



Wright Water Engineers, Inc.

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January 4, 2022

Cherry Creek Basin Water Quality Authority
P.O. Box 3166
Centennial, Colorado 80161

Re: Stormwater Control Measure Effectiveness and Regulation 72

Dear Authority Members:

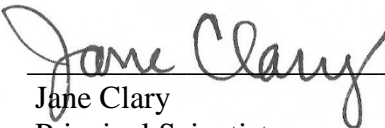
Wright Water Engineers, Inc. (WWE) understands that the Authority would like to pursue evaluation of stormwater control measure (SCM) effectiveness to protect water quality in Cherry Creek Reservoir. Based on a December 15, 2021 brainstorming phone call with Rich Borchardt, we have prepared a draft scope of work to support the Authority's objectives related to updating recommendations for stormwater quality treatment and management in the basin with linkage to future updates to Regulation 72.

WWE has extensive experience nationally with SCM effectiveness evaluations based on our 25-year history managing the International Stormwater BMP Database, as well as our on-going work with the Mile High Flood District updating Volume 3 of the Urban Storm Drainage Criteria Manual. Based on this experience, we have proposed a scope of work that we believe will address the Authority's objectives. We are also open to revising this scope based on input from the Board and/or Technical Advisory Committee.

We look forward to continued discussion on this interesting work and supporting the Authority in its efforts to protect water quality in the Cherry Creek Reservoir.

Sincerely,

WRIGHT WATER ENGINEERS, INC.

By 
Jane Clary
Principal Scientist

Attachments: Draft Scope of Work

cc: Andrew Earles, Ph.D., P.E., P.H.

Cherry Creek Basin Water Quality Authority
Stormwater Quality State of the Practice Analysis & Evaluation for Applicability to Cherry Creek Reservoir Watershed
Conceptual Scope of Work & Estimated Budget

Staff	Role	Rate	Task 1. Analyze Available Data for TSS, P, N from Multiple Sources		Task 2. Identify opportunities to improve CCBWQA's BMP/CM Toolbox		Task 3. Connection to Control Measure Revisions		Task 4. Identify Gaps and Opportunities		Task 5. Technical Memorandum		Task 6. Project Management & Coordination		Task 7. Additional Research Priorities (reserved)		Total	
			Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Clary	Project Manager	\$231	32	\$7,392	12	\$2,772	8	\$1,848	16	\$3,696	24	\$5,544	16	\$3,696	20	\$4,620	128	\$29,568
Earles	Sr. Engineer	\$242	4	\$968	12	\$2,904	10	\$2,420	12	\$2,904	2	\$484	4	\$968	4	\$968	48	\$11,616
Rogers	Project Engineer	\$129	12	\$1,548		\$0	12	\$1,548	24	\$3,096	40	\$5,160	10	\$1,290	15	\$1,935	113	\$14,577
Waters	Admin	\$100		\$0		\$0		\$0		\$0	8	\$800		\$0		\$0	8	\$800
Labor Subtotals			48	\$9,908	24	\$5,676	30	\$5,816	52	\$9,696	74	\$11,988	30	\$5,954	39	\$7,523	297	\$56,561
Direct Costs (phone, copies, mileage, etc.)																		\$1,000
Total																		\$57,561

Tasks

Task 1. Look at available information (International BMP Database, MHFD, SEMSWA, etc.) on the current toolbox of Treatment BMPs/CMs

- Refine national information to a level relevant/like Cherry Creek
- Evaluate nutrients of interest (TSS, P, and N)
- Consider load vs. concentration
- Note: may be opportunities to partner with other entities on this task

Task 2. Identify opportunities to improve CCBWQA's toolbox of treatment BMPs/CMs.

- Likely improvements to treatment BMPs/CMs for small sites (<5 Acres?)
- Incorporation of Receiving Pervious Area (RPA)

Task 3. Make a connection to control measures revisions (recently included in 70000 permit)

- Pollutant Removal Standard
- Runoff Reduction Standard

Task 4. Identify gaps in information and opportunities to work with others

- Treatment BMP/CM selection chapter update with MHFD
- Runoff reduction/infiltration work with SEMSWA and MHFD
- Supplementing flow monitoring work of others with sampling for water quality

Task 5. Technical memorandum and presentation

- Summarize work in Tasks 1 -4 and identify recommended next steps, potentially including workshop to discuss state of knowledge, gaps, and criteria for holistic approach to managing stormwater quality
- Memorandum will be provided as draft for review and comment, and WWE will finalize after receiving comments from CCBWQA and any other desired reviewers
- Key findings and recommendations will be summarized in a presentation that can be delivered to the TAC and Board

Task 6. Project management and coordination

- Periodic update meetings to get input and discuss preliminary results
- Meetings with TAC and Board (2 each)
- Tracking tasks, schedule, and budget; invoicing, and other administrative project management tasks

Task 7. Additional Research Priorities (reserved)

- Budget allocation for additional research identified by the Board, if needed