



COLORADO MESA UNIVERSITY

ANNUAL 2016/2017 REPORT

RUTH POWELL HUTCHINS
WATER CENTER



COLORADO MESA
UNIVERSITY

RUTH POWELL HUTCHINS
WATER CENTER

coloradomesa.edu/water-center



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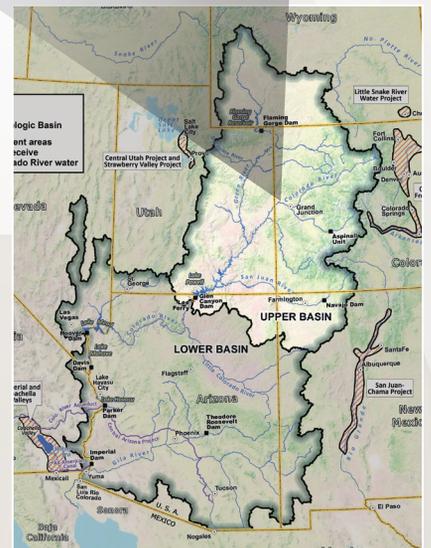
To coordinate with the University's academic and fiscal years, the Annual Report covers the time period July 1, 2015 – June 30, 2016.

Note: Fiscal Year (FY) = July 1 through June 30



Upper Colorado River Basin

Map credit: Drezden Kinnaird, CMU Geographic Information Systems Student



The Water Center's leadership on creating the Integrated Watershed Management Framework is an important and innovative approach to helping water managers and community members understand how water works in our region. We expect this tool to be extremely helpful as communities begin to address water planning needs.

— Stacy Beaugh, *Tamarisk Coalition*

MISSION

THE MISSION OF THE RUTH POWELL HUTCHINS WATER CENTER AT COLORADO MESA UNIVERSITY (CMU) IS TO PERFORM AND FACILITATE INTERDISCIPLINARY AND COLLABORATIVE RESEARCH, EDUCATION, OUTREACH AND DIALOGUE TO ADDRESS THE WATER ISSUES FACING THE UPPER COLORADO RIVER BASIN.

From the Coordinator and Faculty Director

During the 2016-17 fiscal and academic year, the Ruth Powell Hutchins Water Center moved into new territory in promoting research and dialogue while maintaining our educational and outreach activities, such as the annual student water field conference, annual State of the River meeting hosted with the Colorado River District, Natural Resources Seminar Series, and continued electronic, print and social media presence. Our vibrant two-day sixth annual Upper Colorado River Basin Water Forum drew 120 people from five states. In addition, we continued to engage more students from CMU in our research projects, educational activities and events.

On the research front, we started a new CMU student water research grant program and continued collaborative projects with other universities. Our new CMU student grant program, funded by the endowment established by the Ruth Powell Hutchins family, is funding a student to study selenium pollution potential from Mancos Shale. Several ongoing and productive collaborative research projects with faculty from Colorado State University, Metropolitan State University of Denver, and the University of Colorado – Boulder are enriching our understanding of snowpack and streamflow on the east and west slopes as well as campus water use.

Other new collaborative projects this year resulted in exciting opportunities to engage water professionals in dialogues about innovative water management. Through partnerships with the Water Bank Work Group and the Grand Valley Water Users Association, we facilitated dialogue on the potential benefits and challenges of demand management activities in agriculture. With the Colorado Basin Roundtable and funded by the Colorado Water Conservation Board, we are exploring how different water user and stakeholder groups can come together to identify win-win solutions for managing streams.

None of these activities would be possible without the generous financial support we have received in the form of grants, donations, event sponsorships and registrations. We are deeply grateful to all of our financial partners and for the broad community of water thinkers who help expand our own understanding of water issues and make our events successful in educating others.

Looking ahead, we are excited to continue developing new partnerships and expanding the reach of informed, productive public engagement on the water issues facing the Upper Colorado River Basin.

Warm regards,

Hannah Holm, Coordinator
Gigi Richard, Director



Hannah Holm,
Coordinator



Gigi Richard, PhD,
Faculty Director



Participants in the 2016 Student Water Field Conference learn about riparian restoration on the Colorado River in Fruita.

Education and Outreach

During the 2016-17 fiscal year, the Hutchins Water Center pursued the education and outreach portion of its mission by holding two major events and a weekly seminar series and communicating through media and electronic channels.

State of the River/ Business connections to water

In May, the Hutchins Water Center once again partnered with the Colorado River District for the annual “State of the River” seminar, with the added twist of a special afternoon session focusing on why businesses should care about what happens with the Colorado River. This event, organized together with the Business for Water Stewardship organization, brought a deeper level of engagement with the local business and economic development community than the Hutchins Water Center has previously achieved.



Student Water Field Conference

In September 2016, the Hutchins Water Center hosted college students from around Colorado for the 3rd annual Student Water Field Conference, organized in collaboration with the One World, One Water Center at Metropolitan State University of Denver and attended by twelve undergraduate and graduate students from MSU-Denver, CU-Boulder, CSU and CMU. The students camped along the river in Fruita, toured the nearby riparian restoration area and the Grand Valley Unit of the Ouray National Fish Hatchery, kissed razorback suckers, visited both large and small-scale local farms and enjoyed a farm dinner provided by Produce Peddler in Loma.



Students from various universities attended the Student Water Field Conference. Students camped along the river, toured a riparian restoration area and a hatchery, and visited local farms.

Natural Resources Seminar Series

CMU's annual fall Natural Resources Seminar Series brought outstanding speakers to campus each week for seminars that are a class for about 50 environmental science and geology students as well as being open to the public. The 2016 series featured several water-focused topics, including riparian restoration, tamarisk beetle impacts, impacts of water management to benefit endangered fish on agriculture, an assessment of the fish community in the Animas River after the Gold King Mine spill, and endangered fish of the Colorado River Basin.

Print Media

The Hutchins Water Center contributes to news coverage of water issues both through writing articles and by channeling information to journalists. Hutchins Water Center staff wrote an article on Grand Valley farmers' participation in drought planning that appeared in the Glenwood Springs Post-Independent and the Delta County Independent in December of 2016, and the Center's Upper Colorado River Basin Water Forum received extensive coverage in Grand Junction's The Daily Sentinel.

Electronic Communication

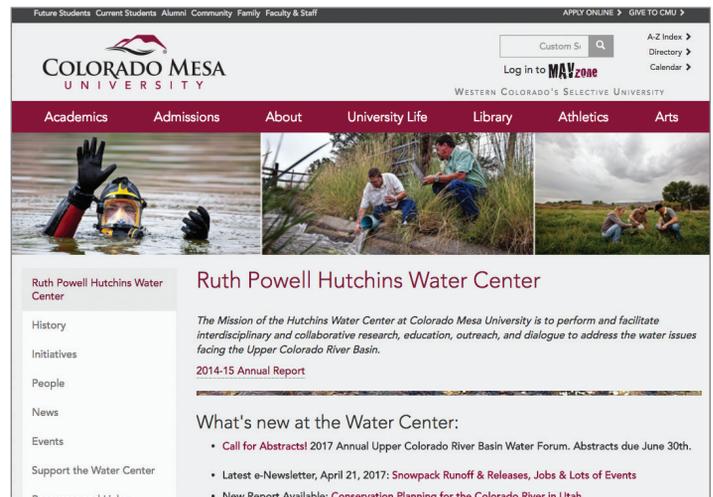
The Hutchins Water Center regularly updates the more than 1,500 subscribers to its email news list about recent developments in science and policy related to the Colorado River, as well as water meetings across the region. The Center also maintains an active social media presence, with over 350 followers on Facebook and 1,000 followers on Twitter.

Dialogue

The Hutchins Water Center reaches out to diverse segments of the regional water community and convenes them to learn together and share perspectives.

Upper Colorado River Basin Water Forum

The Hutchins Water Center held its 6th annual Upper Colorado River Basin Water Forum on November 2-3. The theme of "Complex Systems in Flux: Changing Relationships between Water, People and the Environment," brought out a diverse, interstate audience. Presentations addressed the complications as well as the potential benefits involved with trying to manage streams for multiple purposes. Supply and demand imbalances and drought planning in the Colorado River were also addressed from multiple state perspectives. Keynote speakers Jack Schmidt, Professor of Watershed Sciences at Utah State University, and Tom Buschatzke, Director of the Arizona Department of Water Resources, presented cutting edge information on the science and politics of managing the Colorado River.



Water Center activities and learning opportunities are posted on coloradomesa.edu/water-center.



The sixth annual Upper Colorado River Basin Water Forum was held November 2-3. The theme was "Complex Systems in Flux: Changing Relationships between Water, People and the Environment."

Grand Valley Water Banking Discussions

The Hutchins Water Center, in coordination with the Grand Valley Water Users and Water Bank Work Group, convened a meeting October 13, 2016 to discuss water banking pilot projects in the Grand Valley. We are continuing to work with these groups to convene additional meetings to help shed light on challenges and opportunities related to water banking.

Integrated Water Management Planning

The Hutchins Water Center is coordinating the Integrated Water Management Planning Framework Project for the Colorado Basin Roundtable. This project seeks to build a foundation for conducting comprehensive integrated water management plans in the mainstem Colorado River Basin in Colorado. The purpose of these plans will be to identify ways to provide water for environmental needs in conjunction with the needs of agricultural, domestic and industrial water users. During the 2016-17 fiscal year, the Hutchins Water Center developed an extensive bibliography and contracted with Lotic Hydrological for the development of a set of data visualization tools to help stakeholders identify flow challenges on their streams. Several stakeholder meetings have been held to inform the project, and a steering committee of Colorado Basin Roundtable members is working closely with Hutchins Water Center staff to ensure that the project meets the needs of the Roundtable.

Research

The Hutchins Water Center promotes, conducts and showcases research on Upper Colorado River Basin water issues through our Upper Colorado River Basin Resource Guide, student and faculty research projects and our scientific and technical report series. This past year, we also initiated a student water research grant program.

Student Water Research Grant

In Spring of 2017, the Hutchins Water Center issued its first grant to provide resources for a CMU student water research project, with support for the supervising faculty advisor. The selected project is researching the distribution of selenium in Mancos Shale crusts and the potential for pollution from them. This grant program was made possible by the proceeds from the Center's endowment, which was established by the family of Ruth Powell Hutchins.

Colorado Water Collaboratory

The Hutchins Water Center participated with the University of Colorado – Boulder, the One World One Water Center at Metropolitan State University of Denver and their water suppliers. The purpose of this effort was to utilize the three university campuses as living laboratories for innovating and understanding better ways to manage water resources. Fiscal Year 2016-17 activities included gathering baseline water use data and conducting opinion surveys of students, faculty and staff.



The first Student Water Research Grant was awarded to Rachael Lohse, Geosciences student and advisor, Dr. Bill Hood, Affiliate Faculty, Geosciences. They are studying selenium in Manco Shale crusts and their pollution potential.

Ongoing Student and Faculty Research Collaborations

Hutchins Water Center staff have facilitated collaboration among CMU faculty and students and researchers at Colorado State University and other organizations on several projects:

- Hutchins Water Center Director, Gigi Richard, PhD and Stephanie Kampf, PhD, of Colorado State University are continuing a multi-year field study on the Grand Mesa to better understand the role of mid-elevation snowpack in streamflow. CMU students are participating in the project as research assistants.
- Perry Cabot, PhD, the Western Regional Water Specialist for Colorado State University's Colorado Water Institute, has supervised several CMU student research projects related to agricultural water use over the past two years.



CMU students participating in a multi-year field study with CMU about the role of mid-elevation snowpack in streamflow on the Grand Mesa.

Scientific and Technical Report Series

This report series showcases recent research that is useful in understanding and addressing Upper Colorado River Basin water issues. The third report in the series, Conservation Planning for the Colorado River in Utah, by Christine G. Rasmussen and Patrick B. Shafroth, was published in December of 2016. This report describes a broad-scale, spatially-explicit assessment of 146 miles (~20,000 acres) of the Colorado River mainstem in Grand and San Juan Counties, Utah that will function as the basis for a systematic, practical approach to conservation planning and riparian restoration prioritization.

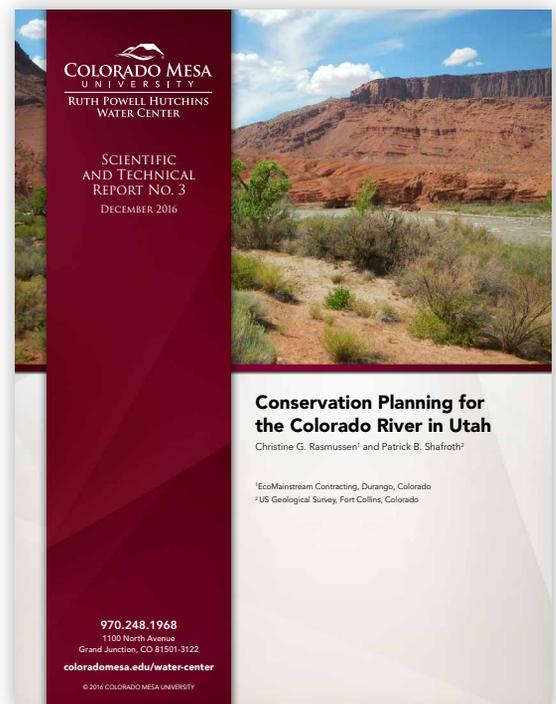
Upper Colorado River Basin Resource Guide

The Hutchins Water Center has continued to develop and populate an on-line resource guide to help people find digital resources on regional water resources and water challenges. Currently, the most populated portion of the guide is the "Colorado Headwaters" section, which we are using as the repository for studies and maps that will form the foundation of the Colorado Basin Roundtable's Integrated Water Management Planning Framework Project. To explore the resource guide, visit uppercoloradoriver.org.

Looking Ahead

In 2017-18, the Hutchins Water Center looks forward to further expanding our educational activities, as well as deepening our promotion of research and dialogue on the key issues facing the Upper Colorado River Basin.

- We plan to strengthen our support for K-12 water education through teacher training programs and enhanced resources.
- We will enhance outreach beyond the water community, with tours and events that blend entertainment with water education and reach out to new audiences, including the business and economic development communities.
- We will deepen our involvement in facilitating productive dialogue related to water security and integrated water planning.



The third report in a series showcasing research about water issues in the Upper Colorado River Basin, Conservation Planning for the Colorado River in Utah, is posted at coloradomesa.edu/water-center/scientific-technical-reports.

Water Center Financial Summary

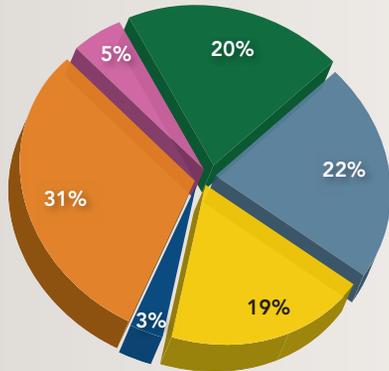
	FY16 SUMMARY			FY17 SUMMARY		
	Donations + Events	Grants	Total	Donations + Events	Grants	Total
Fund Balance from previous FY	\$32,135	\$77,492	\$109,627	\$30,256	\$17,325	\$47,581
INCOME						
Grants		\$4,882	\$4,882		\$111,351	\$111,351
Donations + Sponsorships	\$33,620		\$33,620	\$23,860		\$23,860
Registrations	\$8,005		\$8,005	\$10,350		\$10,350
Tamarisk Coalition Conference (pass through)	\$13,589		\$13,589			
Fire re-seeding (pass through)	\$901		\$901			
SGM						
FY Revenue	\$56,115	\$4,882	\$60,997	\$34,210	\$111,351	\$145,561
EXPENDITURES						
Wages	\$14,425	\$26,374	\$40,799	\$4,200	\$36,565	\$40,765
Benefits	\$1,869	\$3,462	\$5,331	\$540	\$4,822	\$5,362
Student Assistants		\$1,998	\$1,998		\$3,174	\$3,174
Guest Speakers and Professional Services	\$5,881	\$23,954	\$29,835	\$5,004	\$26,365	\$31,369
Printing	\$4,198	\$1,155	\$5,353	\$1,345	\$-	\$1,345
Meeting and Conference Registrations	\$1,217	\$1,320	\$2,537	\$892	\$-	\$892
Overhead**	\$3,884	\$2,067	\$5,951	\$2,057	\$-	\$2,057
Indirect Costs		\$2,007	\$2,007		\$469	\$469
Event Food and Drink	\$10,619		\$10,619	\$8,670	\$324	\$8,995
Subscriptions and Books	\$975		\$975	\$-	\$-	\$-
Travel	\$1,243	\$1,811	\$3,054	\$2,683	\$228	\$2,910
Tamarisk Coalition Conference (pass through)	\$13,338		\$13,338			\$-
Fire re-seeding (pass through)	\$345		\$345	\$385		\$385
Foundation CC fees		\$901	\$901	\$-		\$-
Other Expenses and Transfers	\$57,994	\$65,049	\$123,043	\$25,775	\$71,946	\$97,721
FY Expenditures	\$57,994	\$65,049	\$123,043	\$25,775	\$71,946	\$97,721
FY Net	\$(1,879)	\$(60,167)	\$(62,046)	\$8,435	\$39,405	\$47,840
Fund Balance	\$30,256	\$17,325	\$47,581	\$38,691	\$56,730	\$95,420

*FY: Fiscal Year July 1 through June 30

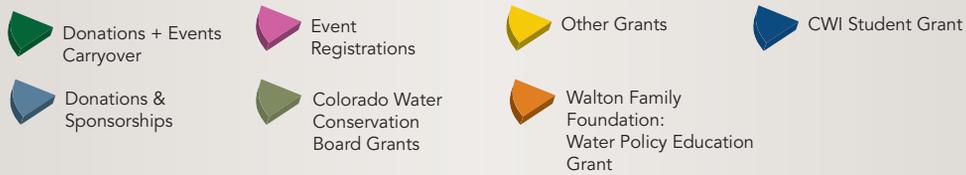
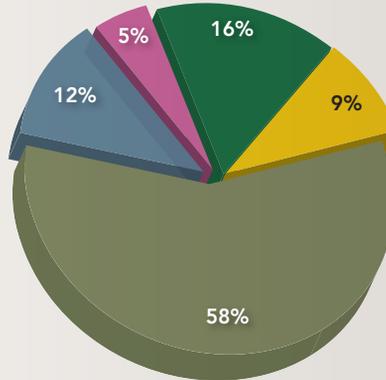
**Overhead: Supplies, telephone calls, advertising, postage, dues and membership, and rent/lease equipment (telephone).

Water Center Financial Summary (continued)

FY16 Revenues and Balance, \$150,035*
(includes fund balances from FY15)

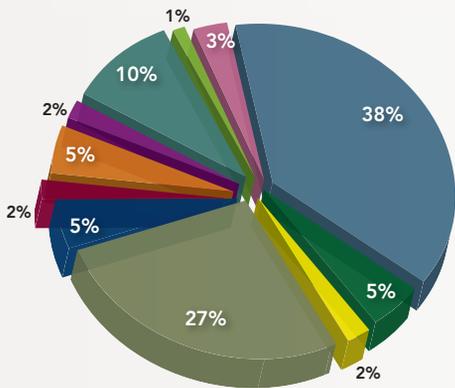


FY17 Revenues and Balance, \$193,142
(includes fund balances from FY16)

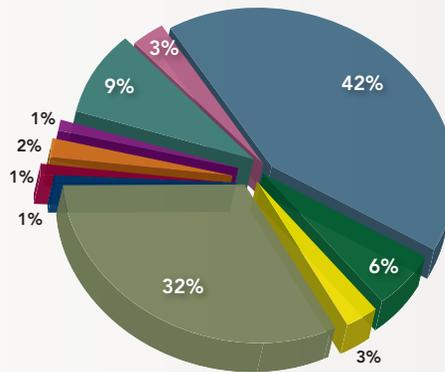


*The Tamarisk Coalition conference (\$13,589) was not included to show a more realistic picture of Water Center activities.

FY16 Expenditures, \$109,705*



FY17 Expenditures, \$97,721



*The Tamarisk Coalition Conference (\$13,589) was not included to show a more realistic picture of Water Center activities.
**Overhead = Supplies, telephone calls, advertising, postage, dues and membership and rent/lease equipment (telephone).



Since its inception, the RPH Water Center at CMU has proven to be a valuable resource in all things addressing western Colorado's most important natural resource, the Colorado River system. The center facilitates public learning on the river. It also provides services that assist public entities such as the Colorado River District, the Colorado Basin Roundtable and the Gunnison Basin Roundtable in their endeavors to create balanced planning and activities that bring about understanding and to improve the watershed.



—Jim Pokrandt,
*Director of Community Affairs,
Colorado River District*



The Water Center has been an integral part of my education experience here at Colorado Mesa University. The center has provided me with excellent opportunities to learn through programs such as the annual water conference and summer internship. One of the highlights of my semester was being asked to show a research project during the annual Upper Colorado River Basin Water Forum.



—Christopher Pack,
Colorado Mesa University student

Water Center at CMU Advisory Council

Chair 2016/17:

Dan Crabtree, Palisade Irrigation District

Vice chair 2016/17:

Ken Neubecker, Western Rivers Institute

Cary Baird, Chevron

Geoff Blakeslee, The Nature Conservancy

Corey Beaugh, Colorado Division of Water Resources

Larry Clever, Ute Water Conservancy District

Lurline Curran, Grand County

Carlyle Currier, Rancher

Bill Edwards, U.S. Forest Service

Steve Fletcher, Fire Mountain Canal and Reservoir Company

Russell George, Colorado Water Conservation Board

David Graf, Colorado Division of Parks and Wildlife

Mark Harris, Grand Valley Water Users Association

Shannon Hatch, Tamarisk Coalition

Mike Higgins, Grand Junction Pipe and Supply

Will Hutchins, Farmer

Kirsten Kurath, Williams, Turner & Holmes, PC

John Porter, Dolores Water Conservancy District

Bruce Smith, Western Water & Land

Chris Treese, Colorado River Water Conservation District

Kirby Wynn, Garfield County



2016/2017 Water Center Grantors, Donors and Sponsors

The Water Center appreciates the support of the following organizations whose generous grants, donations, and sponsorships support research projects and educational and outreach activities. Without this support, our work would not be possible.

		<p>COLORADO Colorado Water Conservation Board Department of Natural Resources</p>	GRANTORS
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	DONORS*		2016 ANNUAL FORUM SPONSORS
<p>Lake Powell (\$2,500+) Judith Hutchins Ute Water</p>		<p>2016 Annual Forum Sponsors</p>	
<p>Cataract Canyon (\$1,000 - \$2,500) Colorado River District Anonymous Donor</p>		<p>\$2,000 + Colorado Water Conservation Board Ute Water</p>	
<p>Echo Park (\$500 - \$999) Grand Junction Pipe & Supply Uncompahgre Valley Water Users Association</p>		<p>\$1,500 Denver Water City of Grand Junction Colorado River District</p>	
<p>Shoshone (\$250 - \$499) Rain Bird Munro Companies Star Pipe Products Palisade Irrigation District Centennial Plastics Inman Interwest, Inc Fresno Valves & Castings RA Nelson, LLC</p>		<p>\$1,000 City of Grand Junction Colorado River Water Conservation District Grand Valley Water Users Association</p>	
<p>Four Corners (\$100 - \$249) Russell Davies Andrew Ford Mountain West Marketing</p>		<p>\$500 WestWater Engineering Central Utah Water Conservancy District Western Water & Land J-U-B Engineers SGM</p>	
<p>La Poudre Pass (< \$99) Collin Robinson Julie Sabin Geo Smith Engineering</p>		<p>\$250 Colorado Foundation for Water Education Trout Unlimited Middle Colorado Watershed Council</p>	
<p>*The giving levels reflect flows at key points in the Upper Colorado River Basin.</p>			



The Grand River Diversion Dam in DeBeque Canyon, known as the "Roller Dam," opened in 1915 and supplies irrigation water for over 50,000 acres in the Grand Valley.



RUTH POWELL HUTCHINS
WATER CENTER

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