Keep It Clean Partnership

2013 Annual Report



Stormwater Protection BOULDER • BOULDER COUNTY • LONGMONT ERIE • LAFAYETTE • LOUISVILLE • SUPERIOR

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Executive Summary

To address the impact of stormwater on water quality, the federal Clean Water Act was expanded to include requirements that municipalities control pollutants from municipal separate storm sewage systems (MS4s). The Keep It Clean Partnership (KICP) grew out of the need for local communities to respond to these stormwater regulations that are implemented by the Colorado Department of Public Health and Environment (CDPHE). The Partnership is a collaboration of communities in the Boulder and St. Vrain watersheds, and includes Boulder County; the cities of Boulder, Lafayette, Longmont, and Louisville; and the towns of Superior and Erie (individually referred to as "Partners"), working together to protect water quality through stormwater management.

The primary goal of the Keep It Clean Partnership (KICP) is to implement a regional stormwater management program, not only to comply with federal Phase II stormwater regulations, but also to address broader water quality issues. The KICP uses a unique, collaborative approach to involve various levels of government in creating cost-effective solutions to stormwater and other water quality problems. The KICP embodies the spirit of the watershed approach envisioned in the federal Clean Water Act and adopted in the Boulder Valley Comprehensive Plan.

History

To address the impact of stormwater on water quality, the federal Clean Water Act was expanded to include requirements that municipalities control pollutants from municipal storm drainage systems. In 1990, the U.S. Environmental Protection Agency (EPA) issued the Phase I Stormwater Rules. These rules require National Pollutant Discharge Elimination System (NPDES) permits for operators of municipal separate storm sewer systems (MS4s) serving populations over 100,000 and for runoff associated with industry, including construction sites 5 acres and larger. In 1999, EPA issued the Phase II Stormwater Rule to expand the requirements to small MS4s and construction sites between 1-5 acres in size.

The Keep It Clean Partnership, formerly known as the Watershed Approach to Stream Health (WASH) Project, grew out of the need for local communities to respond to these new stormwater regulations. In 1999, water quality and stormwater professionals representing various communities in the Boulder Creek and St. Vrain watersheds participated in meetings to help develop the goals, objectives, and project focus that are now incorporated into the "Keep It Clean Partnership (KICP) Plan." To further focus efforts, a 2006 Water Quality Roundtable was conducted where experts from local, state, and federal agencies identified six areas of concern typical of urban runoff: pathogens (e.g. *E. coli*), sediment, nutrients, flow modification, metals, and pesticides. These impacts are considered when implementing programs.

Partnership Overview

The KICP operates under a five-year plan that outlines program strategies and budget. Emphasis is placed on developing programs that meet federal Phase II Municipal Stormwater Discharge Regulations. The first plan, developed in 2002, utilized existing, successful programs; addressed community water quality goals; and allowed for flexibility within jurisdictional oversight. The second plan was finalized in October 2008 when the Partners applied for the 2008-2013 Phase II Municipal Stormwater Discharge Permit with the Colorado Department of Public Health and Environment (CDPHE). The third plan was finalized in 2013 and fleshed the individual strategies that have been successful over the last ten years, as well as outlined evaluation tools.

Implementation of the KICP Plan is governed by an intergovernmental agreement (IGA) and supporting bylaws. The initial IGA was executed in January 2003, with subsequent versions signed in December 2007 and 2011. The IGA was again drafted in 2012 and signed by the seven Partners by March 9, 2013. The IGA identifies a steering committee as the managing entity; it consists of one voting representative from each Partner community. The steering committee directs the KICP coordinator, who provides administrative and management services to implement the KICP Plan and budget. The IGA identifies Boulder County Public Health (BCPH) as the contracting/fiscal agent; BCPH also employs the KICP coordinator.

Municipal stormwater regulations call for implementation of the following six minimum control measures (MCMs) to address the impact of stormwater runoff on water quality and stream health. These programs are implemented through the KICP Plan and individually by the Partners:

MCM 1 – Public Education and Outreach

- School-based education programs (classroom programs, water festival, and teacher training)
- Community outreach programs (outreach booth, speakers program, website, watershed stewardship, and stream volunteers supported with brochures and other outreach materials)
- Tributary signage and storm drain marking
- Business education program (see MCM 3)

MCM 2 – Public Participation and Involvement

- Website
- Annual outreach event booths to solicit input on KICP programs

MCM 3 – Illicit Discharge Detection and Elimination

- Legal prohibition of illicit discharges (ordinances)
- Illicit discharge enforcement (hotline, spill response plan, inspections, enforcement, and data tracking)
- Business education program
- Storm drainage system mapping

MCM 4 – Construction Site Stormwater Runoff Control

- Training and education for construction site operators and inspectors
- Erosion control ordinance (required erosion control for construction sites)
- Erosion control standard operating procedures (SOP) (outlines application and approval procedures for construction site stormwater management plan submittals)
- Erosion control inspection and enforcement (implementation of erosion control ordinance)
- Public input

MCM 5 – Post-Construction Stormwater Management

- Post-construction ordinance (required treatment of stormwater runoff)
- Design criteria and standards (outlines type of stormwater treatment or best management practices [BMP] required)
- Development review (ensures appropriate design of BMPs)
- BMP operation and maintenance (requires long-term maintenance of BMPs)

MCM 6 – Pollution Prevention and Good Housekeeping for Municipal Operations

• Training and certification for municipal facilities, activities, and employees

Implementation of the KICP Plan

Over the years, the KICP Plan has used a variety of approaches to reduce the discharge of pollutants from the storm drainage system to protect water quality, and to satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations.

- **Common Elements:** Program elements that have common themes and common implementation procedures (e.g. development of ordinance language).
- **Individual Programs:** Program elements that are exclusively the responsibility of individual Partners to implement e.g. enforcement of erosion control and illicit discharge ordinances).
- Shared Programs: Program elements that are shared by all Partners. The following two contracts are examples:
 - The City of Boulder Water Quality Education Program, which provides community outreach materials and school programs in each of the Partner jurisdictions.
 - Boulder County's Business Environmental and Sustainability Team (BEST), which provides outreach materials and conducts site visits in addressing commercial and municipal operations.

2013 Highlights

Through implementation of the KICP Plan, all KICP Partners continued to implement and maintain the shared programs outlined in the strategy documents of the KICP Plan. In 2013, all Partners achieved compliance with their stormwater discharge permits. A summary of the major tasks completed in 2013 follows.

IGA

The fourth intergovernmental agreement (IGA) was reviewed, revised, and submitted to the Partners for attorney review and community signature. It was finalized in March 2013.

Costs

The KICP programs emphasize cost-effectiveness by sharing programs and using common strategies and leveraging existing programs. The Partner communities fund the common and shared program costs, with cost allocation based on each Partner's urbanized population, as defined in the most recent U.S. Census. Costs to implement individual community programs are the responsibility of the individual community. The common and shared programs are implemented by 3.50 full-time employees (FTE). The staff currently includes 1.00 FTE to support the business and municipal outreach, 1.75 FTE to support the residential outreach program, and 0.75 FTE KICP coordinator position.

The 2013 KICP budget was \$476,837, of which \$105,435 (22%) was proportionately reimbursed to each of the Partners. The majority of the reimbursement represents the unspent contingency funds and residential outreach personal labor.

In 2013, Longmont made the choice to implement the municipal and business outreach in that community with its own staff. In 2014, the shared budget will include all other remaining programs shared by all Partners, with the exception of the Business Environmental Sustainability Team (BEST) contract; the



BEST contract expense will only be shared by the remaining six Partners (i.e minus Longmont), and contingency will not be assessed on the amount.

Grants

In 2013, the City of Boulder received a 319 grant on behalf of KICP in the amount of \$49,996 to develop a watershed plan for the Boulder Creek portion of the St. Vrain Watershed that incorporated broad stakeholder input. As part of the effort, a strong baseline data inventory and long-term, coordinated monitoring plan for the overall St. Vrain Creek watershed will also be completed. KICP will match \$33,375, for a total project cost of \$83,371. The project was started in 2013, and an additional \$45,000 was requested to expand the watershed plan in the St. Vrain Watershed.

School and Community Outreach Programs

KICP contracted with the City of Boulder's Watershed Education Program to implement community outreach and school education programs in St. Vrain Valley School District (SVVSD) and Boulder Valley School District (BVSD). The program continued to reach out to schools and the residential community through school programs, stream teams, speakers programs; pledge programs, promotional material distribution, and storm drain markings.



KICP will implement an annual mini campaign that will bring awareness and engage KICP residents to take action to reduce stormwater pollution. These mini campaigns aim to raise awareness and focus on specific pollutants, seasonal messaging, target audiences, and evaluate ways impacts can be measured. One new pollutant will be added to the campaigns annually. All messaging will incorporate KICP branding, message channels, campaign timing, and strategic partnerships. Delivery of messages, branding, and collateral will be channeled primarily through existing strategies; however, mini campaigns may have distinct outreach activities.

The initial effort was piloted in 2013 and was aimed at focusing on nutrients and *Escherichia coli* (*E. coli*).

Stormwater Pollution Prevention Programs

KICP contracted with BCPH's Business Environmental Sustainability Team (BEST), specifically the Partners for a Clean Environment (PACE) Program, to implement business and municipal outreach.



Business Outreach

BCPH's Business Environmental Sustainability Team (BEST) implemented the cascading business outreach strategy that included evaluating best management practices (BMPs) that are specific to the business sector and are protective of stormwater quality, meeting one-on-one with businesses to advise them on these practices, instructing the businesses on how to implement the BMPs, sharing the experiences of similar businesses, and developing and distributing educational materials.

In 2013, BEST fully implemented the property owner/manager sector outreach strategy. For the first time, property owners and managers received an evaluation on the stormwater practices of their tenant businesses and the contractors they hired to maintain or clean the properties. This information has already motivated property owners and managers to better understand and take greater responsibility for the activities underway in their tenant-occupied properties, as well as the properties they themselves occupy.

For over 18 years, BEST has delivered educational outreach to businesses on a range of topics, including energy efficiency, water conservation, and resource management. For the past 12 years, BEST has included stormwater protection messages in its outreach to restaurants, auto repair facilities, and retail businesses. While the majority of the businesses in these sectors have been contacted by BEST, repeated visits are typically necessary to counteract factors like employee turnover and simple apathy.

Municipal Outreach

BEST continued to provide compliance advice and support to KICP municipal staff in 2013 by conducting municipal site visits and training. Significant effort was spent to evaluate municipal performance within five behavior areas (*Spills and Leaks, Outdoor Material Storage and Handling, Good Housekeeping, Outdoor Washing, and Application of Chemicals*) and identify barriers that can help the Partners understand and address them. Training messages were updated to include and focus on the five behavior areas needing improvement, as identified in 2012, and employee training began in nutrient loading and runoff management.

Construction and Illegal Discharge Prevention Trainings

KICP spent a significant amount of effort working within their individual communities to implement operating procedures and regulatory mechanisms needed to manage illegal discharges, active construction, and post-construction management.



Erosion Control Training

The KICP offered two erosion control certification classes and one recertification, which were attended by 49 individuals. The recertification class was evaluated and will be modified for 2014.

Illicit Discharge Prevention Training

In total, 232 employees were trained in how to detect and report illicit discharges.

MS4 Permit

The Phase II stormwater discharge permit for the Partners' first permit term expired at the end of 2007. The Partners submitted their program descriptions in June 2008 for coverage under the state's general discharge permit for the second permit term, which ranged from March 2008 to March 2013. In late August 2008, CDPHE asked for more program specifics to be submitted addressing individual Partner programs surrounding construction and post-construction plan review and enforcement. The final plan was submitted in October 2008; however, the state issued an additional request for details on individual Partner programs but did not require a written response.

The current permit was to expire in March 2013 but was administratively extended. In 2013, CDPHE held many public draft permit concept discussions. The KICP submitted several letters in response to the anticipated permit changes. The permit language was released in November, and CDPHE received over 600 pages of comments. The permit will be revised and rereleased in the summer of 2014. In general, the final permit is anticipated to be much more specific than the previous two permits, and according to CDPHE, "The Division anticipates that the renewal permit, which has clear requirements and will allow the permittee to tailor and modify their selection and implementation of controls as needed without Division review or approval, will be more efficient for both the Division and permittees." It is anticipated that future Partner program descriptions will be maintained individually.

CDPHE Audits

In June 2010, CDPHE conducted a full program audit of Erie's stormwater program. Erie submitted a revised program description document and adopted a revised ordinance, both of which addressed CDPHE comments.

In August 2010, CDPHE conducted a construction site screening inspection within the boundaries of Longmont. Longmont submitted a response to CDPHE's correspondence.

In 2011, CDPHE decided that full audits were not sustainable, and after performing ten full MS4 audits across Colorado, CDPHE drafted a permit assessment questionnaire to be completed by all MS4s. The KICP Partners met with CDPHE to gain clarification of the questions and reviewed, revised, and

readopted their communities' ordinances, as well as modified the supporting standard operating procedures. Erie, which had a full audit in 2010, was not required to respond to the questionnaire.

In 2013, no KICP Partners were audited.

The draft MS4 Permit released in 2013 reflected concepts addressed in the 2012 questionnaire.

Shared KICP Program Evaluation

In 2011, KICP requested that a third party evaluate the current shared programs and make suggestions for improvement. This activity is conducted the fourth year of every permit term so programs can be modified for improved effectiveness before the Partners submit their program descriptions to CDPHE for the subsequent permit term.

The evaluation investigated how the current KICP approach compares and contrasts with other similar Phase II MS4 partnerships that share stormwater programs. Based upon the research findings and the review of almost 12 years of historical documentation for KICP, specific actions were recommended in order for KICP to deliver the most cost-effective, long-term stormwater program activities that truly improve water quality.

The evaluation posed several recommendations for KICP to consider, including:

- Updating goals and objectives.
- Identifying individual and shared responsibilities more clearly.
- Building on performance measures by estimating behaviors and, where possible, characterizing associated load estimates.
- Renewing and reestablishing the KICP Plan.
- Considering the possibility of a five-year plan.
- Individually and collectively tracking the full cost of MS4 compliance.
- Taking steps to adjust staffing, contracting, and organization to improve long-term effectiveness.
- Performing routine program evaluation.

The Partners responded to these recommendations in 2012 and early 2013 by finalizing a pollutant table and strategy documents.

Program Strategy Documents and Revised KICP Plan

In 2012, in preparation for the third MS4 permit term and to meet the MS4 permit requirement that "programs target specific pollutant sources determined by the permittee to be impacting, or to have the potential to impact, the beneficial uses of receiving waters," the Partners conducted a pollutant-driven strategy evaluation. The stormwater pollutants of concern determined in 2006 by the pollutant roundtable were assigned:

- Sources
- Desired behaviors
- Control strategies
- Audiences
- Methods of measurement

The Partners then ranked the programs they believed had the highest priority and could be shared by the Partners. The government service providers, the KICP coordinator, the City of Boulder-sponsored KICP Public Education and Outreach Program, and BEST were then asked to review the pollutant-driven strategies and respond with programs that emphasized methods of measurement and include budgets for a five-year period. The goals and objectives of the overall partnership were also revised. The end products comprise the updated KICP Plan referred to in the IGA.

Into the Future

As the KICP enters its twelfth year of implementation, the Partners continue to refine programs to meet the continuing challenges of stormwater management as well as anticipating the new requirements of the third permit, which is to be finalized in the fall of 2014.

MS4 Permit Compliance and Renewal

The current permit was to expire in March 2013 but was administratively extended. In 2013, CDPHE held many public draft permit concept discussions, and the KICP submitted several letters in response to the anticipated permit changes. The permit will be revised and rerelease in the summer of 2014. In general, the permit is anticipated to be much more specific than the previous two permits, and according to CDPHE, "the Division anticipates that the renewal permit, which has clear requirements and will allow the permittee to tailor and modify their selection and implementation of controls as needed without Division review or approval, will be more efficient for both the Division and permittees."



Regulation 85

Nitrogen and phosphorous are currently some of the nation's biggest water quality challenges. Referred to collectively as nutrients, they can encourage algae growth, which can rob the water body of oxygen and raise the pH. The Colorado Water Quality Control Commission adopted the Nutrients Management Control Regulation in June 2012, and it became effective in September 2012.

The KICP will be required, through the general MS4 permit when finalized, to identify sources of nitrogen and phosphorus and provide education to reduce those sources. In addition, MS4s will be required to evaluate municipal operations to identify sources of nutrients that can be controlled through implementation of structural and nonstructural pollutant control practices. Regulation 85 also requires MS4s to analyze existing nitrogen and phosphorus data and identify data gaps. The statewide effort to perform this analysis is close to completion. The analysis is due to CDPHE in October 2014.

Total Maximum Daily Load for E. coli

In 2011, a Total Maximum Daily Load (TMDL) was developed by the City of Boulder in accordance with Section 303(d) of the federal Clean Water Act. The TMDL established the estimated pollutant load reductions of *E. coli* necessary to meet water quality standards. The TMDL covers the Boulder Creek Stream segment known as 2b, which runs from 13th Street to the confluence with South Boulder Creek.

In 2010, Boulder County and the municipalities of Boulder, Lafayette, Louisville, Erie, and Superior all received letters from CDPHE indicating that their communities' listed stream segments would be evaluated for an *E. coli* TMDL.

CDPHE is asking all permitted communities to prepare for the TMDL by:

- Conducting dry weather surveys to identify illicit connections and discharges.
- Removing or controlling illicit connections/discharges.
- Providing public education and enforcement of pet waste ordinances and leash laws.
- Providing pet waste disposal cans in open space areas.
- Preserving natural riparian buffers.
- Working with local wildlife managers to assess the need for population controls or active management of urban wildlife.

• Considering use of such practices where contributing drainage area, depth to groundwater, and soil conditions are appropriate for infiltration-oriented best management practices (BMPs).

In 2013, a TMDL progress report requirement was added to the City of Boulder and Boulder County's draft MS4 stormwater discharge permit, and a monitoring requirement is being considered for the remaining KICP communities.

Watershed Considerations

Regulation 85 and 31

Colorado nutrient criteria development and reduction strategies have been in process for a significant period of time. CDPHE initiated studies as early as 1981 to ascertain appropriate nutrient standards for particular lakes and reservoirs in Colorado. By 1984, Colorado had adopted site-specific numeric total phosphorus and chlorophyll *a* standards for Cherry Creek, Chatfield, and Dillon Reservoirs. A narrative standard for Bear Creek Reservoir followed in 1992.

In early 2001, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register recommending that states and authorized tribes develop a nutrient criteria plan by the end of 2001 to outline a process for how and when they intend to adopt nutrient criteria into their water quality standards. In addition, the EPA recommended that states adopt nutrient criteria by 2004 EPA later softened these deadlines, and in late 2001 indicated states should begin discussing a plan with the EPA, and that the EPA would evaluate the progress of each state at the end of 2004 to determine how it compared with the schedule in the plan.

In late summer 2010 in response to a recommendation brought forth by stakeholders, CDPHE began to work on an entirely new and flexible nutrient reduction approach that does not rely on initial widespread promulgation of segment-specific standards, but rather combines development of interim numerical nutrient values with limited near-term adoption of site-specific numerical standards, a technology-based treatment requirement for wastewater dischargers, additional focus on nutrient control efforts for stormwater dischargers and nonpoint sources, and broad monitoring requirements.

In January 2011, the Water Quality Control Commission decided to delay the nutrient rulemaking an additional nine months, from June 2011 until March 2012, to accommodate a study of the costs and benefits associated with the Division's approach, financed by the Colorado Water Resources and Power Development Authority. The study was designed to evaluate both the costs of the proposed nutrient regulations, as well as the public health and environmental benefits.

The <u>Nutrients Management Control Regulation</u>, 5 CCR 1002-85, was adopted on June 11, 2012, and contains the following three requirements for Municipal Separate Storm Sewer System (MS4) permittees:

- 1. Determine nitrogen and phosphorus contributions to state waters in stormwater discharges from MS4s. Based on the review of the information that is provided, as well as information from potential future monitoring requirements, the Commission intends to revisit the substantive requirements for MS4s in future triennial reviews.
- 2. Provide outreach and education to the public on stormwater impacts associated with nutrients.
- 3. Provide outreach and education to the municipal employees on stormwater impacts associated with nutrients.

In 2013, the Colorado Stormwater Council commissioned the review of the existing nitrogen and phosphorus data. The report will be submitted to the CDPHE by October 2014.

Stormwater Rule Survey

In 2008, a report was released from the National Research Council on *Urban Stormwater Management in the United States*. The report addressed not only the challenges in managing stormwater in an urbanized environment, it also recommended future management of all water-related permits on a watershed basis. The content of the report will continue to guide the future work of the KICP. The report cited the support for a <u>National Stormwater Rule</u>, which was to be finalized by the EPA in 2012.

In 2009, the EPA began the process of asking for stakeholder input to strengthen stormwater regulations and to establish a comprehensive program to reduce stormwater from newly developed and redeveloped sites. In 2010, the EPA sent out a survey to the state, local, and development communities to solicit input on the following areas, including detailed information about stormwater management and control practices, local regulations, and baseline financial information:

- Expansion of the area subject to federal stormwater regulations.
- Establishment of specific requirements to control stormwater discharges from new development and redevelopment.
- Development of a single set of consistent stormwater requirements for all MS4s.
- Requirement of MS4s to address stormwater discharges in areas of existing development through retrofitting the sewer system or drainage area with improved stormwater control measures.
- Exploring of specific stormwater provisions to protect sensitive areas.

EPA had proposed releasing the draft rule in September 2011 and taking action in 2012, based on the results; however, as of January 2014, the draft rule had not yet been released.

Effluent Limitation Guidelines for Construction Sites

All construction sites over an acre are currently required to obtain permit coverage and must implement a range of erosion and sediment controls and pollution prevention measures. The 2012 federal construction general permit (CGP) is required under the Clean Water Act and replaces the existing 2008 CGP, which expired on February 15, 2012. The new permit includes a number of enhanced protections for surface waters, including provisions to protect impaired and sensitive waters.

In early 2012, the final CGP permit was released and included steps intended to limit erosion, minimize pollution sources, provide natural buffers or their equivalent around surface waters, and further restrict discharges to areas impaired by previous pollution discharge. The turbidity limit has yet to be determined and currently is not included in the permit.

In 2013, it is still unclear how the federal CGP will affect the state CDPHE general construction permit, which has been administratively extended and will begin the public comment phase in 2014.

Impaired Waters

On a semi-annual basis, the CDPHE Water Quality Control Division (WQCD) develops a <u>list of impaired</u> waters in the state, as mandated under Section 303(d) of the federal Clean Water Act. Pollutants entering the impaired water are generally controlled through numeric limits on permitted discharges, which could include wastewater treatment and/or stormwater discharges.

Three creek segments in the KICP communities have been listed as impaired for *E. coli*. The following table outlines the stream segments, as well as the communities discharging to these segments:

303(d) Listed: Impaired Stream Segment	KICP Community
Boulder Creek from 13 th Street to the confluence with	Boulder
South Boulder Creek	
Coal Creek from Highway 36 to Boulder Creek	Louisville
Boulder Creek from Coal Creek to St. Vrain Creek	Erie, Superior, Lafayette
Rock Creek in Segment 8	Superior

The municipal stormwater discharge permits include language that provides for the implementation of total maximum daily load (TMDL) requirements. Affected communities, therefore, may have to meet numeric discharge standards through a TMDL process associated with their discharge permit(s).

The implication of an *E. coli* TMDL for any of these communities is uncertain at this time; however, if numeric standard of 126 cfu/100ml is established, it may be difficult, if not cost-prohibitive, to meet such a standard.

In 2010, the City of Boulder began working with CDPHE to develop the TMDL for Boulder Creek. In 2011, the City of Boulder finalized the <u>*E. coli* TMDL</u> for Boulder Creek Segment 2b: from 13th Street to the confluence with South Boulder Creek and began implementing the plan. In 2013, the draft municipal stormwater discharge permit included a requirement for both Boulder County and the City of Boulder to submit an annual progress report.

Cadmium, arsenic, zinc, selenium, and copper also appear on the 303(d) list for several segments. As part of the Boulder Creek Watershed Plan the data used to determine these impairments will be scrutinized.

It should be noted that the Government Accounting Office (GAO) released a report in December 2013 to Congress entitled <u>Changes Needed If Key EPA Program Is to Help Fulfill the Nation's Water Quality</u> <u>Goals</u>. The GAO was asked to examine the TMDL program, specifically: 1) EPA's and states' responsibilities in developing and implementing TMDLs, 2) what is known about the status of long-established TMDLs, 3) the extent to which such TMDLs contain features key to attaining water quality standards, and 4) the extent to which TMDLs exhibit factors that facilitate effective implementation. The report summarizes the GAO review and recommendations and will likely inform the CDPHE TMDL process going forward.

Temperature Standards

In 2006, the WQCD proposed changes to statewide water temperature standards. A more restrictive and complex set of temperature standards were adopted in the Colorado Basic Standards and Methodologies for Surface Water in 2007 and again in 2010. The WQCD will evaluate receiving water temperature data and determine whether discharges, such as treated effluent from wastewater treatment facilities, should have a lower effluent temperature to protect aquatic life (recognizing that temperature variations result from natural conditions and irreversible human impacts). The <u>Temperature Criteria Methodology</u> was approved in August 2011 and will expire December 31, 2014.

Aquatic Life Standards

The WQCD initiated the Aquatic Life Work Group in 2000 as part of its process of developing aquatic life water quality standards, which are expressed as biocriteria. The primary function of biocriteria is to describe the biological condition necessary to support the designated use of the water body, including lakes, reservoirs, rivers, and streams. Bioassessment tools are being developed to quantify the biological condition of an aquatic community. The primary intent of biocriteria is not to set a regulatory standard, but rather to be used to detect impairment in aquatic life and identify probable causes of the impairment.

To date, the approach to developing biocriteria has focused on using macro invertebrate population data, habitat assessments (physical features), and fish population data. One of the main challenges in developing biocriteria is determining "expected conditions." The expected condition will reflect a range of biological characteristics that are considered "normal" or "healthy" for a water body. Impairment of a water body will be based on comparison of the expected condition to the actual condition, which is based on collected data. The Basic Standards Rulemaking Hearing was held in 2010, and the Methodology to Determine Use Attainment for Rivers and Streams was approved in October 2010; it will expire October 31, 2016.

Airborne Contaminants

The U.S. Geological Survey's National Water Quality Assessment Program included the first comprehensive evaluation of waterways in the U.S. The study identified airborne contaminants as a source of hydrocarbon pollutants in surface water, stormwater, and groundwater; the burning of fossil fuels likely formed these contaminants. The EPA has indicated that these contaminants will be regulated in the future.

Sediment

CDPHE has adopted guidance concerning sediment deposition impacts to aquatic life in streams and rivers. The guidance document, "Implementation Guidance for Determining Sediment Deposition Impacts to Aquatic Life in Streams and Rivers," focuses on the application of "expected conditions" with respect to aquatic life classification, nutrient criteria, and narrative sediment standard issues. After preliminary review of the current guidance, the Division thinks that significant changes to the assessment methodology may be appropriate and plans to expire the current policy on December 31, 2014. In addition, there are opportunities to expand the guidance to provide assistance to the stormwater program (evaluating the impacts), the TMDL program (providing more robust endpoints), and resolution of provisional aquatic life impairments (identify stressors). With the focus in recent years on building a Colorado-specific bioassessment tool (the MMI) and interim numeric nutrient values, the Division had not devoted staff resources to completing a thorough evaluation of the Sediment Guidance. The Division is currently developing sediment regulations with the Water Quality Forum and will have a draft to present to the Water Quality Control Commission in October 2014.

Presence of Invasive Species in Colorado

In 2008, Quagga and Zebra Mussels were detected in Colorado reservoirs, including Carter Lake, which is upstream of Boulder Reservoir. The State of Colorado initiated an extensive monitoring and education program related to the invasive species.

Climate Change

One of the biggest factors impacting water quality is the modification of stream flows and groundwater levels. These modifications are due in a large part to increased runoff from urban areas and to diversions and return flows from agricultural and municipal water demands. This hydrologic modification of the natural stream system leaves little water in the creek to provide dilution of pollutants or to maintain habitat and the natural stream channel. These hydrologic conditions may be further affected by climate change.

In a study completed by the University of Colorado (CU) for the City of Boulder's Water Resources Workgroup, researchers predict dryer winters and wetter springs with an earlier mountain snow runoff period. These conditions could lead to depleted stream flows in the winter, threatening aquatic life and resulting in more frequent and severe flooding in the spring, which could lead to accelerated stream bank erosion and degradation of aquatic and riparian habitat. Both conditions could lead to degraded water quality.

KICP's Approach to 2014

As the KICP Partners enter the twelfth year of implementing the shared and common programs for the benefit of all of the Partners, they continue to fine-tune the outreach offered by their shared programs and continue to identify programs that will ensure compliance with the stormwater discharge permit and protect local water quality.

The Partners continue to implement the KICP plan, which is dominated by KICP contract personnel conducting outreach. The KICP educates:

- School children
- Adults
- Businesses
- Construction operators
- Municipal employees

In addition to common and shared programs, each individual Partner will continue to be responsible for the following tasks in 2014:

- Implement their individual ordinances and related procedures, such as:
 - o Review and track erosion control plans and proposed permanent water quality structures.
 - Conduct and track construction and post-construction site inspections.
 - Respond to, enforce, and track all illegal discharges.
- Maintain storm drainage outfall maps.
- Ensure municipal operations are in compliance with stormwater regulations.
- Participate in the ongoing implementation and refinement of the KICP Plan.
- Track the development of the state *E. coli* TMDL process, which may require communities to control bacterial pollutant sources.
- Focus on implementation of Regulation 85, which focuses on nitrogen and phosphorous controls.
- Focus on reviewing and providing comments to CDPHE on the revised MS4 permit.
- Participate in the Consortium of Cities Water Strategy.

APPENDICES

Minimum Control Measures 2013 Activities

The following is a summary of activities implemented under the KICP Plan for each of the six Minimum Control Measures (MCMs).

MCM 1 – Public Education and Outreach

2008 – 2013 Permit Requirements

The permittee must implement a public education program in an effort to promote behavior change by the public to reduce water quality impacts associated with pollutants in stormwater runoff and illicit discharges that includes:

- 1) Targeting specific pollutants and pollutant sources determined by the permittee to be impacting, or to have the potential to impact, the beneficial uses of receiving waters.
- 2) Conducting outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.
- 3) Informing businesses and the general public of the municipality's prohibitions against and/or the water quality impacts associated with illegal discharges and improper disposal of waste.

Program Objective

Getting the Word Out Public Education: Individuals play a key role in reducing stormwater impacts in their day-to-day activities. To successfully achieve water quality goals, a public education program must first educate the public on the extent and nature of the problems associated with urban runoff. Next, the public must be instructed on what they can do to help solve the problem. And finally, a successful program must provide opportunities for hands-on activities.

Program Implementation

The Keep It Clean Partnership (KICP) contracts with the City of Boulder to provide the Keep It Clean Education Program, which include activities required under MCM 1 and MCM 2 for all KICP communities. The Keep It Clean Education Program staff, with direction from the Keep It Clean Steering Committee and input from Business Environmental Sustainability Team (BEST) staff, implemented programs outlined in the KICP Plan. Individual Partners are responsible for certain program elements, including the continued distribution of brochures and directing their citizens to the KICP website. The KICP Education Program conducts school-based education and community-based outreach programs to educate teachers, students, and families (adults) on ways to change their behaviors to reduce water pollutants.

School-Based Education Programs

Annually, a minimum of 93 classroom and/or field-based programs will be offered to Boulder Valley School District (BVSD) and St. Vrain Valley School District (SVVSD) teachers and students.

Annually, two day-long events with hands-on water quality activities will be conducted. The festival is provided for BVSD and SVVSD students.

Operation Water Festival

The year 2013 marked the eighth year of the pre-festival Operation Water Festival Program. The materials focused on fundamental water awareness, conservation, pollution, and flooding designed for 4th and 5th graders. Operation Water Festival includes a complete teacher's packet, which featured teacher's guides, student worksheets, and flashcards on each water topic.

H₂O Jo and Flo reappeared in 2013 as hosts for the BVSD and SVVSD water festivals with the message, "Keep It Clean, 'cause we're all downstream!" A total of 1,188 students attended the festivals.

A key benefit of the Operation Water Festival materials is the take-home water agent book. Students are encouraged to work with family members to complete the assignments. As a result, parents and siblings also learn about water protection and conservation. All BVSD and SVVSD classes attending the Children's Water Festival participated in the Water Ambassador Program.

In 2013, steps were taken to combine the Longmont and City of Boulder Water Festivals to better leverage the resources required to produce both festivals. The 2014 water festival will be the first combined Operation Water Festival, although Water Agent meetings will continue in both cities to promote pre-festival activities. Additionally, there are plans to update Water Festival materials in 2014.

Boulder Water Festival

The 21st annual Children's Water Festival was held at the University of Colorado (CU) campus on May 15, 2013. Sponsors included the City of Boulder, the Northern Colorado Conservancy District, and University Memorial Center at CU.

Longmont Water Festival

The Longmont Children's Water Festival was held at the Plaza Event Center in Longmont on May 13, 2013. Sponsors included the City of Longmont and the Northern Colorado Water Conservancy District.

Classroom Programs

Email blasts introducing free KICP education programs with a link to the KICP website were sent to BVSD and SVVSD teachers. Postcards with the same information were sent to private schools. Keep It Clean Partnership Education staff facilitated 130 stormwater education programs and reached a total of 2,827 BVSD and SVVSD students in 2013.

Classicolini i logranis						
Partner	Number of Classrooms	Number of Students				
Boulder	40	914				
Longmont	34	818				
Lafayette	17	279				
Boulder County	12	307				
Louisville	5	91				
Erie	17	308				
Superior	5	110				
Total	130	2,827				

Classroom Programs

Teacher-Led Programs

In addition to providing classroom and field-based programs, KICP staff provided training and loaned equipment/resources to teachers wishing to teach programs in their own classrooms. In 2013, 5 teachers provided programs for 123 students in 2 BVSD and 3 SVVSD classrooms.

Community Partnership

The year 2013 marked the fourth year that the KICP has partnered with Thorne Ecological (Thorne) Sombrero Marsh program. The district-supported marsh program engages BVSD 4th grade students in a full-day educational program at Sombrero Marsh. The KICP Enviroscape stormwater model program entitled *Rain, Rain Go Away* is a station on this field trip. KICP has trained Thorne staff and interns to deliver the program, and 179 4th grade students from 2 BVSD schools participated in 12 stormwater programs during these 2013 field trip days. As a result of training these interns, a total of 1,968 BVSD students from 26 BVSD schools participated in 152 Enviroscape programs.

Science is Everywhere Program

The year 2013 marked another successful year partnering with local environmental organizations to host the "Science is Everywhere" Program. The program included hosting a water education table where 69 students participated in a stormwater pollution prevention program from the following schools and groups: SVVSD Mesa After-School Program, Columbine Elementary, Spangler Elementary, Indian Peaks Elementary, and Black Rock Elementary. The following week, many of these same students, along with their families (siblings and grandparents included), attended the *Science is Everywhere* night at the National Center for Atmospheric Research (NCAR) in Boulder. A total of 130 people attended the event, where students taught the families lessons they learned at the water quality station and other stations they had visited the prior week.

Between losing funding and new staff, discussions in 2013 suggested the *Science is Everywhere* Program would not continue in 2014. KICP outreach staff has worked with SVVSD and community partners to ensure there will be a similar 2014 event.

Latin American Center for Arts, Science, and Education (CLACE): Water Green Lab

BVSD's Columbine Elementary students spent the spring and fall of 2013 learning about global climate change and fostering a sense of environmental stewardship in an afterschool program funded by National Aeronautics and Space Administration (NASA) and provided by CLACE. Students were able to choose a topic of interest to them – from air to energy, from soil to water. KICP staff provided a water workshop for CLACE facilitators so these educators could, in turn, teach 55 students participating in the CLACE program. Equipped with new knowledge about local water resources, the trained facilitators engaged students in NASA water activities with a localized message.

Throughout the semester, students learned about the water cycle, how water moves through the Boulder Creek Watershed, and how both climate and humans affect local waterways. Students were able to see the connection between waste that humans produce and how improper disposal of trash can litter our waterways. Additionally, students learned how stormwater washes down streets and parking lots, driveways and sidewalks, and roofs and yards, carrying water and everything it picks up into storm drains; these storm drains lead directly to nearby lakes, creeks, streams, rivers, and wetlands. This combined pollution can affect our local fish habitat, swimming areas, and drinking water.

During the spring and fall of 2013, this program reached a targeted audience of 55 K-5 Green Lab students at Columbine, as well as a much larger population of students, teachers, staff, and families. The program has helped to raise the local and regional Latino population's awareness of environmental issues.

Teacher Workshop

Annually, one training will be offered to BVSD and SVVSD K-12 teachers on the use of KICP-sponsored and other water quality curriculum.

 H_2O Go! My Water Units (grades 6-8) contains background information and activities related to the Boulder Creek and St. Vrain Creek watersheds. These materials and the *Project WET* (Water Education for Teachers) materials are used as the basis for the annual Get to Know Your H2O Teacher Training. All BVSD and SVVSD K-5 grade teachers and 6th-12th grade science teachers received an email advertising the free two-day training. A total of 22 educators participated in this workshop in August 2013. Together, those educators will reach over 1,650 students during the 2013-2014 school year.

For 2014, updates are being considered to capture details of and lessons learned from the 2013 flood. Additional *H20 Go!* chapters may be updated in 2013 to enhance the use of the program.

Community-Based Outreach Programs Outreach Booth

Annually, a staffed booth travels to at least one special event in each of the Partner communities to provide stormwater pollution prevention materials to the public.

Utilizing graphics and messages created for the "Keep It Clean" water quality campaign, a special events outreach booth was present in each community. The booth includes hands-on, portable, engaging activities that serve as tools for community members to learn about stormwater pollution and recognize how their behaviors can affect water quality. KICP staff provides citizens with an opportunity to discuss, provide input on, and learn about stormwater issues. The booth reached 2,953 individuals at 17 outreach booth events in 2013.

Partners	Date of Event	Event	Visitors
Boulder	May 3, 2013	CLACE Family Night	55
	May 18, 2013	National Kids to Parks Day/ Community Cleanup Day	157
	August 12, 2013	CU RA Resource Fair.	228
	September 21, 2013	Making Waves Colorado	64
	October 24, 2013	CU Internship Fair	35
Longmont	February 9, 2013	Science is Everywhere - SVVSD schools only	130
	March 30, 2013	Chick Clark Kid's Fishing Program	50
	July 13, 2013	Rhythm on the River	984
Lafayette	July 10, 2013	Kid's Public Safety Day	251
	July 17, 2013	Bubble Day	65
Boulder	February 22, 2013	Boulder Flycasters Youth Night	70
County	March 16, 2013	Boulder County Nature Symposium	76
	April 25, 2013	IBM Earth Day/Take Your Kid to Work Day	135
	May 5, 2013	Wild Bear's Wild Earth Day	167
Louisville	June 1, 2013	Taste of Louisville	321
Erie	April 27, 2013	Arbor Day Celebration	50
Superior	September 7, 2013	Superior Chili Fest	115
Total	17 Events		2,953

Outreach Events

The H_2O Jo mascot attended 10 school and community events in KICP communities, as well as the BVSD and SVVSD water festivals.

Speakers Program

Staff and expert speakers attend events in each of the KICP communities to present water quality information to various community groups.

KICP staff provided 20 presentations and reached 495 people. KICP education staff offers stormwater protection fact sheets and "tips for water protection" information for homeowners' association (HOA) leaders for inclusion in HOA newsletters. This information, in turn, is often included, and therefore leverages the message reach to community members beyond those attending the Speakers Program. In 2013, many speakers programs were coupled with youth education programs.

Partner	Date of Event	Class	Audience
Boulder	January 30, 2013	Stormwater 101/Intro to KICP	13
	March 14, 2013	Water Agent Meeting	75
	May 29, 2013	Walking Wednesday	8
	June 13, 2013	Sustainability Class	25
	September 11, 2013	Stormwater 101/Intro to KICP	24
Longmont	January 1, 2013	Intro to KICP	35
	February 12, 2013	Intro to KICP	19
	March 21, 2013	Water Agent Meeting	75
Lafayette	October 2, 2013	Get to Know Your H ₂ 0	2
	November 14, 2013	Stormwater 101/Intro to KICP	7
Boulder County	March 6, 2013	Intro to KICP	10
	June 25, 2013	Intro to Stormwater	30
	July 13, 2013	Watershed Tour	45
	September 11, 2013	Intro to KICP	17
Louisville	July 27, 2013	Stormwater 101	14
	October 11, 2013	Stormwater 101	29
Erie	November 19, 2013	Stormwater 101/Intro to KICP	34
	December 6, 2013	Stormwater 101/Intro to KICP	2
Superior	June 15, 2013	Stormwater 101/Intro to KICP	3
	October 9, 2013	Stormwater 101/Watersheds	28
Total	20 events		495

Speakers Programs

Watershed Stewardship Program

Staff will offer programs in each KICP community to train volunteers to be neighborhood water quality advocates.

The Watershed Stewardship Program is a neighborhood-based behavior change and outreach program. The goal is to engage residents in water protection activities so they reduce stormwater pollution in their communities.

The program was offered via the website and printed recruitment materials. In 2013, the Boulder County Youth Corps team received the Watershed Stewardship Program.

Stream Teams

Staff will support teams in each KICP community to provide community volunteers the opportunity to be involved in water protection activities by providing resources and training for creek cleanups, water quality monitoring, and more.

The Stream Team Program was promoted to the general public via press releases and direct mail/email to target groups. In 2013, 27 groups were enrolled as active stream teams. Keep It Clean Partnership staff provided training on how to perform safe creek cleanup activities and, where appropriate, and how to use sampling equipment (which is loaned free of charge to all interested parties).

otream reams						
Partner	Groups	Participants	Bags of Trash Collected			
Boulder	11	99	47			
Longmont	2	12	4			
Lafayette	2	12	10			
Boulder County	3	30	8			
Louisville	4	32	15			
Erie	2	12	4			
Superior	3	15	7			
Total	27	212	95			

Stream Teams

Informational and Promotional Materials

Brochures, fact sheets, and product giveaways are produced, as needed, for distribution at school and community events. At a minimum, distribution will take place annually at special events in each partner community. Distribution also takes place through the school-based education programs and within public municipal areas.

Distribution of the KICP general residential brochure continued. A total of 9,561 Spanish and English language brochures were distributed throughout KICP communities at school, community, business outreach, and residential direct mail programs. In addition to the KICP efforts, several of the Partner communities distributed the KICP general brochure or similar materials to their residents, which is not captured in this report.

Keep It Clean Partnership staff continues to distribute campaign promotional materials as take-home components to the Get to Know school and community programs. This extensive materials distribution brings the campaign message into Keep It Clean Partnership community homes, businesses, and schools.

Campaign promotional materials are distributed to bring the campaign message into Keep It Clean Partnership community homes, businesses, and schools. KICP distributed 1,014 temporary tattoos; 8,342 stickers; and 2,481 Adventures of H_2O Jo and Flo activity books.

Material Distribution					
Partner	Households	Brochures and Materials Distributed in 2013			
Boulder	39,596	12,570			
Longmont	26,667	3,819			
Lafayette	10,392	2,585			
Boulder County	8,900	1,332			
Louisville	7,216	611			
Erie	3,750	1,157			
Superior	4,500	822			
Total	101,021	22,896			

Material Distribution

Pledge Program

The year 2013 marked the fourth year for implementation of a full-scale pledge program. Both the community-based and school-based Keep It Clean pledge programs are tools to increase the number of Keep It Clean Partnership community residents who take action to reduce the amount of stormwater pollution that washes off of their homes and business properties.

The Community Pledge Program, offered at each outreach booth event, invited community members to pledge to mark a local storm drain and hang door hangers in the same area. In 2013, a total of 29 people pledged to mark 89 storm drains and hang 148 door hangers. Through email and phone communication, staff confirmed that pledge program participants marked 45 storm drains and distributed 54 door hangers.

The School Pledge Program, offered through the School Education Program, Water Festival participants, and the KICP website, invited students and their families to select and pledge to specific water protection actions at home. Participating families selected from a list of 7 actions. In 2013, a total of 305 families pledged to take a total of 1,309 water protection actions.

Traveling Exhibit

KICP placed the newly designed traveling display at high traffic locations in the KICP communities. The messages on the display are vivid, concise, and interactive in order to attract the attention of passersby. Promotional materials are placed on the table so visitors can choose to take away more information. KICP staffed the display for an hour at each community to speak directly to visitors and educate KICP messages.

Partner	Date of Event	Event	Number of Visitors	Estimated Viewers
Boulder	June 29- August 16, 2013	North Boulder Recreation Center	24	12,000
Longmont	July 15-29, 2013	Longmont Public Library	22	11,109
Longmont	October 7-21, 2013	Longmont Recreation Center	17	12,000
Lafayette	August 12-21, 2013	Lafayette Public Library	10	3,000
Boulder County	September 28-October 7, 2013	Resource Yard	8	2,800
Louisville	September 2-16, 2013	Louisville Recreation Center	6	9,800
Erie	July 1-15, 2013	Erie Community Library	17	2,800
Superior	August 26-September 2, 2013	South Pool	16	700
Total	8 Events		120	54,209

Traveling Exhibit

News Coverage

Education and outreach programs were featured in the following publications in 2013:

- The *Daily Camera* wrote and posted an article online about the Water festival on May 15, 2013
- The Boulder Source wrote and posted an article online about the Water Festival on May 16, 2013

Presentations and Awards

• KICP received the Colorado Parks and Wildlife 2013 Partner Organization of the Year award.

Tributary Signage and Storm Drain Marking Storm Drain Marking

In the first permit term, 25% of all KICP storm drains were marked. KICP education staff will maintain equipment and support volunteer groups to mark an additional 3% of the storm drains in each KICP community. Where appropriate, program participants may also post door hangers that explain the stormwater pollution prevention message.

KICP education staff facilitated storm drain stenciling activities with over 141 youth and citizens in Keep It Clean Partnership communities. KICP education staff used curb markers to identify 369 storm drains, exceeding the goal of 3% marked drains.

Partner	Total Storm Drains	2008	2009	2010	2011	2012	2013	Percent Marked in 2013
Boulder	4,180	228	440	288	200	129	131	3.1%
Longmont	1,820	83	115	179	281	61	59	3.2%
Boulder County	225	36	15	58	44	35	20	8.9%
Louisville	600	26	58	43	40	25	42	7%
Erie	685	42	253	22	92	70	87	12.7%
Superior	300	36	32	38	89	11	30	10%
Total	7,810	451	913	628	746	331	369	4.7%

Storm Drain Marking

Door Hanger Distribution

As part of the Storm Drain Marking Program, volunteers and KICP staff distributed 2,085 door hangers as part of the marking program in neighborhoods.

Staff continued to engage Lafayette community members with a custom door hanger which mirrors the KICP door hanger but does not include reference to the KICP storm drain marker. Lafayette has a stenciling storm drain marking program.

The brightly colored door hangers were distributed to property owners in the same block that the storm drains were marked. The door hangers included information about the Storm Drain Marking Program and tips on ways to protect and conserve local waters. The door hanger also lists the www.KeepitCleanPartnership.org website and the KICP spill hotline (303-441-4444).

Door Hanger Distribution

Door Hanger Distribution				
Partner	Door Hangers Distributed			
Boulder	695			
Longmont	513			
Lafayette	166			
Boulder County	118			
Louisville	281			
Erie	109			
Superior	203			
Total	2,085			

Tributary Signage

A minimum of five tributary signs are posted within each of the KICP Partner communities in prominent locations.

In 2003, tributary signs were designed and have been installed since then along major intersections, marking significant waterways with the intent of increasing public awareness of local water resources.

The sign caption reads, "Keep It Clean, 'cause we're all downstream!" and includes the local creek name. In total, over 454,512 cars travel past these signs each day.

Tributary Signs Installed				
Partner	Signs Installed			
Boulder	44			
Longmont	9			
Boulder County	6			
Louisville	8			
Erie	6			
Superior	6			
Total	79			

Reaching Diverse Audiences

Boulder County Youth Corps Team

In 2013, the Keep It Clean Partnership worked with two Boulder County Youth Corps half teams. The Youth Corps provides Boulder County teens with opportunities to develop a sense of community involvement through personal accomplishment, teamwork, and service to the county. Corps members benefit by learning strong work habits, new skills, and the value of environmental and civic stewardship. Staff partnered with Boulder County's Public Health and Sustainability teams by identifying and supporting two days of storm drain marking and/or door hanging, and stream cleanups in each Partner community. This arrangement is an effective way to support and partner with Boulder County youth. The teams completed the following accomplishments:

- Marked 216 storm drains
- Distributed 1,181 door hangers •
- Collected 27 bags of trash •
- Collected 11 bags of recyclables •
- Cleaned surface storm drains in Lyons
- Cleaned 1-1/2 miles of stream in Erie
- Removed weeds in surrounding communities

Illicit Discharge Education to Business and the Public

The Business Environmental Sustainability Team's Partner for a Clean Environment (PACE) Program reaches restaurants, vehicle service facilities, and other businesses that have the potential to adversely impact water quality. Outreach is performed by direct personal contact, educational materials, or web resources.

BEST conducts advising visits with commercial businesses to educate them on proper practices so water quality is not adversely affected, see the Minimum Control Measure (MCM) 3 section.

Program Changes

None

Budget

Proposed:	\$173,380
Actual:	\$125,588
Unexpended Funds:	\$47,792

MCM 2 – Public Involvement and Participation

2008 – 2013 Permit Requirement

The permittee must implement a public involvement program as follows:

- 1) The permittee must comply with the State and local public notice requirements when implementing the CDPS Stormwater Management Programs required under this permit. Notice of all public hearings should be published in a community publication or newspaper of general circulation, to provide opportunities for public involvement that reach a majority of citizens through the notification process.
- 2) The permittee must provide a mechanism and process to allow the public to review and provide input on the CDPS Stormwater Management Program.

Program Objective

Promoting Public Participation: To ensure buy-in and support from the public, participation is critical. This includes providing information and seeking public input on stormwater management issues.

Program Implementation

The KICP Partners contract with the City of Boulder to provide the Keep It Clean Partnership Education Programs, which includes activities required under MCM 1 and MCM 2 for all Keep It Clean Partner communities. Individual Partners are responsible for certain program elements, such as directing their citizens to the KICP website. The Keep It Clean programs include participatory programs, such as storm drain stenciling and stream teams. The KICP Steering Committee agendas and minutes are posted monthly online. The entire KICP Education Program's annual report is available at <u>www.KeepitCleanPartnership.org</u>. Following is a summary of that report, as it relates to public participation.

The KICP Steering Committee agendas and minutes are posted monthly online. All individual KICP Partner meetings are publicly noticed, as required by local ordinance.

Providing a Mechanism for Public Involvement/Feedback

Either the general KICP or the KICP Education Program's phone number is listed on publications. The KICP website lists the contact information for all Partners. Each Partner's website provides a link to the KICP website. The KICP Stormwater Management Program descriptions document is posted on the KICP website. An outreach booth (see MCM 1) is sponsored annually in each Partner community, where program feedback and suggestions are welcomed from the public.

The public continued to navigate through the Keep It Clean Partnership background information (including the six MCMs, annual reports, and stormwater resources) and Education and Outreach Program information. The <u>www.KeepitCleanPartnership.org</u> website is updated frequently to include the most current project information. In 2012, a printable pet waste sign and an automated pledge form were added. In addition, teachers and staff continue to use this site for program registration.

Website Views		
Year	Average Monthly Unique Visitors	
2013	262	

All Keep It Clean Partners list the KICP website on their own communities' websites, which include:

- Boulder County: <u>www.bouldercounty.org</u>
- Boulder: <u>www.boulderwater.net</u>
- Lafayette: <u>www.cityoflafayette.com</u>
- Longmont: <u>www.ci.longmont.co.us</u>
- Louisville: <u>www.ci.louisville.co.us</u>
- Superior: <u>http://superiorcolorado.gov/</u>
- Erie: <u>www.erieco.gov</u>

Program Changes

None

Budget

Funds were identified in MCM 1.

MCM 3 – Illegal Discharge Detection and Elimination

2008 – 2013 Permit Requirement

The permittee must develop, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 61.2) into the permittee's MS4. Illicit discharges do not include discharges or flows from firefighting activities, or other activities specifically authorized by a separate CDPS permit. The permittee must:

- 1) Develop and maintain a current storm sewer system map, showing the location of all municipal storm sewer outfalls and the names and location of all state waters that receive discharges from those outfalls.
 - a. To the extent allowable under State or local law, effectively prohibit, through ordinance or other regulatory mechanism, illicit discharges (except those identified in subparagraph 5 and 6 of this section) into the storm sewer system, and implement appropriate enforcement procedures and actions.
- 2) Develop, implement, and document a plan to detect and address non-stormwater discharges, including illicit discharges and illegal dumping, to the system. The plan must include the following three components: procedures for locating priority areas likely to have illicit discharges, including areas with higher likelihood of illicit connections; procedures for tracing the source of an illicit discharge; and procedures for removing the source of the discharge.
- 3) Develop and implement a program to train municipal staff to recognize and appropriately respond to illicit discharges observed during typical duties. The program must address who will be likely to make such observation and therefore receive training, and how staff will report observed suspected illicit discharges.
- 4) Specific Deadline for Renewal Permittees: Renewal Permittees must comply with the requirement of subparagraph (4) by no later than December 31, 2009.
- 5) Address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's MS4: landscape irrigation, lawn watering, diverted stream flows, irrigation return flow, rising groundwater, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped groundwater, springs, flows from riparian habitats and wetlands, water line flushing, discharges from potable water sources, foundation drains, air conditioning condensation, water from crawl space pumps, footing drains, individual residential car washing, dechlorinated swimming pool discharges, and water incidental to street sweeping (including associated sidewalks and medians) and that is not associated with construction.

The permittee may also develop a list of occasional incidental non-stormwater discharges similar to those in the above paragraph (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-stormwater discharges must not be reasonably expected (based on information available to the permittee) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs, etc.). The permittee must document in their program any local controls or conditions placed on the discharges. The permittee must include a provision prohibiting any individual non-stormwater discharge that is determined to be contributing significant amounts of pollutants to the MS4.

- 6) The following sources are excluded from the prohibition against non-stormwater discharges and the requirements of subsections (2) and (3) above:
 - a. Discharges resulting from emergency firefighting activities. Such discharges are specifically authorized under this permit (see Part I.A.2)
 - b. Discharges specifically authorized by a separate CDPS permit.

Program Objective

Detecting and Eliminating Improper or Illegal Connections and Discharges: A cost-effective way to reduce some of the worst stormwater pollutants is to identify and eliminate illegal connections and discharges.

Program Implementation

The KICP Plan includes public and municipal employee education training, spill response, and regulatory language to control illegal discharges. In addition, public information material discusses the impacts of spills on water quality and lists a hotline for reporting illegal discharges. The maintenance of the outfall map, the response to discharges, and enforcement is performed by the individual KICP Partners.

Outfall Map

All KICP Partners have completed their outfall maps, which are updated on an as-needed basis.

The CDPS Stormwater Management Program Description document submitted by KICP in October 2008 details the individual Partners' processes for updating outfall maps.

Regulatory Mechanism

All KICP Partners have illegal discharge ordinances in place.

Partner	Ordinance Adopted	URL
Boulder	December 6, 2004	Title 11, Chapter 5, Section 5 (b) (BRC 11-5-5b)
Longmont	January 12, 2005	Chapter 14.26, Stormwater Illicit Discharges and Permit
	April 2009	Requirements
	August 2011	
	2012	
Lafayette	2005	Chapter 104, Article III
	2011	
	2012	
Boulder County	September 13, 2005	Ordinance 2012-4, Ordinance Concerning Illicit Stormwater
	2012	<u>Discharge</u>
Louisville	December 21, 2004	Title 13, Water/Sewer, Chapter 13.36
	2012	
Erie	November 9, 2004	Title 8, Chapter 4, Illicit Discharges and Storm Water Quality Permit
	2009	Requirements
Superior	December 13, 2004	Chapter 11, Article III
	2012	

The following table includes web links to the Partners' ordinances.

Illicit Discharge Detection and Elimination Plan

Each KICP Partner has developed and is implementing a plan that addresses illicit discharges and illegal dumping to their storm drainage systems. The plans include procedures for:

- Locating priority areas likely to have illicit discharges
- Tracing the source of an illicit discharge
- Removing the source of the discharge

In addition, Boulder County's Business Environmental Sustainability Team (BEST) assists in identifying illicit and threatened discharges. They educate the offender and refer the information to the enforcing community. Discharges that are unknown or hazardous in nature are responded to by the local municipal fire department with assistance from the County's Environmental Emergency Response Team.

The CDPS Stormwater Management Program Description document submitted by KICP in October 2008 details individual Partners' description of plans and procedures in place for locating, tracing, and removing illicit discharges.

The Keep It Clean Partners individually track their illegal discharges.

The Boulder County Environmental Emergency Response Team (EERT), which responds to hazardous material and other spills, contributes to the effort as well.

Each KICP Partner submits the number of illicit discharge enforcement actions to CDPHE within their annual reports.

Illicit Discharge Education to Businesses

The Business Environmental Sustainability Team (BEST) Program reaches restaurants, vehicle service facilities, and other businesses that have the potential to adversely impact water quality. Outreach is performed either by direct personal contact, educational materials, or web resources.

The Keep It Clean Partners contract with the Boulder County Business Environmental Sustainability Team (BEST) Program to provide stormwater pollution prevention education and materials to businesses operating in the KICP communities. Major work elements performed by BEST in 2013 for KICP are outlined below.

About BEST

BEST offers advising to businesses in the areas of energy efficiency, zero waste, and water quality and conservation. The team has been providing these services for almost 20 years and has a rapport as trusted advisors with over 3,000 businesses throughout Boulder County. BEST advising services are offered free of charge to businesses.

In 2012, BEST worked with the KICP to develop a strategic approach to educating, evaluating, tracking, and analyzing the educational outreach and advising provided to businesses by BEST. The result was the following five strategies with measurable objectives and end goals, which were implemented in 2013:

- 1. Business Advising
- 2. Property Owner and Manager Advising
- 3. Contracted Service Provider Advising and Training
- 4. Windshield Surveys
- 5. Event Coordinator Advising

Evaluation is an important and necessary tool. With BEST's Customer Management System (CMS) database, BEST can offer an evaluation methodology that focuses on the implementation of BMPs as exhibited by five behavior areas. In 2012, BEST began measuring the five behavior areas with a performance rating (e.g. Exceeds, Meets and Needs Improvement) and barriers to desired behaviors. BEST used 2012 site visits to strategically capture a baseline of the behaviors being implemented that will be used to help measure the effectiveness of the strategic outreach during the next five years. This will allow them to track trending within the sectors. The five behavior areas, listed below, are a direct indication of whether a business is able to meet and maintain compliance with the BMPs identified to protect stormwater quality.

1. *Spills and Leaks:* Includes observation of outdoor spills and leaks, equipment/vehicle leaks, dry cleanup practices, spill kit availability, cleanup of absorbent, and disposal of residual waste.

- 2. *Outdoor Material Storage and Handling*: Includes observation of containers with secure covers, secondary containment, bulk and liquid unloading locations with respect to storm drains and procedures, and storage and stockpiling of waste materials.
- 3. *Good Housekeeping:* Includes observation of cleanliness of disposal areas and litter and debris, secure lids on dumpsters and recycle bins, structural BMPs, and maintenance work done indoors.
- 4. *Outdoor Washing:* Includes observation of vehicle/equipment washing practices and locations and pressure washing and surface cleaning compliance with BMPs.
- 5. *Application of Chemicals:* Includes salt, sand, and deicer in minimum quantities; sweeping up following a weather event; pesticides and fertilizer applications; painting equipment; and cleanup practices.

The criteria the behavior areas are evaluated with are:

- 1. *Exceeds:* When there is ownership about protecting water quality and a business or municipal operation has implemented measures above and beyond what is required (e.g. making signs for the dumpsters to remind employees and haulers to keep the lids closed).
- 2. *Meets:* They are in compliance (i.e. implementing appropriate BMP's) with all of the specific behaviors in the behavior areas. If they are not meeting one specific behavior, the entire area will be considered "Needs Improvement."
- 3. *Needs Improvement:* One or more specific behaviors within the behavior areas are not in compliance (e.g. not implementing appropriate BMP's or not having a spill kit).

In addition to behaviors, KICP is tracking the barriers to implementing the desired behaviors. The barriers tracked are:

- Lack of staff
- Lack of equipment
- Lack of money
- Lack of time
- Lack of training
- Lack of space
- Low priority

Annually, a scope of work is developed, and each KICP community is assigned an allocation of the programs described below. The results of the 2013 scope of work are as follows.

Business Advising Strategy

For over 18 years, BEST has delivered educational outreach on a range of topics, including energy efficiency, water conservation, and resource management to businesses in Boulder County. For the past 12 years, BEST has included stormwater protection messages in its outreach to restaurants, auto repair facilities, and retail businesses in support of the KICP. While the majority of the businesses in these sectors have been contacted by BEST, repeated visits are typically necessary to counteract factors like employee turnover and simple apathy.

The goal of this strategy is to provide one-on-one advising services to businesses during a site visit that:

- 1. Informs the business of stormwater ordinances and the importance of protecting water quality.
- 2. Promotes the adoption of stormwater BMPs in targeted business sectors.
- 3. Identifies barriers to stormwater protection.
- 4. Collects measurable data to evaluate outcomes and strategically direct resources.
- 5. Identifies contracted service providers and property owners and managers.

In 2013, businesses for advising services were identified by a combination of windshield surveys, tenants for property owners and managers strategy identified as a priority, observed behavior, identified problems in previous years advising services, and/or determined by the Partner as a priority.

Partner	Restaurants Advised (total)	Vehicle Service Advised (total)	Fixed Facility Advised (total)
Boulder	32 (521)	18 (81)	31 (776)
Longmont	9 (183)	17 (66)	26 (341)
Lafayette	10 (52)	3 (14)	9 (49)
Boulder County	8 (9)	4 (0)*	6 (13)
Louisville	7 (37)	2 (10)	5 (61)
Erie	7 (15)	1 (7)	6 (4)
Superior	4 (15)	1 (4)	2 (4)
Total	77 (832)	46 (182)	85 (1,248)

*Vehicle services advised for Boulder County are outside the urbanized area and maybe within an incorporate community.

Results: As illustrated in the figure below, the majority of businesses met or exceeded the BMPs evaluated in the five behavior areas: 62% of restaurants, 84% of auto, and 75% of fixed facilities met or exceeded each of the areas. In 2013, a slightly higher percentage of restaurants and fixed facilities were identified as needing improvement, when compared to a smaller number of facilities evaluated for their performance in the five behavior areas in 2012. Specifically, the behaviors that were observed as needs improvement most frequently were *Good Housekeeping*, followed by *Outdoor Washing*, *Outdoor Material Handling and Storage*, and *Spills and Leaks*, respectively. Automotive repair showed an increase in behaviors that met or exceeded the evaluation criteria. *Outdoor Materials and Storage* continues to be an area of improvement for automotive repair facilities.

Also in 2013 the number of operations in both the restaurant and fixed facility sectors increased significantly, so there were likely more businesses in 2013 that were hearing the messages for the first time. Conversely, auto body and repair facilities slightly decreased in 2013. In that sector, performance improved between 2012 and 2013 by 10%, with 84% of the facilities either meeting or exceeding.

The measurement of success in this strategy is for businesses advised will meet or exceed in 75% of the behavior areas. These are the trends in auto service and fixed facilities.

It should be noted that the trending is not a comparison of the same facilities, but the sector in general. In 2015, an evaluation will be conducted to directly inform the effectiveness of the advising by revisiting a random, representative sample of businesses previously advised and comparing and evaluating the trend for these businesses.

Trending in Business Advising

		2012	2013	% Change
Restaurant	Exceeds/Meets	64%	62%	-2%
Nestaurant	Needs Improvement	36%	38%	2%
Auto	Exceeds/Meets	74%	84%	10%
Auto	Needs Improvement	26%	16%	-10%
Fixed	Exceeds/Meets	77%	75%	-2%
Facilities	Needs Improvement	23%	25%	2%

70 60 50 40 30 Spills and Leaks Score 20 10 Good Housekeeping Score 0 Needs. Needs. Needs Exceeds Exceeds Meets Exceeds Meets Meets Outdoor Washing and Cleaning Score Outdoor Materials Storage, Handling Score Additional Criteria Score Restaurants Fixed Auto Facilities

Evaluation of Behaviors for Businesses Advising Strategy

Of the businesses needing improvement in *Good Housekeeping* and *Outdoor Washing and Cleaning*, common barriers identified are lack of time (37%) and lack of training (35%). Some of the specific barriers include:

- 1. "Staff is often in a hurry to take trash or grease out to receptacle so they can complete their other tasks."
- 2. "I did not realize the grease on the ground would wash into the creek," or "I was not aware of the regulation."
- 3. "We share this dumpster area with other businesses."
- 4. "The property owner does all the pressure washing."

A total of 20 threatened discharges were identified during advising with businesses. All of them were discussed during the advising visit. Four active discharges were identified during advising visits and were reported to the appropriate KICP community contact.

Next Steps: In 2014, BEST will continue to provide advising to businesses in these sectors and continue to evaluate performance in the five behavior areas. Based on the barriers identified, BEST will review the BMP resource sheets and brochures and make any additions or changes to address the deficiencies identified in the five behavior areas to help reduce main barriers identified by businesses. Businesses will continue to be identified as outlined above.

Property Owner and Managers Advising Strategy

Property managers can often have a greater impact on stormwater quality than individual tenants or property owners. Property managers are typically responsible for the cleaning of parking areas and building exteriors, providing and maintaining dumpsters, and servicing HVAC equipment and maintaining permanent water quality structures.

The goal of this strategy is to provide education, information, and assistance to property owners and managers during meetings that include:

- 1. A report documenting the stormwater performance of their tenant businesses, including strengths, areas for improvement, and barriers identified by tenant businesses.
- 2. Identification of barriers facing property owners/managers and strategies to address them.
- 3. Identification of contracted service providers working at tenant properties.
- 4. Strategies to improve and evaluate the five behaviors areas.
- 5. Identification of additional tenant businesses that would benefit for advising services.
- 6. Identification of stormwater issues at the location of the property owner/manager's office and providing information on structural BMPs.

This strategy was developed and piloted in 2013 with 21 property owners and managers that were identified by a combination of windshield surveys indicating issues at particular properties, business advising services where property owners/managers were identified as a barrier, large ownership or management areas within a community, and/or property owners/managers identified by the Partner as a priority. BEST measured behaviors being implemented and barriers to behaviors that were not being implemented with 20 property owners and managers.

Partner	Property Owners and Managers Advised
Boulder	4
Longmont	8
Lafayette	1
Boulder County	2
Louisville	2
Erie	2
Superior	1
Total	20

Property Owner and Manager Advising

Results: In 2013, it was found that of the properties evaluated, 52% of property owner and managers were meeting or exceeding in the five behavior areas; 48% of the property owners or managers that BEST advised had behaviors that needed improvement. *Spills and Leaks, Outdoor Washing, and Outdoor Materials Storage and Handling* were the top 3 identified behaviors that were observed needing improvement. More specifically, the issues identified most often were spills and stains on the property in the parking lot and waste management areas. In addition, overflowing trash and grease containers were often identified because they are not serviced frequently enough. In some cases, these services are provided to tenants as part of their lease agreement.

The strategy's measurement of success is for property owners and managers to demonstrate a clear understanding of stormwater protection and meet or exceed in 75% of the behavior areas evaluated.

Overall, property owners and managers were very receptive and eager to partner with our advisors on trying to motivate businesses to implement behaviors to protect stormwater. One property owner held a meeting with tenants after receiving their advising services and follow-up report to review how grease should be managed by the restaurants. The property owner made it clear to the tenants that if the practices identified in the advising service were not implemented, as described, the property owner would contract for additional pressure washing services and bill back the tenants for the work via fees.

Since this was the first year evaluating the behavior areas for property owners and managers, there is no trending data available. This will be evaluated in 2014 forward.



Evaluation of Behaviors for the Property Owner and Manager Strategy

Next Steps: In 2014, BEST will continue to implement this strategy as in 2013.

Contracted Service Provider Strategy

Contracted service providers operate under contract at fixed facilities to perform a service. The impact of their work is regional in nature. Service providers targeted in this program include storm drainage maintenance contractors, pressure washers, hood cleaners, carpet cleaners, grease haulers, lawn care, painters, welders, concrete workers, and utility companies. With landscape maintenance companies, permanent BMP maintenance is addressed using the "Citizens Guide to Inspecting and Maintaining Structural Stormwater BMP's."

In this strategy, one-on-one advising is provided to these service providers to mitigate threatened and active discharges resulting from their activities (e.g., grass clippings being blown in the street, pressure washing water entering a storm drain), as well as identify instances in which the desired behaviors are not being implemented. Contracted service providers were identified for advising by staff while working in Partner communities, through the property owner/manager strategy, or observed during windshield surveys to have an immediate opportunity for education (such as an active or threatened discharge in progress). KICP communities were also asked to identify the contracted service providers they employ.

In 2013, BEST identified and contacted 25 contracted service providers and evaluated the 5 behavior areas for their operations. Of the 25 advised:

- 8 (30%) were construction contractors (e.g. concrete, asphalt, general construction, etc.)
- 7 (26%) were landscape maintenance companies
- 5 (19%) were carpet cleaners
- 5 (19%) were facility maintenance companies

• 1 (3%) was a mobile cleaner

Results: In 2013, 75% of the contracted service providers advised met all of the behavior areas. Of the 25% that needed improvement, *Spills and Leaks, Outdoor Material Storage and Handling, Good Housekeeping,* and *Outdoor Washing and Cleaning,* were the top 4 behaviors needing improvement.

Since this was the first year evaluating the behavior areas for property owners and managers, there is no trending data available. This will be evaluated in 2014 forward.



Evaluation of Behaviors for the Contracted Service Provider Strategy

Next Steps: In 2014, BEST will continue to provide advising to contracted service providers. Additionally, BEST will offer classroom training to all contracted service providers currently in the database. BEST will coordinate with the municipal outreach team to obtain a list of contracted service providers working for the KICP communities. Additionally, BEST will leverage relationships with property owners and managers to invite their contracted service providers to the training.

Windshield Surveys

The goal of this strategy is to leverage advising being provided through other services BEST provides to businesses in the KICP communities by observing stormwater performance, either by driving by, walking around businesses or observing operations in the field. This approach adds 4-5 more trained specialists in the communities who can assist with identifying active discharges and facilities that would benefit from BEST's one-on-one advising service and maximize the efficient use of KICP funding. Partners are immediately notified if an active discharge is observed.

Results: In 2013, 81 threatened discharges were identified by windshield surveys, 67 were followed up with a site visit or additional drive-by to determine if the issues were persistent or were determined to be a low-risk

Partner	Actual Hours
Boulder	95
Longmont	71
Lafayette	11
Boulder County	9
Louisville	9
Erie	10
Superior	6
Total	211

issue (e.g. an open dumpster). The remaining 14 will be followed up in 2014. An additional 20 threatened discharges were identified during advising with businesses. All of these were discussed during the advising visit.

A total of 11 active discharges were identified in 2013, and all were immediately reported to the Partners.

Next Steps: The windshield surveys are a valuable tool in informing some of the work addressed in the Business Advising Strategy, as well as the Property Owner and Manager Strategy. This strategy can be a valuable tool in closing the loop on issues identified while advising businesses by conducting a follow-up windshield survey. This program could be improved by building on the communication plan with the KICP Partners to ensure BEST is documenting the results of their efforts. For example, BEST could direct follow-up more effectively if notified of notices of violations (NOVs) issued as a result of the windshield survey.

Low-risk threatened discharges are one area that could be evaluated for education during a windshield survey. Many times these may be an open dumpster or a pile of leaves that was swept but not picked up; making the educational opportunity immediate and fleeting. Providing businesses with a quick handout instead of evaluating the behavior areas could be a cost- and time-effective way to immediately close the loop.

Event Coordinator Strategy

Outdoor events have a potential to impact water quality, especially when food vendors attend. This strategy provides one-on-one advising services to municipal and private entity event coordinators managing large events, such as Rhythm on the River, the Peach Festival, and Boulder Creek Fest. During the advising visit, educational resources are provided for distribution to vendors attending the event. Event coordinators were identified using the list of annual events developed by the BCPH Food Safety Program and prioritized by highest number of vendors participating in the event.

The strategy calls for BEST to evaluate performance in the five behaviors at two events per year – ideally during cleanup of the event – to identify stormwater practices being implemented and areas that may need improvement. Additionally, BEST wanted to coordinate with the BCPH Food Safety Program to include stormwater information in packets distributed to event coordinators and to train Food Safety Team to recognize and report illicit discharges.

Results: In 2013, BEST developed a fact sheet with BMPs for event coordinators to share with their vendors. BEST advised event coordinators for two events:

- Peach Festival in Lafayette
- Cinco de Mayo festival in Longmont

Behaviors were evaluated post-event, as well as following up with the event coordinator.

The BCPH Food Safety Team was also provided with the BMPs developed for event coordinators and were trained on the stormwater ordinances, identifying issues, and proper reporting procedures for active discharges that are identified.

Next Steps: In 2014, BEST will identify events in communities that have not already received outreach in this area using the above outline criteria.

Municipal Staff Education

BEST provides yearly and as-requested training to KICP Partner staffs on observing and reporting illicit discharges. This training is provided to field personnel during classroom and/or tailgate sessions.

Linpioyees frameu			
Partner	Employees		
Boulder	69		
Longmont	NA		
Lafayette	49		
Boulder County	10		
Louisville	41		
Erie	33		
Superior	30		
Total	232		

Employees Trained

Hazardous Material Management Facility Waste Disposal Program

All of the Keep It Clean Partners sign an intergovernmental agreement to participate in the countywide Hazardous Material Management Facility (HMMF) Program. The shared cost for implementing the HMMF Program is separate from the KICP Program, and therefore is not included in the MCM's budget.

Budget

Proposed:	\$99,900
Actual:	\$95,228
Unexpended Funds:	\$4,672

MCM 4 – Construction Site Stormwater Runoff Control

2008 – 2013 Permit Requirements

The permittee must:

- 1) Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff, and to reduce pollutants in, or prevent when required in accordance with I.B.3, non-stormwater discharges that have the potential to result in water quality impacts (e.g., construction dewatering, wash water, etc.), to the MS4 from construction activities that result in a land disturbance of one or more acres. Reduction of pollutants in discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one or more acres. If the Division waives requirements for stormwater discharges associated with a small construction activity in accordance with 61.3(2)(f)(ii)(B) (the "R-Factor" waiver), the permittee is not required to develop, implement, and/ or enforce its program to reduce pollutant discharges from such a site.
- 2) Develop and implement the program to assure adequate design, implementation, and maintenance of *BMP*'s at construction sites within the MS4 to reduce pollutant discharges and protect water quality. The program must include, at a minimum, the development, implementation, and documentation of:
 - *i. Program Requirements, including:*
 - A) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions and procedures adequate to ensure compliance, to the extent allowable under State or local law.
 - *B)* Requirements for construction site operators to implement appropriate erosion and sediment control BMP's.
 - *C)* Requirements for construction site operators to implement BMP's to control waste such as discarded building materials, concrete truck washout, chemicals, litter, sanitary waste, and other non-stormwater discharges including construction dewatering and wash water, at the construction site that may cause adverse impacts to water quality.
 - *ii.* Compliance Assessment, including:
 - *A) Procedures for site plan review which incorporate consideration of potential water quality impacts.*
 - *B) Procedures for construction site compliance assessment, including:*
 - 1) Site inspections
 - 2) Receipt and consideration of information submitted by the public
 - *iii. Compliance Assurance, including:*
 - A) Procedures for enforcement of control measures that includes documented procedures for response to violations of the permittee's program requirements. Procedures must include specific processes and sanctions adequate to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators of control measures.
- *3)* Specific Deadline for Renewal Permittees: Renewal Permittees must comply with the requirement of subparagraph.
 - iv.
- *A)* Develop, document, and implement response procedures that specifically address chronic and recalcitrant violators by no later than December 31, 2009.
- B) An education and training program for municipalities, their representatives and/or construction contractors. At a minimum, the program must include an information program for construction site operators unfamiliar with the reviewing authority's regulatory requirements.

Program Objective

Controlling Construction Site Runoff: Effective construction site pollution prevention can dramatically reduce sediment loading to stream ecosystems. An effective erosion control program must include adequate ordinance language, effective inspection and enforcement, and appropriate development and construction standards.

Program Implementation

The KICP Plan includes all of the previously mentioned components. In addition, the KICP Plan includes contractor training and a certification program. These program elements ensure consistent countywide education and minimum standards.

Regulatory Mechanism

Partner	Ordinance Adopted	Web Link	
Boulder	December 6, 2004	Title 11, Chapter 5, Section 5 (b) (BRC 11-5-5b)	
Longmont	January 12, 2005	Chapter 14.26, Stormwater Illicit Discharges and Permit	
	June 2009	Requirements	
	August 2010		
	2012		
Lafayette	2005	Chapter 104, Article III	
	2011		
	2012		
Boulder County	August 11, 2005	Article 7, Development Standards	
	2012		
Louisville	December 21, 2004	Title 13, Water/Sewer, Chapter 13.36	
	2012		
Erie	November 9, 2004	Title 8, Chapter 4, Illicit Discharges and Storm Water Quality Permit	
	2009	Requirements	
Superior	December 13, 2004	Chapter 11, Article III	
	2012		

The following table includes hyperlinks to the Partners' ordinances.

Requirements to Implement Appropriate Erosion Control BMPs

All KICP Partners' ordinances require that stormwater management plans meet the requirements of the CDPS General Permit for Stormwater Discharges Associated with Construction Activities (Stormwater Construction Permit). All KICP Partners' ordinances require that BMPs are designed to meet the technical standards of:

- Urban Drainage and Flood Control District's Urban Storm Drainage Criteria Manual Volume 3-BMP or its successor.
- Any other alternative methodology approved by the jurisdiction, which is demonstrated to be effective.

In 2010, Urban Drainage and Flood Control finalized the updating of Volume 3.

Requirements to Control Waste

All KICP Partners' ordinances require that stormwater management plans meet the requirements of the CDPS General Permit for Stormwater Discharges Associated with Construction Activities (stormwater construction permit). The stormwater construction permit requires that stormwater management plans (SWMPs) include practices for stormwater pollution prevention, which includes controlling waste, such as:

- discarded building materials
- concrete truck washout
- chemicals
- litter
- sanitary waste
- other non-stormwater discharges, including construction dewatering and wash water

Site Plan Review

All KICP Partners' ordinances require that stormwater management plans meet the requirements of the CDPS General Permit for Stormwater Discharges Associated with Construction Activities (stormwater construction permit).

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' processes for construction site plan submittal, review, and preliminary approval process; the system used to track status of stormwater control site plans; procedures for ongoing review of site plans during active construction; and how consideration of potential water quality impacts are achieved.

Receipt and Consideration of Information Submitted by the Public

Each KICP Partner has community-specific procedures in place for receiving and recording public complaints.

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' processes for processing inquiries or tracking and documenting complaints received from the public.

Site Inspection and Enforcement of Control Measures

Each KICP Partner has community-specific procedures in place for conducting construction site inspections and enforcement. The procedures may include how inspections are conducted, documented, and how enforcement is carried out. The KICP Partners utilize verbal warnings through stop work orders. Enforcement options are described in each Partner's ordinance.

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' procedures for inspections; it includes inspection documentation, frequency, and prioritization, and how sites and inspections are tracked. Procedures for regularly scheduled compliance inspections, complaint response inspections, and reconnaissance inspections (as applicable) are described. In addition, procedures used for enforcement include any documentation used that dictates responses to non-compliance; tracking of enforcement actions; enforcement tools; and escalation procedures for chronic and recalcitrant violators are described.

Training and Education for Construction

Each KICP Partner informs construction site operators of the regulatory requirements during the preconstruction meeting. The KICP website has a page specific to construction and links to each Partner's ordinance. The KICP Partners offer construction site stormwater management trainings, which are open to both municipal and private entities.

The KICP has been implementing a training program for construction site operators and inspectors since 2003. In 2013, KICP offered two Colorado Department of Transportation erosion control certification classes, which were attended by 34 individuals; 15 attended the 4-hour recertification training.

Program Changes

KICP is now once again offering the KICP erosion control certification instead of the Colorado Department of Transportation (CDOT) certification. CDOT has moved to a training program specific to their procedures.

Budget

Proposed:	\$22,000
Actual:	\$20,609
Unexpended Funds:	\$1,391

MCM 5 – Post-Construction Stormwater Management

2008 – 2013 Permit Requirements

The permittee must develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. The permittee must:

- 1) Develop, implement, and document strategies which include the use of structural and/or nonstructural BMPs appropriate for the community that address the discharge of pollutants from new development and redevelopment projects, and/or that maintain or restore hydrologic conditions at sites to minimize the discharge of pollutants and prevent in-channel impacts associated with increased imperviousness.
- 2) Use an ordinance or other regulatory mechanism to address post- construction runoff from new development and redevelopment projects to the extent allowable under State or local law.
- 3) Develop, implement, and document procedures to determine if the BMPs required under Item (1), above, are being installed according to specifications. (This may be developed in conjunction with the Construction program area, as described in Part I.B.4).
- 4) Develop, implement, and document procedures to ensure adequate long-term operation and maintenance of BMPs, including procedures to enforce the requirements for other parties to maintain BMPs when necessary.
- 5) Develop, implement, and document an enforcement program, which addresses appropriate responses to common noncompliance issues, including those associated with both installation (subparagraph (3), above) and long term operation and maintenance (subparagraph (4), above) of the required control measures.
- 6) Develop and implement procedures and mechanisms to track the location of and adequacy of operation of long-term BMPs implemented in accordance with the program.

Program Objective

Addressing Stormwater in New Development and Redevelopment: It is estimated that when a tributary drainage basin reaches 10-20% impervious, there are significant ecological stresses on the aquatic ecosystem. Therefore, the most important strategy for addressing stormwater is to focus on land use and development. One of the best strategies is to address the aggregate amount of new impervious surfaces and disconnecting impervious areas. Other strategies include implementing effective best management practices (BMPs) for the control and treatment of site runoff, such as stormwater detention or grass swales. An effective post-construction program must include adequate ordinance language, effective inspection, and enforcement.

Program Implementation

The KICP Plan includes all of the aforementioned components. In addition, the Keep It Clean Partners continue to educate municipal staff and the private sector in the advantages of infiltration BMPs. The 2008-2013 permit language includes added language to strengthen the goal of implementing BMPs that would benefit water quality over time and attempt to reduce the impact of land development.

Regulatory Mechanism

All KICP Partners have post-construction ordinances in place.

Partner	Ordinance Adopted	Web Link	
Boulder	December 6, 2004	Title 11, Chapter 5, Section 5 (b) (BRC 11-5-5b)	
Longmont	January 12, 2005	Chapter 14.26, Stormwater Illicit Discharges and Permit Requirements	
	June 2009		
	August 2010		
	2012		
Lafayette	2005	Chapter 104, Article III	
	2011		
	2012		
Boulder County	August 11, 2005	Article 7, Development Standards	
	2012		
Louisville	December 21, 2004	Title 13, Water/Sewer, Chapter 13.36	
	2012		
Erie	November 9, 2004	Title 8, Chapter 4, Illicit Discharges and Storm Water Quality Permit	
		Requirements	
Superior	December 13, 2004	Chapter 11, Article III	
	2012		

The following table includes web links to the Partners' ordinances.

Design Criteria and Standards

All KICP Partners, by ordinance, have required BMPs designed to meet the technical standards of:

- Urban Drainage and Flood Control District's Urban Storm Drainage Criteria Manual-Volume 3 BMP or its successor.
- Any other alternative methodology approved by the jurisdiction that is demonstrated to be effective.

Review and Approval Procedures

Each KICP Partner has community-specific procedures and requirements in place that address how plans for both public and private BMPs are tracked, reviewed, and confirmed as built.

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' procedures for plan review process; the systems implemented to track status of plans; how correct installation of BMPs is confirmed; and the enforcement procedures used when BMPs have not been built as approved.

Tracking

Each KICP Partner has a system to track permanent BMP locations and requirements for maintenance of BMPs installed since the adoption of their ordinance.

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' procedures for tracking permanent BMP locations and maintenance history.

Ensuring Operation and Maintenance

Each KICP Partner has community-specific procedures in place for conducting BMP inspections and enforcement. Each KICP Partner has community-specific procedures for enforcement. Enforcement options are described in each Partner's ordinance.

The CDPS Stormwater Management Program description document submitted by KICP in October 2008 details the individual Partners' inspection programs, including routine and complaint response inspections.

Program Changes

None

Budget

Proposed:	\$19,500
Actual:	\$14,809
Unexpended Funds:	\$4,691

MCM 6 – Pollution Prevention and Good Housekeeping for Municipal Operations

2008 – 2013 Permit Requirements

The permittee must develop and implement an operation and maintenance program that includes an employee training component and has the ultimate goal of preventing or reducing pollutants in runoff from municipal operations. The program must also inform public employees of impacts associated with illegal discharges and improper disposal of waste from municipal operations. The program must prevent and/or reduce stormwater pollution from facilities such as streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the permittee, and waste transfer stations, and from activities such as park and open space maintenance, fleet and building maintenance, street maintenance, new construction of municipal facilities, and stormwater system maintenance, as applicable. The permittee must:

- 1) Develop and maintain written procedures for the implementation of an operation and maintenance program to prevent or reduce pollutants in runoff from the permittee's municipal operations. The program must specifically list the municipal operations (i.e., activities and facilities) that are impacted by this operation and maintenance program. The program must also include a list of industrial facilities the permittee owns or operates that are subject to separate coverage under the State's general stormwater permits for discharges of stormwater associated with industrial activity.
 - *i.* Specific Deadline for Renewal Permittees: Renewal Permittees must comply with the requirement of subparagraph (1) by no later than December 31, 2009.
- 2) Develop and implement procedures to provide training to municipal employees as necessary to implement the program under Item 1, above.

Program Objective

Implementing Pollution Prevention for Municipal Operations. A surprising number of municipal operations can affect water quality and quantity. These activities range from the storage and handling of harmful chemicals to the maintenance of municipal properties, vehicles, roads, and storm sewer systems. Activities like integrated pest management, water conservation, recycling, and education programs can prove to be very effective in addressing these pollutant sources.

Program Implementation

The KICP provides municipal education and compliance evaluation through the Business Environmental Sustainability Team (BEST), referred to as the Partners for a Clean Environment (PACE) Program.

Pollution Prevention and Good Housekeeping Program

The BEST provides a stormwater pollution prevention program to KICP Partners' municipal facilities through an inspection and certification program. Certification is based on criteria developed specifically for the facility through industry standards and municipal staff recommendations. Facilities are targeted based on potential to impact water quality. BEST conducts yearly or biannual audits of municipal operations to ensure that procedures are being implemented that meet the self-imposed certification program. BEST notifies the facility or operations manager, as well as the KICP Partner's stormwater manager, if any deficiencies are noted during sites visits.

The following outlines a summary of activities completed in 2013.

Municipal Resources

- Provided outreach and education to five golf and park maintenance shops in preparation for compliance with <u>Nutrient Management Control Regulation 85</u>.
- Created two stormwater Pollution Prevention BMPs on nutrient reduction and municipal utility maintenance.
- Updated website links and contacts for stormwater BMPs and standard operating procedures (SOPs) and reposted on <u>www.pacepartners.com</u> for reference.

Site Visits: Tier-1 and Tier-2 Municipal Facilities

In 2013, BEST evaluated the top five stormwater behaviors (per type of operation) while conducting site visits and rated each facility on whether they met, exceeded, or needed improvement in each of the five behavior areas. Ratings for compliance with the desirable behaviors were tracked, as were barriers to compliance for each behavior area.

Behavior Areas

- 1. Spills or leaks (vehicles, equipment, gas, oil, hydraulic fluid, or other chemicals).
- 2. Outdoor materials storage and handling (cover and containment of hazardous liquids, containers, drums, batteries or other dry materials, storage of containers, dirt piles, debris, trash, mag chloride, salt/sand, chemicals, oil, diesel, gasoline, or other products).
- 3. Good housekeeping (trash, dumpsters not covered, areas not swept, debris, and/or issues with BMP maintenance).
- 4. Outdoor washing or cleaning (washing of vehicles, sidewalks, buildings, pressure washing, etc.).
- 5. Additional criteria:
 - a. Application of chemicals (pesticides, fertilizers, salt, liquid deicer, paint, or chemical products)
 - b. Proper discharge of wastewater
 - c. Proper scheduling of maintenance activities
 - d. Proper recordkeeping

Ratings

- "Exceed" is when the facility shows ownership of protecting water quality and measures above and beyond what is required (e.g. making signs to remind employees and haulers to keep the lids closed).
- "Meets" is when the facility is in compliance (i.e. implementing appropriate BMP's) with all the specific behaviors in the behavior areas. If they are not meeting one specific behavior, the entire area will be considered as "Needs Improvement."
- "Needs Improvement" is when one or more specific criteria within the behavior areas is not in compliance (e.g. not implementing appropriate BMP's or not having a spill kit).

Barriers to Compliance

- Lack of staff
- Lack of equipment
- Lack of money
- Lack of time
- Lack of training
- Lack of space
- Low priority

In 2013, BEST continued to use the behavior and barrier evaluation to gauge the effectiveness of site visits and training within the municipal sector. BEST also compared the performance observed in 2013 with 2012 to develop a performance trend.

Site visits involve walking around the facility and performing an audit of the five behavior areas and stormwater BMPs; documenting non-compliance issues; taking photographs (that are later used for training staff); sending follow-up letters or e-mails with photos and information on areas for improvement, proper BMPs, and overall compliance with stormwater regulations.

Results: In 2013, 54 site visits were conducted at municipal facilities in the KICP communities. Operations at Tier 1 facilities had an upward trend,

Partner	Site Visits
Boulder	17
Longmont	10
Lafayette	5
Boulder County	9
Louisville	5
Erie	4
Superior	4
Total	54

showing better implementation of BMPs in the five behavior areas. Fleet Maintenance facilities were the only facility that showed a downward trend by 3%. *Good Housekeeping, Outdoor Material Storage and Handling,* and *Spills and Leaks,* respectively, were the three behavior areas showing the most room for improvement. As illustrated below in the *Evaluation of Behaviors of Tier 1 Site Visits* table, 80% of fleets' facilities (versus 83% in 2012) met or exceeded the 5 behavior areas; 54% of golf, 70% of parks and 86% of storm, and 68% of streets facilities met or exceeded performance in the 5 behavior areas. All of these sectors improved in performance in 2013 when compared to 2012.



Evaluation of Behaviors of Tier 1 Site Visits

			2012	2013	% Change
Ì	El	Exceeds/Meets	83%	80%	-3%
Fleets	Fleets	Needs Improvement	18%	20%	2%
ĺ	0.15	Exceeds/Meets	54%	61%	7%
	Golf	Needs Improvement	46%	39%	-7%
Parks	Exceeds/Meets	70%	72%	2%	
	Needs Improvement	30%	28%	-2%	
	Storm	Exceeds/Meets	70%	86%	16%
		Needs Improvement	30%	14%	-16%
	Churche	Exceeds/Meets	63%	68%	5%
	Streets	Needs Improvement	38%	32%	-6%

Trending of Tier 1 Site Visits

As illustrated in the *Evaluation of Behaviors of Tier 2 Site Visits* table below, rec centers and water and wastewater treatment plants continued to show an upward trend in improvements by meeting and exceeding in the five behavior areas. Facility maintenance and fire departments had a downward trend in meeting or exceeding in the five behavior areas. *Good Housekeeping, Outdoor Material Storage and Handling,* and *Spills and Leaks,* respectively, were the three behavior areas showing the most room for improvement. Fire departments also showed room for improvement on the disposal of wastewater from pump tests and training facilities.





		2012	2013	% Change
Facilities	Exceeds/Meets	74%	69%	-5%
	Needs Improvement	26%	31%	5%
Fine	Exceeds/Meets	100%	80%	-20%
Fire	Needs Improvement	0%	20%	20%
Rec	Exceeds/Meets	95%	100%	5%
Centers	Needs Improvement	5%	0%	-5%
	Exceeds/Meets	75%	80%	5%
WIP	Needs Improvement	25%	20%	-5%
WWTP	Exceeds/Meets	83%	100%	17%
	Needs Improvement	17%	0%	-17%

Trending of Tier 2 Site Visits

Next Steps: In the future, this data will allow BEST to determine which operations or facilities need improvement and which behavior areas need concentration. The barriers for each operation or facility can be determined, and training can be provided to the facility to properly achieve compliance with those behaviors. In turn, the effort on the areas that are meeting or exceeding the criteria can be reduced.

Overall Barriers to Compliance – All Site Visits

The top three barriers identified to meeting or exceeding in these behavior areas are:

- 1. Low priority
- 2. Lack of staff, staff issues
- 3. Lack of equipment



Municipal Employee Stormwater Training Program

BEST provides yearly and as-requested training to municipal staff on operational BMPs and on observing and reporting illicit discharges. This training is provided to field personnel during classroom and/or tailgate sessions. Newsletters and recognition programs may be used to support this effort.

General Stormwater Training

BEST has developed two general stormwater training presentations for municipal sectors:

- *Stormwater 101* for Tier 1 Operations (fleet, parks, golf course, street and storm drain maintenance departments)
- *Stormwater 102* for Tier 2 Operations (municipal fire departments, building and facilities maintenance departments)

Both trainings provide basic information about stormwater compliance, illicit discharge identification and reporting, local contact information, and best management practices to prevent stormwater pollution. The *"Storm Watch," "Rain Check,"* and/or *"Drop in the Bucket"* videos are viewed during the training classes. The *Stormwater 101* and *Stormwater 102* presentations can be found at <u>www.pacepartners.com</u>.

Customized Stormwater Training

In 2013, BEST provided customized trainings providing more in-depth training for preventing stormwater pollution for specific operations and for employees working in the "field" while conducting normal operational activities. There are two types of customized trainings:

- 1. *Operations-Specific Training:* In 2013, customized training was developed for maintenance staff on proper application of pesticides, chemicals, paints, deicer, and fertilizers. The training also included education in the proper BMPs to prevent stormwater pollution, integrated pest management (IPM) procedures, spill cleanup procedures, good housekeeping, materials storage and handling, and/or proper disposal of wastewater or waste materials. These topics were, in part, selected based upon the behavior areas identified as needing improvement in 2012. In addition, training was also designed to support compliance with CDPHE Nutrient Management Control Regulation No. 85.
- 2. *Customized Field Training:* This approach brings municipal employees into the field with a stormwater advisor to together observe municipal and county staff doing routine maintenance operations and providing guidance on stormwater pollution prevention outside of a classroom setting. This ensures that the training is relevant and meaningful to day-to-day operations.

·····	,
Partner	Employees
Boulder	69
Longmont	N/A
Lafayette	49
Boulder County	10
Louisville	41
Erie	33
Superior	30
Total	232

Number of Employees Trained

Windshield Surveys

BEST staff also conducted "windshield surveys," which were impromptu, in-the-field assessment opportunities whereby BEST staff would observe stormwater performance by driving by, walking around, or observing operations in the field, taking photographs, providing on-the-spot education where possible, and notifying Partners immediately of any active discharges. Active and threatened discharges are tracked for quarterly reporting to the Partners.

Partner	Hours		
Boulder	12		
Longmont	0		
Lafayette	4		
Boulder County	4		
Louisville	3		
Erie	3		
Superior	2		
Total	28		

Windshield Survey Hours

Active and Threatened Discharges from Municipal Site Visits and Windshields

Partner	Active	Threatened
Boulder	3	5
Longmont	0	0
Lafayette	0	1
Boulder County	0	0
Louisville	0	1
Erie	0	2
Superior	0	1
Total	3	10

Three active discharges were observed during windshield surveys. All three active discharges were reported to the KICP contact. Ten threatened discharges were observed (one during a site visit and nine during windshield surveys). All active discharges were reported immediately to the Partner community, and all of the threatened discharges were followed up with education.

Types of Active and Threatened Discharges:

- Road construction sediment (6)
- Sediment from water main breaks and from pumping flood water (3)
- Construction site wastewater (1)
- Parking lot debris not swept (1)
- Trash (1)
- Paint or chalk (1)

Employee Recognition Programs

Stormwater Heroes

The employee recognition program provides a positive incentive for municipal employees to implement BMPs to prevent stormwater pollution and to report illicit discharges. The goal of the "Stormwater Heroes" program is to increase municipal staff's knowledge and awareness of stormwater pollution prevention and encourage employees to participate in water protection behaviors. The program is also intended to empower staff to protect local water quality and to recognize that the work they do directly affects water quality. "Stormwater Heroes" are nominated by coworkers, managers, or themselves by notifying BEST staff of their actions. They are recognized with a brief story in a newsletter and gift certificates awarded from a random drawing of all heroes. BEST recognized employees with awards (e.g. stickers, water bottles, names in newsletters, and/or gift certificates) who protected storm drains, implemented BMPs to prevent stormwater pollution, or reported illegal discharges. Employees are recognized in the *Stormwater* newsletter and during training sessions.

In 2013:

- 12 "Stormwater Heroes" were recognized in the biannual newsletters.
- Two \$25 gift certificates were awarded to two "Stormwater Heroes" via a random drawing from a pool of eligible heroes.

Pledge Program

The Keep It Clean Pledge Program was developed to create ownership and to motivate municipal employees to take actions to protect storm drains. Employees were asked during stormwater training sessions to pledge to "Keep It Clean." They receive a printed pledge form to remind them of their pledge and a water bottle or travel mug as a prompt. The employees signed their pledge on a tear-off slip at the bottom, which was kept by BEST staff for recordkeeping. Community-based social marketing techniques were utilized to change employee behavior. Incentives, such as gift certificates, hats, water bottles or mugs, are distributed during Stormwater 101 or 102 trainings, custom trainings, or educational events.

The three Keep It Clean pledge actions are:

- 1. Locate and protect storm drains near work site.
- 2. Cover and contain any materials stored outside and clean up spills.
- 3. *Report* any pollutants that may enter storm drains.

In 2013:

- 221 employees signed the "Keep It Clean Pledge," pledging to reduce stormwater pollution.
- 40 "Protect Storm Drains" stickers were distributed during trainings and site visits.
- 55 "Keep It Clean" static-cling window decals were distributed during trainings and site visits.
- ~130 "Keep It Clean Pledge" water bottles were distributed during training classes.

Stormwater Newsletters

Newsletters are written and distributed to municipal employees and managers twice yearly. Newsletters include articles of interest, seasonal messages, recognition of "Stormwater Heroes" (employees or contractors that have prevented stormwater pollution), and "Best Stormwater BMP" and operations that need improvement as well as "Illegal Discharge of the Year." Distribution via e-mail took place to approximately 315 employees.

Two newsletters were written and distributed:

- Summer Newsletter 24% were opened
- Winter Newsletter 31% were opened

Budget

Proposed:	\$48,350
Actual:	\$46,157
Unexpended Funds:	\$2,193

KICP Ground Rules

Keep It Clean Partnership Partners are dedicated to:

- Supporting the stated goals and objectives of the project.
- Participating in good faith and sharing information and resources with other Partners.
- Being open, honest, and clear about their agencies' needs and interest in participating in the partnership.

Keep It Clean Partnership Partners agree to:

- Be prompt to meetings and participate to the highest level of their ability, understanding that all communities may not have the resources to attend every meeting.
- Maintain focus and stick to the topics on the agenda. Be concise and clear, prioritize all actions, and encourage involvement of all.
- Complete assigned tasks that are agreed upon in the group.
- Stay informed about discussions and decisions that take place in their absence.
- Complete the bulk of KICP work in workgroups.
- Speak one at a time, avoiding sideline discussions.
- Work as team players and share all relevant information.
- Focus on solution-based discourse, limiting complaints or criticism.
- Look for mutually beneficial solutions.

Keep It Clean Partnership decisions:

- Will be discussed in an organized manner, and the process will be open to all.
- May require compromise to reach Keep It Clean Partnership common goals and benefit.
- Will be made with a commitment to mediate disagreement.
- Will be based on consensus that every member can support.

The group will reach consensus when it finally agrees upon a single alternative and each participant can honestly say:

- I believe that other participants understand my point of view.
- I believe I understand other participants' points of view.
- Whether or not I prefer this decision, I support it because it was arrived at openly and fairly, and it is the best solution for us at this time.

Once a decision is made, it should not be revisited unless the group agrees that it is in the benefit of all participants.

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