

WORKFORCE WEBINAR SERIES

Office of Wastewater Management

Office of Water U.S. Environmental Protection Agency February 18, 2020

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Creating the Water Workforce of the Future

Webinar Series Jim Horne, U.S. EPA Office of Wastewater Management

February 18th, 2020

Speakers

- Julia Beck Vice President of Networks, Project WET Foundation
- April Lopez Water Conservation Education Specialist, El Paso Water
- Cindy Busche Environmental Education Manager, Boise WaterShed Education Center



THE Water Research FOUNDATION



ASSOCIATION OF METROPOLITAN WATER AGENCIE



American Water Works Association



Webinar Logistics

- This webinar is being recorded
- Participants will be in listen-only mode
- To submit a question, use the Q&A function
- Presenters will monitor these questions and respond to as many as possible during the "Q&A" session at the end of the presentation.



• Webinar slides and recording information will be sent out to all participants following the webinar

1. Please indicate the sector that you work in:

- Utility
- State or Local Government
- Federal Government
- Consultant
- Academia/Educator
- Other

2. How familiar are you with Project WET?

- Very familiar
- Somewhat familiar
- Not at all

3. Have you been involved in K-12 or teacher education in your community in the past?

- Regularly
- Occasionally
- Once or twice
- Never



Water Education for Teachers

Julia Beck VP of Networks



The Global Leader in Water Education



Project WET

Advances water education to understand global challenges and inspire local solutions.



How does water education impact the world?

Check out our <u>YouTube Video</u>

Why do water education?

Z

H₂O in the Know...

Studies conducted in 2008-2010

- Less than half of US respondents were very familiar with 14 water-related terms (e.g. groundwater)
- Only 28% of SC respondents could identify the correct definition of a watershed
- Only 38% of NC respondents knew that stormwater flows to the nearest waterway
- 30% incorrectly thought that stormwater is treated prior to discharge in NC



Do you know where your water comes from?



Huffington Post Survey (2018):

- Only 21% of people know "very well" where water comes from
- 49% of people under 30 did not understand where their water comes from

Water is part of everything



Why Project WET?

People learn better when having FUN!



Job Readiness

Develop skills for workplace:

- Think critically and independently
- Problem-solve
- Collaboration
- Communication
- Perseverance



Children more likely to chose a career by "doing" than being told to be _____ (NYU, Princeton) Professional mentorship is important (Phillips Charitable Foundation)



Project WET Core Beliefs

Water is for all water users.

Water connects us all.

Water resources are managed.

Water depends on personal responsibility and action.

Educate on ALL Topics of Water



CHEMICAL AND PHYSICAL PROPERTIES



QUALITY



QUANITITY

WATERSHED HEALTH

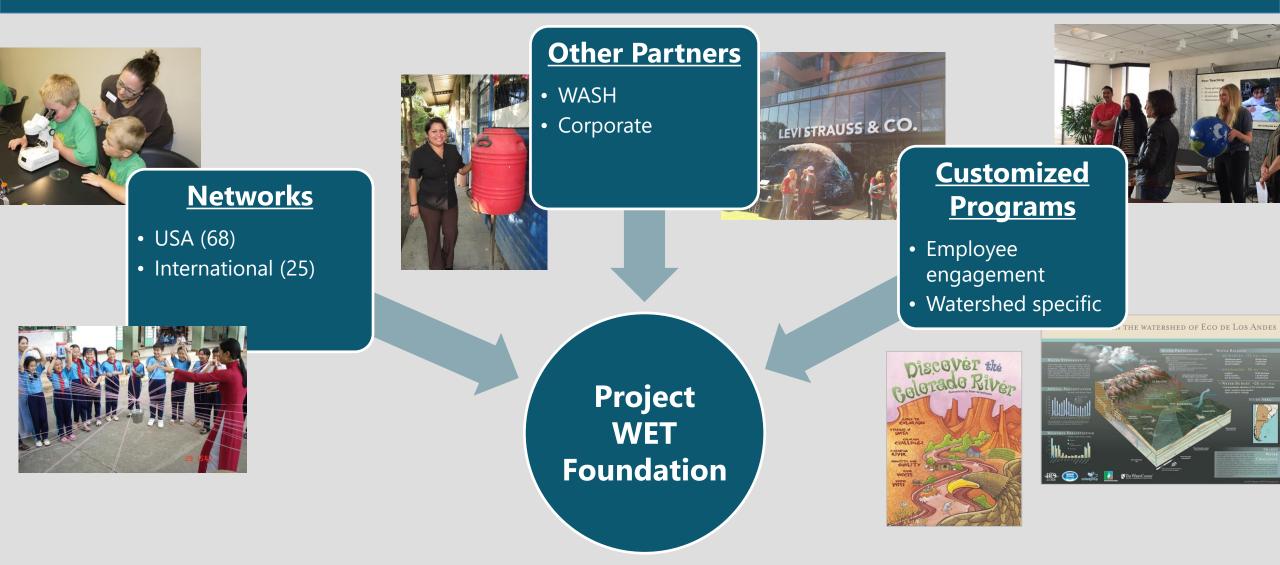




WATER SYSTEMS

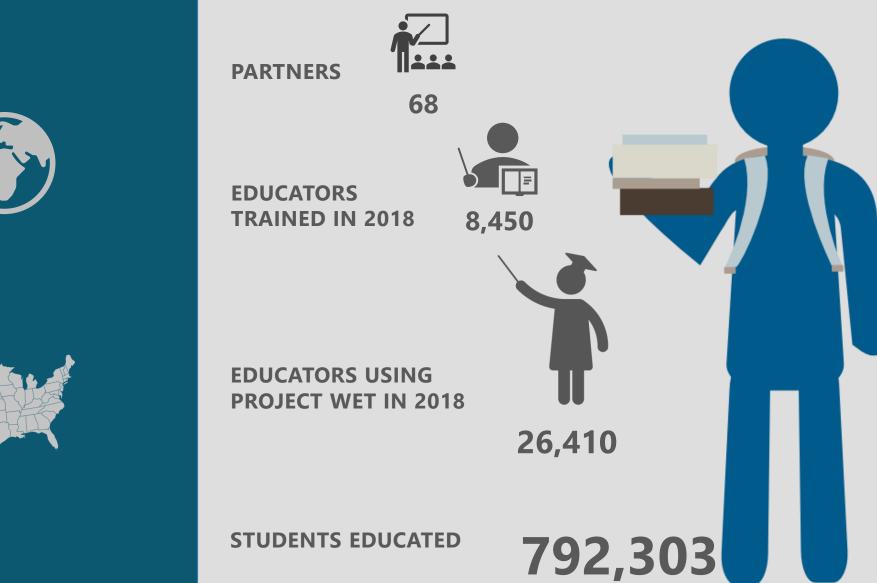
HEALTH, SANITATION & HYGIENE

The Project WET Foundation



2018 Impact

USA Impact

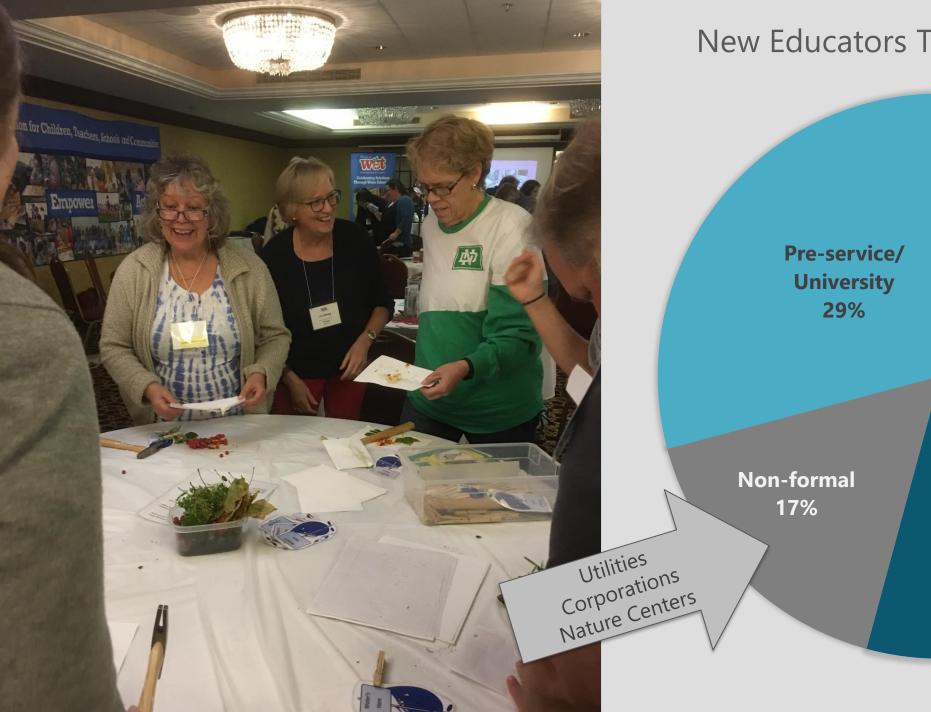


2.5 Million

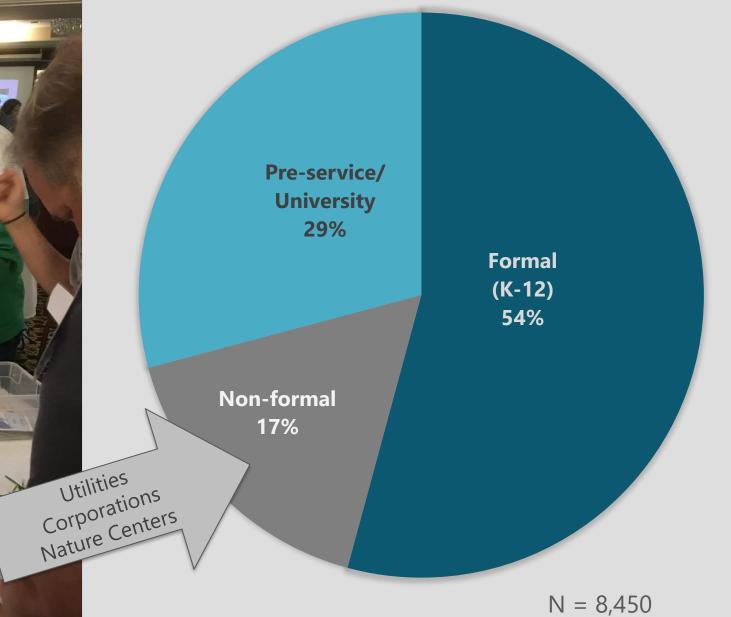








New Educators Trained in 2018





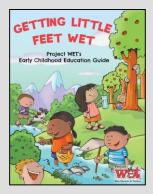
Project WET Curriculum and Activity Guide 2.0



Educate. Empower.

Project WET Curriculum and Activity Guide

- 64 activities on all topics of water
- Hands-on lessons
- Learning through discovery
- Correlated to educational standards
- Vetted by educators and experts



Getting Little Feet Wet (Early Childhood)



Discover a Watershed Series

Educator Guides

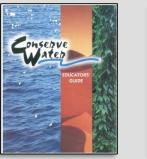


Water, Sanitation & Hygiene



WOW! Wonders Wetlands

WOW (The Wonders of Wetlands)



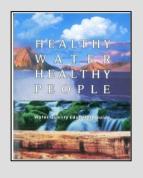
ARIZONA CONSERVE WATER EDUCATORS GUIDE

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Special Topic and Derivative Guides

Floods Series

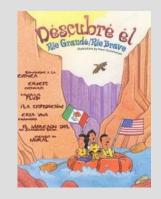


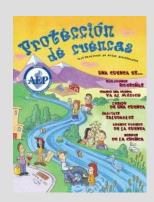
Healthy Water, Healthy People

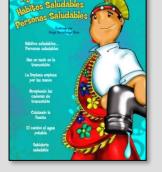
Conserve Water & Arizona Conserve Water

Kids in Discovery Series (KIDS)



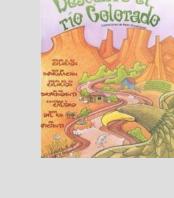




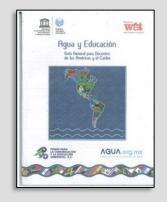


Spanish Language

Guides and KIDS Booklets



Descubre e









New Hampshire (NH Dept. Environ. Serv.)

- Paired educators and water utility workers together as mentors
- Advertised specifically for water utilities and educators
- Lara Hooper: Lara.Hooper@des.nh.gov

Ohio (Ohio EPA)

Addresses shortage of water utilities operators:

- water professionals' associations
- career tech high school centers

Developed online career pathways

- students and parents
- high school classes needed for particular jobs, including water operators and utilities directors.

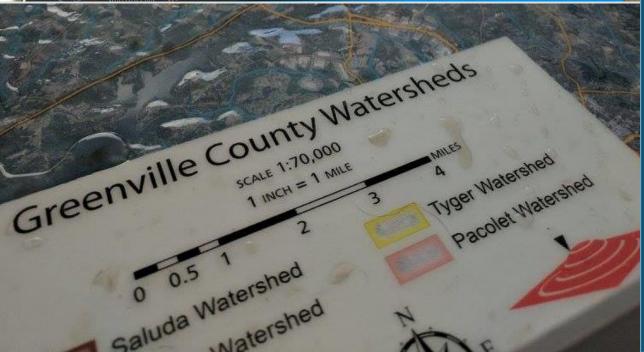
Project WET: Who Works for Water? "Urban Waters" Dennis Clement: <u>dennis.clement@epa.ohio.gov</u>



Who Works for Water?







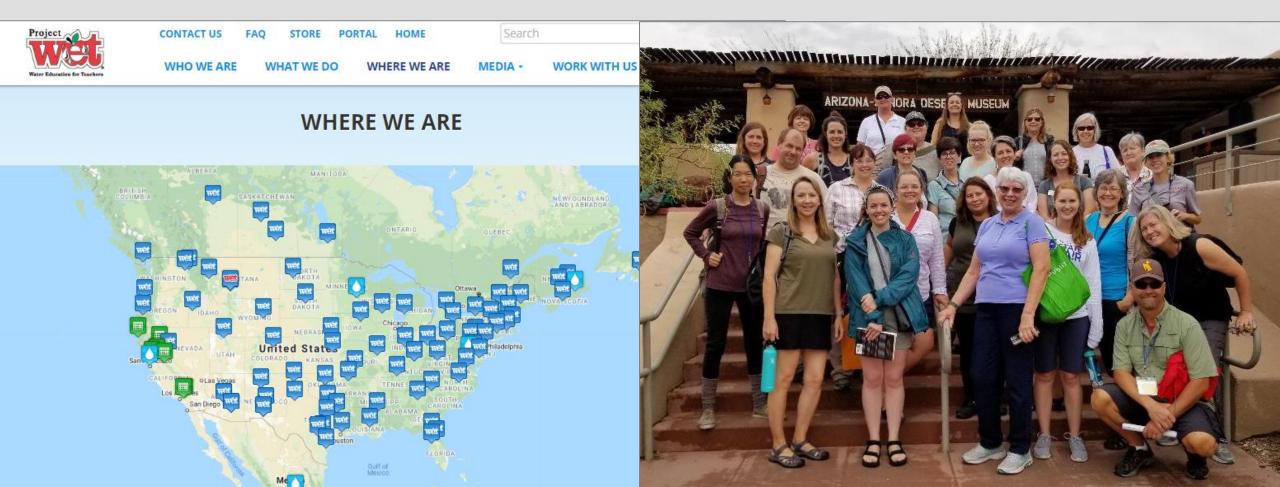
South Carolina (Greenville County Soil & Water Conservation District)

- lunch and learn for local water utility employees (using WET)
- partner with a local municipality public works dept. on rain barrel workshops and water quality education
- career days to teach about conservation jobs
- offer a paid internship position for college juniors, seniors, or recent graduates

Project WET in Your State

www.projectwet.org/where-we-are

Contact your PWET Coordinator today!



Julia Beck

Julia.Beck@projectwet.org



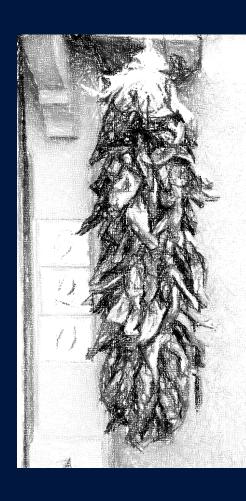


Public Education – Key Element Building the Career Pipeline

April Lopez Water Conservation Specialist El Paso Water









Approach to Reduce Consumption

Effective outreach and education programs

Gaining public support

Regulatory tools

Conservation ordinance Plumbing code Tried and true conservation programs

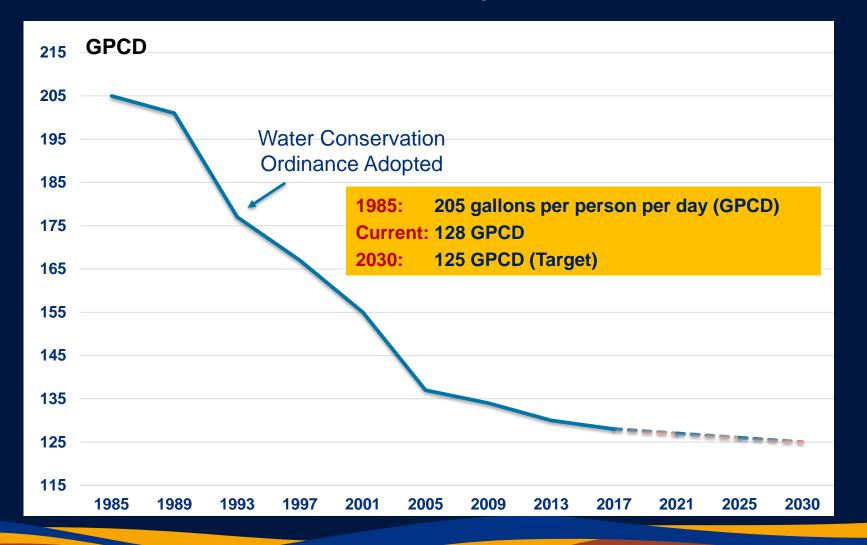
Financial incentives Rate structure Rebates and incentives

Supply side conservation

Improve system efficiencies

El Paso Water 34

Water conservation has reduced per person consumption by 35%



January 23, 2020 El Paso Water

TecH₂O Water Resources Learning Center



- Opened in 2008
- Project WET Host Facility
- Educate more than 40,000 people per year





Educational Outreach



Water Quality Ask the Bugs

Project WET & School Visits





Blue Planet

Colegio Teresiano International visitors

Is There Water on Zork?



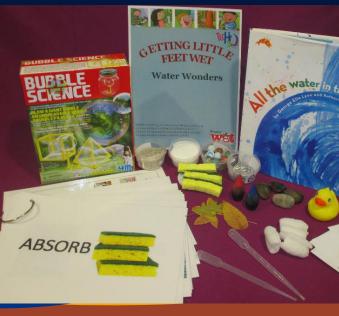






Educator Workshops

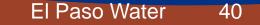








El Paso Water in the Community







Water Festival



Conclusion & Testimonials

Getting Little Feet Wet Workshop Testimonials

Because of our educational efforts, El Paso Water's Conservation Program is leading a 35 percent reduction in per person water consumption.

<u>Click here to watch</u> <u>our video.</u>





Cindy Busche Environmental Education Manager City of Boise



CITY OF BOISE PUBLIC WORKS









Employees: our most valuable asset







BOISE WATERSHED EDUCATION CENTER





BOISE WATERSHED EDUCATION CENTER

Mission: educate people of all ages to protect and conserve precious resources for future generations

- Opened in 2008
- Public-private partnership
- Educate 28,000+ people per year









Project WET Activities







BOISE WATERSHED & PROJECT WET

- 2017 became host site for Project WET
- Offer teacher professional development workshops











Project WET in the community







WATER RENEWAL FACILITY TOURS

Tony Harmon, West Boise Water Renewal Operations Coordinator



<u>Click here to</u> watch our video.







College Student Internships







BOISE STATE UNIVERSITY IDOTEACH

- Provides teacher certification preparation coursework for future science and math teachers.
- Paid internships at Boise WaterShed.
- Interns learned to teach two Project WET activities to 2nd grade students.



- Research study
- How does participation in the field trip impact knowledge of STEM careers?
- How does participation in the field trip impact interest in STEM careers?



BOISE STATE UNIVERSITY IDOTEACH

Survey:

- Administered to 535 students before and after the field trip.
- Five-point scale using smiley faces.

Results:

 Informal educational experiences for young children can help develop vocational awareness and interest.









WaterShed Action Team







CONCLUSION

- K College Environmental Education is an effective tool in workforce development
- Partnering with Project WET can have far-reaching impacts on career awareness and interest.



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Question & Answer

Please submit text questions using your webinar dashboard



Closing Poll #1

On a scale of 1-10, with 10 being the best score and 1 being the worst, how would you rate today's Webinar?

Closing Poll #2

Finally, what other topics would you like to see covered in subsequent webinars?

Please type a brief response in the questions box.









American Water Works Association



Thank you!

