

US EPA ARCHIVE DOCUMENT

MS4 Pro

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

**REPORT DATE: October 30, 2009  
EVALUATION CONDUCTED: July 13–17, 2009**

**LAKE TAHOE HYDROLOGIC UNIT CO-PERMITTEES, CALIFORNIA**

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

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## Section 1.0 Introduction

On July 13-17, 2009, the U.S. Environmental Protection Agency's (EPA) contractor, PG Environmental, LLC, (hereafter, the EPA Inspection Team), conducted inspections of the City of South Lake Tahoe (City), El Dorado County, and Placer County Municipal Separate Storm Sewer System (MS4) Programs. Discharges from these MS4s are regulated under the *Updated WDRs and National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water/Urban Runoff Discharges from El Dorado County, Placer County, and the City of South Lake Tahoe*, Regional Board Order No. R6T-2005-0026 (hereafter, the Permit), issued October 12, 2005 by the California Regional Water Quality Control Board, Lahontan Region (hereafter, Regional Board). The Permit is the third NPDES MS4 permit issued to the City, El Dorado County, and Placer County (hereafter, Permittees). The Permit Area includes the jurisdictional areas of each Permittee that fall within the Lake Tahoe Hydrologic Unit (LTHU) in California. Exhibit 1 provides a map of the LTHU.

Placer County encompasses 1,404 square miles (898,560 acres) of land. It is bordered on the south by El Dorado County and Nevada County, California to the north. In 2008 the total population of Placer County was estimated to be 338,750 people.

El Dorado County encompasses approximately 1,711 square miles (1,095,040 acres) of land. It is bordered on the south by Amador and Calaveras counties. In 2008, the total population of El Dorado County was estimated to be 168,117 people.

The City of South Lake Tahoe encompasses approximately 10.1 square miles (6,464 acres) of land, stretching approximately five miles from east to west. The City is an incorporated place located in El Dorado County. In 2005, the total population of the City was estimated to be 25,819 people.

The Permit Area is based on the hydrologic region known as the LTHU rather than following the jurisdictional boundaries of the Permittees. The framework of the Permit enables focused regulation of storm water discharges into the California portion of Lake Tahoe. As explained in Part II.3 of the Permit, Lake Tahoe is losing transparency at a rate of approximately one foot per year. Transparency loss is due to elevated levels of very fine sediment (particles less than 10 microns) and increased algal growth rates. Consequently, the primary pollutants of concern for storm water treatment in the LTHU are very fine inorganic sediment particles (less than 10 microns) and the nutrients that support algal growth (nitrogen and phosphorus).

In the late 1960s, the governors and lawmakers in California and Nevada approved a bi-state compact that created a regional planning agency to oversee development in the Lake Tahoe Basin. In 1969, the United States Congress ratified the Tahoe Regional Planning Compact (Compact) and created the Tahoe Regional Planning Agency (TRPA). The Compact directs TRPA to establish and ensure attainment of environmental standards for water quality, air quality, soil conservation, wildlife habitat, vegetation preservation,

noise, recreation, fisheries, and scenic resources. The TRPA Code of Ordinances (TRPA Code) regulates land use, density, rate of growth, land coverage, excavation, and scenic impacts in the Lake Tahoe Basin.

TRPA has developed a cooperative approach with the Regional Board and local city and county governments on environmental issues. For example, TRPA has entered into Memorandums of Understanding (MOU) with both the Lahontan Regional Board and the LTHU MS4 Permittees. Consistent with the mandate of the Compact to defer land use regulation to local government where feasible, the MOUs delegate authority to the Permittees for review, approval, and inspection of certain categories of small construction, new development, and re-development projects for conformance with TRPA standards. TRPA conducts annual audits based on the local government delegation MOUs and issues building allocations based on the results. It should be noted that this MS4 inspection did not include an assessment of the Permittees' compliance with TRPA Code. Rather, the interrelationships between these agencies and entities were considered in evaluating compliance with the Permit itself.

The purpose of the inspection was to assess the Permittees' compliance with the requirements of the Permit through an assessment of the implementation of the Permittees' current MS4 Programs. The inspection schedule is presented in Appendix A.

Specifically, the inspection included an evaluation of the Permittees' compliance with the Permit, which includes requirements for the following program areas or elements:

Part VII.B	Construction Component
Part VII.C	Industrial Component
Part VII.D	Commercial Component
Part VII.F	Road and Facility Inspection Component
Part VII.G	Traction Abrasive and Deicer Application and Recovery Component
Part VII.I	Illicit Connections and Illegal Dumping

The EPA Inspection Team evaluated compliance through a series of interviews with representatives from the City's Public Works and Community Development departments; the El Dorado County Environmental Management Department, and Department of Transportation (DOT); the Placer County Public Works, and Engineering & Surveying representatives; along with a series of site visits and field verification inspections. Sign-in sheets for the July 14-16, 2009 meetings and daily activities are presented in Appendix B, Exhibits 2 through 4. The primary representatives involved in the inspection were the following:

City of South Lake Tahoe Public Works Representatives	John Greenhut, Director of Public Works Robert Erlich, Stormwater Coordinator
El Dorado County Department of Transportation Representatives	Steve Kooyman, Supervising Civil Engineer Russell Wigart, Assistant Engineer Brendan Ferry, Senior Planner
El Dorado County Environmental Management	Virginia Huber, Environmental Branch Manager
Placer County Public Works Representatives	Robert Costa, Public Works Manager Mary Keller, Stormwater Program Coordinator
Placer County Engineering & Surveying Representatives	Ed Staniforth, Associate Engineer Andy Deinken, Assistant Engineer
EPA Contractors	Scott Coulson, PG Environmental, LLC Luz Falcon-Martinez, PG Environmental, LLC

In addition, the EPA Inspection Team conducted six individual inspections of facilities located within the jurisdictional boundaries of the City, El Dorado County, or Placer County. One of the facilities was a construction site where the owner or operator had obtained coverage under the *Construction NPDES and Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity Involving Land Disturbance in the Lake Tahoe Hydrologic Unit – El Dorado, Placer, and Alpine Counties*, Regional Board Order No. R6T-2005-0007, issued in March 2005 (hereafter, Construction General Permit). Five of the facilities were industrial sites where the owner or operator had obtained coverage under the *Industrial Storm Water NPDES and General WDRs for Discharges of Storm Water Runoff Associated with Marinas and Maintenance Dredging in the Lake Tahoe Hydrologic Unit – El Dorado and Placer Counties*, Regional Board Order No. R6T-2005-0015-A1 amended April, 11, 2007 (hereafter, Marina General Permit). The purpose of the Construction General Permit and Marina General Permit inspections (collectively, General Permit Inspections) was (1) to assess the adequacy, appropriateness, and maintenance of best management practices (BMPs) employed at active construction and industrial sites to prevent or reduce storm water pollution, and (2) to gauge the overall effectiveness of the Permittees' oversight of construction and industrial activities. The General Permit Inspections were conducted by two teams of inspectors. Reports for the General Permit Inspections are provided in Appendix D.

Dry weather conditions were experienced throughout the inspection activities and program evaluation exercises. Climate data reports indicate 0.04 inches of precipitation



in the Lake Tahoe area for the week preceding the inspections, and no precipitation during the week following the evaluations.

## **Section 2.0 Permit Compliance Review**

The EPA Inspection Team conducted an evaluation of the Permittees' MS4 Programs to assess their compliance with the requirements of the Permit. The Permit has an effective date of October 12, 2005.

The EPA Inspection Team 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. This section of the report provides recommendations for how the Permittees might improve the design and implementation of their Storm Water Management Programs (SWMPs), and also identifies program deficiencies that represent areas of concern for successful program implementation. All referenced documentation used as supporting evidence is provided in Appendix B, and photo documentation is provided in Appendix C. For clarity, items that require response are underlined while recommendations are presented in *italic*.

### ***Section 2.1 Construction Component***

Part VII.B of the Permit requires each Permittee to develop and implement a Construction Component to reduce pollutants in storm water runoff from construction sites that involve more than three cubic yards of soil disturbance during all construction phases.

Both the City and El Dorado County have placed emphasis on the Construction component of their MS4 programs. City and El Dorado County officials explained that this approach was developed in an effort to address the fine inorganic sediment particles and nutrients which have been identified as primary pollutants of concern (POCs) for Lake Tahoe.

One of the General Permit Inspections was a construction site located within the City's jurisdiction. Construction site inspections were not conducted within the jurisdictions of the other Permittees. Due to time constraints, the EPA Inspection Team evaluated compliance of each of the Permittees' Construction Component through a series of interviews rather than field verification activities.

**2.1.1 The City of South Lake Tahoe Failed to Adequately Prioritize Construction Sites based on Threat to Water Quality.** Part VII.B.3 of the Permit requires the City to “develop and annually update an inventory of construction sites within its jurisdiction that involve more than three cubic yards of soil disturbance.” Part VII.B.4 of the Permit states “to establish priorities for construction oversight activities under the Order, Permittees shall develop a prioritization process for its watershed-based inventory (developed pursuant to VII.B.3 above) by threat to water quality. *Each construction site shall be classified as a high, medium, or low threat to water quality [emphasis added].*”

Pursuant to this requirement, Section 3.2.5.3 of the City's SWMP describes the process as the development and maintenance of a prioritized electronically inventory of active construction sites based on potential threat to water quality. The City's SWMP indicates that construction site inspection priorities will be determined through inspections conducted by Public Works staff assessing each site's soil erosion potential, site slopes, project size and type, stage of construction, and proximity to receiving water bodies and to stream environment zones (SEZ).

The EPA Inspection Team formally requested a prioritized inventory of current active construction sites in the LTHU permit area (refer to Exhibit 5), and explained that the inventory and associated records must demonstrate that the City had followed the potential threat to water quality prioritization requirements specified in the Permit. The EPA Inspection Team reviewed the City's 2008 GIS generated map which showed construction sites with open building permits and also showed land capabilities<sup>1</sup> and proximity to SEZs. The map was based on building permits issued from 2005 to 2008 and identified construction projects with pre-grade inspections. In the City's Updated 2008 SWMP Implementation Schedule (hereafter, City Implementation Schedule), dated July 15, 2008, the City committed to updating the 2009 inventory by April 3, 2009. The City had not updated the database and GIS map for the current construction season. Because the City has not updated the prioritized construction inventory based on pre-grading inspections for the 2009 construction season, the City has not followed the threat to water quality prioritization requirements specified in the Permit or the specified procedures and milestones included in the City's SWMP. The City of South Lake Tahoe must develop and update an inventory of construction sites within its jurisdiction in accordance with Part VII.B.4 of the Permit and the stated goals and implementation schedule included in the City's SWMP.

## ***Section 2.2 Industrial and Commercial Components***

Parts VII.C and VII.D of the Permit require each Permittee to develop and implement an Industrial Component and Commercial Component of its SWMP to reduce pollutants in runoff from industrial and commercial sites in its jurisdiction.

**2.2.1. The City of South Lake Tahoe Failed to Adequately Develop an Industrial and Commercial Site Inventory.** Part VII.C.1 of the Permit requires each Permittee to develop and annually update an inventory of industrial sites within its jurisdiction regardless of site ownership. Similarly, Part VII.D.1 of the Permit requires each Permittee to "develop and annually update an inventory of high priority threat to water quality commercial activities/sources."

The EPA Inspection Team formally requested an inventory of industrial and commercial facilities developed by the City (refer to Exhibit 5), and explained that the inventory and associated records must demonstrate that the City had followed the source identification

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<sup>1</sup> Land capability, as defined in *The Land Capability Classification of the Lake Tahoe Basin, California-Nevada*; Robert G. Bailey, 1974., is "the level of use an area can tolerate without sustaining permanent [environmental] damage through erosion and other causes."

requirements specified in the Permit. The City has developed and prioritized its combined inventory of industrial and commercial sites. However, the inventory has not been refined to determine which sites on the inventory are located within the jurisdictional boundaries of the City. The City Storm Water Coordinator explained that the City intends to use a Geographic Information System (GIS) to map the sites, but this had not yet been completed. In the City's Updated 2008 SWMP Implementation Schedule dated July 15, 2008 (hereafter, City Implementation Schedule), the City committed to a completion date of December 31, 2008 for the GIS industrial database development (refer to Exhibit 7). The EPA Inspection Team considers the inventory as a starting point for conducting industrial and commercial oversight activities. Because the City had not yet determined which industrial and commercial sites are in its jurisdiction, the City had not developed an adequate inventory of industrial and commercial sites. The City must develop and annually update an inventory of industrial and commercial sites within its jurisdiction regardless of site ownership in accordance with Part VII.C.1 of the Permit and the stated goals and milestones included in the SWMP."

**2.2.2. The City of South Lake Tahoe and El Dorado County Failed to Conduct Adequate Inspections of High Priority Commercial Sites.** Part VII.D.2 of the Permit requires "each Permittee to develop a program to inspect high priority commercial sites and sources as needed [emphasis added]." The inventory of commercial sites developed pursuant to Part VII.D.1 of the Permit is intended to be used in prioritizing inspection activities.

The EPA Inspection Team formally requested the City's "records of industrial/commercial facility inspections" conducted in the 2008 calendar year (refer to Exhibit 5). However, the City could not produce records of inspections conducted for MS4 compliance purposes. The City Storm Water Coordinator explained that the City intends to conduct its own commercial facility inspections, but has not developed an inspection checklist or procedure. The City currently relies on El Dorado County to conduct inspections and outreach to City industrial and commercial facilities as part of its Certified Unified Program Agencies (CUPA) and Food Programs. Although the City relies on El Dorado County for implementation of this part of its MS4 Program, the City has not entered into a MOU or other formal legal agreement with El Dorado County to fulfill requirements of the Permit.

In the El Dorado County Tahoe Basin SWMP dated February 2007 (hereafter, El Dorado County SWMP), Page 5-10, Commercial Implementation Schedule, the County committed to the following: (1) update its restaurant/food facility inspection program to address storm water issues as part of regularly scheduled inspections by April 2008, and (2) develop a commercial inspection checklist by April 2008 (refer to Exhibit 8).

The El Dorado County CUPA inspection checklist (refer to Exhibit 9) and Food Program checklist (refer to Exhibit 10) were reviewed by the EPA Inspection Team, which concluded that the checklists do not have a storm water specific component. The El Dorado County CUPA Program inspections (industrial) are conducted for environmental and emergency management purposes, and the Food Program inspections (commercial)

are conducted for food safety purposes. These are not qualifying inspections as the scope of the inspections did not include a storm water specific component. As a result, El Dorado County may not be on schedule to meet its commitment to inspect commercial businesses at least once during the Permit term. El Dorado County must develop a program to inspect high priority commercial sites and sources in accordance with Part VII.D.2 of the Permit. Furthermore, El Dorado County must meet the stated goals and milestones specified in the SWMP including the past due commitments to: (1) update its restaurant/food facility inspection program to address storm water issues during regularly scheduled inspections; and (2) develop a commercial inspection checklist.

Because the City relies on El Dorado County for implementation of this part of its MS4 Program and El Dorado County has not updated its restaurant/food facility inspection program to address storm water issues, the City itself has not developed a program to inspect high priority commercial sites and sources in accordance with Part VII.D.2 of the Permit. Part VII.D.2 of the Permit requires “*each* Permittee to develop a program to inspect high priority commercial sites and sources as needed [emphasis added].” *Based on this Permit language, the City should seek clarification from the Regional Board on their expectations for the commercial inspection program and opportunities to collaborate with El Dorado County. If it is decided that it is acceptable for the City to rely on El Dorado County for implementation of this part of its MS4 Program, the City should enter into a MOU or other formal legal agreement with El Dorado County to fulfill requirements of the Permit.*

### ***Section 2.3 Municipal Operations***

Part VII.C of the Permit requires the development and implementation of an Industrial Component that includes industrial sites such as transportation facilities. Part VII.F of the Permit requires a Road and Facility Inspection Component; and Part VII.G of the Permit requires a Traction Abrasive and Deicer Application and Recovery Component of the SWMP. The expectation is that each Permittee develop and implement a municipal operations element of its SWMP to reduce pollutants in runoff from both industrial and municipal facilities/activities.

**2.3.1. The City of South Lake Tahoe, El Dorado County, and Placer County Failed to Develop and/or Implement Adequate BMPs for Municipal and Industrial Activities.** Part VII.C of the Permit requires each Permittee to “develop and implement an Industrial Component to reduce pollutants in runoff from industrial sites in its jurisdiction. Industrial sites include but are not limited to: Manufacturing Facilities; Hazardous Waste Treatment, Storage, or Disposal Facilities; Solid Waste Transfer Stations; Recycling Facilities; *Transportation Facilities*; and Sewage or Wastewater Treatment Facilities [emphasis added].” The *WDRs for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*, State Water Resources Control Board Water Quality Order No. 97-03-DWQ, adopted April 17, 1997 (hereafter, Industrial General Permit) further defines the transportation facilities category. The Industrial General Permit, Attachment 1, Section 8, describes the transportation facilities category covered by the permit as “SICs 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or

airport deicing operations. Only those portions of the facility involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or other operations identified herein [in the Industrial General Permit] that are associated with industrial activity.”

The EPA Inspection Team conducted documentation and field verification exercises at a number of the corporate yards owned and/or operated by individual Permittees to review NPDES permit coverage, BMP implementation, and general facility site conditions. Unlike some MS4 permits (e.g., Sonoma County, CA), the LTHU MS4 Permit does not specifically include requirements for municipally-owned or operated equipment yards and maintenance shops that support road maintenance activities. Based on the lack of coverage for these facilities under the LTHU MS4 Permit, the Inspection Team requested documentation from the Permittees as to coverage under the Industrial General Permit. None of the Permittees had obtained Industrial General Permit coverage for any of the corporate yards visited by the EPA Inspection Team.

The City, El Dorado County, and Placer County had not developed written standard operating procedures or practices for storm water pollution prevention for their transportation maintenance/corporate yards. Site conditions indicated that inadequate pollution prevention and housekeeping practices were being implemented at a variety of the Permittees’ municipal facilities (as discussed below). These site conditions appeared to be primarily a result of a lack of pollution prevention planning and might have been avoided if the Permittees had obtained Industrial General Permit coverage and developed and implemented storm water pollution prevention practices for its transportation maintenance/corporate yards. *Specifically, the Permittees would benefit from developing Stormwater Pollution Prevention Plans (SWPPPs) for their corporate facilities and possibly a BMP manual for road maintenance and other municipal activities. The EPA Inspection Team recommends that the Permittees’ corporate yards and other municipal pollutant sources be brought under some form of prescriptive permit coverage that includes pollution prevention planning, either in the form of the MS4 or Industrial General Permit. The Permittees should confer with the Regional Board as to the appropriate course of action for permitting these facilities and activities.*

Summary observations pertaining to the site visits are presented below in a series of individual municipal facility site assessments.

**City of South Lake Tahoe D-Street Corporate Yard located at 1700 D-Street in South Lake Tahoe, CA**

The City owns and/or operates a Public Works Department vehicle and equipment service, maintenance, cleaning, and storage facility at the address listed above (refer to Photograph 1). The D-Street Corporate Yard is used to conduct maintenance (including vehicle rehabilitation, mechanical repairs, fueling, and lubrication) on City fleet vehicles and equipment such as the snow removal, street maintenance, and Police Department fleets (refer to Photographs 2 and 3). The facility is also equipped with a wash pad for vehicle and equipment cleaning operations (refer to Photograph 4). Site plans provided



during the inspection indicate that the wash pad is connected to the sanitary sewer. The facility also maintains two 10,000 gallon above ground fuel storage tanks (AGSTs) that are actively used for vehicle and equipment fueling (refer to Photograph 5). A Spill Prevention, Control and Countermeasures (SPCC) Plan dated June 28, 2004 was provided during the inspection. Industrial activities such as vehicle and equipment maintenance and equipment cleaning operations were observed at the City's D-Street Corporate Yard.

BMPs to reduce pollutants in storm water runoff had not been adequately implemented at the City's D-Street Corporate Yard. Specifically, the EPA Inspection Team observed automotive fluid residues on the paved surface south of the AGSTs (refer to Photographs 6 and 7). Spill prevention and response procedures had not been adequately implemented to prevent spill residues from becoming mobilized. A previous automotive fluid leak southeast of the maintenance shop was not adequately cleaned up, and had the potential to become mobilized along a flow pathway to the adjacent Shop Street (refer to Photograph 8). Adequate BMPs must be implemented to reduce pollutants in runoff, and the uncontained pollutants must be cleaned up and remediated appropriately.

**City of South Lake Tahoe Rufus Allen Corporate Yard located at 1160 Rufus Allen Boulevard in South Lake Tahoe, CA**

The City owns and/or operates a Public Works Department, Street Division vehicle and equipment fueling, cleaning, and storage facility at the address listed above. The Rufus Allen Corporate Yard is equipped with a pressure wash area for vehicle and equipment cleaning operations and a designated street sweeper washout area (refer to Photograph 9). The facility also maintains underground fuel storage tanks that are actively used for vehicle and equipment fueling (refer to Photograph 10). Industrial activities such as vehicle and equipment cleaning operations were observed at the City's Rufus Allen Corporate Yard.

BMPs to reduce pollutants in storm water runoff had not been adequately implemented at the City's Rufus Allen Corporate Yard. The designated street sweeper washout area (refer to Photographs 9, 11, and 12) was not adequately equipped to contain collected street sweeping debris. Collected street sweeping debris contains fine pollutant particles that have been identified as a primary POC for which a pending Total Maximum Daily Load (TMDL) is in development for Lake Tahoe. The sweeper washout area is not fully contained and generally drains east to the center of the yard and toward the southern fence line (refer to Photograph 9). Mobilized street sweeping debris was observed beyond the designated area toward the southern fence line (refer to Photographs 13, 14, and 15) and in the center yard (refer to Photograph 16). Although there are two dry wells installed to capture some of the street sweeper washout flow (for example, refer to Photograph 17), mobilized street sweeping debris was observed beyond the dry wells and had been tracked throughout the yard by vehicle and equipment traffic, particularly in an area adjacent to the pressure wash area used for vehicle and equipment cleaning operations (refer to Photograph 16). Furthermore, there was evidence of a previous runoff event exiting the facility at the entrance gate to the east, demonstrating the

potential to convey pollutants offsite (refer to Photograph 18). Adequate BMPs must be implemented to properly equip the designated street sweeper washout and pressure washing areas to reduce pollutants in runoff.

**El Dorado County Corporate Yard located at 1121 Shakori Drive in South Lake Tahoe, CA**

El Dorado County owns and/or operates a Department of Transportation vehicle and equipment maintenance, fueling, cleaning, and storage facility at the address listed above. The Corporate Yard is used to conduct maintenance (including vehicle rehabilitation, mechanical repairs, fueling, and lubrication) on County fleet vehicles and equipment such as the snow removal and street maintenance fleets (refer to Photographs 19, 20, and 21). The Corporate Yard is also equipped with a designated vector truck decant and street sweeper washout area (refer to Photograph 22). In addition, the facility maintains underground fuel storage tanks that are actively used for vehicle and equipment fueling. Industrial activities such as vehicle and equipment maintenance, fueling, and cleaning operations were observed at the El Dorado County Corporate Yard.

BMPs to reduce pollutants in storm water runoff had not been adequately implemented at the El Dorado County Corporate Yard. Specifically, the EPA Inspection Team observed that the designated vector decant and street sweeper washout impoundment was not adequately equipped to contain collected vector and street sweeping debris and wash water. Collected street sweeping and vector debris contains fine pollutant particles that have been identified as a primary POC for which a pending TMDL is in development for Lake Tahoe.

The wash water impoundment is not fully contained and receives some sheet flow from the facility. A natural drainage is conveyed through a drainage pipe to the wash water impoundment and can commingle with the wastewater (refer to Photographs 23 and 24). This an un-resolved issue that was previously identified in a MS4 program evaluation conducted in June 2002 (by Tetra Tech, Inc. at the request of EPA). The El Dorado County Assistant Engineer explained that the natural drainage is considered ephemeral and the County is conducting influent (refer to Photograph 25) and effluent monitoring (refer to Photograph 26) to characterize discharge events from the wash water impoundment. The El Dorado County Assistant Engineer also explained that the County has budgeted for a planned project to re-route the drainage pipe to eliminate commingled flows.

Seepage of flow from the wash water impoundment was observed (refer to Photographs 27 and 28). Flow at this discharge outfall combines with another natural drainage that is a tributary to the Upper Truckee River located approximately 0.2 miles west of the impoundment. Adequate BMPs must be implemented to properly isolate and contain the designated vector decant and street sweeper washout impoundment to reduce pollutants in runoff. If re-routing the natural drainage proves unfeasible, El Dorado County should consider relocating the wash water impoundment to address this un-resolved water quality issue.

The facility generally drains via overland flow to an unstabilized area (refer to Photograph 29) located adjacent to a natural drainage that is tributary to the Upper Truckee River. This is an un-resolved issue that was previously identified in a MS4 program evaluation conducted in June 2002 (by Tetra Tech, Inc. at the request of EPA). Previous automotive fluid leaks were also observed at various locations throughout the yard during the inspection (refer to Photographs 30, 31, 32, 33, and 34). Many of the leaks had not been adequately cleaned up, and therefore had the potential to become mobilized. Adequate BMPs must be implemented to reduce pollutants in runoff, and the uncontained pollutants must be cleaned up and remediated appropriately.

**Placer County Burton Creek Corporate Yard located at 2501 North Lake Boulevard in Tahoe City, CA**

Placer County owns and/or operates a Public Works Department, Road Maintenance Section, vehicle and equipment fueling and storage facility at the address listed above. The Burton Creek Corporate Yard maintains AGSTs (refer to Photograph 35) that are actively used for vehicle and equipment fueling of County snow removal and road maintenance fleets. Placer County staff explained that a vehicle maintenance shop was previously located at the Burton Creek Corporate Yard, but these activities were moved to their facility in Truckee approximately eight years ago. The Burton Creek Corporate Yard is included on Placer County's municipal facility inventory and corresponding inspection and training programs. Industrial activities such as vehicle and equipment fueling were observed at the Burton Creek Corporate Yard. Site conditions observed at the facility generally indicated adequate housekeeping and pollution prevention practices.

**City of South Lake Tahoe Campground by the Lake located at 1150 Rufus Allen Boulevard in South Lake Tahoe, CA**

The City owns and/or operates a Parks and Recreation Department vehicle and equipment cleaning and storage facility within the Campground by the Lake. BMPs to reduce pollutants in storm water runoff had not been adequately implemented at the City's Campground by the Lake. Specifically, the EPA Inspection Team observed that the designated parks equipment (e.g., mowers, spreaders, trucks) washing area (refer to Photographs 36 and 37) was not adequately equipped to contain equipment wash water and associated pollutants. The parks equipment washing area is situated on a dirt surface and a loose white substance, possibly fertilizer, was observed on the ground (refer to Photograph 38). Pallets of turf fertilizers were also stored outdoors where they could be exposed to storm water contact (refer to Photographs 39, 40, and 41). In addition, there were corroding metals stored under a roof drain, and stored trash cans designed to drain accumulated liquids (refer to Photograph 42). Similar trash cans were observed in use at the City's Campground by the Lake (refer to Photograph 43). Adequate BMPs must be implemented to reduce pollutants in runoff, and the uncontained pollutants must be cleaned up and remediated appropriately.



## ***Section 2.4 Illicit Discharge Detection and Elimination Component***

Part VII.I of the Permit requires each Permittee to develop and implement an Illicit Discharge Detection and Elimination (IDDE) Component containing measures to actively seek and eliminate illicit discharges and connections.

**2.4.1. El Dorado County Failed to Establish, Maintain, and Enforce Adequate Legal Authority to Prohibit Non-Storm Water Discharges into the MS4.** Part VI.A of the Permit states “each Permittee shall establish, maintain, and enforce adequate legal authority to control pollutant discharges into and from its storm water collection, conveyance, and treatment facilities through ordinance or other regulatory mechanism.” Part VI.B, of the Permit, further states “by October 12, 2006, each Permittee shall provide to the Regional Board a statement certified by its legal counsel that the Permittee has or does not have adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order.”

The El Dorado County – County Counsel provided the Regional Board with a certified statement and analysis of legal authority dated October 12, 2006 (hereafter, El Dorado County Legal Authority Statement). Aside from deficiencies with authority to inspect, the El Dorado County Legal Authority Statement does not clearly explain what components of the County’s legal authority are inadequate. The El Dorado County Legal Authority Statement simply states “the County has or will obtain adequate legal authority to comply...” The El Dorado County SWMP Section 1.8, states “the certified statement recognizes that the County [El Dorado] has conducted an initial review of the current legal authorities and has recommended that a Storm Water Quality Ordinance be adopted. As of fall 2006, the County anticipated having a draft ordinance complete by March 1, 2007...considering adoption of an ordinance during July 2007.”

The EPA Inspection Team formally requested an ordinance or regulatory mechanism prohibiting non-storm water discharges to the MS4 (refer to Exhibit 6), and explained that the ordinance must demonstrate that El Dorado County had established adequate legal authority as specified in the Permit. El Dorado County did not produce any records relating to adequate legal authority to control pollutant discharges into and from its MS4. The Eldorado County Assistant Engineer and Senior Planner explained that they did not believe they were empowered to control illicit discharges without having a Storm Water Quality Ordinance in place. It was further explained that the ordinance drafting and adoption process had been delayed. The Eldorado County Assistant Engineer stated that the County had anticipated adoption of a Storm Water Quality Ordinance in March 2009, but he was now hoping to have adoption complete by the end of the Permit term (October 12, 2010). As a result, El Dorado County has not established adequate legal authority to control pollutant discharges into and from its MS4 as required by Part VI.A of the Permit and in accordance with the milestone dates specified in the SWMP. El Dorado County must develop and implement adequate legal authority to control pollutant discharges into and from its MS4 as required by Part VI.A of the Permit and the stated goals and milestones included in the SWMP.

**2.4.2. The City of South Lake Tahoe and El Dorado County Failed to Develop Adequate Public Reporting Mechanisms.** Section VII.I.4 of the Permit states “Permittees shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from its storm water collection and conveyance system. Each Permittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Permittee-specific or shared by Permittees.”

The City of South Lake Tahoe has not implemented a public reporting mechanism for incidents of illicit discharges or water quality complaints. The City’s SWMP, Section 3.9.4, Complementary Management Measures and Coordination, states the City “plans to establish a bi-lingual hotline in both English and Spanish that will be used to report illicit discharges. The hotline will be promoted through the City’s outreach and educational activities.” The City Stormwater Coordinator explained that citizen calls are typically received by either the City offices or the Regional Board, which are then directed to the City Stormwater Coordinator. However, the City does not have a dedicated phone number for receiving complaints.

The City Stormwater Coordinator also explained that the City has not produced or publicized information to facilitate public reporting of illicit discharges. Because there is no specified or publicized system for reporting illicit discharges, the City has not promoted, publicized, or facilitated public reporting of illicit discharges. The City of South Lake Tahoe must promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from its MS4. In doing so, the City must facilitate public reporting through development and operation of a public hotline as required by Section VII.I.4 of the Permit and in accordance with Section 3.9.4 of the City’s SWMP.

El Dorado County currently uses its Environmental Management Department and its police dispatch system for public reporting of illicit discharges. The Environmental Branch Manager explained that citizen calls are typically received by TRPA or the Regional Board, which are then directed to the Environmental Management Department. El Dorado County does not have a dedicated phone number for receiving complaints.

The Environmental Management Department Branch Manager also acknowledged that dispatch staff had not been provided with storm water training or a program flow chart to properly route calls and ensure adequate response time for illicit discharges. Because the dispatch system is not adequately structured or publicized for reporting illicit discharges, El Dorado County has not promoted, publicized, or adequately facilitated public reporting of illicit discharges. El Dorado County must adequately develop and implement a public reporting hotline for illicit discharge detection and elimination as required by Section VII.I.4 of the Permit and the stated implementation schedule included in the El Dorado County SWMP.

**2.4.3. The City of South Lake Tahoe Failed to Educate Municipal Staff to Prevent Illicit Discharges to the MS4.** Parts VII.H.1 and VII.H.2 of the Permit require the City

of South Lake Tahoe to educate target audiences, such as municipal departments and personnel, on topics such as “non-storm water disposal alternatives (e.g., all wash waters)” and “illicit discharge detection and elimination observations and follow-up during daily work activities.” In contrast to this requirement, the EPA Inspection Team observed City Parks and Recreation personnel cleaning the public restroom at the El Dorado Beach Park on State Highway 50 at Lakeview Avenue. City Parks and Recreation personnel were observed washing down the restroom floors and discharging wash water into an adjacent storm drain inlet which outfalls to Lake Tahoe (refer to Photographs 44, 45, and 46). The City Stormwater Coordinator explained that Parks and Recreation staff had not yet been provided with IDDE training. Because City Parks and Recreation personnel have not been trained on illicit discharge detection and elimination, the City has not effectively educated municipal personnel on non-storm water disposal alternatives or IDDE observations and follow-up during daily work activities. The City must adequately educate municipal departments and personnel to reduce pollutant releases in accordance with Part VII.H of the Permit.

**2.4.4. The City of South Lake Tahoe and El Dorado County Failed to Develop Programs to Actively Seek and Eliminate Illicit Discharges.** The Permit, Section VII.I.1, states “permittees shall develop and implement a program to actively seek and eliminate illicit discharges and connections into its storm water collection and conveyance facilities.” The Permit Part VII.I.2 requires permittees to “establish a program to investigate and inspect any portion of the storm water collection and conveyance system that indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water. Each Permittee shall establish criteria to identify portions of the system where such follow-up investigations are appropriate.” The City and El Dorado County have not developed or implemented a program containing measures to actively seek and eliminate illicit discharges and connections. This an un-resolved issue that was previously identified in a MS4 program evaluation conducted in June 2002 (by Tetra Tech, Inc. at the request of EPA), where it was found that “the permittees generally respond to citizen complaints, but they have no proactive programs to identify and remove illicit discharges or connections to the MS4. In addition, no dry weather monitoring is conducted to identify illicit discharges.”

The EPA Inspection Team formally requested “records of major outfall inspections/dry weather screening (2008 Calendar Year)” from the City (refer to Exhibit 5). The City produced records pertaining to its outfall and drainage feature mapping and inspection activities. Specifically, the City Stormwater Coordinator explained that the City has developed a storm drain inventory map using hand-held GPS units and Data Dictionaries which show outfall features and information. However, the inspection records (i.e., Data Dictionary records) for the City’s outfall inventory do not demonstrate that the inspections are specifically conducted during dry weather periods and are not specifically related to field screening analysis for illicit discharge detection purposes. Records of the outfall inspections mainly include data related to storm drain maintenance (refer to Exhibit 11) and indicate that the City primarily conducts inspections for maintenance purposes. The City does not utilize another method of actively seeking and eliminating illicit discharges such as surveillance of suspect areas or pro-active inspections of

industrial/commercial sources. The City must develop and implement a program to actively seek and eliminate illicit discharges and connections into its storm water collection and conveyance facilities as required by Parts VII.I.1 and VII.I.2 of the Permit.

The EPA Inspection Team also formally requested “records of major outfall inspections/dry weather screening (2008 Calendar Year)” from El Dorado County (refer to Exhibit 6). El Dorado County produced records consisting of a prioritized list of outfalls based on analysis done for the 2009 Pollutant Load Reduction Strategy Report (PLR). The El Dorado County Assistant Engineer acknowledged that the El Dorado County PLR outfall inspections were not being used for illicit discharge identification and that the inspection records do not include visual observations at the outfall. El Dorado County SWMP Fact Sheet ID1 states “Performance Standards listed below establish the level of effort required to comply with the Permit provision(s) related to this Control Measure....The County will develop a dry weather visual monitoring program to assist in proactively identifying illicit discharges and illegal connections....Coordinate the program with the efforts already being conducted under the outfall inventory as a part of the pollutant reduction strategy, and....Implement the dry weather visual monitoring program (refer to Exhibit 12).” Fact Sheet ID1 also contains an implementation schedule specifying that the dry weather monitoring program would be developed by the end of June 2008 and be implemented during quarters two, three, and four of 2008, 2009, and 2010 (refer to Exhibit 13). El Dorado County did not produce documentation demonstrating the development of a program or a procedure to conduct dry weather inspections at major outfalls. El Dorado County must develop and implement a program to actively seek and eliminate illicit discharges and connections into its storm water collection and conveyance facilities as required by Parts VII.I.1 and VII.I.2 of the Permit and the stated goals and milestones included in the SWMP.

**2.4.5. Need for the City of South Lake Tahoe to Formally Articulate its Agreement with El Dorado County to Facilitate Disposal of Household Hazardous Wastes.** The City currently relies on El Dorado County to conduct hazardous spill response and hold household hazardous waste (HHW) collection events for its residents. In a letter to the Regional Board, dated March 24, 2009, regarding the *Monitoring and Reporting Program, Addendum to Annual Report*, El Dorado County states “El Dorado County’s Environmental Management Department inspects and investigates spills, inspects facilities which handle hazardous materials (33 inspections within the City in FY 07/08 with no stormwater problems noted), and reports on disposal of used oil and hazardous materials.” Although the City relies on El Dorado County to implement this part of its MS4 program, the City has not developed documentation in the form of a MOU or other formal legal agreement with El Dorado County in order to demonstrate they have fulfilled the requirements of the Permit. *If the City continues to rely on El Dorado County for implementation of this part of its MS4 Program, the City should enter into a MOU or other formal legal agreement with El Dorado County to fulfill the requirements of the Permit.*



### ***Section 2.5 Summary Recommendation Regarding Development and Implementation of the City of South Lake Tahoe and El Dorado County's Storm Water Management Programs***

The City and El Dorado County's SWMPs were judged to be significantly deficient in multiple program areas. These deficiencies appeared to be due in part to the City and El Dorado County's emphasis on the Construction Component of its MS4 programs at the expense of the remaining program elements.

Placer County, by contrast, administers a SWMP outside the LTHU utilizing a far more comprehensive and well-rounded approach addressing all program elements to affect improved water quality. Placer County's MS4 program exhibited a high level of maturity and program staff displayed strong awareness of storm water management. For example, Placer County leverages municipal staff having direct contact with the MS4 (e.g., road and BMP maintenance crews) to actively detect and eliminate illegal dumping/discharges. Interviews with these staff indicated they were knowledgeable and that annual storm water training sessions were effective. The City and El Dorado County do not utilize municipal staff or other methods of actively seeking and eliminating illicit discharges such as dry weather screening, surveillance of suspect areas, or pro-active inspections of industrial/commercial sources. *While it is critical to specifically address storm water impacts from construction activities, a well-rounded, mature MS4 program must adequately address all program components to effectively address overall water quality.*

### ***Section 2.6 Additional Observations Regarding the Application of Numeric Storm Water Effluent Limitations***

The Permit, Section V.A.1, specifies a set of effluent limitations for storm water/urban runoff flows that discharge to Permittee owned or maintained land treatment/infiltration systems, and another set of effluent limitations for discharges to surface waters. Section V.A.3 of the Permit further requires that "all areas within each of the Permittee's jurisdiction shall be retrofitted to comply with the numeric storm water effluent limits in [Section] V.A.1 above by November 30, 2008." The Permit does not clearly specify that the Permittees conduct analytical monitoring associated with the effluent limitations.

Although not specifically tasked with evaluating the Permittees' monitoring or post-construction programs, the EPA Inspection Team did formally request "monitoring results in association with Part V.A. of the Permit (2008 Calendar Year)" to gain an understanding of whether the Permittees were meeting the effluent limitations. None of the Permittees were able to produce the requested analytical monitoring records. Furthermore, discussions with each of the Permittees indicated that these effluent limitations were based on benchmark conditions and have been viewed as un-attainable.

The Permittees further explained that retrofit projects designed to reduce pollutants from entering its MS4 and/or discharging into Lake Tahoe had been completed in a portion of their jurisdictions. The City Stormwater Coordinator explained that the City had completed retrofit projects in approximately fifty percent of the City-owned area, and that

retrofit projects had been completed in approximately thirty percent of private residential developments within its jurisdiction.

### ***Section 3.0 Summary of General Permit Inspections in the Lake Tahoe Hydrologic Unit***

The EPA Inspection Team conducted 6 individual inspections of facilities located in the jurisdiction of the Permittees. One of the facilities was a construction site in the City of South Lake Tahoe where the owner or operator had obtained coverage under the Construction General Permit. The remaining five inspections were industrial marina sites where the owner or operator had obtained coverage under the Marina General Permit.

The purposes of the General Permit Inspections were: (1) to assess the adequacy, appropriateness, and maintenance of BMPs employed by construction and industrial activities to prevent and reduce storm water pollution; and (2) to gauge the overall effectiveness of each Permittees' construction and industrial oversight activities.

The Marina General Permit Inspections were conducted by two teams of inspectors with the participation of Regional Board personnel. Reports for the General Permit Inspections are provided in Appendix D and will be forwarded to the respective facilities.

## **Appendix A**

### **Inspection Schedule**

**Agenda for MS4 Inspection of LTHU Co-Permittees (July 13-17, 2009)**

Day	Time	Program Area/ Agenda Item
<b>Monday July 13, 2009</b>	All Day	Marina General Permit Inspections
<b>City of South Lake Tahoe</b>		
<b>Tuesday July 14, 2009</b>	8:00 am - 8:30 am	Kick-off Meeting & Program Management Overview
	8:30 am - 9:30 am	Construction Component (Office)
	9:30 am - 10:30 am	Municipal Operations (Office)
	10:30 am - 12:00 pm	Municipal Operations (Field)
	12:00 pm - 1:00 pm	Lunch Break
	1:00 pm - 2:00 pm	Illicit Discharge Detection and Elimination Component (Office)
	2:00 pm - 3:00 pm	Industrial and Commercial Component (Office)
	3:00 pm - 5:00 pm	Industrial/Commercial/IDDE Components (Field)
	5:00 pm - 5:30 pm	Informal Outbrief <sup>2</sup>
<b>El Dorado County</b>		
<b>Wednesday July 15, 2009</b>	8:00 am - 8:30 am	Kick-off Meeting & Program Management Overview
	8:30 am - 9:30 am	Municipal Operations (Office)
	9:30 am - 10:30 am	Construction Component (Office)
	10:30 am - 12:00 pm	Illicit Discharge Detection and Elimination Component (Office)
	12:00 pm - 1:00 pm	Lunch Break

<sup>2</sup> The Co-Permittees were encouraged to invite representatives from all applicable organizational divisions/departments.



Day	Time	Program Area/ Agenda Item
	1:00 pm - 2:00 pm	Industrial and Commercial Component (Office)
	2:00 pm - 3:00 pm	Municipal Operations (Office)
	3:00 pm - 5:00 pm	Industrial/Commercial/IDDE Components (Field)
	5:00 pm - 5:30 pm	Informal Outbrief
<b>Placer County</b>		
<b>Thursday July 16, 2009</b>	8:00 am - 8:30 am	Kick-off Meeting & Program Management Overview
	8:30 am - 9:30 am	Municipal Operations (Office)
	9:30 am - 10:30 am	Construction Component (Office)
	10:30 am - 12:00 pm	Illicit Discharge Detection and Elimination Component (Office)
	12:00 pm - 1:00 pm	Lunch Break
	1:00 pm - 2:00 pm	Industrial and Commercial Component (Office)
	2:00 pm - 3:00 pm	Municipal Operations (Office)
	3:00 pm - 5:00 pm	Industrial/Commercial/IDDE Components (Field)
	5:00 pm - 5:30 pm	Informal Outbrief
<b>City of South Lake Tahoe</b>		
<b>Friday July 17, 2009</b>	9:00 am - 11:00 am	Obtain additional records for review
	11:00 am - 12:00 pm	Municipal Operations and Construction General Permit inspections (Field)
	11:00 am - 12:00 pm	Lunch break
	1:00 pm - 4:00 pm	Municipal Operations and Construction General Permit inspections (Field)