INTRODUCTION

Enclosed are the Commission Staff's memorandum and proposed order in the matter of the Commission's Investigation into Improving the Commission's Water Loss Policy for the Betterment of Water Conservation (Docket No. W-00000A-17-0152). This is only a Staff recommendation to the Commission; it has not yet become an order of the Commission. The Commission can decide to accept, amend or reject Staff's proposed order.

You may file comments to the recommendation(s) of the proposed order by filing an original and thirteen (13) copies of the comments with the Commission's Docket Control Center at 1200 W. Washington St., Phoenix, AZ 85007 by 4:00 p.m. on or before September 11, 2017.

This matter may be scheduled for Commission deliberation at its Open Meetings scheduled September 12, 2017, at 10:00 a.m. and September 13, 2017, at 10:00 a.m.

If you have any questions about this matter, please contact Briton Baxter of our Staff at (602) 542-7195, or Elijah Abinah, Director, at (602) 542-6935.

BACKGROUND

On May 22, 2017, Commissioner Tobin's Office requested that a docket be opened in the matter of the Commission's Investigation into Improving the Commission's Water Loss Policy for the Betterment of Water Conservation. On June 15, 2017, a workshop was held at the Commission where there were presentations by Staff, the Arizona Department of Water Resources and the Water Infrastructure Financing Authority of Arizona, Jessica Asbill-Case from the U.S. Department of the Interior, Bureau of Reclamation, Kathryn Sorensen from the City of Phoenix Water Service Department, Ray Jones representing the Water Users Association of Arizona (“WUAA”), by Global Water Resources, and by Arizona Water Company.

On June 26, 2017, Commissioner Tobin's Office docketed a list of follow up questions he developed resulting from the first workshop. On July 7, 2017, Staff provided responses to the follow
up questions as did Arizona Water. On July 10, 2017, Global Water Resources provided responses to the follow up questions.

On July 21, 2017, Commissioner Tobin's Office docketed a draft policy statement. On July 28, 2017, a second workshop was held to discuss the draft policy. Attachment 1 is the final policy statement that was developed and that is being put forward for Commission consideration and possible vote.

Elijah O. Abinah
Director
Utilities Division

EOA:BAB:wsc\RWG
On this 1st day of September, 2017, the foregoing document was filed with Docket Control as a Utilities Division Memorandum & Proposed Order, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

Mr. Andy Kvesic  
Director/Chief Counsel, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Elijah O. Abinah  
Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

By: Valorie S. Carrico  
Executive Assistant
Collaborative Commission Approach to Mitigating Water Loss

Policy Statement No. 2 addresses the need for an updated and more collaborative approach to water loss methodology by the Commission. The state of our State did not happen by accident. To transform a desolate desert into a bustling center of commerce and industry required deliberate and methodical planning by Arizona’s forebears, especially when it came to water. This responsible planning and management must continue today to secure Arizona’s water future for tomorrow. In October 2016, Commissioner Tobin wrote a letter to the Commission calling for an investigation into the matter of water loss.¹ He warned the “cost of keeping the status quo carries a price tag that stretches far beyond the imaginable.”²

In challenging the status quo, we must be critical and deliberate in our approach to the questions: What is water loss? How should we measure it? How should we report it? Is different treatment of water systems based on size or other variables appropriate? If so, when?

Water loss is a universal problem that affects us all. As such, addressing water loss is not merely a problem of utilities to be regulated, but instead an opportunity for partnership. While the issue of water loss is vast, its mere enormity shouldn’t stand in our way of pursuing a manageable framework to systematically address it. These include reforms to calculation methodology and data collection; expanded collaborative efforts between agencies and regulated entities and institutionalizing these gains; promoting conservation and water loss mitigation as cultural aspirations, not just out of regulatory necessity; being wary not to fall into convention, but instead ensuring the continued pursuit of innovation. By exploring these policy areas, we establish a new direction for water loss in Arizona, one that is lasting and open to constant innovation.

This policy statement lays out concrete steps that we can take today to yield meaningful results. The benefits of refining and improving our approach to water loss mitigation include: financial gains for both the ratepayer and company by optimizing revenue recovery and promoting equity among ratepayers; operational stability by minimizing water line breaks and unplanned outages; better management of scarce water resources; the creation of more robust and comparable performance data; and improved system integrity, by reductions of potential source contaminations. These benefits are real and attainable with collaborative efforts and a deliberate approach, from both public and private stakeholders.

The remainder of this document is organized into four sections. The first section addresses updating audit methodology and data collection, ensuring reliable metrics that will lead to fair and effective water loss reduction measures. The second section addresses collaboration between regulatory bodies to memorialize water reform efforts. The third section addresses the culture of conservation the Commission seeks to promote, where regulatory agencies and regulated utilities approach water loss as partners. The final section acknowledges the difficulty in capturing the problem of water loss in one policy statement, and addresses areas where continued research may yield meaningful results. This narrative will be followed by more succinct and formal statements.

² Id. at 4.
Methodology

Establishing the best practice in audit methodology, data collection, and validation is the obvious first step in approaching water loss. Otherwise, the Commission will not have reliable metrics, and utilities will not have the reasonable capabilities to effectively meet these standards. That is why the Commission must seriously consider adopting some or all of the water loss methodologies contained within the most recent version of the Manual of Water Supply Practices, M36, released by the American Water Works Association (AWWA). Any meaningful efforts at mitigating water loss must take full advantage of the M36 as a critical resource. Already, efforts by other state agencies are underway to explore and apply the methodologies outlined in the M36. The Water Infrastructure Finance Authority of Arizona (WIFA) has initiated a pilot project to further explore the applicability of the M36 to Arizona. We must move forward on improving our water loss methodology in two ways:

1) Invest in the WIFA Pilot Project to ensure Commission and small water equities are represented

WIFA, in partnership with Cavanaugh, has committed to a pilot program where six Arizona water utilities, two of which are regulated by the Commission, will employ and evaluate M36 water loss methodologies. We strongly support these efforts and direct Staff to provide assistance as appropriate. We envision greater Staff input and participation with both WIFA and the rural water community at large. Specifically, Staff should engage and formalize a relationship with WIFA as it relates to their pilot program.

2) Review and recommend appropriate action related to the adoption of part or all of the AWWA M36 Audits and Loss Control Program for Commission-regulated utilities

While efforts are underway at WIFA to apply M36 audit methodology through their pilot, it is appropriate for Staff to review and become familiar with the M36—its strengths, as well as its limits, as it relates to implementation within Arizona. The M36 states “accountable and efficient management of water supplies by utilities is the central focus of the water audit methodology and water loss control programs described in this manual.” It is also important to be aware of the responsibilities of the Commission when observing “[a]ppropriate caution in target-setting for loss control interventions”. To this end, any reform the Commission adopts regarding data collection, validation and reporting methodology must be reflective of the current capabilities and resources of regulated utilities. The M36 warns against establishing immediate benchmarks for loss reduction where only a limited pool of well-validated data exists. Instead, the M36 recommends a “focus primarily within the practice of water auditing for water utilities and thus promote the collection of reliable, comparable utility data.”

This may be the best first step for smaller water companies that may simply lack the technical sophistication and necessary technology to make immediate loss reduction compliance standards practicable.

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4 Id.
6 Id at 14.
7 Id.
8 Id at 37.
This measured approach reflects the spirit of partnership we are striving to create at the Commission. Water loss reporting and auditing should be seen as an informative tool for utilities and ratepayers, not a source of liability for regulatory backlash. Committing to a more robust auditing regime “is a revealing undertaking that provides great insight to the auditor on” the type and extent of loss being experienced. Further, “launching a water audit often begins the culture change necessary” to internalize water-efficiency practices. Small and rural utilities will be best served by adhering to a ‘top-down’ approach to water system auditing, as opposed to prematurely calling for a ‘bottom-up’ audit regime. The top-down approach, as envisioned by the M36, is an attractive audit method for smaller utilities, representing “a relatively quick assembly of available records and data regarding system parameters, supply, consumption, and loss.” Conversely, the bottom-up approach calls for the slow and deliberate extraction of data from both the office and the field. Staff, in reviewing the applicability of the M36 to Arizona, is encouraged to pay special attention to the top-down audit as described in the manual. Reforming water loss reports would benefit from a review of the top-down audit, described as “largely a desktop exercise, with minimal field testing or investigation required.” For example, Table 3-24 of the M36 provides a number of performance indicators that can ensure a more robust, yet measured audit. However, as industry has cautioned, some performance indicators may not be fully validated for small systems. Staff is encouraged to consider system size, water pressure or other salient factors in reviewing appropriate performance indicators to include in any data collection and validation efforts.

The current water loss calculation used by the Commission is simply the unbilled authorized consumption added to total revenue water, then divided by net production. Water utilities report this information, by month, in their Annual Reports. The Commission actively evaluates this information in three instances: 1) during activity involving review of Certificates of Public Convenience and Necessity (CC&N) (either at the initial grant of a CC&N or an extension of an existing certificate); 2) rate case proceedings, or 3) in review of financial proceedings, such as applicability of System Improvement Funds. When the Commission actively reviews water loss data of a utility, and the loss

10 Id.
11 Id at 36.
12 Id.
13 The full section titled “Compiling the Top-Down Water Audit Data” is found on pages 38-110 of the M36 Manual. These step-by-step instructions include important pre-audit parameters, notes the free audit software made available by the AWWA for companies to utilize, and enumerates the procedural tasks to completing the top-down audit in full.
15 Id at 105.
16 An admittedly short yet informative chapter at the end of the M36 is dedicated to “Considerations for Small Systems”. Important to note, sound water loss control practices are equally appropriate for all utilities. What varies is only the means of implementation between large and small systems. For example, the Environmental Protection Agency (EPA) has developed a three-tier system for implementation time frames. The size of the utility determines which tier that utility falls under, and thus how long that company has to prepare to comply with any new regulation. Table 9-1 of the M36 outlines differences between large and small systems. Some of these characteristics include geography, water resource utilized, infrastructure, and financial or managerial capacity. We expect Staff to balance the differing characteristics among companies with the universal need for improving water loss control practices.
figure is in excess of 15%, the utility is required to do a cost-benefit analysis to see if some form of remedial action is appropriate. While this current calculation methodology can provide some value, as generally high water loss percentages translate to lost revenue and increased expenses, Staff is encouraged to review the M36 for other performance indicators into water loss reporting. Unaccounted-for water loss percentage measurements, although a convenient yardstick, can often be misleading. As Commission Staff noted during the June 15 workshop, Commission and Department of Water Resources (ADWR) water loss reports as a percentage are inconsistent utility-to-utility, even though those utilities are reporting the same information to each agency. We find it appropriate to direct Staff to work proactively with the Arizona Department of Environmental Quality (ADEQ) and ADWR to promulgate consistent water loss methodology and reporting timelines across all agencies.

In sum, the time has come for the Commission to reform its data collection and validation practices and reporting requirements to be reflective of best practices as prescribed by the M36. While WIFA, with the Commission’s support, conducts its pilot program, it is also appropriate for Commission Staff to conduct their own review of adopting appropriate M36 methodology. Commission efforts should be informed by performance indicators that prove relevant and reliable for all water systems. They should be reflective of the audit capabilities of the reporting water system, but also challenge smaller systems to reasonably improve their methodologies over time. From this reform, appropriate water and revenue loss reduction targets coupled with fair and effective process-based regulation will follow.

Collaboration and Institutionalization

A critical element in developing effective and lasting water loss policy is collaboration between the controlling regulatory bodies. As stated in the previous section, any review and reform of data collection, validation and reporting methodologies should be implemented in tandem with ADEQ and ADWR. Currently, utilities must report water loss separately to the Commission and ADWR. These reports can sometimes yield different results. The following recommendations will enhance ongoing efforts.

1) Establish the Water Reform Working Group

We direct Staff to formalize collaborative efforts by forming the Water Reform Working Group (WRWG). The WRWG should, at the very least, consist of members from Staff, ADEQ, and ADWR. We encourage Staff to explore other entities whose participation would be beneficial. These may include members of the public with expertise on water matters or other ancillary regulatory entities with valuable input. The purpose of the WRWG is to proceed with recommendations for reforming and unifying data collection and validation among relevant governmental entities.

The WRWG will formalize and institutionalize water reform efforts. We appreciate and respect Staff’s efforts towards greater collaboration in these areas, and we also recognize that progress should not ebb and flow with personnel changes on both the Commissioner and Staff levels. This

20 Id.
WRWG represents the institutionalization and long-term commitment of the Commission to addressing water loss.

2) Partner with ADEQ and ADWR to streamline and conform data collection efforts

There should be a centralized portal for the State to collect not only water loss data, but all relevant water and waste-water utility data currently handled by several agencies. While the concept may be simple, the work to accomplish this goal requires Herculean resolve now and over the coming years. The WRWG and initial steps toward data consolidation will move this long-term aspiration forward.

The current discrepancies in data collection and water loss reporting between the Commission and ADWR, the two water loss reporting agencies, has led to inefficiencies and confusion between the agencies and utilities. Staff noted that water loss reporting from the same utility can vary greatly between the Commission and ADWR. In an example, Staff pointed out that one utility reported 53.43% water loss to the Commission, while only 6.3% to ADWR. This sizable difference makes the consistent development or enforcement of compliance items near impossible. Uniform water loss reporting is a necessary step towards developing meaningful and fair loss compliance standards.

A first step is to synchronize reporting dates. Currently, Commission-regulated utilities are required to report water loss data to the Commission in their annual report by April 15th and, when located within an Active Management Area (AMA), to ADWR on June 1st. This reporting reform should reduce redundancy and inconsistency in water loss reporting. We are aware of discussions between Staff and ADWR underway related to data sharing and coordination. These efforts should continue and be institutionalized through the WRWG and ultimately directed toward the ultimate goal of centralized reporting for all things water.

3) Partnership with RWIC and the small water industry on technical and financial assistance initiatives

The Rural Water Infrastructure Committee (RWIC) is a federal-state partnership that seeks to connect rural water providers with financial support from a variety of funding sources. We support Staff’s continued participation in RWIC and encourage Staff to explore further opportunities for partnership and active engagement and report back on what gains further collaboration with the RWIC can yield.

Culture of Conservation

Reducing water loss in Arizona should be approached as a partnership between regulatory agencies and the regulated utilities. Water loss is a problem for Arizonans to tackle together, not an area where we should seek to ascribe liability and insulate responsibility. Open dialogue, fair practice, and full representation of equities must be the hallmark of this Commission as it moves forward in mitigating water loss and promoting conservation.

22 Rural Water Infrastructure Committee Website, http://www.rwic.net/
As previously mentioned, appropriate audit methodology often “begins the culture change necessary to focus utility employees on water-efficient practices.” Further, institutionalizing collaborative efforts at the interagency level can embed channels of dialogue. There is certainly, however, adequate room for public-private engagement.

Staff should explore outreach efforts, especially those geared towards smaller and rural water systems. For example, the Commission can regularly host on its own or with other agencies a rural workshop series addressing various issues as they relate to water loss. Workshop curriculum that includes leak management with training on detecting, locating, and repairing leaks and breaks may prove beneficial. In 2014, researchers from the Water Research Foundation (WRF) conducted a project that analyzed pipe location and leak management for small systems. They concluded that the “financial resources to maintain each mile of main are potentially more of a burden on the smallest systems.” We have seen this situation play out numerous times in considering rate or financing applications. We respect the special burdens faced by smaller systems and seek to partner with these systems to find solutions, understanding both the costs and opportunities.

The WRF project relied heavily on workshops to facilitate information sharing and training for small systems. Researchers invited vendors or utilities to workshops to demonstrate water loss technology and render technical training as necessary. These third parties even performed field testing of specific equipment. Staff should identify and recruit third-party vendors and experts from other agencies or utilities to demonstrate proper audit compliance and advanced leak management techniques at these aforementioned workshops.

As Staff moves forward with its data collection, validation and auditing methodology changes, staffing and training seminars for water companies, especially for the smaller systems, will be important. Perhaps equally important is coupling information about new auditing requirements with financial assistance opportunities to meet these new goals. Staff should be familiar with financial assistance programs and communicate them regularly.

Continued Research

This policy statement is intended to be extensive, not exhaustive. Tackling water loss requires a constant challenge to convention and openness to innovation. There are a number of areas where the conversation on water loss can be expanded. Staff is directed to explore further the concepts presented below and report back to the Commission on their applicability to Arizona.

1) Address the Water-Energy Nexus

The Water-Energy Nexus is the term that describes the mutual dependency of these resources—the production of energy requires large volumes of water and water infrastructure requires large amounts of energy. Usually, utility commissions focus on efficiencies with electricity generation to address this issue, yet water utilities have a role to play, too. When more water is pumped to service

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25 Id.
26 Id at 13.
customers, due to leakage or line breaks, more electricity must be used, which requires even more water in generating electricity to meet that demand. Thus, the Water-Energy cycle continues. Simply put, improving water infrastructure and reducing water loss is a matter of water and energy efficiency.

In 2011, the California Public Utilities Commission (CPUC) approved Embedded Energy in Water Pilot Programs. The CPUC “required [electric] utilities to partner with water providers to implement jointly funded programs designed to conserve water, use less energy-intensive water or make delivery and treatment systems more efficient,” reducing water used by providers and treatment agencies. As noted in the Final Report, “considerable energy is required to obtain, treat and distribute water supplies to end-use customers.”

Staff should explore where, if any, have joint programs like the one described above been implemented or explored in Arizona, and whether there is opportunity to create a new energy efficiency measure focused on leak detection and mitigation with an emphasis on measuring energy savings as part of an electric utility’s Demand Side Management (DSM) plan.

2) Survey other state approaches to water loss methodology

According to a March 2017 report prepared by Cavanaugh, only two states (California and Georgia) currently implement AWWA M36 audit methodologies with Level 1 software validation. The report also notes three states currently utilize full-scale Water Loss Training and Technical Assistance Programs. Efforts to reform and improve data collection, validation, audit methodology, and technical assistance and training should be informed by the works of other states that have already made strides in these areas. Staff should conduct outreach to other regulatory agencies to survey state methodologies.

3) Explore more financing opportunities

Mitigating water loss will not be free. One consistent concern raised by industry during the June workshop was the financial burden any water loss reform would pose to utilities, and for good reason. Industry concerns are echoed in the M36, which emphasizes that “regulatory agencies should clearly communicate the availability of, and requirements to receive, financial support for water auditing or loss control functions or projects undertaken by water utilities.”

To this end, the Small Water Ombudsman Office must be fully aware of all financing options, along with the pros and cons of each option. The Ombudsman Office should consider Staff training in identifying financial support and providing assistance to utilities seeking aid. Staff should also consider adding a page to the Commission website that lists and describes all sources of utility financing. This may include links and contact information to each source. As previously discussed, workshops and seminars on grant opportunities and financing can also be helpful in improving saliency of available resources.

28 Id at abstract.
29 Id at t.
30 Tory Wagoner, State of the States – A Comparison of Approaches to Statewide Water Loss Programs, Cavanaugh, slide 2 (2017).
31 Id at slide 3.
For example, during the June workshop the Bureau of Reclamation (BOR) presented a number of grant programs that would be applicable to small utilities in Arizona. The Small-Scale Water Efficiency Projects Funding “WaterSMART Grant” supports small-scale water management projects that have been identified through previous planning efforts. Staff should engage with the BOR and become familiar with the Request for Proposal (RFP), Request for Application (RFA), and Funding Opportunity Announcement (FOA) processes to act as a resource for small utilities pursuing these grants.

We have raised the importance of utilities having access to System Improvement Funds (SIFs) in rate cases for class D and E utilities. As stated in Decision No. 75626, many “small utilities find themselves in a situation where their actual revenue has been insufficient to cover needed improvement.” In light of reform to audit methodologies and performance indicators, these SIF mechanisms will be more important than ever. As discussed in Decision No. 75626, requests for these surcharges should be considered on a case-by-case basis, and consumer safeguards must be in place.

Policy Statement No. 2 Promoting a Collaborative Commission Approach to Mitigating and Measuring Water Loss

Methodology

1. The Commission recognizes the importance of developing best practices for data collection, validation and water loss audit methodology.
2. The Commission appreciates the need for agencies and utilities to act as partners in addressing water loss.
3. The Commission recognizes the limited value of the Commission’s current water loss calculation methodology, and ultimately believes a calculation methodology that incorporates pertinent components of the M36 methodology as discussed herein to be in the public interest.
4. The Commission is aware of the challenges faced by small water systems and sees the need to reform data collection, validation and audit methodologies to reflect these challenges.

Invest in the WIFA Pilot Project to ensure Commission and small water equities are represented

1. The Commission recognizes the efforts of WIFA and Cavanaugh in implementing AWWA standards through their Pilot Program.
2. The Commission believes that cooperation and inter-agency support are critical tools in ensuring efficient and scalable projects.
3. The Commission directs Staff to expand and formalize a cooperative relationship with WIFA on their Pilot Program and lend expertise and knowledge, as appropriate.

35 Id.
36 Id.
Review and recommend appropriate action related to the adoption of part or all of the AWWA M36 Audits and Loss Control Program for Commission-regulated utilities

1. The Commission recognizes the AWWA M36 Manual as the national standard for water audits and loss control programs.

2. The Commission recognizes the importance of adopting, to the extent practicable, the best audit and reporting methods prescribed in the M36 Manual.

3. The Commission directs Staff to formally review the M36 Manual, in cooperation with ADWR and WIFA, to determine appropriate performance indicators to measure and data collection and validation methodologies to adopt.

Collaboration and Institutionalization

1. The Commission believes a critical element in developing effective and lasting water loss policy is collaboration among the controlling regulatory bodies.

2. The Commission affirms any review and reform of data collection, validation and reporting methodologies should be implemented in tandem with ADEQ and ADWR.

Establish the Water Reform Working Group.

1. The Commission reaffirms the importance of institutionalizing collaborative efforts between the various regulatory agencies.

2. The Commission is concerned by inconsistent data collection that currently exist between the Commission and ADWR, including different reporting dates and the discrepancies in reported water loss percentages.

3. The Commission affirms its vision of centralized and publicly accessible portal of water and wastewater utility data, supported and administered by the several agencies in tandem. However, the Commission is aware of the work that must begin today to make this goal attainable in the future.

4. The Commission directs Staff to establish the Water Reform Working Group (WRWG) to institutionalize Commission efforts at conforming data collection and reporting processes. Staff shall conduct outreach to solicit membership, at the very least, from appropriate staff from ADEQ and ADWR. Staff shall report back to the Commission on the establishment, roster, and meeting schedule within 60 days from the effective date of this Order.

Partner with ADEQ and ADWR to streamline and conform data collection efforts.

1. The Commission is aware that inconsistencies exist in reporting requirements and timing to the Commission and ADWR on water loss data.

2. The Commission believes a uniform data collection methodology is in the best interests of the regulatory agencies, utilities, and the public.

3. The Commission directs Staff to partner with ADEQ and ADWR and explore options for streamlining and conforming data collection practices. Staff, in partnership with ADWR, should examine performance indicators found in the M36 Manual to determine the best data collection
practice for the agencies. Staff shall report to the Commission as soon as practical after the completion of the WIFA pilot program on the M-36 Manual on the process of the review and efforts to conform data collection.

Partner with RWIC and the small water industry on technical and financial assistance initiatives.

1. The Commission recognizes the work of RWIC to provide financial and technical aid to small and rural water systems throughout the state.

2. The Commission believes further Commission engagement with RWIC will lead to greater information sharing among state agencies and increased access to financial and technical resources for utilities.

3. The Commission directs Staff to expand upon its current cooperative relationship with RWIC to further RWIC’s stated goal of providing loans, grants, and technical assistance to Arizona’s rural communities.

**Culture of Conservation**

1. The Commission believes reducing water loss should be done in partnership with other state agencies and regulated utilities. Water loss is a problem for Arizonans to tackle together, not an area where we should seek to ascribe liability and insulate responsibility.

2. The Commission believes greater outreach efforts to small and rural water communities is a critical element in promoting this culture of conservation.

3. The Commission directs Staff to explore the feasibility of hosting rural workshops, on its own or in conjunction with other agencies, to address various issues as they relate to water loss. This exploration may include, at the very least: workshops to demonstrate proper audit compliance and advanced leak management techniques and training seminars for smaller water companies on data collection, validation and auditing methodology reforms.

**Continued Research**

1. The Commission recognizes the difficulty in capturing the problem of water loss in one policy statement. More work is needed in a number of areas where further research may yield meaningful results.

**Address the Water-Energy Nexus.**

1. The Commission is aware of efforts in other states to implement jointly funded programs designed to conserve water, use less energy-intensive water or make delivery and treatment systems more efficient.

2. The Commission believes mitigation and energy efficiency programs that address water loss warrant additional review.

3. The Commission directs Staff to explore efforts undertaken in other states, such as California, in embedded energy programs and their applicability to Arizona. This should involve outreach to other state agencies and to state electric and water/waste-water utilities concerning whether any previous
joint programs like the one described in CPUC's Embedded Energy in Water Pilot Programs have been implemented or considered in Arizona.

Survey other state approaches to water loss methodology.

1. The Commission recognizes efforts made in other states on addressing water loss. The Commission notes the work of other states, especially California, New Mexico, and Georgia, where full-scale Water Loss Training and Technical Assistance Programs are in effect.

2. The Commission directs Commission Staff to engage regulatory agencies from other states, especially those previously mentioned, to survey those states' experiences with implementing water loss controls and how they may apply to Arizona.

Explore more financing opportunities.

1. The Commission is aware mitigating water loss may, in some cases, pose a financial burden to utilities.

2. The Commission acknowledges the importance of communicating the availability of, and requirements to receive, financial support for water auditing loss control functions or projects undertaken by water utilities.

3. The Commission directs the Small Water Ombudsman Office to ensure it is well versed in all financing options along with the pros and cons of each option. The Ombudsman Office shall prepare a report for the Commission on financing options available to utilities, to be shared with the public through the Commission website. This report shall consist of, at the very least, financing institutions, their requirements for receiving aid, and contact information for these institutions.

4. Staff is directed to add, maintain, and regularly update a page on the Commission website that lists sources of financing for utilities. The report prepared by the Ombudsman Office should inform this page.

5. The Commission directs Staff to review the applicability of System Improvement Funds as described in Decision No. 75626 in light of reforms to audit methodologies and reporting requirements.
BEFORE THE ARIZONA CORPORATION COMMISSION

TOM FORESE
Chairman

BOB BURNS
Commissioner

DOUG LITTLE
Commissioner

ANDY TOBIN
Commissioner

BOYD DUNN
Commissioner

IN THE MATTER OF THE COMMISSION'S
INVESTIGATION INTO IMPROVING
THE COMMISSION'S WATER LOSS
POLICY FOR THE BETTERMENT OF
WATER CONSERVATION

DOCKET NO. W-00000A-17-0152
DECISION NO. ______
ORDER

Open Meeting
September 12, 2017 10:00 am
Phoenix, Arizona

BY THE COMMISSION:

The Commission having given due consideration to these matters and balancing these matters
in the public interest, finds and concludes that it is in the public interest to adopt and approve the
Statement of Commission Policy in Attachment No. 1 to this order. Attachment No. 1 is the
Commission's Policy Statement on the matter of the Commission's Investigation into Improving the

We direct Staff to publish notice of this Commission Statement of Policy as appropriate.
ORDER

IT IS THEREFORE ORDERED that the Statement of Policy in Attachment No. 1 to this order, is hereby adopted and approved by the Commission.

IT IS FURTHER ORDERED THAT Commission Staff shall publish notice of this Commission Statement of Policy as appropriate.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN FORESE COMMISSIONER DUNN

COMMISSIONER TOBIN COMMISSIONER LITTLE COMMISSIONER BURNS

IN WITNESS WHEREOF, I, TED VOGT, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this ______ day of ______________________, 2017.

TED VOGT
EXECUTIVE DIRECTOR

DISSENT: ______________________

DISSENT: ______________________

EOA: BAB: vs/RWG
Collaborative Commission Approach to Mitigating Water Loss

Policy Statement No. 2 addresses the need for an updated and more collaborative approach to water loss methodology by the Commission. The state of our State did not happen by accident. To transform a desolate desert into a bustling center of commerce and industry required deliberate and methodical planning by Arizona’s forebears, especially when it came to water. This responsible planning and management must continue today to secure Arizona’s water future for tomorrow. In October 2016, Commissioner Tobin wrote a letter to the Commission calling for an investigation into the matter of water loss.1 He warned the “cost of keeping the status quo carries a price tag that stretches far beyond the imaginable.”2

In challenging the status quo, we must be critical and deliberate in our approach to the questions: What is water loss? How should we measure it? How should we report it? Is different treatment of water systems based on size or other variables appropriate? If so, when?

Water loss is a universal problem that affects us all. As such, addressing water loss is not merely a problem of utilities to be regulated, but instead an opportunity for partnership. While the issue of water loss is vast, its mere enormity shouldn’t stand in our way of pursuing a manageable framework to systematically address it. These include reforms to calculation methodology and data collection; expanded collaborative efforts between agencies and regulated entities and institutionalizing these gains; promoting conservation and water loss mitigation as cultural aspirations, not just out of regulatory necessity; being wary not to fall into convention, but instead ensuring the continued pursuit of innovation. By exploring these policy areas, we establish a new direction for water loss in Arizona, one that is lasting and open to constant innovation.

This policy statement lays out concrete steps that we can take today to yield meaningful results. The benefits of refining and improving our approach to water loss mitigation include: financial gains for both the ratepayer and company by optimizing revenue recovery and promoting equity among ratepayers; operational stability by minimizing water line breaks and unplanned outages; better management of scarce water resources; the creation of more robust and comparable performance data; and improved system integrity, by reductions of potential source contaminations. These benefits are real and attainable with collaborative efforts and a deliberate approach, from both public and private stakeholders.

The remainder of this document is organized into four sections. The first section addresses updating audit methodology and data collection, ensuring reliable metrics that will lead to fair and effective water loss reduction measures. The second section addresses collaboration between regulatory bodies to memorialize water reform efforts. The third section addresses the culture of conservation the Commission seeks to promote, where regulatory agencies and regulated utilities approach water loss as partners. The final section acknowledges the difficulty in capturing the problem of water loss in one policy statement, and addresses areas where continued research may yield meaningful results. This narrative will be followed by more succinct and formal statements.

2 Id at 4.
Methodology

Establishing the best practice in audit methodology, data collection, and validation is the obvious first step in approaching water loss. Otherwise, the Commission will not have reliable metrics, and utilities will not have the reasonable capabilities to effectively meet these standards. That is why the Commission must seriously consider adopting some or all of the water loss methodologies contained within the most recent version of the Manual of Water Supply Practices, M36, released by the American Water Works Association (AWWA). Any meaningful efforts at mitigating water loss must take full advantage of the M36 as a critical resource. Already, efforts by other state agencies are underway to explore and apply the methodologies outlined in the M36. The Water Infrastructure Finance Authority of Arizona (WIFA) has initiated a pilot project to further explore the applicability of the M36 to Arizona. We must move forward on improving our water loss methodology in two ways:

1) Invest in the WIFA Pilot Project to ensure Commission and small water equities are represented

WIFA, in partnership with Cavanaugh, has committed to a pilot program where six Arizona water utilities, two of which are regulated by the Commission, will employ and evaluate M36 water loss methodologies. We strongly support these efforts and direct Staff to provide assistance as appropriate. We envision greater Staff input and participation with both WIFA and the rural water community at large. Specifically, Staff should engage and formalize a relationship with WIFA as it relates to their pilot program.

2) Review and recommend appropriate action related to the adoption of part or all of the AWWA M36 Audits and Loss Control Program for Commission-regulated utilities

While efforts are underway at WIFA to apply M36 audit methodology through their pilot, it is appropriate for Staff to review and become familiar with the M36—its strengths, as well as its limits, as it relates to implementation within Arizona. The M36 states “accountable and efficient management of water supplies by utilities is the central focus of the water audit methodology and water loss control programs described in this manual.” It is also important to be aware of the responsibilities of the Commission when observing “[a]ppropriate caution in target-setting for loss control interventions.” To this end, any reform the Commission adopts regarding data collection, validation and reporting methodology must be reflective of the current capabilities and resources of regulated utilities. The M36 warns against establishing immediate benchmarks for loss reduction where only a limited pool of well-validated data exists. Instead, the M36 recommends a “focus primarily within the practice of water auditing for water utilities and thus promote the collection of reliable, comparable utility data.” This may be the best first step for smaller water companies that may simply lack the technical sophistication and necessary technology to make immediate loss reduction compliance standards practicable.

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4 Id.  
6 Id at 14.  
7 Id.  
8 Id at 37.
This measured approach reflects the spirit of partnership we are striving to create at the Commission. Water loss reporting and auditing should be seen as an informative tool for utilities and ratepayers, not a source of liability for regulatory backlash. Committing to a more robust auditing regime “is a revealing undertaking that provides great insight to the auditor on” the type and extent of loss being experienced. Further, “launching a water audit often begins the culture change necessary” to internalize water-efficiency practices. Small and rural utilities will be best served by adhering to a ‘top-down’ approach to water system auditing, as opposed to prematurely calling for a ‘bottom-up’ audit regime. The top-down approach, as envisioned by the M36, is an attractive audit method for smaller utilities, representing “a relatively quick assembly of available records and data regarding system parameters, supply, consumption, and loss”. Conversely, the bottom-up approach calls for the slow and deliberate extraction of data from both the office and the field. Staff, in reviewing the applicability of the M36 to Arizona, is encouraged to pay special attention to the top-down audit as described in the manual. Refining water loss reports would benefit from a review of the top-down audit, described as “largely a desktop exercise, with minimal field testing or investigation required”. For example, Table 3-24 of the M36 provides a number of performance indicators that can ensure a more robust, yet measured audit. However, as industry has cautioned, some performance indicators may not be fully validated for small systems. Staff is encouraged to consider system size, water pressure or other salient factors in reviewing appropriate performance indicators to include in any data collection and validation efforts.

The current water loss calculation used by the Commission is simply the unbilled authorized consumption added to total revenue water, then divided by net production. Water utilities report this information, by month, in their Annual Reports. The Commission actively evaluates this information in three instances: 1) during activity involving review of Certificates of Public Convenience and Necessity (CC&N) (either at the initial grant of a CC&N or an extension of an existing certificate); 2) rate case proceedings; or 3) in review of financial proceedings, such as applicability of System Improvement Funds. When the Commission actively reviews water loss data of a utility, and the loss

10 Id.
11 Id at 36.
12 Id.
13 The full section titled “Compiling the Top-Down Water Audit Data” is found on pages 38-110 of the M36 Manual. These step-by-step instructions include important pre-audit parameters, notes the free audit software made available by the AWWA for companies to utilize, and numerates the procedural tasks to completing the top-down audit in full.
15 Id at 105.
16 An admittedly short yet informative chapter at the end of the M36 is dedicated to “Considerations for Small Systems”. Important to note, sound water loss control practices are equally appropriate for all utilities. What varies is only the means of implementation between large and small systems. For example, the Environmental Protection Agency (EPA) has developed a three-tier system for implementation time frames. The size of the utility determines which tier that utility falls under, and thus how long that company has to prepare to comply with any new regulation. Table 9-1 of the M36 outlines differences between large and small systems. Some of these characteristics include geography, water resource utilized, infrastructure, and financial or managerial capacity. We expect Staff to balance the differing characteristics among companies with the universal need for improving water loss control practices.
figure is in excess of 15%, the utility is required to do a cost-benefit analysis to see if some form of remedial action is appropriate. While this current calculation methodology can provide some value, as generally high water loss percentages translate to lost revenue and increased expenses, Staff is encouraged to review the M36 for other performance indicators into water loss reporting. Unaccounted-for water loss percentage measurements, although a convenient yardstick, can often be misleading. As Commission Staff noted during the June 15 workshop, Commission and Department of Water Resources (ADWR) water loss reports as a percentage are inconsistent utility-to-utility, even though those utilities are reporting the same information to each agency. We find it appropriate to direct Staff to work proactively with the Arizona Department of Environmental Quality (ADEQ) and ADWR to promulgate consistent water loss methodology and reporting timelines across all agencies.

In sum, the time has come for the Commission to reform its data collection and validation practices and reporting requirements to be reflective of best practices as prescribed by the M36. While WIFA, with the Commission’s support, conducts its pilot program, it is also appropriate for Commission Staff to conduct their own review of adopting appropriate M36 methodology. Commission efforts should be informed by performance indicators that prove relevant and reliable for all water systems. They should be reflective of the audit capabilities of the reporting water system, but also challenge smaller systems to reasonably improve their methodologies over time. From this reform, appropriate water and revenue loss reduction targets coupled with fair and effective process-based regulation will follow.

Collaboration and Institutionalization

A critical element in developing effective and lasting water loss policy is collaboration between the controlling regulatory bodies. As stated in the previous section, any review and reform of data collection, validation and reporting methodologies should be implemented in tandem with ADEQ and ADWR. Currently, utilities must report water loss separately to the Commission and ADWR. These reports can sometimes yield different results. The following recommendations will enhance ongoing efforts.

1) Establish the Water Reform Working Group

We direct Staff to formalize collaborative efforts by forming the Water Reform Working Group (WRWG). The WRWG should, at the very least, consist of members from Staff, ADEQ, and ADWR. We encourage Staff to explore other entities whose participation would be beneficial. These may include members of the public with expertise on water matters or other ancillary regulatory entities with valuable input. The purpose of the WRWG is to proceed with recommendations for reforming and unifying data collection and validation among relevant governmental entities.

The WRWG will formalize and institutionalize water reform efforts. We appreciate and respect Staff’s efforts towards greater collaboration in these areas, and we also recognize that progress should not ebb and flow with personnel changes on both the Commissioner and Staff levels. This

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20 Id.
WRWG represents the institutionalization and long-term commitment of the Commission to addressing water loss.

2) Partner with ADEQ and ADWR to streamline and conform data collection efforts

There should be a centralized portal for the State to collect not only water loss data, but all relevant water and waste-water utility data currently handled by several agencies. While the concept may be simple, the work to accomplish this goal requires Herculean resolve now and over the coming years. The WRWG and initial steps toward data consolidation will move this long-term aspiration forward.

The current discrepancies in data collection and water loss reporting between the Commission and ADWR, the two water loss reporting agencies, has led to inefficiencies and confusion between the agencies and utilities. Staff noted that water loss reporting from the same utility can vary greatly between the Commission and ADWR. In an example, Staff pointed out that one utility reported 53.43% water loss to the Commission, while only 6.3% to ADWR. This sizable difference makes the consistent development or enforcement of compliance items near impossible. Uniform water loss reporting is a necessary step towards developing meaningful and fair loss compliance standards.

A first step is to synchronize reporting dates. Currently, Commission-regulated utilities are required to report water loss data to the Commission in their annual report by April 15th and, when located within an Active Management Area (AMA), to ADWR on June 1st. This reporting reform should reduce redundancy and inconsistency in water loss reporting. We are aware of discussions between Staff and ADWR underway related to data sharing and coordination. These efforts should continue and be institutionalized through the WRWG and ultimately directed toward the ultimate goal of centralized reporting for all things water.

3) Partnership with RWIC and the small water industry on technical and financial assistance initiatives

The Rural Water Infrastructure Committee (RWIC) is a federal-state partnership that seeks to connect rural water providers with financial support from a variety of funding sources. We support Staff’s continued participation in RWIC and encourage Staff to explore further opportunities for partnership and active engagement and report back on what gains further collaboration with the RWIC can yield.

Culture of Conservation

Reducing water loss in Arizona should be approached as a partnership between regulatory agencies and the regulated utilities. Water loss is a problem for Arizonans to tackle together, not an area where we should seek to ascribe liability and insulate responsibility. Open dialogue, fair practice, and full representation of equities must be the hallmark of this Commission as it moves forward in mitigating water loss and promoting conservation.

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22 Rural Water Infrastructure Committee Website, http://www.rwic.net/.
As previously mentioned, appropriate audit methodology often “begins the culture change necessary to focus utility employees on water-efficient practices.” Further, institutionalizing collaborative efforts at the interagency level can embed channels of dialogue. There is certainly, however, adequate room for public-private engagement.

Staff should explore outreach efforts, especially those geared towards smaller and rural water systems. For example, the Commission can regularly host on its own or with other agencies a rural workshop series addressing various issues as they relate to water loss. Workshop curriculum that includes leak management with training on detecting, locating, and repairing leaks and breaks may prove beneficial. In 2014, researchers from the Water Research Foundation (WRF) conducted a project that analyzed pipe location and leak management for small systems. They concluded that the “financial resources to maintain each mile of main are potentially more of a burden on the smallest systems.” We have seen this situation play out numerous times in considering rate or financing applications. We respect the special burdens faced by smaller systems and seek to partner with these systems to find solutions, understanding both the costs and opportunities.

The WRF project relied heavily on workshops to facilitate information sharing and training for small systems. Researchers invited vendors or utilities to workshops to demonstrate water loss technology and render technical training as necessary. These third parties even performed field testing of specific equipment. Staff should identify and recruit third-party vendors and experts from other agencies or utilities to demonstrate proper audit compliance and advanced leak management techniques at these aforementioned workshops.

As Staff moves forward with its data collection, validation and auditing methodology changes, staffing and training seminars for water companies, especially for the smaller systems, will be important. Perhaps equally important is coupling information about new auditing requirements with financial assistance opportunities to meet these new goals. Staff should be familiar with financial assistance programs and communicate them regularly.

**Continued Research**

This policy statement is intended to be extensive, not exhaustive. Tackling water loss requires a constant challenge to convention and openness to innovation. There are a number of areas where the conversation on water loss can be expanded. Staff is directed to explore further the concepts presented below and report back to the Commission on their applicability to Arizona.

1) **Address the Water-Energy Nexus**

The Water-Energy Nexus is the term that describes the mutual dependency of these resources—the production of energy requires large volumes of water and water infrastructure requires large amounts of energy. Usually, utility commissions focus on efficiencies with electricity generation to address this issue, yet water utilities have a role to play, too. When more water is pumped to service

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25 *Id.

26 *Id at 13.*
customers, due to leakage or line breaks, more electricity must be used, which requires even more
water in generating electricity to meet that demand. Thus, the Water-Energy cycle continues. Simply
put, improving water infrastructure and reducing water loss is a matter of water and energy efficiency.

In 2011, the California Public Utilities Commission (CPUC) approved Embedded Energy in
Water Pilot Programs.27 The CPUC “required [electric] utilities to partner with water providers to
implement jointly funded programs designed to conserve water, use less energy-intensive water or
make delivery and treatment systems more efficient,” reducing water used by providers and treatment
agencies.28 As noted in the Final Report, “considerable energy is required to obtain, treat and distribute
water supplies to end-use customers.”29

Staff should explore where, if any, have joint programs like the one described above been
implemented or explored in Arizona, and whether there is opportunity to create a new energy
efficiency measure focused on leak detection and mitigation with an emphasis on measuring energy
savings as part of an electric utility’s Demand Side Management (DSM) plan.

2) Survey other state approaches to water loss methodology

According to a March 2017 report prepared by Cavanaugh, only two states (California and
Georgia) currently implement AWWA M36 audit methodologies with Level 1 software validation.30
The report also notes three states currently utilize full-scale Water Loss Training and Technical
Assistance Programs.31 Efforts to reform and improve data collection, validation, audit methodology,
and technical assistance and training should be informed by the works of other states that have already
made strides in these areas. Staff should conduct outreach to other regulatory agencies to survey state
methodologies.

3) Explore more financing opportunities

Mitigating water loss will not be free. One consistent concern raised by industry during the
June workshop was the financial burden any water loss reform would pose to utilities, and for good
reason. Industry concerns are echoed in the M36, which emphasizes that “regulatory agencies should
clearly communicate the availability of, and requirements to receive, financial support for water
auditing or loss control functions or projects undertaken by water utilities.”32

To this end, the Small Water Ombudsman Office must be fully aware of all financing options,
along with the pros and cons of each option. The Ombudsman Office should consider Staff training
in identifying financial support and providing assistance to utilities seeking aid. Staff should also
consider adding a page to the Commission website that lists and describes all sources of utility
financing. This may include links and contact information to each source. As previously discussed,
workshops and seminars on grant opportunities and financing can also be helpful in improving
saliency of available resources.

28 Id at abstract.
29 Id at i.
30 Tory Wagoner, State of the States – A Comparison of Approaches to Statewide Water Loss Programs, Cavanaugh, slide 2 (2017).
31 Id at slide 3.
For example, during the June workshop the Bureau of Reclamation (BOR) presented a number of grant programs that would be applicable to small utilities in Arizona. The Small-Scale Water Efficiency Projects Funding “WaterSMART Grant” supports small-scale water management projects that have been identified through previous planning efforts. Staff should engage with the BOR and become familiar with the Request for Proposal (RFP), Request for Application (RFA), and Funding Opportunity Announcement (FOA) processes to act as a resource for small utilities pursuing these grants.

We have raised the importance of utilities having access to System Improvement Funds (SIFs) in rate cases for class D and E utilities. As stated in Decision No. 75626, many “small utilities find themselves in a situation where their actual revenue has been insufficient to cover needed improvement.” In light of reform to audit methodologies and performance indicators, these SIF mechanisms will be more important than ever. As discussed in Decision No. 75626, requests for these surcharges should be considered on a case-by-case basis, and consumer safeguards must be in place.

Policy Statement No. 2 Promoting a Collaborative Commission Approach to Mitigating and Measuring Water Loss

Methodology

1. The Commission recognizes the importance of developing best practices for data collection, validation and water loss audit methodology.

2. The Commission appreciates the need for agencies and utilities to act as partners in addressing water loss.

3. The Commission recognizes the limited value of the Commission’s current water loss calculation methodology, and ultimately believes a calculation methodology that incorporates pertinent components of the M36 methodology as discussed herein to be in the public interest.

4. The Commission is aware of the challenges faced by small water systems and sees the need to reform data collection, validation and audit methodologies to reflect these challenges.

Invest in the WIFA Pilot Project to ensure Commission and small water equities are represented

1. The Commission recognizes the efforts of WIFA and Cavanaugh in implementing AWWA standards through their Pilot Program.

2. The Commission believes that cooperation and inter-agency support are critical tools in ensuring efficient and scalable projects.

3. The Commission directs Staff to expand and formalize a cooperative relationship with WIFA on their Pilot Program and lend expertise and knowledge, as appropriate.

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35 Id.
36 Id.
Review and recommend appropriate action related to the adoption of part or all of the AWWA M36 Audits and Loss Control Program for Commission-regulated utilities.

1. The Commission recognizes the AWWA M36 Manual as the national standard for water audits and loss control programs.

2. The Commission recognizes the importance of adopting, to the extent practicable, the best audit and reporting methods prescribed in the M36 Manual.

3. The Commission directs Staff to formally review the M36 Manual, in cooperation with ADWR and WIFA, to determine appropriate performance indicators to measure and data collection and validation methodologies to adopt.

**Collaboration and Institutionalization**

1. The Commission believes a critical element in developing effective and lasting water loss policy is collaboration among the controlling regulatory bodies.

2. The Commission affirms any review and reform of data collection, validation and reporting methodologies should be implemented in tandem with ADEQ and ADWR.

**Establish the Water Reform Working Group.**

1. The Commission reaffirms the importance of institutionalizing collaborative efforts between the various regulatory agencies.

2. The Commission is concerned by inconsistent data collection that currently exist between the Commission and ADWR, including different reporting dates and the discrepancies in reported water loss percentages.

3. The Commission affirms its vision of centralized and publicly accessible portal of water and wastewater utility data, supported and administered by the several agencies in tandem. However, the Commission is aware of the work that must begin today to make this goal attainable in the future.

4. The Commission directs Staff to establish the Water Reform Working Group (WRWG) to institutionalize Commission efforts at conforming data collection and reporting processes. Staff shall conduct outreach to solicit membership, at the very least, from appropriate staff from ADEQ and ADWR. Staff shall report back to the Commission on the establishment, roster, and meeting schedule within 60 days from the effective date of this Order.

**Partner with ADEQ and ADWR to streamline and conform data collection efforts.**

1. The Commission is aware that inconsistencies exist in reporting requirements and timing to the Commission and ADWR on water loss data.

2. The Commission believes a uniform data collection methodology is in the best interests of the regulatory agencies, utilities, and the public.

3. The Commission directs Staff to partner with ADEQ and ADWR and explore options for streamlining and conforming data collection practices. Staff, in partnership with ADWR, should examine performance indicators found in the M36 Manual to determine the best data collection...
practice for the agencies. Staff shall report to the Commission as soon as practical after the completion of the WIFA pilot program on the M-36 Manual on the process of the review and efforts to conform data collection.

Partner with RWIC and the small water industry on technical and financial assistance initiatives.

1. The Commission recognizes the work of RWIC to provide financial and technical aid to small and rural water systems throughout the state.

2. The Commission believes further Commission engagement with RWIC will lead to greater information sharing among state agencies and increased access to financial and technical resources for utilities.

3. The Commission directs Staff to expand upon its current cooperative relationship with RWIC to further RWIC’s stated goal of providing loans, grants, and technical assistance to Arizona’s rural communities.

Culture of Conservation

1. The Commission believes reducing water loss should be done in partnership with other state agencies and regulated utilities. Water loss is a problem for Arizonans to tackle together, not an area where we should seek to ascribe liability and insulate responsibility.

2. The Commission believes greater outreach efforts to small and rural water communities is a critical element in promoting this culture of conservation.

3. The Commission directs Staff to explore the feasibility of hosting rural workshops, on its own or in conjunction with other agencies, to address various issues as they relate to water loss. This exploration may include, at the very least: workshops to demonstrate proper audit compliance and advanced leak management techniques and training seminars for smaller water companies on data collection, validation and auditing methodology reforms.

Continued Research

1. The Commission recognizes the difficulty in capturing the problem of water loss in one policy statement. More work is needed in a number of areas where further research may yield meaningful results.

Address the Water-Energy Nexus.

1. The Commission is aware of efforts in other states to implement jointly funded programs designed to conserve water, use less energy-intensive water or make delivery and treatment systems more efficient.

2. The Commission believes mitigation and energy efficiency programs that address water loss warrant additional review.

3. The Commission directs Staff to explore efforts undertaken in other states, such as California, in embedded energy programs and their applicability to Arizona. This should involve outreach to other state agencies and to state electric and water/waste-water utilities concerning whether any previous
joint programs like the one described in CPUC’s Embedded Energy in Water Pilot Programs have been implemented or considered in Arizona.

Survey other state approaches to water loss methodology.

1. The Commission recognizes efforts made in other states on addressing water loss. The Commission notes the work of other states, especially California, New Mexico, and Georgia, where full-scale Water Loss Training and Technical Assistance Programs are in effect.

2. The Commission directs Commission Staff to engage regulatory agencies from other states, especially those previously mentioned, to survey those states' experiences with implementing water loss controls and how they may apply to Arizona.

Explore more financing opportunities.

1. The Commission is aware water loss may, in some cases, pose a financial burden to utilities.

2. The Commission acknowledges the importance of communicating the availability of, and requirements to receive, financial support for water auditing loss control functions or projects undertaken by water utilities.

3. The Commission directs the Small Water Ombudsman Office to ensure it is well versed in all financing options along with the pros and cons of each option. The Ombudsman Office shall prepare a report for the Commission on financing options available to utilities, to be shared with the public through the Commission website. This report shall consist of, at the very least, financing institutions, their requirements for receiving aid, and contact information for these institutions.

4. Staff is directed to add, maintain, and regularly update a page on the Commission website that lists sources of financing for utilities. The report prepared by the Ombudsman Office should inform this page.

5. The Commission directs Staff to review the applicability of System Improvement Funds as described in Decision No. 75626 in light of reforms to audit methodologies and reporting requirements.