# MENV 2024 CAPSTONE ANNUAL REPORT



# LETTER FROM OUR CAPSTONE LEAD



Welcome to our first-ever Masters of the Environment (MENV) Capstone Annual Report! This report comes out at the start of May - the week of our 2024 Capstone Cohort graduation. This also happens to be my first Capstone cohort that I oversaw from start to finish - and I could not be more proud of the work they accomplished. These students are joining the group of over 500 MENV program alumni - and thousands of professionals across the country who are working on the cutting-edge of sustainability solutions.

The value of the students' work is shown in the words of Tanner Starbard, the Chief Financial Officer at Mad Agriculture, MENV alumnus, and a five-time Capstone Partner, who reported that: "Every year the Capstone program has been super valuable to bring new ideas, committed learners, and a lot of curiosity out of the students that are working with us and it has been incredibly valuable for me."

While students worked diligently on their year-long Capstone projects, we evaluated and reshaped the Capstone processes to better serve the needs of our students, Capstone Partners and Advisors, and our communities. Among other initiatives, we:

- Centered our three-semester curriculum to support students' professional development and Capstone launch and execution
- Reimagined our Capstone events
- And, strengthened our communication and marketing

It takes a village to successfully execute a Capstone Program. We are lucky to have a village in the MENV program within the Department of Environmental Studies, at CU Boulder, and among sustainability professionals on the Front Range and across the country. This annual report celebrates our work together for Capstone 2024 - and I hope you enjoy reading it!

Alice Respictora

Capstone Lead and Teaching Associate Professor Masters of the Environment - Department of Environmental Studies at CU Boulder



Starbard collaborating with Capstone students to explore innovative ideas for Haystack Farms.



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Our students collaborate with partners across geographies and across sectors. This allows them to explore sustainability from multiple perspectives—shaping policy, driving innovation, and advancing mission-driven work across scales. This cross-sector engagement prepares students to navigate the complex landscape of environmental leadership in their future careers. The variety of partner types reflects the interdisciplinary and scalable nature of our sustainability work. By engaging with organizations at every level, students gain real-world experience tackling complex environmental challenges both at home and abroad.





National State Local



# **Embracing Outdoor Recreation**



Thule is a Swedish company specializing in the design and manufacture of products that facilitate the transportation of goods and outdoor equipment, including roof racks, bike carriers, and luggage.





Outdoor Recreation Roundtable supports the outdoor recreation economy by promoting balanced policies, improved infrastructure, and conservation of public lands and waterways, ensuring access, sustainability, and thriving outdoor experiences across the United States.



Colorado Parks and Wildlife manages Colorado's state parks and wildlife areas, conserving natural resources, supporting outdoor recreation, and ensuring long-term ecological health through science-based stewardship, education, and community engagement across the state.





Restore Hetch Hetchy is a nonprofit working to restore the Hetch Hetchy Valley in Yosemite National Park by advocating for the removal of O'Shaughnessy Dam, returning the landscape to its natural, protected state.







Rising Routes is a nonprofit expanding equitable outdoor access for underserved communities through research, advocacy, and education, connecting people with nature while promoting inclusivity, cultural relevancy, and capacity building in outdoor spaces.



Trust for Public Land is a national nonprofit that creates parks and protects land to ensure all communities have access to green spaces, promoting health, equity, and environmental sustainability for current and future generations.



# **Climate Action At Scale**



# **Sustainable & Community Centered Development**

# HIGH LINE CANAL

High Line Canal Conservancy is a nonprofit transforming Colorado's historic 71-mile High Line Canal into a connected greenway through community collaboration, environmental stewardship, and inclusive planning that preserves its legacy while enhancing public access.



Boulder County Housing Authority provides affordable housing and services in Boulder County, partnering with local governments to increase housing availability, promote sustainable development, and support economic stability for low- and moderate-income individuals and families.

# BOOMTOWN

Boomtown Innovation helps organizations drive impactful change by providing tailored strategies, ecosystem development, and operational support that leverage innovation and entrepreneurship to deliver measurable, transformative outcomes across public, private, and nonprofit sectors.



Drive Clean Colorado leads statewide efforts to reduce greenhouse gas emissions and promote clean energy through programs advancing energy efficiency, renewable energy, electrification, and zero-emission transportation for residents, businesses, and public institutions.



Revesco Properties is a boutique real estate investment and management firm focused on long-term value creation through the development, repositioning, and stewardship of well-located assets in targeted markets throughout the U.S. and Canada.









CO

# **Infrastructure in the Energy Sector**



Cloudbreak Energy Partners LLC is a private developer of distributed and utility-scale solar and storage projects, using robust site research, infrastructure analysis, and strategic partnerships to deliver reliable, cost-effective renewable energy solutions nationwide.





National Renewable Energy Laboratory is a Department of Energy lab advancing renewable energy and energy efficiency through cutting-edge research, development, and commercialization of technologies that enable a cleaner, more secure, and sustainable energy future.

Peregrine Energy Solutions LLC is a clean energy

landscape.

platform that develops, owns, and operates utility-scale storage and renewable projects, delivering zero-emission

CO



Colorado Electric Transmission Authority is a specialpurpose entity accelerating electric transmission and storage infrastructure in Colorado to support clean energy growth, grid reliability, and decarbonization through coordinated planning and investment.

power solutions across North America's evolving energy



Leeward Renewable Energy owns and operates wind, solar, and energy storage projects across the U.S., delivering clean, reliable power while advancing a lowcarbon economy and supporting sustainable infrastructure development.



Albertsons Companies, Inc. is a leading U.S. food and drug retailer operating over 2,200 stores across 34 states under banners such as Safeway, Vons, Jewel-Osco, and Acme, with extensive distribution and manufacturing infrastructure.





# **Resilient Food Systems**



Chef Ann Foundation is a national nonprofit improving student nutrition by promoting scratch cooking with whole ingredients in K-12 schools, reaching over 13,500 schools and impacting more than 3.3 million children since 2009.



Metro Caring is a Colorado nonprofit addressing food insecurity by providing culturally relevant food and wraparound services while tackling root causes of hunger through community-driven advocacy, education, and health-focused programming for lasting change.



The Colorado Blueprint to End Hunger is a collaborative initiative ensuring all Coloradans have access to nutritious, affordable, and culturally appropriate food by advancing systemic change, policy advocacy, and community-driven food system solutions.





Bonterra Organic Estates is the nation's top organic winery, producing award-winning wines from organically farmed grapes while advancing regenerative agriculture, environmental stewardship, and responsible business practices as a B Corp in Mendocino County, California.



Mad Agriculture is a Boulder-based nonprofit helping farmers transition to regenerative organic agriculture through financing, strategic support, and storytelling, aiming to heal the earth and cultivate a more just, resilient, and equitable food system.



# CAPSTONE PARTNER HIGHLIGHTS



#### **Gabrielle Fuerst**

Chief Sustainability Officer, CAP Management Three-year partner

"CAP Management would not have been able to dedicate resources to create a brand new department like sustainability in HOAs...being able to have a group of 3 students over the course of 3 years, dedicated to understanding what makes HOAs sustainable and where homeowners can make an impact in their community was invalubale."

### **Maury Galbraith**

Executive Director, Colorado Electric Transmission Authority

#### **Returning as 2025 Capstone Partner**

"The MENV Capstone Projects allow the CETA Board of Directors to set priorities and accelerate work in innovative areas such as the use of grid enhancing technologies and use of long duration energy storage to improve the operation of the existing transmission system."





### **Chris Noonan**

Senior Director, Peregrine Energy Solutions, LLC

"More than just an academic exercise, this collaboration fostered innovation, new insights, and a shared commitment to advancing clean energy while supporting the next generation of industry leaders. We deeply appreciate the dedication of the CU team and look forward to continuing this partnership in the future."

### **Tripp Baltz**

#### Head of Research, Boomtown Innovation Returning as 2025 Capstone Partner

"It not lost to us that the Capstone experience is an enormous professional and job training opportunity. Our team applied real-world thinking and action to build this Sustainable Cities Platform and they get to look back later and say we helped build that."





Capstone Events showcase the innovative, interdisciplinary work of our graduate students. Together, these events highlight the real-world solutions our students are developing for their capstone partners.

# **Design Workshop**



The Capstone Design Workshop marks the beginning of the Capstone journey, where student teams dive into the early stages of their projects. During this collaborative event, teams with similar project themes come together to review each other's scopes of work, exchange ideas, and offer constructive feedback. It's a unique opportunity to refine project goals and build a supportive peer network.

### **Poster Session**

The Capstone Poster Session highlighted the work of second-year MENV students as they shared progress on their year-long projects with peers, faculty, and staff. Students presented posters showcasing innovative and realworld solutions tackling environmental and sustainability challenges. The event created a valuable space for feedback and reflection. Highline Canal, ICLEI USA, and CETA teams received awards for best posters and presentations!





# **Symposium**

The 2024 Capstone Symposium showcased the final work of our 28 Capstone Teams. The event featured six presentation sessions held throughout the SEEC building, welcoming over 700 attendees in person and virtually attendees included students, family, friends, Capstone Advisors and Partners, our CU Boulder community and beyond. The Symposium provided an opportunity to celebrate the innovative ideas and real-world impact of the MENV Capstone projects.



As the Capstone Project ended, we wanted to assess the skills students developed, refined, and strengthened throughout the experience. Our goal was to understand how their capabilities evolved and which areas they felt most confident in by the end of the project.

**100%** of Capstone Teams reported that they developed skills in:









**Project Management** 

Communication

**Critical Thinking** 

Adaptability & Flexibility



# **Additional Skills Gained**



# **Networking in Action: Professional Engagement**

#### **Boulder County Housing Authority**



Angel Davis, Paul Venable, Kaija Jacob-Kline

Team BCHA strengthened ties with their Partner through meetings and by attending the 2024 Housing Colorado Conference.

#### **Revesco Properties**



Jessica Hertzberg, Eliza Grace, Wyatt Edeker, Robyn Bardmesser

Team Revesco gained exposure to new disciplines, career paths, and perspectives while networking with the full River Mile team.

#### **Colorado Parks & Wildlife**



Adam Auerbach, Amy Rawn, R Wilton, Katy Brennan

Team CPW built connections in conservation and public land management, culminating in a 2024 COSSA Conference presentation.

### **Outdoor Recreation Roundtable**



Sam Bruckner, Hannah Reed, Gwynnie LaMastra, Olivia Hubbard

Team ORR traveled to D.C. in May for partner events and presented final deliverables to ORR leadership in December.

# **Better Together: 2 Organizations, 1 Capstone**

## Colorado Dept of Corrections, Governor's Office of Climate Preparedness



Abigale Purvis, Trevor Ratchford, Kaeli Subberwal

Team DOC partnered with state agencies to evaluate Colorado's prison system's climate resilience by engaging stakeholders.

# Colorado Office of the Future of Work, Governor's Office of Climate Preparedness



Cayden Parris, Ashley Bleile, Tom Fitzgerald

Team OFW explored the intersection of workforce development and climate resilience by collaborating with multiple state agencies.

# **Out Where it Happens: Field Work**

#### **Boulder JCC**



Nadia Janis, Gabriela Peralta, Alexandra Skibitskaya

Team JCC got hands-on with a trash, water, and energy audits to baseline metrics to inform sustainability strategies.

#### **Highline Canal Conservancy**



Lillian Sachitano, Taylor Flanagan, Isabel Whitehead

Team Highline Canal Conservancy assessed trail accessibility by conducting in-depth field work along the High Line Canal.

# Community Connections: Stakeholder Engagement

#### **Chef Ann Foundation**



Sarah Elligot, Lili Donovan, Devon Hanna

Team Chef Ann engaged stakeholders across the school food landscape and conducted focus groups to support new program design.

### The Colorado Blueprint to End Hunger

#### **Trust for Public Land**



Alexis Shannon, Liam Diekmann, Taylor Silvester, Molly O'Brien Team TPL connected with professionals, joined site visits, and supported reforestation and public space access efforts.

### Colorado Electric Transmission Authority



Jodie Popma, Laura Fishburn, Ezra Pira Team Blueprint engaged with food system leaders, presented at the Colorado Food Systems Roundtable, and engaged grassroots stakeholders.



Sarah Harrison, Jacob Oleyar, Annalisa Teleha Team CETA addressed the CETA Board and Public Utilities Commission, interviewed industry experts, and connected with renewable energy firms and tech providers.

# **Back for More: Multi-Year Capstone Partners**

#### **Mad Agriculture**



Cat Morgan, Ruby Zolot, Clara Gambrel, Karis Moore Mad Agriculture has been a Capstone partner for five project cycles - this year's team completed projects on Haystack Farms.

#### **Metro Caring**



Jamie Rudd, Kelsey Liske, Liz Voss

Metro Caring hosted multiple Capstone teams - this team supported their Universal Basic Food initiative.

# **Out and About: Site Visits**

#### **Boulder Valley School District**

#### **CAP Management**



Andrew Neely, Ryan Brown, Sarah Nick Team BVSD conducted audits across the district, evaluating sustainability practices and identifying opportunities for improvements.



Luke Eustis, Emily Palanjian, Charles Dranginis Team CAP Management led an orientation with an affordable housing HOA, presenting sustainability strategies to member HOAs.

# **Stronger Together: Multi-Specialization Projects**

#### **Cloudbreak Energy Partners**



Lindsey Johnson, Bailie Shultz, Matthew Boltansky, Corrine Weaver Team Cloudbreak's interdisciplinary expertise supported a project on agrivoltaics as a climate solution.

#### **Drive Clean Colorado**



Harrison Killo, Jackson Myers, Kelly Zelaya, Zia Wilson

Team Drive Clean Colorado brought four disciplines to propose clean transportation solutions for Colorado.

# **Full Circle: Alumni Leading the Way**

### Leeward Renewable Energy



Imanol Amundarain, Emily Blethen, Olivia Robinson

Team Leeward was thrilled to work with MENV alum Janelle Gibbons, who added valuable insights from her experience in MENV and as a renewable energy professional.

### National Renewable Energy Laboratory



Bianca Calderon, Amanda Cushman, Makayla Ortiz

Team NREL collaborated with three Partner teams, but they all benefited from the work of MENV alumnus Jeremy Stefek who created the project.

## **On the Record: Industry Interviews**

#### **Rising Routes**





Emily Glass, Chandler Gebhardt, Sadie Rich

Team Rising Routes surveyed outdoor recreation and education leaders to explore equitable access to Colorado's public lands.

# **Workshop Creation**

### **Bonterra Organic Estates**



Michelle Auvil, Mia Westphal, Gina White & Vincent Monreal

Team Bonterra designed and led workshops on B Corp certification presenting their work to B Local Colorado and Ontario.



Rylie Niebuhr, Max Tucker, Sarah Alexander, Kylie Ward

Team Thule conducted over 30 industry interviews on advancing product circularity and enhancing program design.

# **Student-Led Initiative**

#### Boomtown



Benji Satloff, James Line, Darby Kearon

Team Boomtown recruited their own Capstone Partner and designed their own project - and the project was so successful that Boomtown came back for their second year!

# **Making it Happen: Utilizing Deliverables**

#### **Peregine Energy**



Nolan Welsh, Alec Parker, Nicole Abrahamson, Aakash Senthilkumar

Peregrine Energy is leveraging the team's Capstone deliverables to drive real-world site feasibility assessments across the Northeast, directly informing their development strategy.

#### **Restore Hetch Hetchy**



Jazlyn Nie, Megan Franco, Katherine Halama

The team's deliverables reached thousands, shaped RHH's advocacy, and inspired blog posts and media coverage, including a San Francisco Chronicle feature.





Chad Peterson, Rachel Saidman, Jack Lapsley, Dominique Dashwood Albertsons kept their team on after Capstone finished as consultant so they could support project implementation, reflecting the value and impact of the team's work.



Sophia Rivas, Emma Ritson, Avery Puig, Josefina Hajek-Herrera

ICLEI USA team's circular procurement toolkit was just released to ICLEI USA membership to support a cohort-based learning about best practices in city government procurement.

#### Albertsons

# **CAPSTONE ADVISORS**

We sincerely thank the MENV capstone advisors for their invaluable guidance, expertise, and support throughout the capstone journey. Your thoughtful feedback, encouragement, and dedication have helped shape our projects and deepen our understanding of real-world sustainability and environmental challenges. Thank you for investing your time and knowledge in our growth as sustainability professionals.



# **CAPSTONE 2024 HIGHLIGHTS**

#### **Johnathan Asher Receives Kettering Award**



We're proud to celebrate Jonathan Asher, Director of Colorado Governor's Office of Climate Preparedness and Disaster Recovery, who accepted the Cooperative Education and Internship Association's Kettering Award for distinguished excellence in applying classroom education in the real world on behalf of Colorado state agencies. Our program continues to benefit from collaborations with state agencies, many of them facilitated through Jonathan Asher's office. We are excited to continue advancing sustainability in Colorado through these collaborations in the years to come!

#### **CU Boulder Chancellor Opens 2024 Capstone Symposium**

The 2024 Capstone Symposium opened with a keynote address from CU Boulder Chancellor Justin Schwartz, highlighting the impact of MENV students and their partners. He praised their commitment to tackling real-world sustainability challenges through collaboration and innovation, reinforcing the university's support for graduate students turning academic knowledge into meaningful solutions.



#### **Abigale Purvis Accepts Job with Capstone Partner**



Congratulations to Abigale Purvis, who accepted a full-time position with the Colorado Governor's Office of Climate Preparedness and Disaster Recovery as the Climate Preparedness Manager.

"Through my Capstone project, I had the opportunity to work with Colorado Governor's Office of Climate Preparedness, gaining hands-on experience in long-range climate resilience planning. That collaboration helped bridge the gap from student to professional, leading to my full-time position. I'm excited to continue addressing these challenges across the state!"



The Capstone Program could not run without the support of:

**Myles Maland**, Senior Associate Director, Program Administration, who offers his guidance **Michelle Cadena**, Assistant Director of Graduate Student Success and Community Engagement, who supports all students experiencing challenges through the Capstone process **Liz Holland**, Enrollment and Marketing Manager, who offers her time for marketing and engagement

Laura George, MENV Career and Professional Development Manager, who develops Career Development content

**Brendan Park**, Academic Advisor, who facilitates enrollment and policy development **Bobbie Bryant**, Curriculum and Undergraduate Program Coordinator, who supports enrollment and evaluation

Mary Hardwick, Finance Manager, who guides us through finance processes Tiffany Bickers, Human Resources & Faculty Support Manager, who offers HR support

MENV Faculty (**Meghan McCarroll**, **Gregor MacGregor**, **Natalie Ooi**, **Josh Radoff**, **William Shutkin**, and **Damien Thompson**) for their support with partner recruitment, proposal review, and for their continued feedback in program design and execution.

**MENV lecturers**, **alumni**, and **sustainability professionals** across the country for delivering workshops and mentor our students and CU Boulder staff who support our work logistically.

And Capstone Graduate Student Assistants, who run all Capstone operations and research!

#### **Prepared By:**



Bailie Shultz Author Bailie researched sustainability competencies and designed the Annual Report.



Hannah Reed Co-Author Hannah created the master capstone directory and conducted research for the report.



Sarah Nick Capstone GSA Sarah wrote partner emails and newsletters and led the Capstone Symposium.



**Emily Palanjian Capstone GSA** Emily redesigned Capstone branding and led Capstone Partner recruitment strategies.