



**CITIZENS' WATER ADVISORY COMMITTEE
CONSERVATION & EDUCATION SUBCOMMITTEE**

3:30 p.m., Wednesday, January 13, 2016
Director's Conference Room
Tucson Water, 3rd Floor
310 W. Alameda Street, Tucson, Arizona

Legal Action Report

1. Call to Order/Roll Call

The meeting was called to order by Chairperson Catlow Shipek at 3:33 p.m. Those present and absent were:

Members Present:

* Mark Murphy	Representative, Mayor
Placido dos Santos	Representative, City Manager
Catlow Shipek	Representative, City Manager
Ryan Lee	Representative, Ward 3
Mark Lewis	Representative, Ward 5

* Member Murphy arrived at 3:37 p.m.

Members Absent:

Jean McLain	Representative, City Manager
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Tucson Water Staff Members:

Scott Clark	Deputy Director
Jeff Biggs	Strategic Initiatives Administrator
Melodee Loyer	Interim Financial Services Administrator
Fernando Molina	Public Information Supervisor
Daniel Ransom	Water Conservation Supervisor
Candice Rupprecht	Public Information Specialist
Joaquim Delgado	Public Information Specialist
Valerie Herman	Public Information Specialist
Kris LaFleur	Staff Assistant

Others Present

Neil Markowitz	EEExchange Program
Kerry Schwartz	AZ Project Wet Program
Karen Hanshaw	SmartScape Program
Betsy Wilkening	SmartScape Program
Michelle Crow	CWAC

2. Announcements – There were no announcements.

3. Call to Audience – There were no audience statements.

4. Review of December 1, 2015, Legal Action Report and Meeting Minutes – Member Lewis moved to approve the Legal Action Report and Meeting Minutes of December 1, 2015. The motion was seconded by Member Lee and carried by a vote of 4-0.

Citizen's Water Advisory Committee, Conservation & Education Subcommittee

Legal Action Report

January 13, 2016

5. Monthly Report & Workplan – Daniel Ransom presented Tucson Water's conservation program report for FY16, through the month of December. He briefly reviewed the C&E FY2016 workplan, indicating progress made and upcoming presentations to the subcommittee.

6. EEExchange Program update – Neil Markowitz, executive director for the Education Environmental Exchange, provided an update for the subcommittee covering the organization's history, its partnership with Tucson Water, and its programs. He explained that EEExchange provides support to agencies, municipalities, and non-profit groups by developing educational materials on environmental topics for school-based audiences.

Mr. Markowitz provided a summary of each program administered in partnership with Tucson Water, with information on numbers of students reached, program content, and budget distribution for each program.

Mr. Markowitz and Conservation Office staff fielded and answered questions from subcommittee members.

7. Project WET Program update – Kerry Schwartz, faculty at the University of Arizona Cooperative Extension and director of Arizona Project WET, provided an update of the program's partnership with Tucson Water. She explained that AZPW develops water stewardship and provides STEM learning and training opportunities through professional development for teachers, direct standards-based student outreach, and community engagement.

Ms. Schwartz and Conservation Office staff fielded and answered questions from subcommittee members.

8. Conservation Budget status & next steps – Melodee Loyer discussed proposed changes to the FY2017 Conservation Budget, which had been approved by the subcommittee on October 14, 2015. She indicated that, beginning with the FY17 rate cycle, the Conservation Fee would be increased by \$0.02/ccf of residential consumption, rather than the \$0.01/ccf increase previously approved by the subcommittee. Ms. Loyer explained that the additional increase would be necessary to mitigate the budget's effect on Tucson Water's overall FY17 budget. The \$0.02/ccf increase would allow the Conservation Budget to become self-sufficient, while also absorbing \$650,000 in new conservation program requests from Mayor & Council. It was further explained that any projected end-of-year balance in the Conservation Budget would be treated as a budget reserve, and that the budget would need to reflect conservation programs' portion of City administrative service fees. Ms. Loyer indicated that a new subcommittee vote on the Conservation Budget would take place after a revised financial plan is adopted for utility as a whole.

Members and staff discussed the proposed change. No action was taken by the subcommittee.

9. Conservation Fund audit response – This item was tabled until the next C&E subcommittee meeting.

10. Future Meetings/Agenda Items – The next C&E subcommittee meeting will be held at 3:30 p.m. on February 10, 2016. Items proposed for discussion at future meetings included:

Citizen's Water Advisory Committee, Conservation & Education Subcommittee

Legal Action Report

January 13, 2016

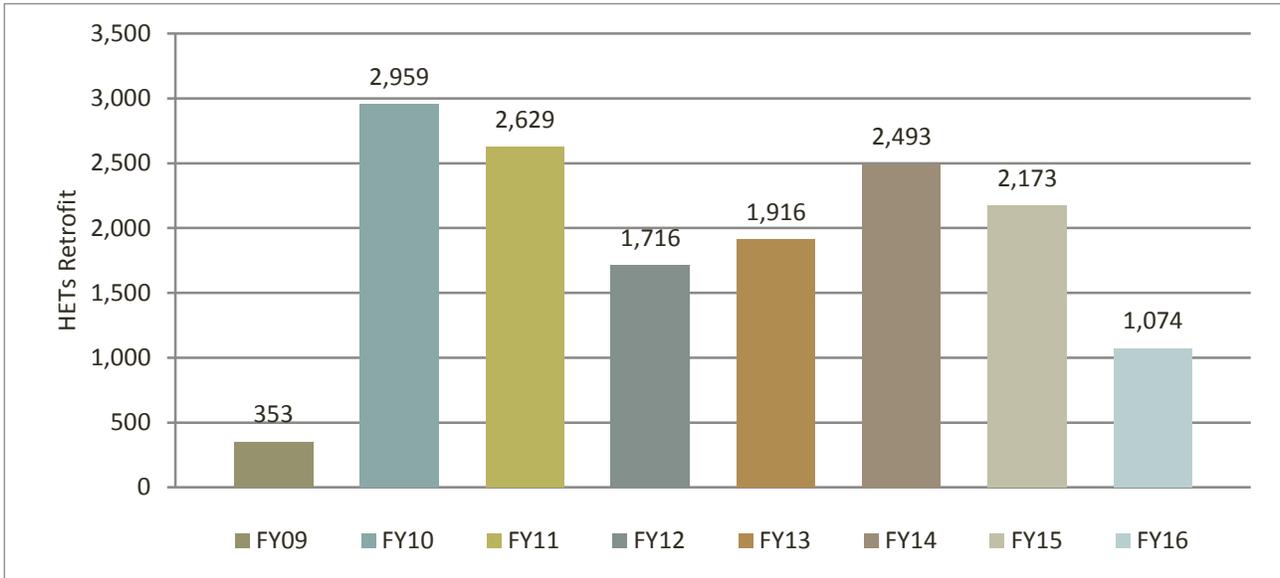
- A clarification on the amount of funds required from the Conservation Budget to satisfy the City's administrative service charges
- The process for "capping" funds, or reallocating them as needed, for conservation programs within any given fiscal year
- Review of draft language for proposed conservation policy changes

11. Adjournment – The meeting was adjourned at 5:05 p.m.

Tucson Water
Incentive Program Implementation
FY 2015-16 Through December

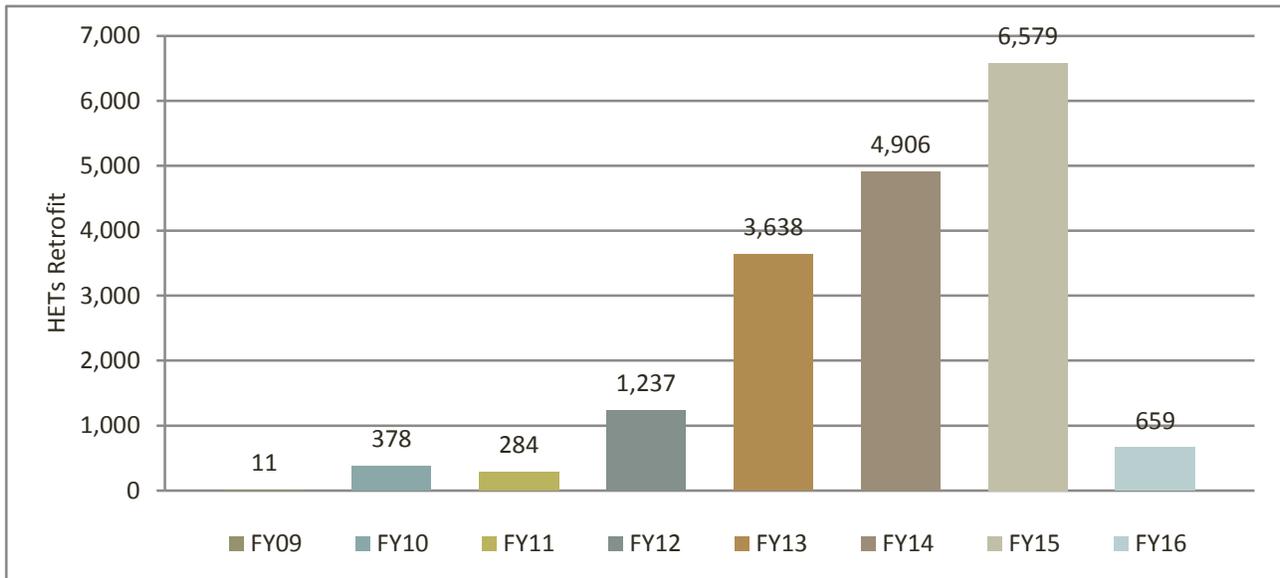
Single-Family HET Rebate

	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	1,074	15,313	Staff Labor Hours: 0
Expenditure: ¹	\$ 79,573	\$ 1,254,382	Budget: \$ 200,000
Estimated Gallons Saved:	8,036,205	397,627,533	Percent of Budget: 40%
Estimated Acre-Feet Saved:	25	1,220	



Multi-Family HET Rebate

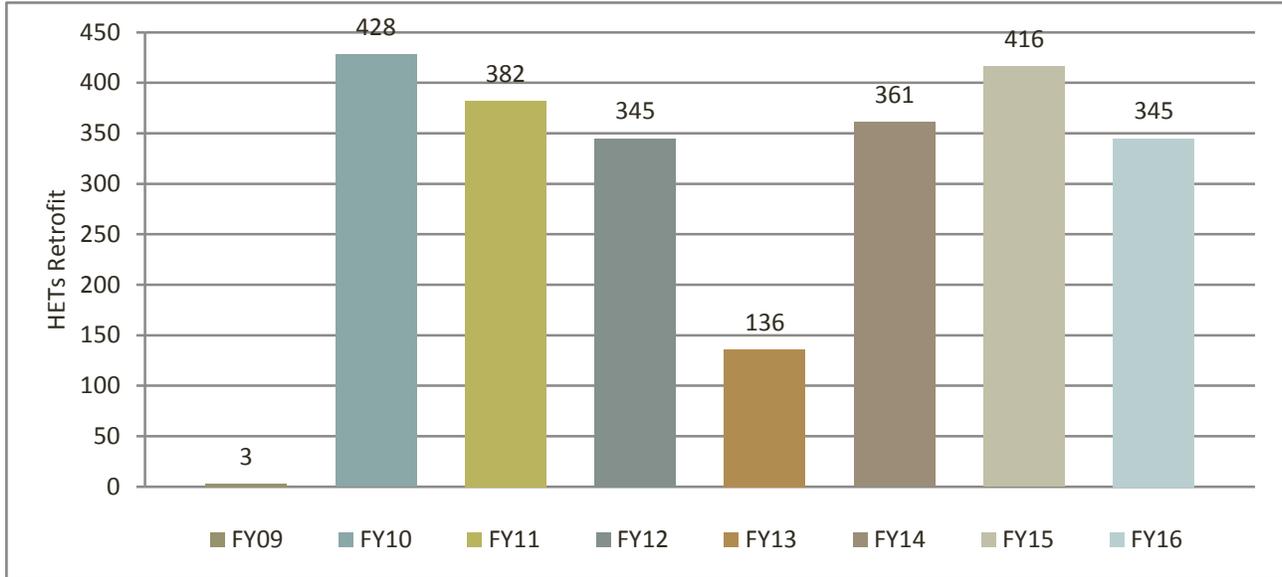
	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	659	17,692	Staff Labor Hours: 0
Expenditure: ¹	\$ 49,575	\$ 1,714,670	Budget: \$ 395,000
Estimated Gallons Saved:	4,930,968	269,504,685	Percent of Budget: 13%
Estimated Acre-Feet Saved:	15	827	



Tucson Water
Incentive Program Implementation
FY 2015-16 Through December

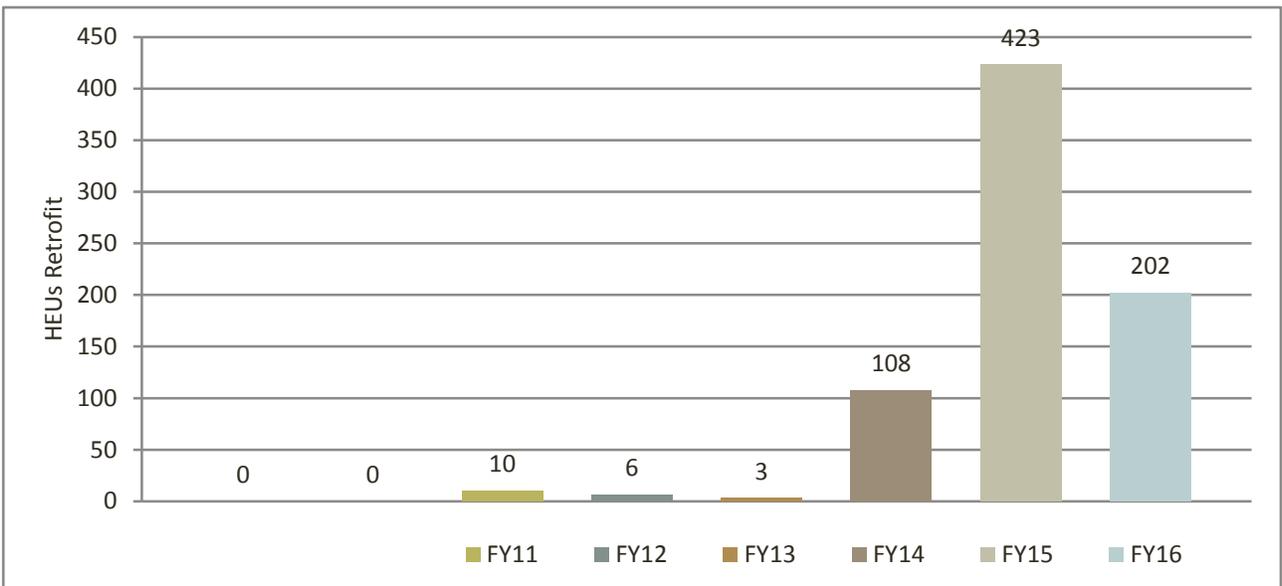
Commercial HET Rebate

	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	468	2,539	Staff Labor Hours: 0
Expenditure: ¹	\$ 44,550	\$ 219,996	Budget: \$ 60,000
Estimated Gallons Saved:	2,896,275	75,883,500	Percent of Budget: 74%
Estimated Acre-Feet Saved:	9	233	



High-Efficiency Urinal Rebate

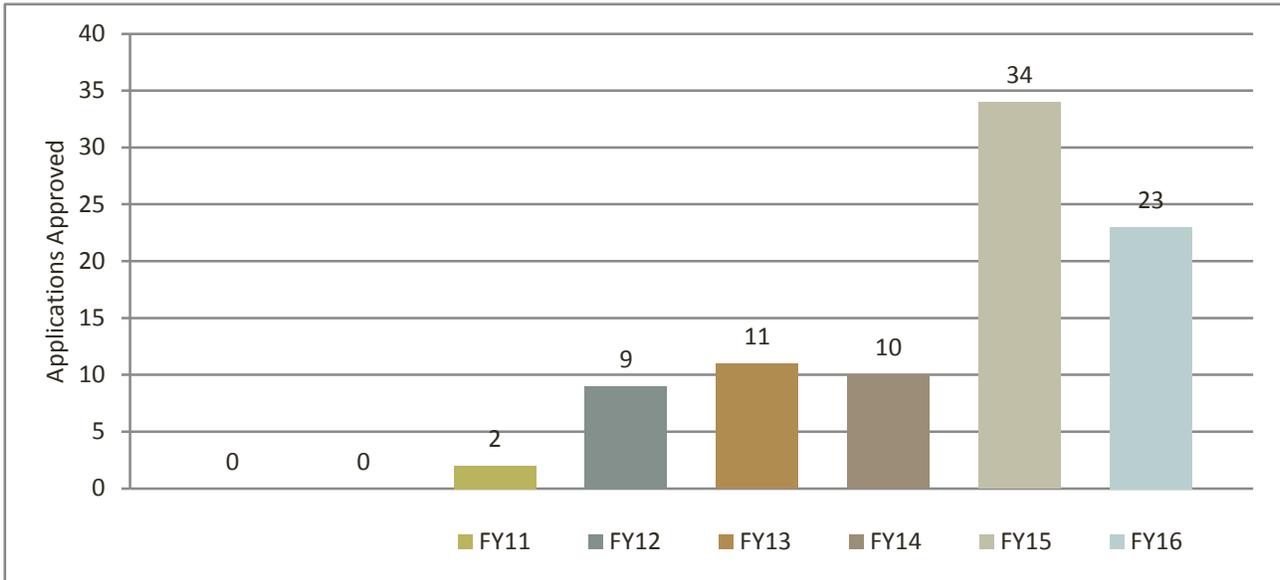
	FY 15/16	Cumulative	Start Date: Jan-11
HEUs Retrofit:	202	752	Staff Labor Hours: 0
Expenditure: ¹	\$ 40,400	\$ 253,200	Budget: \$ 62,500
Estimated Gallons Saved:	1,253,612	4,480,732	Percent of Budget: 65%
Estimated Acre-Feet Saved:	4	14	



Tucson Water
Incentive Program Implementation
FY 2015-16 Through December

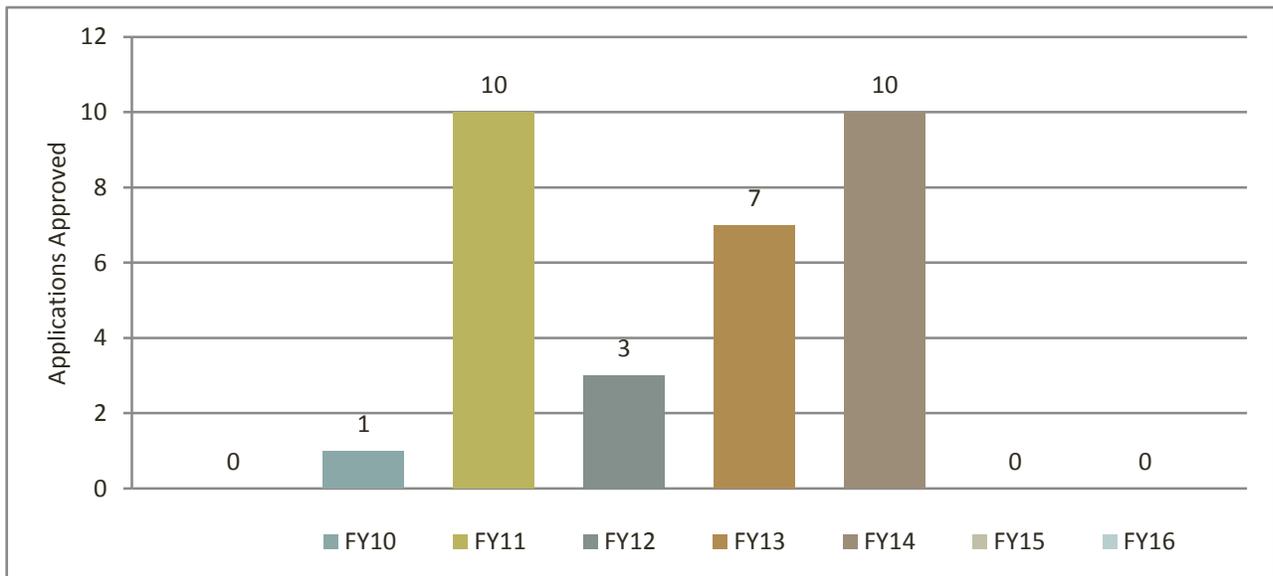
Gray Water Rebate

	FY 15/16	Cumulative	Start Date: Jan-11
Applications Approved:	23	89	Staff Labor Hours: 0
Expenditure: ¹	\$ 9,654	\$ 34,533.02	Budget: \$ 20,000
Estimated Gallons Saved:	313,145	1,810,795	Percent of Budget: 48%
Estimated Acre-Feet Saved:	1	6	



Irrigation Efficiency Rebate

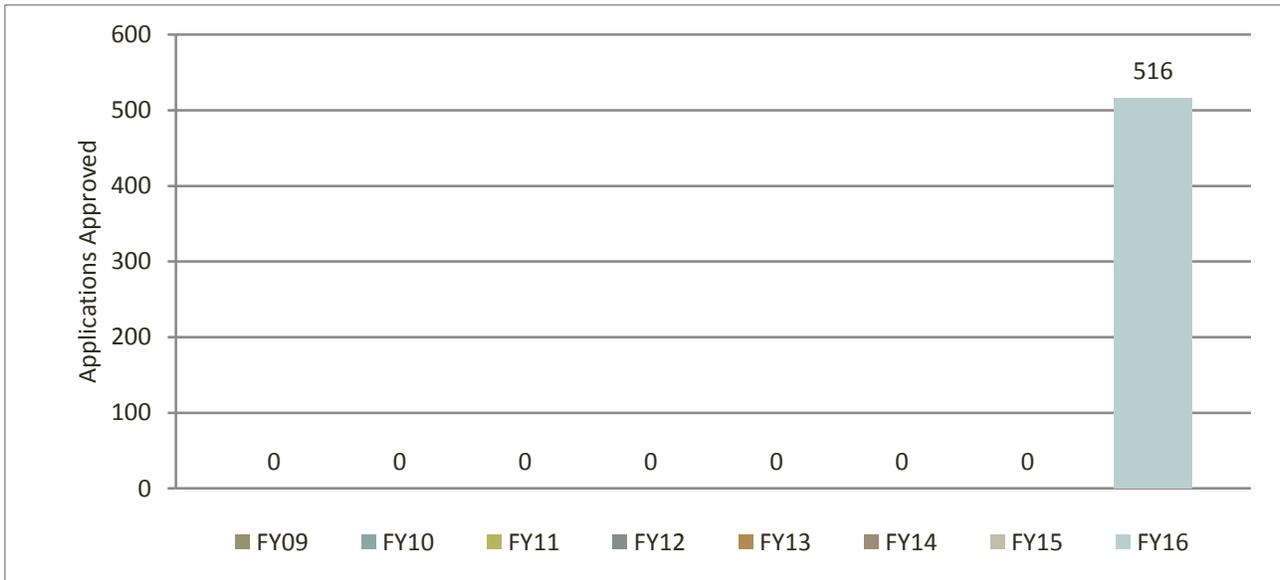
	FY 15/16	Cumulative	Start Date: Jul-08
Applications Approved:	0	31	Staff Labor Hours: 0
Expenditure: ¹	\$ -	\$ 246,890	Budget: \$ 45,000
Estimated Gallons Saved:	0	25,064,550	Percent of Budget:
Estimated Acre-Feet Saved:	0	77	



Tucson Water
 Incentive Program Implementation
 FY 2015-16 Through December

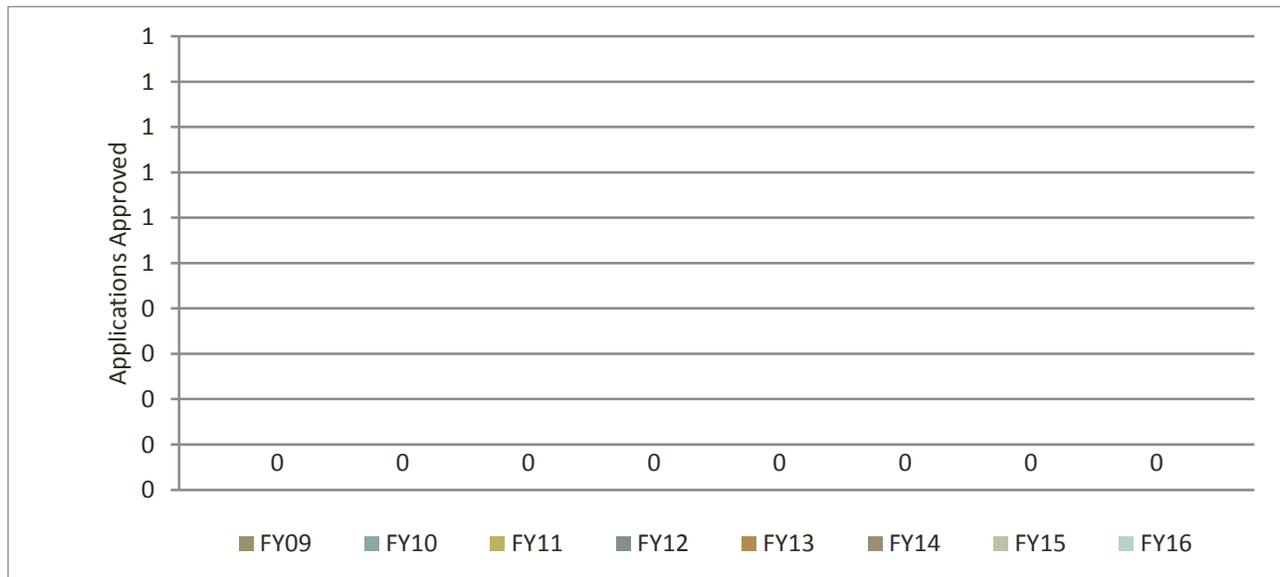
High-Efficiency Clothes Washer Rebate

	FY 15/16	Cumulative		Start Date: Aug-15
Applications Approved:	516	516	Staff Labor Hours:	0
Expenditure: ¹	\$ 103,200	\$ 103,200	Budget:	\$ 200,000
Estimated Gallons Saved:	3,634,188	3,634,188	Percent of Budget:	52%
Estimated Acre-Feet Saved:	11	11		



Commercial Efficiency Upgrade Rebate

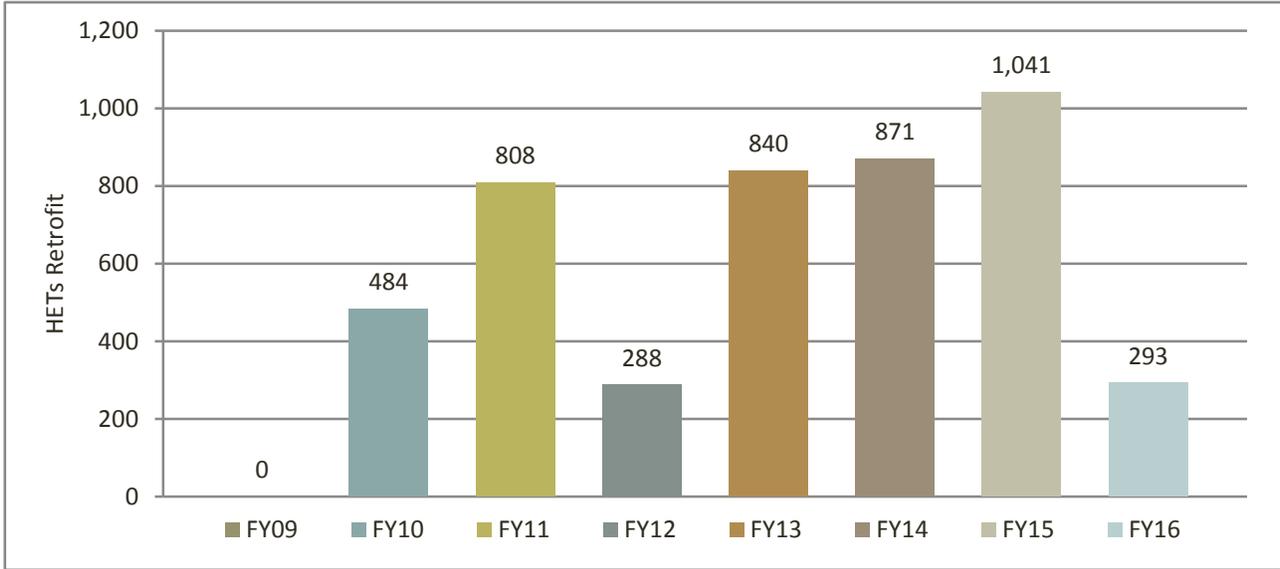
	FY 15/16	Cumulative		Start Date: TBD
Applications Approved:	0	0	Staff Labor Hours:	0
Expenditure: ¹	\$ -	\$ -	Budget:	\$ 85,000
Estimated Gallons Saved:	0	0	Percent of Budget:	
Estimated Acre-Feet Saved:	0	0		



Tucson Water
Incentive Program Implementation
FY 2015-16 Through December

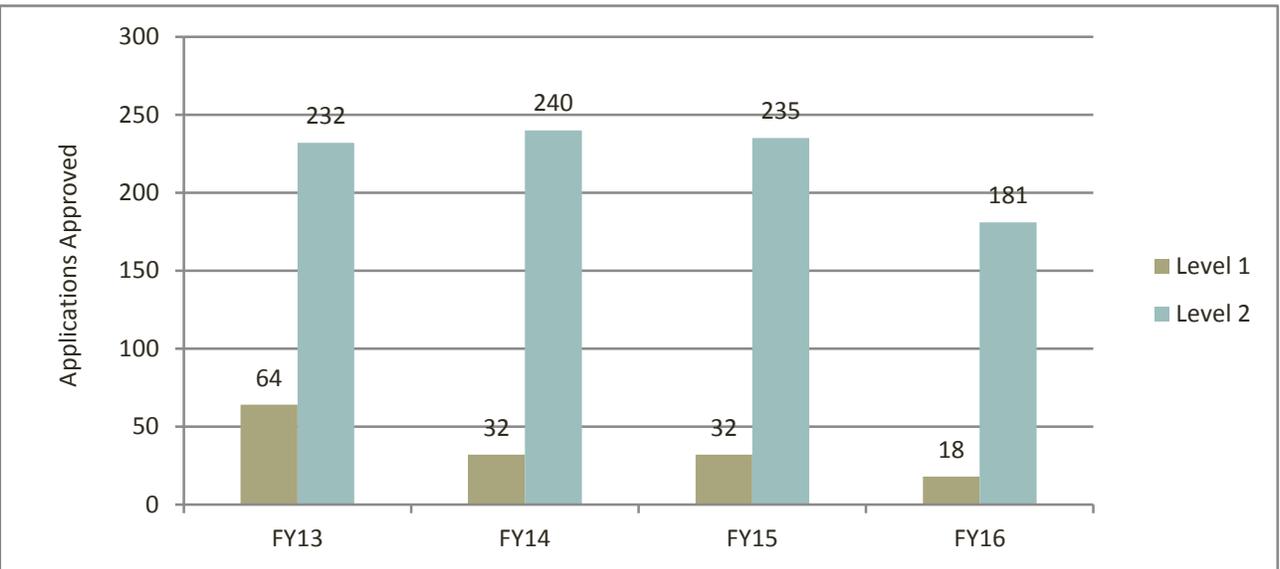
Low-Income HET Direct Install

	FY 15/16	Cumulative	Start Date: Oct-09
HETs Retrofit:	293	4,625	Staff Labor Hours: 0
Expenditure: ¹	\$ 108,272	\$ 1,684,215	Budget: ² \$ 337,000
Estimated Gallons Saved:	2,513,208	114,929,923	Percent of Budget: 32%
Estimated Acre-Feet Saved:	8	353	



Rainwater Harvesting Rebate

	FY 15/16	Cumulative	Start Date: Jun-12
Applications Approved:	199	1,034	Staff Labor Hours: 0
Expenditure: ¹	\$ 265,443	\$ 1,293,827	Budget: \$ 400,000
Estimated Gallons Saved:	0	0	Percent of Budget: 66%
Estimated Acre-Feet Saved:	0	0	

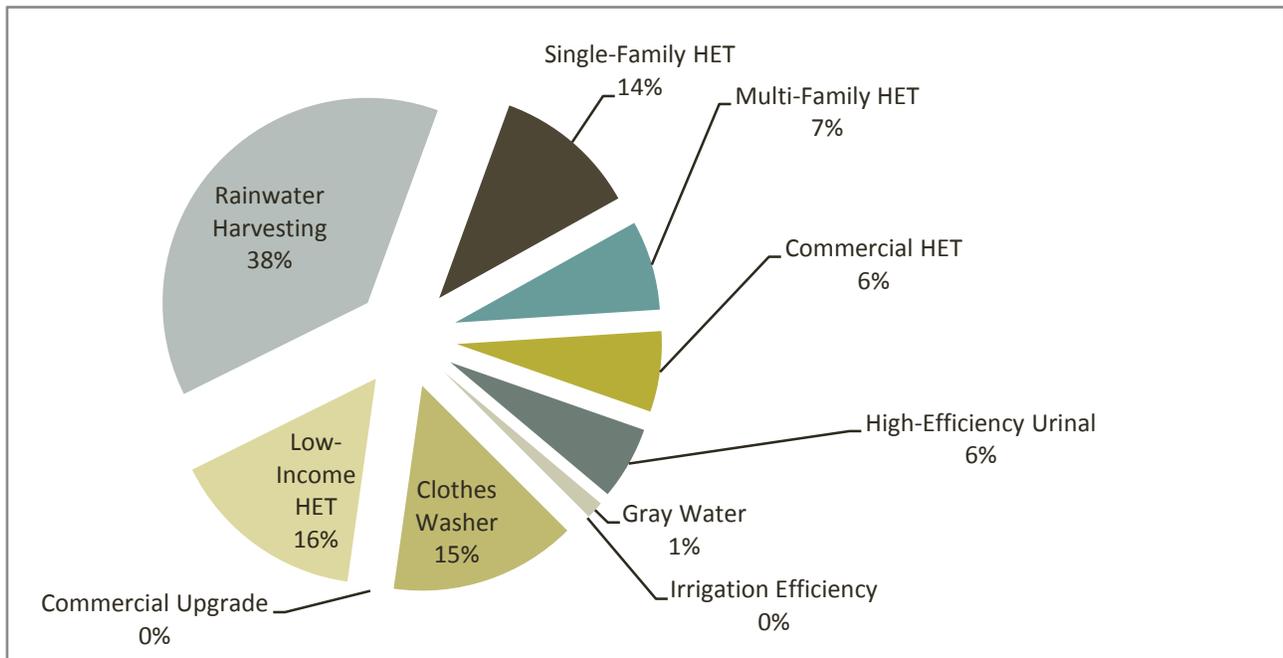


Tucson Water
Incentive Program Implementation
FY 2015-16 Through December

Program Totals

	FY 15/16	Cumulative		
HETs/HEUs Installed:	2,696	40,921	Staff Labor Hours:	0
Expenditure: ¹	\$ 700,667	\$ 6,804,912	Budget:	\$ 1,804,500
Estimated Gallons Saved:	23,577,600	892,935,905	Percent of Budget:	39%
Estimated Acre-Feet Saved:	72	2,740		

Expenditures by Program for FY 2015-16



The numbers and expenditures in this report reflect when the rebate or expenditure is approved and not when paid. This report is an operational report and not intended to reconcile with financial reports.

¹The expenditure does not include the cost of staff time

²The budget for the low-income HET direct install program is combined from two object codes. Toilet installation is categorized in professional services and the cost of the toilet and misc. materials is categorized in materials. All other rebate program expenditures are in the object code for efficiency programs.

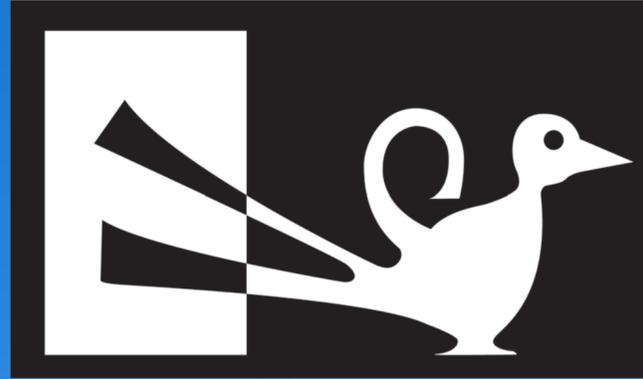
**CWAC Conservation and Education Subcommittee
Three-Year Work Plan, FY16-18**

FISCAL YEAR 2015-16

Month	Items for Subcommittee Review	Completion/Approval by CWAC	Program Updates & Presentations (<i>tentative</i>)
September 2015	- FY14-15 Annual Report - FY16-17 Budget Proposal		
October 2015	- Conservation Planning Process	- FY16-17 Budget Proposal	
November 2015		- FY14-15 Annual Report	- SERI Pilot Program update
December 2015			- SmartScape Program Update
January 2016			- Project WET Program Update - EEExchange Program Update
February 2016	- FY 15-16 Mid-Year Report - New Program Ideas & Research*		- Low-Income Toilet Program (CHSPA)
March 2016	- New Program Ideas & Research	- FY 15-16 Mid-Year Report	- Inter-agency Collaboration (Internal presentation)
April 2016	- New Program Ideas & Research - FY16-17 Program Plan		- Zanjero Program Update (Internal presentation)
May 2016	- Five-year Conservation Plan	- FY16-17 Program Plan	- Conserve2Enhance Program Update
June 2016	- FY17-18 Budget Proposal	- Five-year Conservation Plan	- Commercial/WaterSmart Business Program Update (Internal presentation)

*New Program Ideas & Research is a designated 3-month period for CWAC Members & Staff to present new program ideas to be considered for evaluation and development in the next fiscal year to start the following July. All ideas should be presented with baseline research completed on resource needs, savings potential and existing case studies and example programs. All ideas will be analyzed using the AWE Conservation Tracking Tool and final determination of programs will be weighed with Conservation Plan goals. Depending on the number and complexity of new program ideas, additional meetings may be scheduled during this time.

environmental
EDUCATION
EXCHANGE



eeexchange.org

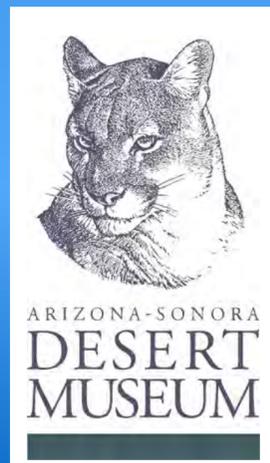
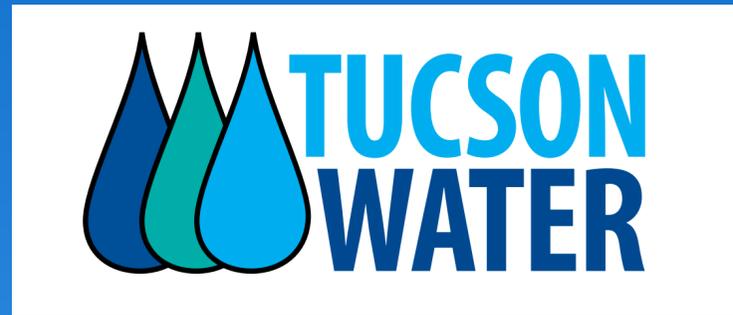
501(c)(3) Non-Profit Organization • Tucson-based, est. 1991

Partnering on Educational Materials Development & Dissemination

Over 100 Project Partnerships worldwide

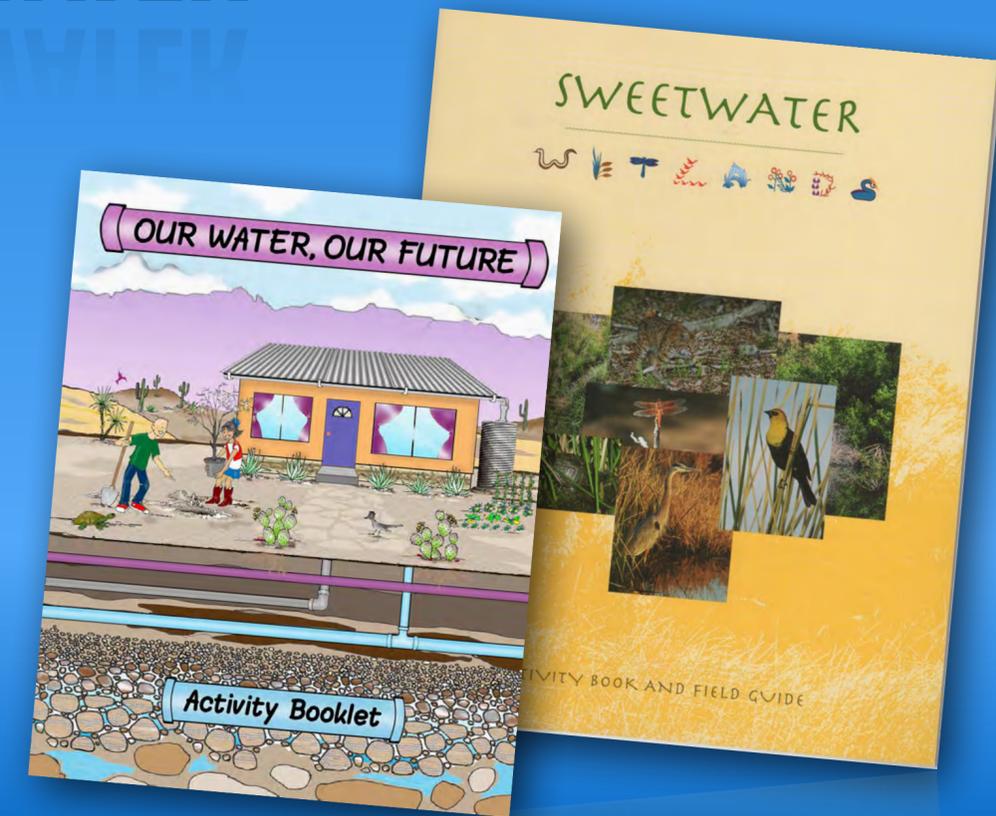
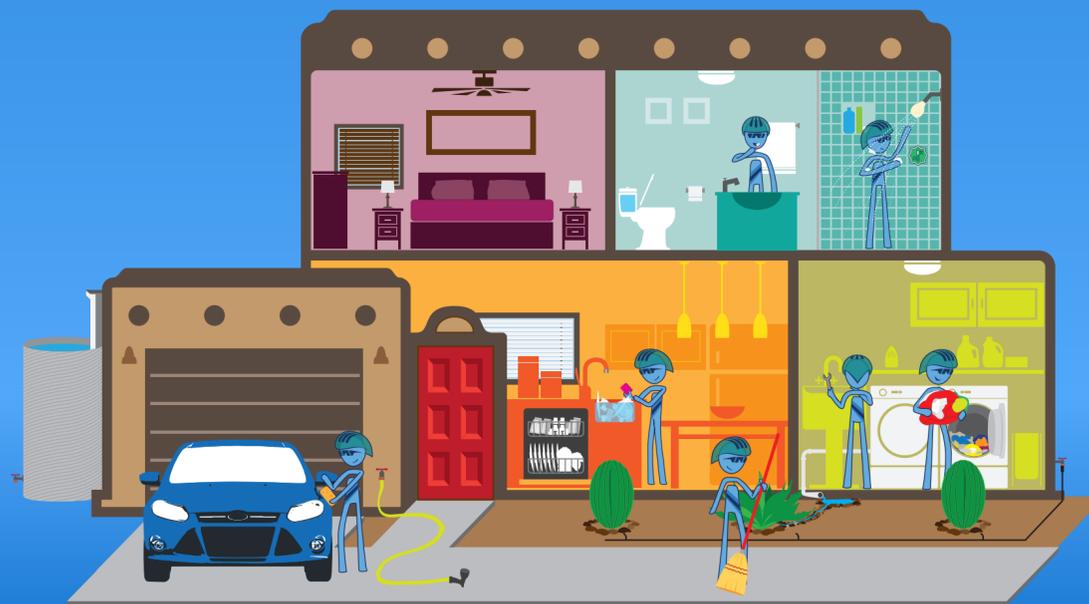
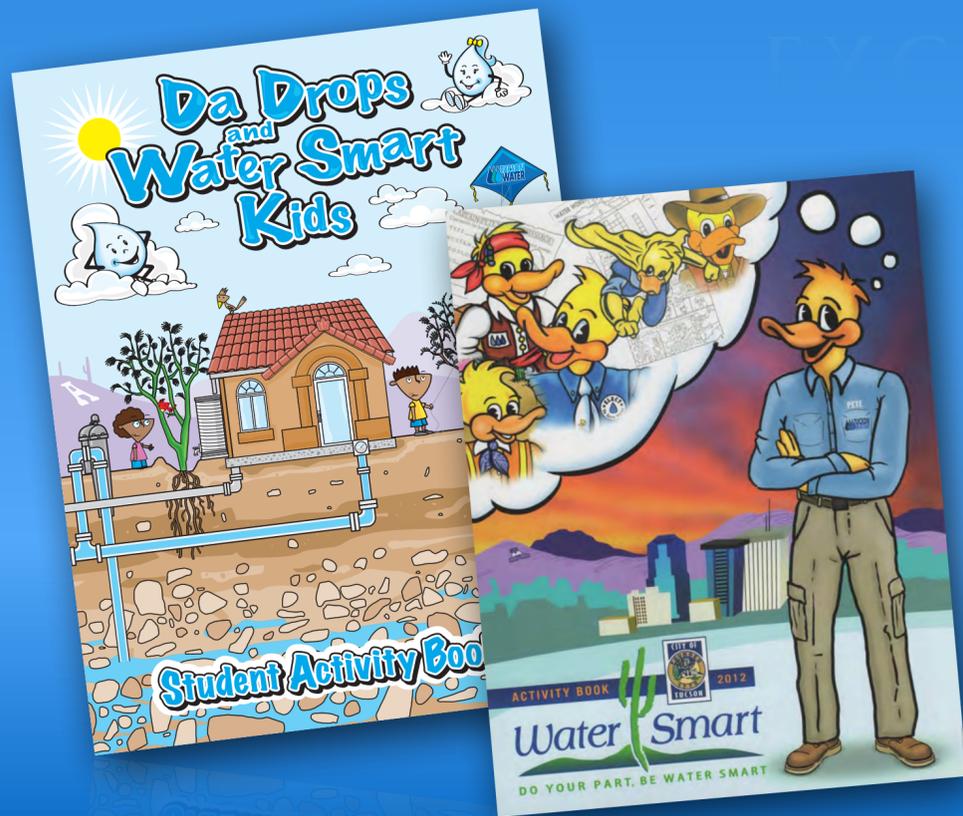
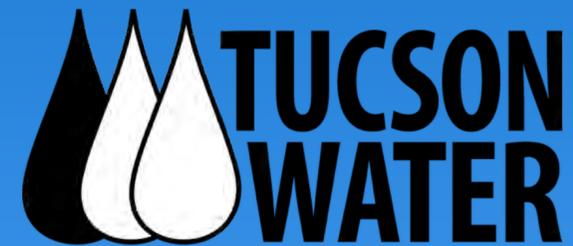
PARTNERS

Full list at: eeexchange.org/project-partners



WATER EDUCATION PROGRAM PARTNERSHIP

environmental
EDUCATION
EXCHANGE





WATER EDUCATION PROGRAM PARTNERSHIP

- On-going collaboration with partner agency staff
- Careful focus on individual client content
- Match client needs with dissemination opportunities
- Work within budgetary constraints
- Ensure long-term program sustainability
- 3-5 Year re-development cycle
- Focus on quality control, reporting and evaluation



DA DROPS

1998 - CURRENT

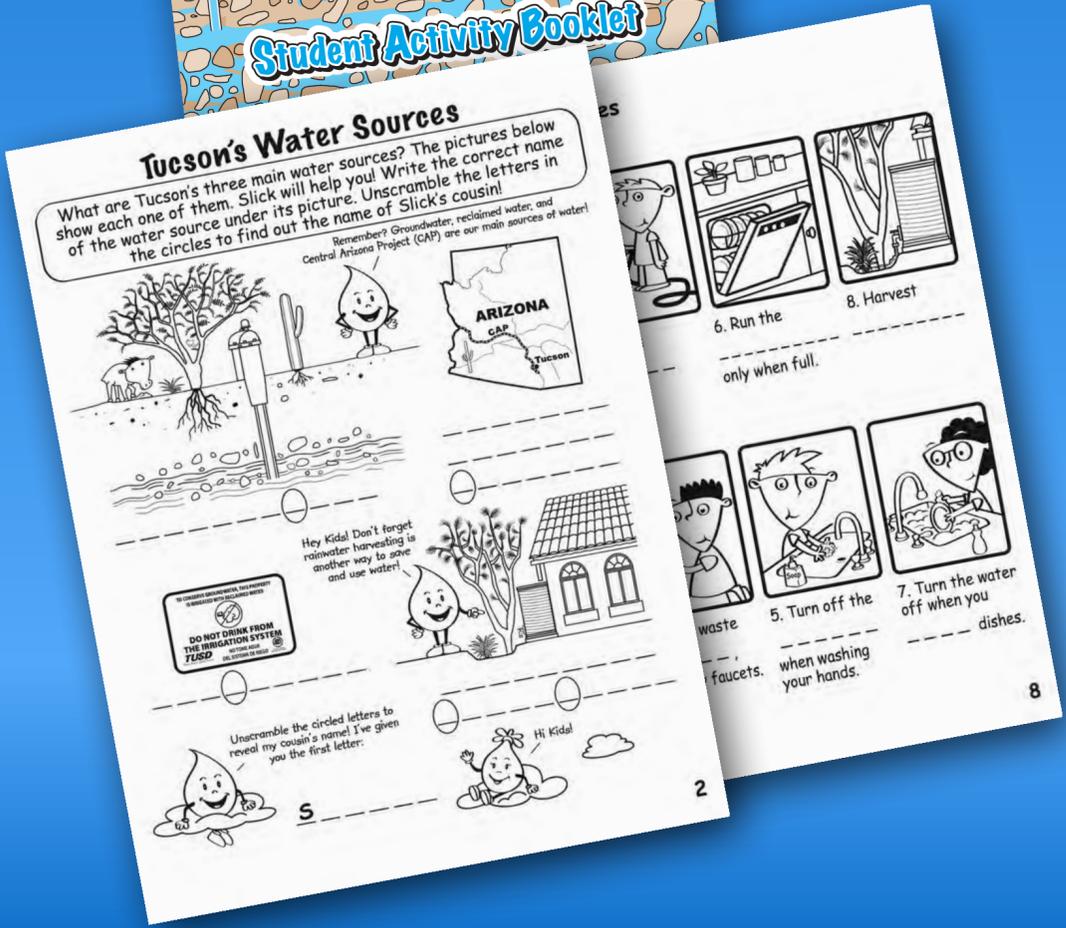
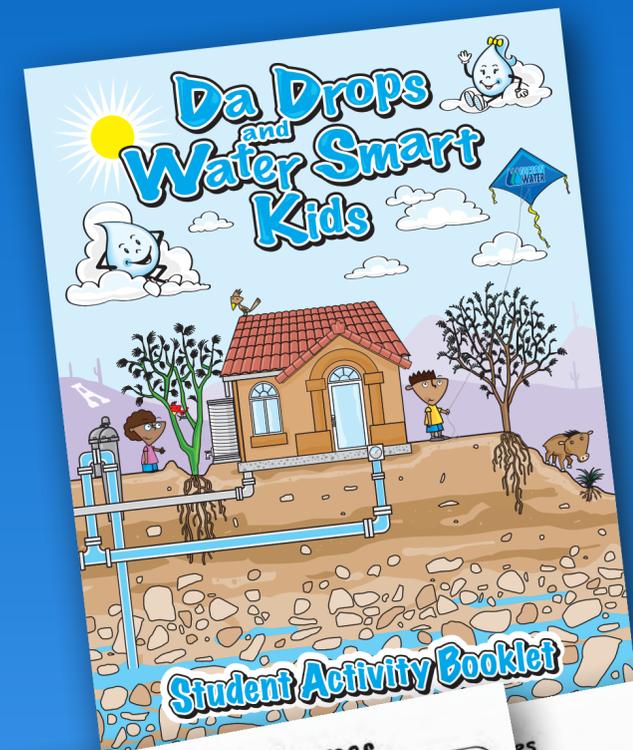
1ST - 3RD GRADE

4,400

PROGRAMS

130,000

STUDENTS

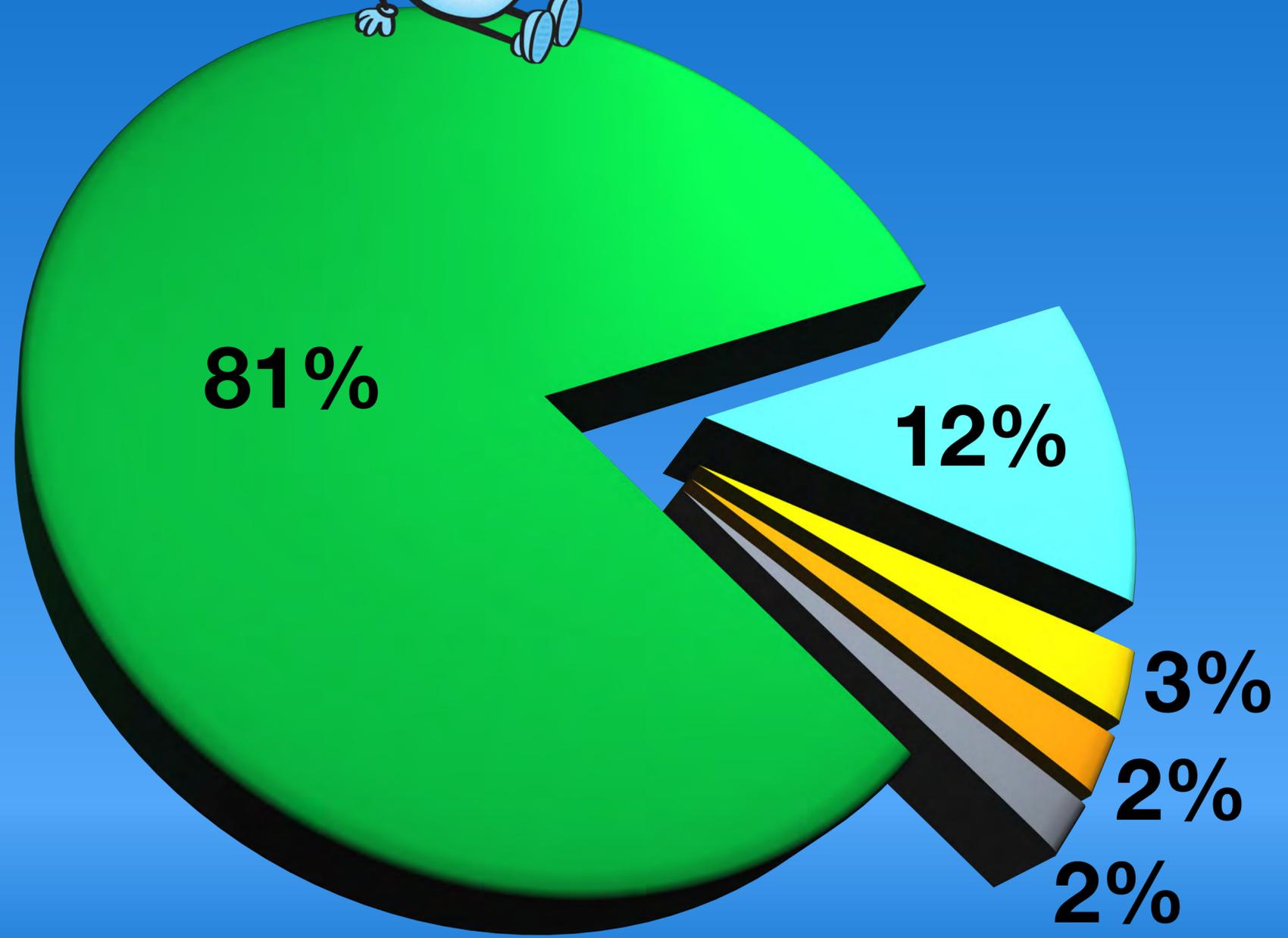




DA DROPS

1998 - CURRENT

1ST - 3RD GRADE

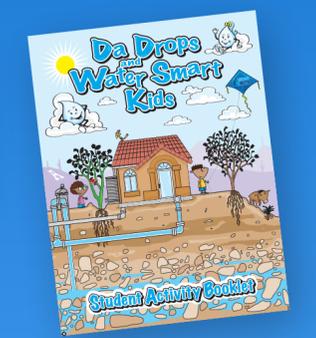


\$53,625 (325 x \$165)

Classroom Presentations

\$7,970

Giveaway Supplies



\$1,800

Presenter Training

\$1,500

Mileage Reimbursement

\$1,350

Monthly & Year End Reports

\$66,245

OUR WATER, OUR FUTURE

1993 - CURRENT

4TH - 5TH GRADE

2,800

PROGRAMS

84,000

STUDENTS

Reclaimed Water is Recycled Water

Water can be recycled! Through a process similar to nature's water cycle, we can clean and re-use water that has been used in our homes and businesses.

Read how! Water that arrives at the treatment plant first goes through a screening process to remove large objects. Skimming and settling then remove other objects from the water. Microorganisms next consume tiny particles through digestion. Then, in the filtration process, water passes through special filters that clean it to a very high standard. After the filtered water is chlorinated, it goes through a system of purple pipes for delivery to parks, schoolyards, and golf courses.

You can also review the process on pages 5 and 6!



Unscramble the letters to identify the steps for recycling water. Write the step in the space provided and number the steps in the correct sequence.

This step is numbered for you!

stligent liryved gnikism



HARVESTING RAINWATER

Rainwater can be harvested! We can capture and save rainwater that falls on our roofs and yards and use it to water our plants!

Can you find the WATER HARVESTING WORDS from the cartoons in the word search below? Be sure to look up, down, diagonally, backwards and forwards! Look for the BONUS words, too!



Cool! The RAIN GUTTER is used to CHANNEL rainwater to the DOWNSPOUT and cistern for STORAGE!

We're installing a CISTERN to HARVEST and store RAINWATER!

Using harvested rainwater helps CONSERVE our GROUNDWATER and other water sources!

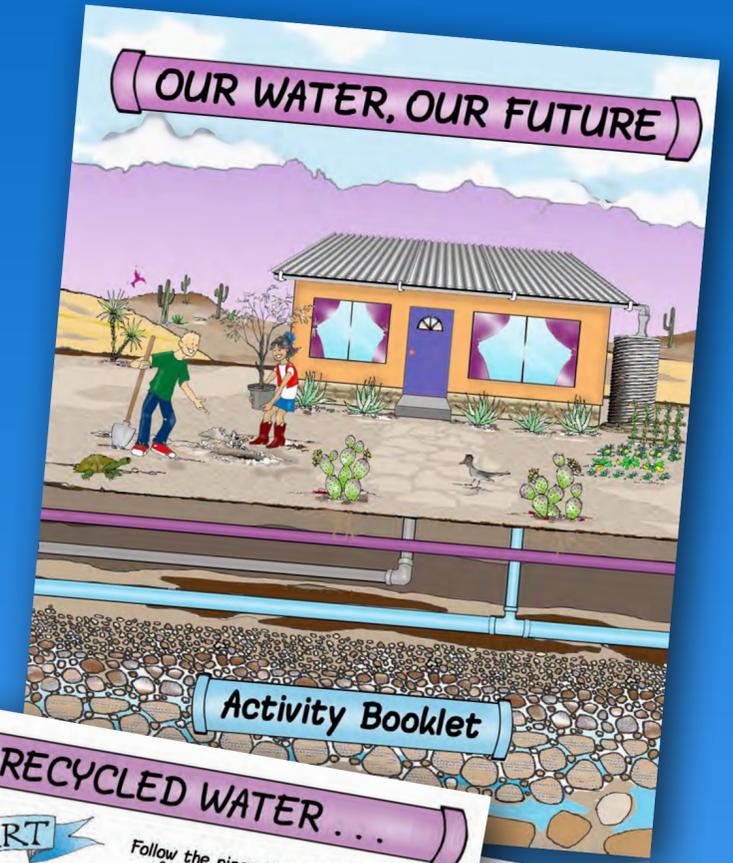
Planting DESERT PLANTS is a WATER SMART idea! They don't use much water and many have sweet flowers for us birds!

LANDSCAPE BASIN keeps rainwater RUNOFF in the yard where it can INFILTRATE into the ground and be used by plants!



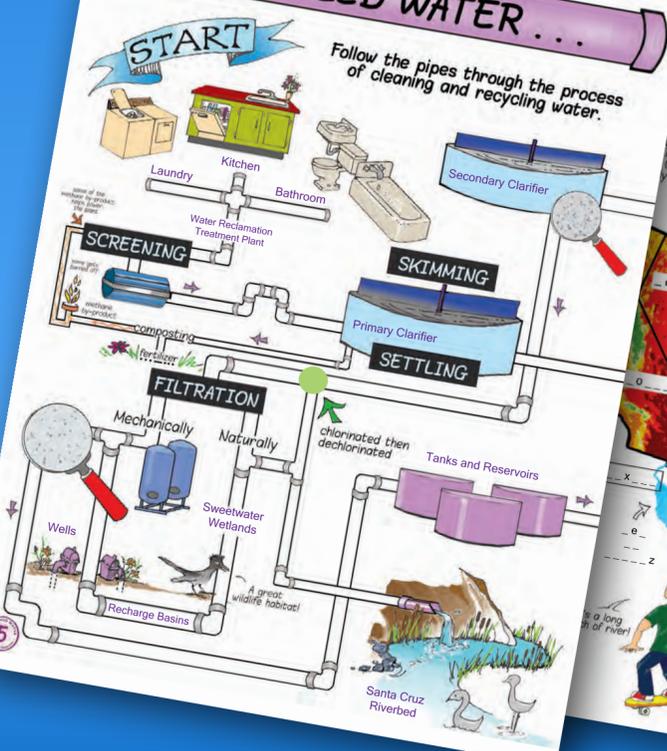
BONUS WORDS

RECLAIMED TANK
MONSOON BROOKE
RENZO DRAUCEZ



RECYCLED WATER ...

Follow the pipes through the process of cleaning and recycling water.



5



2 Countries, 7 States, 30 Million People

Water for 30 million people in two countries, including seven states, is delivered to Tucson through the Colorado River Aqueduct (CRA) Canal, which crosses 336 miles of desert! 95% of its drinking water from the Colorado River.

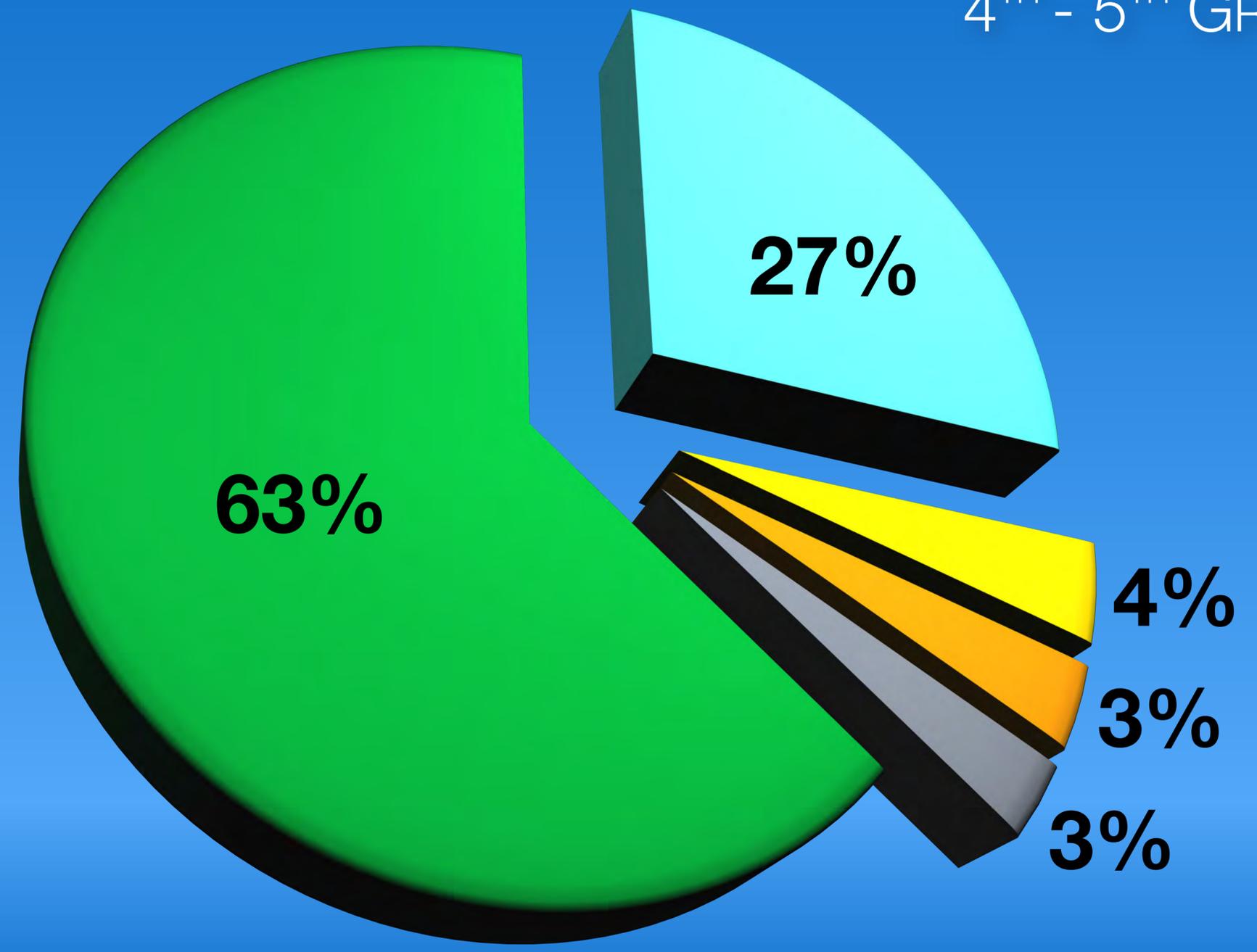
Santa Cruz Riverbed



OUR WATER, OUR FUTURE

1993 - CURRENT

4TH - 5TH GRADE

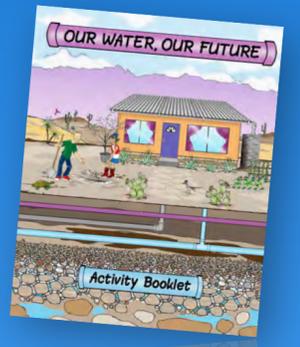


\$28,050 (170 x \$165)

Classroom Presentations

\$11,867

Giveaway Supplies



\$1,800

Presenter Training

\$1,500

Mileage Reimbursement

\$1,350

Monthly & Year End Reports

\$44,567

EL TOUR DE AGUA

6TH - 8TH GRADE

2014 - CURRENT



Know where you get your water!

- Groundwater
- Colorado River (or CAP) water, and
- Recycled (or reclaimed) water

SO WATER

RECYCLED WATER

300
PROGRAMS

7,500
STUDENTS



How Much Can You Save?
Save water and energy (energy used to heat your hot water) and money with high efficiency low-flow shower heads and aerators.

Determine the flow of showers and sinks.
Flow is measured in gallons per minute (GPM). The hourly total will show you the flow in gallons and how per minute, and how much you're saving water, energy and money.

- 1) Turn on the faucet to the desired flow rate, and have a bucket to catch the water.
- 2) Note the flow rate in the future.
- 3) Remove the bucket and place under the fixture for exactly five seconds.
- 4) Measure the flow, mark the top of the bucket and measure the low rate measurement on the bag. Pour water out and repeat. It is important to get the five second count.
- 5) Repeat the test to check your results.

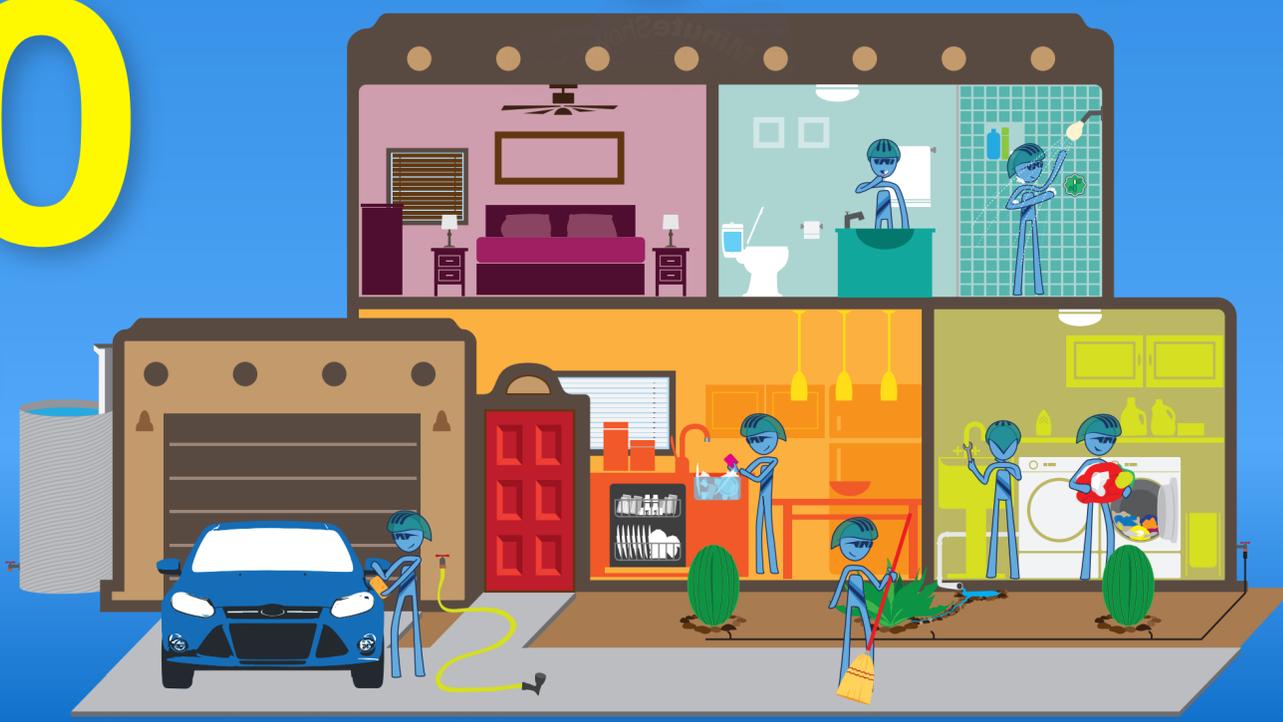
Showerheads

Water Level	Flow Rate	Potential Savings
Gallons (US)	Liters	per year
3 GPM	11.4 LPM	\$41/year
4 GPM	15.2 LPM	\$124/year
5 GPM	18.8 LPM	\$167/year
6 GPM	22.7 LPM	\$210/year
7 GPM	26.6 LPM	\$253/year
8 GPM	30.5 LPM	\$296/year
9 GPM	34.3 LPM	\$339/year
10 GPM	38.2 LPM	\$382/year
11 GPM	42.1 LPM	\$425/year
12 GPM	46.0 LPM	\$468/year
13 GPM	49.9 LPM	\$511/year
14 GPM	53.8 LPM	\$554/year
15 GPM	57.7 LPM	\$597/year
16 GPM	61.6 LPM	\$640/year
17 GPM	65.5 LPM	\$683/year
18 GPM	69.4 LPM	\$726/year
19 GPM	73.3 LPM	\$769/year
20 GPM	77.2 LPM	\$812/year
21 GPM	81.1 LPM	\$855/year
22 GPM	85.0 LPM	\$898/year
23 GPM	88.9 LPM	\$941/year
24 GPM	92.8 LPM	\$984/year
25 GPM	96.7 LPM	\$1027/year
26 GPM	100.6 LPM	\$1070/year
27 GPM	104.5 LPM	\$1113/year
28 GPM	108.4 LPM	\$1156/year
29 GPM	112.3 LPM	\$1199/year
30 GPM	116.2 LPM	\$1242/year

Faucets

Water Level	Flow Rate	Potential Savings
Gallons (US)	Liters	per year
3 GPM	11.4 LPM	\$41/year
4 GPM	15.2 LPM	\$124/year
5 GPM	18.8 LPM	\$167/year
6 GPM	22.7 LPM	\$210/year
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19 GPM	73.3 LPM	\$769/year
20 GPM	77.2 LPM	\$812/year
21 GPM	81.1 LPM	\$855/year
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23 GPM	88.9 LPM	\$941/year
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26 GPM	100.6 LPM	\$1070/year
27 GPM	104.5 LPM	\$1113/year
28 GPM	108.4 LPM	\$1156/year
29 GPM	112.3 LPM	\$1199/year
30 GPM	116.2 LPM	\$1242/year

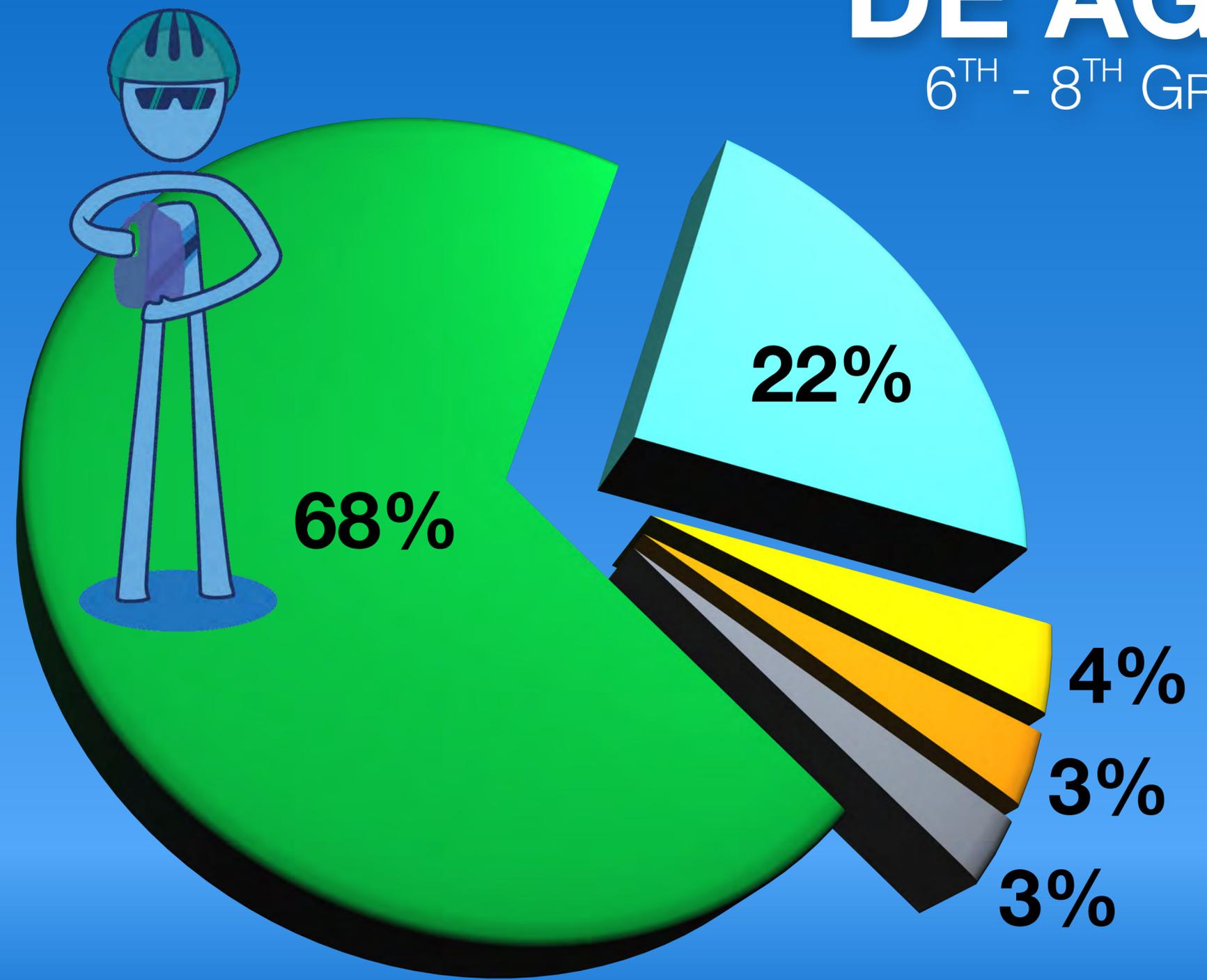
EPA WaterSense Flow • Showers: 2.2 gpm, Bath Faucets: 1.5 gpm



EL TOUR DE AGUA

2014 - CURRENT

6TH - 8TH GRADE



\$33,000 (200 x \$165)
Classroom Presentations

\$10,878
Giveaway Supplies

\$1,800
Presenter Training

\$1,500
Mileage Reimbursement

\$1,350
Monthly & Year End Reports

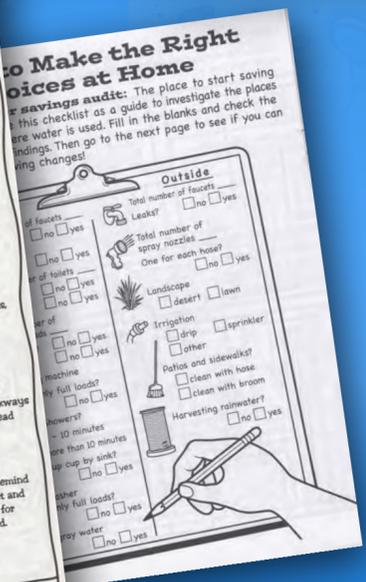
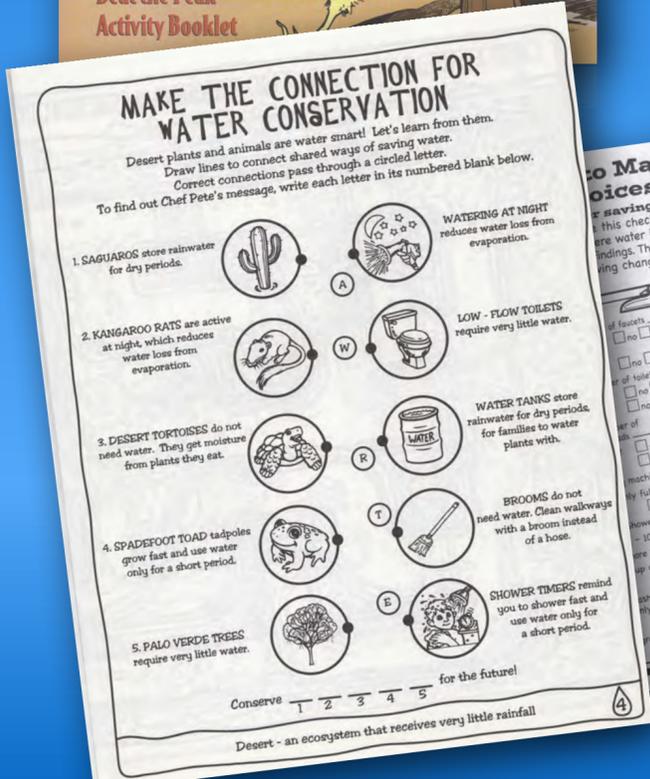
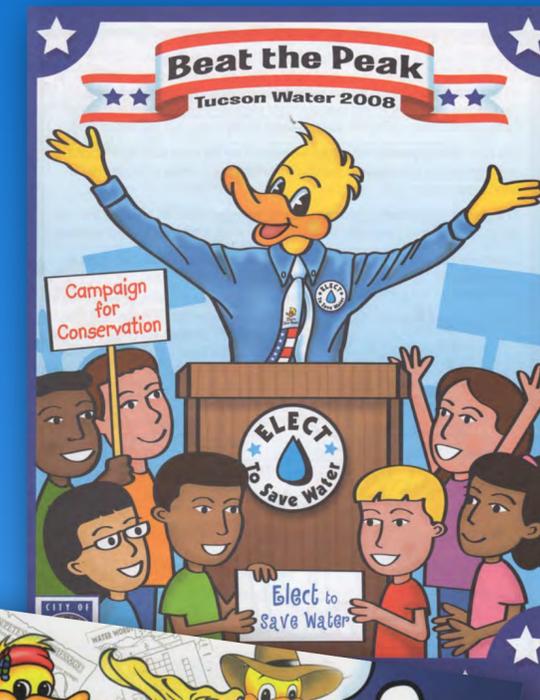
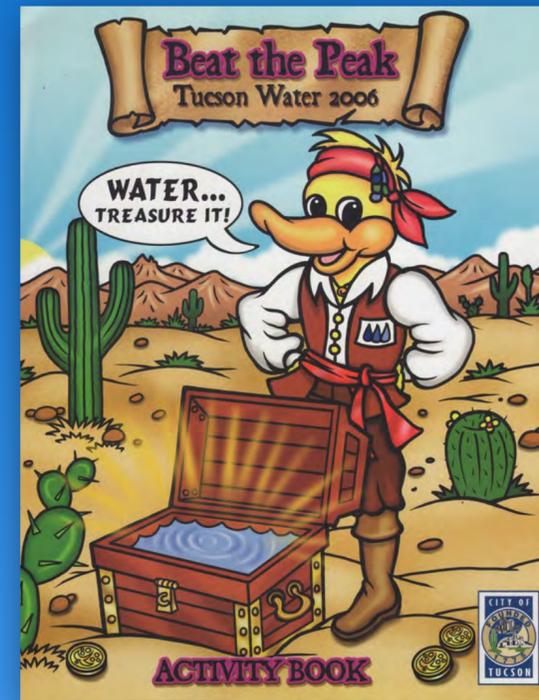
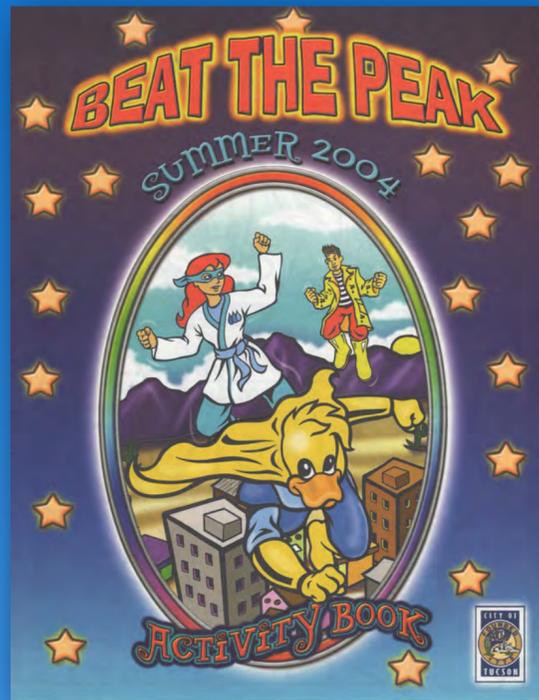
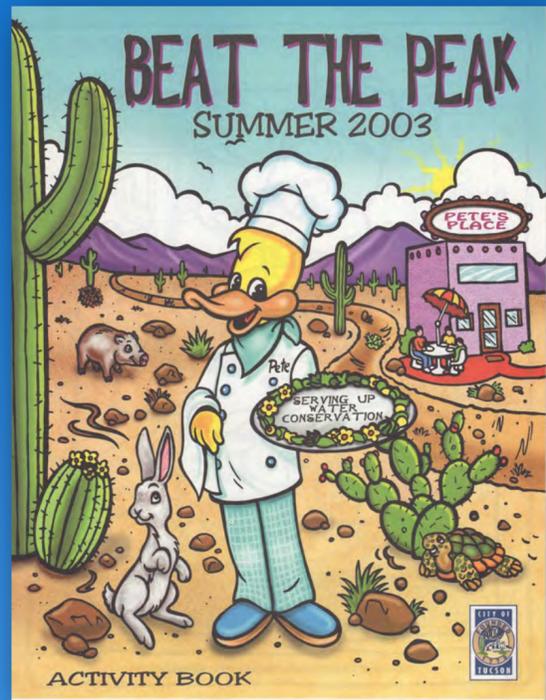
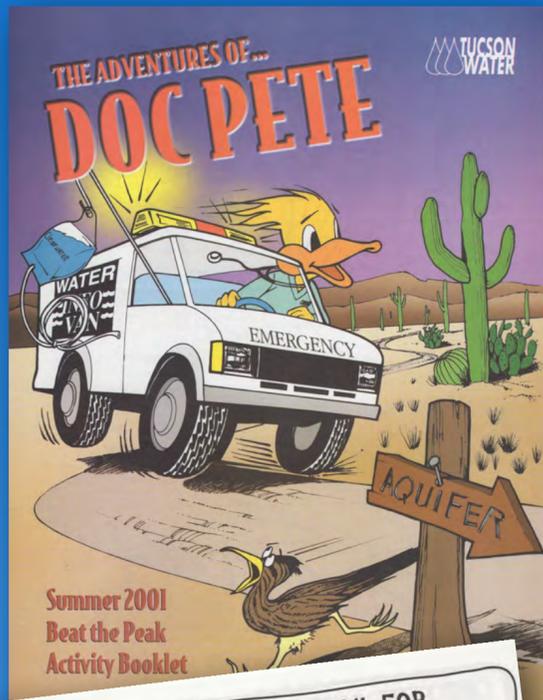
\$48,528



BEAT THE PEAK

1995 - CURRENT

K - 5TH GRADE



100,000

BOOKLETS DISTRIBUTED



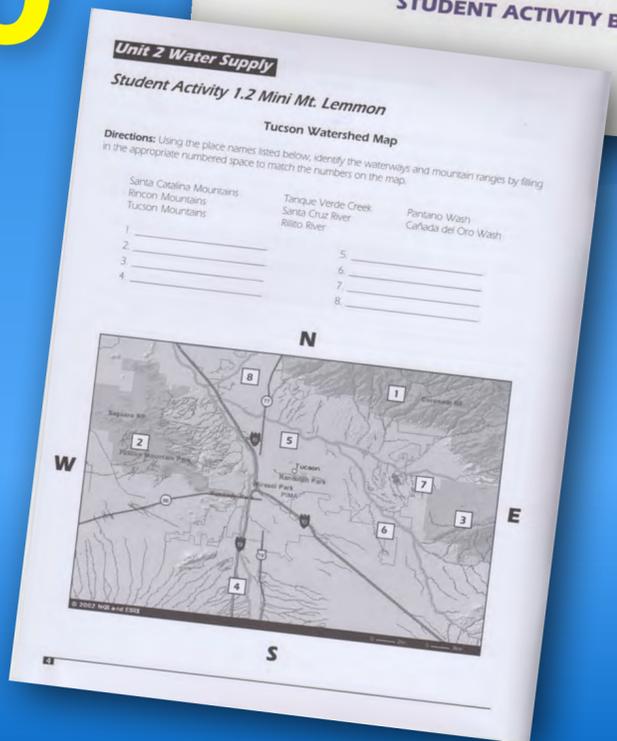
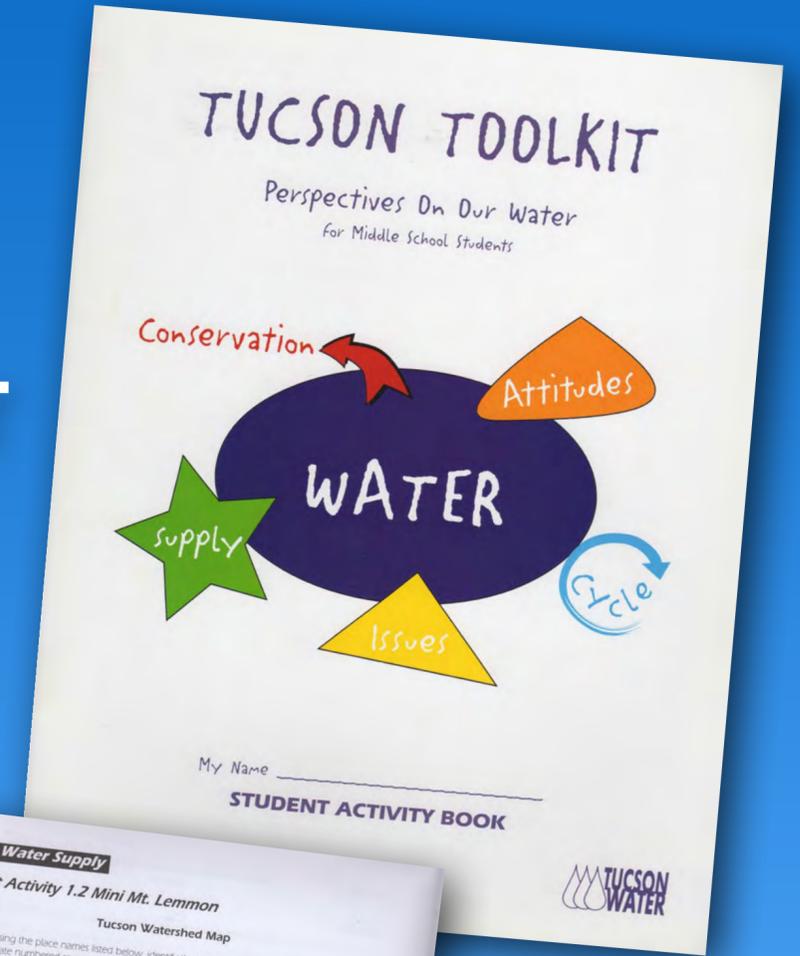


ADDITIONAL



TUCSON TOOLKIT
6TH - 8TH GRADE
2000 - 2014

18,000
STUDENTS



SWEET WATER WETLANDS
Activity Book and Field Guide
6TH GRADE & PUBLIC
2005 - CURRENT



TEP & UES BRIGHT STUDENTS

5TH - 8TH GRADE

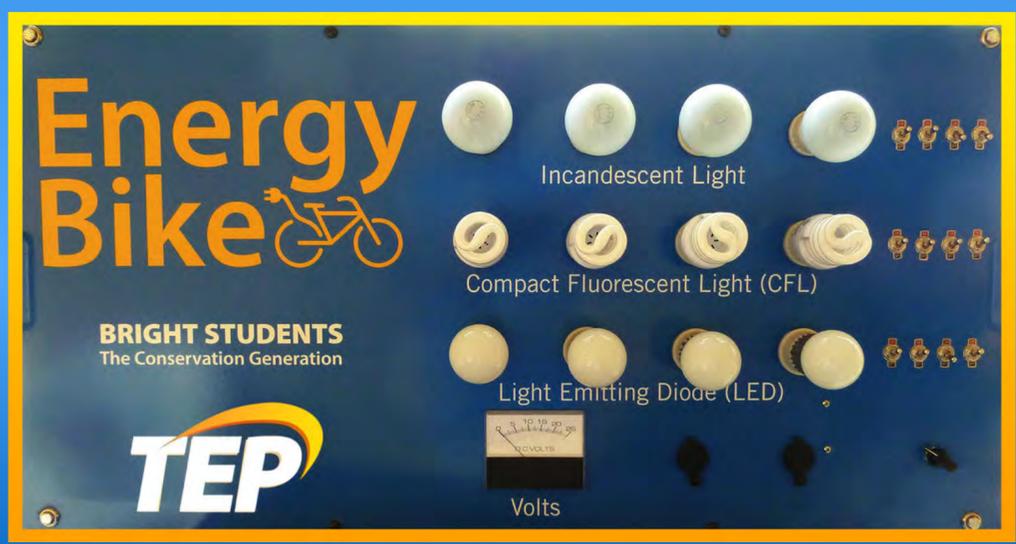


1500

PROGRAMS

45,000

STUDENTS





TEP & UES

HOME ENERGIZER WORKSHOPS

ADULTS



150

PROGRAMS

4,500

PARTICIPANTS





POWERING OUR FUTURE

6TH - 8TH GRADE

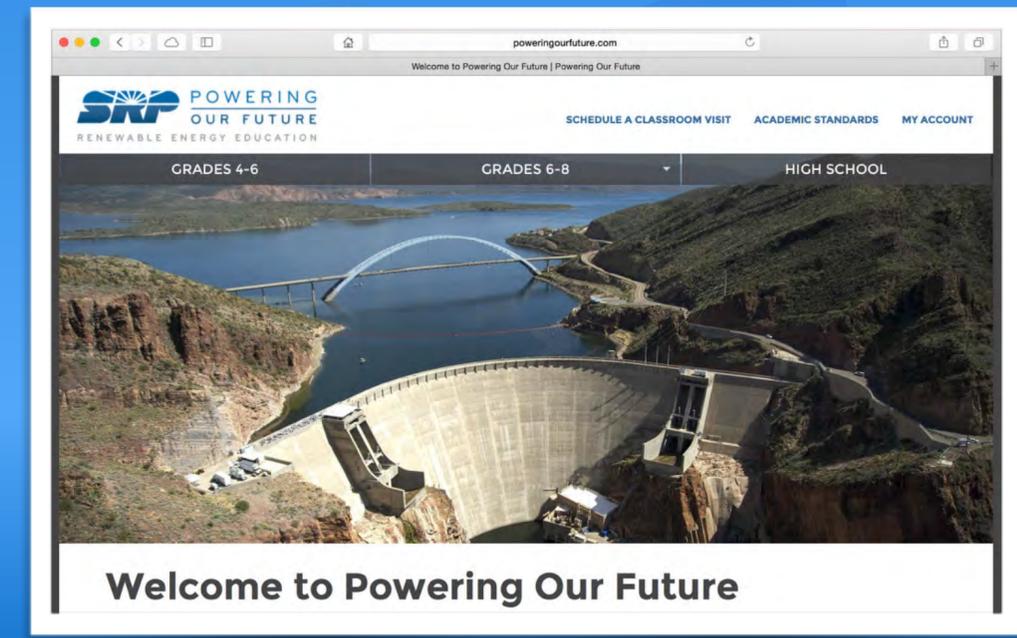


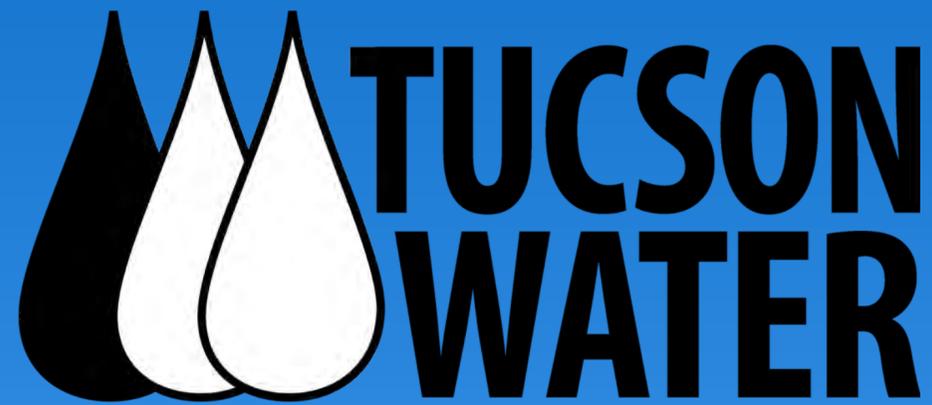
1900

PROGRAMS

54,500

STUDENTS





tucsonaz.gov/water

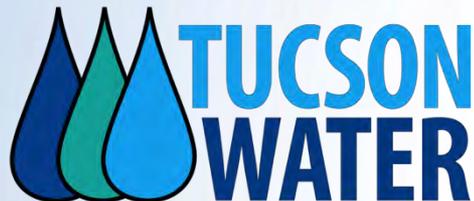


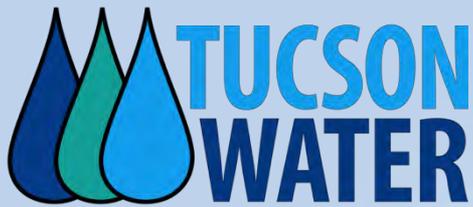
eeexchange.org

Arizona Project WET's Long-Term Partnership with Tucson Water

**CWAC Conservation Committee
January 13, 2016**

**Kerry Schwartz
Director, Arizona Project WET
Faculty, University of Arizona Cooperative Extension and Water
Resources Research Center**





Who we are



- University of Arizona
 - ❖ Extension Programs
 - ❖ WRRC
- Expertise of Team
- Advisory Council
- Long-time Partnership with Tucson Water



THE UNIVERSITY OF ARIZONA
**College of Agriculture
& Life Sciences**

Cooperative Extension

Arizona Project WET

Develops Water Stewardship and STEM Learning through:



- professional development for teachers that deepens content knowledge and evolves instructional practices
- direct student outreach that is embedded in or extends classroom instruction
- community engagement

APW has conducted professional development with 9,276 teachers and reached over a half million students in 263 communities.



<http://arizonawet.arizona.edu/>



COLLEGE OF AGRICULTURE
AND LIFE SCIENCES
COOPERATIVE EXTENSION

Arizona Project WET's

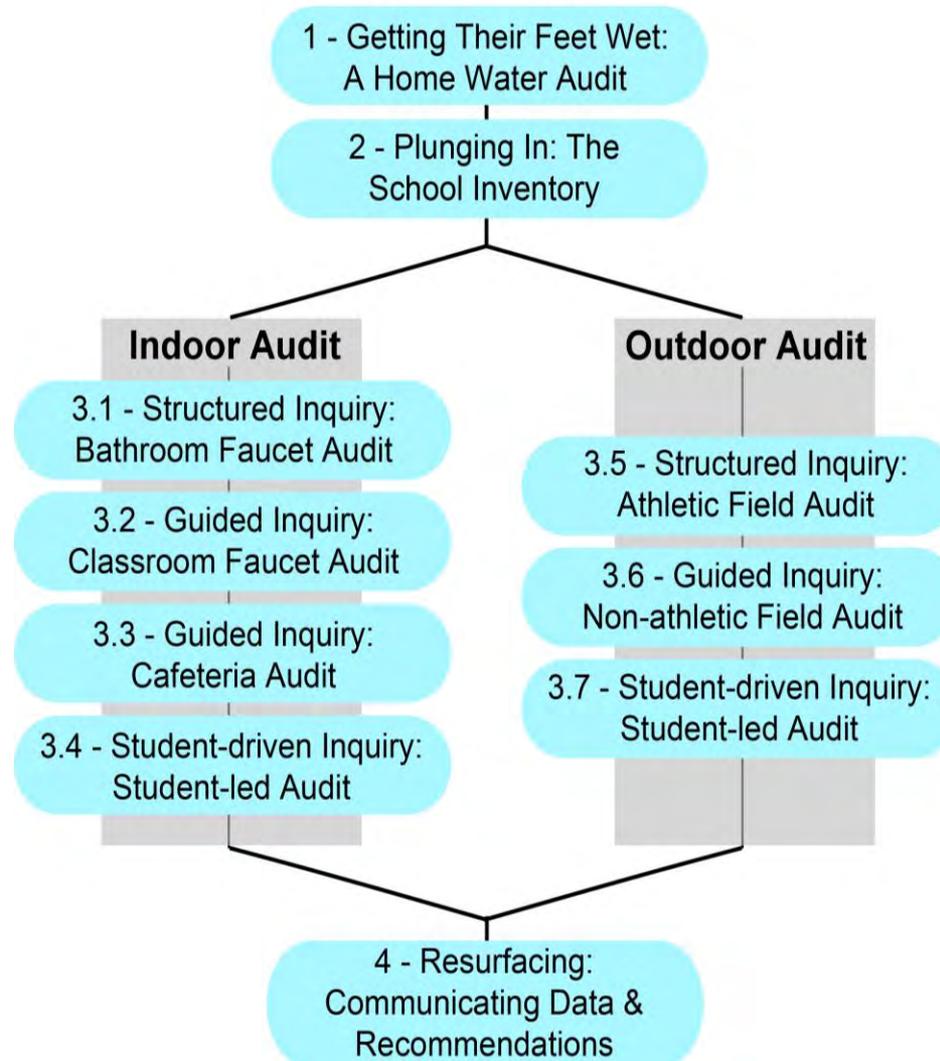
Water Scene Investigation (WSI) Program



AZ1594

Kerry Schwartz
Candice Rapprecht
Mary Ann Stoll
Holly Thomas-Hilburn
Tasha Krecek-Lynch
Alex Prescott
Sushmita Ramaswamy

School Water Audit Program (SWAP) & Curriculum



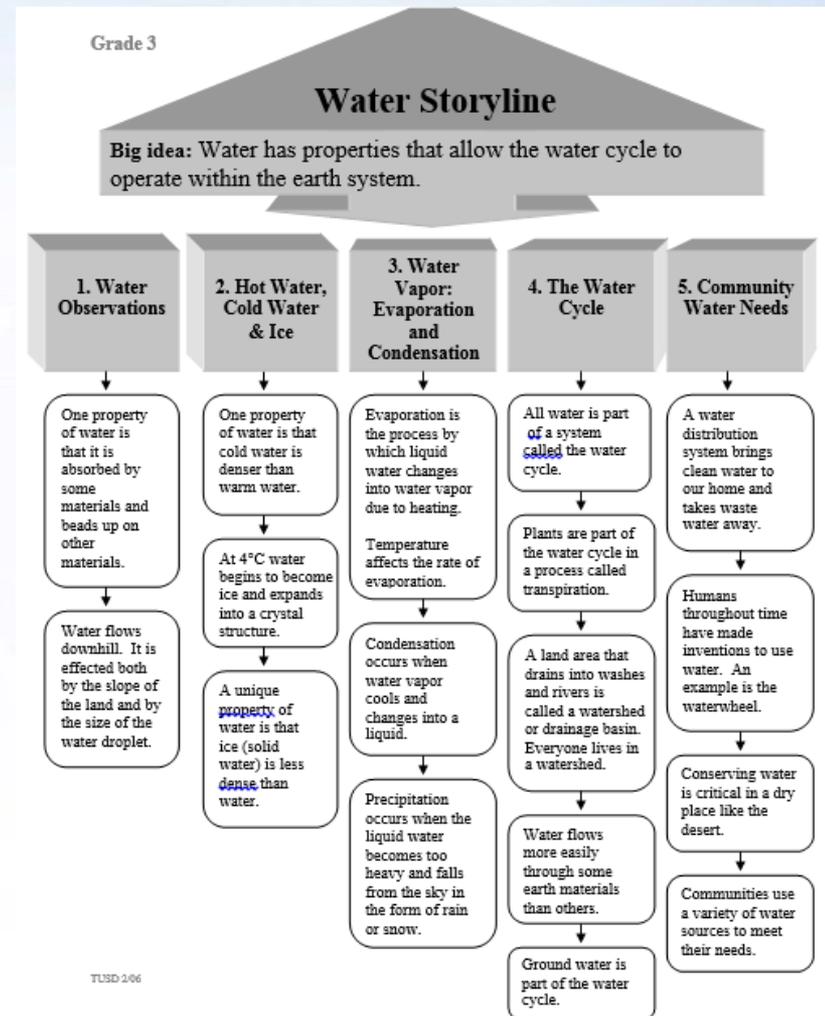
Curriculum Integration

Includes:

- Student-based interventions as part of the curriculum
- Teacher professional development that models unit instruction



One third of the science taught at the 3rd and 6th grade level is now the Units created & supported by the APW/Tucson Water/Area School District Partnership!



**77 STEM
Academy
Teachers**

Tucson STEM Academy 2015 Workshop Evaluation Results % of Responses "Strongly Agree/Agree"

**Report
teaching
7,909
students
each year**



Other Teacher Academies & Workshops



Leveraging Regional Partnerships:

1. Biosphere 2
2. Pima Co. ESA
3. PAG
4. AHS
5. Tohono Chul Park
6. Arizona Sonora Desert Museum
7. Planetary Science Institute

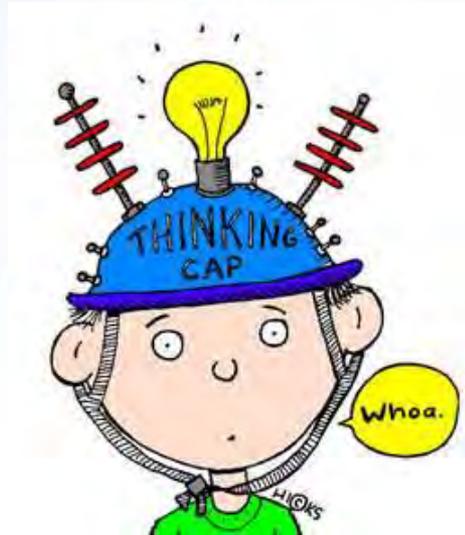


**Engaged 576 Teachers
who report teaching 19,417 students annually**

arizonawet.arizona.edu/programs/teacher_academies

SUPPORTING MIDDLE AND HIGH SCHOOL TEACHERS

Especially those that participate in STEM Academies



School Water Audit Program

SWAPping water waste for water efficiency



62 Teachers, 1,593 Students, 12 schools

- 338 Aerators replaced,
- 8 Drinking fountains, 70.5% water waste
- 32 Sprinklers, Avg DU 34%



**Projected
2,810,238
gallons
annual
savings**

arizonawet.arizona.edu/programs/school_water_audit

Water Scene Investigations



Projected
883,929
gallons
annual
savings!

Bringing it Home

25 Teachers, 764 Students, 10
Schools

A screenshot of the Arizona Project WET website. The header includes the 'ARIZONA wet Water Education' logo and the text 'Arizona Project WET Promoting responsible water stewardship through excellent and effective water education.' Below the header is a navigation menu with links for Home, About APW, APW Programs, Sponsors, Calendar, Blog, and Login. The main content area is titled 'Create Report Water Savings' and contains a form with the following sections:

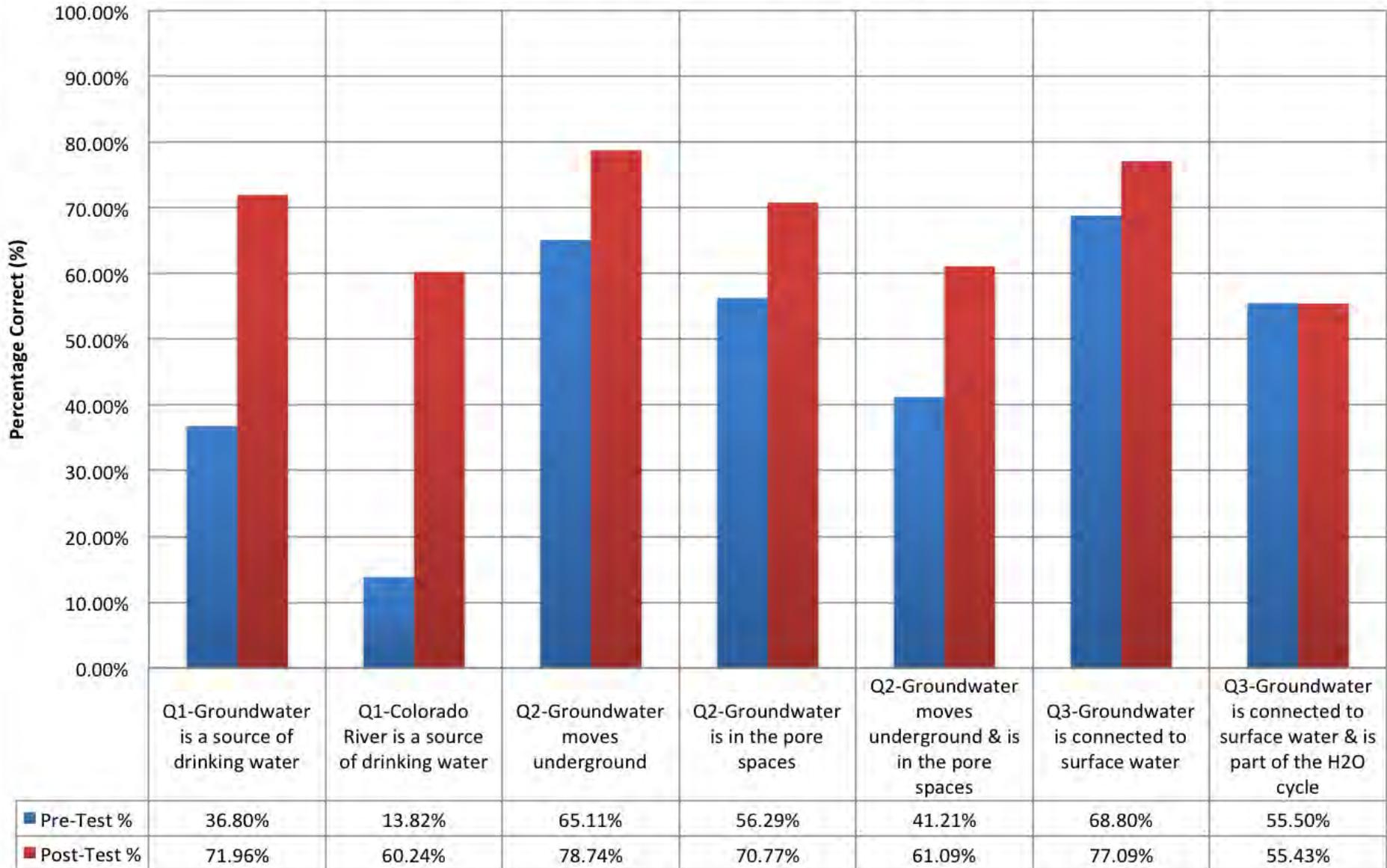
- 'You received an aerator as a part of a:' with radio button options for 'student group', 'public event', and 'I'm not sure.'
- 'Faucet Flow Data' section with instructions: 'You will report the data for ONE faucet here: how long the water flows and how much water flows per minute. The system will calculate the amount of water you will save in one year by keeping the new aerator in place. If you wish to report the same data for another faucet, submit another water savings report.'
- 'Have you figured out your faucet flow rate?' with radio button options for 'Yes, I used a flow rate bag.', 'Yes, I measured and calculated it on my own', and 'No, I need some help.'



Parents learn
about water
efficient
technology!

arizonawet.arizona.edu/wsi

6th Grade Groundwater Concepts



Field Days at Sweetwater Wetlands

Engaged 328 middle and high school students, 16 classes with 13 teachers from 5 schools

Discovery Program

Vision: Engage people in exploration that leads to new nature discoveries in their communities

Goals:

- Discover new things about the natural world
- Think through questions about nature in a systematic way
- Become more aware of outdoor opportunities; close to home and out of town
- Learn about the work of scientists

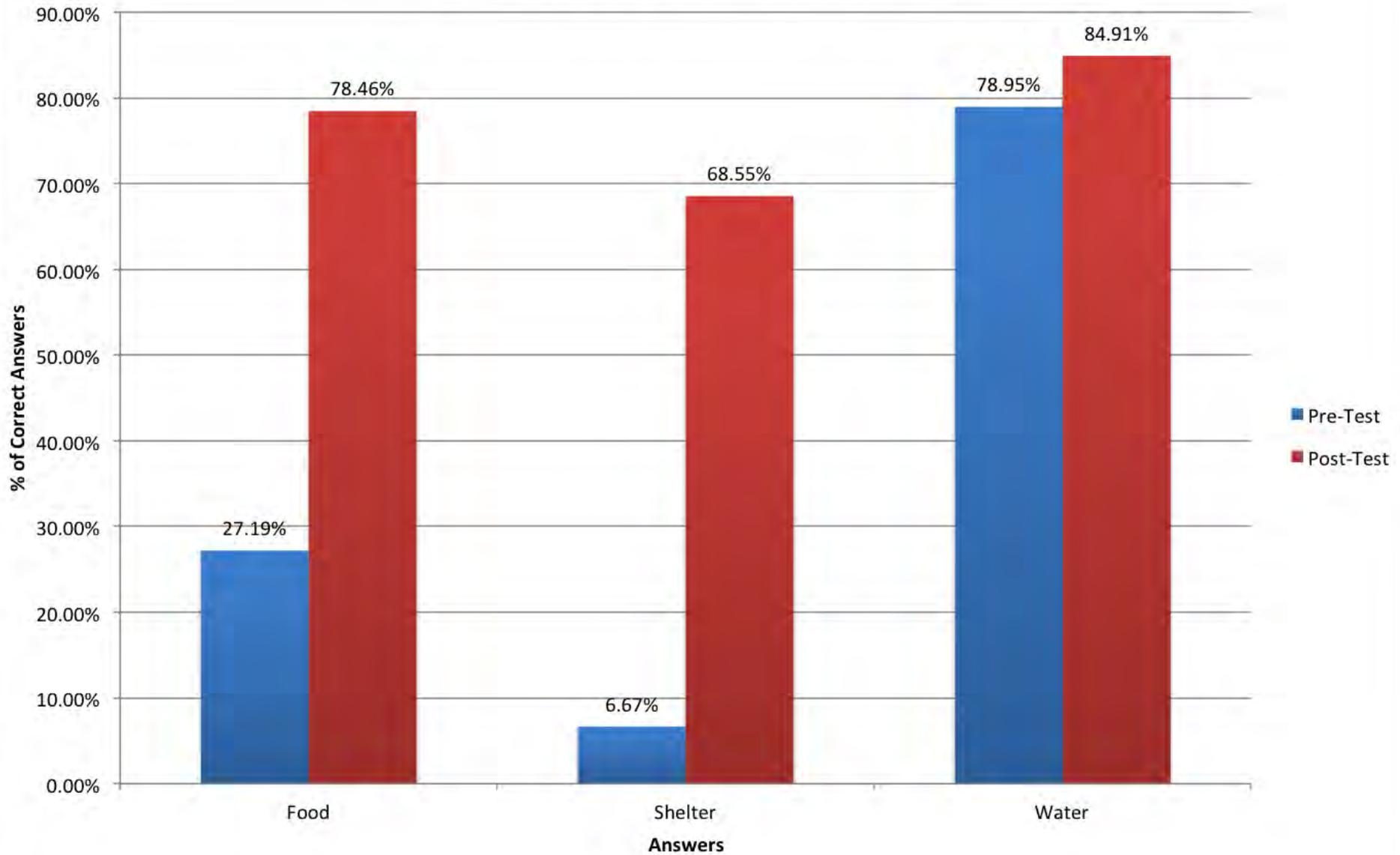


FOUNDATIONAL KNOWLEDGE

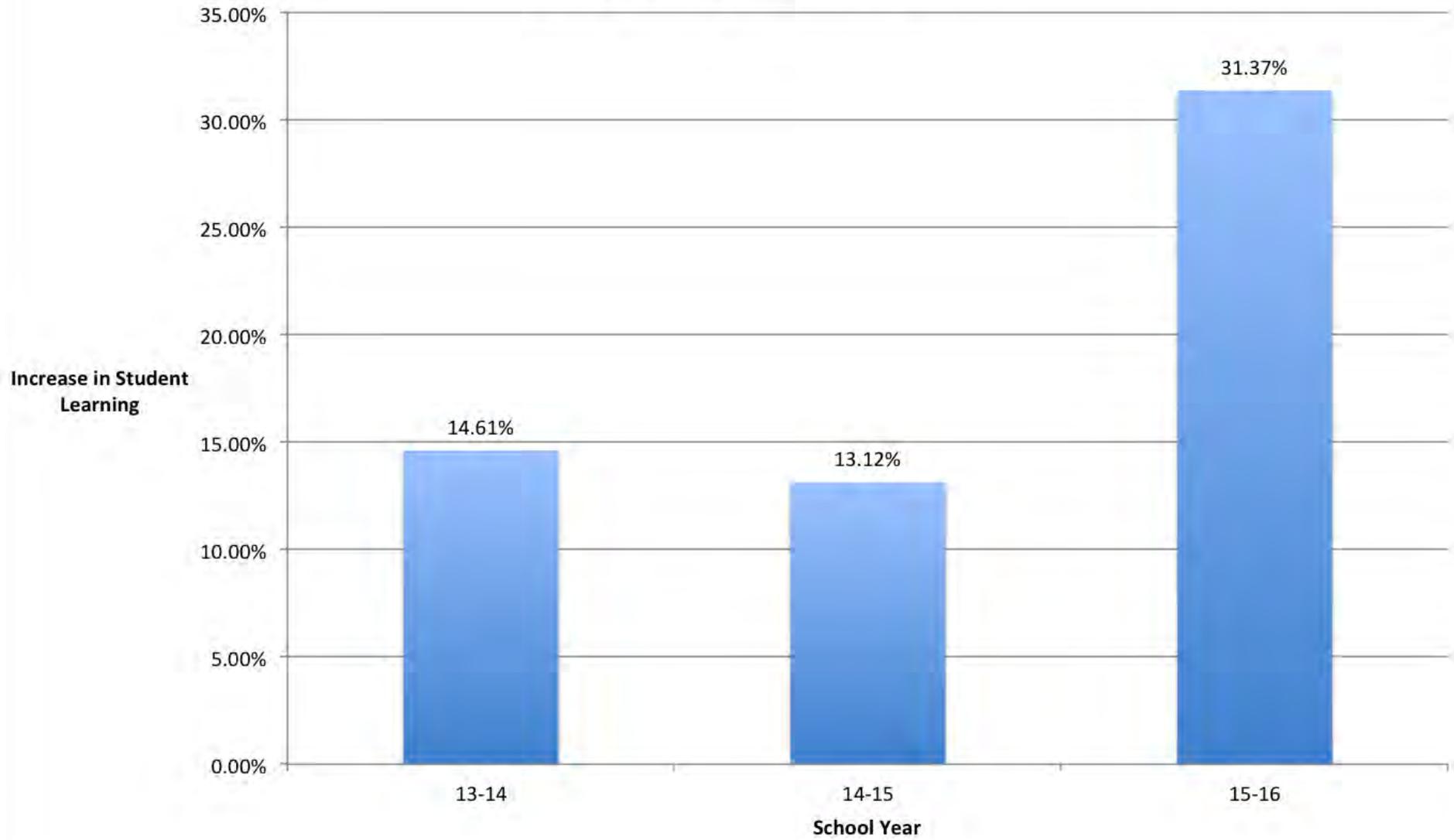
At 3rd and 4th Grades



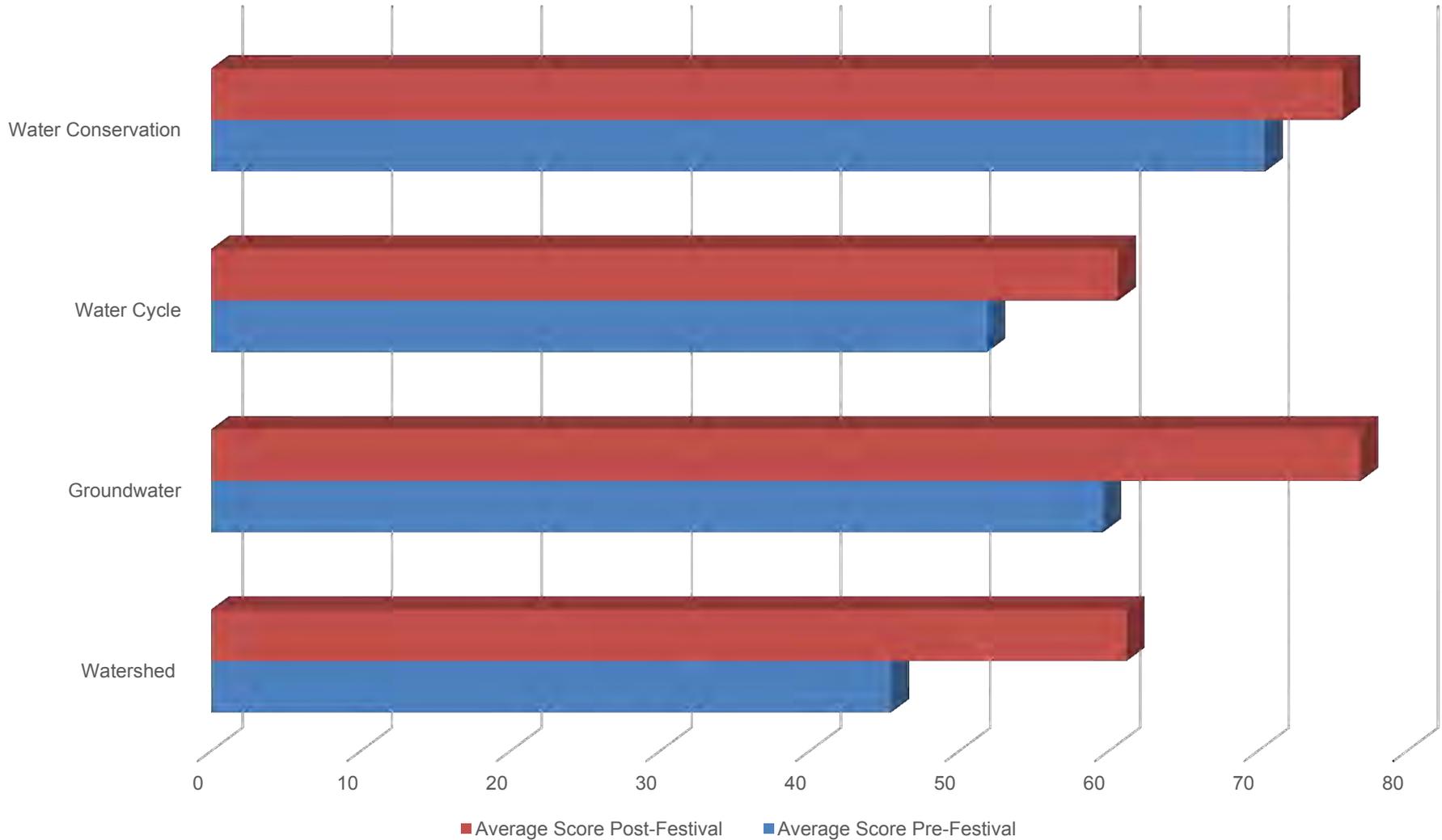
What Do The Wetlands Provide?



Increase in Student Learning 3rd Grade GW Lesson



Community Water Festivals



Community Events

Represent TW at Events like:

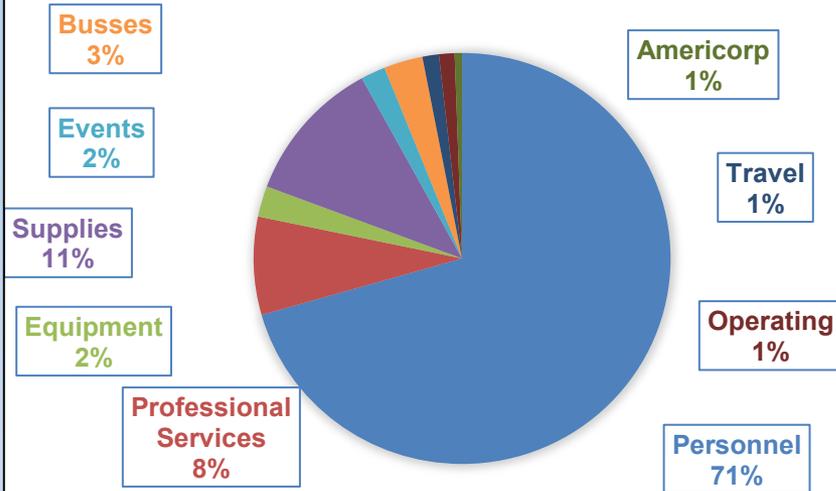
- Arizona STEM Adventure (formerly Tucson FunFest)
- Ted Walker Youth Day
- Science City at the Tucson Festival of Books
- Tucson Children's Museum Family Science Days
- Biosphere 2 Family Science Nights



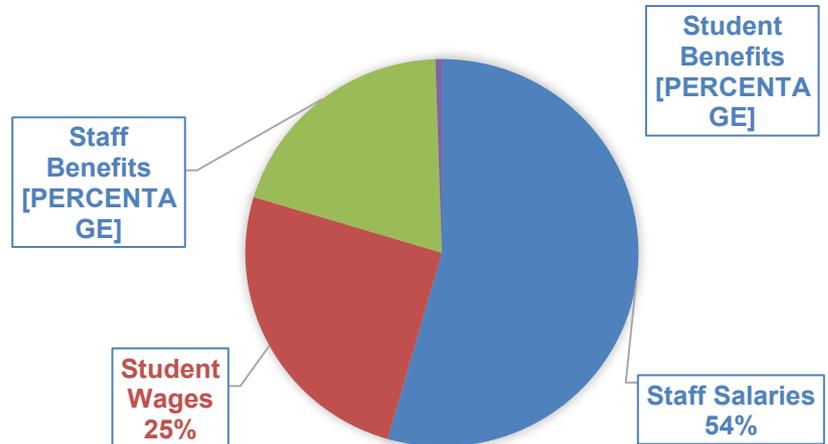
- **107 Events**
- **16,064 counted students**
- **8,382 counted adults**

Conservation Funds Expenditure – 2014-15

YEAR TWO EXPENDITURES



YEAR TWO PERSONNEL SERVICES



Contact Information

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Associate Specialist, Extension

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520.621.1092

The University of Arizona

Water Resources Research Center

350 N. Campbell Ave.

Tucson, AZ 85719

(520) 621-9591



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THE UNIVERSITY
OF ARIZONA.®

<http://cals.arizona.edu/arizonawet/>

TUCSON WATER

CONSERVATION PROGRAM Preliminary FY 2016 - FY 2021 CCTF

Includes FY 2016 rate increases recommended by the CWAC Conservation and Education Sub-Committee

Revised 1/4/2016

		2016	2017	2018	2019	2020	2021
PROJECTED CONSUMPTION*							
Potable Water Consumption Projection (Ccf)		37,205,943	36,532,402	36,102,962	35,873,593	35,790,824	35,724,453
REVENUES							
Beginning Balance		\$ 2,459	\$ 1,895	\$ 1,285	\$ 1,005	\$ 1,061	\$ 1,108
	Inc Rate						
Water Sales (7/05/15 Rates)	0.08	\$ 2,976	\$ 2,923	\$ 2,888	\$ 2,870	\$ 2,863	\$ 2,858
Water Sales Increases from Rate Adjustments:							
FY 2017 Rate Adjustment	0.02 0.10		\$ 731	\$ 722	\$ 717	\$ 716	\$ 714
FY 2018 Rate Adjustment	0.00 0.10			\$ -	\$ -	\$ -	\$ -
FY 2019 Rate Adjustment	0.01 0.11			\$ -	\$ 359	\$ 358	\$ 357
FY 2020 Rate Adjustment	0.00 0.11				\$ -	\$ -	\$ -
FY 2021 Rate Adjustment	0.00 0.11					\$ -	\$ -
Total from Rate Adjustments		\$ -	\$ 731	\$ 722	\$ 1,076	\$ 1,074	\$ 1,071
Water Sales (including Rate Adjustments)		\$ 2,976	\$ 3,654	\$ 3,610	\$ 3,946	\$ 3,937	\$ 3,929
Total Revenues Available		\$ 5,435	\$ 5,549	\$ 4,895	\$ 4,951	\$ 4,998	\$ 5,037
PROJECTED REQUIREMENTS							
Total Conservation Requirements		\$3,540	\$4,264	\$3,890	\$3,890	\$3,890	\$3,890
			<i>(proposed)</i>				
Projected Balance		\$ 1,895	\$ 1,285	\$ 1,005	\$ 1,061	\$ 1,108	\$ 1,147

* Ties to Potable Consumption Forecast