

# Keep It Clean Partnership



## 2014 Annual Report



**KEEP IT CLEAN  
PARTNERSHIP**

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## History

To address the impact of stormwater on water quality, the federal Clean Water Act was expanded to include requirements for municipalities to control pollutants from municipal separate storm sewage systems (MS4s). In 1990, the U.S. Environmental Protection Agency (EPA) issued the Phase I Stormwater Rules, which 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, which expanded those requirements to small MS4s and construction sites between 1-5 acres in size.

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; it 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.

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 budgets. 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 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 2007, 2011, and 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 satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act and Colorado Discharge Permit Regulations.

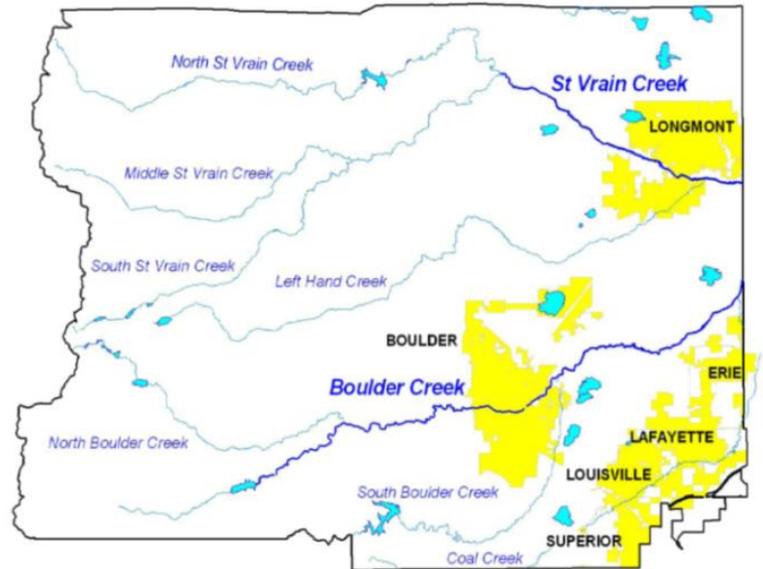
- **Common Elements:** Program elements that have common themes and common implementation procedures (e.g. development of ordinance language).
- **Individual Programs:** Program elements that are exclusively the responsibility of individual Partners to implement (e.g. enforcement of erosion control and 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.

## 2014 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.

### 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 2.75 full-time employees (FTE). The staff currently includes 0.50 FTE to support the business and municipal outreach, 1.25 FTE to support the residential outreach program, and 0.75 FTE KICP coordinator position.



The 2014 KICP budget was \$442,747, of which \$106,722 (24%) was proportionately reimbursed to each of the Partners. The majority of the reimbursement represents the unspent contingency funds and residential outreach personal labor.

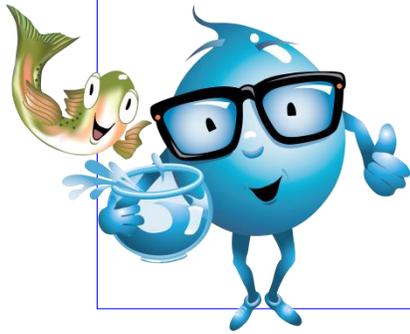
2014 was the first year that the City of Longmont implemented municipal and business outreach in the community by utilizing its own staff. In 2014, the shared budget included all other remaining programs shared by the Partners, with the exception of the Business Environmental Sustainability Team (BEST) contract; those contract expenses are only shared by the remaining six Partners (i.e. minus Longmont), and contingency will not be assessed on that amount.

### Grants

In 2014, the City of Boulder received an additional \$45,000 in 319 grant funding on behalf of KICP for a total amount of \$94,996. The additional funding will allow for expanded development of a watershed plan for the entire St. Vrain watershed. The effort continues to incorporate 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 be completed.

### 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, and promotional material distribution.



**91** residents participated on 1 of 91 stream teams and collected **43** bags of trash  
**2,614** students and **122** classrooms/events participated in school-based education programs  
Residents visited traveling stormwater booths at **7** community locations  
**309** storm drains were labeled with the message, "Dispose no Waste, Drains to Creek"  
**2,218** door hangers were distributed as part of the storm drain marking program  
**2,779** residents visited hosted stormwater booths at **13** community events  
**1,286** students from BVSD and SVVSD schools attended the Water Festivals  
**13,010** general KICP and campaign materials were distributed  
**589** residents attended 1 of **20** speaker events  
**348** families and individuals took the water protection pledge  
**4,453** visits to [www.KeepitCleanPartnership.org](http://www.KeepitCleanPartnership.org)  
**77** tributary signs are posted at stream crossings

KICP implemented an annual mini campaign that brought awareness and engaged KICP residents to take action to reduce stormwater pollution from dog waste. In general, the 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 is added to the campaign 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.

### 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.



**71** restaurants were visited  
**35** vehicle service facilities were visited  
**55** retail establishments were visited  
**5** building services, **3** pressure washers, **7** landscapers, and  
**25** property managers were visited  
**346** municipal employees were trained at **16** trainings  
**46** municipal facilities were visited  
**2** newsletters were mailed to **250** municipal employees

### Business Outreach

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

In 2014, BEST fully implemented a fairly new strategy working with property owners/managers to share information on the behavior of their tenants and seek their support in ensuring that BMPs are implemented. 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 their properties. This information has successfully 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 occupy themselves.

## Municipal Outreach

In 2014, BEST continued providing compliance advice and support to KICP municipal staff by conducting municipal site visits and trainings for employees in each KICP community. 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 2013.

## Construction and Illegal Discharge Prevention Trainings

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



**54** participants received construction erosion control training  
**25** participants received post construction inspection and maintenance training  
**346** municipal employees were trained on illegal discharge identification

## CDPHE Audits

In 2014, none of the KICP Partner's MS4 programs were audited however, several private construction site audits took place by CDPHE in Partner communities and those Partners were alerted and attended the audits.

## 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 that were 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, 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.

In 2014, the strategy documents were implemented.

## Into the Future

As the KICP enters its 13<sup>th</sup> year of implementation, the Partners continue to refine programs to meet the continuing challenges of stormwater management, as well as anticipate the new requirements of the third permit, which is to be finalized in the fall of 2015. In 2015, the Partnership will evaluate those requirements and consider the structure of the Partnership.

### MS4 Permit

The current permit was set to expire in March 2013, but it 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 language was released in November, and CDPHE received over 600 pages of comments. The permit was to be revised and rereleased in the summer of 2014, but the process stalled. The permit is now targeted to be released in spring 2015. In general, the final permit is expected 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.”



## Watershed Considerations

### Impaired Waters

On a semi-annual basis, the CDPHE Water Quality Control Division (WQCD) develops a [list of impaired 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.

#### Boulder Creek and St. Vrain Stream Segments on the 2012 303(d) and Monitoring and Evaluation List

WBID	Description	Portion	M&E	303(d)	Priority
<b>Boulder Creek Basin</b>					
COSPBO01	All tributaries (“tribs”) to Boulder Creek within the Indian Peaks Wilderness Area	all	Pb, Zn		
COSPBO02a	Mainstem of Boulder Creek, from the boundary of the Indian Peaks Wilderness Area to a point immediately below the confluence with North Boulder Creek	all	Cd, Cu		
COSPBO02b	Boulder Creek, from below the confluence with North Boulder Creek to above the confluence with South Boulder Creek	all	Cd, Cu		
COSPBO03	Mainstem of Middle Boulder Creek from source to the outlet of Barker Reservoir	all	Cd, Cu		
COSPBO07b	Coal Creek, Highway 36 to Boulder Creek	all	Aquatic Life	<i>E. coli</i>	H
COSPBO08	All tribs to South Boulder Creek and all tribs to Coal Creek	Rock Creek	<i>E. coli</i>	Se	M
COSPBO09	Mainstem of Boulder Creek, from South Boulder Creek to Coal Creek	all	Cd, As		
COSPBO09	Mainstem of Boulder Creek, from South Boulder Creek to Coal Creek	From 107 <sup>th</sup> Street to the confluence with Coal Creek		Aquatic Life (provisional)	L
COSPBO10	Boulder Creek, Coal Creek to St. Vrain Creek	all	Aquatic Life, Cd	<i>E. coli</i>	H
COSPBO14	Lakes and reservoirs tributary to Boulder Creek from source to South Boulder Creek	Barker Reservoir	Cd, Cu		
COSPBO15	South Boulder Creek and tributaries from source to outlet of Gross Reservoir	Gross Reservoir	Aquatic Life Use		

**St. Vrain Basin**

<b>COSPSV02a</b>	Main stem of St. Vrain from Indian Peaks Wilderness Area and Rocky Mtn. National Park (RMNP) to eastern boundary of Roosevelt National Forest	all		Zn	H
<b>COSPSV02b</b>	St. Vrain Creek, RMNP to Hygiene Road	all		Cu, Temperature	H
<b>COSPSV03</b>	St. Vrain Creek, Hygiene Road to S. Platte River	From the confluence with Left Hand Creek to the confluence with Boulder Creek		Aquatic Life Use (provisional)	L
<b>COSPSV03</b>	St. Vrain Creek, Hygiene Road to S. Platte River	From Hover Road to the confluence with Left Hand Creek	Aquatic Life Use		
<b>COSPSV04a</b>	Left Hand Creek, from source to below confluence with James Creek	Highway 72 to James Creek		pH, Cu, Zn	M
<b>COSPSV04b</b>	James Creek, Little James Creek	Little James Creek		Cu, Pb	M
<b>COSPSV04c</b>	Left Hand Creek from James Creek to Highway 36	all		Cu, As	H
<b>COSPSV05</b>	Main stem of Left Hand Creek, including all tributaries and wetlands from Highway 36 to the confluence with St. Vrain Creek	Upstream Lefthand Feeder Canal		Mn (WS)	L
<b>COSPSV05</b>	Main stem of Left Hand Creek, including all tributaries and wetlands from Highway 36 to the confluence with St. Vrain Creek	Downstream Lefthand Feeder Canal		Cu	M
<b>COSPSV06</b>	Tributaries to the St Vrain River	Dry Creek		<i>E. coli</i>	H
<b>COSPSV06</b>	Tributaries to the St Vrain River	all		Se	L
<b>COSPSV13</b>	All lakes and reservoirs tributary to Left Hand Creek from Highway 36 to St. Vrain Creek.	Lake Thomas	D.O.		

It should be noted that the Government Accounting Office (GAO) released a report in December 2013 to Congress entitled [Changes Needed If Key EPA Program is to Help Fulfill the Nation’s Water Quality Goals](#). The GAO was asked to examine the TMDL (Total Maximum Daily Loads) 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.

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:

<b>303(d) Listed: Impaired Stream Segment</b>	<b>KICP Community</b>
Boulder Creek from 13 <sup>th</sup> Street to the confluence with South Boulder Creek	Boulder
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

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).

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.

The municipal stormwater discharge permits will 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).

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 [E. coli TMDL](#) for Boulder Creek Segment 2b: from 13<sup>th</sup> 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.

The efforts being undertaken by the 319 Grant Watershed and Monitoring Plans focus on *E. coli* as a priority pollutant that will be addressed by the implementation plan.

## **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 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 [Nutrients Management Control Regulation](#), 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.

Regulation 85 requires MS4s to analyze existing nitrogen and phosphorus data and identify data gaps. The statewide data gap analysis sponsored by the Colorado Stormwater Council and Urban Drainage and Flood Control and amounting to \$67,000 was submitted to CDPHE in July 2014.

The overall finding from this report is that there is a significant urban runoff data set that is useful and sufficient for characterizing nutrient loads in urban runoff in Colorado. Based on the findings contained in the report, it is concluded that additional monitoring for purposes of general characterization of nutrient concentrations and loads in urban runoff in Colorado is not necessary to meet the requirements of Regulation 85. Highlights of the land use source findings are as follows:

- Median concentrations of total phosphorus by land use in Colorado range from 0.22 to 0.45 mg/L. Total phosphorus concentrations in residential runoff are statistically higher than commercial, industrial, and highway-related land uses.
- Median concentrations of total nitrogen by land use in Colorado range from 2.79 to 4.19 mg/L. Total nitrogen concentrations in residential runoff are statistically higher than commercial and industrial land uses, based on the available data.

The KICP will be required, through the general MS4 permit when it is 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.

## **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, but 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 [National Stormwater Rule](#), 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.

In 2014, EPA released an official statement that they are deferring development of a National Post Construction Stormwater Rule in lieu of more targeted, less regulatory-driven efforts to help municipalities better control stormwater runoff. In a statement to the press, EPA explained they are “...updating [their] stormwater strategy to focus now on pursuing a suite of immediate actions to help support communities in addressing their stormwater challenges and deferring action on rulemaking to reduce stormwater discharges from newly developed and redeveloped sites or other regulatory changes to its stormwater program.”

## **Waters of the State**

The EPA and the U.S. Army Corps of Engineers released a draft Waters of the U.S. (WOTUS) rule that addressed the jurisdictional reach of the Clean Water Act (CWA). The rule’s 90-day public comment period began in April 2014 when it was officially published in the Federal Register. The proposal maintained the existing waste treatment system exemption that exists in EPA’s current regulations. This means that treatment ponds, lagoons, or other water bodies used as part of a waste treatment system to meet the requirements of the CWA will continue to be exempt from jurisdiction. The rule did not seek to expand EPA’s regulatory reach under the CWA, especially with regard to upstream tributaries and wetlands.

In 2014, the City of Boulder and Boulder County submitted a joint letter during the public comment period that included recommendations for language to ensure that ditches, stormwater management facilities, and ditch maintenance activities were not included in the definition.

## **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.

In 2014, the rule was finalized. EPA withdrew the numeric turbidity effluent limitation and monitoring requirements, as well as made several revisions to the non-numeric requirements addressing buffers, soil stabilization, preservation of topsoil, and pollution prevention measures.

In 2014, it is still unclear how the federal CGP will affect the state CDPHE general construction permit, which has been administratively extended.

## **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 [Temperature Criteria Methodology](#) was approved in August 2011 and will expire June 30, 2017.

## **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**

In 2014, CDPHE updated the guidance concerning sediment deposition impacts to aquatic life in streams and rivers. The guidance document, “[Guidance for Implementation of Colorado’s Narrative Sediment Standard Regulation #31 Policy 98-1](#)” focuses on the application of “expected conditions” with respect to aquatic life classification, nutrient criteria, and narrative sediment standard issues. The expanded guidance provides 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 framework includes four parts:

1. Comparison with Expected Condition.
2. Impairment is a Significant Departure from Expected Condition.
3. Statistical methods are appropriate for the data.
4. Watershed review to determine whether the sediment is attributable to human-causes.

## **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 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:
  - 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.
- Continue to evaluate the programs and goals of the KICP Plan.

# **APPENDICES**

## **Minimum Control Measures (MCM) 2014 Activities**

The following is a summary of activities implemented under the KICP Plan for each of the six 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 60 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

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; 2014 was the first year that the joint water festival was held. SVVSD and BVSD students came together on May 14, 2014, at the University of Colorado, Boulder, for a day of learning various water topics. The year 2014 also marked the ninth year of the pre-festival Operation Water Festival Program. Materials focused on fundamental water awareness, conservation, pollution, and flooding designed for 4<sup>th</sup> and 5<sup>th</sup> graders. Operation Water Festival includes a complete teacher’s packet, which featured teacher’s guides, student worksheets, and flashcards on each water topic.

H<sub>2</sub>O Jo and Flo reappeared in 2014 as hosts for the BVSD and SVVSD water festivals with the message, “Keep It Clean, ‘cause we’re all downstream!” A total of 1,286 students attended the festival.

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.

**Classroom Programs**

Email blasts and postcards introducing free KICP education programs with a link to the KICP website were sent to BVSD, SVVSD, and private school teachers. Keep It Clean Partnership Education staff facilitated 115 stormwater education programs and reached a total of 2662 students in 2014. Four of these programs, containing a total of 48 students, were for non-KICP communities through KICP’s Thorne Nature Experience partnership.

**Classroom Programs**

Partner	Number of Classrooms	Number of Students
Boulder	45	772
Longmont	36	836
Lafayette	8	220
Boulder County	11	271
Louisville	5	119
Erie	12	292
Superior	5	104
<b>Total</b>	<b>122</b>	<b>2,614</b>

**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 2014, 3 teachers provided programs for 138 students in 3 BVSD classrooms.

**Community Partnership**

The year 2014 marked the fifth year that the KICP has partnered with Thorne Ecological (Thorne) Sombrero Marsh program. The district-supported marsh program engages BVSD 4<sup>th</sup> grade students in a full-day educational program at Sombrero Marsh. The KICP Enviroscope 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 178 4<sup>th</sup> grade students from BVSD schools participated in 12 stormwater programs during these 2014 field trip days. As a result of training these interns, a total of 1,828 BVSD students from 26 BVSD schools participated in 104 Enviroscope programs.

**Science is Everywhere Program & Latin American Center for Arts, Science, and Education (CLACE):  
Water Green Lab**

Between losing funding and reorganization of staff, both the “Science is Everywhere” and CLACE programs were discontinued in 2014. If the programs were to return in 2015, KICP would support these efforts, given staff availability. More information describing these programs can be found in the 2013 Annual Report.

**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<sub>2</sub>O 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 H<sub>2</sub>O Teacher Training*. All BVSD and SVVSD

K-5 grade teachers and 6<sup>th</sup>-12<sup>th</sup> grade science teachers received an email advertising the free, two-day training. A total of 12 educators participated in this workshop in August 2014. Together, those educators will reach over 1,000 students during the 2014-2015 school year.

Though this workshop has been considered to be very entertaining and informational based on the feedback provided by teachers who attended, it has been increasingly difficult to recruit teachers to attend. In the recent years, staff found themselves having to put a large amount of time marketing the event, communicating with associated parties and organizing the logistics for a very small party, the majority of them being from non-KICP communities. Due to these incurring costs and minor benefits, the teacher workshop will no longer be offered starting 2015. Teachers will continue to receive stormwater messaging as part of the annual Water Festival including water agent meetings and pre-festival activities.

## 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 as well as receive program feedback and suggestions.

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 2,779 individuals at 13 outreach booth events in 2014.

### Outreach Events

Partners	Date of Event	Event	Visitors
Boulder	May 17, 2014	National Kids to Parks Day / Community Cleanup Day	75
	September 6, 2014	Doggie Dash	160
	November 8, 2014	UCAR Super Science Saturday	356
Longmont	February 8, 2014	Science is Everywhere	200
	July 12, 2014	Rhythm on the River	855
	September 13, 2014	Paws in the Park	115
Lafayette	May 10, 2014	Lafayette Bike Rodeo	89
	July 9, 2014	Kid’s Public Safety Day	175
Boulder County	April 24, 2014	IBM Take Your Kid to Work Day	85
	April 27, 2014	Wild Bear’s Wild Earth Day	167
Louisville	June 7, 2014	Taste of Louisville	163
Erie	September 6, 2014	Erie Great Outdoor Adventure	94
Superior	September 6, 2014	Superior Chili Fest	245
<b>Total</b>	<b>13 Events</b>		<b>2,779</b>

### 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 589 people. KICP education staff offers “tips for water protection” information to a variety of community attendees. This information, in turn, is often included, and

therefore leverages the message reach to community members beyond those attending the Speakers Program. This year, KICP partnered with the Center for Resource Conservation by leveraging eight spring Xeriscape seminars that included KICP messaging. This partnership allowed KICP to reach a larger audience while freeing KICP staff time.

### Speakers Programs

Partner	Date of Event	Class	Audience
Boulder	April 7, 2014	CRC – Intro to Xeriscape/Water	49
	April 15, 2014	CRC – Edible Xeriscape	29
	April 18, 2014	Intro to KICP/Stormwater 101	50
	June 11, 2014	Intro to KICP/Stormwater 101	23
	August 16, 2014	Macro Program – BCWCI	6
Longmont	March 17, 2014	OWF Water Agent Meeting	106
	February 6, 2014	Intro to KICP/Stormwater 101	29
	April 7, 2014	CRC – Jumpstart Your Xeriscape Garden	31
	April 15, 2014	CRC – Tough & Beautiful Plants for Your Xeriscape	35
Lafayette	February 3, 2014	Intro to KICP/Stormwater 101	7
	April 8, 2014	CRC – Maintaining Your Xeriscape Garden	17
	April 10, 2014	CRC – Introduction to Xeriscape	16
Boulder County	March 13, 2014	OWF Water Agent Meeting	61
	May 3, 2014	Intro to KICP/Stormwater 101	25
Louisville	April 10, 2014	CRC – Intro to Drip Irrigation	34
	June 26, 2014	Intro to Wetlands	7
Erie	April 9, 2014	CRC – Integrating Xeriscape to Your Landscape	27
	April 17, 2014	The Urban Water Cycle/Intro to KICP	15
Superior	May 3, 2014	Intro to KICP/Stormwater 101	19
	December 9, 2014	Intro to KICP/Stormwater 101	3
<b>Total</b>	<b>20 events</b>		<b>589</b>

### 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 2014, KICP staff joined outside workgroups to investigate potential partnerships and to determine opportunities where the program could be implemented.

### 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 2014, 12 groups were enrolled as active stream teams. KICP staff provided training on how to perform safe creek cleanup activities and, where appropriate, how to use sampling equipment (which is loaned free of charge to all interested parties). KICP staff also supported community-led stream teams by giving materials or other similar items, but because volunteers were not provided the KICP message, these have been

distinguished as “Legacy Stream Teams.” Staff provided support to four Legacy Stream Teams in 2014. These teams reached out to a total of 851 volunteers where 120 bags of trash were collected.

#### Stream Teams

Partner	Programs	Participants	Bags of Trash Collected
Boulder	2	15	8
Longmont	2	7	1
Lafayette	2	7	4
Boulder County	2	21	1
Louisville	1	6	2
Erie	1	6	4
Superior	2	29	24
<b>Total</b>	<b>12</b>	<b>91</b>	<b>44</b>

#### 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 3,813 Spanish and English language brochures were distributed throughout KICP communities at school, community, business outreach, and residential direct mail programs. This extensive materials distribution brings the campaign message into KICP community homes, businesses, and schools. 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. KICP also distributed 823 temporary tattoos; 4,115 stickers; and 2,726 *Adventures of H<sub>2</sub>O Jo and Flo* activity books. Beyond general KICP promotional materials, Doo Good campaign materials were also provided to support the annual dog waste campaign and are reflected in the numbers below. More details about this distribution can be found in the Annual Mini Campaign Section.

#### Material Distribution

Partner	Brochures and Materials Distributed in 2014
Boulder	6,097
Longmont	3,061
Lafayette	1,043
Boulder County	893
Louisville	481
Erie	849
Superior	586
<b>Total</b>	<b>13,010</b>

#### Pledge Program

It has been five years since the KICP pledge program was implemented. The year 2014 marked the first year that the community-based and school-based KIC pledge programs were combined to increased efficiency in program implementation. This tool helps provide an idea of the number of community residents who take action to reduce the amount of stormwater pollution that washes off of their homes and business properties.

The KICP pledge, which is offered at outreach booth events, school education programs, the water festival, and the website, invited participants to pledge to take simple actions to protect local water, such as picking up dog waste, reducing nutrient use, and picking up trash. More complex actions included marking storm drains and creating a stream team. In 2014, a total of 1,381 actions were taken between 348 people who turned in the pledge. Non-KICP communities, such as Firestone and Frederick, also participated in the pledge program, which led to a total of 384 pledges and 1,539 actions taken.

**Website**

The KICP website lists all the contact information and links for all the KICP communities. The KICP Steering Committee agendas and minutes are posted monthly.

Using online tools promotes KICP messages in an easy and cost effective manner. KICP staff regularly use the website as a tool to provide interested individuals with information about programs, events, and informational resources. Monthly blogs are created in order to increase KICP message visibility. In 2014, about 77% of the website visitors were new, and the average session duration was about 2 hours. On average, there are about 300 visitors per month.

KICP staff also produces and distributes two newsletters throughout the year. Emails used for the newsletter are captured predominantly through the pledge program. In 2014, the 2 newsletters were distributed to about 317 individuals, mainly K-5<sup>th</sup> students. Each newsletter is designed to include general KICP and more specific mini campaign messaging. Partner communities are all equally represented in the newsletter.

Blogging helps link KICP messaging on the website to the social media world. Each month, staff posts a Facebook update and links it to the KICP website. Updates include water quality protection, KICP events, mini campaign messaging, and other program information. In 2014, posts reached up to 600 individuals.

**Traveling Exhibit**

KICP placed the traveling display in 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.

Starting 2015, staff will be incorporating easy to use indoor or outdoor pop ups, as part of the mini-campaign efforts instead of a traveling exhibit that is set up in each community. By providing a mini campaign focused display based on requests, using the display at events or locations when deemed appropriate for the mini campaign and for a flexible amount of time, it will induce greater interest for the display and more engaged parties.

**Traveling Exhibit**

Partner	Date of Event	Event
Boulder	June 23 – June 30	Boulder Humane Society
Longmont	October 27 – November 10	Longmont Public Library
Lafayette	October 20 – October 27	JAX Mercantile
Boulder County	November 24 – December 8	Resource Yard
Louisville	July 17 – July 31	Louisville Recreation Center
Erie	August 13 – August 27	Erie Public Library
Superior	July 31 – August 13	Superior Public Pool
<b>Total</b>	<b>7 Events</b>	

## News Coverage

Education and outreach programs were featured in the following publications in 2014:

- *Inquire Boulder* recorded a video featuring the 2014 Water Festival

## 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 the Boulder County Youth Corps and other groups. KICP education staffs used curb markers to identify 309 storm drains, exceeding the goal of 3% marked drains. Lafayette has permanent storm drain markers throughout the majority of their community, so storm drain marking goals are not needed.

For years, KICP has marked storm drains. Initially stenciling was used. However, the non-toxic paint that was suitable for volunteers would fade after a short period of time. The round markers that have been use for the last several years do provide branding and a longer life than stenciling, but staff have found that the stickers will fall off from due to activities such as shoveling snow, yard maintenance, etc. KICP has decided to remove this program starting 2015 to use available funds for more effective purposes. Door hanging will be looked at as an option for a mini campaign activity.

### Storm Drain Marking

Partner	Total Storm Drains	2014	Percent Marked in 2014
Boulder	4,180	149	3.5%
Longmont	1,820	58	3.1%
Boulder County	225	39	17.3%
Louisville	600	23	3.8%
Erie	685	25	3.6%
Superior	300	15	5.0%
<b>Total</b>	<b>7,810</b>	<b>309</b>	<b>4.0%</b>

### Door Hanger Distribution

As part of the Storm Drain Marking Program, volunteers and KICP staff distributed 2,281 door hangers as part of the marking program in neighborhoods. Staff continued to engage Lafayette community members with a custom door hanger that mirrors the KICP door hanger but does not include reference to the KICP storm drain marker.

The 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](http://www.KeepitCleanPartnership.org) website and the KICP spill hotline (303-441-4444).

### Door Hanger Distribution

Partner	Door Hangers Distributed
Boulder	455
Longmont	500
Lafayette	192
Boulder County	105
Louisville	594
Erie	295
Superior	140
<b>Total</b>	<b>2,281</b>

### 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
<b>Total</b>	<b>79</b>

## Reaching Diverse Audiences

### Boulder County Youth Corps Team

In 2014, the Keep It Clean Partnership worked with Boulder County Youth Corps to help promote KICP messaging. 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 partner communities. Because of the 2013 flood, stream team cleanups were discouraged in some KICP communities due to safety reasons. This arrangement is an effective way to support and partner with Boulder County youth. The teams completed the following accomplishments:

- Marked 111 storm drains
- Distributed 2,124 door hangers
- Collected about 22 bags of trash
- Cleaned surface storm drains in Longmont

## **Annual Mini Campaign: Doo Good**

KICP mini campaigns aim to raise awareness and focus on specific pollutants, seasonal messaging, target audiences, and evaluate ways impacts can be measured. In 2014, the pollutant was dog waste.

### **Signs**

In 2014, the Partners decided on one sign to be used across all communities. This effort was to solidify campaign branding and increase efficiency in production and delivery of signs. No signs were installed in 2014. The sign was posted on the KICP website for viewers to download.

### **Partnerships**

KICP partnered with Humane Society of Boulder Valley (HSBV), Longmont Humane Society (LHS), City of Boulder Open Space & Mountain Parks (OSMP), and Partners for A Clean Environment (PACE) in order to reach a larger audience to spread the Doo Good message. Each organization works with a large audience of individuals that come from across the KICP Partner communities. By partnering with these organizations, a large number of surveys were collected, collateral with KICP messages were distributed, and volunteers and/or staff were trained so they could continue to spread the Doo Good message to other coworkers.

Humane Society of Boulder Valley (HSBV):

- Approximately 1,000 Doo Good flyers are planned to be distributed to new pet dog owners.
- 100 Frisbees and 50 dog bag dispensers with key Doo Good messages have been distributed.
- Approximately 100 surveys were collected from HSBV visitors or event attendees.
- Participated in Doggy Dash, where 160 contacts received the Doo Good message.
- Trained 5 volunteers who were chosen as “Doo Good ambassadors” who are now prepared to educate coworkers and visitors.
- Provided “Doo Good Neighbor” auction prize for large annual event where prize sold for \$100. Prize was specifically designed to be shared with neighbors and to clean up neighborhood dog waste.

City of Boulder Open Space & Mountain Parks:

- 1,000 dog dispensers were distributed to Voice and Sight Tag Program participants.
- Included Doo Good survey questions into a larger Voice and Sight survey that was completed by individuals across the county who partook in the training, as shown in the table below. About 900 individuals completed the survey.

Longmont Humane Society (LHS):

- Participated in Paws in the Park where 115 contacts received the Doo Good message.
- Survey and fact sheet were posted in newsletter and on the website.

Partners for a Clean Environment (PACE):

- Provided materials, such as business posters, dog bag dispensers, and fact sheets.

### **Media**

In order to better expose the mini campaign, KICP staff implemented ads in various forms of media. The ads listed below reached a large audience across KICP communities. Boulder also implemented utility bill inserts within its community.

- Placed full-page advertisement in *Chinook Book*, a book of coupons from local and sustainable merchants, restaurants, and grocery stores.
- Posted Doo Good facts, Doo Good partner events, pictures, and other related information on Facebook and the KICP website.
- Biannual KICP newsletter: 317 recipients with 3 social shares

## **Collateral**

Doo Good collateral was distributed in a majority of KICP programs, such as outreach booths, traveling display, speakers programs, and stream team cleanups. This collateral was designed to be eye-catching, easy to understand, and useful, so program participants would be more inclined to desire the product and be willing to learn the KICP message. Printable materials, such as signs, posters, surveys, and fact sheets, were posted on the KICP website for online visitors to download free-of-charge. Material distributed by KICP staff in programs included:

- 368 dog bag dispensers
- 27 dog fact sheets
- 336 Frisbees

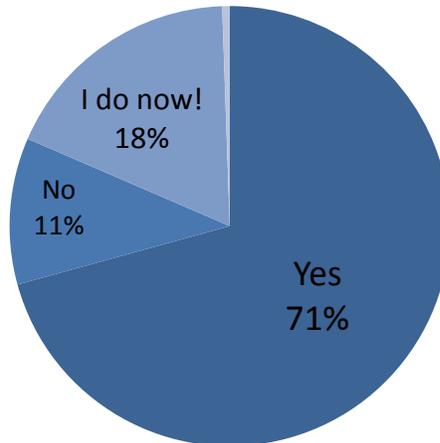
## **Outreach Events**

All Doo Good messaging and collateral was presented and delivered at outreach booth events. As an incentive, visitors received free collateral if they played the Doo Good Poop Toss game. This game was designed to specifically support KICP and mini campaign messaging. Because individuals of all ages were eager to play the game and win a prize, KICP reached a large audience with the Doo Good message.

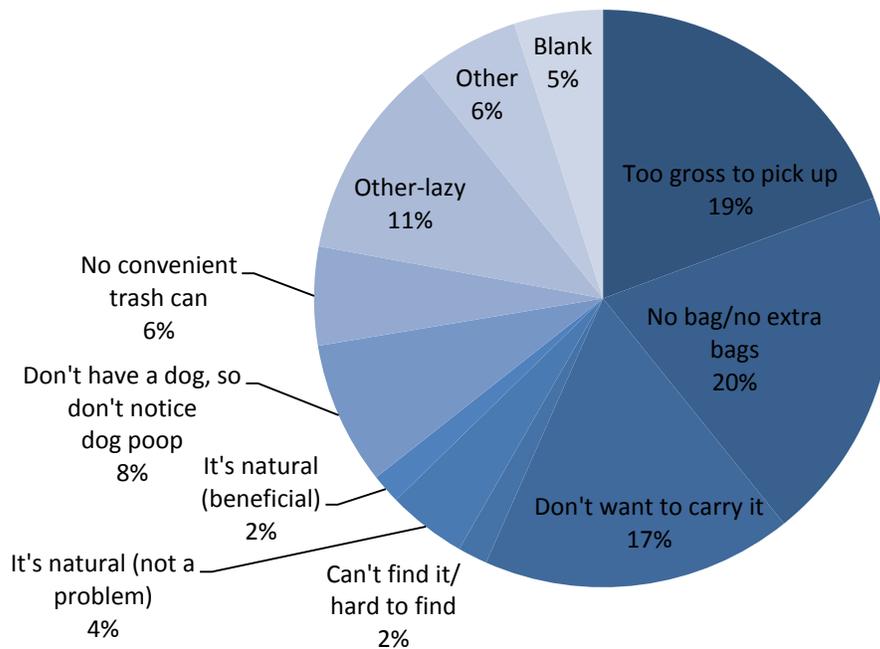
## **Survey**

KICP staff designed a specific Doo Good survey that was distributed throughout KICP programs and campaign partner organizations (excluding OSMP). This survey allowed KICP to capture the public's current knowledge on water quality, dog waste impacts, as well as excess nutrient impacts. A total of 362 surveys were collected. Below is a summary of the 2014 results.

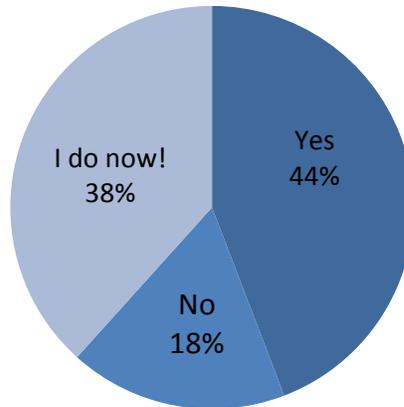
## Did you know that storm drains lead to creeks?



## In your opinion, why doesn't dog poop get picked up?



**Did you know that excess nutrients in dog waste act like fertilizers in our waterways that can increase algae growth and decrease available oxygen for fish?**



**Illicit Discharge Education to Business and the Public**

The Business Environmental Sustainability Team’s (BEST) Partners 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 MCM 3 section).

**Program Changes**

None

**Budget**

Proposed:	\$202,229
Actual:	\$151,425
Unexpended Funds:	\$50,804

# 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 Keep It Clean Partnership (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 [www.KeepitCleanPartnership.org](http://www.KeepitCleanPartnership.org). 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 [www.KeepitCleanPartnership.org](http://www.KeepitCleanPartnership.org) website is updated frequently to include the most current project information. In 2014, dog waste campaign materials, pledges, and other documents were updated. In addition, teachers and staff continue to use this site for program registration.

### Website Views

Year	Average Monthly Unique Visitors
2014	371

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

- Boulder County: [www.bouldercounty.org](http://www.bouldercounty.org)
- City of Boulder: [www.boulderwater.net](http://www.boulderwater.net)
- City of Lafayette: [www.cityoflafayette.com](http://www.cityoflafayette.com)

- City of Longmont: [www.ci.longmont.co.us](http://www.ci.longmont.co.us)
- City of Louisville: [www.ci.louisville.co.us](http://www.ci.louisville.co.us)
- Town of Superior: <http://superiorcolorado.gov/>
- Town of Erie: [www.erieco.gov](http://www.erieco.gov)

**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 Keep It Clean Partnership (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 Colorado Discharge Permit System (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.

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

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

## 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. BEST educates offenders and refers 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 BEST to provide stormwater pollution prevention education and materials to businesses operating in the KICP communities. Major work elements performed by BEST in 2014 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 through the Partners for a Clean Environment (PACE) Program. The team has been providing these services for over 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.

BEST implements a strategic approach to educating, evaluating, tracking, and analyzing the educational outreach and advising provided to businesses. In 2014, BEST implemented the following five strategies with measurable objectives and end goals:

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 offers an evaluation methodology that focuses on the implementation of BMPs, as exhibited by five behavior areas. BEST measures performance in the five behavior areas with a standardized rating system (e.g. Exceeds, Meets, and Needs Improvement). The team also collects information on the barriers that are identified to the 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 evaluate performance 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 2014 scope of work are as follows.

### **Business Advising Strategy**

For over 20 years, BEST has delivered one-on-one educational assistance and outreach on a range of topics, including energy efficiency, water conservation, and waste reduction to businesses in Boulder County. For the past 13 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 2014, businesses receiving advising services were identified by a combination of windshield surveys, tenants of property owners and managers strategically identified as a priority, problems identified in previous year's advising services, and/or determined by the Partner as a priority.

### Business Advising

Partner	Restaurant Advised	Vehicle Service Advised	Fixed Facility Advised
Boulder	34	20	30
Lafayette	10	4	6
Boulder County	9	5	6
Louisville	7	3	4
Erie	7	2	6
Superior	4	1	3
<b>Total</b>	<b>71</b>	<b>35</b>	<b>55</b>

*\*Vehicle services advised for Boulder County are outside the urbanized area and may be within an incorporated community.*

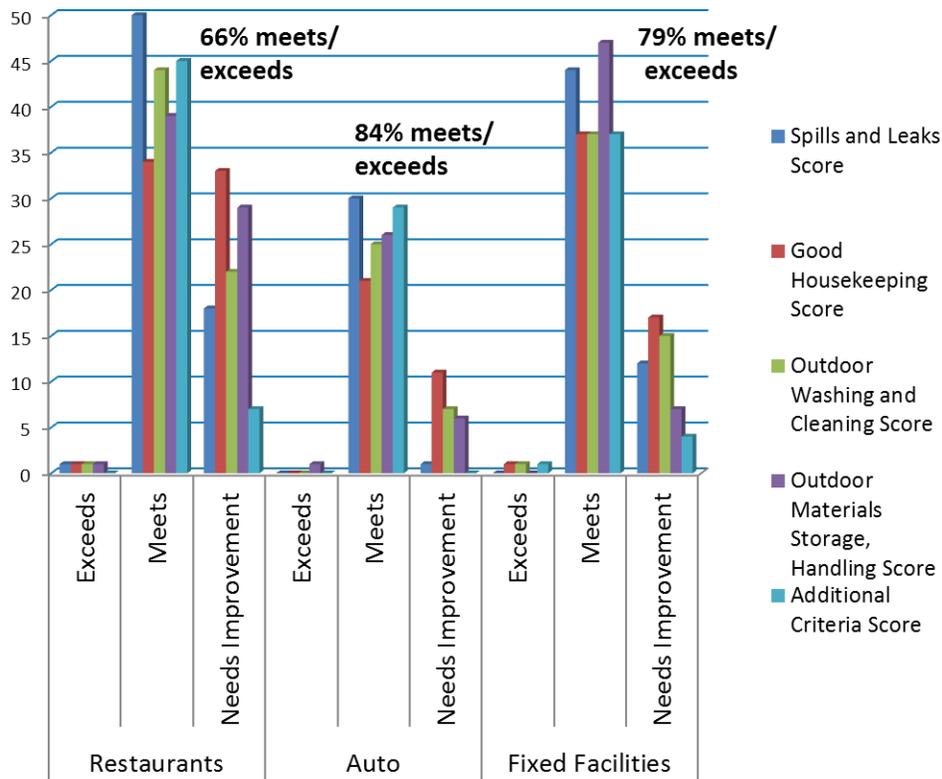
**Results:** As illustrated in the figure below, the majority of businesses met or exceeded the BMPs evaluated in the five behavior areas: 66% of restaurants, 84% of auto, and 79% of fixed facilities met or exceeded each of the areas. In 2014, all three sectors (restaurants, auto, and fixed facilities) demonstrated improved BMP performance than what was identified in 2012 or 2013. Both the auto and fixed facility (retail) sectors exceeded the BEST performance goal of 75%. While this evaluation is not a trend, as it is not comparing the same facilities from year to year, it is an evaluation of the BMPs observed in each sector. In the restaurant sector, the behaviors that were observed as “needs improvement” most frequently were *Good Housekeeping, Outdoor Washing, and Spills and Leaks*.

As indicated, the measurement of success in this strategy is for businesses advised to meet or exceed in 75% of the behavior areas. This goal is being achieved in the auto service (84%) and fixed facilities (79%) sectors.

### Business Advising Performance

		2012	2013	2014
<b>Restaurants</b>	Exceeds/Meets	64%	62%	66%
	Needs Improvement	36%	38%	34%
<b>Auto</b>	Exceeds/Meets	74%	84%	84%
	Needs Improvement	26%	16%	16%
<b>Fixed Facilities</b>	Exceeds/Meets	77%	75%	79%
	Needs Improvement	23%	25%	21%

## Evaluation of Behaviors for Businesses Advising Strategy



Of the businesses needing improvement, common barriers identified were lack of time and lack of training.

Some of the specific barriers include:

1. “Staff is often in a hurry to take trash or grease out to receptacle because it is an unpleasant job.”
2. “I did not realize the grease on the ground would wash into the creek.”
3. “I was not aware that pressure washing water had to be collected.”
4. “We share this dumpster area with other businesses.”

A total of 52 threatened discharges were identified during advising with businesses. All of them were discussed during the advising visit. Eight active discharges were identified during advising visits and were reported to the appropriate KICP community contact.

**Next Steps:** In 2015, BEST will continue to provide advising to businesses in these sectors with an emphasis on the restaurant sector. Businesses will continue to be identified by property owner, windshield surveys, businesses needing follow-up, and new businesses.

### Property Owners and Managers Advising Strategy

Property managers can often have a greater impact on stormwater quality than individual tenants. Property managers are typically responsible for the cleaning of parking areas and building exteriors, providing and maintaining dumpsters, and servicing HVAC (heating, ventilation, and air conditioning) 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.

Based on the successful pilot in 2013, this strategy was continued in 2014. Property owners and managers 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 to maintaining stormwater BMPs, 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 13 property owners and managers.

#### Property Owner and Manager Advising

Partner	Property Owners and Managers Advised
Boulder	4
Lafayette	2
Boulder County	2
Louisville	2
Erie	2
Superior	1
<b>Total</b>	<b>13</b>

**Results:** In 2014, it was found that of the properties evaluated, 37% were meeting or exceeding in the 5 behavior areas; 63% of the businesses that BEST advised had behaviors that needed improvement. *Outdoor Materials Storage and Handling, Good Housekeeping, and Outdoor Washing* were the top three identified behaviors that were observed needing improvement. More specifically, the issues identified most often were overflowing grease containers, dirty dumpster areas, outdoor storage, and issues with contracted services like pressure washing. Often, grease containers were identified as causing issues because they are not serviced frequently enough. In most cases, these services are not provided to tenants as part of their lease agreements, so they become a tenant issue.

Landlords often hire out exterior cleaning, parking lot maintenance, application of salt, landscaping, and waste management services. Three of the property managers spoken with said they were going to call their contractors to ask about dumpster lids, three were going to ask about permanent BMP maintenance, and most wanted to talk about restaurant grease and how to best encourage restaurants to be more careful with their waste. Regarding who their service providers are, many property managers hire facility maintenance operations through a casual partnership with the vendors and so they are reluctant to reveal their names to BEST for follow-up.

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

Overall, property owners and managers were very receptive and eager to partner with BEST advisors on trying to motivate businesses to implement behaviors to protect stormwater. The majority felt the report would help them facilitate compliance with tenants, and three property owners asked for site visits with tenants.

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.

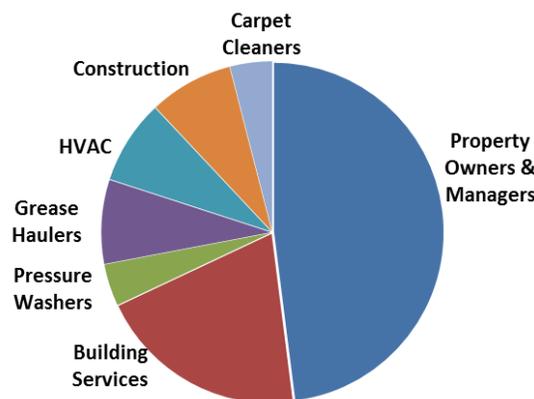
**Next Steps:** In 2015, BEST will continue to implement this strategy as in 2014.

### **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. In alternate years, such as in 2014, contracted service providers are invited to participate in a training which provides a group learning experience and an opportunity to share approaches and address misconceptions or concerns.

**Participant Sectors in the Contracted Service Provider Training**



**Results:** In 2014, the majority of BEST staff time was devoted to developing and conducting training for contracted service providers. The training was held on October 14, and was attended by 25 organizations. Of the attendees, 45% of the participants were property owners/managers. Other participants included construction businesses, pressure washers, HVAC contractors, and waste oil haulers. A post-training survey was developed and emailed out to recipients. The survey indicated that 88% found the training extremely or quite useful. Additionally, about 90% of the respondents said they would recommend the training to a friend or colleague. There was a lively post-training discussion that included topics like landlord/tenant issues, water reclamation and disposal, and acceptable discharges. After the training, several property owners and businesses requested site visits to be done at their properties or with employees. One property manager organized an on-site tenant

training with PACE. Above and beyond the training, BEST provided in-field advising to 15 contracted service providers.

**Next Steps:** In 2015, BEST will provide advising to contracted service providers. Additionally, BEST will leverage relationships with property owners and managers and partners to identify and advise their contracted service providers.

**Windshield Surveys**

The goal of this strategy is to leverage advising being provided through other services that 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.

**Windshield Surveys**

Partner	Surveys
Boulder	82
Lafayette	9
Boulder County	17
Louisville	12
Erie	8
Superior	6
<b>Total</b>	<b>134</b>

**Results:** In 2014, 32 of the 57 identified threatened discharges were identified by windshield surveys, and 31% were followed up with a site visit. The remaining were determined to be either low risk, slated for a follow-up site visit in 2015, or had previous site visit/property owner visit in 2013. An additional 19 threatened discharges were identified during advising visits with businesses. All of these were discussed during the advising visits.

A total of eight active discharges were identified in 2014, 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. In 2014, BEST will improve the service by providing direct follow-up to businesses when issues are identified to close the communication loop more quickly and efficiently.

Many times the issues identified include 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 and education on the spot will be more cost- and time-efficient and effective.

**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 Boulder County Public Health (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 the Food Safety Team to recognize and report illicit discharges.

**Results:** In 2014, BEST developed two fact sheets with BMPs for events – one for coordinators and one for event vendors (at the request of the president of the Erie Chamber of Commerce). BEST advised event coordinators for two events:

- Erie Town Fair
- Ironman, Boulder

Behaviors were evaluated post-event, and follow-up assistance was provided to the event coordinator. Neither event reported any issues that occurred during the event or during post-event cleanup.

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

**Next Steps:** In 2015, BEST will identify two 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 staff of KICP Partners on observing and reporting illicit discharges. This training is provided to field personnel during classroom and/or tailgate sessions.

**Employees Trained**

Partner	Employees
Boulder	144
Lafayette	55
Boulder County	75
Louisville	23
Erie	37
Superior	12
<b>Total</b>	<b>346</b>

**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: \$55,728  
 Actual: \$51,717  
 Unexpended Funds: \$4,011

# 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**

All KICP Partners have construction ordinances in place.

The following table includes hyperlinks to the Partners’ ordinances.

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

**Requirements to Implement Appropriate Erosion Control BMPs**

All KICP Partners’ ordinances require that stormwater management plans meet the requirements of the Colorado Discharge Permit System (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.

### **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 pre-construction 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 2014, KICP offered 2 erosion control certification classes, which were attended by 43 individuals; 11 attended the 4-hour recertification training.

### Individuals Trained

Partner	Individuals
Boulder	9
Lafayette	0
Longmont	10
Boulder County	12
Louisville	3
Erie	10
Superior	0
Other	10
<b>Total</b>	<b>54</b>

### 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 that is more specific to their procedures.

### Budget

Proposed: \$22,495  
Actual: \$20,856  
Unexpended Funds: \$1,639

# 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 non-structural 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.

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

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

## 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.

### Training

In 2014, the KICP began offering the Colorado State University Stormwater Center's two-day training workshop on permanent stormwater BMP inspection and maintenance. The workshop includes approximately 8 hours of presentations/discussion in a classroom setting, a 4 hour field trip and a 2 hour written exam. Individuals who successfully complete the workshop will receive recognition on the CSU Colorado Stormwater Center website.

#### Individuals Trained

Partner	Individuals
Boulder	3
Lafayette	1
Longmont	1
Boulder County	5
Louisville	1
Erie	1
Superior	1
Other	12
<b>Total</b>	<b>25</b>

### Program Changes

None

### Budget

Proposed: \$19,995  
Actual: \$17,731  
Unexpended Funds: \$2,264

# 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 2014.

## Municipal Stormwater Resources

- Created new webpage design and content for PACE Municipal Stormwater resources (<http://pacepartners.com/index.php/municipal-stormwater-operations>).
- Updated website links and contacts on stormwater best management practices (BMPs) and standard operating procedures (SOPs) and posted on <http://pacepartners.com/index.php/municipal-stormwater-operations> for reference.
- Distributed two *Stormwater Newsletters* to +250 municipal employees

## Site Visits at Tier-1 and Tier-2 Municipal Facilities

In 2014, 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 well as 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 2014, 46 site visits were conducted at municipal facilities in the KICP communities. Site visits involved walking around the facilities and performing audits 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. In 2014, 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 2014 to that observed in 2013 and 2012 to develop a performance trend.

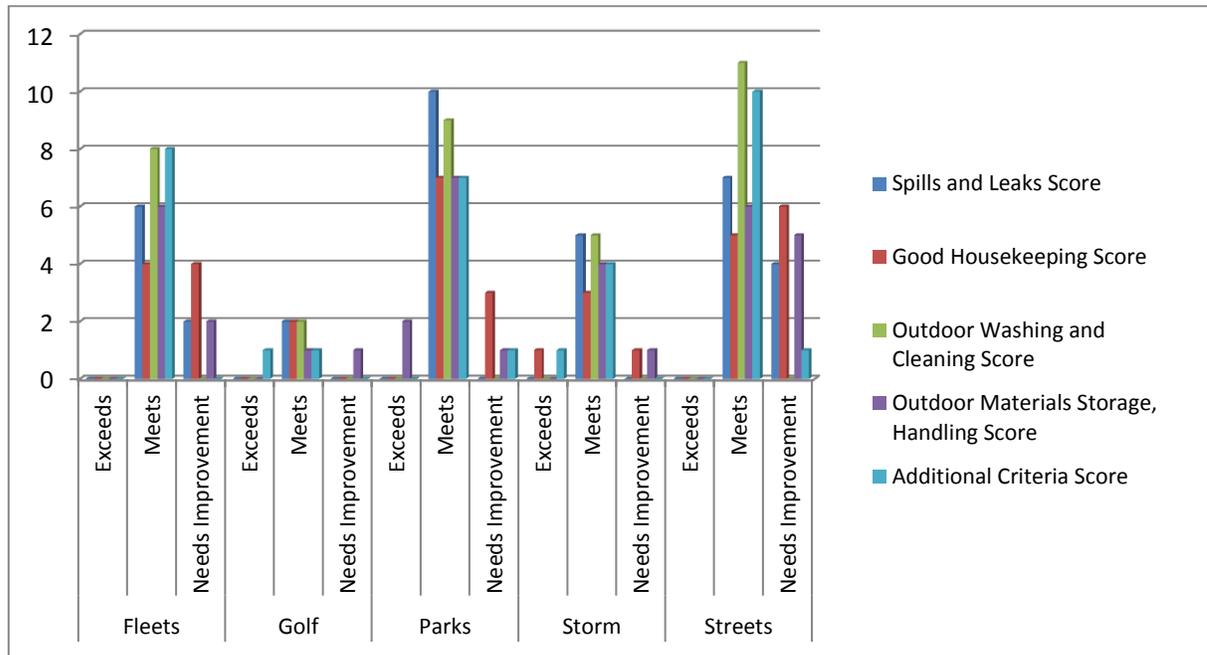
### Tier 1 Facilities Behavior Evaluation

In 2014, operations at Tier 1 facilities showed better implementation of BMPs in the behavior areas. As illustrated in the graph below, 80% of fleets; 90% of golf; 89% of parks; 88% of storm; and 71% of streets facilities met or exceeded performance in the 5 behavior areas. All of these sectors (except fleets) improved in performance in 2014 when compared to 2013; fleets stayed the same from 2013 to 2014. *Good Housekeeping*, *Outdoor Material Storage and Handling*, and *Spills and Leaks*, respectively, were the three behavior areas showing the most room for improvement.

### Municipal Facility Site Visits

Partner	Site Visits
Boulder	16
Lafayette	6
Boulder County	9
Louisville	5
Erie	5
Superior	5
<b>Total</b>	<b>46</b>

### Evaluation of Behaviors at Tier 1 Facilities 2014



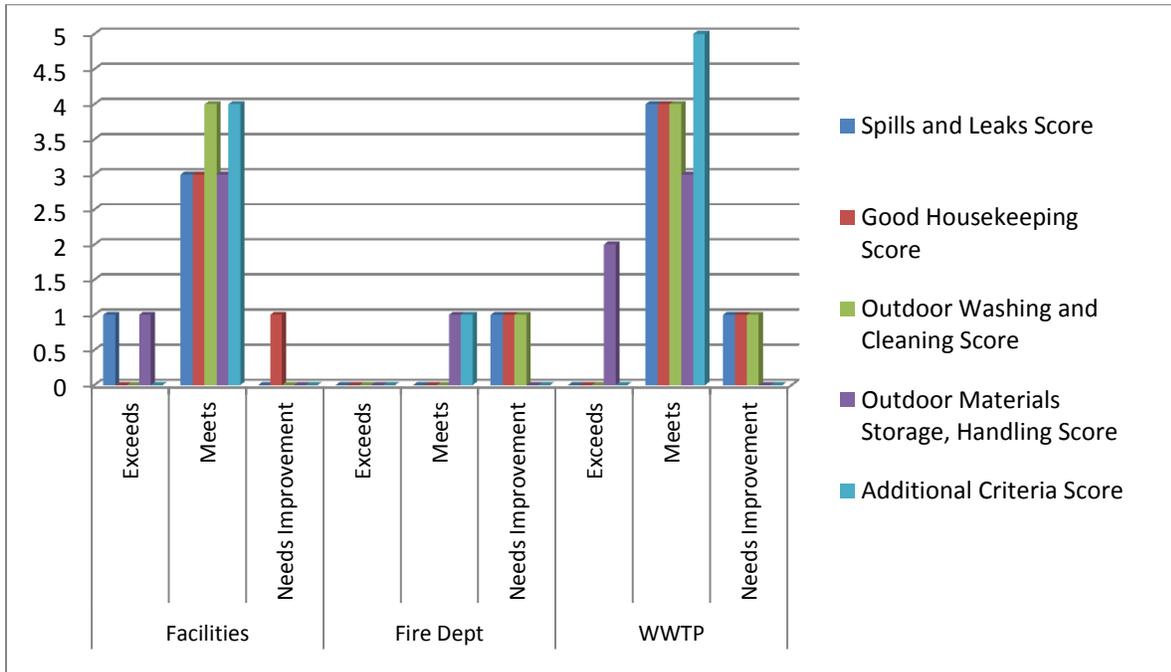
### Behavior Summary of Tier 1 Facilities' Behavior 2012-2014

		2012	2013	% Change 2012-2013	2014	% Change 2013-2014
<b>Fleets</b>	Exceeds/Meets	83%	80%	<b>-3%</b>	80%	<b>0%</b>
	Needs Improvement	17%	20%		20%	
<b>Golf</b>	Exceeds/Meets	54%	61%	<b>7%</b>	90%	<b>+29%</b>
	Needs Improvement	46%	39%		10%	
<b>Parks</b>	Exceeds/Meets	70%	72%	<b>2%</b>	88%	<b>+17%</b>
	Needs Improvement	30%	28%		11%	
<b>Storm</b>	Exceeds/Meets	70%	86%	<b>16%</b>	92%	<b>+8%</b>
	Needs Improvement	30%	14%		8%	
<b>Streets</b>	Exceeds/Meets	63%	68%	<b>5%</b>	71%	<b>+3%</b>
	Needs Improvement	38%	32%		29%	

### Tier 2 Facility Behavior Evaluation

As illustrated in the *Evaluation of Behaviors at Tier 2 Facilities* graph below, municipal facilities showed better performance than in the previous years by meeting or exceeding the 5 behavior areas by 95%. Facility maintenance facilities improved 26% from 2013 to 2014. There was only one fire facility visited in 2014, and it showed room for improvement on the disposal of wastewater from training activities (*Additional Criteria*), and in *Good Housekeeping* and *Spills/Leaks*. There were 4 visits to Wastewater Treatment Plants (88% Exceeds/Meets). *Good Housekeeping*, *Outdoor Washing*, and *Spills and Leaks*, respectively, were the three behavior areas showing the most room for improvement. There were no site visits at water treatment plants or recreation centers in 2014.

**Evaluation of Behaviors at Tier 2 Facilities 2014**



### Trending of Tier 2 Facilities' Behavior

		2012	2013	% Change 2012-2013	2014	% Change 2013-2014
Facilities	Exceeds/Meets	74%	69%	-5%	95%	+26%
	Needs Improvement	26%	31%		5%	
Fire	Exceeds/Meets	100%	80%	-20%	NA*	NA*
	Needs Improvement	0%	20%		NA*	
Rec Centers	Exceeds/Meets	95%	100%	5%	-	-
	Needs Improvement	5%	0%		-	-
WTP	Exceeds/Meets	75%	80%	5%	-	-
	Needs Improvement	25%	20%		-	-
WWTP	Exceeds/Meets	83%	100%	17%	88%	-12%
	Needs Improvement	17%	0%		12%	

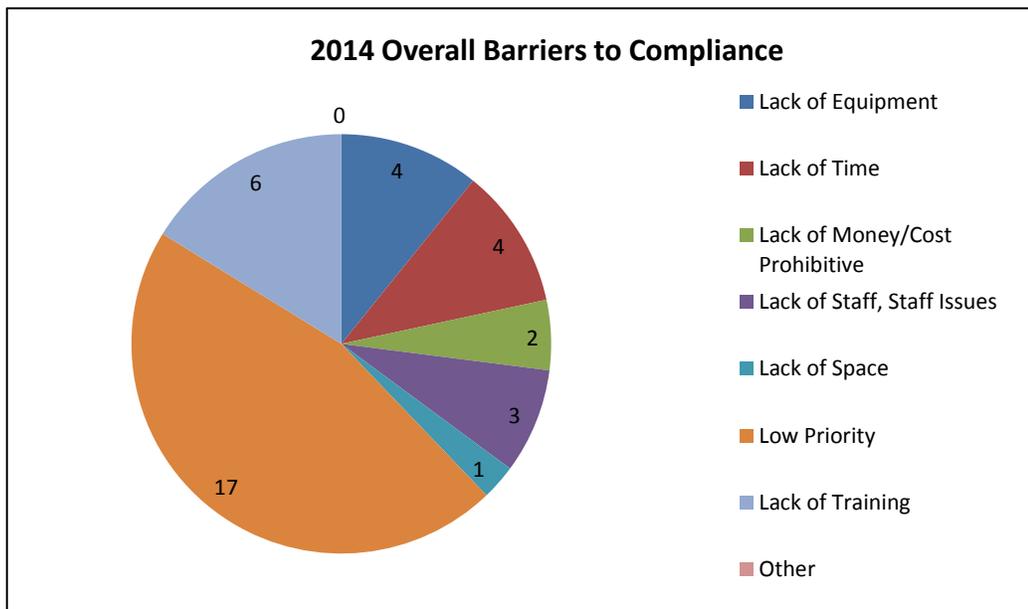
*\*Not enough facilities were evaluated to make this data useful*

**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. Due to the overall improvement in compliance with the behavior areas at Tier 1 facilities, the number of site visits planned for 2015 were reduced to 17. Site visits in 2015 will concentrate on the facilities or behavior areas identified in prior years as needing improvement.

### Overall Barriers to Compliance – All Site Visits

The top three barriers identified to meeting or exceeding behavior areas in 2014 were:

1. Low priority
2. Lack of Training
3. Lack of equipment & Lack of Time (tied)



Comparing barriers identified in 2014 to previous years, “low priority” has been identified as the highest priority in the past two years and was second in 2012. For this reason, as indicated below, the number of trainings being offered by BEST is being reduced to provide more resources for the partners to work with their employees to prioritize stormwater protection.

#### 2013 Barriers

1. Low Priority
2. Lack of Staff
3. Lack of Equipment

#### 2012 Barriers

1. Lack of Staff
2. Low Priority
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 [www.pacepartners.com](http://www.pacepartners.com).

#### **Customized Stormwater Training**

In 2014, 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 2014, customized training was developed for parks maintenance staff on proper application of pesticides, chemicals, paints, deicer, and fertilizers. The training also included education in the proper BMPs specifically for spill cleanup procedures, good housekeeping, and outdoor materials storage and handling. Customized trainings were also developed for facilities maintenance and parking services personnel. These topics were, in part, selected based upon the behavior areas identified as needing improvement in 2013.
2. *Customized Field Training*: This approach brings a stormwater advisor and municipal employees together in the field to observe routine maintenance operations and to provide guidance on stormwater pollution prevention outside of a classroom setting. This ensures that the training is relevant and meaningful to day-to-day operations.

### Employees Trained

Partner	Employees
Boulder	144
Lafayette	55
Boulder County	75
Louisville	23
Erie	37
Superior	12
<b>Total</b>	<b>346</b>

### 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.

### Windshield Survey Hours

Partner	Hours
Boulder	17
Lafayette	5
Boulder County	5
Louisville	3
Erie	3
Superior	2
<b>Total</b>	<b>35</b>

### Active and Threatened Discharges from Municipal Site Visits and Windshields

Partner	Active	Threatened
Boulder	5	6
Longmont	0	0
Lafayette	0	1
Boulder County	0	0
Louisville	0	2
Erie	0	0
Superior	0	0
<b>Total</b>	<b>5</b>	<b>9</b>

Four active discharges were observed during windshield surveys, and one was observed during a site visit. All active discharges were reported to the KICP contact. One active discharge in the City of Boulder was from a leak from construction equipment on a Boulder County property in the city. Six threatened discharges were

observed during windshield surveys, and two were observed during site visits. All of the threatened discharges were reported to the KICP contact and were followed up with education.

**Types of Active and Threatened Discharges:**

- Road construction sediment (5)
- Construction equipment leak (1)
- Grease pit overflow (1)
- Wastewater discharge (3)
- Sediment from municipal yards (2)
- Outdoor storage of liquids (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 are awarded in 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 2014:

- 25 “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.
- Seven \$15 gift certificates were awarded to training attendees for taking the KICP Pledge.

### **Municipal Employee 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 received a printed pledge form to remind them of their pledges and a water bottle or travel mug as a prompt. The employees signed their pledges on a tear-off slip at the bottom, which are then kept by BEST staff for recordkeeping. Community-based social marketing techniques were utilized to change employee behavior. Incentives, such as gift certificates, stickers, water bottles and 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 2014:

- 313 employees signed the *Keep It Clean Pledge*, pledging to reduce stormwater pollution.
- 98 “Protect Storm Drains” stickers were distributed during trainings and site visits.
- 63 “Keep It Clean” static-cling window decals were distributed during trainings and site visits.
- 160 “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 250 employees. In 2014, PACE redesigned the newsletters and distributed them via [www.ConstantContact.com](http://www.ConstantContact.com).

In 2014, two newsletters were distributed:

- Summer Newsletter – 39% opened
- Winter Newsletter – 43% opened

### **Budget**

Proposed:	\$44,942
Actual:	\$43,550
Unexpended Funds:	\$1,392

# 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.

# Partner Contact Information

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## Town of Superior

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