



**Public Health**  
Environmental Health Division

February 16, 2017

Colorado Department of Public Health and Environment (CDPHE)  
ATTN: Nathan Moore  
Water Quality Control Division, WQCD – P-B2  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

Certified Mail – 7016 0340 0000 0607 1474

**RE: Permit Certification No. COR-090020, Boulder County – 2016 Annual Report (MS4)**

Dear Mr. Moore:

Please find enclosed Boulder County's completed 2016 Annual Report for Municipal Separate Storm Sewer System (MS4) general permit (Certification No. COR – 090020). The Annual Report was completed in accordance with Part I.I.1.b of the current MS4 Permit, and Part I.F of the previous MS4 Permit.

Per your guidance email (dated 1/11/17 from Nathan Moore, Clean Water Compliance Unit Manager), Part 7.D of the annual report form may be left blank for reporting years 2016 and 2017. Since the compliance deadlines have not yet passed for this and other program components, Boulder County is leaving the following blank: Parts 7.D.iii through 7.D.v, Parts 7.F.ii through 7.F.v, and Parts 7.G.ii through 7.G.iv.

Also included is a second memorandum that is being submitted to you for *E. coli* TMDL annual reporting regarding a portion of Boulder Creek Segment 2b in accordance with Part III.A.2 of the MS4 Permit.

Please contact me at 303-441-1157 if you have any questions concerning the report or Boulder County stormwater quality.

Sincerely,

*Scott Coulson*  
Scott Coulson, CFM  
Stormwater Quality Program

cc: Erin Dodge, Boulder County  
MS4 Permit file

Environmental Health  
www.BoulderCountyHealth.com

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>		<p><b>COPIES RECEIVED</b></p> <p><b>FEB 23 2017 9:46 AM</b></p> <p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>2016 AR</i> C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</p>	
<p><b>CDPHE</b> <b>Attn: Nathan Moore</b> <b>WQCD- P-B2</b> <b>4300 Cherry Creek Dr. South</b> <b>Denver, CO 80246-1530</b></p> <p>9590 9403 0595 5183 2770 10</p>		<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input checked="" type="checkbox"/> Certified Mail Restricted Delivery <input checked="" type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Signature Confirmation Restricted Delivery (over \$500)</p>	
<p>2. Article Number (Transfer from service label)</p> <p>7016 0340 0000 0607 1474</p>			

# BUSINESS MEETING ITEM COVER SHEET

DEPARTMENT Public Health

DIVISION Water Quality

TITLE Colorado Department of Public Health & Environment reports  
(Municipal Separate Storm Sewer System (MS4) Permit –  
2016 Annual Report and E. coli Total Maximum Daily Load  
(TMDL) reporting required under Part III of the MS4 Permit)

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DOCUMENT TYPE Other

SUBTYPE Annual Reporting

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BUSINESS MEETING DATE 02/16/17

COMMISSIONERS' ACTION



Approved



Denied



Other

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ORIGINAL(S) RETURNED TO Scott Coulson

AGENDA ITEM NUMBER

2a/b

COMMENTS



## Public Health

Environmental Health Division

### MEMORANDUM

TO: Board of County Commissioners

FROM: Scott Coulson, Stormwater Quality Program Manager

DATE: February 10, 2017

SUBJECT: Boulder County's Municipal Separate Storm Sewer System (MS4) Permit – 2016 Annual Report

As the legal contact for the MS4 Permit, part of the Board of County Commissioners' role is to sign the county's regulatory submittals to the Colorado Department of Public Health and Environment (CDPHE). Boulder County Public Health prepared the enclosed Annual Report submittal needing your signature. The Annual Report was completed in accordance with Part I.I.1.b of the current MS4 Permit, and Part I.F of the previous MS4 Permit.

Therefore, in conducting its duties in overall stormwater quality program administration, Boulder County Public Health requests that the Chair of the Board of County Commissioners sign the enclosed Annual Report form and memorandum for submittal to CDPHE. Because the legal contact is the county entity that is legally responsible for compliance with the MS4 Permit, all regulatory submittals must include the certification statement found in the signature block of the enclosures.

Respectfully,

A handwritten signature in blue ink, appearing to read "Scott Coulson".

Scott Coulson, CFM  
Stormwater Quality Program Mgr.

cc: MS4 Permit file



Dedicated to protecting and improving the health and environment of the people of Colorado

## COR080000 and COR090000 Renewal Permittees Annual Report Form

**Municipal Separate Storm Sewer Systems (MS4s) General Permits** 2016 Reporting Period Only

<b>Part 1: Permit Identification</b>  General Permit Number: <b>COR090000</b> or <b>COR080000</b> Certification Number: COR <u>090020</u>	<b>Part B: Reporting Period Jan 1 through Dec 31</b> (Check one. Report is due by March 10 of the following year.) <input checked="" type="checkbox"/> 2016 <input type="checkbox"/> 2017 <input type="checkbox"/> 2018 <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input type="checkbox"/> 2021
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**Part 2: Permittee Information** (If there are any changes, please submit a [Change of Contacts form](#))

Organization: Boulder County

Mailing Address: Board of County Commissioners  
P.O. Box 471

City: Boulder State: CO Zip: 80306

**Part 3: Site Contact Information** (If there are any changes, please submit a [Change of Contacts form](#))

Facility Contact Name: Scott Coulson  
 Title: Stormwater Quality Program Manager  
 Telephone No: 303-441-1157  
 Email Address: scoulson@bouldercounty.org

**Part 4: Facility Information**

Have any areas been added or removed from the permit area due to annexation or other legal means?  
 YES     NO

If YES, provide the web address for an online map, below, or check “attached” below and **attach an updated map** labeled as “Part 4” that identifies the jurisdictional boundaries.

Provide the map’s web address or indicate if a map is attached (if applicable):     Attached

\_\_\_\_\_

**Part 5: Notice of Reliance on Third Party**

Is the permittee relying on another entity to satisfy any of the permit obligations (if applicable) that has not been reported to the division in a previous report or permit application (including reports under previous permit terms).     YES     NO

If YES, **attach a short narrative** labeled as “Part 5” identifying the permit requirement and the entity relied on.





<i>Reporting for 1/1/2016 - 6/30/2016</i>	
<b>6.B) CONTINUED - Program Area 4: Construction Site Runoff Control</b>	
<b>Enforcement:</b> Provide the number of enforcement actions performed to address violations of the permittee's Construction Sites Program, by category. If multiple distinct actions were taken as part of an escalation process, count each action separately.	<b>Number of Actions</b>
<b>Monetary Penalty/Fine:</b> include the number of enforcement actions, not a dollar amount	0
<b>Stop Work Order</b>	0
<b>Written Notification of Violation</b>	0
<b>Verbal Notification of Violation</b>	1
<b>Withholding of Permits:</b> E.g., building permits, tap permits, etc.	0
<b>Work Performed by Permittee or Permittee's Contractor and Responsible Party Charged/Bond Withheld:</b> Include the number of enforcement actions, not a dollar amount)	0
<b>Other:</b> If a predefined category is not included above for enforcement tool(s) used, provide a description of the tool(s) and associated number(s) of actions below.	
1. _____	1.
2. _____	2.
3. _____	3.
If additional rows needed, check "attached" and <b>attach the information</b> labeled as "PART 6.B - Enforcement Tools." <input type="checkbox"/> Attached	

<i>Reporting for 1/1/2016 - 6/30/2016</i>	
<b>6.C) Program Area 5: Post-Construction Stormwater Management</b>	
<b>NEW BMPS - Summary Information for the Year:</b> Provide information for the number of BMPs implemented during the reporting period.	<b>Number of BMPs</b>
<b>Number of BMPs:</b> Total number of individual permanent water quality BMPs implemented during the reporting period* in accordance with permittee's Post-Construction Program.  *Note that this reporting requirement differs from the requirement for the current permit term reported in 7.G.i, below. For this row: report the number of individual BMPs required during the period of 1/1/2016-6/30/2016. For row 7.G.i, below: report the number of development sites for which control measures were implemented during the period of 7/1/2016-12/31/2016.	0
<b>ALL EXISTING BMPS - Information for all BMPs since the full implementation of this program area</b> (no later than March 9, 2008). This may include sites with multiple individual BMPs: Provide the total number of BMPs in the permittee's Post-Construction Program.	<b>Number of BMPs</b>
<b>Number of BMPs:</b> Total number of individual permanent water quality BMPs implemented in accordance with permittee's Post-Construction Program since the full implementation of this program area [as of 6/30/2016].	10
<b>INSPECTIONS - Information for all BMPs since the full implementation of this program area</b> (no later than March 9, 2008). Inspections reported are those completed by the MS4 permittee or authorized agent.	<b>Number Inspected/ Inspections</b>
<b>Number of BMPs Inspected:</b> Total number of individual permanent water quality BMP structures inspected to ensure compliance with long term operation and maintenance requirements of the permittee's Post-Construction Program.	3
<b>Number of BMP Inspections:</b> Total number of inspections of permanent water quality BMPs to ensure compliance with long term operation and maintenance requirements of the permittee's Post-Construction Program.	3



**6.C) CONTINUED - Program Area 5: Post-Construction Stormwater Management**

<b>Enforcement:</b> Provide the number of enforcement actions performed to address violations of the permittee’s Post-Construction Management program, by category. If multiple distinct actions were taken as part of an escalation process, count each action separately. Include actions associated with installation AND long term operation.	<b>Number of Actions</b>
Monetary Penalty/Fine (include the number of enforcement actions, not a dollar amount)	0
Stop Work Order	0
Written Notification of Violation	0
Verbal Notification of Violation	0
Withholding of Permits (e.g., building, tap, occupancy, etc.)	0
Work Performed by Permittee or Permittee’s Contractor and Responsible Party/Bond Withheld (include the number of enforcement actions, not a dollar amount)	0
Other (If a category is not included above for enforcement tool(s) used, provide a description of the tool(s) and associated number(s) of actions below.)	
1. _____	1.
2. _____	2.
3. _____	3.
(If additional rows needed, check “attached” and <b>attach the information</b> labeled as “PART 6.C - Enforcement Tools.” <input type="checkbox"/> Attached	



## Part 7: Reporting for 7/1/2016 - 12/31/2016 - Current Permit Term

Reporting for 7/1/2016 - 12/31/2016

### 7.A) Compliance Schedule = required Annual Report Notifications

For all compliance schedule actions completed by January 1 of the year the report is due (including those actions completed prior to the reporting period), identify the date of completion. Refer to Part I.H of the permit.

**Only complete those rows for which the deadline was met during the reporting period.**

This table reflects all compliance schedule items for the permit term, which includes permit conditions that do not need to be met during the current reporting period.

Permit Condition	Action	Deliverable	Deadline	Date of Completion/Implementation
I.A.3.a.ii(B)	County growth area maps (Part I.A.3.a.ii(B)) - Completed January 1, 2017 Refer to Part I.H of the permit, not a required element for reporting in the annual report.			
I.C.1, and PDD content requirements in Parts I.D and E	Complete PDD (contents must reflect terms and conditions that are in effect, i.e., following the associated compliance schedule deadline)	Notification in annual report Due March 10, 2019	Completed January 1, 2019	
I.E.2.a.ii,iii,v I.E.3.a.ii,iii I.E.4.a.ii,iii	Complete all applicable changes to the regulatory mechanism(s): Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.1.a.i	Illicit Discharges: Begin providing information targeting business(es) and the general public	Notification in annual report Due March 10, 2019	Begin implementation July 1, 2018	
I.E.1.a.ii	Education and Outreach Activities: Begin providing annual public education and outreach from Table 1.	Notification in annual report Due March 10, 2019	Begin implementation January 1, 2018	
I.E.1.a.iii(A)	Nutrients: Determine targeted sources of nutrients.	Notification and list of targeted sources in annual report Due March 10, 2018 <b>Attach List to March 10, 2018 Annual Report following completion, labeled as "PART 7.A - Nutrient Targets"</b>	Completed January 1, 2018	
I.E.1.a.iii(B)	Nutrients: Begin providing education and outreach to the targeted sources	Notification in annual report Due March 10, 2019	Begin implementation July 1, 2018	
I.E.2.a.iv(A) and (B)	Tracing an Illicit Discharge: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	
I.E.2.a.vi	Removing an Illicit Discharge, Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	
I.E.2.a.viii	Priority Areas: Identify any new priority areas	Notification in annual report Due March 10, 2018	Completed January 1, 2018	
I.E.2.b.vi	Removing and Illicit Discharge: Ensure documentation is recorded.	Notification in annual report Due March 10, 2018	Completed January 1, 2018	
I.E.3.	Begin implementing the permittee's current construction sites program in the county growth areas.	Notification in annual report Due March 10, 2020	Completed January 1, 2019	
I.E.3.a.i	Excluded Activities for County Growth Areas: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	



**7.A) CONTINUED: Compliance Schedule = required Annual Report Notifications**

<b>Permit Condition</b>	<b>Action</b>	<b>Deliverable</b>	<b>Deadline</b>	<b>Date of Completion/ Implementation</b>
I.E.3.a.iv	Control Measure Requirements: Ensure control measure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.3.a.v(B) through (C)	Site Plans: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.3.a.vi(B) through (E)	Site Inspection: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.3.a.vii(B)	Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.3.b.vi	Site Inspection: Ensure requirements are met; revise implementation and documentation if necessary, ensure documentation is recorded.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.4.	Begin implementing the permittee's current post- construction sites program in the county growth areas.	Notification in annual report Due March 10, 2020	Completed January 1, 2019	
I.E.4.a.i	Excluded Sites: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.4.a.iv	Control Measure Requirements: Ensure new control measures meet one of the design standards	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.4.a.v	Site Plans: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.4.a.vi and vii	Construction Inspection and Acceptance and Post Acceptance Oversight: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.4.a.viii	Enforcement Response: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.5.a.ii	Municipal Facility Runoff Control Measures: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in Annual report Due March 10, 2018	Completed July 1, 2017	
I.E.5.a.ii(C)	Municipal Facility Runoff Control Measures: Ensure inspection requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	
I.E.5.a.iv	Nutrient Source Reductions: Ensure requirements are met; revise implementation and documentation if necessary.	Notification in annual report Due March 10, 2021	Completed July 1, 2020	
I.E.5.a.v.	Outdoor Bulk Storage	Notification in annual report Due March 10, 2022	Completed July 1, 2021	
I.E.5.b.i	Municipal Facility Runoff Control Measures: Ensure documentation is recorded.	Notification in annual report Due March 10, 2020	Completed July 1, 2019	



### 7.C) Assessment and Modifications

**i. The results of the assessment of the effectiveness of the control measures.**

Provide a narrative based on the assessment required in Part I.G.1.b of the Permit. The permit does not identify the scope or scale of information required beyond this information, the permittee may determine the extent and nature of information provided to meet this requirement.

Provide information below, or check “attached” and **attach the information** labeled as “PART 7.C.i”

Attached

Boulder County has assessed the implementation of the control measures required by the permit and found the county to be in compliance with the requirements in Part I.E and III, and compliance schedules in Part I.H of the permit. It is Boulder County’s understanding that the implementation of control measures consistent with the requirements of the permit constitutes an effective method to achieve the effluent limits of the permit.

**ii. The results of the permit modification assessment and if any parts of this permit need to be modified or a condition of the permit may not be practicable.**

Provide a narrative based on the assessment required in Part I.G.1.c of the Permit. The permit does not identify the scope or scale of information required beyond this information, the permittee may determine the extent and nature of information provided to meet this requirement.

Provide information below, or check “attached” and **attach the information** labeled as “PART 7.C.ii”

Attached

Boulder County has assessed the permit and did not identify any permit modifications that may be needed.



**7.D) Program Elements - Public Education and Outreach (Part I.E.1)**

**iii. List of the education and outreach activities completed in accordance with Part I.E.1.a.i. - Illicit Discharges Education and Outreach.**

Provide list below.

Per guidance email (dated 1/11/17) from Nathan Moore, Clean Water Compliance Unit Manager, Part 7.D of the annual report form may be left blank for reporting years 2016 and 2017. Since the compliance deadlines have not yet passed for this and other program components, Boulder County is leaving the following blank: Parts 7.D.iii through 7.D.v, Parts 7.F.ii through 7.F.v, and Parts 7.G.ii through 7.G.iv.

**iv. List of the education and outreach activities completed in accordance with Part I.E.1.a.ii. - Education and Outreach Activities Table, referencing the activities in Table 1 of the Permit.**

The permittee must implement at least four education and outreach activities (bulleted items) and at least two must be from the Active and Interactive Outreach column. Check those activities conducted in the table below.

**Passive Activity**

Check all activities implemented during report year

- Bus shelter/bench advertisement
- Billboard/dasher board advertisement
- Vehicle/bus advertisement
- Radio/television/movie theater advertisement
- Newspaper advertisement
- Distribute educational materials by brochure
- Distribute educational materials by fact sheet
- Distribute educational material by utility bill insert
- Publish article (hard copy or electronic)
- Storm drain marking by permittee staff that maintains 25% of permittee maintained inlets.
- Stormwater related signage
- Web site

**Active and Interactive Outreach Activity**

Check all activities implemented during report year

- Ongoing advertisement/promotion of a stormwater hotline number or other method to report an illicit discharge
- Ongoing advertisement/promotion on how to get more information about the stormwater program
- Ongoing social media program
- Web site that is interactive or contains stormwater information that includes actions that can be taken to reduce stormwater pollution
- Newsletter (hard copy or electronic)
- Promotion of existing local stormwater/environmental events or program that help protect water quality
- Distribute promotional items or giveaways
- Participate in or sponsor a water festival which involves populations that exist within the permit boundary
- Participate in or sponsor a waterway clean-up and trash removal event
- Participate in or sponsor a service project
- Participate in or sponsor a stormwater or environmental presentation
- Participate in or sponsor a stormwater or environmental event
- Participate in or sponsor community project based programs that investigate watershed health and meet applicable school Science, Technology, Engineering and Math (STEM) standards

*Continued on Next Page*



**Active and Interactive Outreach Activity Column,  
Continued**

- Participate in or sponsor a household hazardous waste event
- Participate in or sponsor an Adopt-a-Street program
- Participate in or sponsor an Adopt-a-Waterway program
- Participate in or sponsor an Adopt-a-Storm Drain program
- Provide ongoing access to motor vehicle fluids recycling program
- Stormwater booth at a community event
- Conduct a stormwater survey
- Storm drain marking program performed by the public/community
- Pet waste stations
- Participate in, plan, or present stormwater materials to schools
- Stormwater demonstration projects that show control measures or other pollutant reduction methods

**v. A list of the education and outreach activities completed in accordance with Part I.E. 1.a.iii. - nutrients and targeted sources**

Provide list below, including the pollutant sources targeted for each activity.



**7.E) Program Elements - Illicit Discharge Detection and Elimination**

**vi. Provide the total number of unresolved reports/identification of illicit discharges.**  
 An unresolved illicit discharge is one that has been identified or reported to the permittee and the requirements for removing the illicit discharge were not met during the reporting period. Refer to requirements for removing an illicit discharge in Part I.E.2.a.vi of the new permit. For the period prior to implementing a program to meet Part I.E.2.a.vi in accordance with the compliance schedule, refer to the permittee’s CDPS Stormwater Management Program Description from the previous permit term.

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**7.F) Program Elements - Construction Sites**

The permittee can define what constitutes an individual “site” and “inspection” for reporting below as appropriate for the permittee’s own program.

**i. Applicable construction sites:** Provide the total number of applicable construction sites during the year.  
 “Applicable construction sites” are sites for which “applicable construction activities,” as defined in the permit, occurred during the reporting year.\*  
 \*For this Part, provide only those sites active during the reporting period (7/1/2016 - 12/31/2016). Note that sites active during the period 1/1/2016-6/30/2016 must be reported in Part 6.B. Sites active during both periods must be reported in both Parts.

17

**ii. \*Routine Inspections:** Provide the total number of Routine Inspections performed during the year.  
 Routine Inspections are inspections of applicable construction activities that meet the inspection scope requirements in Part I.E.3.a.vi(C) and for which documentation is recorded in accordance with in Part I.E.3.b.vi.  
 \*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.

**iii. \*Reduced Site Inspections:** Provide the total number of Reduced Site Inspections performed during the year.  
 Reduced Site Inspections are inspections of applicable construction activities that meet the inspection scope requirements in Part I.E.3.a.vi(D)(1), (2), (3) and (4) for which documentation is recorded in accordance with in Part I.E.3.b.vi.  
 \*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.

**iv. \*Compliance Inspections:** Provide the total number of Compliance Inspections performed during the year.  
 Compliance Inspections are inspections, operator reporting, or other action(s) to assess the control measure has been implemented or corrected of applicable construction activities that meet the inspection scope requirements in Part I.E.3.a.vi(E) and for which documentation is recorded in accordance with in Part I.E.3.b.vi.  
 \*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.

**v. COUNTY PERMITTEES ONLY**  
**\*County Growth Area Excluded Construction:** Where any construction activities excluded from being applicable construction activities in accordance with Part I.E.3.a.i(B) (1) or (2)?  YES  NO  
 If YES, **attach** a list of the excluded construction sites. Include recordkeeping information required by Part I.E.3.b.i. Label the attachment as “Part 7.F.v Excluded Growth Area Construction.”

\*Not required prior to the January 1, 2019 deadline for implementing in growth areas.



**7.G) Program Elements - Post-Construction Stormwater Management in New Development and Redevelopment Program**

The permittee can define what constitutes an individual "site" and "control measure" for reporting below as appropriate for the permittee's own program.

<p><b>i. Applicable development sites:</b> Provide the total number of applicable development sites for which control measures were implemented during the reporting period</p> <p>Note that this reporting requirement differs from the requirement from the previous permit term reported in 6.C, above. For this row: report the number of development sites for which control measures were implemented during the period of 7/1/2016-12/31/2016. For Part 6.C above, report the number of new individual BMPs required during the period of 1/1/2016-6/30/2016.</p>	0
<p><b>ii. *Long-Term Operation and Maintenance and Post Acceptance Oversight:</b> Provide the total number of applicable development sites and control measures inspected to ensure compliance with the requirement in Part I.E.4.a.vii.</p> <p><b>*Not required prior to the July 1, 2019 deadline for conducting inspections in accordance with Part I.E.4.a.vii.</b></p>	
<p><b>iii. *Excluded Roadway Development Sites:</b> Where any development excluded from being an applicable development site in accordance with the following permit conditions?</p> <p>Pavement Management: Part I.E.4.a.i(A), except maintenance sites      <input type="checkbox"/> YES      <input type="checkbox"/> NO          Roadway Redevelopment: Part I.E.4.a.i(B)      <input type="checkbox"/> YES      <input type="checkbox"/> NO          Existing Roadway Areas Part I.E.4.a.i(C)      <input type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If YES to one or more of the above, <b>attach</b> a list of the excluded development sites, identifying which exclusion applied. Include the recordkeeping information required by I.E.4.b.ii. Label the attachment as "Part 7.G.iii Excluded Roadway Development."</p> <p><b>*Not required prior to the July 1, 2019 deadline for implementing control measure in accordance with I.E.4.a.iv and exclusion requirements in accordance with I.E.4.a.i</b></p>	
<p><b>iv. COUNTY PERMITTEES ONLY</b></p> <p><b>*County Growth Area Excluded Development Sites:</b> Where any developments excluded from being applicable development sites in accordance with Part I.E.4.a.i (G)(1)?      <input type="checkbox"/> YES      <input type="checkbox"/> NO</p> <p>If YES, <b>attach</b> a list of the excluded development sites. Include the recordkeeping information required by I.E.4.a.i (G)(1). Label the attachment as "Part 7.G.iv Excluded Growth Area Development."</p> <p><b>*Not required prior to the January 1, 2019 deadline for implementing in growth areas.</b></p>	

**Part 8: Required Certification Signature [Reg 61.4(1)(h)]**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

<p>Name (Legal Contact): Deb Gardner</p>	<p>Title: Chair, Board of County Commissioners</p>
<p>Signature (Original Ink Signature): </p>	<p>Date signed: 02/16/2017</p>





## Public Health

Environmental Health Division

TO: Nathan Moore, Colorado Department of Public Health and Environment (CDPHE)

FROM: Boulder County Board of County Commissioners (BOCC)

DATE: February 16, 2017

PREPARED BY: Scott Coulson, Stormwater Quality Program Manager, Boulder County Public Health (BCPH)

RE: Permit Certification No. COR-090020, Boulder County MS4 – TMDL annual reporting required under Part III for July 1, 2016, to December 31, 2016

Certified Mail No.: 7016 0340 0000 0607 1474

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Total Maximum Daily Load (TMDL) implementation requirements are now integrated into the Phase II Municipal Separate Storm Sewer System (MS4) Permit (No. COR-090000) that became effective July 1, 2016. This memorandum is being submitted to you for *E. coli* TMDL annual reporting regarding a portion of Boulder Creek Segment 2b (hereinafter referred to as *E. coli* TMDL segment) in accordance with Part III.A.2 of the MS4 Permit.

Boulder County proposes using contemporary methods (as described in paragraph five below) to better understand the county's contributing drainage area to the *E. coli* TMDL segment. The *Colorado E. coli Toolbox: A Practical Guide for Colorado MS4s* (2016, hereinafter referred to as the Colorado *E. coli* Toolbox) explains that the initial starting point for effective *E. coli* load reduction is developing a reasonable understanding of the sources of *E. coli* in the watershed, as well as understanding sources of flows transporting *E. coli* to the Boulder Creek receiving water.

Boulder County conducted a preliminary desktop analysis of the land within county jurisdiction located along the *E. coli* TMDL segment (approximately 0.72 stream miles). Based on this analysis, we identified two land developments within the 2010 U.S. Census Urbanized Area (hereinafter, 2010 UA). The land developments include the San Lazaro Mobile Home Park (28.79 acres) and a light industrial/commercial area to the southeast (9.45 acres). The total area of these land developments in the 2010 UA and unincorporated county jurisdiction along the *E. coli* TMDL segment is 38.24 acres. The mobile home park has central sewer service provided by the San Lazaro Wastewater Treatment Facility, and the industrial/commercial area is connected to public sewer service provided by the City of Boulder. The San Lazaro Wastewater Treatment Facility is outside the 2010 UA and has been assigned its own wasteload allocation (WLA).

The majority of the remaining land in county jurisdiction is owned and operated by City of Boulder Open Space and Mountain Parks (OSMP) and is protected as a riparian area from future development. This OSMP land has restricted access, and the county believes that the risk of gastrointestinal illness is low due to the lack of public recreation at this location.

Boulder County's intent is to conduct a geographic information systems (GIS) analysis to better determine what actions the county can take to reduce *E. coli* loading. As a result, in January 2017 Boulder County hired a consultant who is tasked with delineating the county's contributing drainage area to the *E. coli* TMDL segment (and contributing drainage area regulated by the MS4 permit) and directional storm drainage patterns based on best available technology (e.g., GIS). Due to the 2013 flood and complex hydraulics associated with this stream reach that is near the South Boulder Creek confluence, it is anticipated that some level of stream realignment and overland drainage alteration has occurred since the 2011 TMDL was developed. We now have high-resolution Light detection and ranging (LiDAR) data and the county's consultant plans to use the technology for increased accuracy in this delineation task.

In addition, Boulder County is a member of the Keep it Clean Partnership (KICP), which recently developed a Clean Water Act (CWA) Section 319 watershed management plan (319 plan) that includes Boulder Creek, and a coordinated monitoring plan for the larger St. Vrain Creek. While this 319 plan provides the county and other KICP watershed stakeholders with a path to address *E. coli* as a non-point source, Boulder County intends to assess whether we can integrate our point source and 319 plan non-point source strategies in a holistic manner.

**Part III.A.2.a. For the first annual report only: A description of all control measures planned by the permittee to reduce the discharge of *E. coli* to COSPBO02 from 13<sup>th</sup> Street to South Boulder Creek, including specific target dates for implementation.**

For this first annual report, Boulder County is primarily using Table III.A.2.a to describe planned assessment activities. Effectively targeting source control measures requires substantial information about the land use and activities in the county's contributing drainage area to the *E. coli* TMDL segment. Obtaining this information will allow the county to identify likely *E. coli* sources and associated transport pathways to Boulder Creek. Once more is known, the county intends to include additional information in subsequent annual reports, basically updating Table III.A.2.a for additional planned control measures as part of adaptive management and also reporting on implemented control measures under Part III.A.2.b.

**Table III.A.2.a. Control measures planned by Boulder County to reduce *E. coli* to COSPBO02**

<b>Reporting Year 1 (2016)</b>			
<b>Number</b>	<b>Name</b>	<b>Description/Notes</b>	<b>Tentative Implementation Target Date</b>
1	Drainage area delineation	Delineate the contributing drainage area to the <i>E. coli</i> TMDL segment (and contributing drainage area regulated by the MS4 permit) based on best available technology.	August 2017
2	GIS analysis of land use	GIS desktop analysis to assess land use and potential pollutant sources (parcel-level) in contributing drainage area.	August 2017
3	Onsite identification of potential pollutant sources	Walk stream section from the South Boulder Creek confluence upstream to 55 <sup>th</sup> Street. Assess this section for the potential pollutant sources listed in the Colorado <i>E. coli</i> Toolbox (Table 2, p. 15)	December 2017
4	Assess point source and non-point source integration	Assess feasibility of integrating our point source and 319 plan non-point source strategies in a holistic manner	May 2018
5	Continue participation in KICP on the "Doo Good" pet waste outreach program	The "Doo Good" pet waste campaign was revised in 2014 and has been ongoing ever since. More information is available on the KICP website: <a href="http://www.keepitcleanpartnership.org/pollution-prevention/scoop-the-poop/">http://www.keepitcleanpartnership.org/pollution-prevention/scoop-the-poop/</a>	Ongoing
6	Distribute bacteria reduction information	Distribute bacteria reduction information to residential or business areas identified as a potential pollutant source. Sample fact sheet available on the KICP website: <a href="http://www.keepitcleanpartnership.org/wp-content/uploads/pdfs/FINAL_Ecoli_FactsheettoWeb.pdf">http://www.keepitcleanpartnership.org/wp-content/uploads/pdfs/FINAL_Ecoli_FactsheettoWeb.pdf</a>	June 2019

Number	Name	Description/Notes	Tentative Implementation Target Date
7	Post-construction stormwater management controls	Require post-construction stormwater management controls for applicable development sites in the contributing area to the <i>E. coli</i> TMDL segment. The Boulder County Storm Drainage Criteria Manual (SDCM) has been updated and became effective in November 2016. Section 1204.2 of the SDCM requires BMP selection based on effectiveness at treating the pollutants of concern using data from the International Stormwater BMP database.	July 1, 2019 to be consistent with the compliance schedule deadline for base design standard

**Part III.A.2.b. A description of all control measures implemented by the permittee to reduce the discharge of *E. coli* to COSPBO02 from 13<sup>th</sup> Street to South Boulder Creek. The first annual report shall include information on control measures implemented prior to the effective date of the permit.**

Prior to the TMDL implementation requirements that have been integrated into the Phase II MS4 Permit (effective July 1, 2016), Boulder County worked on select recommendations listed in the TMDL report and the development of the 319 plan. As a member of KICP, Boulder County first actively participated in a robust pet waste education program throughout the Boulder Creek watershed. This effort, known as the "Doo Good" pet waste campaign, was revised in 2014, and signage was implemented at strategic locations (e.g., trailheads, along Boulder Creek, near homeowner association water features, at dog parks, and at other sites); this campaign is ongoing. Second, Boulder County continued to implement its established SepticSmart Program and onsite wastewater treatment system regulations throughout the watershed.

**Part III.A.2.c. An identification of all illicit discharges identified by the permittee determined or suspected by the permittee to contribute to discharges from the MS4 in exceedance of 126 colony-forming units (CFU) of bacteria per 100 milliliters of water (the *E. coli* water quality standard). The first annual report shall include information on discharges identified prior to the effective date of the permit.**

Boulder County has not identified illicit discharges that may potentially contribute to exceedances of the *E. coli* water quality standard. We intend to leverage GIS analysis to better understand the county's contributing drainage area to the TMDL segment, and assess this section of Boulder Creek for the potential pollutant sources listed in the Colorado *E. coli* Toolbox.

**Part III.A.2.d. An indication of if the illicit discharges identified in Subsection "c" have been eliminated. If the discharge has not been eliminated, a description of any planned control measure that the permittee intends to take to address the discharge must be included.**

No illicit discharges are identified in Subsection "c" above.

**Part III.A.2.e. A description of monitoring activities conducted, or planned, to meet the requirements of Part III.A.1. The first annual report shall include information on monitoring prior to the effective date of the permit conducted to identify progress towards meeting the WLA in the COSPBO02 from 13<sup>th</sup> Street to South Boulder Creek *E. coli* TMDL. Results included in the TMDL do not need to be addressed.**

Boulder County is not a water, sewer, or drainage utility and does not currently have the capabilities or resources to conduct analytical monitoring; however, we recognize that a robust analytical monitoring program may be necessary to characterize individual discharges of *E. coli*. As noted in the recommendations listed in the 2011 TMDL report, a key aspect of implementation success is collaboration between local jurisdictions. The county intends to continue its collaboration with the City of Boulder, which has been graciously conducting monitoring that may assist with further characterization. The city's analysis indicates that *E. coli* levels begin to decrease as land uses change and development becomes less dense flowing out of the city and into Boulder County jurisdiction.

If you have any questions about anything in this memorandum, please contact Scott Coulson directly at 303-441-1157 or via email at [scoulson@bouldercounty.org](mailto:scoulson@bouldercounty.org).

**CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

  
Signature of Permittee (legally responsible person)

02/16/2017  
Date Signed

cc: Boulder County Public Health Water Quality Program Coordinator Erin Dodge  
MS4 Permit file