

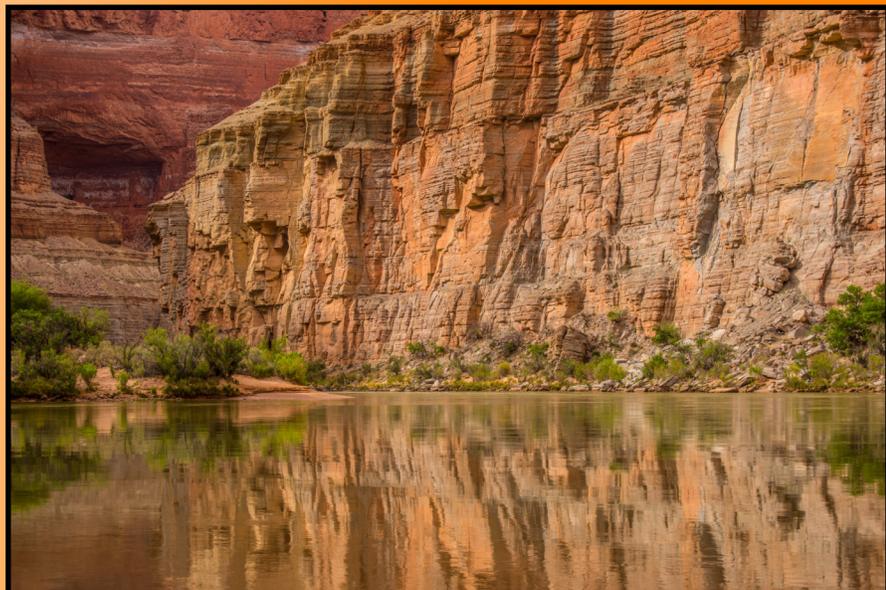
# FCGS Newsletter

P.O. Box 1501 | Durango | CO 81302 | [www.fourcornersgeologicalsociety.org](http://www.fourcornersgeologicalsociety.org)



## November 2020

- SPEAKER:** Eric Kuhn, retired Colorado River Water Conservation District  
*AND*  
John Fleck, Director of the University of New Mexico's Water Resources Program
- TITLE:** *Science Be Dammed – How Ignoring Inconvenient Science Drained the Colorado River*
- DATE:** Thursday, November 19, 2020
- TIME:** Please login to meeting a little before 5:30 pm  
5:30 - 6:00 Catching up and socializing (in breakout rooms if it gets too busy in the main room)  
6:00 - 6:15 back to meeting for society business announcements and introductory remarks  
6:15 - 7:15 talk & Q&A
- LOCATION:** Your own home! This is a Zoom meeting hosted by FLC. See the [Link on Page 3](#) to join the meeting.
- COST:** Free but please renew your membership!  
Please check your email if you are wondering if you membership is current.



# November 2020

## Officers of the Society

### Past President

Sabina Kraushaar

### President

Jon Harvey

### President-Elect

David Schiowitz

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### Secretary

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### Newsletter Editors

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## Officers of the Foundation

### President

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## Abstract

In their new book **Science Be Dammed: How Ignoring Inconvenient Science Drained the Colorado River**, Eric Kuhn and John Fleck explain how even when clear evidence was available that the Colorado River could not sustain ambitious dreaming and planning, river planners and political operatives irresponsibly made the least sustainable and most dangerous long-term decisions. Arguing that the science of the early twentieth century can shed new light on the mistakes at the heart of the over-allocation of the Colorado River, Kuhn and Fleck delve into rarely reported early studies, showing that scientists warned as early as the 1920s that there was not enough water for the farms and cities boosters wanted to build. Contrary to a common myth that the authors of the Colorado River Compact did the best they could with limited information, they show the boosters selectively chose the information needed to support their dreams, ignoring inconvenient science that suggested a more cautious approach. long-term decisions.

Today water managers are struggling to come to terms with the mistakes of the past. Focused on both science and policy, Kuhn and Fleck unravel the tangled web that has constructed the current crisis. With key decisions being made now, including negotiations for rules governing how the Colorado River water will be used after 2026, *Science Be Dammed* offers a clear-eyed path forward by looking back.

Understanding how mistakes were made is crucial to understanding our contemporary problems. *Science Be Dammed* offers important lessons in the age of climate change about the necessity of seeking out the best science to support the decisions we make.

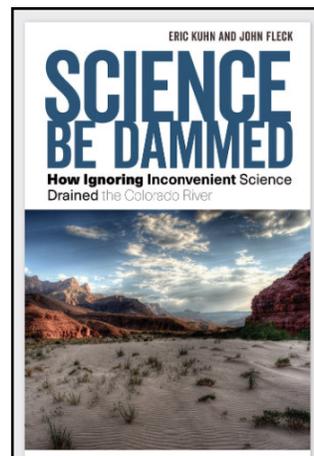


## Biography

### John Fleck

Director, Water Resources Program  
University of New Mexico

John Fleck is Professor of Practice in Water Policy and Governance in the University of New Mexico Department of Economics and director of the university's Water Resources Program, where he co-teaches classes in contemporary water policy issues, modeling, and technical communication for water managers. A science journalist with 30 years of newspaper experience, he first wrote about water in the 1980s as a beat reporter covering the Metropolitan Water District of Southern California. He is the author of the



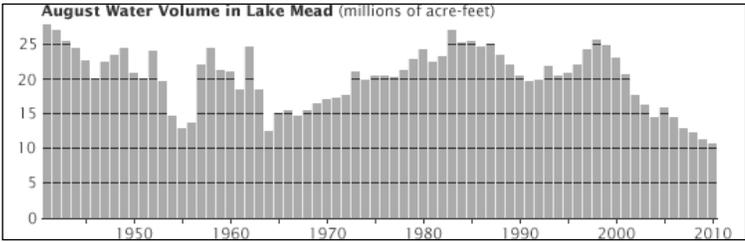
books *Water is for Fighting Over* and *Other Myths About Water in the West*, an exploration of solutions to the Colorado River Basin's water problems, and co-author of *Science Be Dammed: How Ignoring Inconvenient Science Drained the Colorado River*.

### Eric Kuhn

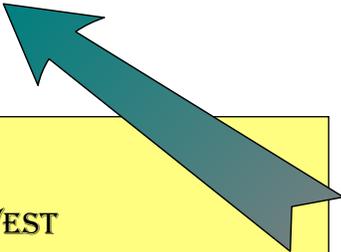
Retired General Manager

Colorado River Water Conservation District  
Eric Kuhn is the retired General Manager of the Colorado River Water Conservation District and co-author with John Fleck of *Science Be Dammed: How Ignoring Inconvenient Science Drained the Colorado River*, University of Arizona Press, Fall, 2019. The Colorado River District is the largest and oldest of Colorado's four conservation districts. It covers most of the Colorado River Basin within Colorado. Almost two thirds of the flow at Lee Ferry originates in or flows through the district. Eric started employment with the Colorado River District in 1981 as Assistant Secretary-Engineer. In 1996 he was appointed General Manager, a position he held until his retirement in 2018.

# November 2020



**Meeting Zoom Link:**  
<https://fortlewis.zoom.us/j/99829104878>



**UP THIS MONTH:  
SCIENCE BE DAMMED!  
DISCUSSION OF COLORADO RIVER & WATER ISSUES IN THE WEST**



Lake Mead 1985



Lake Mead 2010



Lake Powell 1999



Lake Powell 2019

# November 2020

## PREZ SEZ



Jon Harvey on 2019 hike / train fieldtrip

### *Greetings FCGS Members!*

We are back in the season of early sunsets and frigid mornings here in Durango, which has me thinking about warmer places ... like ... the mantle! That is about how hot we have been running the woodstove recently, anyway. I hope everyone is staying cozy.

Up here at Fort Lewis College (where we recently had to change to online learning), we are looking back on a nice fall

semester with lots of field trips, interactive, in-person labs, and forward progress on student research.

I am really missing the camaraderie of our in-person FCGS meetings (and the always-interesting dinner buffets), but I think we are starting to figure this Virtual-Presentation business out. I encourage those who haven't yet joined us on Zoom to try to attend our coming meetings (more information about those later in this newsletter).

This month we have a very enticing talk lined up from John Fleck and Eric Kuhn about the all-important and ever-contentious waters of the Colorado River. I hope you will join us for their talk on Thursday, Nov 19. Look for the Zoom link in this newsletter or in the reminder email that goes out on Thursday. It is easy to pop on and chat (if you like) with other attendees, or just hang out until the presentation starts.

I look forward to seeing you all in little square boxes on my screen soon,

- Jon

In this time of relative isolation and lack of travel, I wanted to point everyone to some very cool 'virtual' field trips that I have come across recently, on the chance it might satiate your appetite for outcrop. Some are more 'guided' and some are more just unguided 3-D photo-spheres. Check them out below:

- Streetcar to Subduction (San Francisco Bay Area): <https://www.agu.org/learn-and-develop/learn/streetcar2subduction/streetcar2subduction>
- Self-guided tour of building geology in Washington, DC: <https://eos.org/geofizz/self-guided-tour-of-the-geology-in-d-c-buildings>
- Mafic volcanics atop felsic intrusives: Sonora Pass, California: <https://blogs.agu.org/mountainbeltway/2018/06/25/mafic-volcanics-atop-felsic-instrusives-sonora-pass-california/>
- Tearing through California Part 1: the Central San Andreas: <https://blogs.agu.org/tremblingearth/2015/04/17/tearing-through-california-part-1-the-central-san-andreas/>
- Moiry Valley, Switzerland (glacial goodness): <https://vrglaciers.wp.worc.ac.uk/wordpress/moiry-valley-virtual-field-trip/>
- Arizona State University's Virtual Field Trip collection: <https://vft.asu.edu/>
- V3Geo - Virtual outcrop models (lots of industry-relevant outcrops): <https://v3geo.com/search>
- Columns of the Giants, CA: <http://www.sciencefriday.com/educational-resources/360-degree-expedition/>
- Outcropedia: <http://outcropedia.tectask.org/the-outcropedia-map/>
- Stanford Virtual Field Trips: <https://fielddeduction.stanford.edu/virtual-field-trips>

**VIRTUAL FIELD TRIPS!**

# November 2020



## *New! FCGS 2021 Calendar Project*

A few of our restless geo members in Durango have thrown out the idea of creating a 2021 FCGS Calendar. It's a bit late this year but we would like to go for it and see if we can make it happen.

So..... CALLING ALL PHOTOS!  
Submit your cool geo photos - in as high a jpeg resolution as possible - and we will use them in the new 2021 Calendar. We can build upon the great responses we got last fall to the Photo Contest.

**Deadline is day after Thanksgiving or November 27th.**

Load into Tom Ann's Google Drive:

***Link to download your photos***



December Meeting  
Date will be announced soon and we will email you.



FOR IMMEDIATE RELEASE

## **Rocky Mountain Section of AAPG Announces its 2020 Teacher of the Year**

Casper, WY -- The Rocky Mountain Section of AAPG is pleased to announce the winner of its 2020 Teacher of the Year Award, Rhoda Perkes. Because the Section meeting planned for the middle of September in Grand



Junction, Colorado was cancelled, the presentation of the 2020 Award was made by mail and a virtual presentation at the October Utah Geological Association luncheon meeting.

The RMS-AAPG Teacher of the Year Award recognizes teaching excellence in geology and earth science. Rhoda Perkes is the first full time Earth Science teacher at Lone Peak High School in Highland, Utah. She has taught science for the past 5 years and uses her role as a facilitator to engage students. She provides ample opportunities for groups of students to conduct research, work with provided data, do laboratory exercises, and perform other goal-oriented hands-on activities. Her love of earth science is contagious as she sets high expectations for her students and prepares them to be scientifically literate. She is the Utah Geological Association's 2020 Teacher of the Year. As RMS-AAPG Teacher of the year, she has received an award plaque and a \$2,000 check from the Rocky Mountain Section.



# FOUR CORNERS GEOLOGICAL SOCIETY

P.O. Box 1501, Durango, CO 81302

**MEMBERSHIP RENEWAL or APPLICATION: June 1, 2020 to May 31, 2021**



\*Name: \_\_\_\_\_

\*Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

\*Email: \_\_\_\_\_ Phone: \_\_\_\_\_

\*Employer: \_\_\_\_\_

### Please Identify a Membership Category:

**\*Please check your interests:**

- Sedimentology & stratigraphy
- Structure & tectonics
- Mineralogy, petrology, geochemistry
- Igneous geology, volcanology
- Ore geology and hard rock mining
- Other mineral extraction
- Petroleum geology
- Geophysics
- Geological engineering
- Geomorphology
- Quaternary geology
- Hydrology & water resources
- Environmental geology
- Geography / GIS
- Other interest (see box)

<b>Active Member</b>	\$25	Any person engaged in the practice or teaching of geology or who holds a Bachelor's Degree in geological science from a college of acceptable academic standards. Degree requirement may be waived if applicant has adequate professional experience. <i>*Highest Degree, Type and Year:</i> _____ <i>*College / University:</i> _____
<b>Associate Member</b>	\$25	Any person who is a graduate of a college of acceptable academic standards with major studies related to, or associated with, geology. Degree requirement may be waived if applicant has adequate professional experience. <i>*Highest Degree, Type and Year:</i> _____ <i>*College / University:</i> _____
<b>Student Member</b>	Free	Any undergraduate or graduate student majoring in geology at a college of acceptable academic standards. <i>*College / University:</i> _____ <i>*Year expected to graduate:</i> _____
<b>Emeritus Member</b>	Free	An Active Member of 65 years old or older who has been a member for 25 years including time spent in military service. <i>*Year emeritus status was awarded:</i> _____
<b>Honorary Member</b>	Free	An Active Member who has contributed distinguished service to the profession of geology and to the betterment of the FCGS. Determination is made by the FCGS Executive Committee. <i>*Year honorarium was awarded:</i> _____

**Other Professional Interests:**

*\* Required information for new members. Current Members, please update.*

**Please either print, complete and return this form with your check for dues made payable to: "Four Corners Geological Society" and mail to the address above or go online to [fourcornersgeologicalsociety.org](http://fourcornersgeologicalsociety.org) .**