

US EPA ARCHIVE DOCUMENT



**MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4)
CONSTRUCTION PROGRAM
COMPLIANCE INSPECTION**

**REPORT DATE:
January 20, 2010**

**EVALUATION CONDUCTED:
November 30, 2009 – December 3, 2009**

CITY OF BAKERSFIELD, CALIFORNIA

**United States Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901**

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US EPA ARCHIVE DOCUMENT

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Section 1.0 Introduction

PG Environmental, LLC, a U.S. Environmental Protection Agency (EPA) contractor (hereafter, EPA Contract Inspector), conducted an inspection of the City of Bakersfield's Municipal Separate Storm Sewer System (MS4) Construction Program on November 30, 2009 – December 3, 2009. Discharges from the MS4 are regulated under the *National Pollutant Discharge Elimination System (NPDES) Permit No. CA00883399, Regional Board Order No. 5-01-130* (hereafter, the Permit), adopted on June 14, 2001 by the California Regional Water Quality Control Board, Central Valley Region (hereafter, Regional Board). It should be noted that the City of Bakersfield and the County of Kern are listed as co-permittees on the Permit; however, the purpose of the inspection was to assess the City of Bakersfield's compliance with the construction-related requirements of the Permit. The EPA Contract Inspector also assessed the implementation status of the City of Bakersfield's (hereafter, City) current MS4 Construction Program with respect to its individual storm water management plan titled, "County of Kern & City of Bakersfield, Revised Storm Water Management Plan, June 2006" (hereafter, SWMP). A copy of the Permit is included as Appendix B and a copy of the SWMP is included as Appendix F.

The inspection focused specifically on construction-related components of the City's MS4 Program (e.g., construction site inspections, site plan review process, enforcement activities). As such, the inspection was not intended to be a comprehensive evaluation of all components and requirements associated with the entire MS4 program.

The City's MS4 program was evaluated with regard to the following areas of the Permit:

- **Discharge Specification B** – "The Discharger shall reduce the discharge of pollutants into the storm drainage system to the maximum extent practicable."
- **Provision D.3** – "The Discharger shall comply with Discharge Specification B by continued implementation of the SWMP."
- **Provision D.8** – "The Discharger shall perform the actions set forth in the SWMP to achieve compliance with this Order, including, but not limited to:
 - a. Performing inspection, surveillance, and monitoring procedures necessary to determine compliance with ordinances, permits, and other components of the SWMP;
 - b. Implementing programmatic functions as described in the SWMP;
 - c. Providing the requisite funding and personnel to implement the storm water program as described in the SWMP; and,
 - d. Enforcing codes, ordinances, and permits."
- **Provision D.10** – "By 15 December 2001 the Discharger shall submit a template storm water inspection checklist. Following approval by the Executive Officer,

the checklist shall be used by the City and County to assist in compliance with Provision 8.a.”

- **Provision D.20** – “The Discharger shall maintain the legal authority required by 40 CFR 122.26(d)(2)(i). Legal authority will be such that a general storm water permittees’ (industrial and construction) compliance with local ordinances will also assure compliance with the State NPDES general permits.
- **Provision D.21** – “The Discharger shall require that business, industrial, and construction activities comply with all local requirements and conditions, including local prohibitions. The Discharger shall conduct adequate compliance and enforcement activities to ensure that business, industrial, and construction activities comply with the County or City storm water ordinances. An element of the Discharger’s enforcement plan may include requesting assistance from the Board to pursue a noncomplying industrial facility, once the Discharger has exhausted enforcement remedies provided in its legal authority.”
- **Provision D.22** – “The Discharger shall perform the activities in the SWMP, and use its enforcement authorities to ensure compliance with the construction and industrial NPDES permits for discharges. For cases of noncompliance in which the Discharger lacks sufficient means or authority to ensure compliance, the Discharger shall refer the case to the Board in writing for further enforcement.”

The City’s MS4 program was also evaluated with regard to implementation of the following areas of the SWMP¹:

- **Section 2** – “Master Plan to Develop, Implement, and Enforce Controls for New Development and Significant Redevelopment”
- **Section 13** – “Site Planning Procedures”
- **Section 14** – “Structural and Non-Structural BMPs”
- **Section 15** – “Identifying Site inspection Priorities and Enforcing Control Measures”

As a means of assessing compliance, the EPA Contract Inspector conducted five individual inspections of facilities located in the jurisdictional boundaries of the City’s MS4. All of the facilities were construction sites where the owner or operator had obtained coverage under the *California State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, NPDES General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction Activity*, adopted on August 19, 1999 (hereafter, Construction General Permit). The purposes of the Construction General Permit inspections were to (1) assess the adequacy, appropriateness, and maintenance of best management practices (BMPs) employed for construction activities to prevent and

¹ Note that a copy of the City’s SWMP titled, “County of Kern & City of Bakersfield, Revised Storm Water Management Plan, June 2006,” was provided to the EPA Contract Inspector by the Regional Board prior to the inspection. While onsite, the City Water Resources Superintendent confirmed that this was the most current version of the SWMP. A copy of the City’s SWMP is included in this report as Appendix F.

reduce storm water pollution, and (2) gauge the overall effectiveness of the City's construction oversight activities. It should be noted that numerous deficiencies were identified during the site visits, which are discussed in further detail in Section 2.1. Table 1 provides a list of the facilities at which Construction General Permit inspections were conducted and individual reports for the inspections are provided in Appendix C.

Table 1. Construction General Permit Inspections Conducted November 30–December 3, 2009

Waste Discharge Identification (WDID) No.	Facility Name	Facility Location	Inspection Date / Date Visited	Construction General Permit Inspection No. ²
5F15C354447	Westside Parkway, Phase I (Mohawk Street Extension)	Mohawk Street, South across the Kern River, Bakersfield, CA	11/30/2009	1
5F15C356350	Mesa Marin Sports Complex	Highway 178 and Canteria Drive, Bakersfield, CA	12/3/2009	2
5F15C355403	Payless Mini-Storage	11015 Kern Canyon Road, Bakersfield, CA	12/1/2009	3
See Inspection Report	PM11118 or Walmart Store #5134	Southwest corner of Gosford Road & Pacheco Road in Bakersfield, CA	12/2/2009	4
5F15C355515	Tract 6557 - Unit 1	Southwest corner of Stine Road and Berkshire Road, Bakersfield, CA	12/1/2009	5
5F15C354465	Santa Fe Apartments	701 Union Avenue, Bakersfield, CA	11/30/2009	N/A ³
5F15C356175	Panama Retail Center	6200 Colony Street, Bakersfield, CA	12/1/2009	N/A

In addition to the Construction General Permit inspections, the EPA Contract Inspector evaluated compliance through an interview session with representatives from the City's Public Works Department and Water Resources Department, as well as a series of records requests and document reviews. The sign-in sheet for the December 2, 2009 meeting with the City representatives is presented in Appendix A. The primary representatives involved in the inspection were the following:

City of Bakersfield: Mark Lambert, Water Resources Superintendent
 Rick Millwee, Construction Superintendent

EPA Contract Inspector: Bobby Jacobsen, PG Environmental, LLC

² The Construction General Permit Inspection Number corresponds to the inspection report included in Appendix C.

³ "N/A" means "not applicable," indicating that photographs and notes were collected and obtained and select evidence was used in Section 2.1; however, detailed inspection reports were not produced. The construction sites appeared to have been abandoned and facility representatives were not available onsite; therefore, full inspections were not conducted.

Dry weather conditions were experienced throughout the inspection activities. Weather history reports⁴ indicated that about 0.09 inches of precipitation fell in the City of Bakersfield area on November 26 – 27, 2009, prior to the inspection activities. In addition, weather history reports indicated about 0.22 inches of precipitation on December 6, 2009 and 0.75 inches of precipitation on December 9, 2009, during the week following the inspections.

⁴ Weather history reports for the City of Bakersfield obtained from the National Weather Service Web site (<http://www.weather.gov/climate/index.php?wfo>)

Section 2.0 Permit Compliance Review

The EPA Contract Inspector conducted an evaluation of the City's MS4 Construction Program to assess compliance with the requirements of the Permit. The Permit has an adoption date of June 14, 2001. The Permit expired on June 14, 2006, but it has been administratively extended and is in full force and effect until it is rescinded or a new permit is issued.

The EPA Contract Inspector identified several deficiencies (hereafter, inspection findings) regarding compliance with the Permit. The presentation of inspection findings in this section of the report does not constitute a formal compliance determination or violation. Additionally, this section of the report provides recommendations for how the City might improve the design and implementation of its current Storm Water Management Program and also identifies program deficiencies that represent areas of concern for effective program implementation. All referenced documentation used as supporting evidence is provided in Appendices C, D, and E. For clarity, items that require response are underlined while recommendations are presented in *italic*.

Section 2.1 Construction Component

Provision D.22 of the Permit requires that “the Discharger [City] shall perform the activities in the SWMP, and use its enforcement authorities to ensure compliance with the construction and industrial NPDES permits for discharges.”

As a component of the inspection, the EPA Contract Inspector conducted five individual inspections of facilities located in the jurisdictional boundaries of the City and/or served by the City's MS4 to assess compliance with the Construction General Permit. Numerous site deficiencies were observed during the Construction General Permit inspections which indicate a lack of adequate oversight by the City to ensure construction site compliance with the Construction General Permit, and therefore the City's compliance with Provision D.22 of the City's MS4 permit.

Three of the construction sites visited during the Construction General Permit inspections were private development projects while two of the sites were public projects administered by the City. The EPA Contract Inspector also visited several construction sites that appeared to have been abandoned; however, full inspections were not conducted at these sites. Summary observations pertaining to these site visits are presented below in a series of individual construction site assessments. Note that the summaries do not necessarily describe all findings documented during the inspections. Appendix C includes the detailed Construction General Permit inspection reports.

Following the individual construction site assessments, additional observations are presented which directly pertain to the City's programmatic obligations under its MS4 permit.

Public Project: Westside Parkway, Phase I (Mohawk Street Extension) located at Mohawk Street, south across the Kern River in Bakersfield, CA

The construction project was administered under the City's Thomas Roads Improvement Program (TRIP) and included the construction and rerouting of Mohawk Street over the Kern River and an extension of the Westside Parkway. As described by the Facility Representative present for the inspection, the City's contracted Construction Inspector and the general contractor's inspector conduct inspections of the site to ensure compliance with the Construction General Permit. Several deficiencies were noted during the site inspection, as described below. The Construction General Permit inspection report for this site is included as Appendix C, Inspection No. 1.

BMPs were not implemented to prevent the discharge of sediment from the area of disturbance on the northern side of the Kern River. Specifically, BMPs for stabilization or perimeter control were not implemented as described in the facility's storm water pollution prevention plan (SWPPP) for the disturbed slope adjacent to the installation of the bridge pilings within the reach and bounds of the Kern River channel (see Appendix C, Inspection No. 1, Finding 3, Photographs 4 and 5). Similarly, adequate BMPs were not implemented in accordance with the SWPPP on the southern side of the Kern River (see Appendix C, Inspection No. 1, Finding 4, Photograph 6). As a result, there was a potential for the discharge of sediment to the Kern River.

BMPs were not implemented to prevent the discharge of sediment from the area of disturbance near the culvert crossing of the irrigation channel in the southern portion of the site (see Appendix C, Inspection No. 1, Finding 5, Photographs 7 and 8). As a result, there was a potential for the discharge of sediment offsite to the irrigation channel.

Adequate BMPs were not implemented or maintained for storm drain inlet protection at the southeast and southwest corners of the intersection of Highway 58 and Mohawk Street (see Appendix C, Inspection No. 1, Findings 6 and 7, Photographs 9 through 14). As a result, sediment was observed within the storm drain inlet on the southeast side of the intersection and there was a potential for the subsequent discharge of sediment to the City's MS4.

Adequate BMPs were not implemented to prevent the discharge of sediment from a soil and concrete waste stockpile located in the staging area to the south of Refinery Avenue. Specifically, BMPs were not implemented for coverage of the stockpile, and the fiber roll BMPs installed for perimeter control did not encompass the entire circumference of the stockpile and were not properly installed (e.g., entrenched into the ground; see Appendix C, Inspection No. 1, Finding 9, Photographs 16, 17 and 18). Furthermore, silt fence was not installed around the perimeter of the stockpile as is described in the section of the SWPPP titled, "WM-3. Dirt/Rubble Stockpiles." Adequate BMPs must be implemented to prevent the discharge of sediment from the site, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

Public Project: Mesa Marin Sports Complex located at Highway 178 and Canteria Drive in Bakersfield, CA

The construction project was administered by the City for the demolition and reconstruction of a sports field complex. As described by the Facility Representatives, neither the City's Construction Inspector nor the general contractor's inspector conducted or documented inspections related specifically to storm water to ensure compliance with the Construction General Permit. Several deficiencies were noted during the site inspection. The Construction General Permit inspection report for this site is included as Appendix C, Inspection No. 2.

BMPs were not properly installed to prevent the discharge of sediment to storm drain inlets located near the northern perimeter of the construction site along Highway 178. Specifically, the storm drain inlets were located in and downgradient of disturbed areas and the straw wattle BMPs installed around the storm drain inlets were not entrenched or staked into the ground to retain sediment and prevent failure (see Appendix C, Inspection No. 2, Finding 4, Photographs 3, 4, 5 and 6). As a result, there was a potential for the discharge of sediment to the onsite storm drain inlets and subsequently the City's MS4.

In addition, BMPs were not properly installed to prevent the discharge of sediment to a storm drain inlet located in the western portion of the construction site. Similar to the finding above, the storm drain inlet was located downgradient of a large area of disturbance and the straw wattle BMP installed around the storm drain inlet was not entrenched or staked into the ground to retain sediment and prevent failure. As a result, the straw wattle BMP had been previously undercut and sediment had been discharged to the storm drain inlet and subsequently the City's MS4 (see Appendix C, Inspection No. 2, Finding 5, Photographs 7, 8 and 9).

Adequate BMPs were not implemented to prevent the transport of sediment to Highway 178 from the vehicle access area near the northwestern corner of the construction site. Specifically, the stabilized construction site entrance/exit was less than 50 feet long, which was the minimum length required by the design specifications in the SWPPP. In addition, sediment accumulation was observed within the vehicle tracking pad and on the adjacent impervious sidewalk and Highway 178 (see Appendix C, Inspection No. 2, Finding 6, Photographs 11 and 12).

Adequate BMPs were not implemented to prevent the contribution of pollutants to storm water runoff from the concrete waste stockpiles located in the staging area near the southeast corner of the construction site. Specifically, BMPs were not implemented for coverage or perimeter control of the stockpiles (see Appendix C, Inspection No. 2, Finding 8, Photographs 15 and 16). The section of the SWPPP titled, "WM-3. Stockpile Management," stated that "during the rainy season, the stockpiles [of Portland cement concrete rubble, etc.] should be covered or protected with a temporary perimeter sediment barrier at all times"; however, this practice was not implemented in the field.

Adequate BMPs must be implemented to prevent the discharge of sediment from the site, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

Private Project: Payless Mini-Storage located at 11015 Kern Canyon Road in Bakersfield, CA

The construction project was a private development project that included the expansion of a pre-existing Payless Mini-Storage facility. Several deficiencies were noted during the site inspection. The Construction General Permit inspection report for this site is included as Appendix C, Inspection No. 3.

BMPs were not implemented to prevent the discharge of sediment from the disturbed area in the southwestern portion of the construction site. Specifically, BMPs were not implemented for runoff control, temporary or permanent stabilization, or perimeter control (see Appendix C, Inspection No. 3, Finding 3, Photograph 1). Evidence of a previous storm water run-on event from the upgradient, impervious parking and storage area in the northeast portion of the site had caused significant erosion and sediment transport in the downgradient disturbed areas (see Appendix C, Inspection No. 3, Finding 3, Photographs 2, 3, 4 and 5). As a result, sediment had been transported and discharged offsite to the southwest curb and gutter flow line and to an excavated area adjacent to Mesa Marin Drive roadway and there was a potential for the subsequent discharge of sediment to the storm drain inlet and City's MS4 located approximately 15 yards to the northwest (see Appendix C, Inspection No. 3, Finding 3, Photographs 6, 7 and 8).

BMPs were not implemented to prevent the discharge of sediment from the disturbed area along the northwestern perimeter of the construction site. Specifically, BMPs were not implemented for temporary or permanent stabilization or perimeter control (see Appendix C, Inspection No. 3, Finding 4, Photographs 9 and 10). As a result, evidence of previous erosion was observed in the disturbed area and evidence of the discharge of sediment to the impervious sidewalk was observed for several areas along Highway 184 (see Appendix C, Inspection No. 3, Finding 4, Photographs 11, 12, 13 and 14). Furthermore, there was a potential for the subsequent discharge of sediment to the curb and gutter flowline and downgradient storm drain inlets and subsequent discharge to the City's MS4.

BMPs were not implemented to prevent the discharge of sediment to storm drain inlets along Highway 184 adjacent to the northwest perimeter of the site. Specifically, BMPs were not implemented for inlet protection for the storm drain inlets located downgradient of disturbed areas along the northwest perimeter of the construction site (see Appendix C, Inspection No. 3, Finding 5, Photograph 15). As a result, there was a potential for the discharge of sediment to the storm drain inlets and subsequent City's MS4.

Adequate BMPs were not implemented to prevent the discharge of sediment to a storm drain inlet near the southwestern corner of the construction site. Specifically, sediment

was observed on the impervious roadway adjacent to the inlet and BMPs were not implemented for inlet protection (see Appendix C, Inspection No. 3, Finding 7, Photographs 16 and 17). As a result, sediment-laden water was observed within the storm drain inlet (see Appendix C, Inspection No. 3, Finding 7, Photograph 18) and there was a potential for additional discharge of sediment to the storm drain inlet and subsequent City MS4. Adequate BMPs must be implemented to prevent the discharge of sediment from the site, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

Private Project: PM 11118 or Walmart Store #5134 located at the southwest corner of the intersection of Gosford Road & Pacheco Road in Bakersfield, CA

As described in the individual Construction General Permit inspection report for this site, the actual name and WDID number for the project was unclear. The active construction that was inspected consisted of a private development project for the construction of a Walmart store building. Several deficiencies were noted during the site inspection. The Construction General Permit inspection report for this site is included as Appendix C, Inspection No. 4.

BMPs were not implemented to prevent the discharge of sediment from the disturbed parking lot area to a storm drain inlet on the northern side of the Wal-Mart facility building. Specifically, BMPs were not implemented for protection of the storm drain inlet (see Appendix C, Inspection No. 4, Finding 3, Photographs 4 and 5). Furthermore, during the inspection, a water truck was observed spraying the disturbed parking lot area adjacent to and including the storm drain inlet and, as a result, sediment-laden water was discharged to the storm drain inlet (see Appendix C, Inspection No. 4, Finding 3, Photographs 6 through 10). This discharge constitutes a non-storm water discharge of pollutants to the City's MS4.

Adequate BMPs were not implemented to prevent the transport of sediment to Pacheco Road from the vehicle access area along the northern perimeter of the construction site. Specifically, adequate BMPs were not implemented for vehicle tracking control (see Appendix C, Inspection No. 4, Finding 4, Photograph 11). As a result, evidence of sediment transport and accumulation was observed in Pacheco Road (see Appendix C, Inspection No. 4, Finding 4, Photographs 12 and 13) and there was a potential for the discharge of sediment to the nearby storm drain inlets and subsequently to the City's MS4.

Adequate BMPs were not implemented to prevent the discharge of sediment to the storm drain inlets located near the vehicle access area along the northern perimeter of the construction site (i.e., Pacheco Road; see Appendix C, Inspection No. 4, Finding 5, Photographs 12 and 13). Specifically, BMPs were not implemented for inlet protection and loose sediment was observed in the curb and gutter flow line and in the roadway upgradient of the storm drain inlets (see Appendix C, Inspection No. 4, Finding 5,

Photographs 14 and 15). As a result, there was a potential for the discharge of sediment to the City's MS4.

Adequate BMPs were not implemented to prevent the discharge of sediment to the storm drain inlets located near the northwestern corner of the construction site. Specifically, BMPs were not implemented for erosion or sediment control of the disturbed areas upgradient of the storm drain inlets and BMPs were not implemented for inlet protection (see Appendix C, Inspection No. 4, Finding 6, Photographs 16 through 20). As a result, there was a potential for the discharge of sediment to the City's MS4.

Adequate BMPs were not implemented to prevent the discharge of sediment to the storm drain inlet located near the middle of the disturbed parking lot area on the eastern side of the Wal-Mart facility building. Specifically, BMPs were not implemented for inlet protection (see Appendix C, Inspection No. 4, Finding 7, Photographs 21 and 22). As a result, sediment was observed within the storm drain inlet and there was a potential for the subsequent discharge of sediment to the City's MS4 (see Appendix C, Inspection No. 4, Finding 7, Photograph 23).

Adequate BMPs were not implemented to prevent the discharge of sediment to the storm drain inlets located along the western perimeter of the construction site. Specifically, BMPs were not implemented for erosion or sediment control of the disturbed areas upgradient of the storm drain inlets and BMPs were not implemented for inlet protection (see Appendix C, Inspection No. 4, Finding 8, Photographs 24 through 27). Sediment and debris accumulation was observed in the curb and gutter flow line, and as a result, there was a potential for the discharge of sediment to the City's MS4.

Adequate BMPs were not implemented to prevent the transport of sediment to Pacheco Road from the vehicle access area near the northwestern corner of the construction site. Specifically, adequate BMPs were not implemented for vehicle tracking control for the entrance/exit to the staging area (see Appendix C, Inspection No. 4, Finding 9, Photograph 28). As a result, sediment accumulation was observed in Pacheco Road and there was a potential for the discharge of sediment to the nearby storm drain inlet (see Appendix C, Inspection No. 4, Finding 9, Photographs 29 and 30). Adequate BMPs must be implemented to prevent the discharge of sediment from the site, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

Private Project: Tract 6557 – Unit 1 located at southwest corner of Stine Road & Berkshire Road in Bakersfield, CA

The construction project consisted of a private development for a residential subdivision on about 36 acres of land. At the time of the inspection nearly the entire site had been graded and was exposed. The Facility Representative explained that the construction site would most likely remain in its current state (i.e., graded and exposed) for the next three to four years until it was sold to another developer. Several deficiencies were noted

during the site inspection. The Construction General Permit inspection report for this site is included as Appendix C, Inspection No. 5.

BMPs were not implemented to prevent the discharge of sediment from a disturbed area upgradient of a storm drain inlet near the middle of the southern perimeter of the construction site. Specifically, BMPs were not implemented for perimeter control around the disturbed area, and as a result, there was a potential for the discharge of sediment offsite and subsequently to the downgradient storm drain inlet and City's MS4 (see Appendix C, Inspection No. 5, Finding 4, Photographs 6 and 7).

BMPs were not properly installed and adequately maintained to prevent the discharge of sediment to a storm drain inlet near the middle of the southern perimeter of the construction site. Specifically, the gravel bags and filter fabric installed for inlet protection were not placed in a position to prevent the discharge of sediment or other pollutants to the storm drain inlet (see Appendix C, Inspection No. 5, Finding 5, Photographs 7 and 8). In addition, several of the gravel bags adjacent to the inlet were torn or deteriorated and gravel had escaped from the bags (see Appendix C, Inspection No. 5, Finding 5, Photograph 8). As a result, there was a potential for the discharge of gravel and sediment to the storm drain inlet and City's MS4.

BMPs were not implemented to prevent the discharge of sediment from an unstabilized earthen berm near the southwestern corner of the construction site. Specifically, BMPs were not implemented for stabilization or perimeter control around the disturbed earthen berm and the berm itself was unconsolidated (see Appendix C, Inspection No. 5, Finding 6, Photograph 9). As a result, sediment was observed on the adjacent impervious sidewalk and in the curb and gutter flow line and there was a potential for the discharge of sediment to a downgradient storm drain inlet without BMPs for inlet protection (see Appendix C, Inspection No. 5, Finding 5, Photographs 10 and 11).

Adequate BMPs were not implemented to prevent the discharge of sediment to offsite areas from the paved vehicle turnaround area near the southeastern corner of the construction site. Specifically, sediment accumulation was observed on the paved surface and BMPs were not implemented to prevent vehicle tracking or sediment transport from the area (see Appendix C, Inspection No. 5, Finding 7, Photographs 12, 13 and 14). As a result, there was a potential for the discharge of sediment from the vehicle turnaround area. Adequate BMPs must be implemented to prevent the discharge of sediment from the site, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

2.1.1 Failure to Conduct Inspections of Private Development Construction Projects.

As required by Provision D.8 of the Permit, the City "shall perform the actions set forth in the SWMP to achieve compliance with this Order, including, but not limited to: (a)

performing inspection, surveillance, and monitoring procedures necessary to determine compliance with ordinances, permits, and other components of the SWMP.” In addition, as stated above, Provision D.22 of the Permit requires that “the Discharger shall perform the activities in the SWMP, and use its enforcement authorities to ensure compliance with the construction and industrial NPDES permits for discharges.”

The City Water Resources Superintendent explained that the City does not inspect private development construction sites for issues related to storm water. The City does not have dedicated erosion and sediment control inspectors to conduct routine inspections of construction sites and does not have an inspection checklist to document the occurrence of inspections of private development projects. According to the City Water Resources Superintendent, the City submitted a construction site storm water inspection checklist to the Regional Board for review prior to the December 15, 2001 deadline, pursuant to Provision D.10 of the Permit. However, City staff could not locate the inspection checklist and stated that they did not use it for documenting the occurrence of construction site storm water inspections. It should be noted that the City’s SWMP does not include a specific frequency for the inspection of private construction projects and does not delineate separate protocols for inspections of private or public sites. Section 15 of the SWMP simply states that “the County and the City will continue their existing inspection and enforcement programs.”

The City Water Resources Superintendent explained that the City does not believe it has the legal authority to conduct inspections of private development projects because the sites are located on private property. It should be noted, however, that the City Water Resources Superintendent and the City Construction Superintendent explained that City building inspectors conduct various types of inspections on private development sites to ensure compliance with municipal building code. It is unclear to the EPA Contract Inspector why there is a perceived difference in the City’s authority to inspect for municipal building code and storm water purposes.

It should be noted that Provision D.20 of the Permit requires that “the Discharger shall maintain the legal authority required by 40 CFR 122.26(d)(2)(i). Legal authority will be such that a general storm water permittees’ (industrial and construction) compliance with local ordinances will also assure compliance with the State NPDES general permits.”

The EPA Contract Inspector did not attempt to fully assess the City’s legal authority to conduct inspections of private development projects. However, based on a review of several documents provided by the City, it appears that the City maintains legal authority to inspect private development projects.

The following was identified during the document review process with regard to the City’s legal authority to inspect construction sites:

- The City provided the EPA Contract Inspector with an example of the Planning Application that is required to be submitted for private development projects within the City. The section in the application titled, “Authorized Signatures,”

states that the applicant agrees to “comply with all city ordinances, state, and other applicable laws relating to the development requested in this application” (refer to Exhibit 1 in Appendix D).

- Section 8.35.040 of Chapter 8.35 of the City’s municipal code (i.e., City ordinance), “Authority to inspect, conduct surveillance and monitor stormwater discharges,” explicitly states that “the public works director or a representative shall have access to sites or facilities for the purpose of ensuring compliance with conditions, relative to stormwater discharges, of permits and ordinances” (refer to Exhibit 2).
- Section 13 of the SWMP states that “during construction of new developments and significant redevelopment, the basic code which applies in both the county and the city is the Uniform Building Code (UBC). UBC Chapter 70- Excavation and Grading, establishes requirements for the control of excavation, grading, and earthwork construction, including the need for drainage, terracing, and erosion control on slopes.” The EPA Contract Inspector specifically requested a copy of this code; however, it was not provided by the City. The City Water Resources Superintendent explained that the City’s municipal code had been updated and the requirements of UBC Chapter 70 had been incorporated into the City’s own municipal code at Chapter 15, Section 15.05.090, Appendix J Grading (hereafter, Appendix J).
 - Section J101.7 of Appendix J, “Stormwater Control Measures,” states that “the permittee shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris, and construction-related pollutants originating from the site during grading and related construction activities” (refer to Exhibit 3).
 - Section J105.3 of Appendix J, “Site Inspections,” describes that a project will be inspected at several required stages during the project and that “supplemental inspections” may be performed by the building official as deemed necessary “to determine that the work is being performed in conformance with the requirements of this Code” (refer to Exhibit 4). Furthermore, Section J112.6, “Right of Entry,” states that “the building official...shall have access to the premises described in the permit for the purpose of inspecting the work” (refer to Exhibit 5).

Therefore, in summary, it appeared to the EPA Contract Inspector that despite maintaining the legal authority to inspect private development projects, the City has not exercised its authority and has not conducted inspections.

As described above in Section 2.1, the EPA Contract Inspector conducted several individual inspections of private development sites located in the jurisdictional boundaries of the City and/or served by the City’s MS4 to assess compliance with the Construction General Permit and numerous site deficiencies were identified during the

inspections. The inspections are further described in Section 2.1 and detailed inspection reports are provided in Appendix C.

While conducting the Construction General Permit inspections, the EPA Contract Inspector observed several construction sites which appeared to have been abandoned. Site representatives were not present at the facilities at the time of the site visits and SWPPPs were not stored at the project areas. The EPA Contract Inspector based his location on the addresses and global positioning system (GPS) data provided on the NOIs submitted by the respective permittees. Based on this information, the EPA Contract Inspector visited the Santa Fe Apartments construction site (WDID No. 5F15C354465) and the Panama Retail Center construction site (WDID No. 5F15C356175). Both sites appeared to have been graded and abandoned. BMPs for erosion or sediment control were not implemented at either site. Photo documentation of the site conditions at these two abandoned construction sites is included in Appendix E, the Photograph Log. It should be noted that the EPA Contract Inspector visited an additional abandoned construction site, though the name and WDID number for the site was unclear. Although the site had been graded, BMPs were not implemented for erosion or sediment control. This site visit is further described as a component of Appendix C, Inspection No. 4. Adequate BMPs must be implemented to prevent the discharge of sediment from these sites, and subsequently to the City's MS4. Moreover, the City must ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit.

As evidenced by the site conditions and lack of erosion and sediment control, abandoned construction sites constitute pollutant sources which should be adequately monitored, inspected and addressed by the City. The City Water Resources Superintendent explained that the City was aware that abandoned construction sites were an issue and believed that the Subdivisions group under the Public Works Department had a program to address the abandoned sites. It was not clear to the EPA Contract Inspector what the program consisted of and if it addressed storm water concerns as staff from the Subdivisions group were not available for discussion during the inspection.

As explained above, the City has not conducted inspections of private development sites. Construction site conditions observed during the MS4 inspection suggest that the City's lack of inspection oversight has not adequately ensured compliance with the City's local ordinances, the Construction General Permit, or the City's MS4 permit.

The City must conduct and document inspections of private development construction sites to ensure compliance with ordinances, permits, and other components of the SWMP, as required by Provision D.8 of the Permit, and to ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit. It is recommended that the City evaluate whether the protocols listed in the SWMP for construction site inspections provide sufficient oversight to ensure compliance with City ordinances. Furthermore, it is recommended that the City utilize dedicated erosion and sediment control inspectors, or personnel that have received adequate training regarding storm water issues.

2.1.2 Failure to Conduct Adequate Inspections of Public Construction Projects.

As required by Provision D.8 of the Permit, the City “shall perform the actions set forth in the SWMP to achieve compliance with this Order, including, but not limited to: (a) performing inspection, surveillance, and monitoring procedures necessary to determine compliance with ordinances, permits, and other components of the SWMP.” In addition, as stated above, Provision D.22 of the Permit requires that “the Discharger shall perform the activities in the SWMP, and use its enforcement authorities to ensure compliance with the construction and industrial NPDES permits for discharges.”

It should be noted that the City’s SWMP does not include a specific frequency for the inspection of the City’s public projects (e.g., capital improvement projects) and does not delineate separate protocols for inspections of private or public sites.

As described by the City Construction Superintendent, the City assigns a Construction Inspector to public projects to ensure that every aspect of the contract conditions, including storm water provisions, is met by the general contractor. The Construction Inspector may be a City employee or a contracted consultant. As explained by the City Construction Superintendent and the City Water Resources Superintendent, for any public project the general contractor must develop and implement a SWPPP to ensure compliance with the Construction General Permit.

As described above in Section 2.1, the EPA Contract Inspector conducted inspections of two public projects (i.e., Westside Parkway, Phase I [Mohawk Street Extension] and Mesa Marin Sports Complex) administered by the City to assess compliance with the Construction General Permit. Several site deficiencies were noted during the inspections (refer to Appendix C, Inspections No. 1 and No. 2).

During the site inspection of the Westside Parkway, Phase I (Mohawk Street Extension) project, the Facility Representative explained that he was a contracted Construction Inspector for the City. He explained that he was required to conduct storm water inspections of the construction site in accordance with the contract specifications. Furthermore, he was required to document the occurrence of such inspections on the “Attachment H Storm Water Quality Construction Site Inspection Checklist” (refer to Exhibit 6). In addition, the general contractor was required to conduct storm water inspections, document them on the Attachment H form, and turn them in to the City’s Construction Inspector. Based on review of inspection records onsite, it appeared that storm water inspections were being conducted and documented; however, site conditions suggested that the inspections were not adequate to ensure compliance with the Construction General Permit.

During the site inspection of the Mesa Marin Sports Complex project, the EPA Contract Inspector spoke with the City’s Construction Inspector, who was a City employee. The City’s Construction Inspector explained that he did not conduct or document specific

storm water inspections at the site but would take notice of storm water issues and direct the general contractor accordingly. He explained that he was responsible for ensuring compliance with all Contract Conditions for the project.

While onsite, the City's Construction Inspector identified the storm water-related Contract Conditions in the contract for the Mesa Marin Sports Complex project. Contract Condition 6.35.2 states that the "contractor shall employ methods and approved devices for the control of erosion and stormwater runoff within the Work Area. All work must meet the requirements of the California Regional Water Quality Control Board [e.g., Construction General Permit] and any additional conditions stated in the Technical Specifications." Whether the City's Construction Inspector had received specific training as it relates to storm water issues and compliance with the Construction General Permit was unclear.

During the site inspection, the EPA Contract Inspector also spoke with the general contractor's site superintendent. He explained that the general contractor had not conducted or documented inspections of the site for storm water issues to ensure compliance with the Construction General Permit. It should be noted that Section 600.1, "Site Inspections," of the project's SWPPP states that "the contractor shall inspect the site prior to a forecast storm, after a rain event that causes runoff from the construction site, at 24-hour intervals during extended rain events, weekly during the rainy season, every two weeks during the non-rainy season, and as specified in the project Special Provisions."

As described above, several site deficiencies were noted during the site inspections of these two public projects, which suggests that the level of storm water inspection oversight by the City and the general contractor was not sufficient to assure compliance with the Construction General Permit.

The City must conduct and document adequate inspections of public construction sites to ensure compliance with ordinances, permits, and other components of the SWMP, as required by Provision D.8 of the Permit, and to ensure compliance with the Construction General Permit as required by Provision D.22 of the City's MS4 permit. It is recommended that the City evaluate whether the protocols listed in the SWMP for construction site inspections provide sufficient oversight to ensure compliance with City ordinances. Furthermore, it is recommended that the City utilize dedicated erosion and sediment control inspectors or personnel that have received adequate training regarding storm water issues.

2.1.3 Failure to Conduct Enforcement Activities for Construction-related Activities.

Provision D.21 of the Permit states the City must "require that business, industrial, and construction activities comply with all local requirements and conditions, including local prohibitions. The Discharger shall conduct adequate compliance and enforcement activities to ensure that business, industrial, and construction activities comply with the County or City storm water ordinances. An element of the Discharger's enforcement

plan may include requesting assistance from the Board to pursue a noncomplying industrial facility, once the Discharger has exhausted enforcement remedies provided in its legal authority.”

Prior to the inspection, the EPA Contract Inspector requested that the City provide documentation of an instance where enforcement was used, ideally to the full extent of the City’s enforcement authority (refer to Exhibit 7 for a list of documents requested by the EPA Contract Inspector prior to the inspection). As explained by the City Construction Superintendent and the City Water Resources Superintendent, the City has not taken enforcement against a construction site for issues regarding storm water; therefore, no examples were provided to the EPA Contract Inspector. The City Water Resources Superintendent briefly explained that the City does not feel it has the authority to enforce SWPPP implementation and therefore has not taken enforcement action. The lack of enforcement activity shows that the City’s legal authority has not been tested with regard to storm water issues. It should also be noted that the City did not produce any examples of problematic construction sites that were referred to the Regional Board for further action.

The City Water Resources Superintendent stated that if the City did take enforcement against a construction site for issues related to storm water, the City would use its Code Enforcement officers to do so. Section 8.80.030 of the City’s municipal code, “Authority to inspect,” states that “code enforcement officers are authorized to enter upon any property or premises to ascertain whether the provisions of the Bakersfield Municipal Code or applicable state codes are being obeyed, and to make any examinations and surveys as may be necessary in the performance of their enforcement duties” (refer to Exhibit 8)

As noted above in Section 2.1.2, Provision D.20 of the Permit requires the City to maintain adequate legal authority such that a permittee’s “compliance with local ordinances will also assure compliance with the State NPDES general permits [e.g., Construction General Permit].” Numerous site deficiencies were noted during the individual Construction General Permit inspections conducted at several construction sites within the City’s jurisdiction, as described above in Section 2.1.

The City must conduct adequate compliance and enforcement activities to ensure that construction activities comply with the City’s storm water ordinances, as required by Provision D.21 of the Permit. Furthermore, the City must use its enforcement authorities to ensure compliance with the Construction General Permit as required by Provision D.22 of the City’s MS4 permit. *Because formal enforcement procedures are not clearly articulated in the City’s storm water ordinance, the City may also benefit from the development of an Enforcement Response Plan (ERP) or its equivalent to explain how issues of noncompliance at public and private construction sites will be addressed or escalated to ensure compliance.*

2.1.4 Need to Develop a Comprehensive Inventory of Construction Sites.

In order for the City to conduct adequate inspections of construction sites to ensure compliance with local ordinances and NPDES permits, as required by Provisions D.8, D.21 and D.22 of the Permit, the City must have knowledge of the location and status of private and public construction projects within the City.

Prior to the inspection, the EPA Contract Inspector requested a prioritized inventory of active construction sites within the City, including public and private projects. At the onset of the inspection, the City provided a list of construction projects titled, "CIP Construction Status, November - 2009" (refer to Exhibit 9). This list only included the City's capital improvement projects and did not include private development. Furthermore, a City representative explained that the list did not include several roadway projects under the City's Thomas Roads Improvement Program (TRIP). The public capital improvement project Westside Parkway, Phase I (Mohawk Street Extension) that was under active construction and inspected by the EPA Contract Inspector was also not included on the list of active projects provided by the City.

In addition, the City Construction Superintendent and the City Water Resources Superintendent explained that the City had a comprehensive list of all development tracts within the City limits but it did not delineate the status of the construction sites (e.g., active, non-active, abandoned, etc.). During the inspection, City staff in the Public Works Department generated a list titled, "Current Active Developments, as of 12-2-2009" (refer to Exhibit 10); however, three of the active private development construction sites visited by the EPA Contract Inspector did not appear to be included on the list. This highlights the concern that the City does not have a comprehensive list of construction sites to be used for prioritizing and tracking inspections and construction site status.

It is recommended that the City develop and maintain a comprehensive list of public and private construction sites within the City to identify all sites that are potential pollutant sources and use the inventory as a basis for inspection. The inventory should be used to aid the City in tracking and prioritizing inspections of the sites to ensure compliance with local storm water ordinances and the City's MS4 permit.

2.1.5 Need to Conduct and Document Adequate Site Plan and SWPPP Reviews.

As requested, the City provided the EPA Contract Inspector with its procedures for incorporating BMPs into the site planning process (refer to Exhibit 11). As explained by the City Water Resources Superintendent, these procedures had been submitted to the Regional Board prior to September 15, 2001, pursuant to Provision D.15 of the Permit. It should be noted that the main BMP described for private development projects consists of the construction of a new retention basin or connection to an existing basin. The BMP noted for public works projects is to "contain run-off on site." The site planning

procedure does not identify that temporary erosion and sediment control BMPs should be implemented at the construction sites.

As explained by the City Construction Superintendent and the City Water Resources Superintendent, the City's Public Works Department conducts a review of the site plans and SWPPPs for public capital improvement projects prior to the commencement of construction. Furthermore, the submittal of a Notice of Intent (NOI) for coverage under the Construction General Permit is a condition of approval for all projects. The City Construction Superintendent stated that the Caltrans checklist for conducting site plan and SWPPP reviews is used by City staff during this process. Whether the checklist is used as a mental guide or if it is physically completed and maintained as documentation of the review was unclear to the EPA Contract Inspector. As a component of the individual Construction General Permit inspections, the EPA Contract Inspector reviewed the SWPPPs for two public projects to assess compliance with the requirements of the Construction General Permit. It should be noted that though the SWPPPs had been reviewed by the City, numerous deficiencies were noted with regard to required information that was not included in the SWPPPs (refer to Appendix C, Inspections No. 1 and No. 2). *It is recommended that the City physically use a comprehensive site plan and SWPPP review checklist to ensure consistent reviews are performed and adequately documented.*

The City Water Resources Superintendent explained that the City does not require the submittal of SWPPPs from private development projects for review by the City; however, it is a condition of approval that an NOI be filed for coverage under the Construction General Permit. The City Water Resources Superintendent explained that private development project representatives might submit a SWPPP to the City during the process and the City might review the SWPPP; however, a checklist is not used during this SWPPP review and the occurrence of the review is not formally documented. As a component of the individual Construction General Permit inspections, the EPA Contract Inspector reviewed the SWPPP for a particular private development project to assess compliance with the requirements of the Construction General Permit. Several deficiencies were noted with regard to the required information that was not included in the SWPPP for the private development (refer to Appendix C, Inspection No. 5). It should be noted that SWPPPs were not maintained onsite at the other two private sites visited (refer to Appendix C, Inspections No. 3 and No. 4).

One component of many effective MS4 programs is the requirement for developers to prepare and submit a SWPPP for review and approval by the MS4 prior to the commencement of construction activities. Effective reviews tend to include an evaluation of whether control measures identified in the SWPPP are adequate, rather than a cursory assessment of whether controls are simply included.

It is recommended that the City require the submittal and approval of SWPPPs for private development projects as a condition of approval prior to the commencement of construction activities.