



CITIZENS' WATER ADVISORY COMMITTEE CONSERVATION & EDUCATION SUBCOMMITTEE

3:30 p.m., Wednesday, February 10, 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 3:41 p.m. Those present and absent were:

Members Present:

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

Members Absent:

Mark Murphy	Representative, Mayor
Jean McLain	Representative, City Manager

Tucson Water Staff Members:

Scott Clark	Deputy Director
Jeff Biggs	Strategic Initiatives Administrator
Daniel Ransom	Water Conservation Supervisor
Candice Rupprecht	Public Information Specialist
Joaquim Delgado	Public Information Specialist
Valerie Herman	Public Information Specialist
Tom Arnold	Lead Management Analyst
Kris LaFleur	Staff Assistant

Others Present

Scott Coverdale	CHRP
Carrie Nelson	CHRP
Betsy Wilkening	AZ Project WET
Karen Hanshaw	SmartScape
Michelle Crow	CWAC
Brian Wong	CWAC

- 2. Announcements** – Mark Lewis announced that he had attended a classroom presentation by Tucson Water conservation partner EEEExchange. He described the program presentation as 'hands-on, informative, and fun.' He encouraged other CWAC members to attend a classroom presentation.
- 3. Call to Audience** – Betsy Wilkening encouraged those present to attend an event or presentation by AZ Project WET. She also announced a volunteer opportunity at the Arizona Water Festival, sponsored by Tucson Water, on March 31 at James Kriegh Park in Oro Valley.

Citizen's Water Advisory Committee, Conservation & Education Subcommittee

Legal Action Report

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4. **Review of January 13, 2016, Legal Action Report and Meeting Minutes** – Member Lewis moved to approve the Legal Action Report and Meeting Minutes of January 13, 2016. The motion was seconded by Member Dos Santos and carried by a vote of 4-0.
5. **Low-Income Toilet Replacement Program update** – Scott Coverdale and Carrie Nelson, representing Community Home Repair Projects of Arizona (CHRP), provided an update on Tucson Water's Low-Income Toilet Replacement Program. The program offers low-to-moderate income families free replacement of older toilets that use 3.5 gallons or more per flush. Working on behalf of Tucson Water and supported by conservation program funds, CHRP provides the high-efficiency toilet, hardware and installation at no cost.

The presenters indicated that the program has replaced an average of 925 toilets per year over the past three years, with savings of up to 8,000 gallons per year per toilet. They indicated that, in addition to replacing toilets, the CHRP installers also provide hardware and educate clients on toilet maintenance. It was estimated that about 90 million gallons of potable water has been conserved since the program's inception in 2009, and that additional water was saved each year as technicians fixed household leaks and educated clients on proper maintenance. The presenters noted that many clients are elderly or disabled, and that ADA-compliant toilets are the most popular high-efficiency model installed.

CHRP's presenters fielded and answered questions from members about the program.

6. **FY15-16 Mid-Year Report: review & comment** – Candice Rupprecht led a presentation and discussion of the Conservation Program FY15-16 Mid-Year Report. She reviewed ongoing community and professional outreach activities, and discussed new programs and messaging efforts. Members suggested minor changes to the Mid-Year Report. Ms. Rupprecht and other conservation staff fielded and answered questions from members. Member Lewis motioned to approve the Mid-Year Report, with recommended changes. Member Dos Santos seconded the motion, which passed on a voice vote of 4-0.
7. **Conservation Fund audit response** – Daniel Ransom reviewed and discussed a memo issued by Tucson Water Interim Director Albert Elias to City Manager Michael Ortega, summarizing the results of and response to a September 2015 audit of the Tucson Water Conservation Fund by CliftonLarsonAllen LLP. Mr. Ransom discussed potential problems indicated by the audit, and steps being taken by the Conservation Program to avoid those problems in the future. Mr. Ransom and members discussed the audit findings and the utility's response.
8. **FY17-18 new program ideas & research** – Members and staff discussed new conservation program ideas for FY17-18. Chair Shipek asked members to be aware of demands on Conservation Office staffing and capacity during the discussion. Ideas offered for consideration were:
 - Member Dos Santos suggested that the Conservation Program should analyze the potential for deferred infrastructure investments due to water conservation and declining gpcd (gallons per capita per day) in the Tucson Water service area. Scott Clark suggested that such an analysis should include a review of international trends in water utilities. Chair Shipek also suggested that analysis of previous conservation savings, and their impact on infrastructure spending, should be projected forward as conservation targets with associated anticipated infrastructure savings.

Citizen's Water Advisory Committee, Conservation & Education Subcommittee

Legal Action Report

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- Member Lewis suggested analysis of a potential Conservation Program that would provide rebates for filling in residential swimming pools.
- Member Lewis also suggested a Conservation Program that would provide a rebate or monetary incentive to encourage Tucson Water customers to participate in educational programs. [Member Lewis later provided a written summary of the program to members. This summary is included with the Meeting Minutes.]
- Member Dos Santos suggested the creation of a group to explore the establishment of a water education and recreation center, where children could play in water and learn about water resource issues. Mr. Clark suggested that members review a similar facility in the Olympia, WA, area.
- Chair Shipek referred to Sec. C.9.d(1) in the 1998 M&C Water Policy, which states that Tucson Water will utilize conservation to reduce groundwater pumping in the vicinity of riparian habitats. He suggested a program that would offer incentives to owners of private, exempt wells within such areas in Tucson Water's service area. In return, well owners would provide monitoring and reporting of their well usage, with the goal of providing improved information and greater groundwater security in riparian areas.
- Member Lewis proposed incentive rebates for turf and non-native tree replacements.

9. Future Meetings/Agenda Items – The next C&E subcommittee meeting will be held on March 9, 2016. Items proposed for discussion at future meetings included:

- Member Lewis requested a presentation to educate new members about the history and function of CHRPA and its role in Tucson Water's conservation programs
- Mr. Clark suggested that the subcommittee discuss the creation of a prioritized C&E workplan, with guidance from M&C. Members and staff discussed the suggestion.
- Chair Shipek suggested a March agenda consisting of:
 - o A bi-monthly Conservation Program update
 - o C&E mission / policy discussion, to include former subcommittee Chair Amy McCoy as a guest
 - o Discussion of changes to FY16-17 Conservation Program budget
 - o Discussion of FY17-18 program ideas & research

Members and staff discussed expanding future subcommittee meetings to 2 hours. Staff indicated that a poll would be taken to determine members' availability for a 2-hour meeting.

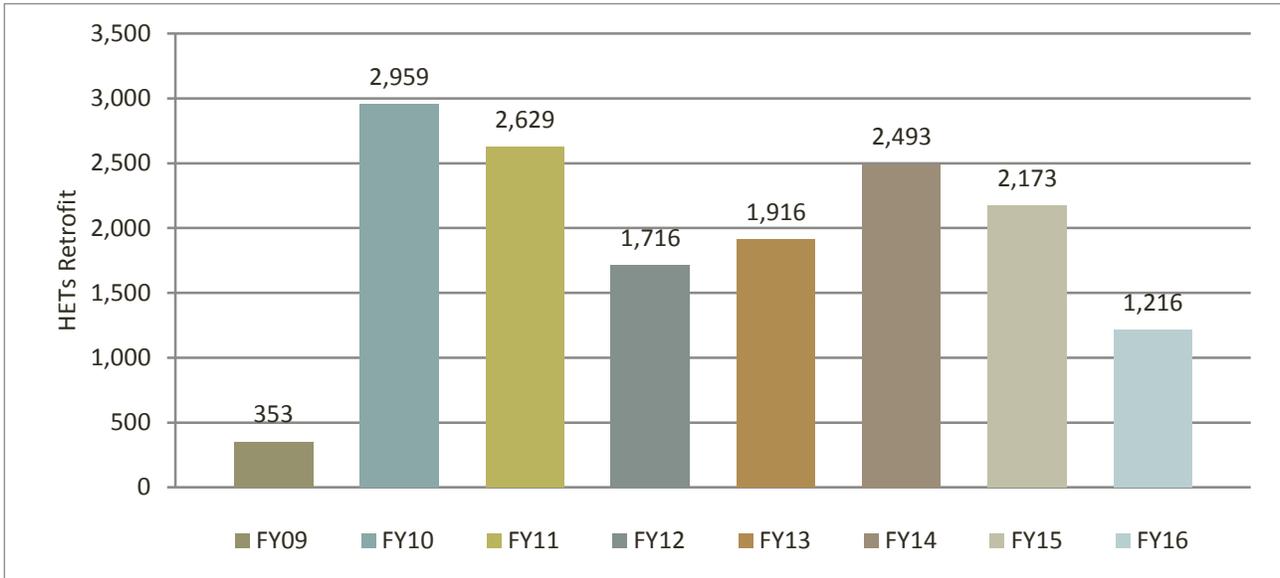
- Member Lee requested that a "green jobs" topic be added to the March new program discussion

10. Adjournment – The meeting was adjourned at 5:17 p.m.

Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

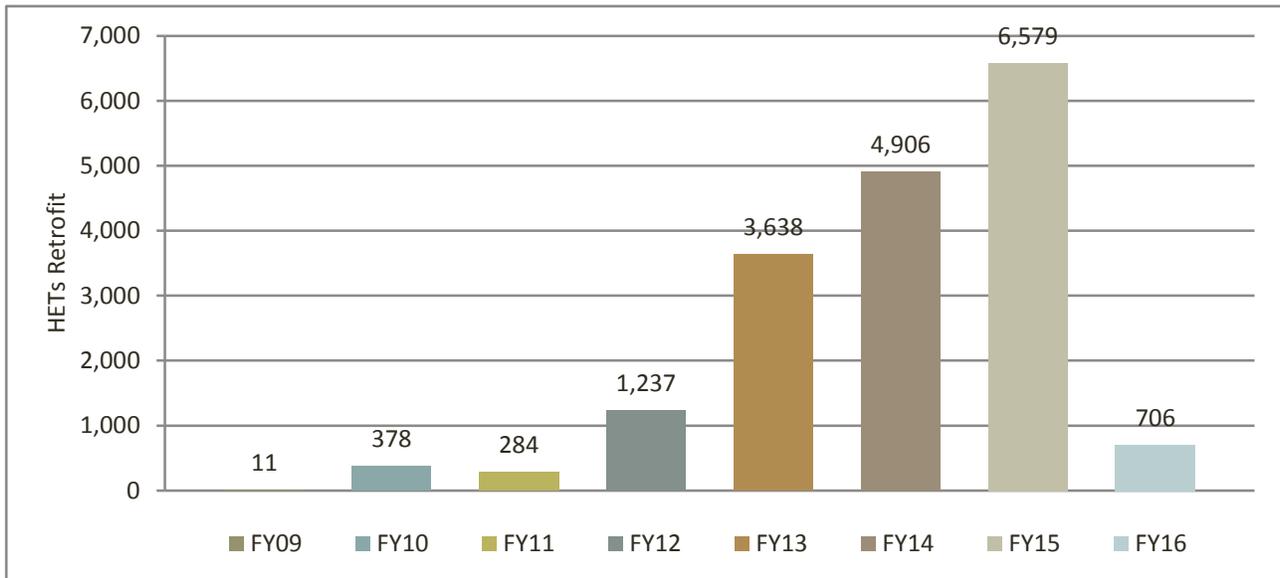
Single-Family HET Rebate

	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	1,216	15,455	Staff Labor Hours: 0
Expenditure: ¹	\$ 89,982	\$ 1,264,791	Budget: \$ 200,000
Estimated Gallons Saved:	9,098,720	397,627,533	Percent of Budget: 45%
Estimated Acre-Feet Saved:	28	1,220	



Multi-Family HET Rebate

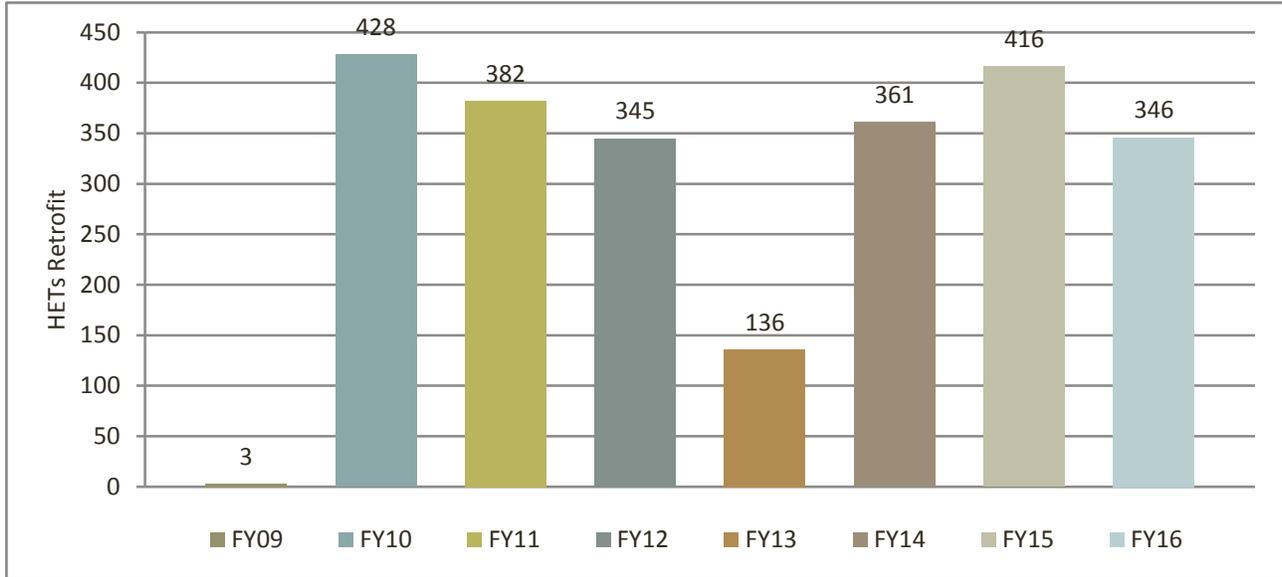
	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	706	17,739	Staff Labor Hours: 0
Expenditure: ¹	\$ 53,100	\$ 1,718,195	Budget: \$ 365,000
Estimated Gallons Saved:	5,282,645	269,504,685	Percent of Budget: 15%
Estimated Acre-Feet Saved:	16	827	



Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

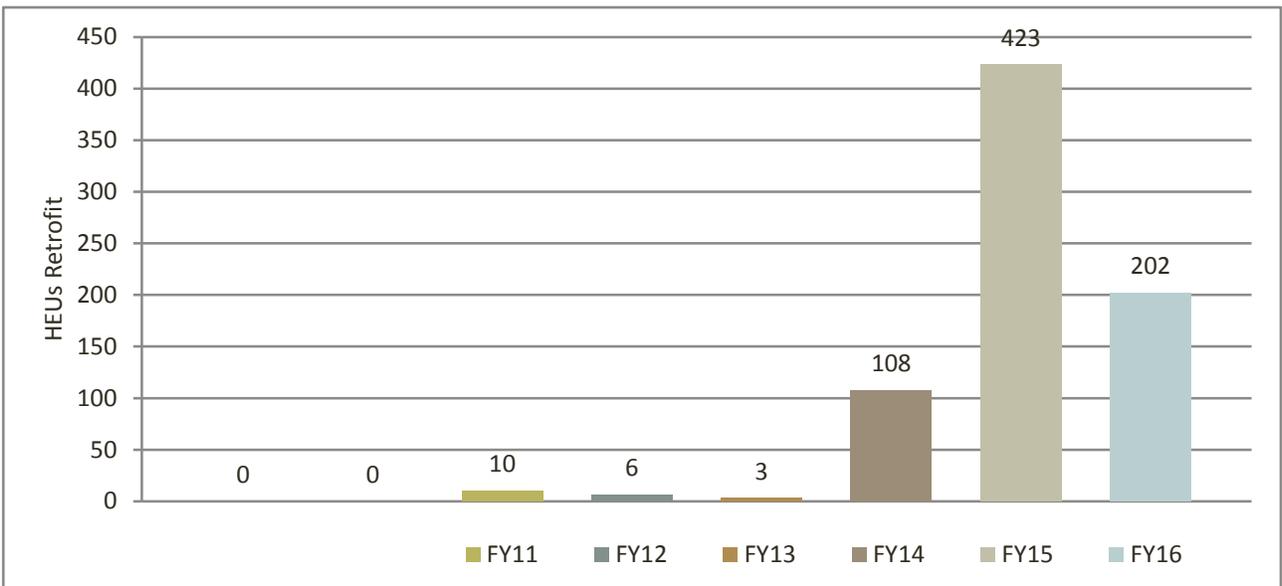
Commercial HET Rebate

	FY 15/16	Cumulative	Start Date: Jul-08
HETs Retrofit:	469	2,540	Staff Labor Hours: 0
Expenditure: ¹	\$ 44,625	\$ 220,071	Budget: \$ 60,000
Estimated Gallons Saved:	2,904,670	75,883,500	Percent of Budget: 74%
Estimated Acre-Feet Saved:	9	233	



High-Efficiency Urinal Rebate

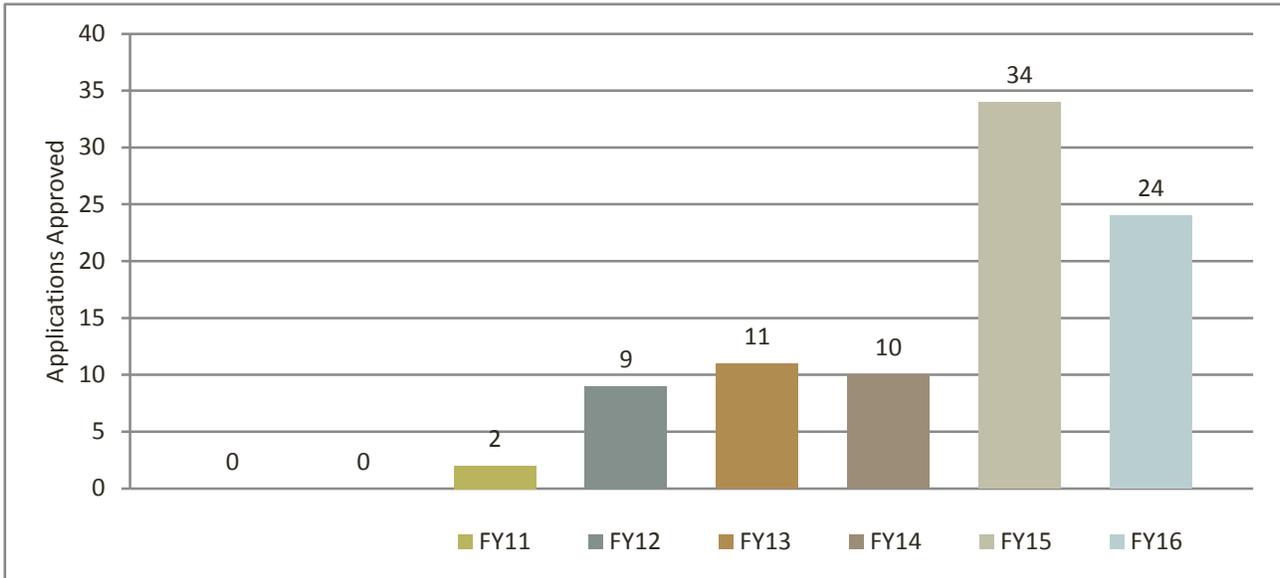
	FY 15/16	Cumulative	Start Date: Jan-11
HEUs Retrofit:	202	752	Staff Labor Hours: 0
Expenditure: ¹	\$ 40,400	\$ 253,200	Budget: \$ 62,500
Estimated Gallons Saved:	1,253,612	4,480,732	Percent of Budget: 65%
Estimated Acre-Feet Saved:	4	14	



Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

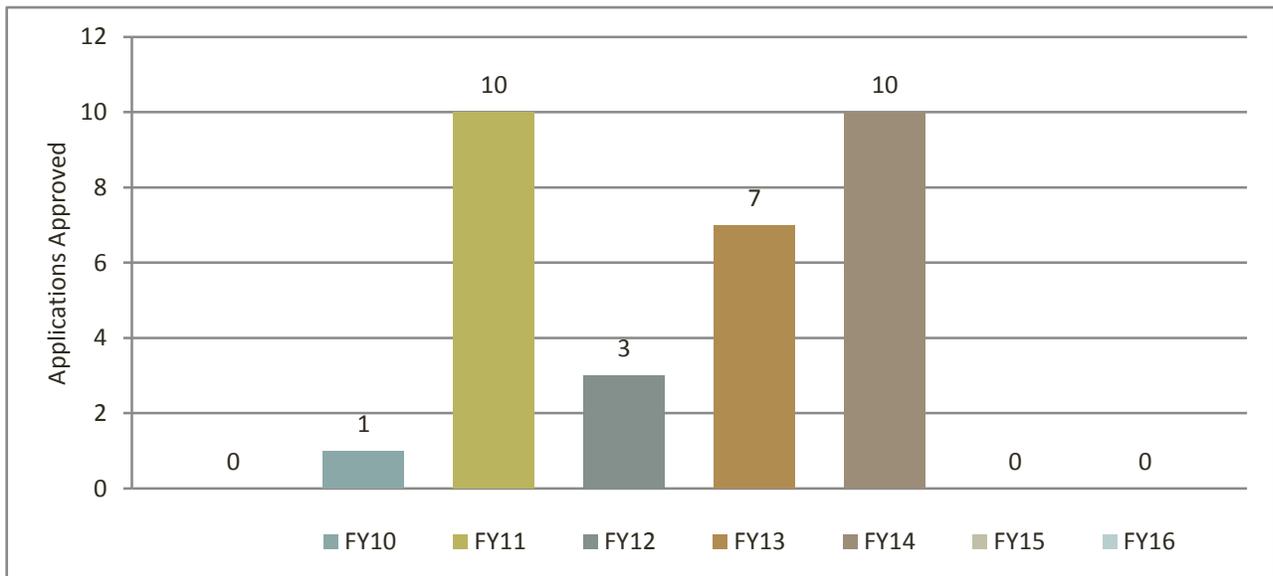
Gray Water Rebate

	FY 15/16	Cumulative	Start Date: Jan-11
Applications Approved:	24	90	Staff Labor Hours: 0
Expenditure: ¹	\$ 10,654	\$ 35,533.02	Budget: \$ 20,000
Estimated Gallons Saved:	326,760	1,810,795	Percent of Budget: 53%
Estimated Acre-Feet Saved:	1	6	



Irrigation Efficiency Rebate

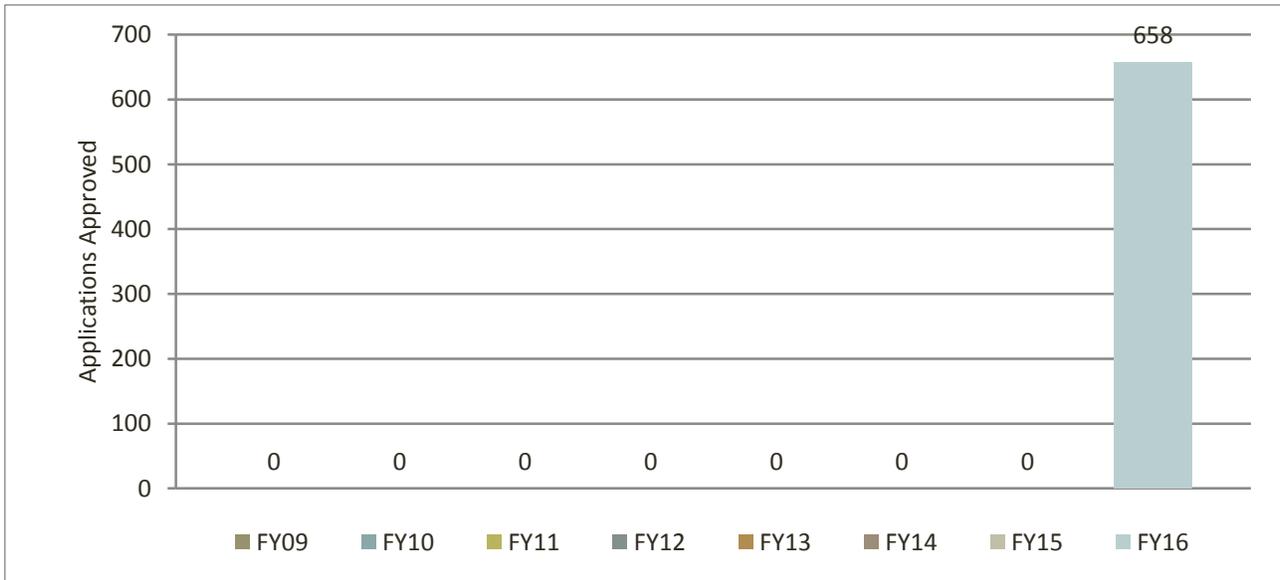
	FY 15/16	Cumulative	Start Date: Jul-08
Applications Approved:	0	31	Staff Labor Hours: 0
Expenditure: ¹	\$ -	\$ 246,890	Budget: \$ 50,000
Estimated Gallons Saved:	0	25,064,550	Percent of Budget:
Estimated Acre-Feet Saved:	0	77	



Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

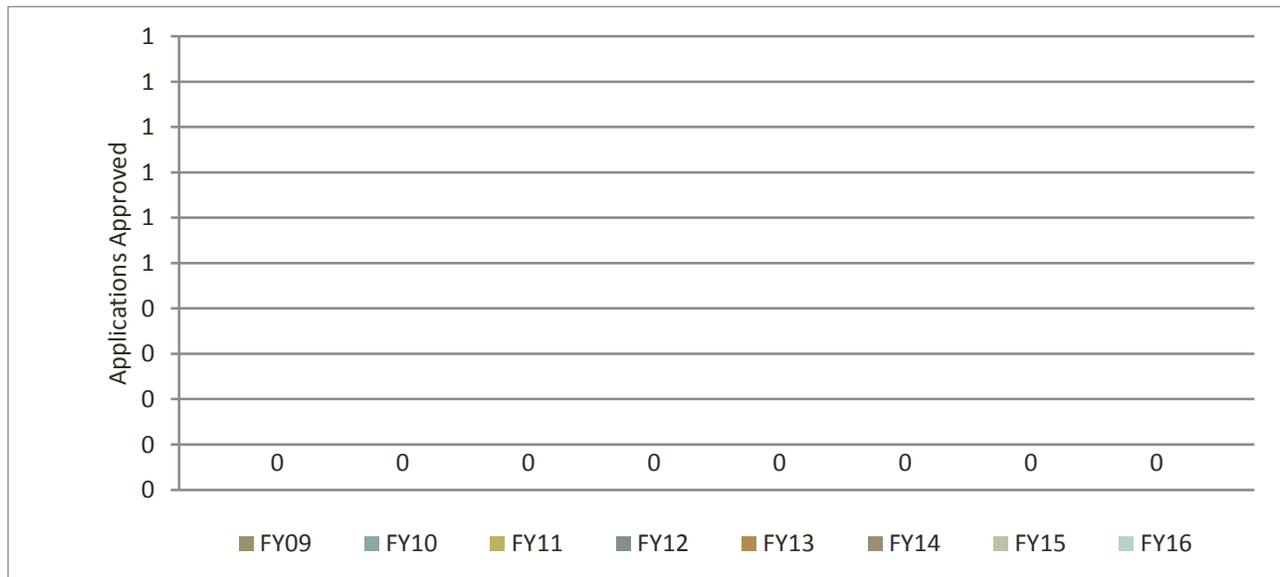
High-Efficiency Clothes Washer Rebate

	FY 15/16	Cumulative		Start Date: Aug-15
Applications Approved:	658	658	Staff Labor Hours:	0
Expenditure: ¹	\$ 131,600	\$ 131,600	Budget:	\$ 225,000
Estimated Gallons Saved:	4,634,294	4,634,294	Percent of Budget:	58%
Estimated Acre-Feet Saved:	14	11		



Commercial Efficiency Upgrade Rebate

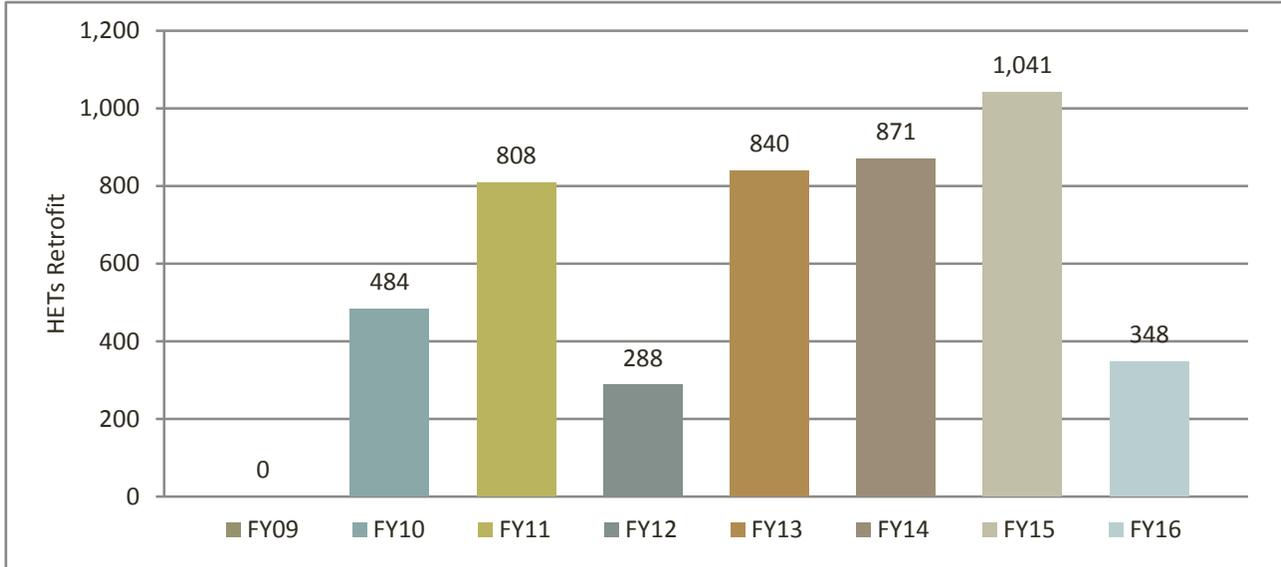
	FY 15/16	Cumulative		Start Date: TBD
Applications Approved:	0	0	Staff Labor Hours:	0
Expenditure: ¹	\$ -	\$ -	Budget:	\$ 85,000
Estimated Gallons Saved:	0	0	Percent of Budget:	
Estimated Acre-Feet Saved:	0	0		



Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

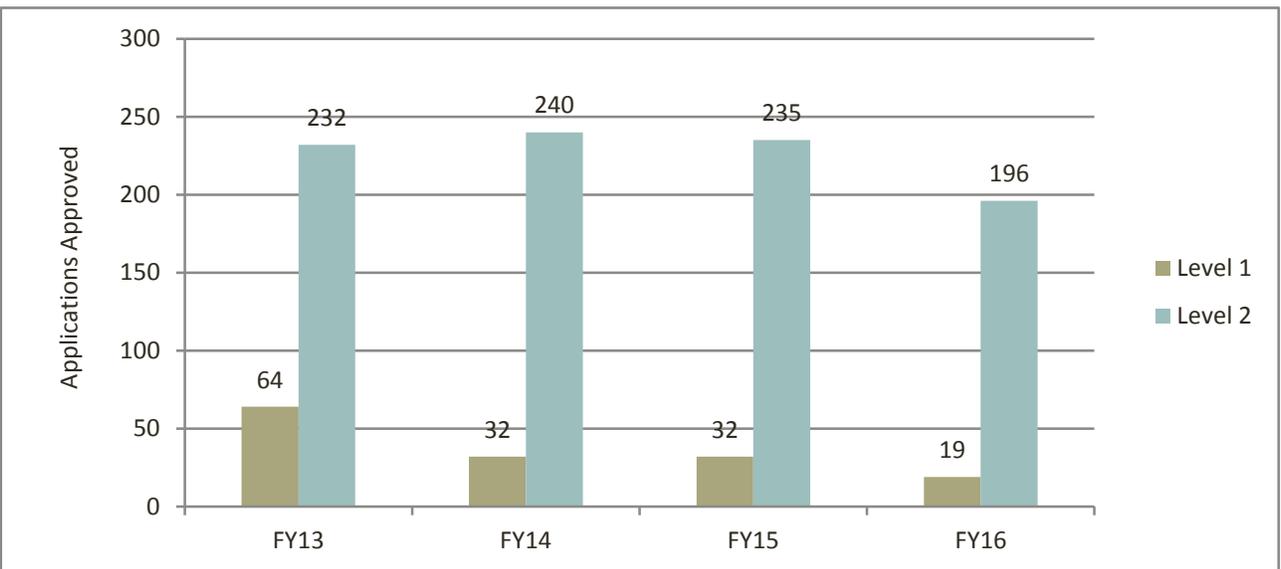
Low-Income HET Direct Install

	FY 15/16	Cumulative	Start Date: Oct-09
HETs Retrofit:	348	4,680	Staff Labor Hours: 0
Expenditure: ¹	\$ 131,517	\$ 1,707,460	Budget: ² \$ 337,000
Estimated Gallons Saved:	2,984,970	114,929,923	Percent of Budget: 39%
Estimated Acre-Feet Saved:	9	353	



Rainwater Harvesting Rebate

	FY 15/16	Cumulative	Start Date: Jun-12
Applications Approved:	215	1,050	Staff Labor Hours: 0
Expenditure: ¹	\$ 289,506	\$ 1,317,891	Budget: \$ 400,000
Estimated Gallons Saved:	0	0	Percent of Budget: 72%
Estimated Acre-Feet Saved:	0	0	

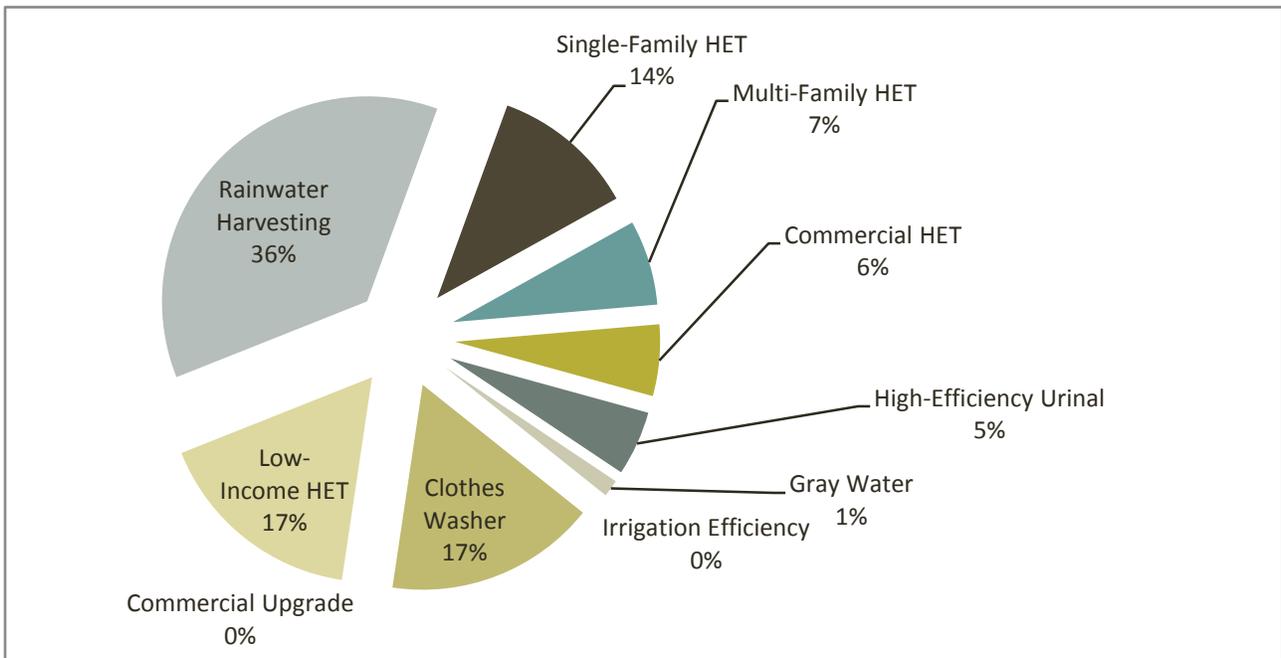


Tucson Water
Incentive Program Implementation
FY 2015-16 Through January

Program Totals

	FY 15/16	Cumulative		
HETs/HEUs Installed:	2,941	41,166	Staff Labor Hours:	0
Expenditure: ¹	\$ 791,384	\$ 6,895,629	Budget:	\$ 1,804,500
Estimated Gallons Saved:	26,485,671	893,936,011	Percent of Budget:	44%
Estimated Acre-Feet Saved:	81	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.



City Of Tucson

Tucson Water Public Info. & Conservation Office Mid-Year Report for FY 2016

This report describes the activities of the Tucson Water Conservation Program from July 1, 2015 through December 31, 2015. The program is funded through a conservation fee that began in 2008 and is currently set at eight cents per hundred cubic feet assessed to all potable water users. The Conservation and Education Subcommittee of the Citizens' Water Advisory Council is charged with overseeing the Conservation Fee Fund and works with staff to review and provide feedback on staff recommendations related to water conservation programming. This report contains updates on our main program components and the recommendations presented in the 2015 annual report.



Education

Tucson Water continues to support three contracts that provide educational services to K-12 audiences and landscape professionals throughout our service area. All numbers reported by our education partners are for the time period of July 1, 2015 through December 31, 2015.

Arizona Project WET (APW)

APW delivered 71 *3rd Grade Groundwater Flow Model* presentations, 26 *3rd Grade Sweetwater Wetlands Festivals*, 57 *6th Grade Groundwater Flow Model* presentations and 1 *Water Scene Investigation* presentation. During this time period, 163 classroom presentations were delivered reaching 4,737 students. APW continues to conduct pre and post learning assessments of each student they reach through their formal instruction and significant learning is being demonstrated through these assessments. APW has provided hands-on demonstrations at 14 community events, reaching 405 adults and 1,273 students. APW launched a smartphone-based Discovery Program at Sweetwater Wetlands, which engages students and families in scientific explorations of the Wetlands, providing a new engagement opportunity for Wetlands' visitors. APW offered three professional development workshops to 37 teachers who reach 2,995 students.

Environmental Education Exchange (EEExchange)

EEExchange delivered 160 *Da Drops* presentations for grades K-3, 81 *Our Water, Our Future* presentations for grades 3-5, and 76 *El Tour de Agua* presentations to middle school students. In total, 8,141 students and 273 teachers in 100 schools were reached by the three outreach programs. EEExchange utilizes a web-based scheduling system providing teachers with an easy way to sign-up. *Da Drops* and *Our Water, Our Future* presentations have comparable numbers to 2014 and the new *El tour de Agua* nearly doubled from the 2014 pilot. As reported by EEExchange, the programs continue to receive extremely positive feedback on evaluation forms and from direct communication with teachers.

SmartScape

SmartScape continues to train landscape professionals and homeowners on water efficiency and proper landscape care through 42 workshops that have reached 1,023 people during the reporting period. The SmartScape 9-part series for professionals is offered twice each year in English and Spanish. SmartScape is working with Tucson Water to offer additional advanced professional irrigation trainings to support Tucson Water's Irrigation Efficiency Incentive Program and a landscape maintenance training program for City of Tucson Streets employees. In the fall two advanced classes on Healthy Landscapes and Urban Tree Management were offered to SmartScape graduates. The residential classes cover a wide variety of landscape and irrigation topics, including the highly popular Rainwater Harvesting Incentive workshop, which was offer eight times.



Southern Arizona Construction Career Days

Tucson Water was invited to participate with 30 other area organizations in the second annual Southern Arizona Construction Career Days held on November 5th and 6th, 2015. The two-day event



brought **850 area high school students** to the Tucson



Rodeo grounds to explore different construction trades in a hands-on environment. Tucson Water was reputed to have one of the more exciting booths with hands-on displays of pipes, valves and assembly kits.

Tucson Water Tours

PICO staff, primarily the Public Information Officer, is often requested to give facility tours. Tours were given to The Gregory School and the University of Arizona Chemical Engineering Association, as well as monthly new employee tours.

Other Community Events

Tucson Water also had booths at the Arizona Sonora Desert Museum Conservation Night, the Envision Tucson Sustainable Festival, the Sunnyside Neighborhood GAIN Event, the Udall Senior Health & Wellness Fair and the Ward 3 Neighbor's Alliance Meeting. In addition to hosting a booth, Tucson Water provided sponsorship for the following events: Family Festival in the Park at Reid Park, the Envision Tucson Sustainable Festival at the YWCA and the Boo Bash at the Clements Center.

Social Media

Tucson Water has developed a strong and consistent presence on social media over the last year and a half. Tucson Water began its own Facebook, Instagram and Twitter accounts in late 2014, after initially contributing to the City of Tucson's main accounts. These social media outlets are used to announce events, utility news and articles and interesting information related to our Water Reliability message. Currently Facebook has 251 followers, Twitter has 364 followers and Instagram has 173 followers. During the reporting period we published 74 Facebook posts, 136 Twitter tweets, 50 Instagram posts and 15 media releases. Although social media not yet the main tool for communicating important customer messages, the use of Twitter to communicate real-time



messages with customers and the media is gaining popularity with utilities across the country. SeeClickFix reports have also become more popular as a way to report water waste violations. This smartphone app was already being utilized by the City of Tucson to report potholes, graffiti and other municipal problems and water waste was added in late 2014. PICO's Water Conservation Inspectors received several reports and have been very responsive in following up with these reports and resolving the issues.

Regional Collaboration

PICO staff continues to engage in regional discussions of topics pertaining to water conservation. The Green Infrastructure/Low Impact Development working group continues to meet on a monthly basis to discuss issues and opportunities and Tucson Water remains a part of that conversation. The Pima County Local Drought Impact Group meets bi-monthly and PICO staff attends as possible to stay informed of drought projections and identify opportunities for regional collaboration around drought preparedness. Tucson Water also supports the Conserve2Enhance program, which provides grants to enhance local washes and riparian areas through water conservation actions. PICO staff serve on the Advisory Council, provide customer data to the online database, administer the grants, promote the program through various media including the check box, rebates and bill inserts and work with other city staff to secure check box funds. PICO also worked with Tucson Audubon to submit an Arizona Game & Fish Heritage Grant application for an urban wildlife project titled "Bringing Birds Home" to improve backyard habitat in the Tucson area.

Updates on FY 2015 Annual Report recommendations:

- Expand the rainwater harvesting program to include curb cuts and small commercial customers as directed by Mayor and Council.
 - *Update: With the expansion of the water harvesting program, one curb cut application has been approved and although some small commercial customers have inquired, there have been no rebate applications.*
- Offer a new high-efficiency clothes washer rebate of \$200, available to single-family residential customers.
 - *Update: The high-efficiency clothes washer rebate of \$200 for single-family residential customers launched in August 2015. This highly popular program has engaged nearly all of the Tucson-area retailers that sell clothes washers; 21 of 25 stores have promotional displays available and their sales staffs have been trained, including receiving a rebate program guide and monthly updates. In the first 5 months of the program, over 516 rebate applications were approved. The average purchase price for a rebated washer is \$730, with \$399 at the low end and \$1,458 at the high end.*
- Offer a new, customized commercial rebate that will calculate a customer rebate amount based on potential water savings determined from a facility water audit.



- *Update: Cascadia Consulting Group was selected as the primary contractor, with Montgomery and Associates as a sub-contractor on the project. The kick-off meeting was held in October and to date 10 commercial audits have been conducted and Cascadia has prepared Water Efficiency Recommendations Reports for each facility. PICO staff are currently developing the customized incentive offers for these initial audits.*
- Offer an improved irrigation efficiency upgrade rebate program for commercial and multi-family customers, up to \$10,000.
 - *Update: Two pilot audits were conducted and it was determined that more education and training is required for landscapers because there were several problems with the retrofit work that was done after the pilot audit recommendations were made. It is evident that qualified landscapers are needed as an integral part of a successful full-scale irrigation rebate program. Additional trainings, as described below, will be offered to help train qualified landscapers.*
- Expand the adult education program for Landscape Irrigation Contractors by offering Irrigation Association (IA) developed training to address inefficiencies in landscape irrigation systems.
 - *Update: Advanced irrigation classes with curriculum provided by the Irrigation Association are being scheduled for spring 2016 that will help train landscapers to utilize the irrigation efficiency rebate program.*





MEMORANDUM

DATE: December 2, 2015

TO: Michael Ortega
City Manager

FROM: Albert Elias
Interim Director
Tucson Water

SUBJECT: Fund 130 / Conservation Fund Internal Audit – Response

Public Information and Conservation Office staff has reviewed the Water Conservation Fund/Fund 130 Audit Report. We are in agreement with the findings, and appreciate the opportunity to review the report as it identified a deficiency in our rebate processing process. This memorandum provides comments to the findings as defined in the September 11, 2015 report presented by CliftonLarsonAllen LLP.

Agreed-Upon-Procedures:

1. **Regarding revenue general ledger detail for FY2014 and F2015:** No Comment
2. **Regarding expenditure general ledger detail for FY2014 and FY2015:** No Comment
3. **Regarding disbursement listing for rebate payments by program:**

The auditors identified that the Department does not have any policies about how to handle rebates with customers that have delinquent balances. The practice for processing rebates has been to mail a check to the customer for their rebate regardless of the account balance. While some of the examples provided may have been incorrect with respect to the delinquency status as stated in the report, staff acknowledges that the procedure for rebate application processing did not include a review to determine if the account was in delinquency status, and is a valid finding. In response to the findings, changes have been made to the rebate review process. Currently, all staff processing rebates are now checking in Naviline to determine if there is a delinquency on the account at the time the rebate application is received. We will no longer approve an application to mail a check when an account is in delinquent status.

Changes to the residential HET and clothes washer rebate programs, which accounts for approximately 3,000 (79%) rebate applications annually, will also be made. All rebates for these programs which are \$250 or less will be processed as a credit to the customer's account, eliminating the need to process a check. In addition to eliminating the need to issue checks to rebate applicants, it is also expected to streamline internal processing of applications. Staff will work with Customer Service and Finance Divisions to develop the process. Staff will analyze the possibility of also issuing credits for rebates related to the Rainwater Harvesting program, which

TO: Michael Ortega
SUBJECT: Fund 130 / Conservation Fund Internal Audit
Page 2

cap at \$2000. However, anecdotal information suggests that many customers in the Rainwater Harvesting Rebate program charge the cost for installation of systems and rely on the cash rebate to pay down the balance on the credit card, thus a credit may not be appropriate.

For rebates that are over \$250, checks will continue to be processed if the account is not delinquent. These rebate amounts tend to be in the commercial and multi-family HET and the rainwater and gray water rebate programs, which account for approximately 800 (21%) applications annually. In the case that an account is delinquent, staff will contact the customer and process the check only after the account is current, or credit the customer's account.

4. **Regarding contract vendor payments for FY2014 and FY2015:** No comment.
5. **Regarding general ledger details for transfers out of the fund:** No Comment.

c: Scott. Clark
Sandy Elder

**CITY OF TUCSON
WATER CONSERVATION PROGRAM – FUND 130**

**INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES**

YEARS ENDED JUNE 30, 2015 AND 2014

INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

City of Tucson
Internal Audit Program
Tucson, AZ

We have performed the procedures enumerated below, which were agreed to by The City of Tucson's Internal Audit Program, solely to assist you with respect to the procedures described below for the Tucson Water Conservation Program Fund for the years ended June 30, 2015 and 2014. Tucson Water's management and the Internal Audit Program management is responsible for the procedures on such matters. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in the report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

Our procedures and findings related to the Tucson Water Conservation Fund are as follows:

Agreed-Upon-Procedures

1. Obtained the revenue general ledger (GL) detail for FY2014 and FY2015 YTD from Advantage and performed the following:
 - a. Obtained an understanding of the revenues streams and how they were recorded in the GL.
 - b. Selected a sample of 25 revenue transactions and determine the following:
 - i. Transactions were posted to the proper GL account.
 - ii. Amounts were supported by source documentation (water bill, etc).
 - iii. Amounts were recorded in the correct period.

Findings:

No exceptions were noted as a result of applying the above agreed-upon procedures.

2. Obtained the expenditure GL detail for FY2014 and FY2015 YTD from Advantage and performed the following:
 - a. Selected a sample of 25 and reviewed the following:
 - i. Transactions were posted to the proper GL account.
 - ii. Amounts were supported by source documentation (i.e. invoice, contract, etc).
 - iii. Amounts were supported by a canceled check or other disbursement support.
 - iv. Amounts were recorded in the correct period.

Findings:

No exceptions were noted as a result of applying the above agreed-upon procedures.

3. Obtained disbursement listing for rebate payments by program from Advantage (i.e. Residential and Commercial) for FY2014 and FY2015 YTD and performed the following:
 - a. Selected a sample of 25 for each program (Residential and Commercial) and reviewed the following:
 - i. Amounts were part of the customer rebate history.
 - ii. Amounts agreed to the program guidelines.
 - iii. Amounts agreed to the approved application.
 - iv. Amounts agreed to the payment authorization form.
 - v. Amounts were not a duplicate payment.
 - vi. Amounts were not made to customer with delinquent accounts.

Findings:

- Customer accounts were not reviewed for delinquency prior to payment for residential rebates.
 - Customer accounts were not reviewed for delinquency prior to payment for commercial rebates.
 - The following payments of residential rebates were made to customers with delinquent accounts:
 - Check # 666401 dated 9/10/2013, Application # 9424 for \$94.00.
 - Check # 666716 dated 9/12/2013, Application # 9472 for \$77.00.
 - Check # 669927 dated 10/24/2013, Application # 9806 for \$99.00.
 - Check # 673920 dated 12/26/2013, Application # 10083 for \$80.55.
 - Check # 674244 dated 12/31/2013, Application # 10207 for \$89.78.
 - The following payments of commercial rebates were made to customers with delinquent accounts:
 - Check # 663814 dated 7/30/2013, Application # 214 for \$74.25.
 - Check # 669575 dated 10/22/2013, Application # 21 for \$400.00
 - Check # 675648 dated 1/23/2014, Application # 250 for \$73.50.
 - Check # 684402 dated 6/5/2014, Application # 276 for \$441.00.
 - Check # 680810 dated 4/10/2014, Application # 30 for \$500.00.
- b. Using IDEA Data Analysis Software (IDEA), a third party reader, searched for duplicate payments recorded for the same customer or address. If duplicate payments noted, determined the following:
 - i. Amounts were part of the customer rebate history.
 - ii. Amounts agreed to the program guidelines.
 - iii. Amounts agreed to an approved application for each payment.
 - iv. Amounts agreed to the payment authorization form.
 - v. Amounts were not made to customer with delinquent accounts.

Findings:

- Customer accounts were not reviewed for delinquency prior to payment for residential rebates.
- Customer accounts were not reviewed for delinquency prior to payment for commercial rebates.
- Customer rebate with application # 360 was posted into the general ledger detail with the incorrect amount. This specific customer rebate with check #666381, for \$1,485; & #668247, for \$1,485 was also a duplicate payment for the same application and amount.
- The following residential rebate checks did not have an application available.
 - Check # 693782 dated 10/30/2014, for \$200.00.
 - Check # 697785 dated 12/24/2015, for \$59.50.

Findings (continued):

- The following payments of residential rebates were made to customers with delinquent accounts:
 - Check # 668247 dated 9/10/2013, Application # 360 for \$1,845.00.
 - Check # 689155 dated 8/19/2014, Application # 11473 for \$64.50.
 - Check # 668247 dated 10/8/2013, Application # 11745 for \$64.50.
 - Check # 682751 dated 5/13/2014, Application # 10887 for \$49.00.
 - Check # 682752 dated 5/13/2014, Application # 10888 for \$49.00.
 - Check # 667016 dated 9/19/2013, Application # 9500 for \$79.50.
 - Check # 669902 dated 10/24/2013, Application # 9772 for \$79.50.
 - Check # 695211 dated 11/25/2014, Application # 11861 for \$49.00.
 - Check # 696332 dated 12/11/2014, Application # 11981 for \$49.00.
 - Check # 677210 dated 2/18/2014, Application # 10526 for \$99.00.
 - Check # 695188 dated 11/25/2014, Application # 11841 for \$49.00.
 - Check # 678272 dated 2/27/2014, Application # 470 for \$1,060.00.
 - Check # 678273 dated 2/27/2014, Application # 471 for \$1,060.00.
 - Check # 678645 dated 3/6/2014, Application # 10594 for \$200.00.
 - Check # 667435 dated 9/24/2013, Application # 9519 for \$179.00.
 - Check # 697784 dated 12/24/2014, Application # 11992 for \$59.50.

4. Obtained a list of contract vendor payments for FY2014 and FY2015 YTD and performed the following:
 - a. Selected a sample of 25 payments and review the following:
 - i. Amounts were supported by authorized documentation.
 - ii. Amounts were made in accordance with the contract or purchase order terms.
 - iii. Amounts were not paid on expired contracts.

Findings:

No exceptions were noted as a result of applying the above agreed-upon procedures.

- b. Performed a Benford Analysis using IDEA. Any suspicious item noted in the analysis will be reviewed for the following:
 - i. Payment history and duplicate payments.
 - ii. Amounts were supported by authorized documentation.
 - iii. Amounts were made in accordance with the contract or purchase order terms.
 - iv. Amounts were not paid on expired contracts.

Findings:

No exceptions were noted as a result of applying the above agreed-upon procedures.

5. Reviewed GL detail for transfers out of the fund and obtained explanations from management for transactions noted, if any.

Findings:

No exceptions were noted as a result of applying the above agreed-upon procedures.

We were not engaged to and did not conduct an examination, an audit or a review, the objective of which would be the expression of an opinion on the recording of transactions. Accordingly, we do not express such an opinion or limited assurance. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the City of Tucson's Internal Audit Program and is not intended to be and should not be used by anyone other than these specified parties.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Tucson, Arizona
September 11, 2015

Water Conservation Education Incentive Program (WCEIP) (Proposed Tucson Water, Conservation Demonstration Program)

Introduction:

With the adoption of the CCTF Final Report in 2006 and the creation of the corresponding Conservation Fee, CWAC, TW and M&C have proceeded down a tri-focus path of; conservation education (at no charge to participants), incentive programs (to reimburse water users for out of pocket conservation related expenses), and the adoption of conservation related building codes. Each of these three strategies has proven to be effective at some level.

However, because of the way we have separated education from incentives in our tracking models, we have created a scenario where the “measurable conservation” is only possible with the “hardware driven” incentive programs (rebates). Being able to track actual water savings is important, and is **THE** cornerstone of the 2006 CCTF Final Report. Water Conservation education has certainly not been ignored, as a significant financial investment has been made with a focus toward educational classes for youth and for adults and professionals related to outdoor water use and rainwater harvesting.

This concept, WCEIP, is designed as a demonstration project to establish a methodology to prove that water conservation made possible through education is in fact trackable and as cost effective as “hardware rebates” programs in the short, mid & long term. (Not suggesting reduction in hardware rebates just a statement comparing cost effectiveness).

The WCEIP concept establishes a financial incentive for TW water customers to attend and participate in water conservation classes, as well as a simple way to track its success. The concept in a nutshell is to award a “rebate certificate” to all TW customers who attend one or more of three types of classes. If they attended all three, they earn all three “rebate certificates”. The classes will focus on “internal water usage” (mandatory aspect of class), and two, optional aspects of the class “outdoor water usage” and “rainwater harvesting”. While those qualified to do so will establish the curriculum, the TW handbook “Homeowners Guide to Using Water Wisely” is near perfect for all three classes. From my perspective, these classes are 60 minutes in length, held consecutively. (Total of three hours, for all three certificates), but just one actual “class” to attend.

Where are the classes held?

As with other educational classes, we hold these courses in various areas, in multi-lingual formats and at various days/times to ensure those that are interested have the best opportunity to participate. We could target specific areas, such as where other incentive programs have not been widely used.

How would attendance be established/managed?

We could use the water bills to announce the classes (in that area), and set the attendance at “the first 50 participants to sign up”. It’s a “demonstration project” so we don’t need to solve every possible logistics scenario at this time.

What is the actual financial incentive?

The “rebate certificate(s)”, would be redeemable as credit toward future water bills. While we expect the person that attains the certificate will use it to reduce their own water bill, we don’t actually care whose certificate is used to supplement which water payment as the incentive(s) will be limited to 1 per service address, per certificate. Max number per service address is 1 certificate. It is certainly possible that the person who is paying the water bill is not the person who attends the class, and it’s possible that some folks will figure out a way to help a neighbor or family member by attending the class and then giving them the actual certificate. There are countless scenarios where we can’t absolutely guarantee that the person attending the class is the same person that uses the certificate but every incentive program has the same degree of uncertainty. There will be a level of self regulation here in that the certificate will not be usable unless it’s signed by the person whose name is on the certificate (entered at the time the class is held), and their signature will state “I have attended the class and I am paying my water bill”. Ultimately, we are in fact educating people, and that is the broader goal of the program, even if they never use their certificate(s) or use their certificate(s) to help others. My initial calculation would suggest that the three certificates be worth \$50.00 for internal, \$25.00 for external and \$25.00 for water harvesting.

To clarify, a person attends the class, gets whatever level of certificate they get, then uses it one time. Many redemptions would be at less than the \$100.00 as those folks did not care to stay for the exterior water use or rainwater harvesting certifications. While it is understood we could simply “credit their water account” because they showed up for the class, issuing an actual “certificate” with “redemption coupon/section” is an important part of the concept.

How do we track success?

As each certificate must be used to offset a portion of a future TW water bill, we simply compare the water use for the address being audited before and after the person attended the class and/or uses the certificate.

It is assumed that we would randomly check X number water bills (before and after) to draw some sort of conclusion as to the effectiveness of the “water use habits” aspect of the program. Determining if the program has been beneficial in accelerating the high water use toilet replacement program, and/or any of the remaining programs will require a cross referencing effort.

What is the potential water savings?

Using the data from the TW handbook “Homeowners Guide to Using Water Wisely” to estimate the potential savings from a “better educated” water consumer, the numbers would suggest that each person in the household could save between 75 and 115 gallons per day related to internally used water more wisely (excludes toilet related savings, as the 75-115 are “water use habits” savings). That may be overstated, and there may be only one person in a household. So, being “ultra conservative”, let’s assume that 1000 people take the class, that there is only one person per household and just 400 of the 1000 participants use what they learn to save water. Also, to be conservative, let’s assume that of those people, they only save 50% of the wasted water identified in the handbook. That would mean that 400 people would be saving an average of 50 gallons per day, or 1,500 gallons per month (collectively 600,000 gallons per month, or 7.2 million gallons per year.) Stated as ccf, 9,625.

What would the cost be?

Using the scenario above, and assuming ultra aggressive redemption at 100% and 100% of attendees earn the maximum of \$100.00 each, we would have redeemed \$100,000.00. This cost does not include the educational staff nor the promotional materials, but it is assumed that we would simply redirect some of the current educational and promotional cost to this “demonstration program”. If not, a quick calculation would be required to adjust the cost per ccf below, keeping in mind the other program costs below, also do not include their respective educational or promotional costs.

How does this program compare to the “return on investment” for fixtures rebates?

Using the 2013-2014 draft annual conservation report as the source, the four HET programs cost per ccf is \$11.35. Using the example above we would have spent \$100,000 to save 9,625 ccf or \$10.39 per ccf (compared to the \$11.35 per ccf for existing HET programs) and compared to \$20.00 per ccf for urinal programs and \$35.00 for irrigation program). (RWH cost per ccf is yet undetermined).

How does the program “complement” the other conservation programs?

The advantage of education is that it will not just be about saving potable water through lifestyle choices and plumbing knowledge; we can use the classes to educate attendees as to the other conservation program rebates and opportunities. A great example would be the HET program. To date, we have (according to CCTF report and related data) only replaced 10% of the potential high water use toilets. That percentage could be significantly increased through education as folks who attend will learn “how to know” if they have toilets that qualify for a rebate and if they qualify for “free toilet replacement”. Attendees will also learn there are many hardware rebate programs which may help their friends, neighbors, employers and extended families.

Why is the actual “certificate” important?

In addition to the opportunity to enhance the existing conservation programs by having hundreds if not thousands of water users become more aware through these classes (attendees will brag about the “certificate” they EARNED and how it saved them money), we also have the opportunity to promote what I believe Tucson Water is beginning to pursue which is the strategy associated with the “Behavioral and Social Aspects of Utility Consumption”. EARNING this certificate ties into this expanding social science.

What are the unknowns, the variables?

- 1) Presumably, the average number of people in household is not 1, its more, but the refund is limited to one per house, so any more than 1 person per home that adopts better water use habits would increase cost effectiveness.
- 2) No way to guarantee that a person will “keep up” the better water habits or that they will continue to live in the TW service area.
- 3) Many other variables and unknowns to consider.

How does the program ensure “low income” equitability?

In general terms, this program is likely to be disproportionately used by the households on the lower end of the economic ladder because the rebate amount is fixed, which means two things. First, the money is more relevant to those that have less of it and secondly, low income folks who are less likely to be in a position to participate in other rebate programs because they are tenants, and/or tenants in a multi family buildings will have an opportunity to participate where they do not have today.

Conclusion:

The program is based on the belief that education of water users is the ultimate return on investment and that all water users deserve to have the opportunity for the same education and the same related savings. Education of course will not be limited to how to save water and therefore money, but to ensure that everyone is aware of the other incentive program and other educational opportunities available through TW and other organizations. Ultimately, we don’t actually care if everyone who earns and redeems a water harvesting certificate is actually installing a RWH system, or even has a yard (at this time). The concept is that we can launch a demonstration project, limited to a couple thousand participants and then track the actual financial and conservation results.

End

**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 - C&E mission statement/policy review	- 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.