



Public Health

Environmental Health Division

February 22, 2022

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

Submitted electronically via cdphe.wqrecordscenter@state.co.us per COVID-19 protocol

RE: Permit Certification No. COR-090020, Boulder County – 2021 MS4 Annual Report

Dear Ms. McGovern:

Boulder County's completed 2021 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.

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 note that the numbers reported in 2021 are very similar to the numbers included in recent annual reports. This is the fourth consecutive reporting year that Boulder County used the Accela Civic Platform to populate the MS4 Annual Report.

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



COLORADO

Department of Public
Health & Environment

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

COR090000 Renewal Permittees

Annual Report Form

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

Part 1: Permit Identification

General Permit Number: COR090000

Certification Number: COR09 090020

Part B: Reporting Period Jan 1 through Dec 31

(Check one. Report is due by March 10 of the following year.)

2017 2018 2019 2020 2021

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

http://maps.boco.solutions/propertysearch/ - shows real-time updates to jurisdiction by parcel

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.



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	7/1/2020
I.E. 5.a.v.	Outdoor Bulk Storage	Notification in annual report Due March 10, 2022	Completed July 1, 2021	7/1/2021
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.

Restaurant Resource Sheet BMP handouts and verbal education were provided to the restaurants below during routine health inspections by Boulder County Public Health restaurant inspectors during 2021.

- 1914 House, 121 2nd Ave, Niwot
- Abo's, 7960 Niwot Rd, Niwot
- Fan's Chinese Cuisine, 7960 Niwot Rd, Niwot
- Garden Gate Cafe, 7960 Niwot Rd, Niwot
- Lefty's Pizza, 364 2nd Ave, Niwot
- Niwot Wheel Works, 101 2nd Ave, Niwot
- Old Oak Coffee House, 136 2nd Ave, Niwot
- Raza Freza, 7960 Niwot Rd, Niwot
- Subway, 7960 Niwot Rd, Niwot

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

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.

0

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.

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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.

60

***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.

22

***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.

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***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.

i. Applicable development sites: Provide the total number of applicable development sites for which control measures were implemented during the reporting period	1
ii. *Long-Term Operation and Maintenance and Post Acceptance Oversight: *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.	
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.	0
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.	0
iii. *Excluded Roadway Development Sites: Where any development excluded from being an applicable development site in accordance with the following permit conditions? Pavement Management: Part I.E.4.a.i(A), except maintenance sites <input type="checkbox"/> YES <input checked="" 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 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." *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	
iv. COUNTY PERMITTEES ONLY *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 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." *Not required prior to the January 1, 2019 deadline for implementing in growth areas.	

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."

Name (Legal Contact): Marta Loachamin	Title: Chair, Board County Commissioners
Signature (Original Ink Signature): <i>Marta Loachamin</i>	Date signed: March 3, 2022





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 (Public Education and Outreach), specifically including I.E.1.a.ii and I.E.1.a.iii. Please note that Keep It Clean Partnership's youth education, youth surveys, and nutrient education activities were modified due to the COVID-19 pandemic. For example, live-virtual youth education programs were administered to schools by an educator via webcam.



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
Sewage, Greywater, Pet Waste	Fairgrounds Campground Users	Postcard/Handout	Campgrounds host provides to campers	All Year
Pet Waste	Dog Owners	Pet Waste signage	Boulder County Fairgrounds	All Year
Pet Waste	Residents	Vehicle/bus advertisement – Bacteria Focused	Busses	August- December
Fertilizer, Pet Waste	Property owners; Pet Owners	Newspaper Advertisement - Nutrient Focused	Newspaper Advertisement	Throughout the year
Fertilizer, Lawn Waste, Pet Waste	Website Users	Webpages – Nutrient Focused	KICP Website	All Year
Fertilizer, Lawn Waste, Pet Waste	Subscribers, General Population	Newsletter and Newsletter Messages - Nutrient Info Included	Email Newsletter	Throughout the year
Fertilizer, Lawn Waste, Pet Waste	K-5 Students	Presentation to Schools- Nutrient Info Included	Educational Activities with Nutrient Messages	Throughout the year
Fertilizer, Pet Waste	Residents	Utility Bill Inserts - Nutrient Info Included	Utility Bill Inserts	June, July
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-20-010	South Boulder Road Panel Replacements	Boulder County Public Works (Road Right-of-Way)	7411 South Boulder Rd., 76th Street, and McCaslin Blvd.	N/A - Ongoing project	2.0	1.6	Roadway Redevelopment
SWQP-20-020	Dyer Road Project	Boulder County Public Works (Road Right-of-Way)	0 Dyer Road	N/A - Ongoing project	2.3	1.3	Roadway Redevelopment
SWQP-20-041	N. 71st Street Shoulders and Multi-Use Path	Boulder County Public Works (Road Right-of-Way)	Lookout Road and N. 71st Street	N/A - Ongoing project	5.1	1.2	Roadway Redevelopment



Public Health

Environmental Health Division

TO: Maura McGovern, Colorado Department of Public Health and Environment (CDPHE)

FROM: Boulder County Board of County Commissioners (BOCC)

DATE: February 16, 2022

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, 2021 to December 31, 2021

Certified Mail No.: Submitted electronically via cdphe.wqrecordscenter@state.co.us per COVID-19 protocol

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.

As explained in the previous TMDL Annual Report, Boulder County has determined that it does not own, operate, or maintain an urbanized MS4 that discharges to the Boulder Creek *E. coli* TMDL segment. Accordingly, Table 8-1 of the 2011 TMDL does not assign required reductions to any Boulder County outfalls. In 2021, Boulder County therefore shifted its resources away from the *E. coli* TMDL segment, over which it has minimal control, to other initiatives aimed at improving water quality in areas where Boulder County has more direct control.

During this reporting year, Boulder County used consultant support for a dry weather screening initiative to determine the extent to which Boulder County's MS4 contributes to elevated *E. coli* under dry weather conditions. The dry weather screening study of MS4 outfalls was also used to attempt identification of sources of elevated *E. coli* loading to 303(d) listed streams within the county's jurisdiction. As an initial step in this study, consultant and county staff conducted field visits of the county's stormwater outfalls during dry weather conditions between October 19th and October 21st, 2021. The study was conducted under dry weather conditions for consistency with recently issued CDPHE MS4 Permit requirements for streams with *E. coli* TMDLs.¹ Additionally, investigations conducted during dry weather can help to identify chronic, non-stormwater sources of pollutant loading that may be associated with illicit discharges to the MS4. Precedent to date established by the CDPHE Water Quality Control Division for MS4 permittees discharging to impaired streams with TMDLs is to focus on outfalls with dry weather

¹ Boulder County's currently applicable MS4 Permit expired June 30, 2021 and has been administratively extended by CDPHE. The currently applicable permit certification does not specify dry weather sampling requirements; however, the Non-standard MS4 Permit effective November 1, 2021 includes prescriptive requirements for dry weather investigation and sampling for permittees discharging to segments with *E. coli* TMDLs. When the standard MS4 Permit is renewed, Boulder County's requirements are expected to be at least as prescriptive as the Non-standard permit; therefore, the County modeled its study after the Non-standard MS4 Permit dry weather screening requirements.

flows greater than 5 gallons per minute (gpm) that have geometric mean *E. coli* concentrations exceeding 126 MPN/100 mL. Consultant and county staff successfully visited and investigated 116 of the 121 County MS4 outfalls in October 2021, with a follow-up visit to the remaining five outfalls in early December 2021. Of the outfalls investigated, only five were flowing and of these, only three were flowing at or above 5 gpm. The *E. coli* concentrations at all three sampled outfalls were below 126 MPN/100 mL. Moreover, the flowing outfalls appear to be PVC underdrains carrying groundwater rather than MS4 outfalls. Based on these findings, the Boulder County MS4 outfalls do not appear to be significant contributors of *E. coli* to impaired streams under dry weather conditions. A more detailed report on the dry weather screening study is available upon request.

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 Part 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.

In previous annual reports, Boulder County used Table III.A.2.b to report completion dates for implemented control measures under Part III.A.2.b. All original control measures in Table III.A.2.b were completed by the end of the 2019 Reporting Year, so we are taking this opportunity to learn from and adjust our approach to impaired streams. Table III.A.2.b is no longer specific to Boulder Creek Segment 2b, but represents a broader approach on how we intend to address *E. coli* and other stream impairments. To this end, the county is exploring the following potential options to improve water quality through its stormwater quality protection program.

Table III.A.2.b. Planned control measures by Boulder County to address stream impairments

Reporting Year 6 (2021)				
Number	Name	Description/Notes	Tentative Implementation Target Date	Date of Completion
8	MS4 outfall inventory for impaired streams	Proactively inventory Boulder County MS4 outfalls discharging to 303(d) listed streams that do not currently have TMDLs. Perform GIS analysis for prioritization and collect additional information on these locations so Boulder County is better prepared for TMDL development in the future.	December 2022	December 2021
9	Stormwater quality protection program	Continued implementation of the six minimum control measures in the MS4 Permit (in both TMDL and non-TMDL areas).	Ongoing	Ongoing
10	Public education on <i>E. coli</i>	Continued participation in public education efforts related to <i>E. coli</i> in collaboration with the Keep It Clean Partnership.	Ongoing	Ongoing

11	Illegal discharge detection and elimination	Using the Illicit Stormwater Discharge Ordinance (No. 2012-4) as needed to control pollutant discharges to the storm drain system and waterways upon identification.	Ongoing	Ongoing
12	Non-point source controls assessment ²	Identifying areas within the County where non-point source controls could help reduce nutrients or <i>E. coli</i> loading.	December 2023	

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.

Given that we now know that there is no Boulder County MS4 outfall to Boulder Creek in the TMDL segment, then by definition it follows that there are no illicit discharges to the county's MS4. The definition of illicit discharge in the MS4 Permit applies to discharges to the MS4.

Furthermore, Boulder County is tracking both public and employee reports of suspected illegal discharges, and it has not identified illicit discharges that may potentially contribute to exceedances of the *E. coli* water quality standard in Boulder Creek Segment 2b.

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 does not own, operate, or maintain an urbanized MS4 or outfall that discharges to the Boulder Creek *E. coli* TMDL segment. Therefore, Boulder County does not have an outfall to sample to assess progress towards meeting the WLA. Accordingly, Table 8-1 of the 2011 TMDL does not assign required reductions to any Boulder County outfalls.

Additionally, based on the field work completed during 2020-2021, we believe that the MS4 Permit Part III.A.2.c through Part III.A.2.e requirements do not apply to Boulder County. We understand that TMDLs are completed based on the best available information at the time of development, with some assumptions later determined to be invalid as TMDL implementation proceeds. Work completed by Boulder County over the last several years demonstrates that some of the assumptions in the TMDL were

² Boulder County actively participated in development of the St. Vrain Basin Watershed-Based Plan: Boulder Creek, St. Vrain Creek and Tributaries (Keep It Clean Partnership and Wright Water Engineers, 2015). This "319 Plan" provides a framework for exploring non-point sources of pollution to receiving waters in Boulder County. The plan is accessible at <https://www.keepitcleanpartnership.org/wp-content/uploads/partner-pdfs/319toCDPHE/Boulder%20St%20Vrain%20Watershed%20Plan%203-2016final.pdf>.

not correct. Although we are not currently requesting a TMDL reopener at this time, we do request that our findings be considered in the upcoming renewal of Boulder County's MS4 Permit so that future MS4 permit conditions for the County align with improved data and information collected by the county over the last several years. We would welcome further discussion with CDPHE on this topic.

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."

Marta Loachamin

March 3, 2022

Signature of Permittee (Legal Contact)

Date Signed

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