



One World One Water Center

Metropolitan State University of Denver | Denver Botanic Gardens

To: Ben Wade, Water Conservation Coordinator, Colorado Water Conservation Board

From: Nona Shipman, Associate Director, One World One Water Center

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Colorado Water Collaboratory

Phase II

Water Efficiency Grant

75% Progress Report

Background: The Colorado Water Collaboratory (CWC) project began in 2016 with a grant from the Colorado Water Conservation Board. The intention of the CWC is to create “living laboratories” on campuses across Colorado to develop research, test new products, create learning opportunities for students and faculty, connect and collaborate with other universities, and share beyond campus. The goal of Phase I was to compare water use data on three different Colorado university campuses – Colorado Mesa University, University of Colorado – Boulder, and Metropolitan State University of Denver. Additionally, a survey was distributed to students at all three schools to collect information on water use behavior and perceptions. Lessons learned and the survey results from Phase I are being incorporated into Phase II.

Colorado Water Collaboratory Phase II: CWC Phase II includes University of Colorado – Boulder (CU- Boulder) and Metropolitan State University of Denver (MSU Denver).

Unfortunately, Colorado Mesa University was unable to continue their participation in CWC at this time. Phase II aims to create action around sustainable water management on the two campuses, outlined through the below six tasks. Project work began in Summer of 2018 and will continue until completion in the Winter of 2020. Consultant, Brendle Group, was contracted to help lead Tasks 1 through Task 3, providing leadership in facilitation of the water action planning process and plan development for implementation at the campus and assisting the OWOW Center in scaling and translating results.

Task 1: Stakeholder Engagement & Workshop

Task 2: Water Profile & Baseline

Task 3: Explore Opportunities

Task 4: Water Action Plan Development

Task 5: Plan Implementation

Task 6: Translating Beyond the Collaboratory

Task 1 Completed in December 2018, MSU Denver and CU-Boulder identified their campus water stakeholders. Stakeholders included campus facility planners and staff, faculty, sustainability managers, water providers, and representatives from the CWCB. Following identification of key stakeholders, each school has hosted the Task 1 stakeholder workshop or work session to gather input and feedback from this diverse group on all stages of the water action plan development. Auraria Campus pursued the outlined water action planning workshop format. Feedback provided ranged from previous experiences with water projects on campus, the current state of water use on campus (both indoors and outdoors), potential barriers and limitations to water efficiency and conservation, future campus development and redevelopment, goal identification and characterization, and water efficiency or related strategy opportunities for each campus. The workshops were helpful in further identifying campus needs, potential challenges, as well as opening lines of communication between different groups on and off campus in their role and expertise in sustainable water management. For example, MSU Denver is located on Auraria Campus that is home to four institutions: MSU Denver, University of Colorado – Denver, Community College of Denver, and Auraria Higher Education Center (AHEC). This was the first time that many of the stakeholders identified from all four institutions were in the same room together.

CU-Boulder held a work session with key stakeholders to begin the dialogue of coordinated water efforts on campus. This led to the formal formation of a water working group.

Task 2 Water profiles and baseline data have been collected and analyzed for Auraria Campus, including MSU Denver. Phase I water use data was referenced as a starting point for this task. Additional baseline information and data was gathered from Denver Water, Auraria Campus' water provider, facilities staff, Energy CAP, and the on-campus group, Auraria Sustainable Campus Program. Data gathering was primarily led by a graduate student and employee at the Auraria Sustainable Campus Program.

CU-Boulder made progress on Task 2 water profiles and baseline data as well, including disclosing access to Energy CAP and review of water data disclosed in AASHE STARS sustainability scorecard. It was determined that further data analysis and baseline establishment would be led internally by the water working group for this project.

Task 3 The completion of Tasks 1 and 2 opened the door to explore opportunities not only within water efficiency on Auraria Campus but also in building partnerships on and off campus and increasing water knowledge amongst the campus community of students, faculty, staff, and facilities. In the spirit of exploring opportunities, a survey was distributed to gain further insight on campus water knowledge. In the spring semester of 2019, the OWOW Center distributed a short survey to over 150 students on Auraria Campus at two different events – the annual Spring Fling and Sustainability Fair. Any students that attended the events and approached the

OWOW Center's table were asked to complete the survey in exchange for a reusable cloth bag or a stainless-steel straw. The following questions were asked in the survey...

1. How important do you think it is for Auraria Campus to be a leader and advocate for responsible water management?
2. On a scale of 1 to 5, how is Auraria Campus doing on water conservation?
3. Would you like to do more to support water conservation on campus?
 - a. If yes, list one thing you'd like to see happen with water on campus.
4. Complete the sentence, "I'd like the Auraria Campus' water future to..." (e.g. be a leader for our community, engage our student body, etc.)

It was intentional to not collect demographic information from survey takers. In order to maximize the number of survey responses collected, it was decided to keep the survey short and composed of multiple choice, Likert scale, and brief open-ended questions.

Over the course of three days, 155 surveys were completed. The survey responses were then analyzed by ASCP and the OWOW Center. The survey analysis was then incorporated into the construction of an Auraria Campus Water Action Plan.

Task 4 In the spring of 2020, the Auraria Campus Water Action Plan was completed. Compiling data, insight, and strategies from the Collaboratory Phase I and Tasks 1-3 from Phase 2, the Water Action Plan was outlined, drafted, edited, and finalized by the Brendle Group, the Auraria Sustainable Campus Program, and the One World One Water Center. The final draft of the Water Action Plan is submitted with this report. Among many things, the Plan includes a summary of background, purpose, stakeholders, data, and a list of key projects to reduce water consumption on campus.

Task 5 Within the Water Action Plan, implementation details are outlined including savings assumptions and recommendations, savings estimates, timeline, and what campus entity should lead the activity. On March 16, 2020 MSU Denver went completely remote - staff, faculty, students - due to the coronavirus pandemic. Two weeks later, it was announced that all non-essential staff would not be permitted on campus for the foreseeable future. As of April 2020, all summer classes will also be held remotely and campus will remain closed. The negative impact on resources and manpower amongst all campus institutions due to the coronavirus pandemic may create unanticipated challenges in Water Action Plan implementation. Regardless, the OWOW Center and the Auraria Sustainable Campus Program are currently working with the Auraria Higher Education Center to prioritize the water reduction strategies laid out within the Water Action Plan in order to identify which projects are the most viable. We are dedicated to working with stakeholders to accomplish strategies laid out within the Auraria Campus Water Action Plan.

Future goals for the Colorado Water Collaboratory Phase II are to further utilize the Water Action Plan to benefit the Auraria Campus community and to identify ways to share the outcomes of the Collaboratory projects beyond campus.