: 125 Spray Avenue in Monterey, California. The construction site is larger than one acre and provides for the development of several single-family homes on the sand dune adjacent to Del Monte Beach. The project is unique in that the entire site is located atop a sand dune. No visible BMPs were deployed at the site at the time of the inspection. Sand transported by precipitation or wind was present in the streets, curbs, gutters, and catch basin inlets (see attached Photographs 1 and 2). The terminus of the storm drain system and deposition of accumulated sand was unclear. Moreover, evidence of construction waste in the form of concrete, plaster, and stucco chips and other miscellaneous items was present throughout the site (see attached Photographs 3 and 4). The overall site appeared to be in a prolonged state of inactivity, and the City inspector stated the site was not inspected or visited with regularity.

Private Site: 30/40 Ryan Ranch Court in Monterey, California. The site includes two professional office buildings—one completed and one nearing completion—and an adjacent yet-to-be developed parcel. The site is collectively referred to as Professional Office Building Lot 6 (30/40) Ryan Court Construction Site, and it obtained coverage under the State of California Construction General Permit and was issued WDID 327C346802. The project owner is Wilson Street Partners and the total site acreage was 2.81 acres. Storm water runoff from the completed and paved portion of the site is routed to catch basins and enters the City's MS4.

Adequate BMPs had not been implemented to prevent the discharge of sediment and other pollutants from various areas of the construction site. Specifically, BMPs had not been implemented for erosion and sediment control and good housekeeping. Silt fencing

and straw wattles implemented at various areas of the site had not been properly installed or maintained. Specifically, several lengths of silt fence were not entrenched into the ground to retain sediment and prevent failure (see attached Photograph 6); straw wattle BMPs had been crushed which significantly reduced their effectiveness (see attached Photographs 7 and 8); and the silt fence had collapsed in several areas (see attached Photographs 9 and 10). Additionally, large expanses of sediment were disturbed but no BMPs had been implemented for temporary or permanent stabilization (see attached Photograph 5). The yet-to-be developed parcel had several areas of exposed and barren soil, and a large section of the parcel was being used as a soil stockpile for excess fill removed during the office building excavation (see attached Photograph 5).

Down-slope of the disturbed area the site operator had installed a drainage ditch that was intentionally routing storm water off-site up-gradient of installed BMPs (see attached Photographs 11, 12, and 13). A single straw wattle had been installed to dissipate flow from this ditch (see attached Photograph 14). The drainage ditch had been constructed with the full knowledge of the City inspector and was said to be used to prevent the recurrence of runoff from overwhelming down-gradient straw wattles and silt fencing, which had resulted in the discharge of sediment to the paved parking lot (see attached Photograph 15).

Storm water runoff was collected in the drainage ditch and discharged upstream of one of the Ryan Ranch detention basins (see attached Photographs 16 and 17). The City's Building Official explained that for this reason the site was not required to implement post-construction controls. The outfall structure did not appear to be constructed with adequate riprap or other flow dissipation controls to adequately reduce the potential for erosion.

Furthermore, good housekeeping BMPs had not been implemented at the construction site for disposing of waste. Specifically, the EPA Inspection Team observed concrete washout waste and stucco and/or paint waste on the ground surface in select areas throughout the construction site (see attached Photographs 18 and 19). Additionally, the filter fabric within one of the storm water catch basins had a hole in the center and was not retaining sediment.

Private Site: 131 Lighthouse Avenue in Monterey, California. The site was a mixed-use commercial and residential building under active construction. It was said to be less than one acre in size and thus outside the scope of the City's Construction Site Storm Water Runoff Control Program. However, given the limited number of active construction sites in the City the EPA Inspection Team proceeded with an assessment of the site. Minor deficiencies regarding BMP installation and maintenance were observed. Specifically, adequate BMPs had not been implemented for construction waste and areas of spilled concrete and other construction debris were observed in interior portions of the site. On-site BMPs largely consisted of sediment control in the form of inlet protection and a rock construction entrance.

Public Site: Munras Avenue/Soledad Drive Capital Improvement Project in Monterey, California. This project included the reconstruction and paving of portions of both Munras Avenue and Soledad Drive. The City had hired a private contractor to provide oversight and inspection of the ongoing activities. No City employee had been assigned to the site for routine oversight of storm water controls. The EPA Inspection Team observed during the drive-by inspection that BMPs had not been consistently implemented for storm drain inlet protection, disposal of concrete saw-cutting wastes, or good housekeeping to prevent the discharge of pollutants to the MS4. The contractor had removed accumulated debris from the storm drain inlets along Munras Avenue (presumably to install filter fabric) but had placed the debris in the flow-line down-gradient of each inlet. In other instances, saw-cutting wastes and stained gutters were present along the eastern side of Munras Avenue.

In summary, the EPA Inspection Team observed several examples of construction sites with inadequate BMPs or inadequately maintained BMPs for erosion and sediment control, as well as inadequate BMPs for the control of other pollutants. As a result, there was a potential for the contribution of pollutants to the MS4 or surface waters.

2.2.1 Failure to Ensure Adequate BMPs Are Implemented and Maintained at Construction Sites. As required by Part D.2.d (1)–(3) of the Permit, the City must require erosion and sediment controls through an ordinance or other regulatory mechanism, require construction site operators to implement appropriate erosion and sediment controls, and require construction site operators to control other wastes at construction sites that might adversely affect water quality. The site conditions observed during the site visits indicated that the City has failed to require the implementation of adequate nonstructural and structural BMPs for erosion and sediment control and the control of other wastes at construction sites for at least three of the four sites visited.

The City must require the implementation of adequate nonstructural and structural BMPs and proper maintenance to prevent the discharge of pollutants from public and private construction sites located within the City's jurisdiction. *The EPA Inspection Team strongly recommends that the City encourage the implementation of temporary stabilization practices at private construction sites to reduce the amount of sediment discharged from sites that are not actively being graded. Given the small number of active construction sites, the EPA Inspection Team further recommends that the City regularly inspect all active and inactive sites and require the installation and maintenance of sediment control BMPs. Furthermore, the City should provide routine oversight of all public projects regardless of the presence of private contract inspectors.*

2.2.2 Need for an Effective Construction Site Plan Review Program. As required by Part D.2.d.4 of the Permit, the City must develop and implement "procedures for site plan review which incorporate consideration of potential water quality impacts" as a component of its construction site storm water runoff control program. City staff explained that construction site plans submitted to the City are routed to several different departments for review and approval. According to BMP No. 4-2.b, described in Table

4-1 of the SWMP, the City must conduct construction site plan reviews using the procedures in Appendix E of the SWMP.

It appeared that the City's review of submitted construction site plans and storm water pollution prevention plans (SWPPPs) was largely based on the presence or absence of BMPs rather than the appropriateness and adequacy of the proposed BMPs. For example, the site plan reviewer might check to see if the plan includes vehicle tracking control BMPs; however, the reviewer would not evaluate whether the planned rock size for a tracking pad is of an adequate size. In addition, the City does not specifically refer to a BMP manual that describes a preferred set of BMPs to be implemented at construction sites addressing design criteria for temporary erosion and sediment control or permanent structural controls. As a result, there appeared to be a direct reliance on the project proponent regarding the extent and adequacy of sediment and erosion control BMPs on proposed construction site plans. During site visits to private construction sites, the EPA Inspection Team noted a preference toward the implementation of perimeter control BMPs with inadequate redundancy of upslope BMPs and an underutilization of temporary stabilization.

The City must evaluate the adequacy of erosion and sediment controls during the site plan review process rather than merely assessing whether controls are included in the plans. *The City should assess whether the guidance in the SWMP for conducting construction site plan assessments is adequate or if the City should develop and implement its own written SOPs for conducting site and documenting site plan reviews. Additionally, the City should consider developing or adopting an existing BMP design manual that includes design criteria for temporary erosion and sediment control or permanent structural controls to be implemented at construction sites. The design manual can then be used as the basis for the plan review process and can also be used by field inspectors for determining the adequacy and maintenance needs of deployed BMPs.*

2.2.3 Failure to Develop and Implement a Comprehensive and Effective Construction Site Inspection Program. As required by Part D.2.d.6 of the Permit, the City must develop and implement procedures for conducting construction site inspections to reduce pollutants in storm water runoff from construction activities. According to BMP No. 4-3.b, described in Table 4-1 of the SWMP, the City must use the "procedures and checklists" contained in Appendix E of the SWMP to inspect construction sites subject to the Ordinance. The referenced section of Appendix E of the SWMP, however, does not provide detailed written inspection procedures. In addition, City staff members explained that the referenced checklist was only used as a mental guide for conducting inspections. The checklist was not physically completed to ensure that inspections were conducted and documented adequately and consistently. During the inspection, City staff presented the inspection team with a newly developed inspection checklist that was to be implemented upon RWQCB approval.

During the inspection of 30/40 Ryan Court, numerous examples of inadequate BMP installation or maintenance and areas without BMPs implemented were noted. These

deficiencies had the potential to result in the discharged of pollutants in storm water runoff. Furthermore, the EPA Inspection Team observed a reliance on implementation of perimeter control BMPs, inadequate redundancy of upslope erosion and sediment control BMPs, and an underutilization of temporary stabilization. As discussed in Section 2.2. above, the City's acceptance of intentional diversion of storm water off-site, up-slope of all implemented BMPs raises serious concerns regarding its understanding of the intentions of the Permit and SWMP.

The City must develop and implement adequate procedures for conducting construction site inspections to reduce pollutants in storm water runoff from construction activities as required by Part D.2.d.6 of the Permit. *The City should develop and implement standardized inspection procedures, inspection checklists, and a tracking mechanism to ensure that comprehensive inspections are conducted and adequately documented. Additionally, the City should ensure that the persons who conduct construction site inspections have received adequate training.*

2.2.4 Need to Develop and Implement Effective Procedures for Construction Site Enforcement. As required by Part D.2.d.6 of the Permit, the City must develop and implement procedures for enforcement of required control measures (e.g., erosion and sediment control) at construction sites. As explained by City staff, the City has periodically used enforcement to achieve compliance with its Ordinance. The City provided the EPA Inspection Team with a few examples of enforcement efforts.

Examples include a recent incident in March 2009, in which the City took enforcement and issued a stop work order for the discharge of paint into a storm drain at the active construction site at 110 Del Monte Avenue. In this instance, the City had sufficient documentation and its response and procedures appeared adequate. In another enforcement effort, the City issued a correction notice requiring the submission of a SWPPP and proof of permit coverage for the 1 Surfway Seawall project. The issue was rectified within two weeks of the correction notice. A third example took place in 2007 when the City identified deficiencies associated with a failure to deploy sediment control BMPs for a soil stockpile at the 30/40 Ryan Court site and requested that the property owner assess the adequacy of BMPs on-site. In response the property owner acquired the services of its contracted soil surveyor to assess the conditions and certify that the stockpile and surrounding areas were in fact stable and the BMPs were adequate. A certification by an engineering technician was submitted stating the technician believed the site to be stabilized. The City used this documentation to assert that the site owner had certified the BMPs adequate. The EPA Inspection Team, however, noted numerous deficiencies at this site that were possibly due to the lack of oversight by the City during the 2007–2009 timeframe.

As described above in Section 2.1, Section 24 of the Ordinance, "Enforcement and Administration," states that the City may remedy violations of the Ordinance through the procedures stated at City Code, Chapter 1, Article 2. The procedures stated at that particular article are not specifically related to response to issues with control measures at

construction sites. As described by City staff, the City does not have a specific set of written enforcement procedures or an ERP for responding to issues with BMP implementation at construction sites. *The City should develop a written ERP or equivalent for enforcing the City's Ordinance as it relates to control measures implemented at construction sites.*

2.2.5 Need to Address Construction Site Storm Water Runoff Control Program Issues Prior to Providing Contracted Oversight to Other Municipalities. City staff explained that the City has been contracted by the cities of Sand City and Del Rey Oaks to conduct site plan reviews and inspections for construction projects within the jurisdiction of those cities. In addition, the City has been contracted to provide site plan reviews for the City of Pacific Grove. Based on the deficiencies noted with regard to the City's site plan review and oversight program, it does not seem reasonable for the City to manage these programs for surrounding communities.

The EPA Inspection Team strongly recommends that the City address the identified issues with its own construction site storm water runoff control program and immediately institute such changes in the services being provided to other municipalities' construction site storm water runoff control programs. If the City continues to play an integral role in storm water management beyond its jurisdiction (i.e., within the Group), it appears that increased staff, inspector training, and adherence with established Group procedures would be necessary to ensure that receiving waters (e.g., Monterey Bay) are protected from storm water runoff impacts.

Section 2.3 Post-construction Storm Water Management

As required by Part D.2.e.1 of the Permit, the City must "develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre...by ensuring that controls are in place that would prevent or minimize water quality impacts." Part D.2.e (2) and (4) of the Permit requires the City to "develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for your community" and to "ensure adequate long-term operation and maintenance of BMPs." BMP No. 5.3.b of the City's SWMP states that the City "will enforce post-construction compliance with the storm water ordinance" starting in fourth year of program implementation. The City has not yet fully developed or implemented a post-construction storm water management program that satisfies the requirements of the Permit or the SWMP.

As explained by City staff, the City has not yet had a construction project that has gone through all the steps of the construction and post-construction processes. City staff stated that they were not certain how the City will accomplish all the goals described in the Permit to ensure that the City meets all post-construction obligations. Furthermore, City staff explained that the City was in the process of formulating and refining a post-construction plan.

The EPA Inspection Team conducted site visits to the City's Ryan Ranch Corporation Yard, Cemetery Corporate Yard, Harbor Maintenance Corporate Yard, and Municipal Harbor and Marina to evaluate the effectiveness of the City's pollution prevention and good housekeeping practices at facilities that support municipal operations. The facilities generally displayed good housekeeping practices and site conditions. However, the EPA Inspection Team noted several issues, which are discussed in further detail below.

City Facility Site Visit: Corporation Yard at 2, 3 and 4 Ryan Ranch Road. This facility is the City's primary corporate yard. It provides for personnel offices, materials storage, and vehicle and equipment parking, maintenance, fueling, and washing. The City's sanitary sewer crews, paint crew, and parks crew are based at this facility. The facility was designed with several effective BMPs, including overhead cover for fueling operations and materials storage, two vehicle wash racks that drain to the sanitary sewer, and segregated material storage areas. However, the EPA Inspection Team observed loose materials such as gravel and dirt stored in uncovered areas in close proximity to storm drain inlets that did not contain BMPs for inlet protection (see attached Photographs 20 and 21). City staff stated that additional BMPs were not implemented for storm drain inlet protection during rain events. As a result, there was a potential for the discharge of sediment to storm drains during a rain event. In addition, the EPA Inspection Team noted debris on the ground in the paint truck refill area in close proximity to a storm drain inlet (see attached Photographs 22 and 23). Furthermore, the EPA Inspection Team noted that the City did not have spill response materials in the immediate vicinity of the covered fueling area (see attached Photographs 24). Two storm drain inlets were located in the fueling area, and an oily sheen was observed on the surface of the water in the storm drain drop inlet (see attached Photographs 25). The EPA Inspection Team also noted that chemical mixing for pesticide applications is conducted in close proximity to a storm drain inlet. City staff stated that BMPs are not implemented for inlet protection during pesticide mixing operations, and it did not appear that there were procedures for dealing with a spill of pesticides adjacent to the storm drain inlet.

The EPA Inspection Team noted that the covered materials storage area at the rear of the facility, adjacent to the vehicle wash rack, contained several 55-gallon drums of liquid chemicals that were not within secondary containment (see attached Photographs 26 and 27). As a result, there was a potential for the discharge of spilled chemicals to the sanitary sewer.

City Facility Site Visit: Cemetery Corporate Yard. This facility is a smaller corporate yard that provides for vehicle and equipment parking, materials storage, and temporary storage for debris picked up by the City's street sweepers. The EPA Inspection Team noted that loose materials such as gravel, dirt, mulch, and street sweepings were stored in areas that were in close proximity to storm drain inlets that did not have BMPs for inlet protection (see attached Photographs 28, 29 and 30). During the inspection, City staff stated that additional BMPs were not implemented at the site for storm drain inlet protection or containment of the stockpiles during rain events. The EPA Inspection Team

observed material within several storm drain inlets (see attached Photographs 31 and 32), which indicated that an unknown quantity of sediment has likely been discharged to the MS4 and there was a potential for the subsequent discharge of pollutants off-site.

City Facility Site Visit: Harbor Maintenance Corporate Yard. This facility provides maintenance support for the nearby Municipal Harbor and Marina. The facility consists of a building that appeared to be used primarily for storage, parts fabrication, small equipment maintenance, and an outside area used for storage of materials and maintenance work. City staff explained that when work is conducted outside, a storm drain cover is placed over the adjacent storm drain inlet to prevent debris from entering the storm sewer system (see attached Photograph 33). The facility has covered outside areas for additional storage, secondary containment for liquid chemical storage, and spill kits located on-site. Overall, the EPA Inspection Team observed adequate housekeeping practices and conditions at the site.

City Facility Site Visit: Municipal Harbor and Marina. The City owns and operates a harbor and marina in Monterey Bay. The EPA Inspection Team conducted a cursory review of site conditions at the facility which appeared to be adequate. The facility has dedicated areas for patrons to use for disposing of diesel fuel, oil, oil filters, oily water, etc. (see attached Photograph 34). These areas are covered and may be accessed only by authorized persons. According to City staff, patrons are provided with training on how to properly use the disposal facilities. During the inspection, the EPA Inspection Team spoke with several Municipal Harbor and Marina staff members. The staff members appeared to be knowledgeable of the City's storm water program, and who to notify in the event of a spill to the storm drain system or directly to Monterey Bay.

The City must ensure that adequate BMPs are implemented at municipal facilities to prevent the contribution of pollutants to storm water runoff. *The EPA Inspection Team recommends that the City develop a BMP plan for municipal facilities that includes SOPs, training procedures, and pertinent signage or posted procedures for operations at municipal facilities. Moreover, the City should consider the use of additional BMPs for source control and/or storm drain inlet protection at municipal facilities where materials storage and maintenance activities are conducted in close proximity to storm drain inlets.*

2.4.1 Need to Establish Procedures for Chemical Application. BMP No. 6-4.b listed in the City's SWMP requires the City to perform chemical application "during times where rain is not predicted." The SWMP includes a "measurable goal" of performing 100 percent of spraying activities when rain is not predicted. The SMWP does not, however, define the qualifying terms for circumstances during which "rain is not predicted." The City has informally defined this as less than a 40 percent chance of rain. As explained by City staff, the City has not developed standard operating procedures (SOPs) for determining the predicted chance of rain and how this information affects operations.

The City has four staff members that are state-certified pesticide applicators. As explained by City staff, one of the staff members looks at the weather forecast to determine whether rain is predicted and when or if the team should conduct spraying activities. According to City staff, during the last rainy season the City applied chemicals on about 15–18 days and it rained on 6 of those days. Based on this data, the EPA Inspection Team concluded that the City's approach for identifying when "rain is not predicted" is inadequate.

The EPA Inspection Team recommends that the City develop and implement SOPs to ensure that a consistent approach is used to identify optimal times for chemical application in accordance with BMP No. 6-4.b. The EPA Inspection Team further recommends that the City develop BMPs and SOPs for conducting chemical mixing operations at its municipal facilities. Site conditions related to this activity are described above in Section 2.4.

2.4.2 Need to Develop and Implement a Proactive Approach to Storm Sewer Line Cleaning. As explained by City staff, the City aims to inspect 10–20 percent of its 14 miles of storm sewer every year with closed-circuit television (CCTV) inspection techniques. The City does not, however, proactively conduct storm sewer line cleaning. The City generally reacts to the identified issues that necessitate cleaning (e.g., flooding and excessive debris build-up). City staff stated that after rain events the maintenance crew focuses on cleaning debris from catch basins. *The EPA Inspection Team recommends that the City develop and implement a proactive program to conduct storm sewer line cleaning.*

2.4.3 Need to Develop and Implement a Program to Assess BMPs at City Facilities. Part D.2.f of the Permit requires the City to "develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of reducing pollutant runoff from municipal operations." Although the City has a list of all municipal properties and facilities, it does not have SOPs or written procedures for assessing municipal operations for potential storm water impacts or tracking whether formal assessments have been conducted. Furthermore, the City does not have SOPs for implementing and maintaining BMPs at municipal facilities. As described above, the EPA Inspection Team identified concerns regarding municipal operations with the potential to discharge pollutants in storm water runoff.

The EPA Inspection Team recommends that the City develop and implement a program to assess the need for BMPs and BMP maintenance at City facilities to reduce pollutants in storm water runoff. The program should include inspection procedures, including a checklist and tracking mechanisms, to ensure that consistent assessments of City facilities are conducted. The intention of pollution prevention practices is to reduce pollutants in storm water runoff from areas associated with municipal maintenance activities and from municipally owned or operated equipment yards and maintenance shops that support municipal operations. The EPA Inspection Team recommends that the City conduct at

least annual inspections of City facilities to assess the adequacy of BMPs implemented at the facilities.

Section 3.0 Additional Observations and Recommendations for Improved Storm Water Management by the City

Section 3.1 Development and Implementation of Written Standard Operating Procedures and Documentation of Program Activities.

As explained previously, the City is a participating entity of the Monterey Regional Storm Water Permit Participants Group, which has developed and implemented the MRSWMP. This comprehensive document serves as the SWMP for all the participating entities of the Group. Consequently, the document is relatively complex, and the EPA Inspection Team did not find it a user-friendly document. The EPA Inspection Team expressed concern that having such a complex plan with multiple references to supporting documents might lead to confusion within the individual participating entities of what measures must be implemented as well as difficulty with providing employees with pertinent information. The EPA Inspection Team noted the following examples of an apparent lack of implementation or awareness of several SWMP components.

During the inspection, the EPA Inspection Team requested SOPs for various program functions. As described in Section 2.2 above, Appendix E of the SWMP contains "procedures and checklists" that are to be used for construction site inspections. City staff, however, explained that they only used the referenced checklist as a mental guide for conducting inspections. The checklist was not physically completed to ensure that inspections were conducted and documented adequately and consistently. City staff presented the EPA Inspection Team with a newly developed inspection checklist that was to be implemented upon RWQCB approval.

In addition, City staff explained that the City does not have written SOPs for pollution prevention activities such as street sweeping, catch basin cleaning, storm sewer line cleaning, and CCTV inspection of its storm sewers. Upon review of the SWMP, the EPA Inspection Team noted that BMP No. 6-10, for implementing "a program of regularly cleaning storm drains and inlets," includes a reference to pages E-197–E-199 of Appendix E for discussion of these activities. Page E-197, titled "Procedures for Drainage System Maintenance," provides general procedures for "catch basin and inlet structure maintenance" and "storm drain conveyance system maintenance." The adequacy and accuracy of these procedures were not confirmed during the inspection.

The EPA Inspection Team observed several storm drain inlets throughout the City that were not labeled and several labels that were no longer legible. City staff explained that they do not have a procedure or program for identifying and labeling storm drain inlets that have not yet been labeled or are in need of being relabeled. BMP No. 6-7.d states that storm drain stenciling in corporation yard areas is to be completed prior to the end of the first permit year and newly constructed inlets must be stenciled immediately after

they are built. Stenciling at corporation yards is to be redone during the fifth permit year. BMP No. 6-10.a states that the City should "stencil catch basins and inlets as needed as a prevention measure" during all five permit years. Based on review of the SWMP and discussions with City staff, it appears that there are several BMPs, procedures, and checklists that are included in the SWMP but are not used by City staff.

The EPA Inspection Team recommends that the City evaluate the effectiveness and usability of the SWMP document and ensure that applicable City staff have access to pertinent parts of the document for program implementation. Furthermore, the EPA Inspection Team recommends that the City evaluate whether adequate SOPs exist, in the SWMP or elsewhere, for applicable program activities. In the event that adequate SOPs do not exist, the EPA Inspection Team recommends that the City develop and implement adequate SOPs.

Section 3.2 Need to Ensure Activities Conducted in or near State Waters are Covered Under Applicable Permits.

The City has three public detention ponds that were built in the 1980s for the Ryan Ranch commercial development and have also been used as regional detention facilities (see attached Photographs 35, 36 and 37). Two of the three ponds recently received maintenance, which included clearing vegetation and dredging accumulated sediment. At the Highway 68 detention facility, an extended length of the upstream drainage channel (i.e., ¼ to ½ mile) had been extensively dredged to remove sediment and create a free-flowing drainage pathway to the detention basin (see attached Photographs 38 and 39). Whether the drainage channel was an existing conveyance channel or waterway and would have required coverage under Clean Water Act (CWA) section 404 and/or 401 was unclear. See Photograph 40 for a view of the same channel upstream of the dredging activity.

In other locations, the City had conducted and was continuing to conduct stream channel modifications to prevent erosion and the subsequent contribution of sediment to the Monterey Bay. These efforts included excavation and bank stabilization activities (see attached Photographs 41 and 42). Whether these projects required §404 or §401 permit coverage was unclear, and it did not appear that the City had fully considered the potential CWA §404 and/or §401 coverage requirement for such projects.

Whether the City has misinterpreted its authority to alter local streams or natural drainages and has acted in violation with §404 of the CWA was unclear. The EPA Inspection Team recommends that the City ensure that all applicable permits (e.g., CWA §404 and/or §401) are obtained prior to conducting work in or around waterways, wetlands, or areas that might be designated as such.

Appendix A
Inspection Schedule

Agenda for MS4 Inspection of the City of Monterey (September 21–22, 2009)

Tentative Agenda for MS4 Program Evaluation of Monterey, CA September 21–22, 2009		
Day	**Time**	**Program/Agenda Item**
Monday September 21, 2009	9:45 am – 10:30 am	Kickoff Meeting & Program Management Overview
	10:30 am – 11:30 am	Construction Site Storm Water Runoff Control – Part D.2.d (Office)
	11:30 am – 12:30 pm	Post-Construction Storm Water Management in New Development and Redevelopment – Part D.2.e (Office)
	12:30 pm – 1:30 pm	Lunch Break
	1:30 pm – 2:30 pm	Pollution Prevention/Good Housekeeping for Municipal Operations – Part D.2.f (Office)
	2:30 pm – 3:30 pm	Illicit Discharge Elimination Program – Part D.2.c (Office)
	3:30 pm – 4:30 pm	Open Period for Additional Activities[3] or Discussion (Tentative time slot)
	4:30 pm – 4:45 pm	Recap, Follow-up, and Logistics Planning for Tuesday

[3] Open Period: This time slot will be used as necessary for additional activities (field or office), discussion, or records reviews.

Appendix B
Photograph Log

Photograph 1. 125 Spray Avenue – Sand accumulation in curb and gutter flowline.

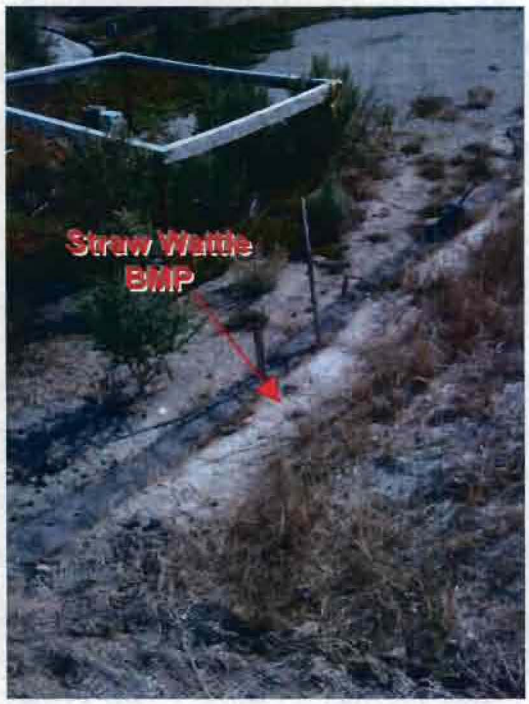
Photograph 2. 125 Spray Avenue – Sand accumulation within storm drain catch basin.

Photograph 3. **125 Spray Avenue – Example of construction waste and debris on the ground surface at the site.**

Photograph 4. **125 Spray Avenue – Another example of construction waste and debris on the ground surface at the site.**

Photograph 5. 30/40 Ryan Ranch Court – Areas used as soil stockpile for excess fill material on yet-to-be developed parcel of land at the development.

Photograph 6. 30/40 Ryan Ranch Court – Example of silt fence BMP not entrenched into the ground.



Photograph 7. **30/40 Ryan Ranch Court – Example of crushed straw wattle BMP.**

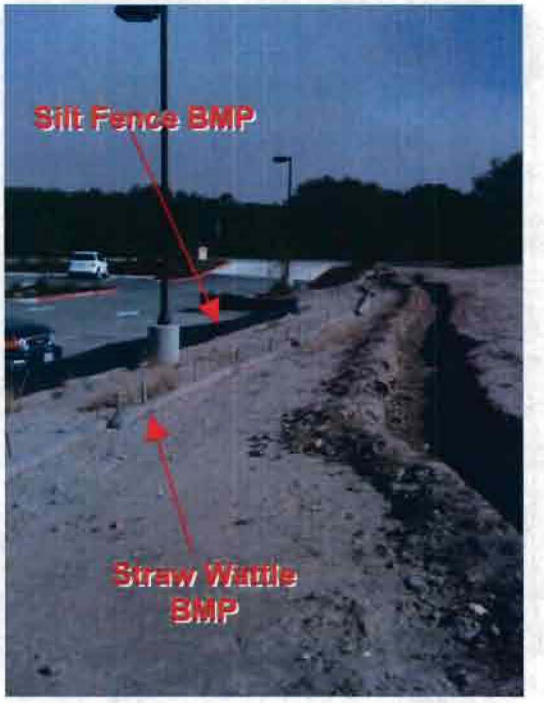
Photograph 8. **30/40 Ryan Ranch Court – Another example of crushed straw wattle BMP adjancet to silt fence.**

Photograph 9. **30/40 Ryan Ranch Court – Example of collapsed silt fence BMP.**

Photograph 10. **30/40 Ryan Ranch Court – Another example of collapsed silt fence BMP.**

Photograph 11. 30/40 Ryan Ranch Court – Drainage ditch intended to direct storm water runoff flow off-site. (Note: Straw wattle BMP installed downgradient of drainage ditch)

Photograph 12. 30/40 Ryan Ranch Court – Another view of drainage ditch.

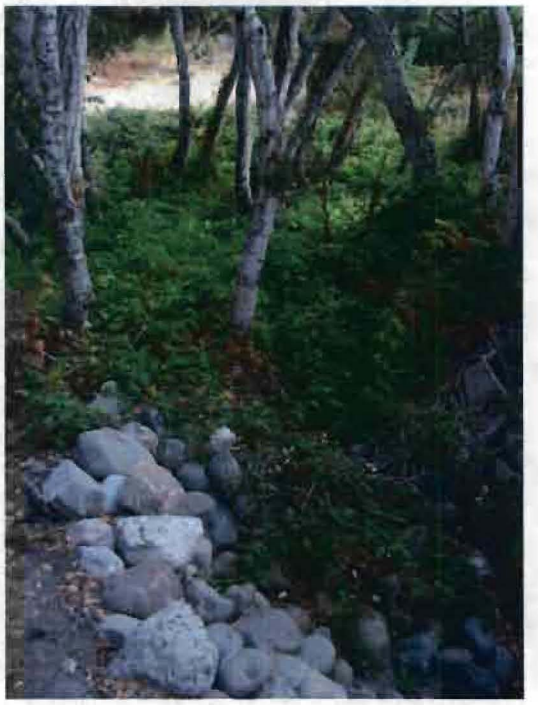


Photograph 13. 30/40 Ryan Ranch Court – Another view of drainage ditch. (Note: Straw wattle and silt fence BMPs installed downgradient of drainage ditch)

Photograph 14. 30/40 Ryan Ranch Court – A single straw wattle BMP had been installed to dissipate flow from drainage ditch. The wattle is not visible in this photo.

Photograph 15. 30/40 Ryan Ranch Court – Wattle and silt fence used to prevent runoff from entering parking lot. Exposed soil also present.

Photograph 16. 30/40 Ryan Ranch Court – Rip-rap surrounding outflow from 30/40 Ryan Ranch Court.



Photograph 17. **30/40 Ryan Ranch Court – Discharge into natural drainage area above detention basin.**

Photograph 18. **30/40 Ryan Ranch Court – Stucco and plaster waste on ground surface.**

Photograph 19. 30/40 Ryan Ranch Court – Spilled concrete on ground surface.

Photograph 20. Corporation Yard at Ryan Ranch – Example of storage of unconsolidated materials adjacent to storm drain inlet without BMPs for inlet protection.

Photograph 21. Corporation Yard at Ryan Ranch – Another example of storage of unconsolidated materials adjacent to storm drain inlet without BMPs for inlet protection.

Photograph 22. Corporation Yard at Ryan Ranch – Debris and dried paint on ground surface in the paint truck refill area.

Photograph 23. Corporation Yard at Ryan Ranch – Close-up of debris on ground surface in the paint truck refill area.

Photograph 24. Corporation Yard at Ryan Ranch – Vehicle fueling area at faciity without spill response kit in immediate vicinity. (Note: Staining adjacent to storm drain inlet)

Photograph 25. Corporation Yard at Ryan Ranch – Close-up view into storm drain inlet pictured above. (Note: Oily sheen on water surface)

Photograph 26. Corporation Yard at Ryan Ranch – Covered materials storage adjacent to vehicle wash rack that drains to the sanitary sewer. (Note: Several 55-gallon drums are not within secondary containment)

Photograph 27. Corporation Yard at Ryan Ranch – Close-up view of 55-gallon drums not within secondary containment, adjacent to drain to sanitary sewer.

Photograph 28. Cemetery Corporate Yard – Example of storage of unconsolidated materials adjacent to storm drain inlet without BMPs for inlet protection.

Photograph 29. Cemetery Corporate Yard – Example of storage of unconsolidated materials in trash bin adjacent to storm drain inlet without BMPs for inlet protection.

Photograph 30. Cemetery Corporate Yard – Another example of storage of unconsolidated materials adjacent to storm drain inlet without BMPs for inlet protection.

Photograph 31. Cemetery Corporate Yard – Example of unconsolidated materials within storm drain inlet.

Photograph 32. Cemetery Corporate Yard – Close-up view into storm drain inlet pictured above in Photograph 30. (Note: Accumulation of mulch in storm drain inlet)

Photograph 33. Harbor Maintenance Corporate Yard – Example of cover placed on storm drain inlet when work is being performed outside in the area of the storm drain inlet.

Photograph 34. Municipal Harbor and Marina – Example of disposal facility provided for patrons at the Municipal Harbor and Marina.

Photograph 35. Wilson Road Detention Pond.

Photograph 36. Harris Street Detention Pond.

Photograph 37. Highway 68 Detention Pond.

Photograph 38. Highway 68 Detention Pond – Excavated channel to detention pond.

Photograph 39. Highway 68 Detention Pond – Another view of excavated channel to detention pond.

Photograph 40. Highway 68 Detention Pond – View upstream of dredged channel to detention pond.

Photograph 41. Drainage channel restoration near Crandall Creek.

Photograph 42. Drainage channel restoration near upstream end of Windmere Creek.