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BEFORE THE ARIZONA CORPORATION COMMISSION

TOM FORESE
Chairman
BOB BURNS
Commissioner
DOUG LITTLE
Commissioner
ANDY TOBIN
Commissioner
BOYD DUNN
Commissioner

Arizona Corporation Commission

DOCKETED

SEP 19 2017

DOCKETED BY

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. 76375

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 Commission's Water Loss Policy for the Betterment of Water Conservation.

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

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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 FUTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION


CHAIRMAN FORBIS


COMMISSIONER DUNN

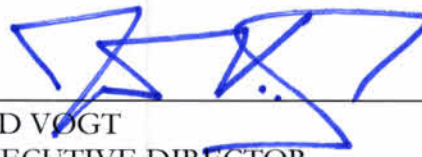

COMMISSIONER TOBIN


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 19th day of September, 2017.


TED VOGT
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

EOA: BAB: vsc/RWG

1 Arizona Corporation Commission – Generic Investigation
2 Docket No. W-00000A-17-0152

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1 Collaborative Commission Approach to Mitigating Water Loss

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

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

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

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

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

¹ Correspondence from Commissioner Andy Tobin (October 5, 2016). Arizona Corporation Commission Investigation into Potential Improvements to its Water Policies. Docket No. W-00000C-16-0151.

² *Id* at 4.

1 **Methodology**

2 Establishing the best practice in audit methodology, data collection, and validation is the
3 obvious first step in approaching water loss. Otherwise, the Commission will not have reliable metrics,
4 and utilities will not have the reasonable capabilities to effectively meet these standards. That is why
5 the Commission must seriously consider adopting some or all of the water loss methodologies
6 contained within the most recent version of the Manual of Water Supply Practices, M36, released by
7 the American Water Works Association (AWWA). Any meaningful efforts at mitigating water loss
8 must take full advantage of the M36 as a critical resource. Already, efforts by other state agencies are
9 underway to explore and apply the methodologies outlined in the M36. The Water Infrastructure
10 Finance Authority of Arizona (WIFA) has initiated a pilot project to further explore the applicability
11 of the M36 to Arizona.³ We must move forward on improving our water loss methodology in two
12 ways:

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

14 WIFA, in partnership with Cavanaugh, has committed to a pilot program where six Arizona
15 water utilities, two of which are regulated by the Commission, will employ and evaluate M36 water
16 loss methodologies.⁴ We strongly support these efforts and direct Staff to provide assistance as
17 appropriate. We envision greater Staff input and participation with both WIFA and the rural water
18 community at large. Specifically, Staff should engage and formalize a relationship with WIFA as it
19 relates to their pilot program.

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

22 While efforts are underway at WIFA to apply M36 audit methodology through their pilot, it
23 is appropriate for Staff to review and become familiar with the M36—its strengths, as well as its limits,
24 as it relates to implementation within Arizona. The M36 states “accountable and efficient management
25 of water supplies by utilities is the central focus of the water audit methodology and water loss control
26 programs described in this manual.”⁵ It is also important to be aware of the responsibilities of the
27 Commission when observing “[a]ppropriate caution in target-setting for loss control interventions”.⁶
28 To this end, any reform the Commission adopts regarding data collection, validation and reporting
29 methodology must be reflective of the current capabilities and resources of regulated utilities. The
30 M36 warns against establishing immediate benchmarks for loss reduction where only a limited pool
31 of well-validated data exists.⁷ Instead, the M36 recommends a “focus primarily within the practice of
32 water auditing for water utilities and thus promote the collection of reliable, comparable utility data.”⁸
33 This may be the best first step for smaller water companies that may simply lack the technical
34 sophistication and necessary technology to make immediate loss reduction compliance standards
35 practicable.

³ Water Infrastructure Finance Authority of Arizona, WIFA, <http://www.azwifa.gov/>.

⁴ *Id.*

⁵ Kunkel, George A. et al., *Water Audits and Loss Control Programs*, xiii (4th ed. 2016).

⁶ *Id.* at 14.

⁷ *Id.*

⁸ *Id.* at 37.

1 This measured approach reflects the spirit of partnership we are striving to create at the
2 Commission. Water loss reporting and auditing should be seen as an informative tool for utilities and
3 ratepayers, not a source of liability for regulatory backlash. Committing to a more robust auditing
4 regime “is a revealing undertaking that provides great insight to the auditor on” the type and extent
5 of loss being experienced.⁹ Further, “launching a water audit often begins the culture change
6 necessary” to internalize water-efficiency practices.¹⁰ Small and rural utilities will be best served by
7 adhering to a ‘top-down’ approach to water system auditing, as opposed to prematurely calling for a
8 ‘bottom-up’ audit regime. The top-down approach, as envisioned by the M36, is an attractive audit
9 method for smaller utilities, representing “a relatively quick assembly of available records and data
10 regarding system parameters, supply, consumption, and loss”.¹¹ Conversely, the bottom-up approach
11 calls for the slow and deliberate extraction of data from both the office and the field.¹² Staff, in
12 reviewing the applicability of the M36 to Arizona, is encouraged to pay special attention to the top-
13 down audit as described in the manual.¹³ Reforming water loss reports would benefit from a review
14 of the top-down audit, described as “largely a desktop exercise, with minimal field testing or
15 investigation required”.¹⁴ For example, *Table 3-24* of the M36 provides a number of performance
16 indicators that can ensure a more robust, yet measured audit.¹⁵ However, as industry has cautioned,
17 some performance indicators may not be fully validated for small systems. Staff is encouraged to
18 consider system size, water pressure or other salient factors in reviewing appropriate performance
19 indicators to include in any data collection and validation efforts.¹⁶

20 The current water loss calculation used by the Commission is simply the unbilled authorized
21 consumption added to total revenue water, then divided by net production.¹⁷ Water utilities report this
22 information, by month, in their Annual Reports. The Commission actively evaluates this information
23 in three instances: 1) during activity involving review of Certificates of Public Convenience and
24 Necessity (CC&N) (either at the initial grant of a CC&N or an extension of an existing certificate); 2)
25 rate case proceedings, or 3) in review of financial proceedings, such as applicability of System
26 Improvement Funds.¹⁸ When the Commission actively reviews water loss data of a utility, and the loss

⁹ Kunkel, George A. et al., *Water Audits and Loss Control Programs*, 37 (4th ed. 2016).

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.

¹⁴ Kunkel, George A. et al., *Water Audits and Loss Control Programs*, 100 (4th ed. 2016).

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.

¹⁷ See the 2016 annual report template found on the ACC website: Arizona Corporation Commission, Utilities Division: Applications and Forms – *Water and Sewer Utilities, Annual Reports*, <http://azcc.gov/divisions/utilities/water/forms.asp>.

¹⁸ Kris Mayes, *Encouraging Conservation by Arizona's Private Water Companies: A New Era of Regulation by the Arizona Corporation Commission*, 49 Ariz. L. R. 297, 313-14 (2007).

1 figure is in excess of 15%, the utility is required to do a cost-benefit analysis to see if some form of
2 remedial action is appropriate. While this current calculation methodology can provide some value, as
3 generally high water loss percentages translate to lost revenue and increased expenses, Staff is
4 encouraged to review the M36 for other performance indicators into water loss reporting.
5 Unaccounted-for water loss percentage measurements, although a convenient yardstick, can often be
6 misleading. Indeed, the AWWA Water Loss Control Committee has recently formed a Performance
7 Indicators Task Force that is further examining the merits of abandoning percentage water loss by
8 volume measures altogether.¹⁹ As Commission Staff noted during the June 15 workshop, Commission
9 and Department of Water Resources (ADWR) water loss reports as a percentage are inconsistent
10 utility-to-utility, even though those utilities are reporting the same information to each agency.²⁰ We
11 find it appropriate to direct Staff to work proactively with the Arizona Department of Environmental
12 Quality (ADEQ) and ADWR to promulgate consistent water loss methodology and reporting
13 timelines across all agencies.

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

23 **Collaboration and Institutionalization**

24 A critical element in developing effective and lasting water loss policy is collaboration between
25 the controlling regulatory bodies. As stated in the previous section, any review and reform of data
26 collection, validation and reporting methodologies should be implemented in tandem with ADEQ
27 and ADWR. Currently, utilities must report water loss separately to the Commission and ADWR.
28 These reports can sometimes yield different results.²¹ The following recommendations will enhance
29 ongoing efforts.

30 1) *Establish the Water Reform Working Group*

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

¹⁹ AWWA Performance Indicators Task Force, *Charter Statement* (Oct. 28, 2016) (a Task Force of the AWWA Water Loss Control Committee assessing water loss performance indicators).

²⁰ Commission Staff Workshop Presentation Materials (June 15, 2017). Arizona Corporation Commission Investigation into Potential Improvements to its Water Policies, Docket No. W-00000C-16-0151.

²¹ *Id.*

1 The WRWG will formalize and institutionalize water reform efforts. We appreciate and
2 respect Staff's efforts towards greater collaboration in these areas, and we also recognize that progress
3 should not ebb and flow with personnel changes on both the Commissioner and Staff levels. This
4 WRWG represents the institutionalization and long-term commitment of the Commission to
5 addressing water loss.

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

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

12 The current discrepancies in data collection and water loss reporting between the Commission
13 and ADWR, the two water loss reporting agencies, has led to inefficiencies and confusion between
14 the agencies and utilities. Staff noted that water loss reporting from the same utility can vary greatly
15 between the Commission and ADWR. In an example, Staff pointed out that one utility reported
16 53.43% water loss to the Commission, while only 6.3% to ADWR.²² This sizable difference makes the
17 consistent development or enforcement of compliance items near impossible. Uniform water loss
18 reporting is a necessary step towards developing meaningful and fair loss compliance standards.

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

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

27 The Rural Water Infrastructure Committee (RWIC) is a federal-state partnership that seeks to
28 connect rural water providers with financial support from a variety of funding sources.²³ We support
29 Staff's continued participation in RWIC and encourage Staff to explore further opportunities for
30 partnership and active engagement and report back on what gains further collaboration with the RWIC
31 can yield.

32 **Culture of Conservation**

33 Reducing water loss in Arizona should be approached as a partnership between regulatory
34 agencies and the regulated utilities. Water loss is a problem for Arizonans to tackle together, not an
35 area where we should seek to ascribe liability and insulate responsibility. Open dialogue, fair practice,

²² Commission Staff Workshop Presentation Materials (June 15, 2017). Arizona Corporation Commission Investigation into Potential Improvements to its Water Policies, Docket No. W-00000C-16-0151.

²³ Rural Water Infrastructure Committee Website, <http://www.rwic.net/>

1 and full representation of equities must be the hallmark of this Commission as it moves forward in
2 mitigating water loss and promoting conservation.

3 As previously mentioned, appropriate audit methodology often “begins the culture change
4 necessary to focus utility employees on water-efficient practices.”²⁴ Further, institutionalizing
5 collaborative efforts at the interagency level can embed channels of dialogue. There is certainly,
6 however, adequate room for public-private engagement.

7 Staff should explore outreach efforts, especially those geared towards smaller and rural water
8 systems. For example, the Commission can regularly host on its own or with other agencies a rural
9 workshop series addressing various issues as they relate to water loss. Workshop curriculum that
10 includes leak management with training on detecting, locating, and repairing leaks and breaks may
11 prove beneficial. In 2014, researchers from the Water Research Foundation (WRF) conducted a
12 project that analyzed pipe location and leak management for small systems.²⁵ They concluded that the
13 “financial resources to maintain each mile of main are potentially more of a burden on the smallest
14 systems.”²⁶ We have seen this situation play out numerous times in considering rate or financing
15 applications. We respect the special burdens faced by smaller systems and seek to partner with these
16 systems to find solutions, understanding both the costs and opportunities.

17 The WRF project relied heavily on workshops to facilitate information sharing and training
18 for small systems. Researchers invited vendors or utilities to workshops to demonstrate water loss
19 technology and render technical training as necessary. These third parties even performed field testing
20 of specific equipment.²⁷ Staff should identify and recruit third-party vendors and experts from other
21 agencies or utilities to demonstrate proper audit compliance and advanced leak management
22 techniques at these aforementioned workshops.

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

28 **Continued Research**

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

33 *1) Address the Water-Energy Nexus*

34 The Water-Energy Nexus is the term that describes the mutual dependency of these
35 resources—the production of energy requires large volumes of water and water infrastructure requires

²⁴ Kunkel, George A. et al., *Water Audits and Loss Control Programs*, 37 (4th ed. 2016).

²⁵ Water Research Foundation, *Pipe Location and Leakage Management for Small Water Systems – Web Report #4144*, 1 (2014), <http://www.waterrf.org/Pages/Projects.aspx?PID=4144>.

²⁶ *Id.*

²⁷ *Id.* at 13.

1 large amounts of energy. Usually, utility commissions focus on efficiencies with electricity generation
2 to address this issue, yet water utilities have a role to play, too. When more water is pumped to service
3 customers, due to leakage or line breaks, more electricity must be used, which requires even more
4 water in generating electricity to meet that demand. Thus, the Water-Energy cycle continues. Simply
5 put, improving water infrastructure and reducing water loss is a matter of water and energy efficiency.

6 In 2011, the California Public Utilities Commission (CPUC) approved Embedded Energy in
7 Water Pilot Programs.²⁸ The CPUC “required [electric] utilities to partner with water providers to
8 implement jointly funded programs designed to conserve water, use less energy-intensive water or
9 make delivery and treatment systems more efficient,” reducing water used by providers and treatment
10 agencies.²⁹ As noted in the Final Report, “considerable energy is required to obtain, treat and distribute
11 water supplies to end-use customers.”³⁰

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

16 *2) Survey other state approaches to water loss methodology*

17 According to a March 2017 report prepared by Cavanaugh, only two states (California and
18 Georgia) currently implement AWWA M36 audit methodologies with Level 1 software validation.³¹
19 The report also notes three states currently utilize full-scale Water Loss Training and Technical
20 Assistance Programs.³² Efforts to reform and improve data collection, validation, audit methodology,
21 and technical assistance and training should be informed by the works of other states that have already
22 made strides in these areas. Staff should conduct outreach to other regulatory agencies to survey state
23 methodologies.

24 *3) Explore more financing opportunities*

25 Mitigating water loss will not be free. One consistent concern raised by industry during the
26 June workshop was the financial burden any water loss reform would pose to utilities, and for good
27 reason. Industry concerns are echoed in the M36, which emphasizes that “regulatory agencies should
28 clearly communicate the availability of, and requirements to receive, financial support for water
29 auditing or loss control functions or projects undertaken by water utilities.”³³

30 To this end, the Small Water Ombudsman Office must be fully aware of all financing options,
31 along with the pros and cons of each option. The Ombudsman Office should consider Staff training
32 in identifying financial support and providing assistance to utilities seeking aid. Staff should also
33 consider adding a page to the Commission website that lists and describes all sources of utility
34 financing. This may include links and contact information to each source. As previously discussed,

²⁸ Embedded Energy in Water Pilot Programs Impact Evaluation: Final Report, ECONorthwest (2009).

²⁹ *Id at abstract.*

³⁰ *Id at i.*

³¹ Tory Wagoner, *State of the States – A Comparison of Approaches to Statewide Water Loss Programs*, Cavanaugh, slide 2 (2017).

³² *Id at slide 3.*

³³ Kunkel, George A. et al., *Water Audits and Loss Control Programs*, 15 (4th ed. 2016).

1 workshops and seminars on grant opportunities and financing can also be helpful in improving
2 saliency of available resources.

3 For example, during the June workshop the Bureau of Reclamation (BOR) presented a
4 number of grant programs that would be applicable to small utilities in Arizona. The Small-Scale Water
5 Efficiency Projects Funding “WaterSMART Grant” supports small-scale water management projects
6 that have been identified through previous planning efforts.³⁴ Staff should engage with the BOR and
7 become familiar with the Request for Proposal (RFP), Request for Application (RFA), and Funding
8 Opportunity Announcement (FOA) processes to act as a resource for small utilities pursuing these
9 grants.

10 We have raised the importance of utilities having access to System Improvement Funds (SIFs)
11 in rate cases for class D and E utilities.³⁵ As stated in Decision No. 75626, many “small utilities find
12 themselves in a situation where their actual revenue has been insufficient to cover needed
13 improvement.”³⁶ In light of reform to audit methodologies and performance indicators, these SIF
14 mechanisms will be more important than ever. As discussed in Decision No. 75626, requests for these
15 surcharges should be considered on a case-by-case basis, and consumer safeguards must be in place.³⁷

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

18 **Methodology**

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

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

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

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

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

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

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

³⁴ Bureau of Reclamation, WaterSMART Grants, <https://www.usbr.gov/watersmart/grants.html>.

³⁵ Arizona Corporation Commission Investigation into Potential Improvements to its Water Policies, Decision No. 75626 at 5. Docket No. W-00000C-16-0151.

³⁶ *Id.*

³⁷ *Id.*

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

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

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

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

9 3. The Commission directs Staff to formally review the M36 Manual, in cooperation with ADWR,
10 WIFA, and subject matter experts as necessary, to determine appropriate performance indicators to
11 measure and data collection and validation methodologies to adopt.

12 Collaboration and Institutionalization

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

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

17 Establish the Water Reform Working Group.

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

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

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

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

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

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

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

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

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

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

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

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

16 **Culture of Conservation**

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

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

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

27 **Continued Research**

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

31 Address the Water-Energy Nexus.

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

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

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

6 Survey other state approaches to water loss methodology.

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

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

13 Explore more financing opportunities.

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

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

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

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

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