



Public Health

Environmental Health Division

February 25, 2020

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 – 7013 2630 0001 6395 0282

RE: Permit Certification No. COR-090020, Boulder County – 2019 Annual Report (MS4)

Dear Mr. Moore:

Boulder County's completed 2019 Annual Report for its Municipal Separate Storm Sewer System (MS4) general permit (Certification No. COR – 090020) is included with this submittal. The MS4 Annual Report was completed in accordance with Part I.I.1.b of the MS4 Permit.

This is the second reporting year that Boulder County used the Accela Civic Platform to populate the MS4 Annual Report. The Accela Civic Platform is used for stormwater quality purposes such as tracking and the majority of the MS4 Permit-required recordkeeping.

Please note that all numbers included in the MS4 Annual Report are for the entire 2019 reporting year (January 1, 2019 through December 31, 2019), even though the compliance deadlines for the Construction Sites and Post-Construction Stormwater Management programs were not fully implemented until 7/1/2019.

I have also included 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 personally at 303-441-1157 if you have any questions concerning the report or Boulder County stormwater quality protection program.

Sincerely,

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

Scott Coulson, CFM
Stormwater Quality Program Manager

cc: Erin Dodge, Boulder County Public Health

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

CDPHE
Attn: Nathan Moore
Quality Control Division, WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

2. Article Number

(Transfer from service)

7013 2630 0001 6395 0282

PS Form 3811, July 2013

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

MAR 09 2020
8:30 AM

- Agent
- Addressee

B. Received by *(Printed Name)*

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail®
- Registered
- Insured Mail
- Priority Mail Express™
- Return Receipt for Merchandise
- Collect on Delivery

4. Restricted Delivery? *(Extra Fee)* Yes



COR090000 Renewal Permittees Annual Report Form

Municipal Separate Storm Sewer Systems (MS4s) General Permits Revised 10/2017

<p>Part 1: Permit Identification</p> <p>General Permit Number: COR090000</p> <p>Certification Number: <u>COR09 090020</u></p>	<p>Part B: Reporting Period Jan 1 through Dec 31 (Check one. Report is due by March 10 of the following year.)</p> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 15%;"><input type="checkbox"/> 2017</td> <td style="border: 1px solid black; width: 15%;"><input type="checkbox"/> 2018</td> <td style="border: 1px solid black; width: 15%;"><input checked="" type="checkbox"/> 2019</td> <td style="border: 1px solid black; width: 15%;"><input type="checkbox"/> 2020</td> <td style="border: 1px solid black; width: 15%;"><input type="checkbox"/> 2021</td> </tr> </table>	<input type="checkbox"/> 2017	<input type="checkbox"/> 2018	<input checked="" type="checkbox"/> 2019	<input type="checkbox"/> 2020	<input type="checkbox"/> 2021
<input type="checkbox"/> 2017	<input type="checkbox"/> 2018	<input checked="" type="checkbox"/> 2019	<input type="checkbox"/> 2020	<input type="checkbox"/> 2021		
<p>Part 2: Permittee Information (If there are any changes, please submit a Change of Contacts form)</p> <p>Organization: <u>Boulder County</u></p> <p>Mailing Address: <u>Board of County Commissioners</u> <u>P.O. Box 471</u></p> <p>City: <u>Boulder</u> State: <u>CO</u> Zip: <u>80306</u></p>						
<p>Part 3: Site Contact Information (If there are any changes, please submit a Change of Contacts form)</p> <p>Facility Contact Name: <u>Scott Coulson</u></p> <p>Title: <u>Stormwater Quality Program Manager</u></p> <p>Telephone No: <u>303-441-1157</u></p> <p>Email Address: <u>scoulson@bouldercounty.org</u></p>						
<p>Part 4: Facility Information</p> <p>Have any areas been added or removed from the permit area due to annexation or other legal means? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>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.</p> <p>Provide the map's web address or indicate if a map is attached (if applicable): <input type="checkbox"/> Attached <u>http://maps.boco.solutions/propertysearch/ - shows real-time updates to jurisdiction by parcel</u></p>						
<p>Part 5: Notice of Reliance on Third Party</p> <p>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). <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>If YES, attach a short narrative labeled as "Part 5" identifying the permit requirement and the entity relied on.</p>						



Part 7 - Program Implementation Report

(Part 6 of the report was only applicable to the 2016 report and has been removed)

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	10/18/2018
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	7/1/2019
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	7/1/2018
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	1/1/2018
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 Attach List to March 10, 2018 Annual Report following completion, labeled as "PART 7.A - Nutrient Targets"	Completed January 1, 2018	1/1/2018
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	7/1/2018
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	1/1/2018
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	1/1/2018
I.E.2.a.viii	Priority Areas: Identify any new priority areas	Notification in annual report Due March 10, 2018	Completed January 1, 2018	1/1/2018
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	1/1/2018
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	N/A
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	N/A



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

Permit Condition	Action	Deliverable	Deadline	Date of Completion/Implementation
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	N/A
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	7/1/2019
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	6/29/2017
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	5/20/2019
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	7/1/2019



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 schedule 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)

*All of 7.D is not required prior to the Jan 1, 2018 deadline for implementing in accordance with I.E.1.a.i, ii, & iii

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.

Boulder County Public Health restaurant inspections were used for in-person guidance and distribution of our Restaurant Resource Sheet BMP Handout at the following businesses.

WINOT COFFEE, 7960 NIWOT RD D13
 FANS 66, 7960 NIWOT RD STE A1
 ABO'S PIZZA NIWOT, 7960 NIWOT RD B5

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.

See Attachment labeled as PARTS 7.A and 7.D.v Nutrient Targets and Activities Completed.



7.E) Program Elements - Illicit Discharge Detection and Elimination	
<p>vi. Provide the total number of <u>unresolved reports/identification of illicit discharges</u>. 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 CDP5 Stormwater Management Program Description from the previous permit term.</p>	0

7.F) Program Elements - Construction Sites	
<p>The permittee can define what constitutes an individual “site” and “inspection” for reporting below as appropriate for the permittee’s own program.</p>	
<p>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 <u>reporting year</u>.</p>	6
<p>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.</p> <p>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</p>	24
<p>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.</p> <p>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</p>	3
<p>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.</p> <p>*Not required prior to the July 1, 2019 deadline for documenting in accordance with I.E.3.b.vi.</p>	14
<p>v. COUNTY PERMITTEES ONLY</p> <p>*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)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>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.”</p> <p>*Not required prior to the January 1, 2019 deadline for implementing in growth areas.</p>	



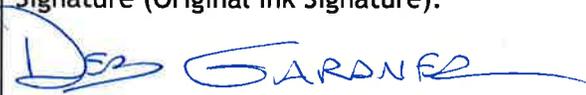
7.G) Program Elements - Post-Construction Stormwater Management in New Development and Redevelopment Program

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

<p>i. Applicable development sites: Provide the total number of applicable development sites for which control measures were implemented during the reporting period</p>	0
<p>ii. *Long-Term Operation and Maintenance and Post Acceptance Oversight:</p> <p>*ii.a and ii.b, below, are not required prior to the July 1, 2019 deadline for conducting inspections in accordance with Part I.E.4.a.vii.</p>	
<p>ii.a Provide the total number of applicable <u>development sites</u> inspected to ensure compliance with the requirement in Part I.E.4.a.vii.</p>	0
<p>ii.b Provide the total number of applicable <u>control measures</u> inspected to ensure compliance with the requirement in Part I.E.4.a.vii.</p>	0
<p>iii. *Excluded Roadway Development Sites: 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 checked="" type="checkbox"/> YES <input type="checkbox"/> NO Roadway Redevelopment: Part I.E.4.a.i(B) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Existing Roadway Areas Part I.E.4.a.i(C) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>If YES to one or more of the above, attach 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>*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</p>	
<p>iv. COUNTY PERMITTEES ONLY</p> <p>*County Growth Area Excluded Development Sites: 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 checked="" type="checkbox"/> NO</p> <p>If YES, attach 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>*Not required prior to the January 1, 2019 deadline for implementing in growth areas.</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 County Commissioners</p>
<p>Signature (Original Ink Signature): </p>	<p>Date signed: 02/25/2020</p>





Public Health

Environmental Health Division

PART 5 – Notice of Reliance on Third Party, Permit Certification No. COR-090020, Boulder County MS4

The County continues to rely, in part, on the Keep It Clean Partnership to fulfill Permit requirements under I.E.1 of the MS4 Permit, specifically including I.E.1.a.ii and I.E.1.a.iii.



Public Health

Environmental Health Division

PARTS 7.A and 7.D.v Nutrient Targets and Activities Completed, Permit Certification
No. COR-090020, Boulder County MS4

Target Pollutant/ Source	Target Audiences	Outreach Activity	Distribution Mechanism	Dates
Source: Sewage, Greywater, Pet Waste	Fairgrounds Campground Users	Postcard/Handout	Campgrounds host provides to campers	All Year
Source: Pet Waste	Dog Owners	Pet Waste signage	Boulder County Fairgrounds	All Year
Fertilizer, Lawn Waste, Pet Waste	Website users	Website page – Nutrient & Pet Waste Focused	KICP Website	All Year
Fertilizer, Lawn Waste, Pet Waste	Local Population	Nutrient Seed Fact Sheet	Stormwater Outreach Booth	8/10/19
Fertilizer, Lawn Waste, Pet Waste	Local Population	Newspaper Advertisement - Nutrient Focused	Newspaper Advertisement	5/15/19
Fertilizer, Lawn Waste	K-5 Students	Presentation to Schools- Nutrient Info Included	Educational Activities with Nutrient Messaging	Numerous, Q1 – Q4 2019
Sediment/ Nutrients from Construction	Construction Industry	Informational materials, contact information	KICP website	All Year



Public Health

Environmental Health Division

PARTS 7.G.iii Excluded Roadway Development, Permit Certification
No. COR-090020, Boulder County MS4

Record ID	Site Name	Owner Name	Location	Completion Date	Site Area Disturbed (Acres)	Excluded Impervious Area (Acres)	Reason for Post Construction Exclusion
SWQP-19-030	Neva Niwot Road Project	Boulder County Public Works (Road Right-of-Way)	7918 Fairfax Court	11/4/2019	4.0	4.0	Pavement Management
SWQP-19-018	95th Street Project	Boulder County Public Works (Road Right-of-Way)	9447 Niwot Road	N/A - Ongoing project	27.3	1.0	Roadway Redevelopment



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 25, 2020

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 January 1, 2019 to December 31, 2019

Certified Mail No.: 7013 2630 0001 6395 0282

Total Maximum Daily Load (TMDL) implementation requirements are 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.

During this reporting year, Boulder County used consultant support to better understand our role in the *E. coli* TMDL and determine what actions can be taken to support our commitment to protecting public health and the environment. Boulder County's TMDL consultant evaluated the County's geographic information systems (GIS) data, TMDL Annual Reports, Clean Water Act (CWA) Section 319 watershed management plan (319 plan), current TMDL activities, and other applicable information to advise Boulder County on next steps. The consultant's work is ongoing, but an assessment of monitoring data was completed, and it is included in Part III.A.2.e below.

Our consultant's review of the 2011 TMDL also helped us understand that the TMDL assigns specific wasteload allocations (WLAs) and targeted reductions to specific outfalls. Nine outfalls were sampled and were given WLAs in the 2011 TMDL. Jurisdictions within the subcatchments of concern for the outfalls are within the City of Boulder, the University of Colorado and Boulder Valley School District. Boulder County is not associated with these outfalls and wasteload reductions for MS4 outfalls were not assigned to Boulder County in the 2011 TMDL.

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 13th Street to South Boulder Creek, including specific target dates for implementation.

This information was submitted in the first annual report (2016), and an update on implementation is provided in Table III.A.2.b below.

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 13th Street to South Boulder Creek.

Table III.A.2.b is used to report completion dates for implemented control measures under Part III.A.2.b. Additional description on the applicable control measures is provided in the paragraphs following the table.

Table III.A.2.b. Control measures implemented by Boulder County to reduce *E. coli* to COSPB002

Reporting Year 4 (2019)				
Number	Name	Description/Notes	Tentative Implementation Target Date	Date of Completion
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	August 31, 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	August 31, 2017
3	Onsite identification of potential pollutant sources	Walk stream section from the South Boulder Creek confluence upstream to 55 th Street. Assess this section for the potential pollutant sources listed in the Colorado <i>E. coli</i> Toolbox (Table 2, p. 15)	December 2017	April 12, 2017 & April 25, 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	January 30, 2018 but Ongoing
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: http://www.keepitcleanpartnership.org/pollution-prevention/scoop-the-poop/	Ongoing	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: http://www.keepitcleanpartnership.org/wp-content/uploads/pdfs/FINAL_Ecoli_FactsheettoWeb.pdf	June 2019	June 28, 2019

Number	Name	Description/Notes	Tentative Implementation Target Date	Date of Completion
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	July 1, 2019

For Control Measure 4, Boulder County committed to assessing the feasibility of integrating our point source and 319 plan strategies. The BCPH Stormwater Quality Program Manager completed an initial assessment on January 30, 2018 that was inconclusive on how Boulder County should proceed. Therefore, technical consultant support was used in the 2019 Reporting Year and advised that because the 319 Plan covers nearly 1,000 square miles, the recommendations are at a framework-level. In order to implement the 319 Plan further in non-point source areas, Boulder County needed to prioritize smaller land areas to focus on implementation of principles in the 319 Plan, such as conducting septic system investigations. Accordingly, we conducted a related *E. coli* special study this reporting year. Section 8.2 of the 2011 TMDL recommends that Boulder County devote additional resources toward identifying and repairing failing septic systems within and above the impaired stretch. Because there are no septic systems located within the contributing drainage area delineated for the impaired stretch of Boulder Creek, we instead conducted a limited scope study on a residential subdivision that is served by septic systems along Left Hand Creek. Three sampling events were completed for analysis of human DNA markers (HF183) by Source Molecular in Florida and *E. coli* analysis by the City of Boulder in-house laboratory. Study results provide a basis for concluding that septic systems in this particular subdivision are not a significant source of human-related *E. coli* during dry-weather, low-flow conditions on Left Hand Creek. Boulder County's TMDL consultant will be making recommendations related to other septic system study approaches in the future.

For Control Measure 6, Boulder County designed a door hanger with actions that residents can take to help reduce bacteria. The door hanger is two-sided in both Spanish and English and encourages picking up pet waste, securing trash containers, and preventing lawn overwatering that can lead to bacterial growth in the storm drainage system. In June 2019, San Lazaro Mobile Home Park management assisted the county by hand delivering this door hanger to the mobile home park residents along with their Drinking Water Consumer Confidence Report. Boulder County also presented this material and our overall Boulder Creek bacteria reduction strategies in a public meeting held at Boulder Public Library in June 2019.

For Control Measure 7, Boulder County met the compliance schedule deadlines in Part I.E.4 of the MS4 Permit associated with post-construction stormwater management. The Boulder County Storm Drainage Criteria Manual (SDCM) includes requirements for the installation of post-construction stormwater management controls that are effective at addressing impairments and TMDLs in general. However, we now have a better understanding of the contributing drainage area to the Boulder Creek *E. coli* TMDL segment and don't anticipate water quality benefits to the TMDL segment due to the SDCM requirements. Specifically, the San Lazaro Mobile Home Park is unlikely to be redeveloped and the remaining land is open space that is protected from future development. Therefore, it is unlikely that Boulder County will experience any applicable development sites (as defined in the MS4 Permit) in our contributing drainage area.

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.

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 and identify progress towards meeting the WLA in the COSPB02 from 13th Street to South Boulder Creek *E. coli* TMDL.

Boulder County is not a water, sewer, or drainage utility and does not currently have the capabilities or resources to conduct routine analytical monitoring. However, the County actively participates in a collaborative water quality assessment effort as part of the Keep It Clean Partnership (KICP), which maintains a long-term water quality database and conducts an annual integrated water quality monitoring report that can be useful in assessing progress towards meeting the TMDL. The two primary sites of interest in this data set are BC-CU in the University of Colorado area and BC-61 (61st Street) downstream of the South Boulder Creek confluence. It is important to be aware that BC-61 is in Boulder Creek Segment 9, not Segment 2b, and it is also downstream of the San Lazaro Wastewater Treatment Facility outfall. Despite these factors, the BC-61 site is useful because it is located downstream of Boulder County’s contributing drainage area to the *E. coli* TMDL segment.

Data compiled in the KICP database for these two sites shows BC-61 has lower *E. coli* than upstream at BC-CU. (Figure 1). Also, no upward or downward trend is suggested based on review of the recreation season (May-October) data for BC-61 (Figure 2).

Figure 1. *E. coli* at BC-CU and BC-61 from KICP Database (2010-2017) for Synoptic Monthly Sampling Dates

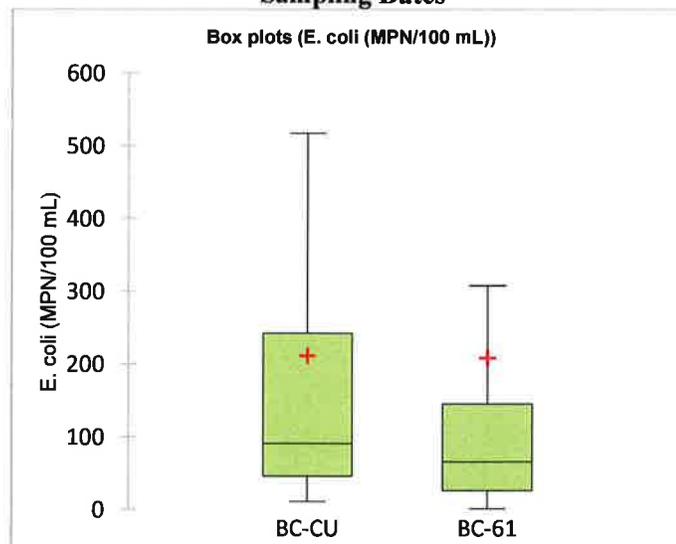
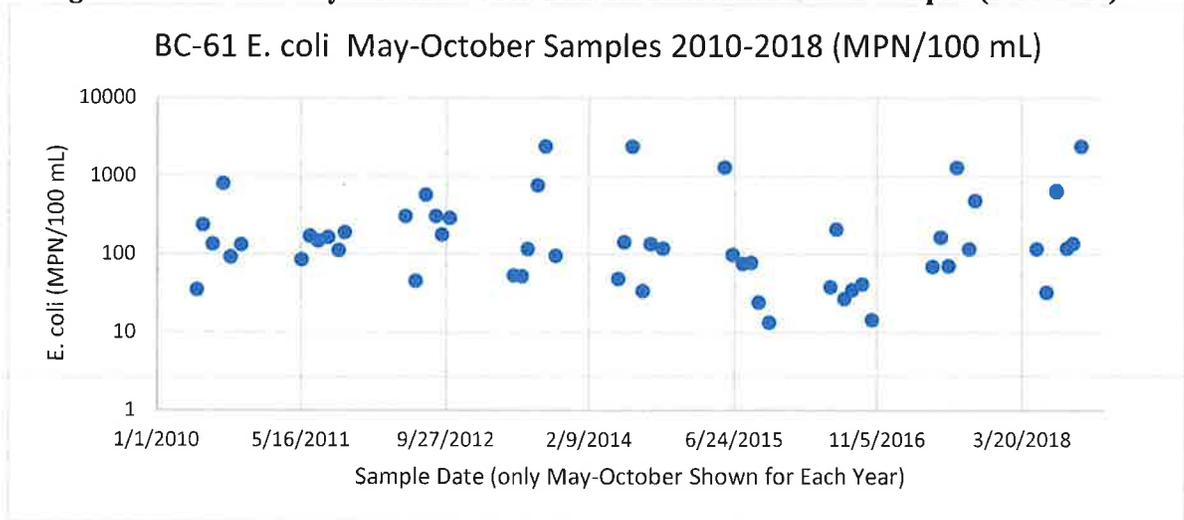


Figure 2. BC-61 Monthly Instream *E. coli* Data for Recreation Season Samples (2010-2018)



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.

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 (Legal Contact, Original Ink Signature)

Date Signed

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