

Forests to Faucets: My Water Comes from the San Juan Mountains Teacher Workshop Series

*Final Report to Colorado Water Conservation Board
POGG1,PDAA,201900002804*



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 **Mountain Studies Institute**
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I: Introduction & Goals

Mountain Studies Institute (MSI), in partnership with San Juan Mountains Association (SJMA), and the Water Information Program (WIP), was generously awarded \$17,500 from the Colorado Water Conservation Board through the Water Supply Reserve Fund grant program in the Education and Outreach category to support the teacher training workshop series – *Forests to Faucets: My Water Comes from the San Juan Mountains* for 2019-2021. The design team for the workshop series included partners from MSI, WIP, SJMA, and Fort Lewis College. Aurora's Forests to Faucets teacher training program provided the framework for the traveling workshop and the *My Water Comes from the San Juan Mountains* book, teacher kit, and guide, were selected as the principal tools around which the workshop's content was focused, originally initiated in 2008. While the teacher kits have already been distributed to elementary schools throughout the region during past program activities, due to teacher attrition and other administrative changes over time, there existed a real need to provide training on and support for this great resource, as well as to update our teaching guide, which was in need of many updates since originally compiled in 2008. The goals for this grant funding were to: (1) outreach to and expand the geographic network of new teachers trained with *My Water* resources, (2) educate teachers on water, watershed science, water resources, impacts of the recent drought, and municipal water infrastructure (3) prepare teachers to implement the *My Water* interactive curriculum in their own classrooms, (4) supply participating teachers with new kits for their schools, (5) update information in the teaching guide, and (6) evaluate the impact of the *My Water* kit and workshop. In 2020, the COVID-19 pandemic created several new challenges for this workshop. However, through creative solutions, we were able to hold the workshop while adhering to all safety precautions. All the educators that attended expressed gratitude that the workshop was offered and that they were able to learn new ways to educate students about water.

II. Outcomes

Animas River Watershed Teacher Workshop

The two-day workshop (June 5-6, 2019) was offered free of charge to educators. There were 17 registrants from 14 schools and organizations. The workshop provided the opportunity for teachers to receive one graduate credit from Adams State University as well as 16 contact hours for teacher recertification. Participants traveled in two vans throughout the Durango and surrounding areas to gain first-hand experiences and knowledge about the places they will be teaching their students. Along the way, teachers wore the "student hat" while instructors demonstrated teaching activities from the *My Water* guide. The group also met with water resource experts and scientists who covered topics ranging from the importance of water quality and quantity, the impacts of wildfire on municipal water supply, to touring the Durango Water Treatment Plant and Animas-La Plata Pumpouse, to the "how to" of implementing watershed service learning initiatives. Appendix A provides the full 2019 workshop agenda and Appendix B presents workshop photos.

San Juan River Workshop

The two-day workshop (August 3-4, 2020) was offered free of charge to educators. There were 21 registrants, but due to complications in many schedules because of the pandemic, ultimately 10 participants attended both days, representing 7 schools and organizations. The workshop provided the opportunity for teachers to receive one graduate credit from Adams State University as well as 16 contact hours for teacher recertification. In order to adhere to COVID-19 safety precautions, the workshop was held entirely outside, wearing masks at all times, and respecting social distancing. Most participants traveled in their own personal vehicles. Four participants traveled in one 15-passenger van (adhering to the protocol of less than 50% occupancy). In this way, all participants caravanned throughout the Pagosa Springs and surrounding areas to gain first-hand experiences and knowledge about the places they will be teaching their students. Along the way, teachers wore the "student hat" while instructors demonstrated teaching activities from the *My Water* guide. The group also met with water

resource experts and scientists who covered topics ranging from the importance of water quality and quantity, the impacts of wildfire on municipal water supply, to touring the Pagosa Area Water and Sanitation District treatment facilities and the Geothermal Greenhouses, to the “how to” of implementing watershed service learning initiatives. Appendix A provides the full 2020 workshop agenda and Appendix B presents workshop photos.

Updates to Course Materials

The F2F team has been struggling with finding ways to improve our course content for several years, but capacity for the partner organizations and funding have prevented us from doing so. We made the decision to redirect funds from the proposed Scope of Work and hire a subcontractor to help with this task. A few factors made this especially attractive to our team at this time. One employee of the San Juan Mountains Association who had been a part of the F2F team was moving on from the organization and relocating to another state. While she was no longer able to participate in workshop planning, her extensive knowledge of the course content and the needed updates made her an exceptional choice to take on the course material updates. She was contracted from January 1 – May 15, 2020. The updated materials were launched at the 2020 workshop. This material will be used to augment our workshops for many years to come.

III: Participants

We were very pleased to continue to host the workshop in 2019 in the Animas Watershed to explore the after-effects of the 416 Fire, which began on June 1, 2028. We were especially glad to be able to safely host the workshop in a safe capacity in 2020, to help area teachers explore the upper San Juan Watershed, despite the pandemic. We estimate that these teachers will bring watershed science to an additional 300 students per year! The following table outlines the teachers that participated in the 2019 and 2020 workshops.

2019 Forests to Faucets Teacher Workshop Participants

School	City	Grades	Number of Teachers Participated
Durango High School	Durango	9-12	1
Durango Nature Studies	Durango	preschool-7	1
Escalante Middle School	Durango	6th	2
Montezuma-Cortez High School	Cortez	9-10	1
Mesa Elementary School	Cortez	K-5	2
Mountain Middle School	Durango	6-7	1
Pagosa Springs Elementary School		4th	1
Park Elementary School	Durango	3rd	1
Riverview Elementary School	Durango	Preschool, 5 th	2
Garden Project of Southwest Colorado Education Instructor	Durango	K-5	1

Mancos Early Learning Center	Mancos	preK	1
Durango-based Home School	Durango	1-3	1
Montelores Early Childhood Council	Cortez	Pre K	1
Mountain Studies Inst. Americorps VISTA intern	Durango/Silverton	All	1
TOTAL			17

2020 Forests to Faucets Teacher Workshop Participants

School	City	Grades	Number of Teachers Participated
Durango High School	Durango	9 th - 12 th	1
Mesa Elementary School	Cortez	K	1
Pagosa Springs Elementary School	Pagosa Springs	1 st - 4 th	3
Pagosa Springs Middle School	Pagosa Springs	5 th - 8 th	2
Mancos RE 6	Mancos	K - 12 th	1
Mancos Water Commissioner	Mancos	all ages	1
Farmington, NM Curriculum/EPO	Farmington, NM	3 rd - 8 th	1
TOTAL			10

IV: Evaluations

Evaluations were given to teachers that participated in the summer workshops. These included five-point Likert-type questions (e.g. very likely to not sure) and open-ended written response questions about the My Water kit, as well as about the material and instructors in the workshop – and the likelihood of the teacher using the kit and curriculum guide in the future. Overall, we received very positive feedback on the kits, lessons, and their likelihood of use in the future. For example, responses included the following comments when prompted: “The greatest value of the Forests-to-Faucets Workshop was”:

- Versatility and depth of knowledge of instructors, including guest speakers (Matt, J.R., etc.)
- Linkages to additional resources. Facilitators. Price.
- How to present the knowledge to students in engaging ways.
- All in all, it’s a great class.
- Shareable knowledge.
- The kit and folder.
- Hands on learning and teaching!
- All of the experts who shared their stories/knowledge and the interactive activities.
- Knowledge of my impact on this beautiful place.

- Connections to local environmental personnel that can support educators.

See Appendix C for a detailed summary of all evaluations received.

Demonstrated Outcomes: Benefits to-date of these programs include training over 160 teachers with the F2F materials. It is estimated that this affected approximately 300-500 students per year, or 48,000-80,000 students cumulatively.

Each year, we ask our participants to provide examples of how they used the Forests to Faucets program with their current students. The following are a few examples of our program in action:

Past success stories

Durango

Hillary Preston, 3rd grade teacher at Park Elementary told us she completed the following activities with 38 students with a “high level of engagement, and large degree of cross-curricular connections between science and Language Arts”:

- Using the relief map of our area to learn about different types of maps, to track our local watershed, and to find local bodies of water and discuss why those bodies of water are located in those places.
- Inspected pond water and river water for signs of macrobiotic life. Made predictions about what we would find, made observations, and created explanations for what we observed.
- Used Google Earth and the maps provided in the curriculum to map the course of our watershed from the San Juan Mountains to the Sea of Cortez, students created and labeled their own maps.
- Close-read My Water Comes From the San Juan Mountains and compared sections of the text to other texts we use for ELA, including texts about how children access water in different places around the world, and texts about the Water Cycle.
- Played The Incredible Journey

Oscar Trono teaches 83 students in his 6th grade science class at Escalante Middle School. He plans to do a 9-week Animas/Colorado Rivershed study from January to May 2020, and told us: “I’ll be using some of the lessons from this Summer [F2F course] during Jan-May, e.g., the Water Cycle Lab, Mapping the Colorado Watershed, discussing the 416 fire, and looking at the health of the Animas via water sampling.

Charlie Love, science teacher at Riverview Elementary reports, “I have used many of the concepts from the Forest to Faucets training in activities I have done with students. On three different occasions, I lead 3 different 4th grade science classes (75 students total) in an analysis of water quality in the Animas River. This entailed an introduction of concepts in the classroom followed by hands on measurements and data collection at the river. The experience was very exciting and educational for the students as they learned about factors that affect the quality of our local river. I was able to extend our analysis by returning to the same river study site with 4 different 3rd grade classes to collect data about benthic macroinvertebrates. By collecting data related to living and nonliving components in the river ecosystem this year and a year ago, students were able to detect patterns of change in the river and hypothesize

about possible causes such as precipitation, snowpack levels, and the recent 416 wildfire. The resources, training, and information provided by Mountain Studies Institute has helped my students get into authentic and relevant scientific investigations.

Dolores, Cortez, and Surrounding Areas

Adriene Ratican of the Montelores Early Childhood Council used our kit materials at the September Family Night at Parque de Vida in Cortez. She worked with children to explore the Cortez relief map with a spray bottle as a demonstration of the watershed in their county. She told us “We also discussed ways to cut back on water usage at home, for example, turning the water off while brushing teeth. Forest to Faucets is a gateway to the educating our communities about our watershed.”

Debi Ball, of Montezuma-Cortez High School, worked with students from ages 8 – 13 in July 2019 for a summer woodworking class at the Powerhouse museum in Durango, CO. She told us, “I had 7 students in a beginning woodworking class. We used 2 games from Forest to Faucets to show how nutrients are shared and overcrowding causes a weaker forest. Students enjoyed looking at repurposed wood and the influence of the drought in regards to stressing out the trees. This encourages “death by pine beetle” but, we used blue pine (beetle kill) in our projects. Additionally, in September 2019, Debi had her science class in Special Education, grades 9-11, at MCHS working on biomes, “We spent 3 weeks working on Biomes of the western slope. We did compare and contrast of vegetation and life forms from different elevations making conclusions on why we had the changes. Students prepared a slide show on a specific biome.”

Helen Reynolds is a special education teacher at Dolores Elementary School, and also was the ‘Teacher on Public Lands’ for the Bureau of Land Management at the Anasazi Heritage Center and University of Colorado, Denver, in summer 2017. As part of her summer program, she created ‘WRAP’ – Watershed Resources and Programs for Educators and incorporated the lessons she learned in the Forests to Faucets workshop into this compilation. This will be offered to educators in Montezuma-Cortez, Mancos, Dove Creek, Dolores, and Telluride schools, and has been shared with the Montrose and Dolores BLM Field Offices as an educational resource.

Pagosa Springs

Kristin Hentschel, sixth grade teacher at Pagosa Springs Middle School used "The Incredible Journey" to teach 145 sixth graders, and now plans to use it every year. She said “We spent an entire class period (50 minutes) doing the activity and discussing the questions I had created for the kids to do afterwards. The kids enjoyed the activity.” She added, “We will probably do the "A Drop in the Bucket" activity with the same amount of kids in March or April to coincide with our trip to PAWSD. "We All Live Downstream" will be one that I will do if Chris Couch [another participating teacher] didn't do it with the 5th graders last year. I would love to use more of the activities, but I just run out of time with all the standards I have to complete during the year. With the Science standards changing, I am not sure what next year will look like yet, so I may be able to use more activities.”

Bayfield

Shanna Noonan, 5th grade science teacher at Bayfield Elementary, reached every fifth-grade student, over 130 students in total, with our lessons, "A Drop in the Bucket" and "The Incredible Journey," during the weather unit in October 2017. She told us, "I love these lessons and know that they will go well. I have done the incredible journey in my class before and students are very into it and seem to have a great understanding of the process that water goes through."

We are happy to report that these lessons are reaching students, and are appreciated and used by teachers, thanks to SWCD's support. We are continuing to connect with teachers who attended these workshops to find out how they are using the F2F materials, and what assistance they need from the F2F team.

2020 was the ninth year that the three partners, MSI, WIP and SJMA, have collaborated on some aspects of the My Water project, and the sixth consecutive year that Dr. Kay H. Phelps, Assistant Professor of Teacher Education of Fort Lewis College has been part of the team, donating her time, expertise in education, and tireless energy. The combined efforts of these strong partners have enabled the teacher outreach to be a real success in carrying out what would have been an overwhelming task for any one organization. We were able to draw upon our diverse teacher and school contacts to make this outreach successful.

The far-reaching impact of these workshops and trainings would not be possible without the financial support of the Southwestern Water Conservation District, the Colorado Water Conservation Board, the Water Information Program, San Juan Water Conservancy District, Colorado Alliance for Environmental Education, Trout Unlimited 5 Rivers Chapter, and private donors. Mountain Studies Institute, San Juan Mountains Association, and the Water Information Program are extremely grateful for the opportunity to continue to share the wealth of information in the *My Water Comes from the San Juan Mountains* book and teacher kit.

V. Budget Actuals and Matching Funds

In 2019, the F2F team obtained \$10,661 in matching cash contributions from the following sources: Southwest Water Conservation District (\$3,000), Trout Unlimited 5 Rivers Chapter (\$500), the Durango Education Foundation (\$500), and Colorado Alliance for Environmental Education (\$300). The F2F project partners contributed \$6,361 in cash match. In kind contributions were \$11,865.

In 2020, we obtained \$9,170 in matching cash contributions from the following sources: Southwest Water Conservation District (\$2,000), Trout Unlimited 5 Rivers Chapter (\$500), the San Juan Water Conservancy District (\$500), and Colorado Alliance for Environmental Education (\$300). The F2F project partners contributed \$5,870 in cash match. In kind contributions were \$8,250.

Over the life of the project, the \$17,500 grant through the Water Supply Reserve Fund was leveraged for a total project value of \$57,446.

Appendix A: 2019 - 2020 Agendas

**Forests to Faucets: My Water Comes from the San Juan Mountains
Teacher Training Workshop**

Sponsored By:

Mountain Studies Institute
San Juan Mountains Association
Southwestern Water Conservation District
Colorado Water Conservation Board and the Southwest Basin Roundtable
Water Information Program
Durango Education Foundation
Trout Unlimited
Colorado Alliance for Environmental Education

Agenda

June 5 - 6, 2019

Wednesday, June 5, 2019

8:00 – 8:15 am	Registration in Durango at San Juan Public Lands Center	
8:15 – 8:30 am	Training Overview and Introductions Amanda Kuenzi, Mountain Studies Institute, Gabi Morey and MK Gunn, San Juan Mountains Association Elaine Chick, Water Information Program Kay Phelps, Fort Lewis College	
8:30 – 9:00	Next Generation Science Standards Resources and Tools	Kay
9:00 – 9:15 am	What Watershed Do You Live In? Lesson: <i>Map Your Shed</i>	MK
9:15 – 9:30	Fire Ecology 101	Amanda
9:30 – 9:45	Bathroom break and load up in vans, get snacks	
9:45 – 11:15 am	Drive to Lower Hermosa Road 416 Observation Points Discussion: <i>Fire's impact on soils, erosion and watershed health</i>	Shauna Jensen, SJNF
11:15 – 12:00	Lesson: <i>Trees in our Watershed</i> Lesson: <i>Crumplesheds</i>	MK
12:00 – 1:00	LUNCH: Lower Hermosa Campground Discussion: <i>Life Zones and San Juan Mountains Cornucopia</i>	Gabi
1:00 – 1:45	Discussion: <i>Forest Health</i>	Shauna Jensen, SJNF
1:45 – 2:00	Drive to local landowner parcel Observations in vans: <i>Life Zones and San Juan Mountains Cornucopia</i>	
2:00 – 2:45	Impacts of the 416 on Watershed Health Landowners – Impacts on irrigation Hermosa Creek and Animas Confluence	MK
2:45 – 3:15 pm	Return to San Juan Public Lands Center Discussion in van	

3:15 – 4:15	Changing Water Properties Lesson: <i>5 W's, an H and pH</i>	Amanda
	Lesson: <i>Mining, Geology, and Water Quality</i>	MK
4:15 – 4:45	Next Generation Science Standards Bundling Standards as Storyline	Kay
4:45 - 5:15 pm	Explore the My Water Guides & Kits and explain Adams State credit	Amanda & Gabi

Homework: Go through Guide on jump drive - be prepared to discuss tomorrow what you'll use in your classroom.

Thursday, June 6, 2019

8:00 – 8:45 am	Convene at San Juan Public Lands Center Discussion – <i>What were the top 3 things in guides/kits you will use in your classroom?</i>	Gabi
	How Much Water on Earth is Usable? Lesson: <i>A Drop in the Bucket</i>	MK
8:45 – 9:15 am	Drive to Lemon Reservoir Discussion in vans: <i>History/overview of fires</i>	Amanda
9:15 – 10:00 am	Tour of Missionary Ridge Fire Site John Ey, Florida Water Conservancy District	
10:00 – 10:15 am	Drive to Florida Campground	
10:15 - 10:30 am	Lesson: <i>Every Tree for Itself</i>	Gabi
10:30 - 11:30 am	Lesson: <i>Benthic Macroinvertebrates</i>	MK
11:30 – 12:00 pm	LUNCH at Campground Discussion: Sharing Water Education Needs	Kay
12:00 – 1:00 pm	Drive to Rainbow Ranch & Discussion of Durango Water Supply Dave Ferguson, Jason Fast, City of Durango	
1:00 – 1:30 pm	Drive to Water Treatment Plant	
1:30 - 2:00 pm	Water Treatment Plant Tour Dave Ferguson, Jason Fast, City of Durango	
2:00 – 3:45pm	Drive to ALP Pumphouse Tour of Pumphouse/History of ALP Project Ethan Scott, Bureau of Reclamation	
3:45 - 4:00 pm	Drive Back to San Juan Public Lands Center	
4:00 - 4:30 pm	The Water Cycle Lesson: <i>The Incredible Journey</i>	Kay
4:30 – 5:00 pm	Closing: Summary, Q & A, Evaluations, and Certificates	Elaine

**Forests to Faucets: My Water Comes from the San Juan Mountains
Teacher Training Workshop in Pagosa Springs, Colorado
Pagosa Area Water and Sanitation District (PAWSD)**

100 Lyn Avenue, Pagosa Springs, CO - (970) 731-2691

Agenda

August 3-4, 2020

Organizers:

MK Gunn, San Juan Mountains Association

Mike Bienkowski, San Juan Mountains Association

Elaine Chick, Water Information Program

Amanda Kuenzi, Mountain Studies Institute

Kay Phelps, Fort Lewis College

Day 1 – Monday, August 3, 2020

8:00 – 8:15 am	Registration at the Pagosa Area Water and Sanitation District (PAWSD) conference room (100 Lyn Avenue, Pagosa Springs, CO (970) 731-2691)	
8:15 – 8:45 am	Training Overview <ul style="list-style-type: none">• Introductions• Logistics• Workshop Objectives	Elaine Chick
8:45 - 8:55	Icebreaker – Globe toss & amount of water on Earth	MK Gunn
8:55 - 9:15	Shifts in Science Instruction	Kay Phelps
9:15 – 9:55 am	Watershed Overview - San Juan River Basin Overview	
	Activity 1: <i>Crumplesheds</i>	Kay Phelps
	Activity 2: Part A of <i>Map Your Shed</i>	MK Gunn
9:55 – 10:15	Introduce <i>Who Lives Where? Life Zones and Organisms</i>	Mike Bienkowski
10:15 – 10:30 am	Break (bathrooms & snacks)	
10:30	GET IN VEHICLES	
10:30 – 11:00 am	Drive to Overlook of West Fork Valley for Forest Health Discussions <p>In vehicles: Make observations on our surroundings, based on <i>Crumplesheds</i> relief mapping (e.g. ,where do we observe water, which direction is it flowing, etc.) and life zones (e.g., what life zones are we driving through, what animals might live here, etc.)</p>	

11:00 – 11:30	Importance of Healthy Forests to Water Quality and Quantity - Overlook Matt Tuten, US Forest Service
11:30 – 11:45 pm	Drive to West Fork Campground Road
11:45 -12:15 LUNCH	Wrap up <i>Who Lives Where? Life Zones and Organisms</i> Mike B.
12:15 – 2:00	How Healthy is Our Watershed? MK Gunn/Amanda Kuenzi
	Activity 3: <i>Trees in the Watershed</i> Mike B./MK Gunn
	Activity 4: <i>Macroinvertebrate Mania</i> MK Gunn/Kay Phelps
	Activity 5: <i>5Ws, H and pH</i> – Introduction -water sample Amanda Kuenzi
	Talk about Water Intake for PAWSD drinking water Al Pfister, San Juan Water Conservancy District
2:00 - 2:15	Drive to Campground for bathroom break
2:15 – 3:15 pm	Tour of Ponderosa Forest Demonstration Project (drive is 20 mins) – US Forest Service Road 37 JR Ford, Forest Health Company
3:15 – 3:30 pm	Drive to San Juan River Village slow down to notice water intake at San Juan River crossing
3:30 - 4:00	Discussion of multiple uses for water - consumption, recreation, etc. Julene Campbell, San Juan River District POA Secretary
4:00 – 4:45 pm	Drive to & Tour of San Juan Headwaters project site – turn off at Weber Sand and Gravel Al Pfister, San Juan Water Conservancy District
4:45 – 5:15 pm	Drive back to PAWSD

Explanation of homework	Amanda Kuenzi
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5:30 pm	Adjourn
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Homework assignment Explore guide via thumb drive and create pictures for **We All Live Downstream Activity** Be prepared to present pictures during the activity on Day 2. Bring in questions regarding thumb drive contents.

Day 2 – Tuesday, August 4, 2020

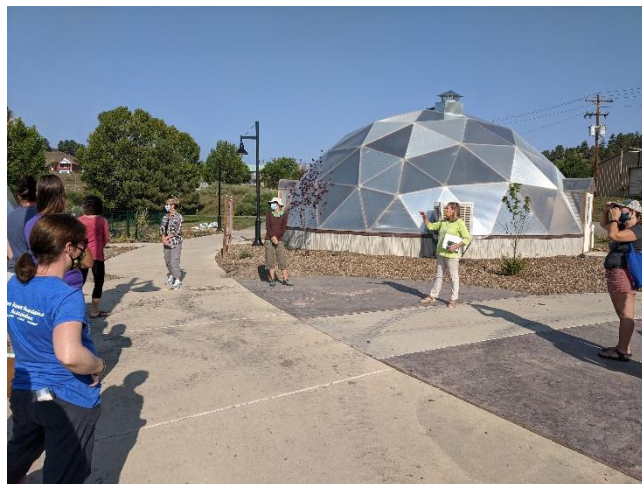
8:00 - 8:45 am	Convene at PAWSD; Introduction to the Day	Elaine Chick
	Activity 6: <i>We All Live Downstream</i>	Elaine Chick
8:45 – 10:15 am	Geothermal discussion greenhouses and visit the mother spring Sally High, Geothermal Partnership	
10:15 – 10:30 pm	Drive to Hatcher Lake Water Treatment Plant	
10:30 – 11:30 pm	Tour Hatcher Lake Water Treatment Plant	Andrew Conor, PAWSD
11:30 – 12:00 pm	Invasive Species and Their Impacts on our Watershed Activity 7: <i>An Invited Guest in the Colorado Watershed</i>	Amanda Kuenzi
12:00 - 12:30	Drive back to PAWSD	
12:30 – 1:00 LUNCH	Lunch Activity: Listening Session: What are the curriculum needs for teachers? Networking activities	
1:00 – 2:30 pm	Tour of Wastewater Treatment Plant Tour of Biosolids Plant	James Jamieson, PAWSD
2:30 – 4:00	F2F Activity Stations at PAWSD: Activity 8: <i>5Ws, H and pH</i> – Continued Activity 9: <i>A Drop in the Bucket</i> Activity 10: <i>The Incredible Journey</i>	Amanda Kuenzi Mike B. Kay Phelps
4:00 – 4:30 pm	Overview of kits and questions about guide	
4:30 – 5:00 pm	Closing <ul style="list-style-type: none">● Training Summary,● Q & A,● Hand out kits, guides & books,● Evaluations and Certificates	

Homework assignment To receive graduate credit: Kay Phelps

Prepare and submit an outline of a sample lesson plan that you could use with your students in the next school year (1 page). You may include activities from the 'My Water' guide and field trips. You must include direct correlations to state standards for the grade you teach.

Due Date: August 18, 2020

Appendix B: Photos of the Teacher Workshops



Photos of the 2019 Teacher Workshop



Appendix C: “My Water” Teacher Evaluations Summaries

Forests-to-Faucets Teacher Training Workshop Final Evaluations – 17 Participants
June 5-6, 2019

Forests to Faucets staff will be contacting you during the upcoming school year to learn how you have used our program in your classroom. Please be sure to take photos to share with us! Thank you!!

1. I received sufficient information to teach water-related activities in my classroom.

- ☐ Strongly agree ----- **14 82%**
- ☐ Agree ----- **3 18%**
- ☐ Somewhat agree
- ☐ Disagree
- ☐ Strongly disagree

- I am familiar with many of the activities. For a “first timer” it might not be enough
- Even though I teach the little’s, I will adapt a lot of this information!
- I like that we looked thoroughly at local topics and areas of recent events
- Thanks for the flash drive and kits
- Wonderful resources!
- I am impressed with the amount of tools we are given in the box for our school and the lessons offered on the drive
- Great activities and resources shared! Thanks!

2. The content and topics of the Workshop suited my needs and will be helpful in the classroom.

- ☐ Strongly agree ----- **13 76%**
- ☐ Agree ----- **4 24%**
- ☐ Somewhat agree
- ☐ Disagree
- ☐ Strongly disagree

- More secondary would be great!
- Very important information – everyone should take this class 😊
- Same as #1
- Yes, I can use materials with a variety of grades/ages
- Activities we did and those in our packets, thumb drive are applicable to what I teach
- I look forward to integrating this into our existing program (summit learning)

3. How would you rate the passion, knowledge, and content delivery of the Forests-to-Faucets instructors on the subject matter with 5 being the highest?

1 2 3 4 --- **1 5%** 4.5 --- **2 12%** 5 --- **14 83%**

- The knowledge and enthusiasm of the instructors was inspirational
- Wonderful!
- All were enthusiastic to share their knowledge and history
- All instructors were very knowledgeable
- All facilitators, presenters were very knowledgeable
- Thanks for the knowledge and enthusiasm, also the resourceful people who gave us unbelievable content!
- It was inspiring to learn from this group of women!

4. Was the material presented engaging and interesting to you?

- ☐ Yes ----- **17 100%**
- ☐ No

- Yes, the guest speakers were great but the in-the-class/conference lectures were not the best.
- Many great resources
- Very much!
- I really appreciated the variety of speaker and information
- I wasn't as enthusiastic about the material on State/Federal standards, but then again, it's not that pertinent to me
- Very engaging! So important to learn about the area in which we live!
- Extremely!

5. Do you think the Forests-to-Faucets Workshop has increased your understanding of how to present and teach water-related topics to your students?

- ☐ Absolutely ----- **16 95%**
- ☐ Somewhat ----- **1 5%**
- ☐ Not really

- The connection to place was especially meaningful and will be wonderful to share with students
- I think I was more focused on getting background info than teaching method
- Yes, it has also given me a great appreciation for where my water originates
- Encourages me to do more student driven lessons

6. What were your reasons for attending the Forests-to-Faucets workshop and/or what benefits of the program influenced you to attend?

- I wanted to attend to build my knowledge base of the content so I could be a more informed teacher as I guide the purest preschoolers
- New teacher, need lessons
- Integrate watershed science into the classroom
- Tie water lessons/field trip options to ELA curricula
- Local, authentic, great for expanding my curriculum
- Professional development, increased understanding of watershed
- Attended last year in Cortez. This year we wanted to experience the Durango watershed
- I enjoyed the workshop so much last year that I wanted to attend again. It was a good refresher of the activities for me
- It's a topic I'm always interested in. I'm hoping to share what I learned with other teachers in the Mancos School District
- Get a closer look at 416 fire site and visit Durango water systems
- I really want to present to our youth, ways to conserve water and why it is important
- To get ideas for exercises to teach in an environmental education setting
- Following/trying to keep up with my sons' interest in rivers and watersheds so I can continue to teach and direct their research
- I was really interested in this years' focus on local fires 17 years ago and 1 year ago
- Expanding my own knowledge and learning activities to share
- Wanted more knowledge and resources to teach my students about our water
- New teacher; new to science standards; seeking better understanding and inspiration

7. If you could change the Forests-to-Faucets Workshop in any way, what would you change?

- Three days! Less rushed and more info 😊
- More info on the ag uses in the area
- The afternoon activities were hard to motivate for. Separate primary & secondary into 2 workshops
- Ideas for service options for youth
- I had a hard time engaging in activities at the end of the day
- It was great (one more day?!)
- Nothing!
- I wouldn't change anything
- None
- No changes. Having different site locations has a huge impact on an understanding of the concepts taught
- It seemed like there needed to be more activities applicable to older kids
- Just continue to make it relevant to the present-aka the 416 fire, Gold King Mine spill...who knows what will be next
- Make it 3 days

8. The greatest value of the Forests-to-Faucets Workshop was:

- Visiting amazing places and learning from amazing facilitators. This really expanded my knowledge
- The guest speakers & field trips
- Background knowledge on local watershed to pass on to students
- More tools in my tool box to improve learning
- The guest speakers
- Touring area, mountains to treatment plant
- The greatest value was the information and the activities and how they could be used in classroom
- Visiting the sources of water, water treatment, etc. etc.
- See #1
- Getting a historical background on the 416 fire and Missionary Ridge fire was really interesting to me
- The hands-on trips to see what we were talking about in class
- Discovering/reaffirming the educational value and opportunity of our local mountains and history
- In addition to my own personal learning, I feel better prepared to help my students be science thinkers & doers
- Learning lessons to share with others
- Lessons, resources, connection to NGSS
- The field work, lesson ideas and resource sharing

9. How would you rate the overall Forests-to-Faucets Workshop experience with 5 being the highest (locations, vans, meals)?

1 2 3 4 --- 3 18% 4.5 --- 1 5% 5 --- 13 77%

- This was awesome! Thank you!
- Thanks!
- Exceptional opportunity!
- It is always presented well!
- Thank you!
- I really enjoyed our 2 days!
- Thanks for feeding us!

Forests-to-Faucets Teacher Training Workshop Evaluation

August 3 - 4, 2020, Pagosa Springs, CO

Name (optional):

NOTE: 10 Actual Participant's – Had cancellations

Forests to Faucets staff will be contacting you during the upcoming school year to learn how you have used our program in your classroom. Please be sure to take photos to share with us! Thank you!!

1. I received sufficient information to teach water-related activities in my classroom.

- ☐ Strongly agree ----- 7 = 70%
- ☐ Agree ----- 3 = 30%
- ☐ Somewhat agree
- ☐ Disagree
- ☐ Strongly disagree

COMMENTS:

- Now I know where my passion for H2O and EE originated! Thank you!
- You have a lot of great hands on games the kids would really enjoy.
- An awesome beginning for sure.
- This was wonderful information that was differentiated.
- Loved the interactive activities and the kit!
- Loved every second!

2. How would you rate the overall Forests-to-Faucets Workshop experience with 5 being the highest (locations, vans, meals)?

1 2 3 3.5 ---1 = 10% 4 ---- 3 = 30% 5 ----- 6 = 60%

COMMENTS:

- Day 1 lunch – not your fault, just not great ingredients
- Would like to see a little more balance – environmental vs AG vs commercial. But well done with the conditions at hand...you did a great job!
- Adventurous, we covered a lot of areas.
- On the first day I needed a place to use the bathroom.
- Loved getting outside and pausing in beautiful well thought out locations.

3. The content and topics of the Workshop suited my needs and will be helpful in the classroom.

- ☐ Strongly agree ----- 5 = 50%
- ☐ Agree ----- 4 = 40%
- ☐ Somewhat agree
- ☐ Disagree
- ☐ Strongly disagree

NOTE: One person did not evaluate this question.

COMMENTS:

- I cannot evaluate...I'm not in the classroom, but overall, very worthwhile.
- You have some really great ideas that I will try to adapt in future for education projects.
- Wonderful adaptive ideas.
- I will have to adapt some things for older kids, but I got plenty on content.
- There are a few items that may be hard to integrate, but I am really excited to use more science in my classroom!

4. How would you rate the passion, knowledge, and content delivery of the Forests-to-Faucets instructors on the subject matter with 5 being the highest?

1 2 3 4 ---- 2 = 20% 5 ----- 8 = 80%

COMMENTS:

- Thanks to all facilitators. Thanks to all presenters for answering questions.
- The passion is high mixed and driven by lots of knowledge. Thank you for making his happen in person in these crazy times.
- Its obvious everyone is passionate about their topic.
- Thoughtful, team taught well, very engaging!

5. Was the material presented engaging and interesting to you?

- ☐ Yes ----- 9 = 90%
- ☐ No ----- 1 = 10%

COMMENTS:

- There were some topics I had prior knowledge about and I didn't feel as engaged in.
- Good presentations.
- Much more than I expected.
- Very fun and cross curricular.

6. Do you think the Forests-to-Faucets Workshop has increased your understanding of how to present and teach water-related topics to your students?

- ☐ Absolutely ----- 9 = 90%
- ☐ Somewhat ----- 1 = 10%
- ☐ Not really

COMMENTS:

- I have to look at the flash drive, but I am excited for all the resources!
- This offers great ways for my students to understand their communities better! Cannot wait!

7. What were your reasons for attending the Forests-to-Faucets workshop and/or what benefits of the program influenced you to attend?

COMMENTS:

- Build knowledge and skills. Definitely accomplished that.
- Classroom ready activities. Going to physically important places.
- Lear more on how water is cycled or moves from nature to our homes and how to present that info. to students.
- CE Credit
- To try to develop a better understanding of what teachers may be presenting their students and how I may better present what I do.
- More water knowledge to share with students.
- 1 credit was a big reason I attended.
- To gain strategies on how to teach

- I love hands-on, practical learning. I think teachers need to teach more about sustainable living and educate ourselves on food, water, heat, electricity, etc. This workshop will be great for my unit “Survive & Thrive”.
- CEU credit. The opportunity to learn/understand more about this beautiful place I live in.
- To improve my curriculum and personal growth as an educator.

8. If you could change the Forests-to-Faucets Workshop in any way, what would you change?

COMMENTS:

- Add a component of addressing individual and cultural values and their impact on water use decisions. Include the “why” with the “what”.
- The tour of the greenhouses was long – yet she had so much to share.
- Taking time to attend should equate to a kit. Many are consumables after use...but thank you for allowing me to attend again.
- It was a strange year...not having as many cars. It was difficult and time consuming to keep track of the caravan.
- Have a broader scope about water, water rights and understanding some of the effects that water rights have on the environment.
- It was good!
- I enjoyed the food. Keep that as part of the program in the future.
- At the lunch break have a bathroom.
- It was a little disorganized at times, but under these circumstances of Covid-19, I totally understand!
- Non-Covid!
- A list of contacts & connections from our group. A Zoom follow-up one year later to share stories/experiences.

9. The greatest value of the Forests-to-Faucets Workshop was:

COMMENTS:

- Versatility and depth of knowledge of instructors, including guest speakers (Matt, J.R., etc.)
- Linkages to additional resources. Facilitators. Price.
- How to present the knowledge to students in engaging ways.
- All in all, it’s a great class.
- Shareable knowledge.
- The kit and folder.
- Hands on learning and teaching!
- All of the experts who shared their stories/knowledge and the interactive activities.
- Knowledge of my impact on this beautiful place.
- Connections to local environmental personnel that can support educators.

