Public Notice Pursuant to A.R.S. § 38-431.02
ARIZONA MUNICIPAL WATER USERS ASSOCIATION
MANAGEMENT BOARD

MEETING NOTICE AND AGENDA

Wednesday, January 15, 2020 – 10:00 a.m.

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

A. Call to Order

B. General Business—Items for Discussion and Possible Action
   1. Approval of the Minutes from the December 11, 2019 Meeting
   2. Schedule Next Meeting Date: Wednesday, February 12, 2020, 10:00 a.m.
   3. 2020 Legislative Session
   4. Water Loss Control Training and Technical Assistance Program
   5. Fiscal Year 2020 Budget Reconciliation

C. Member Reports

D. Executive Director’s Report

E. Future Agenda Items

F. Adjournment

*The order of the agenda may be altered or changed by the AMWUA Management Board. Members of the AMWUA Management Board will attend either in person or by telephone or internet conferencing.

More information about AMWUA public meetings is available in the AMWUA office, online at www.amwua.org/what-we-do/public-meetings, or by request.
A. Call to Order

Mr. Setovich called the meeting to order at 10:06 a.m.

B. General Business – Items for Discussion and Possible Action

1. Approval of the Minutes from the November 13, 2019 Meeting

   Upon a motion made by Mr. Johnson and a second by Mr. Biesemeyer, the AMWUA Management Board unanimously approved the November 13, 2019 meeting minutes.

2. Next meeting scheduled: Wednesday, January 15, 2020, 10:00 a.m., in the AMWUA office
3. **Recommendation for 2020 Management Board Chair and Vice-Chair**

On behalf of the Nominating Committee, Mr. Knudson announced that the Nominating Committee is in agreement to recommend Mr. Javier Setovich, Goodyear, as Chair, and Ms. Jessica Marlow, Gilbert, as Vice-Chair to the AMWUA Management Board for 2020.

Upon a motion by Mr. Biesemeyer, and a second by Mr. Johnson, the AMWUA Management Board unanimously approved the Nominating Committee’s recommendation of Mr. Javier Setovich, Goodyear, to serve as Chair, and Ms. Jessica Marlow, Gilbert, to serve as Vice-Chair to the AMWUA Management Board for 2020.

D. **Executive Director’s Report**

Mr. Tenney stated that the previous funding agreement roadblock with ADWR for the Water Loss Control Training & Technical Assistance Program has been resolved and AMWUA will be receiving the funds from ADWR. He stated that AMWUA is working with the selected consultant to finalize the contract and get the training and technical assistance started by the beginning of 2020. Mr. Tenney stated that the consultant is Southwest Environmental Finance Center at the University of New Mexico. AMWUA will be giving an overview of this effort at January’s meeting.

Mr. Tenney reported that the Post 2025 AMAs Committee of the Governor’s Water Council was held on December 9th and had a proactive discussion looking at issues that the Committee should further define and pursue solutions for including exempt wells, particularly in regards to Prescott AMA, gaining a better understanding of unreplenished groundwater pumping by each sector, and the hydrologic disconnect between where recharge occurs and where recovery can happen.

Mr. Tenney stated that AMWUA is having a meeting on December 18th to discuss proposed revisions of the Lead and Copper Rule with city staff. He stated that EPA is asking for comments by January 13th so this meeting is an opportunity for city staffs to share information regarding potential impacts the proposed rule revisions may have on municipal water systems and utilities.

Mr. Tenney reported that the next Vetting Forum for Water is December 18th. In addition, AMWUA is meeting with the InterGos on January 8th to prepare for the next legislative session.

E. **Future Agenda Items**

No future agenda items were identified.

F. **Adjournment**

Upon a motion made by Mr. Johnson, a second and unanimous approval, Mr. Knudson adjourned the meeting at 10:16 a.m.
2020 Legislative Session

ANNUAL PLAN REFERENCE

Legislation

Actions:
- Identify and track water legislation and other legislation of interest to our members.
- Analyze and respond to legislation that impacts our members by taking positions, working with Legislators and Congressional Delegation, and engaging the media and public as needed.

SUMMARY

The second regular legislative session of the 54th Legislature begins on January 13, 2020. Prior to the start of the session, over 300 bills were prefiled. Attached is a summary of water legislation that AMWUA staff has identified would be of interest to the AMWUA cities with recommended positions. All but two of the bills are were introduced last year and AMWUA took the same positions. AMWUA staff and Legislative Contractor will provide an overview of relevant legislation that has been introduced.

In addition, AMWUA staff have been working with other stakeholders to develop a legislative proposal related to the recovery of water supplies stored for municipal use by the Arizona Water Banking Authority (AWBA). The concept of direct distribution of long-term storage credits (LTSC) from the AWBA to municipal water users has been discussed extensively at the Recovery Planning Advisory Group (RPAG) and has been a statutory change supported by AMWUA over the past two years. Providing the option for the AWBA to distribute credits not only to CAP but also to municipal users will increase flexibility for recovery options and keep the overall cost down for the end users.
This proposal is consistent with AMWUA’s 2020 Legislative Agenda (Colorado River Resiliency – Support efficient and effective recovery of stored Colorado River supplies) and supports AMWUA’s strategic priority of collaborating with the RPAG in completing an updated Recovery Implementation Plan. The concept received positive feedback at the December Vetting Forum for Water meeting.

Legislative language that has been developed by AMWUA, ADWR, AWBA and CAWCD is included in the Board packet. The CAWCD Board of Directors voted on January 9th, 2020 to support this legislative proposal and language.

RECOMMENDATION

It is recommended that the AMWUA Management Board discuss and ask questions regarding legislation impacting AMWUA’s members.

Staff requests that the AMWUA Management Board recommend to the Board of Directors adoption of the recommended positions on the bills included in this Board packet, as well as support for legislation that would facilitate the direct distribution of LTSC from the AWBA to municipal and industrial users.

Depending on the introduction of legislation before the January 15, 2020 meeting, the AMWUA Management Board may be asked to provide direction regarding additional legislation to the AMWUA Board of Directors.

SUGGESTED MOTION

I move that the AMWUA Management Board recommend to the AMWUA Board of Directors that AMWUA support legislation for the direct distribution of Arizona Water Banking Authority credits to municipal and industrial water users and adopt the legislative positions outlined in the Board packet.

Support

HB 2076: appropriation; DWR; additional staff (Gabaldón).
HB 2098: dam safety study committee (Griffin).
HB 2101: appropriation; Arizona water protection fund (Griffin & Nutt).
HB 2158: water; well metering; nonexempt wells (Engel).
HB 2161: irrigation non-expansion areas; water supplies (Engel).

Monitor

HB 2159: water adequacy requirements; statewide applicability (Engel).
HB 2174: exempt wells; capacity (Blanc, Chavez, Peten).
Water Legislation

HB 2076: appropriation; DWR; additional staff (Gabaldón).
This bill would appropriate $6.1 million to the Arizona Department of Water Resources (ADWR) for the purpose of hiring hydrologists and other support staff.

*Recommended Position: Support*

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HB 2098: dam safety study committee (Griffin).

This bill would create a Dam Safety Study Committee consisting of two appointed legislators and the Director of ADWR or their nominee. The Committee would be required to consider the safety of dams throughout Arizona complete a report of their findings by December 31st, 2020.

*Recommended Position: Support*

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HB 2101: appropriation; Arizona water protection fund (Griffin & Nutt).

This bill would appropriate $1 million from the state general fund in Fiscal Year 2020-21 to the Arizona Water Protection Fund. The Arizona Water Protection Fund is a state-run program administered by ADWR that funds projects to protect and enhance water quality and quantity in Arizona’s rivers, streams, and riparian areas. Some of these efforts include revegetation, erosion control, channel stabilization, research, and water conservation. AMWUA has supported this legislation in previous years.

*Recommended Position: Support*

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HB 2158: water; well metering; nonexempt wells (Engel).

This bill would mandate measurement of water use and annual reporting for nonexempt groundwater wells throughout the state. Nonexempt wells include those with a pumping capacity greater than 35 gallons per minute (gpm). Current law contains no measuring requirements for wells outside of the AMAs or INAs except for a person who withdraws groundwater for transportation to an initial AMA.

*Recommended Position: Support*

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HB 2159: water adequacy requirements; statewide applicability (Engel).

This bill would mandate that counties outside of the AMAs adopt an adequate water requirement for subdivided lands within the county. Currently, counties outside of an AMA have an option to adopt the mandatory adequacy provisions upon unanimous vote of the county Board of Supervisors.

*Recommended Position: Monitor*
HB 2161: irrigation non-expansion areas; water supplies (Engel).

An irrigation non-expansion area (INA) is a geographical area that has been designated as having insufficient groundwater for irrigation of cultivated lands. Within an INA expansion of new irrigated acreage is generally prohibited and water management regulations, such as well metering, apply. Arizona’s Groundwater Code allows the Director of ADWR to designate new INA’s based upon certain criteria, including if the Director determines that “there is insufficient groundwater . . . at the current rates of withdrawal.” (Emphasis added). In 2015, a petition from irrigators in the San Simon Valley to establish a new INA was declined by ADWR; the Director noting in his decision that he could not consider future groundwater uses in the determination. HB 2161 would require the Director to consider projected rates of groundwater withdrawals in their determination of a new INA.

Recommended Position: Support

HB 2174: exempt wells; capacity (Blanc, Chavez, Peten).

The Groundwater Code defines exempt wells as those with a maximum pumping capacity of less than 35 gallons per minute (gpm) used to withdraw groundwater for non-irrigation uses. These wells are exempt from most of the provisions of the Groundwater Code. This bill alters that criterion, changing the threshold for exemption to a maximum capacity of 20 gpm of pumping capacity.

Recommended Position: Monitor
Proposed Changes to A.R.S. § 45-2457.B.7 to Facilitate Direct Distribution of Credits

A.R.S. § 45-2457.B.7

7. The authority shall distribute long-term storage credits accrued or purchased with monies deposited in the fund in accordance with section 48-3715.03, subsection B only for the benefit of the county in which the monies were collected. The authority shall distribute these long-term storage credits to CAWCD OR TO CAWCD’S MUNICIPAL AND INDUSTRIAL SUBCONTRACTORS to the extent necessary to meet the demands of CAWCD's municipal and industrial subcontractors during times in which CAWCD's diversions from the Colorado river have been or will be disrupted by shortages on the Colorado river or by disruptions in operation of the central Arizona project. LONG-TERM STORAGE CREDITS DISTRIBUTED TO A CAWCD MUNICIPAL AND INDUSTRIAL SUBCONTRACTOR PURSUANT TO THIS SECTION MAY NOT BE SOLD AND THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSESSED BY THE DIRECTOR FOR THE DISTRIBUTION OF THE LONG-TERM STORAGE CREDITS AND ALL COSTS OF RECOVERY OF THE LONG-TERM STORAGE CREDITS.
MANAGEMENT BOARD
Updated January 13th, 2020
INFORMATION SUMMARY
January 15, 2020

Water Loss Control Training & Technical Assistance Program

ANNUAL PLAN REFERENCE

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

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

SUMMARY

Over the past two years, AMWUA has been working to develop a water loss control training and technical assistance program for its member cities. On September 6, 2018, the AMWUA Board of Directors endorsed Staff’s proposed training program and authorized the Executive Director to accept funding from the Arizona Department of Water Resources (ADWR) for administration of the program. On August 14, 2019, the AMWUA Management Board recommended that the Board of Directors select the University of New Mexico Southwest Environmental Finance Center (SW EFC) as the consultant to conduct the training.

Shortly after the Management Board’s recommendation, AMWUA was notified that ADWR needed approval from the Arizona Department of Administration (ADOA) to award AMWUA the grant funds for the training program. This authorization from ADOA was received in December of 2019.

AMWUA Staff have developed a contract with the SW EFC that outlines the scope of services that will be provided for the training program. AMWUA will administer the contract with SW EFC and fund the training program with the grant monies awarded by ADWR. The agreements with ADWR and SW EFC are located within the Board packet. At the January 15, 2020 meeting, AMWUA staff will give an overview of the schedule and objectives for the Water Loss Control Training & Technical Assistance Program.
RECOMMENDATION

Staff requests the AMWUA Management Board recommend that the AMWUA Board of Directors support the water loss control training and technical assistance program by authorizing the Executive Director to enter into the funding agreement with ADWR and the contract with SW EFC.

Suggested Motion:

I move that the AMWUA Management Board recommend to the AMWUA Board of Directors that the Executive Director be authorized to enter into contracts in the form substantially as presented with ADWR for funding of the training program and with the University of New Mexico Southwest Environmental Finance Center for execution of the training program.
STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
1110 West Washington Street, Suite 310
Phoenix, AZ 85007

This Contract is entered into by ARIZONA MUNICIPAL WATER USERS ASSOCIATION (“AMWUA”), and the DIRECTOR of the ARIZONA DEPARTMENT OF WATER RESOURCES (“DEPARTMENT”), pursuant to A.R.S. § 11-952.

This document, including the General Provisions, Special Provisions, Scope of Service, and any attachments, shall constitute the entire agreement between the parties and supersedes all other understandings, oral or written.

Service: Water Loss Control Training & Technical Assistance Program

Term: Effective through (September 30, 2021)

Amount: Not to exceed $300,000 (Phoenix AMA Water Management Assistance Program Fund – Installment)

The parties hereto agree to carry out the Provisions of this Contract.

ARIZONA MUNICIPAL WATER USERS ASSN

Signature of Authorized Individual

Date

Warren Tenney
Typed Name
Executive Director
Typed Title

ARIZONA DEPARTMENT OF WATER RESOURCES

Signature of Authorized Individual

Date

Thomas Buschatzke
Typed Name
Director
Typed Title
THIS CONTRACT CONSISTS OF:

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1. GENERAL REQUIREMENTS:

1.1. The parties shall obtain and maintain all licenses, permits and authority necessary to perform their obligations pursuant to this Contract, and shall comply with all applicable state, federal and local laws, including but not limited to those regarding unemployment insurance, disability insurance and worker’s compensation. This Contract does not relieve either party from any obligation or responsibility imposed upon it by law.

1.2. Neither party shall be considered an employee or agent of the other. No monitoring or supervisory responsibility over the other party’s activities arises on the part of the other or arises as a result of, or pursuant to, this Contract other than as expressly provided herein.

1.3. In this Contract, Special Provisions alter the General Provisions. If the Special Provisions conflict with the General Provisions, the Special Provisions shall govern. If the Scope of Services conflicts with either the Special Provisions or the General Provisions, the terms of the Scope of Services shall govern.

1.4. The provisions of this Contract are severable to the extent that if any provision is held unenforceable under applicable law, the remaining provisions of the Contract shall remain in effect.

1.5. This Contract shall be interpreted in accordance with Arizona law. Disputes arising out of this Contract are subject to the jurisdiction of the Superior Court of the State of Arizona.

2. INDEMNIFICATION:

Each party to this Contract is independently responsible in the event of its own negligence. Neither party agrees to indemnify the other party.

3. RESOLUTION OF DIFFERENCES:

3.1. The parties agree to resolve all conflicts to the maximum extent possible through cooperation and coordination of the respective party’s staff. If staff is unable to resolve any dispute, it shall be submitted for resolution to the Department of Water Resources’ Water Planning and Permitting Division Assistant Director.

3.2. Disputes arising out of this Contract are subject to arbitration to the extent required by A.R.S. § 12-133 and § 12-1518. Disputes not subject to arbitration are subject to the jurisdiction of the Maricopa County Superior Court.

3.3. The waiver of any breach or default of any of the provisions of this Contract shall not be construed as a waiver of any succeeding breach of the same or other provisions; nor shall any delay or omission on the part of either Party to exercise or avail itself of any right, power or privilege that it has or may have hereunder operate as a waiver of any breach or default by the other Party.

4. TERMINATION:

4.1. Each party shall have the right to terminate this Contract in whole or in part, with or without cause, by providing the other party written notice of termination, effective fifteen (15) calendar days subsequent to the mailing by certified mail of such Notice of Termination. If the termination is partial, the parties shall continue to perform those portions of this Contract which have not been terminated.

4.2. In the event of Termination as provided in subsection 4.1:

4.2.1. The Department shall pay to AMWUA its reasonable actual costs for work in progress as determined by generally accepted accounting principles and practices.
4.2.2. If any Payments have been made on an advance basis, AMWUA shall return any unexpended monies within fifteen (15) calendar days of receipt of Notice of Termination.

4.2.3. AMWUA shall deliver to the Department all work in progress, and any completed documents, programs, data and other information or deliverables as described in this Contract.

4.3. The Department or the State of Arizona may cancel this Contract without penalty or further obligation pursuant to A.R.S. § 38-511, which provides for cancellations of any contract made by the State, its political subdivisions, or any of the departments or agencies of either if any persons significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the State, its political subdivisions or any of the departments or agencies of either is, at any time while the contract or any extension of the contract is in effect, an employee or agent of any other party of the contract with respect to the subject matter of the contract.

4.4. In the event of cancellation under Section 4.3 of this Contract or if the term of the Contract expires AMWUA shall receive or return Payment as established in Section 4.2.

4.5. In the event that the parties mutually agree to terminate a portion of the Contract, AMWUA shall continue to perform this Contract to the extent not terminated under the provisions of this Section and receive or return Payment as established in Section 4.2.

5. NON-DISCRIMINATION:

The Parties shall comply with State Executive Order No. 75-5, as amended by State Executive Order No. 2009-9, and all other applicable Federal and State laws, rules and regulations relating to equal opportunity and non-discrimination, including the Americans with Disabilities Act.

6. PAYMENTS:

6.1. Payments made by the Department to AMWUA pursuant to this Contract are conditioned upon the availability to the Department of monies authorized for expenditure in the manner and for the purpose provided herein. The Department shall not be liable for any purchases entered into by AMWUA in anticipation of such funding.

6.2. Payments are conditioned upon receipt of an applicable, accurate and complete invoice prepared by AMWUA in accordance with AMWUA’s normal format and customary documentation. In the event of any conflict between this Contract and any invoice, this Contract shall prevail.

6.3. If AMWUA is determined by the Department to be in default in the performance of any obligation under this Contract, the Department, may, at its option and in addition to other available remedies, either adjust the amount of payment or withhold payment until satisfactory resolution of the default.

6.4. The Department may, at its option, withhold payment until receipt of all final reports or documents or until completion of a financial audit.

7. RECOUPEMENT OF PAYMENTS:

AMWUA shall immediately reimburse all monies not spent in accordance with the terms of this Contract.

8. BOOKS, RECORDS AND INSPECTION:

All books, accounts, reports, files and other records relating to the Contract shall be subject at all reasonable times to inspection and audit by the State of Arizona and the Department for five (5) years after completion of the Contract. Such records shall be produced at such state offices as are designated by the State of Arizona and the Department.
9. NOTICES:

Whenever notice is required pursuant to this Contract, such notice shall be in writing and shall be directed to the persons and addresses specified in the Scope of Services or to such other persons and/or addresses as either party may designate to the other party in writing. Notice shall be delivered in person or by certified mail, return receipt requested.

10. AMENDMENTS:

Amendments to this Contract shall not be effective unless in writing and signed by all parties.

11. SUBCONTRACTS:

Proposals to subcontract any Task or work described in this Contract must be approved by the Department. Any subcontractor shall comply with the terms and conditions of the provisions of this Contract.

12. WAIVERS:

Neither AMWUA nor the Department shall waive or modify any condition or requirement contained in or made a part of this Contract without a written amendment signed by the parties. The waiver of any breach or default of any of the provisions of this Contract shall not be construed as a waiver of any succeeding breach of the same or other provisions.

13. DELIVERABLES:

Upon receipt of a Deliverable, the Department shall have a reasonable time period, not to exceed 45 days, to review the Deliverable. If the Department identifies deficiencies in the Deliverable, the Department shall provide AMWUA written comments and shall establish a time period by which the identified deficiencies shall be corrected. If the deficiencies are not corrected within this time frame, the Department reserves the right to terminate the Contract immediately upon sending written notice of such termination.

14. REPORTS, INFORMATION AND DATA:

Ownership of all reports, information, data, computer data elements and software prepared by AMWUA in performance of this Contract shall vest jointly in the parties. Subject to applicable State and Federal laws and regulations, the parties shall have full and complete rights to reproduce, duplicate, disclose and otherwise use all such information. In doing so, each party shall give credit for the contribution of the others.

15. DEPARTMENT ACKNOWLEGEMENT:

AMWUA shall ensure that the Department is acknowledged in all news releases, brochures, websites, other publicity or print pieces funded by the Department through this agreement by specifying that the project is funded, supported or made possible by funds from the Department. The name of the Department and its logo must appear in a conspicuous location and be large enough to be easily legible. If space is limited, the Department logo alone may be used.
None
SCOPE OF SERVICES

A. PURPOSE:

The purpose of this agreement is to provide funding for AMWUA to conduct a program that trains and assists its member water utilities in conducting water audits of their potable water distribution systems based on the American Water Works Association (AWWA) manual, M36 Water Audits and Loss Control Programs, Fourth Edition, Top-down approach. The objective of the program is to enhance existing water loss control efforts by equipping AMWUA member utilities with the knowledge, skills, and experience necessary to implement the M36 methodology, including its more advanced practices, beyond the duration of the program.

B. EFFECTIVE DATE:

This Contract shall become effective upon the date it is executed by all parties.

C. TERM:

This Contract shall be effective through September 30, 2021.

D. NOTICES, CORRESPONDENCE AND REPORTS:

1. Notices, correspondence, reports and payments from the Department to AMWUA shall be sent to:

   **Program Administrator:**
   Patrick J. Adams
   Arizona Municipal Water Users Association
   3003 North Central Avenue, Suite 1550
   Phoenix, AZ 85012
   Phone: (602) 248-8482
   Email: padams@amwua.org

2. Notices and correspondence from AMWUA to the Department shall be sent to:

   **Contract Officer:**
   Scott Selin
   Arizona Department of Water Resources
   1110 West Washington Street, Suite 310
   Phoenix, AZ 85007
   Email: sdselin@azwater.gov
   Phone: (602) 771-8508

3. Any invoices, quarterly/technical reports and inquiries regarding the technical aspects of this Contract should be made to:

   **Technical Administrator:**
   Melissa Sikes
   Arizona Department of Water Resources
   1110 West Washington Street, Suite 310
   Phoenix, AZ 85007
   Email: msikes@azwater.gov
   Phone: (602) 771-8449
E. PAYMENT:

The maximum amount of monies to be expended by the Department pursuant to this Contract is $300,000. Payments will be made in accordance with the Payment Schedule on Page 12 and are subject to receipt and approval of all Deliverables.

The Program Administrator shall submit invoices to the Technical Administrator for approval. The invoices shall be itemized in sufficient detail to justify payment for services performed in accordance with the tasks listed.

F. INTRODUCTION:

AMWUA will conduct a water loss control training and technical assistance program for its members—among the largest water providers in the state—that will enable them to implement the more advanced water loss control best management practices set forth in the AWWA M36 Manual.

This pilot project will build upon and round out the work accomplished through Phases I and II of the pilot implemented by the Water Infrastructure Finance Authority (WIFA) and the Department. The state’s pilot focused on the initial phases and basic concepts of the M36 methodology and demonstrated the value of supplying foundational training and support to small and mid-size utilities.

This project will demonstrate the feasibility and benefits of providing more advanced training and assistance to the larger utilities. It will give the utilities the skills to implement more advanced phases of the methodology in-house on an ongoing basis. These phases are technical and economic analyses that will enable the utilities to continuously improve the quality of their system data in order to ensure they target their water loss control interventions as productively and as cost-effectively as possible.

Utilities will gain insight into where efficiency gains can be achieved, improving the operational bottom line, supporting optimized rate setting, and demonstrating an ongoing commitment to careful water resource management.

G. SCOPE OF WORK:

The scope of the training and technical assistance will address key concepts from the AWWA M36 Water Audits and Loss Control Programs Guidance Manual, summarized in the following four stages:

1. Establishing an annual water balance that disaggregates all subcomponents of water loss in terms of volume and value, and initial assessment of validity.
2. Conducting a rigorous assessment of data validity to benchmark audit reliability and identify where data improvements are warranted, and detailed technical profiling of losses subcomponents.
3. Analyzing water loss costs and intervention costs to identify optimum targets that are cost-justified.
4. Designing and implementing custom interventions to achieve and maintain economic targets.

As the AMWUA members have substantial experience with data tracking and reporting, covered in stage 1, the primary focus of the program will be on stages 2 and 3.

It is anticipated that seven of the ten AMWUA members will participate in the program.

AMWUA shall perform the following:
Task 1: AMWUA shall contract with a subject matter expert for the purpose of providing training and technical assistance.

**Deliverable:** AMWUA shall submit documentation that a consultant has been retained and a copy of the Contract to the Technical Administrator by March 30, 2020.

Task 2: An orientation meeting will be held to launch the program and initiate the first data gathering phase. Guidance will be provided to encourage participant led data gathering and learning. A subject matter expert will be available to assist the members as needed during the data gathering. An in-person workshop will be held and a Level 1 validated M36 water audit will be developed with each utility. This task will take approximately three months to complete.

**Deliverable:** AMWUA shall submit a report of the work accomplished in Task 2.

Task 3: A meeting, via the web or in-person, will initiate the second data gathering phase. A subject matter expert will assist the utilities as they are extracting and compiling data for the advanced validation and loss profiling. Each utility will be assisted in developing an overall water loss profile with advanced data validation. This task will take approximately three months to complete.

**Deliverable:** AMWUA shall submit a report of the work accomplished in Task 3.

Task 4: A meeting, via the web or in-person, will be held to provide instruction on the economics of water loss. Utilities will be provided training on the costs of water loss and intervention. A subject matter expert will assist the utilities in their individual analyses and development of intervention strategies. This task will take approximately six months to complete.

**Deliverable:** AMWUA shall submit a report of the work accomplished in Task 4.

Task 5: An in-person meeting will be held at the conclusion of the program to present comprehensive results of the program to AMWUA staff and participating members. AMWUA shall also submit a final report that describes program outcomes and provides recommendations for next steps and programmatic recommendations for AMWUA. The final report shall also specify challenges encountered when conducting this project and suggest feasible solutions, including demonstrating the ability to duplicate this program in other locations and general recommendations for improvements in similar future efforts. This task will take approximately one month to complete.

**Deliverable:** AMWUA shall submit the Final Report to ADWR.

H. SCHEDULE OF DELIVERABLES AND PAYMENTS:

The due dates outlined below are approximate. Completion of the deliverables will depend on when the project commences, the time it takes to complete the tasks, and vetting of the final report.

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<td>Submit documentation described in Task 1</td>
<td>Mar. 30, 2020</td>
<td>$60,000</td>
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<tr>
<td>Submit a summary of work accomplished in Task 2</td>
<td>Jul. 30, 2020</td>
<td>$60,000</td>
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<td>Submit a summary of work accomplished in Task 3</td>
<td>Oct. 30, 2020</td>
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<td>Submit a summary of work accomplished in Task 4</td>
<td>Apr. 30, 2021</td>
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<td>Submit final report</td>
<td>Sept. 30, 2021</td>
<td>$60,000</td>
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<td><strong>TOTAL AMOUNT</strong></td>
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<td><strong>$300,000</strong></td>
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The attached Contract between the Arizona Department of Water Resources and AMWUA has been reviewed by the undersigned attorneys, who have determined that said Contract is in proper form and is within the powers and authority of those parties represented by the undersigned.

Dated this _____ day of __________, 2020

Arizona Department of Water Resources

By: ____________________________________
    Counsel

Dated this _____ day of __________, 2020

Arizona Municipal Water Users Association

By: ____________________________________
    Counsel
SPONSORED RESEARCH AGREEMENT

THIS SPONSORED RESEARCH AGREEMENT ("Agreement") is made by and between The Regents of the University of New Mexico for its Center for Water and the Environment, a constitutionally-created entity of the State of New Mexico ("University"), Arizona Municipal Water Users Association, organized and existing under the laws of Arizona with its principal offices at 3003 N. Central Ave., Suite 1550 Phoenix Arizona 85012 ("Sponsor"). The parties may be referred to individually as “Party” and collectively as the “Parties”.

WHEREAS, the research program contemplated by this Agreement is of mutual interest and benefit to University and Sponsor; and,

WHEREAS, University has determined that the research program contemplated by this Agreement will further the instructional, research, public service or economic development objectives of University consistent with its mission and status as a public institution of higher education.

NOW, THEREFORE, the Parties agree:

1. THE RESEARCH

A. STATEMENT OF WORK. University will perform the research project titled AMWUA Water Loss Control Training and Technical Assistance Program and more fully described in the statement of work attached to this Agreement as Exhibit A ("Research").

B. REPORTS. University will furnish to Sponsor written progress reports of the Research within a reasonable timeframe upon request of the Sponsor, not to exceed 30 days.

C. PRINCIPAL INVESTIGATOR. The Principal Investigator who will direct the Research for University is Heather Himmelberger. If the Principal Investigator becomes unable to perform this Agreement for any reason, University may appoint a successor Principal Investigator with Sponsor’s written approval. Either Party may terminate this Agreement in accordance with Section 3 if the Parties cannot agree on an acceptable successor within a reasonable time.

D. PERFORMANCE PERIOD. University will perform the Research during the period 02/01/2020 through 07/01/21 ("Performance Period"). The Parties may extend the Performance Period by written amendment.

E. EQUIPMENT/SUPPLIES. Title to all equipment and property purchased by University under this Agreement will be in and remain with University even after completion or termination of the Agreement.

2. RESEARCH COSTS

A. BUDGET. Sponsor will pay to University the direct and the facilities and administration ("F&A") costs (collectively "Research Costs") described in Exhibit B ("Budget") that University incurs in performing the Research. The F&A cost rate set forth in the Budget will remain in effect during the Performance Period. Sponsor is not liable for costs other than the Research Costs described in the Budget, and University is obligated to perform only the Research funded by Sponsor.

B. PAYMENT SCHEDULE. Sponsor will pay to University the Research Costs in U.S. dollars as follows:
This is a fixed-price agreement with full payment due in advance. Within 30 days of the Effective Date, Sponsor will pay University the total sum of $_____.

This is a fixed-price agreement with installment payments as set forth in Exhibit B.

This is a cost reimbursement agreement. Sponsor shall reimburse University for direct and indirect costs incurred in an amount not to exceed $_____ as detailed on the attached Exhibit B.

C. REMITTANCE. Sponsor will pay University through one of the following two payment options:

(i) By check made payable to the "University of New Mexico" and mailed to:

<table>
<thead>
<tr>
<th>Contract and Grant Accounting Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700 Lomas Blvd., N.E., Suite 2100</td>
</tr>
<tr>
<td>MSC01 1245, 1 University of New Mexico</td>
</tr>
<tr>
<td>Albuquerque, NM 87131-0001</td>
</tr>
<tr>
<td>Phone: (505) 277-4721</td>
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</table>

(ii) By Automated Clearinghouse ("ACH") sent to University's bank account:

<table>
<thead>
<tr>
<th>Financial Institution</th>
<th>US Bank</th>
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<tbody>
<tr>
<td>Address</td>
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<td></td>
<td>7900 Jefferson St NE</td>
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<tr>
<td></td>
<td>Albuquerque, NM 87109</td>
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<tr>
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</tr>
</tbody>
</table>

3. EFFECTIVE DATE AND TERMINATION

A. EFFECTIVE DATE. This Agreement is effective on the date signed by the last of the Parties to sign this Agreement unless otherwise provided in this section as follows: _____("Effective Date").

B. EXPIRATION. This Agreement will expire on the end date of the Performance Period, unless sooner terminated in accordance with this Section 3.

C. TERMINATION. Either Party may terminate this Agreement at any time by giving the other Party not less than sixty (60) days prior written notice, provided, however, that University may terminate this Agreement upon ten (10) days’ notice if any payment due from Sponsor is not received before or upon the date due or within the ten (10) day notice period.

D. EFFECT OF TERMINATION. In the event of termination for any reason:

i. Sponsor will pay for all Research Costs incurred through the date of termination, including all non-cancelable obligations, even though the obligations may extend beyond the termination date.
ii. University will deliver to Sponsor all work in progress, and any completed documents, programs, data and other information or deliverables as described in this Agreement.

iii. Termination will not affect the Parties’ rights and obligations accrued prior to termination.

4. CONFIDENTIAL INFORMATION

A. CONFIDENTIALITY OBLIGATION. Each Party will advise its employees to use reasonable efforts to hold in confidence all proprietary information received from the other Party in connection with the Research (“Confidential Information”); provided, however, that each Party may share Confidential Information with third parties to the extent necessary to perform the Research under terms consistent with this Agreement and provided that such third parties will hold all Confidential Information in confidence. For written disclosures, the Party disclosing Confidential Information will mark the information “Confidential” at the time of disclosure. For oral or visual disclosures, the Party disclosing Confidential Information will designate the information “Confidential” at the time of disclosure and confirm such designation in writing to the other Party no later than 30 days after disclosure. Except as provided in Section 6, each Party’s obligation of confidentiality shall extend for five years from disclosure and shall not apply to information that: (a) was in recipient's possession on a non-confidential basis prior to receipt from disclosing Party; (b) is in the public domain or is general or public knowledge prior to disclosure, or after disclosure, enters the public domain or becomes general or public knowledge through no fault of recipient; (c) is properly obtained by recipient from a third party not under a confidentiality obligation to disclosing Party; (d) is explicitly approved for release by written authorization of disclosing Party; (e) is or has been developed by recipient independent of recipient’s access to disclosing Party’s Confidential Information; or (f) is required by law or court order to be disclosed.

B. RESPONSE TO INFORMATION REQUESTS. If University receives a request under the New Mexico Inspection of Public Records Act, Section 14-2-1 et seq., NMSA 1978 as amended or a request by other legal process to disclose Confidential Information, University will use reasonable efforts to provide prompt notice to Sponsor and will reasonably cooperate with Sponsor to protect any Sponsor Confidential Information.

5. PUBLICATION/PUBLIC PRESENTATIONS

A. REVIEW PERIOD. Sponsor recognizes that University’s mission is to publish and disseminate research results developed under this research program. Either Party’s proposed publications related to the Research, whether intended to be in writing or by oral presentation, shall be submitted for review by the other Party at least thirty (30) days prior to submission to third parties. The reviewing Party shall determine whether any of its Confidential Information is included in the proposed publication. The reviewing Party may require that its Confidential Information be removed from the proposed publication. The reviewing Party may also requested that submission to third parties be delayed for up to ninety (90) days in order to allow the Party to file a patent on an Invention.

B. ACKNOWLEDGMENT. Each Party will acknowledge the contributions of the other Party in publications or public presentations as scientifically appropriate.

6. INTELLECTUAL PROPERTY
A. INVENTIONS. “Inventions” means those potentially patentable discoveries, including pending patent applications and issued patents, first conceived and actually reduced to practice in performance of the Research. University shall own all Inventions first conceived and actually reduced to practice solely by University employees or solely by Sponsor employees through significant use of University resources (“University Inventions”). Sponsor shall own all Inventions otherwise first conceived and actually reduced to practice solely by Sponsor employees (“Sponsor Inventions”). The Parties shall jointly own all Inventions first conceived and actually reduced to practice by both University and Sponsor employees (“Joint Inventions”).

B. CONFIDENTIALITY OF INVENTION DISCLOSURES. University will promptly notify Sponsor of any Invention disclosure received by its technology transfer agent, STC.UNM, a New Mexico non-profit corporation, (“STC”). Sponsor shall treat all University Invention disclosures as Confidential Information. Notwithstanding Section 4.A, Sponsor’s obligation of confidentiality for Invention disclosures shall continue until the Confidential Information becomes publicly available through no fault of Sponsor. Each Party will promptly notify the other of any Joint Inventions.

C. PATENTS

   i. PATENT FILING. STC may, at its discretion and at its expense, file patent applications in the United States and in foreign countries for any University or Joint Invention. STC will also, at Sponsor’s request and expense, file patent applications in the United States for University or Joint Inventions. Sponsor will make any such request to University and STC in writing and within 60 days of STC’s notice of Invention disclosure. STC will keep Sponsor promptly informed regarding the status of any patent application filed at Sponsor’s expense and will give Sponsor reasonable opportunity to comment.

   ii. LICENSING. For any patent application on a University Invention or Joint Invention, University grants to Sponsor (a) a non-exclusive, non-transferable, royalty-free license to practice the Invention for non-commercial internal research purposes; and (b) a six-month option to negotiate a royalty-bearing commercial license in a designated field of use and territory, which Sponsor may exercise by written notice to University and STC no later than one hundred eighty (180) days from the date of STC’s notice of Invention disclosure. The negotiation period for such license shall be ninety (90) days from the date of Sponsor’s notice that it is exercising its option. If the parties have not entered into a license before the end of the negotiation period, then STC may license the Invention and its interest in the Joint Invention to third parties without further obligation to Sponsor.

   iii. BACKGROUND INTELLECTUAL PROPERTY. Nothing in this Agreement grants to either Party any rights or interest in the other Party’s Background Intellectual Property. “Background Intellectual Property” means (a) all works of authorship created outside the scope of this Agreement and (b) potentially patentable discoveries, including pending patent applications and issued patents, conceived or first reduced to practice outside the scope of this Agreement.

D. COPYRIGHTS

   i. OWNERSHIP. Title to all original works of authorship created in performance of the Research and in which copyright may be claimed (“Copyrightable Works”) shall vest initially in the author, subject to the policies of the Party that employs the author. Any joint work, as that term is defined by the U.S. Copyright Act of 1976, 17 U.S.C. § 101, as amended, shall be jointly owned, but co-owners shall have no duty of accounting for any profits.
ii. **INTERNAL USE LICENSE.** University grants to Sponsor a non-exclusive, royalty-free license to use, reproduce, prepare derivative works, display, distribute and perform all University-owned Copyrightable Works other than computer software and its documentation and informational databases for Sponsor’s internal research purposes, provided that Sponsor shall not have the right to distribute copies or derivative works to third parties. For University-owned Copyrightable Works that are identified as a deliverable under the Statement of Work and in the nature of computer software (and its documentation) or informational databases, University grants to Sponsor for Sponsor’s internal research purposes a royalty-free, non-transferable, non-exclusive license to use, reproduce, prepare derivative works, display and perform such Copyrightable Works.

7. **TANGIBLE RESEARCH PROPERTY.** “Tangible Research Property” (“TRP”) means those tangible (corporeal) items, as distinguished from intangible (intellectual) property, produced in performance of the Research. For purposes of illustration, TRP may include items such as: biological materials, computer media, drawings and diagrams, integrated circuit chips, prototype devices, and equipment. University shall hold title to all TRP produced by University with University resources; provided, however, that title to TRP identified as a deliverable under the statement of work will vest in Sponsor upon delivery by University.

8. **DISCLAIMER OF WARRANTIES.** UNIVERSITY MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING ITS PERFORMANCE UNDER THIS AGREEMENT. UNIVERSITY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, USE OR FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO DATA, INVENTIONS, COPYRIGHTABLE WORKS, TRP, OR OTHER RESEARCH RESULTS PROVIDED BY UNIVERSITY.

9. **LIABILITY**

A. **INDEMNIFICATION.** Each party is independently responsible in the event of its own negligence. Neither party agrees to indemnify the other party.

B. **LIMITATION OF LIABILITY.** IN NO EVENT SHALL EITHER PARTY, ITS REGENTS, DIRECTORS, OFFICERS, EMPLOYEES, STUDENTS OR AFFILIATES, BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGES OR LOST PROFITS, REGARDLESS OF WHETHER THE PARTY WAS ADVISED, HAD OTHER REASON TO KNOW OR IN FACT KNEW OF THE POSSIBILITY OF THE FOREGOING. THIS SECTION SHALL SURVIVE THE EXPIRATION OR EARLY TERMINATION OF THIS AGREEMENT. The liability of University hereunder shall be subject in all cases to the immunities and limitations of the New Mexico Tort Claims Act, Section 41-4-1 et seq., NMSA 1978, as amended.

10. **GENERAL PROVISIONS**

A. **FISCAL MANAGEMENT.** University will maintain complete and accurate accounting records in accordance with accepted accounting practices for institutions of higher education (i.e. 2 CFR 200 Uniform Guidance). University will make the accounting records available for inspection and audit by Sponsor or its authorized agent, at reasonable times upon reasonable notice at Sponsor’s expense for three years following the end of University’s fiscal year (July 1 - June 30) in which Research Costs are incurred.
B. USE OF NAMES. Neither Party will use the name of the other in any form of advertising or publicity without the express written permission of the other Party. University may publish in its institutional publications the aggregate amount of the funding to be received under this Agreement, listing only Sponsor’s name and the nature of the funded activity as a “Research Agreement”.

C. RELATIONSHIP OF THE PARTIES. Neither Party is agent, employee, legal representative, partner or joint venturer of the other. Neither Party has the power or right to bind or commit the other.

D. THIRD PARTY BENEFICIARIES. This Agreement does not create any rights, or rights of enforcement, in third parties.

E. SEVERABILITY. If a court of competent jurisdiction finds any provision of this Agreement legally invalid or unenforceable, such finding will not affect the validity or enforceability of any other provision of this Agreement and the Parties will continue to perform. If the Agreement cannot be performed in the absence of the provision, this Agreement will terminate upon 30 days’ written notice by one Party to the other Party.

F. MERGER. This Agreement and all attachments embody the entire understanding of the Parties and will supersede all previous or contemporaneous communications, either verbal or written, between the Parties relating to this Agreement. All terms and conditions of any instruments, including purchase orders, issued by Sponsor to facilitate payment under this Agreement are void, even though they may be issued after the signing of this Agreement.

G. AMENDMENTS. No modification to this Agreement will be effective unless confirmed in a written amendment signed by each Party’s authorized representative.

H. COUNTERPARTS. The Parties may sign this Agreement in one or more counterparts, each of which constitutes an original and all of which together constitute the Agreement. Facsimile or .pdf signatures shall constitute original signatures for all purposes.

I. ASSIGNMENTS. This Agreement shall bind, and inure to the benefit of, the Parties and any successors to substantially the entire assets of the respective Party. Neither Party may assign this Agreement without first obtaining the prior written consent of the other Party, and any attempted assignment is void.

J. FORCE MAJEURE. Each Party will be excused from performance of the Agreement only to the extent that performance is prevented by conditions beyond the reasonable control of the affected Party. The Party claiming excuse for delayed performance will promptly notify the other Party and will resume its performance as soon as performance is possible.

K. EXPORT CONTROL. Each Party acknowledges that it will comply with all applicable United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States government and/or written assurances by Sponsor that Sponsor will not re-export data or commodities to certain foreign countries or nationals thereof without prior approval of the cognizant government agency. If, for purposes of the Research, Sponsor intends to disclose export-controlled information to University, Sponsor will not disclose such information unless and until a plan for the transfer, use, dissemination and control of the information has been approved by University’s Export Control Office. In the event Sponsor inadvertently (i) discloses export-controlled information or (ii)
breaches this section, any deadlines contemplated by the Statement of Work will be adjust based on the time it takes to address the disclosure.

L. RESOLUTION OF DISPUTES. The Parties will enter into good faith negotiations to resolve any disputes arising from this Agreement. Resolution will be confirmed by written amendment to this Agreement. If the Parties cannot resolve any dispute amicably through negotiation, either Party may terminate this Agreement in accordance with Section 3.

M. SURVIVAL. All terms of this Agreement that are intended to survive termination or expiration in order to be effective shall survive such termination or expiration.

N. WAIVER. No waiver of any right, remedy, power or privilege by any Party under this Agreement shall be effective unless made in writing. No waiver of any breach of any provision of this Agreement shall constitute a waiver of any subsequent breach of the same or of any other provision of this Agreement.

O. NOTICES. Any notice given under this Agreement will be in writing and will be effective upon receipt evidenced by: (a) personal delivery; (b) confirmed facsimile transmission; (c) return receipt of postage prepaid registered or certified mail; or (d) delivery confirmation by commercial overnight carrier. All communications will be sent to the addresses set forth below or to such other address designated by a Party by written notice to the other Party in accordance with this section:

UNIVERSITY: For matters related to this Sponsored Research Agreement:

University of New Mexico
Office of Sponsored Projects, Main
1700 Lomas Blvd., N.E., Suite 2200
MSC01 1247
1 University of New Mexico
Albuquerque, NM 87131-0001
Phone: (505) 277-4186
E-mail: osp@unm.edu

UNIVERSITY: For matters related to intellectual property and licensing:

STC.UNM
Lobo Rainforest Building
101 Broadway Blvd NE Suite 1100
Albuquerque, NM 87102
Phone: (505) 272-7900
E-mail: info@stc.unm.edu

SPONSOR: For matters related to this Sponsored Research Agreement

Patrick J. Adams
Arizona Municipal Water Users Association
3003 North Central Avenue, Suite 1550
Phoenix, AZ 85012
Phone: (602) 248-8482
Email: padams@amwua.org
P. AUTHORIZED SIGNATORIES. Each Party represents that the individuals signing this Agreement on its behalf are authorized, and intend, to bind the organization in contract.

IN WITNESS WHEREOF, the Parties have executed this Agreement, intending to be legally bound as of the Effective Date, by their respective duly authorized representatives.

THE REGENTS OF THE UNIVERSITY OF NEW MEXICO

Elizabeth Metzger, University Controller

Date ______________________

SPONSOR

Signature

Warren Tenney, Executive Director

Name and Title of Authorized Signatory

Date ______________________

READ AND UNDERSTOOD:

Principal Investigator
EXHIBIT A
STATEMENT OF WORK

1. General Project Management Requirements

The following is a general description of what the Arizona Municipal Water Users Association ("Sponsor") expects from the University of New Mexico ("University") in creating and providing a Water Loss Control Training & Technical Assistance Program for its participating members. The scope of the Program will include three general stages lasting roughly one year in total with primary focus on the second and third stages. The Sponsor anticipates that seven of its ten members will participate in the program, though that number may change.

A. The University will host and maintain an electronic means of sharing data, documentation, and report files (e.g., website, SharePoint, Dropbox) between the University and participating utilities
B. Results of each stage and final program outcomes will be reported by the University and made available electronically to the Sponsor and participating utilities
C. An in-person meeting at the conclusion of the program will be held to present comprehensive results of Stages 1 – 3 to the participants
D. The University will structure guidance to encourage participant-led data gathering and experiential learning
E. The University will guide participating members in engaging multiple departments across the utility
F. The University will provide direct support to the participants for data gathering. Once the data is gathered, the University will be responsible for a deeper analysis of the compiled data to provide expert recommendations on finding issues and to alleviate a heavy time burden on participants
G. The University will endeavor to engage participants as thoroughly as possible to ensure that the Tasks & Requirements of this Exhibit are fulfilled. If cooperation from a participating utility is hindering advancement of the Program, concerns will be brought to the Sponsor and a resolution identified. In the event of unreasonable time-delays due to non-responsiveness from a participating utility, the University will complete the particular Task or deliverable with the most current information to the fullest extent possible.

2. Stage 1 Tasks & Requirements

A. The University shall conduct an introductory webinar with the participants to initiate the first phase of data gathering. Information presented during the first meeting will include but not be limited to:
   i. American Water Works Association (AWWA) M36 water loss audit methodology including steps to build a water balance and assign data validity grades
   ii. Establishing a cross-functional water loss control group or task force
   iii. How to access and use the AWWA Free Water Audit Software v5.0 (2014)
   iv. Data required to complete a water audit following the AWWA M36 Top-down approach
   v. Free resources available to aid utility staff in completing a water audit
vi. Data and documentation required to complete a Level 1 Water Audit Validation as detailed by the Water Research Foundation’s “Level 1 Water Audit Validation: Guidance Manual” (2016)

B. Following the introductory webinar, the University shall conduct two in-person Orientation Meetings to address questions and issues members have as they complete their water balances and Level 1 water audit validation.

   i. First Orientation Meeting – AWWA M36 water loss audit methodology including steps to build a water balance will include content such as, establishing a water loss task force, accessing the AWWA Free Water Audit Software, data collection needs, determining which data is the most critical, and potential data collection issues. The participants will also be asked to share their past experiences with the use of the audit and data collection.

   ii. Second Orientation Meeting – AWWA M36 water loss audit methodology assigning data validity grades. Basics of M36 Data Validation and Grading will be discussed including the use of University Tools for data validation and as detailed by the Water Research Foundation’s “Level 1 Water Audit Validation: Guidance Manual” (2016)

C. The University shall conduct an in-person workshop to address questions and issues members have as they work to complete the water balances and water audit validations. The in-person workshop will be organized based on the feedback the University receives from participants after each orientation meeting. The workshop may include:

   i. Discussing options for “missing” data or questions about data sources
   ii. Reviewing data entry for accuracy
   iii. Discussing data validation options and inputs
   iv. Reviewing data validation for accuracy

D. The University shall provide technical assistance to participating utilities as needed throughout Stage 1 to address data collection, data validation, water audit data entry, or water loss auditing questions or concerns.

E. The University shall submit a Report to the Sponsor after completion of the Stage 1 Tasks. Report 1 shall include:

   i. All materials used in the orientation meetings and first in-person workshop including agendas, lecture materials, pre-training assessments, and data compilation and grading workshops.
   ii. A water balance for each utility based on available data developed by each utility and the University
   iii. A Level 1 water audit validation for each utility
   iv. Data sources for each utility

F. Stage 1 will be deemed complete when the Stage 1 Tasks have been completed, all actively participating utilities have, to the best of their ability and with the data available to them, successfully completed a replicable water balance and Level 1 water audit validation, and
the Sponsor has confirmed that Report 1 reasonably meets all requirements outlined in Task E.

3. **Stage 2 Tasks & Requirements**

A. The University shall provide an introductory webinar to initiate Stage 2 which summarizes all activities completed in Stage 1 and to introduce data needs for Stage 2 and 3.
   i. Utilities shall be provided with information on Stage 1 data collection efforts, what needs to be improved upon, what changes might be made over time and what will be needed for Stage 2 and 3 efforts.
   ii. More advanced data analysis shall be introduced to include topics such as a statistical analysis comparison between similar users, statistical comparison between meter calibrations, plans for growth, infrastructure changes such as district metering (and understanding the costs vs. benefits) and other non-economic considerations.

B. The University shall provide technical assistance to the participants for data validation and component analysis. Technical assistance is available both before and after the workshop to address any data issues and to proceed with data validation and component analysis.

C. The University shall conduct a Stage 2 training workshop to help participants develop a better understanding of what is causing their real and apparent water loss. The workshop will include discussion and/or training on:
   i. Water loss control activities as well as supplemental data that can support water loss control activities
   ii. Addressing various types of water loss, including real water loss and apparent water loss
   iii. Non-revenue water
   iv. Leakage component analysis, water meeting billing analysis, and meter performance data analysis
   v. Industry standard key performance indicators

D. The University shall submit a Report to the Sponsor after completion of the Stage 2 Tasks. Report 2 will include, for each participating utility:
   i. Leakage component analysis
   ii. Water meter billing analysis
   iii. Meter performance analysis
   iv. Water loss profiling
   vi. Participant evaluations
   vii. All materials from Stage 2 trainings as well as a summary of all participant activities and associated technical assistance

The University will complete each analysis, water loss profile, and advanced validation based upon the available data. Where data is not available, the University will perform the
analysis to the fullest extent possible, document data gaps, and provide recommendations for developing the required data for future audits.

E. Stage 2 will be deemed complete when the Stage 2 Tasks & Requirements have been completed, and the Sponsor has confirmed that Report 2 reasonably meets all criteria listed in Task D.

4. Stage 3 Tasks & Requirements

A. The University shall provide an introductory webinar to initiate Stage 3, if requested by the Sponsor or participating utilities.

B. The University shall conduct a training workshop that includes discussion of the economics of water loss, incorporating methods for determining the economic level of leakage.
   i. Participants will learn how to tabulate all costs for the utility to deliver one unit of water.
   ii. The class will discuss whether a utility should use the consumer rate or variable production rate analysis provided by the software and will also discuss factoring in the societal and environmental aspects of the economic impacts of water loss.

C. After the training workshop, the University shall provide remote assistance to the participants, and will remotely complete the data analysis for Stage 3. Remote assistance will include support with understanding and calculating Economic Loss Level, data gap analysis (with suggestions for further data development), process/operations gap analysis (with suggestions for SOP creation/improvement), and development of utility-specific water loss control strategies and talking points for management and public consumption.

D. The University shall provide a guidance document to the participants that will highlight the development of a timeline to conduct the audit again the following year. The guidance document will also establish best management practices for communicating water loss audit processes and findings to executive management and the public.

E. The University shall submit a Report to the Sponsor after completion of the Stage 3 Tasks. Report 3 will include:
   i. An economic level of loss calculation for each utility based on the available data
   ii. Utility-specific recommendations for water loss control interventions and strategies
   iii. A suggested timeline for future audits
   iv. A list of resources available to help meet water loss goals in the future
   v. All materials from Stage 3 trainings as well as a summary of all water utility activities and associated technical assistance

F. Stage 3 will be deemed complete when the Stage 3 Tasks & Requirements have been reasonably completed, and the Sponsor has confirmed that Report 3 reasonably meets all requirements listed in Task E.
5. Program Conclusion Tasks & Requirements

A. The University shall hold a Program Conclusion Meeting to present the overall program outcomes and major findings.

B. The University shall submit to the Sponsor a Final Report that will encompass all activities, workshops and technical assistance performed over the 12-month period as well as feedback from participants and recommendations for future audits. The Final Report will include:

   i. The overall program outcomes and major findings including a detailed description of the training and technical assistance provided at each of the three stages of the project. All materials from the trainings will be included in this report as well as a detailed log of the technical assistance provided and the number of hours and the recipients.

   ii. The water audit results for each participating utility in a summary table along with their data validation results. The table and additional summary of the results will include data analysis for the water loss components of each participating utility.

   iii. Individual summaries of each utility’s audit and areas where they struggled (i.e. missing, incomplete, or likely inaccurate data) as well as recommendations for future water audits and future water loss control implementations specific to each utility.

   iv. Evaluation forms for all participants will be given out after stages 1 and 2. The feedback from these evaluations will be included in the final report. There will also be an evaluation given to all participants after the program is complete. The University will work with the Sponsor to design the appropriate questions for the evaluation form and include the feedback in the final report.

   v. A debrief of the program detailing what goals were met, what are the biggest issues the participants face and where there were challenges in the program.

   vi. Recommendations for future water loss control activities, any on-going training recommendations, and suggestions for the best way AWMUA can support the participating utilities moving forward.

   vii. Recommendations for implementing water loss control trainings, programs, and activities throughout the State of Arizona, based upon the outcomes and lessons learned of this Program, as well as the institutional knowledge and experience of the University.

C. The Program Conclusion Stage will be deemed complete when the Program Conclusion Tasks & Requirements have been completed, and the Sponsor has confirmed that the Final Report reasonably meets the requirements of Task B.
EXHIBIT B

BUDGET & TIMELINE

1. The University will complete the Statement of Work described in Exhibit A according to the schedule outlined in Table 1. If a target date cannot be met, the University will consult with the Sponsor to identify a mutually agreeable resolution regarding how to complete the Task.

2. Once a Task has been deemed complete by the Sponsor, the University will submit an invoice in the amount associated with the Task as shown in Table 1.

Table 1

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<th>Stage</th>
<th>Task</th>
<th>Target Date</th>
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<tbody>
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<td>1</td>
<td>A. Introductory Webinar</td>
<td>2/12/20</td>
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<td></td>
<td>B.(i) First Orientation Meeting</td>
<td>2/28/20</td>
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<td></td>
<td>B.(ii) Second Orientation Meeting</td>
<td>4/15/20</td>
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<tr>
<td></td>
<td>C. Stage 1 In-person Workshop</td>
<td>5/15/20</td>
<td>$40,000</td>
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<tr>
<td></td>
<td>D. Stage 1 Technical Assistance</td>
<td>Ongoing, as needed</td>
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<td>E. Submit Report 1</td>
<td>6/30/20</td>
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<td>2</td>
<td>A. Stage 2 Introductory Webinar</td>
<td>6/15/20</td>
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<td>B. Stage 2 Technical Assistance</td>
<td>Ongoing, as needed</td>
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<td>C. Stage 2 Training Workshop</td>
<td>7/15/20</td>
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<td>D. Submit Report 2</td>
<td>9/15/20</td>
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<td>3</td>
<td>A. Stage 3 Introductory Webinar (Optional)</td>
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<td>B. Stage 3 Training Workshop</td>
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<td>C. Stage 3 Technical Assist. &amp; Data Analysis</td>
<td>11/30/20</td>
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<td>D. Guidance Document</td>
<td>11/30/20</td>
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<td>E. Submit Report 3</td>
<td>11/30/20</td>
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<td>Program Conclusion</td>
<td>A. Program Conclusion Meeting</td>
<td>12/15/20</td>
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<td>B. Submit Final Report</td>
<td>1/30/21</td>
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<td><strong>Total</strong></td>
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<td><strong>$285,000</strong></td>
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3. Notices, correspondence, reports, and invoices from the University to the Sponsor shall be sent to:

Patrick J. Adams  
Arizona Municipal Water Users Association  
3003 North Central Avenue, Suite 1550  
Phoenix, AZ 85012  
Phone: (602) 248-8482  
Email: padams@amwua.org
Fiscal Year 2020 Budget Reconciliation

STRATEGIC PLAN REFERENCE

Operational Principles – Manage an Efficient and Effective Association

SUMMARY

It is anticipated that at the end of June 2020, AMWUA’s Fiscal Year 2020 budget will be below its expenditures and have monies left over. AMWUA staff is seeking direction from the Management Board on whether the remaining funds should be refunded to the AMWUA members, carried over to the Fiscal Year 2021 budget, or placed in AMWUA’s reserve fund.

RECOMMENDATION

Staff would like to discuss with the AMWUA Management Board its preference for unspent funds in AMWUA’s Fiscal Year 2020 budget.