



*Public Notice Pursuant to A.R.S. § 38-431.02*

**ARIZONA MUNICIPAL WATER USERS ASSOCIATION  
MANAGEMENT BOARD**

**MEETING NOTICE AND AGENDA**

**Wednesday, August 8, 2018 – 10:00 a.m.**

**Arizona Municipal Water Users Association  
Board Conference Room  
3003 North Central Avenue, Suite 1550  
Phoenix, Arizona 85012**

**A. Call to Order**

**B. General Business—Items for Discussion and Possible Action**

1. Approval of the Minutes from the June 13, 2018 Meeting
2. Schedule Next Meeting Date: Wednesday, September 12, 2018, 10:00 a.m.
3. Status of Lower Basin Drought Contingency Plan
4. Acceptance of Water Management Assistance Program Funding for the *Water—Use It Wisely* Campaign
5. Water Loss Control Technical Training and Assistance

**C. Management Board Members' Updates**

**D. Executive Director's Report**

**E. Future Agenda Items**

**F. Adjournment**

\*The order of the agenda may be altered or changed by the AMWUA Management Board.

More information about AMWUA public meetings is available in the AMWUA office, online at [www.amwua.org/what-we-do/public-meetings](http://www.amwua.org/what-we-do/public-meetings), or by request.

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**Arizona Municipal Water Users Association**

## MANAGEMENT BOARD

### MEETING MINUTES

June 13, 2018

#### VOTING MEMBERS PRESENT

Mr. Kevin Artz, Avondale, Chairman  
Mr. Brian Biesemeyer, Scottsdale  
Mr. John Knudson, Chandler  
Mr. Craig Johnson, Glendale  
Ms. Karen Peters, Phoenix  
Ms. Holly Rosenthal, Tempe  
Mr. Javier Setovich, Goodyear  
Mr. Mike Weber, Peoria  
Mr. Jake West, Mesa

#### VOTING MEMBERS NOT PRESENT—EXCUSED

Ms. Jessica Marlow, Gilbert

#### OTHERS PRESENT

Erin Andres, Phoenix  
Brian Draper, Mesa  
Alan Dulaney, Peoria  
Kathy Ferris, AMWUA

Brett Fleck, AMWUA  
Sam Jaskolski, AMWUA  
Stuart Peckham, SRP  
Diana Piña, AMWUA

Tony Staffaroni, CAP  
Drew Swieczkowski, Glendale

#### A. Call to Order

Mr. Artz called the meeting to order at 10:00 a.m.

#### B. General Business – Items for Discussion and Possible Action

1. Approval of the Minutes from the May 9, 2018 Meeting

Upon a motion by Mr. Johnson and a second by Mr. Biesemeyer, the AMWUA Management Board unanimously approved the May 9, 2018 meeting minutes.

2. Next meeting scheduled: Wednesday, August 8, 2018, 10:00 a.m., in the AMWUA office

The July 11, 2018 AMWUA Management Board meeting was cancelled.

### 3. Recovery Implementation Planning

Mr. Fleck stated that there has been a sense of urgency on recovery implementation planning because the U.S. Bureau of Reclamation modeling projections have shown increased probability of shortages that would impact municipalities. He said the Arizona Department of Water Resources (ADWR), the Arizona Water Banking Authority (AWBA), and the Central Arizona Water Conservation District (CAWCD) have jointly convened the Recovery Planning Advisory Group (RPAG) to update and refine the 2014 Joint Recovery Plan with the goal of completing the task before the end of 2018. Mr. Fleck stated that AMWUA has been working with its Water Resources Advisory Group (WRAG) to develop fundamental principles that would be critical for a recovery implementation plan.

Mr. Fleck reported that three RPAG meetings have been held thus far and the next meeting is scheduled for July 17<sup>th</sup>. He said ADWR has requested that participants submit specific recovery method proposals, which AMWUA is willing to assist its members in doing. Mr. Fleck stated that there are many unanswered questions at this point in the process, particularly how much it will cost, which is dependent upon variables that are being currently determined including volume, timing, method, and participants involved.

Mr. Tenney noted that working with ADWR and the Central Arizona Project (CAP) on a recovery plan is a high priority in AMWUA's Annual Action Plan.

### 4. Contract for the Redevelopment and Redesign of the Smartscape Website

Ms. Jaskolski stated that the Smartscape program supports AMWUA members in their efforts to increase water use efficiency, extend existing supplies, reduce future water demand, and prepare for potential shortage restrictions. She discussed that the current Smartscape website and database are both outdated, increasingly problematic to maintain, and not user friendly to the program coordinators, students, and the public. Ms. Jaskolski stated that the redevelopment and redesign of the Smartscape website and database was recognized in AMWUA's Annual Action plan and was also included as a line item in AMWUA's approved Fiscal Year 2019 budget. She detailed that this project will also entail consolidating the online management of the Smartscape program as well as marketing efforts across Maricopa and Pima counties. She said the final products will promote a comprehensive, cohesive message and increase program recognition, efficiency, and conversations about the importance of low-water-use landscapes.

Ms. Jaskolski reviewed the request for proposals (RFP) process that AMWUA underwent to contract for the Smartscape website and database project. She stated that a stakeholder committee of AMWUA staff, AMWUA member staffs, Tucson Water staff, and Maricopa and Pima counties Smartscape program staffs reviewed the proposals received and based on the committee's recommendation, AMWUA staff has selected the firm Ackmann & Dickenson for this project. She said the agreement from Ackmann &

Dickenson includes two phases culminating a fixed-bid price of \$90,000 and has been reviewed by Ms. Ferris, AMWUA's legal counsel.

In response to a clarifying question from Mr. Biesemeyer, Mr. Tenney confirmed that the \$90,000 for the project will be funded with \$30,000 encumbered from AMWUA's Regional Conservation Program Fiscal Year 2018 budget, \$30,000 from AMWUA's Regional Conservation Program Fiscal Year 2019 budget, and \$30,000 has been formally committed by Tucson Water with its own Fiscal Year 2019 funds.

Mr. Artz asked how much traffic the current Smartscape website receives and how that compares to the expenditure of funds for this project. Ms. Jaskolski said AMWUA does not have traffic data on the current Smartscape website, which was another factor to the priority this project was given. She noted that in consolidating the Maricopa and Pima County Smartscape programs websites and databases, AMWUA will be able to have more accurate data on the program and its relevancy.

Upon a motion by Mr. Biesemeyer and a second by Mr. West, the AMWUA Management Board unanimously recommended to the AMWUA Board of Directors to approve the Executive Director to enter into a contract with Ackmann & Dickenson for the redevelopment and redesign of the Smartscape website and database at a cost not to exceed \$90,000.

### **C. Management Board Members' Updates**

The Management Board members were invited to report on water activities in their city/town.

**Peoria:** Mr. Weber announced that he has accepted a position as the Water Resources Director with the City of Buckeye. He said this will be his last meeting with the AMWUA Management Board and expressed that he has enjoyed working with this group. He reported that the City of Peoria is currently in the process of separating its Public Works and Utilities Department into two individual departments: Public Works and Water Services.

### **D. Executive Director's Report**

Mr. Tenney reported that the AMWUA Board of Directors sent a letter to the CAWCD Board expressing support for CAP acting in the best interest of its rate payers by having a reliable, diverse, and cost-effective power portfolio after Navajo Generating Station closes. He added that at last week's CAWCD Board meeting, the CAWCD Board approved two agreements that will provide 14% of the power supply for the CAP.

Mr. Tenney stated that the CAWCD Board approved the consensus proposal that stakeholders and CAWCD had reached regarding water quality standards for non-project water. He added that work is still being done on the proposal for remaining contaminants.

Mr. Tenney reported that at last month's CAWCD Customer Service Task Force meeting, CAWCD's consultant presented its findings regarding CAWCD's relationship with its stakeholders. He said the Task Force members identified four priority areas that it would like to focus on to improve customer relations and have requested stakeholder input. Mr. Tenney said AMWUA discussed and reviewed ideas with its WRAG and shared those concepts with the Task Force members. The CAWCD Customer Service Task Force's next meeting will be held on June 21<sup>st</sup>.

Mr. Tenney stated that Representative Bowers and Senator Griffin will be holding their next listening session on water issues on June 20<sup>th</sup> in Buckeye. He said this is an opportunity to convey the importance of water to the Valley cities. He reported that Mayor Lane is scheduled to make comments at the meeting. He said AMWUA Board of Directors members were encouraged to attend the meeting and share a brief statement, and if they are unable to attend that they send another representative so each of the AMWUA cities are represented.

Mr. Artz asked if Mr. Tenney has received commitments to speak at the Buckeye meeting from anyone other than Mayor Lane. Mr. Tenney said he has received confirmation that Councilmember Lauren Kuby from Tempe as well as representatives from the cities of Peoria, Phoenix, and Glendale plan to speak at the meeting.

Mr. Tenney reported that ADWR and CAWCD will be holding a briefing on the Lower Basin Drought Contingency Plan (DCP) and Arizona's Colorado River water supply on June 28<sup>th</sup>. Ms. Rosenthal asked if this meeting requires an RSVP. Mr. Tenney said no RSVP is required.

Mr. Tenney stated that AMWUA recently finished reprinting the Landscape Plants for the Arizona Desert books. He said this edition of the Landscape Plants book features updated plant names that are coordinated with ADWR's 2018 update of the Low Water Use Drought Tolerant Regulatory Plant List and several updated pictures.

Mr. Tenney noted that the AMWUA board room has new audience chairs that were purchased with funds available in the Office Supply line item of the AMWUA Fiscal Year 2018 budget.

#### **E. Future Agenda Items**

There were no requests for future agenda items.

#### **F. Adjournment**

With no further items to discuss, upon a motion by Mr. Biesemeyer and a second by Ms. Peters, Mr. Artz unanimously adjourned the meeting at 10:35 a.m.

## MANAGEMENT BOARD

### INFORMATION SUMMARY

August 8, 2018

## Status of the Lower Basin Drought Contingency Plan

### ANNUAL PLAN REFERENCE

#### Colorado River Drought / Shortage

*Strategic Plan:* Objectives – Prepare for Impacts of Drought & Shortage, Minimize Financial Impacts; Collaboration – Arizona Department of Water Resources, Central Arizona Project, Business Community

#### Actions:

- Remain engaged with developments to protect the Colorado River from drought and address the structural deficit.
- Seek ways AMWUA and its members can best individually and cooperatively respond to the increasing probability of a shortage declaration.

### SUMMARY

The Arizona Department of Water Resources (ADWR) and Central Arizona Project (CAP) have launched a new initiative to further efforts to implement the Lower Basin Drought Contingency Plan (DCP) in Arizona. DCP was negotiated by Arizona, California, Nevada and U.S. Bureau of Reclamation (Reclamation) for the purpose of reducing the risk of having Lake Mead's elevation plunge below 1,025 feet and crashing the Colorado River system. With increasing risks to Lake Mead seen in Reclamation's modeling, ADWR and CAP have stated that Arizona needs to adopt DCP.

The challenges keeping Arizona from adopting DCP have not changed since the 2018 legislative session. An internal Arizona plan to implement DCP still needs to be developed. The obstacles to implementing DCP remain the same, including Pinal Ag mitigation, Tribal Intentionally Created Surplus (ICS), and a plan for excess water.

ADWR and CAP established a 40-member Steering Committee to develop broad support for DCP, along with considering any necessary tools and processes for implementing DCP in Arizona. The Steering Committee met on July 26, 2018. The Committee is tasked to complete its work by the end of November.

The Steering Committee's municipal representatives from the Valley include Phoenix, Scottsdale and Goodyear. AMWUA will work with these cities to coordinate information and facilitate

discussion among all AMWUA members. AMWUA will continue to raise questions and advocate on behalf of its ten members to ensure that any future plan to implement DCP benefits municipalities and the state.

Staff will share a presentation with the AMWUA Management Board to further detail DCP.

### **RECOMMENDATION**

The AMWUA Management Board is encouraged to ask questions and provide feedback about the Lower Basin Drought Contingency Plan.

## MANAGEMENT BOARD

### INFORMATION SUMMARY

August 8, 2018

# Acceptance of Water Management Assistance Program Funding for the *Water—Use It Wisely* Campaign

## ANNUAL PLAN REFERENCE

### Colorado River Drought / Shortage

Strategic Plan: Objectives – Prepare for Impacts of Drought & Shortage, Minimize Financial Impacts; Collaboration – Arizona Department of Water Resources, Central Arizona Project, Salt River Project

Action:

- Coordinate communications efforts among agencies and the membership to promote clear, consistent messaging to the public regarding drought and shortage.

### Demand Management & Sustainability

Strategic Plan: Objectives – Prepare for Impacts of Drought & Shortage, Augment Supplies, Interconnect Disciplines

## SUMMARY

The award winning *Water—Use It Wisely* campaign was launched by Valley cities in 1999 to help reinforce a water conservation ethic throughout the region. It was built in response to the sentiment voiced by area residents in research conducted through AMWUA: “Don’t tell us to save water. Show us how.” It empowers people to take action through simple steps built into the messaging.

The objective of the coordinated regional conservation awareness campaign is to keep conservation at the front of the public’s mind. There is greater visibility and efficacy in that shared, consistent message. Few cities have the budget to independently create and effectively buy media for a large-scale awareness campaign. By pooling resources, Arizona’s *Water—Use It Wisely* partners have been better able to accomplish that. Campaign partners include AMWUA and most of the AMWUA members, along with Arizona Department of Water Resources (ADWR), the Salt River Project (SRP), the Central Arizona Project, and other municipalities and groups throughout the state.

*Water—Use It Wisely* was most visible during the early 2000s, a period when SRP deliveries were reduced due to lowering reservoir levels. *Water—Use It Wisely* has continued its efforts to

promote water conservation in the years since, moving beyond traditional media into social media, including Twitter, Facebook, Pinterest, a blog and newsletters. The campaign supports and promotes each provider’s unique programs and individual messages, driving the public to the many rebates, resources, programs and assistance available through the cities, AMWUA, and other partners.

Since 2016, ADWR has contributed \$15,000 in Water Management Assistance Program funding to the campaign annually, per recommendations of the Phoenix Active Management Area Groundwater Users Advisory Council (GUAC). This is accomplished through an intergovernmental agreement with AMWUA. AMWUA is in turn invoiced by Park&Co, the firm implementing the campaign.

At the July meeting of the GUAC, members of the committee discussed the importance of raising the visibility of the campaign in light of ongoing drought and ahead of a potential Colorado River shortage announcement. The GUAC voted unanimously to recommend that the ADWR Director increase the funding to \$50,000 for Fiscal Year 2020. The GUAC also requested that staff work closely with the *Water—Use It Wisely* steering committee to achieve the GUAC’s goals. Subsequently, the ADWR Director has accepted the GUAC’s recommendation and approved the \$50,000.

AMWUA’s Financial Statements Policy directs that staff should bring any revenue source in excess of \$5,000 to the Board of Directors for formal acceptance.

## RECOMMENDATION

Staff requests that the AMWUA Management Board recommend that the AMWUA Board of Directors accept the \$50,000 in funding to support increased visibility of the *Water—Use It Wisely* campaign



## MANAGEMENT BOARD

### INFORMATION SUMMARY

August 8, 2018

## Water Loss Control Technical Training and Assistance

### ANNUAL PLAN REFERENCE

#### Demand Management & Sustainability

*Strategic Plan:* Objectives – Prepare for Impacts of Drought & Shortage, Augment Supplies, Interconnect Disciplines

#### Action:

- Facilitate sharing of information and resources, training, and technical assistance to members in support of efforts to enhance distribution system water loss control and revenue recovery

### SUMMARY

Water loss control is an increasingly important part of water resource management for water utilities and state agencies throughout the country. AMWUA's members have long worked to limit water loss in their distribution systems, meeting and exceeding state requirements.

In the early 2000s, an international standard for water loss control best management practice methodology was established. The American Water Works Association (AWWA) M36 Manual details that method and guides utilities to determine cost effective actions.

Based on the interest of member staffs, AMWUA contracted Cavanaugh & Associates, P.A. (Cavanaugh), a leader in the field, to conduct an informational webcast on advancements in water loss control best management practices and to assess the members' needs for water loss control training and technical assistance. The webcast, held in March 2018, provided detail on the AWWA M36 Methodology, the potential for recovery of revenue lost to non-revenue water, and examples of programs in place across the country. The webcast was recorded and distributed to the member staffs.

At AMWUA's request, Cavanaugh performed canvassing calls after the webcast with each participating members' prior experiences with water loss control and their needs and interest in water loss control training and technical assistance. The members expressed interest in moving beyond historic leak detection and water loss control to implementing more advanced practices from the M36 Methodology. The most common needs and interests expressed from the members were assistance with *advanced validation* and *economic-based target setting*.

Consistent with those interests, Cavanaugh recommended AMWUA scope a training and technical assistance program that focuses on stages 2 and 3 of the M36 Methodology. Member staffs would receive training on the concepts, while a subject matter expert would provide the execution of the analysis and activity along with determining prioritization of members' current activities including leak detection, meter replacement, and pipeline replacement. This will allow member staffs exposure and learning on the M36 Methodology without undue burden on time and resources.

The survey noted that AMWUA members view water loss control training and technical assistance as beneficial but not an immediate priority in light of competing priorities. However, if state funding can be secured, the majority of members indicated a strong interest and commitment to participating in a technical training and assistance program.

In 2017, Arizona launched a Water Loss Technical Assistance Pilot Program for utilities outside of the Active Management Areas (AMAs), where the need for such assistance was considered the greatest. The Arizona Department of Water Resources (ADWR) and the Water Infrastructure Finance Authority provided funding and direct staff support for the program. ADWR contributed additional funding and support. AMWUA advocated that such training and assistance should be available also for utilities within the AMAs.

ADWR staff recognize that such a program could provide substantial benefit to larger systems and see value in a pilot effort for large providers. They are willing to explore a proposal for funding from the Phoenix AMA Water Management Assistance Program for an AMWUA pilot. Funding would be contingent on a recommendation from the Phoenix AMA Groundwater Users Advisory Council and the approval of the ADWR Director. AMWUA would receive funding through an intergovernmental agreement (IGA) with ADWR. AMWUA staff time to scope, contract, and organize the program, as well as member staff time to participate, would be considered as in-kind contributions.

## **RECOMMENDATION**

Staff requests that the AMWUA Management Board recommend that the AMWUA Board of Directors endorse an AMWUA proposal for funding for a technical training and assistance program through the Water Management Assistance Program and authorize the Executive Director to enter into an IGA with ADWR if funding is secured.

## **ATTACHMENT**

- Cavanaugh: *AMWUA Water Loss Control Canvass – Summary Memo*

# AMWUA Water Loss Control Canvass – Summary Memo

Gauging member needs in training and technical assistance

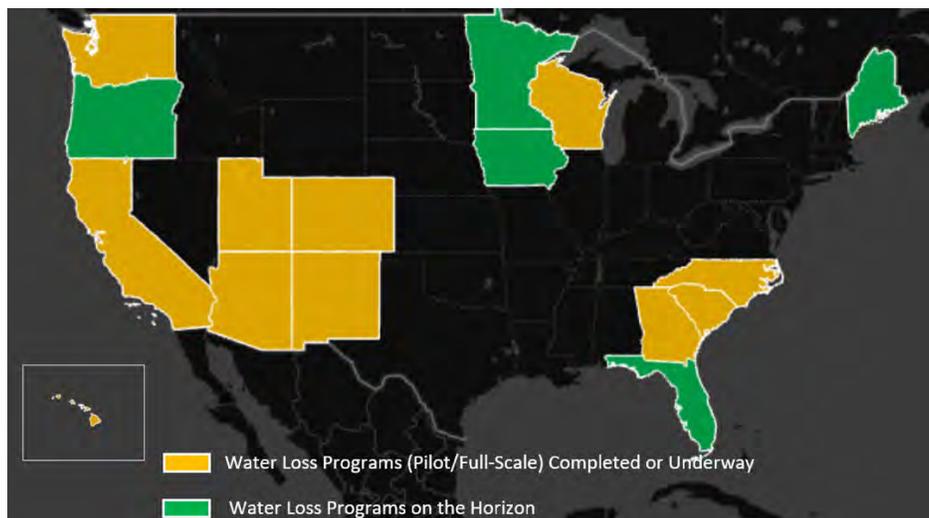
**PREPARED FOR:** AMWUA **DATE:** June 20, 2018  
**PREPARED BY:** Cavanaugh **PROJECT NUMBER:** WE.18.006  
**PROJECT TEAM:** Steve Cavanaugh, P.E., Drew Blackwell, Will Jernigan, P.E.

## Purpose

Water supply challenges and the need for robust conservation planning are driven by growing demand, declining water supplies, and aging utility infrastructure. Water loss control is an increasingly important part of water resource management for water utilities and state agencies throughout the country. The Arizona Municipal Water Users Association (AMWUA) member agencies serve approximately 3.5 million people—more than half of the state’s population—and have long worked to limit water loss in their distribution systems. Based on the interest of AMWUA member staffs, Cavanaugh was contracted to provide a webcast on advancements in water loss control best management practices and to assess the members’ needs for water loss control training and technical assistance. The purpose of this report is to present the findings of the canvassing effort.

## Background

The importance of water loss control for state and regional agencies is supported by the incredible momentum across the United States.



Water Loss Training & Technical Assistance Programs Completed or Underway	
State	Description
Arizona	Pilot Program (Phase 1), Expanded Program (Phase 2)
California	Full-Scale Statewide Program
Colorado	Pilot Program and Full-Scale Statewide Program
Georgia	Full-Scale Statewide Program
Hawaii	Full-Scale Statewide Program
New Mexico	Full-Scale Statewide Program
North & South Carolina	Full-Scale Regional Program
Utah	Pilot Program (Phase 1), Expanded Program (Phase 2)
Wisconsin	Pilot Program
Washington	Pilot Program

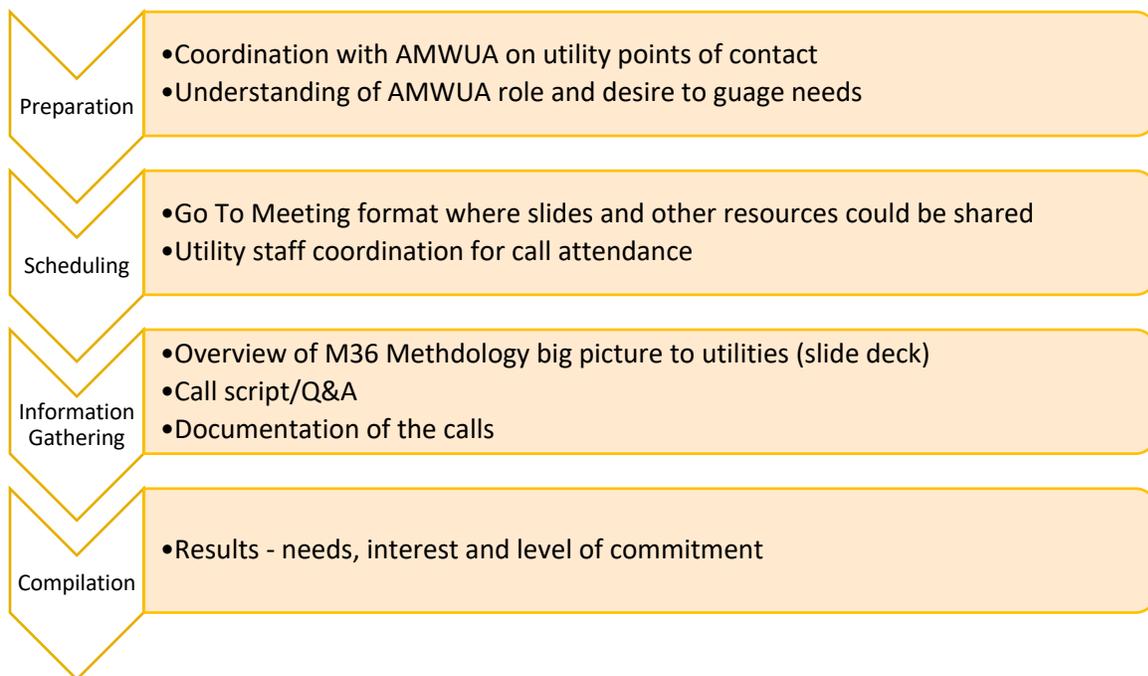
In Arizona, water loss control training has recently taken hold through the completion of the Arizona M36 Water Loss Technical Assistance Program Phase 1 which involved six utilities outside of the Active Management Areas. In summer of 2018, Phase 2 of the program was launched to expand the number of utilities and eligibility for participation across the state. The Arizona Department of Water Resources (ADWR) and the Water Infrastructure Finance Authority (WIFA) provided funding and direct staff support for the program. AMWUA was instrumental in advocacy support for the program.

In January 2018, Cavanaugh provided AMWUA staff and member agencies with an overview of advancements in water loss control best management practices—in particular, the AWWA M36 Methodology and its benefits. In March 2018, an informational webcast was conducted for a broader group of the AMWUA member staffs, providing more detail on the M36 Methodology, the potential for recovery of revenue lost to non-revenue water, and examples of programs in place across the country.

At AMWUA’s request, Cavanaugh performed canvassing calls shortly after the March 2018 webcast to speak with member agencies individually, answer questions one-on-one, and assess the members’ needs and interest in water loss control training and technical assistance.

## Approach

The approach to the canvassing calls are outlined below through preparation, scheduling, Information gathering, and compilation.



## Preparation & Scheduling

There are 10 AMWUA member agencies: The cities of Avondale, Chandler, Glendale, Goodyear, Mesa, Phoenix, Peoria, Scottsdale, Tempe and the Town of Gilbert. Prior to contacting the utilities, it was acknowledged that these canvassing calls were intended to answer questions in follow-up to the March webcast, then methodically gain a better understanding of member needs and interest in training and technical assistance. The effort was not to promote a program or approach. If there were sufficient

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interest and commitment expressed, then AMWUA staff would explore options based on the results, including the potential for securing funding to support a Water Loss Technical Assistance Program.

Cavanaugh scheduled web meetings (shared-screen) with seven AMWUA members interested in participating in the canvassing. All utility staffs involved in water loss control were encouraged to attend. Each call's discussion was documented.

### Information Gathering & Compilation

During the meeting, a slide deck providing an overview of the AWWA M36 concept and methodology was presented to the utilities, either as a refresher for those that attended the March 2018 webcast or as foundational material to support the purpose and intent of the call. The slide deck is included in the Attachments.

Cavanaugh conducted each interview using standardized questions, with question logic stemming from 'Have you ever used the AWWA Free Water Audit Software?' Depending on the response, the next series of three questions differed from one utility to the next. A template of the stock questions is provided in the Attachments. The utility responses were documented and compiled.

### Outcomes

All seven AMWUA members that participated were appreciative of the approach that AMWUA took to seek to understand the members' needs. Through the interview the members volunteered information on their systems and their prior experiences with water loss control. Common themes in the member responses were:

- 1) Most members have historically maintained a reasonable focus on distribution system loss through leak detection and pipeline replacement, given the Lost & Unaccounted for (L&U) regulatory structure in Arizona;
- 2) Most members do not see distribution system loss as an area of immediate concern, given they are in compliance with the 10% L&U threshold;
- 3) While most members feel familiar with distribution system loss, they identify as relatively new to the M36 Methodology, which orients their current needs and interests to those elements of the M36 Methodology *outside* of leak detection and distribution system loss;
- 4) The most common needs and interests expressed from the members were on *advanced validation* and *economic-based target setting*.

The full list of needs and interests expressed by the members for training & technical assistance ranged from baseline practices to advanced practices:

- General M36 Methodology and building a water balance;
- Developing the internal water loss control team;
- Advanced validation activities including supply meter verification, lag-time correction, & billing database analytics;
- Economic analysis for cost-benefit & target setting.

The members did not express specific need or interest for training & technical assistance in advanced water loss control interventions, such as district metered areas (DMAs), pressure optimization and

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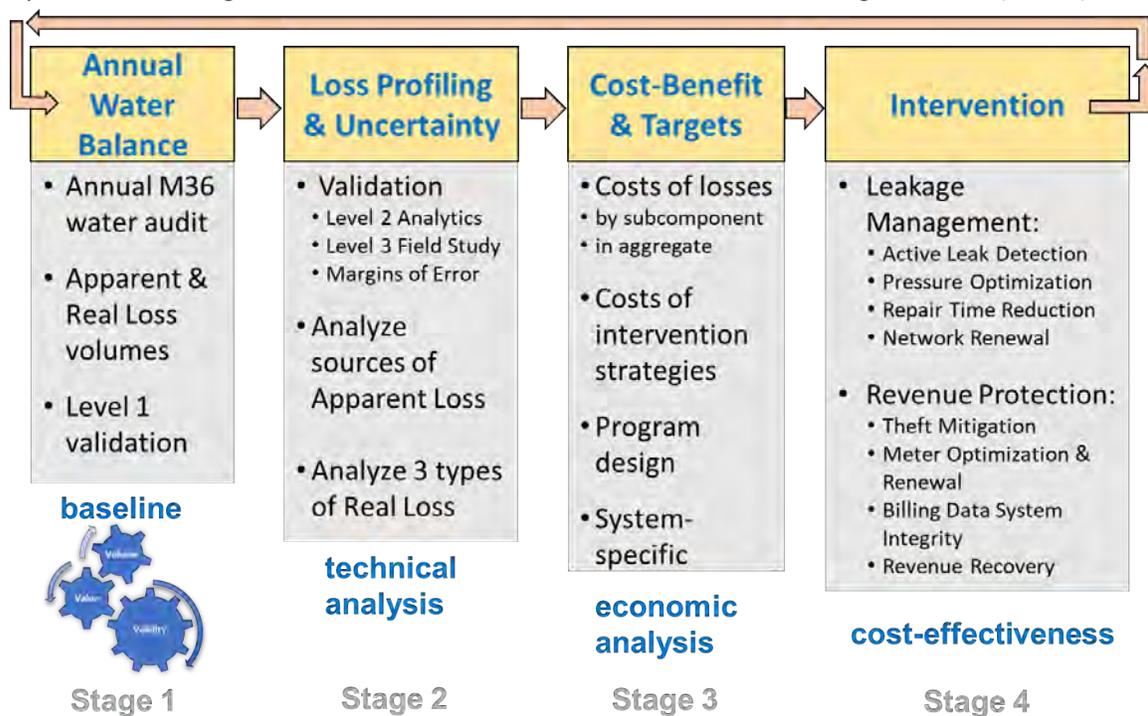
revenue recovery programs. These activities may be more of a need and/or interest at a future time, as they tend to naturally follow in the M36 Methodology, once validation and economic target setting are in place for a given utility and the business case for intervention is known.

The participating members expressed a commitment to dedicate the staff time to participate in potential training & technical assistance if it were focused on the needs & interests. Given the members’ time and budget constraints and the fact that their L&U requirement is currently being met, the group’s interest for AMWUA-facilitated training & technical assistance can be characterized as moderate (if self-funded) to very strong (if state-funded).

Individual responses are presented in the Attachments.

## Recommendations/Next Steps

The needs and interests expressed by the members are themed on building from historic distribution system loss and L&U focus, to implement advanced practices from the M36 Methodology. While some of the members have not yet worked with the M36 water audit software, all of the members have years of tracking supply, consumption and loss volumes under the L&U reporting framework. As such the primary focus of training & technical assistance is recommended to be on Stages 2 and 3 (below). This



*M36 Methodology - Concept Illustration*

would be consistent with the most common needs and interests expressed by the members – advanced validation and economic-based target setting. Stage 1 would still need to be included, but using the members’ current tracking and reporting information to build from this would serve as a step into Stages 2 and 3. The stages are rational and methodical, with Stage 3 informed by Stage 2, and Stage 2 informed by Stage 1. A training and technical assistance program could address the expressed needs and interests by guiding members through Stages 1 to 3, providing member staffs with training on the concepts while execution of the analysis and activity is provided by a subject matter expert. This allows

member staffs exposure and learning on the M36 Methodology without undue burden on time and resources. In Stage 3 the business case for intervention is determined, which provides members with valuable insight on which field activities to prioritize. Stage 3 findings can also provide insight regarding higher or lower prioritization of members' current activities including leak detection, meter replacement and pipeline replacement.

While Stage 1 of the M36 Methodology requires relatively few resources, full implementation of the M36 Methodology is complex and can take considerable time and resources. Members can download the freely available M36 water audit software, and obtain the AWWA M36 Manual for Water Audits and Water Loss Control at nominal cost. Many utilities, however, do not have the resources or subject-matter expertise to implement beyond the annual M36 water audit in Stage 1. A regional or statewide approach to aggregate and focus resources for a targeted group has proven in several states to be an effective means for large scale adoption of best-practices. A regional program also allows knowledge and resource sharing to occur between members. Examples of this include where a given member has already engaged in supply meter verification or customer meter testing activities – equipment, contractor references and lessons learned can be shared with other members.

It is important to note that while the members view training and technical assistance on industry best-practices as positive and beneficial for their operations, management, and finances, it is not an immediate priority for funding for most members given competing priorities. The highest likelihood of advancing the technical assistance is through a state-funded initiative. Based on this and the needs and interests described by the members, it is recommended that AMWUA develop a detailed scope and seek state funding for a Water Loss Training & Technical Assistance Program for its members.

## Attachments

- 1) Questionnaire template with individual responses
- 2) Canvassing call slide deck