ANNUAL REPORT 2014
AZ Water Association – Wastewater Treatment Committee

This memorandum presents the Annual Report of the AZ Water Association (Association) Wastewater Treatment Committee (Committee) for calendar year 2014. It consists of the following sections:

- **EVENTS AND ACTIVITIES.** A summary of the training and outreach events held by the Committee.

- **COMMITTEE BUSINESS.** A summary of administrative matters, including monthly meetings, membership status and recruitment, work on the committee webpage, finances, and internal AZ Water communication and coordination.

- **FINANCES.** A review of the Committee’s overall finances including results of the Committee’s first Annual Technical Seminar conducted on October 21, 2014.

- **MISSION, GOALS, & STRATEGIES.** A review of the Committee’s mission, strategies and objectives, and the Committee’s progress in achieving these targets.

- **WORK PLAN FOR 2015.** A summary of activities planned for calendar year 2015.

- **APPENDICES.**

After being dormant for several years, the Committee reactivated in mid-2012. Since then the group has steadily grown in size to over 30 members (please see member roster in Appendix A) and has continued to expand its activities and offerings to the Association. The keys to the success of the Committee, we believe, are: (1) an active and engaged group of members with industry expertise; (2) commitment to meeting as a group on a regular basis; (3) willingness to try new ideas when suggested; (4) tracking the Committee’s progress and results; and (5) our commitment to keep our activities low-cost or no-cost, thereby providing good value and “keeping things simple” to make it easy to participate.

**EVENTS AND ACTIVITIES**

The Committee presents several different types of training events, which in general have been very well-received. These include treatment plant technical tours, operator math workshops, webinars, and an annual technical seminar.

**Treatment plant tours.** In 2014, three technical tours of wastewater treatment plants were held under the auspices of the Committee:

- January 16: Mesa/Gilbert Greenfield WRP
- February 7: Nogales International WWTP
- March 26: Safford WRP

This brought the total number of plant tours offered by the Committee to date to nine (9). These tours are typically held in the morning from 10 a.m. to noon, followed by a luncheon for participants. The tours are arranged by the Committee, but usually are led by plant staff. A
sponsor provides lunches for the participants at no cost to the Committee. There is no charge for participants. Participants typically receive two professional development hours (PDHs).

The tours have proven to be very popular, with each one filled to capacity, usually from 25 to 35 participants. Tours are promoted on azwater.org, and using the ADEQ listserv of treatment plant operators.

**Operator math workshops.** When the Committee re-formed in 2012, the membership held discussions to identify worthwhile projects to work on. A key concern that emerged was the low passing rate for operators taking the recently-introduced ABC operator certification examinations. Lack of math skills was identified as a primary obstacle for many operators. A group of Committee members (Doug Berschauer, Jesse Black, Tyson Glock, and Gary Whitten) developed and began to offer “math for operators” workshops at various facilities around the state. To date, about 10 operator math workshops have been held. Operator math workshops held in 2014 were:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-Feb-14</td>
<td>Epcor - Main Offices, Sun City</td>
<td>12</td>
</tr>
<tr>
<td>26-Mar-14</td>
<td>Water Reclamation Plant, Safford, AZ</td>
<td>25</td>
</tr>
<tr>
<td>14-May-14</td>
<td>Annual Conference - Operator Track</td>
<td>50</td>
</tr>
<tr>
<td>4-Nov-14</td>
<td>Camp Verde</td>
<td>12</td>
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</tbody>
</table>

From the math training offered as a block in the operator training track at the 2014 Annual Conference, Committee member Doug Berschauer compiled the training materials into a PowerPoint presentation that can be used for future workshops.

During 2014, the Committee began to couple math training workshops with treatment plant tours, offering a joint tour and workshop in Safford.

**Webinars.** The Committee has offered webinars in the past, and had several in the planning stages during 2014, but none were held. This is an area of improvement for year 2015.

**Annual technical seminar.** The Committee held its first of what will be an annual series of technical seminars on October 21 at the Salt River Project PERA Club. A copy of the agenda is provided in Appendix B. The seminar proved to be an unqualified success, with the high points including:

- Attendance of approximately 85 persons, filled to capacity.
- Outstanding roster of speakers including nationally-renowned process design experts, operators from leading Arizona WWTPs, and researchers from the University of Arizona.
- Each attendee received a notebook with printed proceedings including each speaker’s presentation.
- Smooth logistics, timely presentations.
- Good-quality food service, including breakfast, lunch and snacks at breaks.
- Excellent review comments from participants’ seminar evaluation forms.
- A reasonable registration fee ($75), providing excellent value for the quality of speakers and amenities provided.
- The event provided a solid net income for the Association (details below). Several sponsors were recruited, further strengthening the event’s financial performance.
- 6 PDHs given to all participants for full seminar attendance.
Annual conference participation. Several members of the Committee (Doug Berschauer, Jesse Black, Bob Hollander, and Doug Kobrick) are on the annual conference program planning committee. They and other members of the Committee had input in the abstract review process. Several members of the Committee presented papers or served as moderators at the conference. The Committee, led by Doug Kobrick, took the lead in organizing the operator training track for the entire conference, as an extension of our efforts to improve operators’ success rates on their certification exams. A suggestion from Committee member Bill Kenning helped lead to the development of a track for manufacturers to offer technical information on innovative new products that is now included in the conference program.

Outreach to other organizations. The Committee has continued its effort to network with the Rural Water Association of Arizona (RWAA), and those efforts are expanding in 2015.

The Committee also worked with the Arizona section of ASCE (AZSCE) to prepare the wastewater section of AZSCE’s Arizona infrastructure report card. Doug Kobrick attended several planning meetings with AZSCE and he and other members of the committee drafted the pertinent sections of the report card.

Coordination with other AZ Water committees. The Committee held a joint meeting with the Energy and Sustainability Committee in December 2014, with plans to jointly develop a series of webinars or other training offerings relating to energy use and efficiency in wastewater treatment. The Committee also began working together with the Energy/Sustainability and Biosolids Committees on a webinar to be held in February 2015.

COMMITTEE BUSINESS

Monthly meetings. The Committee meets monthly on a consistent basis. Regular meetings are critical to maintaining the Committee’s momentum. Meetings are held at ADEQ’s office in downtown Phoenix from noon to 1 p.m. on the third Wednesday of each month. Holding the meeting on the same date/time each month ensures that all members are aware of the meeting and can plan to attend. Typical attendance at the meetings is about 12 to 15 members. A teleconference is set up so that members from outside the Phoenix area or who are otherwise unable to travel to the meeting can participate remotely. In keeping with the Committee’s “keep it simple” approach, the meetings are usually held on a “bring-your-own-lunch” basis, with one year-end lunch provided for the members.

Meeting agendas and minutes are prepared by the Committee chair and distributed to all members, and also posted on the Committee’s webpage.

Membership status and recruitment. From the initial group of about a half-dozen persons in 2012, the Committee has grown to a membership of over 30 persons. Membership is open to all who are interested in participating and the Committee is continually recruiting new members. The Committee members are a diverse group representing the full range of the wastewater industry in Arizona, including system operators, managers, consultants, vendors, manufacturers, public and private utilities, construction contractors, regulators, and students. Although most members of the Committee are residents of the Phoenix area, the Committee also includes personnel from the Tucson area, Safford, and Yuma.

Of the 30+ members of the Committee, approximately half can be described as “active,” regularly attending Committee meetings and getting involved in many of the Committee’s activities. There are very few members who are inactive. Nearly every member of the Committee has made one or more substantial contributions to the success of our efforts. The
Committee Chair makes it a point to find useful activities for members that will also provide a benefit to the member.

**Webpage maintenance.** Largely thanks to the considerable efforts of Committee member Bill Kenning, the Committee has an active, up-to-date and informative webpage on AZWater.org. The webpage includes a list of upcoming events, member directory and bios, meeting agendas and minutes, and also a compilation of links to helpful wastewater-treatment related websites and documents. Most of the information that was on the old website has been successfully transferred to the new webpage. The Committee members’ information has been transferred to the new webpage’s directory. The intent of the webpage is to be resource both for members of the Committee and others as well.

**Internal communications and coordination.** The committee works hard to communicate within the committee itself and throughout AZ Water. Each edition of the *Kachina* newsletter includes an update with committee news. The committee also has authored a white paper on the operator certification issue that was published in the *Kachina*. Doug Kobrick, the chair, keeps in close contact with Debbie Muse who is very helpful in making the Association’s various communication vehicles available in support of the Committee’ activities. Our Board liaison, Bob Hollander (and before him, Chuck Graf) is an active member of the Committee and keeps us coordinated with the AZ Water Board.

A key aspect of our success to-date has involved the development of our committee webpage. Committee member Bill Kenning has devoted many hours to keeping the webpage up to date and populated with useful information not just for the Committee members, but all members of AZ Water. We have worked functionality offered by the AZWater.org website.

**FINANCES**

**Statement of philosophy.** The Committee has consciously adopted a “keep it simple” approach, to make it as easy as possible for members and others to participate in our activities and events. We offer the large majority of our events, such as plant tours and webinars, at no charge to the participant. Eliminating the approvals and administrative efforts needed for even modest event registration fees makes it much easier for personnel to participate. We believe that offerings such as these are a large part of how the Association creates value for its members.

The Committee achieves this low or no cost approach by minimizing expenses, investing our own personal efforts, and recruiting sponsors who are willing to defray various event costs. With no out of pocket costs to present tours, etc. it is not necessary to collect registration fees.

**Annual technical seminar.** Along with the free events, the Committee offers one seminar for which a registration fee is charged: our Annual Technical Seminar. The 2014 seminar generated a substantial net revenue for the Association that we believe justifies our efforts to keep the rest of our offerings as free events.
The following table summarizes the financial results of the seminar held on October 21:

<table>
<thead>
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<th>Income</th>
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<tr>
<td>Registration fees</td>
<td>$ 5,040</td>
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<td>Sponsorships</td>
<td>$ 1,425</td>
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<td>Total income</td>
<td>$ 6,465</td>
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<table>
<thead>
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<th>Expenses</th>
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<tr>
<td>Food</td>
<td>$ 2,164</td>
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<tr>
<td>Location rental</td>
<td>$ 253</td>
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<tr>
<td>Supplies</td>
<td>$ 365</td>
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<tr>
<td>Travel</td>
<td>$ 262</td>
</tr>
<tr>
<td>Total expenses</td>
<td>$ 3,043</td>
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</tbody>
</table>

Net income $ 3,422

Thus, the event generated a net income of over $3,000 for the Association treasury. Keys to the financial success of this event included:

- All presenters donated their time and travel expenses with the exception of two academics who requested mileage reimbursement.
- The SRP PERA Club is a very reasonably-priced venue, even with a full offering of meals and snacks.
- Printing costs for the proceedings were donated by a consulting firm.
- Low costs were sought out and found for seminar supplies.
- Six sponsors were found and they contributed significant funds. Several of the sponsors approached us to participate without being asked.
- The high-quality program led to a strong turnout and corresponding registration revenues.

The committee had no other income or expenses over the course of the year. The net income from the seminar was substantially greater than the 2014 budget expectation of $1,000 in net income.

2015 budget. The budget approved by the AZ Water Board for the Wastewater Treatment Committee is attached as Appendix C. As with last year’s budget it is based upon the finances associated with the technical seminar. The budget expectations, culminating in a budgeted net income for the committee of $1,000, are reasonably modest and we expect that we will be able to once again surpass those expectations.

PROGRESS IN ACCOMPLISHING MISSION, GOALS, & STRATEGIES

When the Committee re-formed in 2012, it carefully developed a mission statement and identified specific goals and strategies to accomplish that mission. Bob Hollander of the Committee was instrumental in that effort. The mission statement along with the goals and strategies, are presented as a whole in Appendix D.

Each year the Committee revisits the mission, goals, and strategies, and reflects upon its progress in accomplishing them. This section provides an assessment of the Committee’s current progress on the goals and strategies it has identified to achieve its mission.

Goals. The Committee has established the goals listed below in italics. Following each item is an assessment of our progress in accomplishing the goal.
Provide opportunities for continuing education and technical advancement of water professionals.

Assessment: Excellent progress. In 2014, the Committee presented three technical tours, 4 math workshops, a full-day technical seminar, and was actively involved in the annual conference.

Promote the exchange of information between the regulatory community, utilities, operators, end-users, academia, engineers and consultants

Assessment: Excellent progress. The Committee membership is comprised of personnel from each of these segments of our industry (except academia). The technical seminar included presentations from utilities, operators, end-users, academia, engineers, and consultants. The treatment plant technical tours have drawn a diverse group of participants from all of these sectors.

Identify common goals and challenges and provide a forum for the exchange of ideas and information

Assessment: Excellent progress. The committee’s monthly meetings provide a regular forum for discussion of a wide range of topics and information. Several of the committee’s initiatives have emerged from these discussions. The operator training track that we are now spearheading at the annual conference is another such forum.

Follow the development and implementation of new regulations and technologies.

Assessment: Excellent progress. Our committee membership includes Chuck Graf of ADEQ, Dean Moulis, formerly of ADEQ, and Bill Kenning of MCESD, so we are up to date on potential developments in the regulatory arena. We also have coordinated with regulatory personnel such as Noah Adams and Robert Phelan of ADEQ.

We have several equipment manufacturers and vendor representatives on the committee who bring us information on new technologies. Bill Kenning and Tyson Glock of the committee are leading the development of the manufacturers’ forum, offering an opportunity for presentations on innovative new products, to be held at this year’s annual conference. The annual technical seminar also included considerable information on new technologies and potential regulatory developments.

Identify opportunities to provide services to rural utilities and operators and obtain feedback

Assessment: Excellent progress. We have offered technical tours at smaller and/or outlying WWTPs (Cave Creek, Safford). Gary Whitten of the Committee has been acting as a liaison to the Rural Water Association of Arizona. We have participated in RWAA events in the past. Our committee meetings always include a teleconference feature so that members in outlying areas can participate. We have plans in progress for a technical tour and training workshop to be held in the Yuma area this spring, and potentially in Payson this summer.

Increase our visibility in local schools and public interest groups, to advance our profession.

Assessment: Minimal progress. This is an area of improvement for this year’s work by the committee.
Strategies. The Committee’s strategies are listed below in italics, again followed by an assessment of our progress in accomplishing them.

*Maintain an active, diverse and energized Committee membership*

Assessment: Excellent progress. The Committee’s membership has steadily grown to its current total of approximately 35. The membership is diverse, covering all branches of the wastewater industry, ranging from young professionals to seasoned veterans, and bringing representation from many areas of the state beyond the Phoenix area.

There is a core group of about 15 to 20 members who are the most active, but every individual member of the committee has made at least one significant contribution to the work of the group.

The monthly meetings keep the momentum of the group going, and are an enjoyable opportunity for the members to interact. This is a group that enjoys working together and actively looks for opportunities to be of service.

*Solicit papers and presentations for the Annual AZ Water Association Conference and AZ Water Association lunchtime seminar series;*

Assessment: Adequate performance. The committee does have several members who are on the conference program committee. Committee members have been involved in the lunchtime seminar program. The role of committees in developing the conference program has diminished somewhat with the end of the “large block” approach, but the wastewater treatment committee does pay attention to the development of the program and we do encourage our members to submit papers on topics of interest.

*Coordinate with national organizations (e.g. Water Environment Federation) on wastewater treatment specialty conferences;*

Assessment: Minimal progress. This is an area of improvement for this year’s work by the committee, as opportunities permit.

*Develop and prepare articles on wastewater treatment topics for the Kachina News;*

Assessment: Adequate progress. Our white paper on the certification process was published in 2013. We do submit regular “committee news” updates and make good use of the newsletter to publicize our events. The committee placed a news article in the newsletter on the result of the technical seminar.

This is an area of improvement for this year’s work by the committee.

*Develop and maintain an active and dynamic site on the AZ Water Association website;*

Assessment: Very good progress. We believe our committee has the most robust webpage of any in the Association, thanks to the hard work of Bill Kenning in particular. However, there is still much that can be done to take advantage of the expanded capabilities of the new website. This is an area of continued effort for this year’s work by the committee. It needs to involve more members of the committee, and will probably require more support from the Association as well. Our opinion is that the Association needs to invest in third-party website support as there is a limit to the amount of effort that can be expected from individual members, i.e., Bill Kenning and Patrick Goodfellow.
Provide tours of facilities to enhance education on and information about basic and innovative approaches to treating various types of wastewaters

Assessment: Very good progress. The treatment technical tours have been a major success for the committee. However, we lost some momentum in the second half of 2014 because the committee was occupied with the technical seminar and had some difficulty lining up participating sites.

Utilize information technology to advance the educational and outreach responsibilities of the Association, including on-line meetings webinars and webcasts

Assessment: Adequate progress. We have a well-established process for presenting webinars. Our main issue on this front is the effort required to recruit speakers, develop content, and schedule the events. We have discussed ideas for several webinar presentations that have not occurred yet; the lack of progress on these is not due to information technology issues, but due issues related to developing content.

Coordinate with other AZ Water Association Committees (e.g. Pretreatment, Biosolids and Residuals, and Reuse)

Assessment: Very good progress. We have begun to develop some joint efforts with the energy and sustainability committee, and the two committees held a joint meeting in December where several shared initiatives were discussed. We also coordinated with other AZ Water committees to gain the benefit of their experience in developing at the technical seminar.

Identify existing and cutting-edge wastewater treatment technologies that meet the diversity of needs of Arizona water services providers;

Assessment: Very good progress. The annual technical seminar including a number of leading-edge topics. The committee is involved in presenting the manufacturers’ forum on new technologies at the annual conference.

Work with the ADEQ to identify operators in rural communities to initiate an outreach program, to develop means of increasing the value of the association to our members, and receive feedback;

Assessment: very good progress. Bill Kenning of the committee has developed a connection with ADEQ to use their operator listserv to ensure that our events are publicized to operators throughout the state. In March we offered our math training workshop in Safford for operators in eastern Arizona. We have plans to offer a math workshop to operators in the southwestern areas of the state in March 2015. We continue to look for opportunities for dialogue with RWAA.

Work with the licensing board and the licensed operators to understand the standard test requirements, and offer training and education to operators in-state to assist in their preparation for the exams.

Assessment: Excellent progress. The committee’s math workshops have been very well-received. The workshop content has been captured in the form of a PowerPoint presentation. We completed our evaluation of the operators’ challenges in passing the new ABC exams and concluded that providing additional training opportunities to succeed on the examination is best approach. The committee was approached about providing entry-
level training for operators and is considering developing, on its own, a training program for 
level 1 and 2 operator exams. This will be a longer-term project over the coming year.

Promote wastewater treatment in a new light, one that views wastewater not as a waste, but 
as a resource, and the wastewater profession as providing value not just by preventing 
pollution but also by reclaiming resources and producing beneficial products.

Assessment: Adequate progress. The annual technical seminar included several 
presentations that addressed resource recovery issues, ranging from reclaimed water to 
phosphorus. We continue to work on this topic including our joint efforts with the energy 
and sustainability committee.

WORK PLAN FOR 2015

Based on our mission, goals, and strategies, the Wastewater Treatment Committee plans to 
carry out the following activities and work projects in calendar year 2015:

1. Conduct twelve (12) monthly meetings at the regular time of noon – 1 p.m. on the third 
Wednesday, each month.

2. Wastewater treatment plant technical tours: six (6). Seek opportunities for summer-
appropriate locations so that the program is not interrupted during the hot-weather 
season. Sites currently planned or already held include: Avondale, Glendale West Area 
WRF, Yuma, and Northern Gila County S.D. (Payson).

3. Operator math workshops: Six (6). Estimate three (3) of these to be in tandem with 
treatment plant tours, and three (3) as stand-alone events.

4. Operator training track at annual conference. Doug Berschauer and other members of 
the Committee are taking the lead in organizing and moderating this portion of the 
conference. This track will include training sessions, math workshops, operators’ panel 
discussion, and a practice exam.

5. Webinars. Develop and present a series of three (3) webinars in conjunction with the 
Energy and Sustainability Committee, and facilitate three (3) additional webinars on 
other wastewater treatment topics, hopefully one (1) with the Biosolids Committee.

6. Annual technical seminar. Prepare and present one (1) full-day technical seminar on 
leading-edge wastewater treatment technology, with a similar format to last year’s event. 
Generate at least $1,000 in net income for the Association.

7. Rural Water Association outreach. Attend at least three (3) RWAA Board meetings and 
present one (1) paper at one of their two annual conferences.

8. Energy and Sustainability Committee coordination. Co-present the three seminars listed 
above, and attend at least three (3) of their committee meetings.

9. Biosolids Committee coordination. Co-present one (1) webinar, and one (1) plant tour in 
conjunction with the Biosolids Committee.

10. Reuse Committee coordination. Begin outreach effort with the Reuse Committee.
11. Conference Program Committee participation. Maintain at least three (3) Wastewater Treatment Committee members as active participants in the Conference Program Committee.

12. Recruitment. Recruit at least four (4) new members for the Committee.

13. Webpage improvements. Continue to maintain accurate and timely information on the Committee’s webpage. Add technical content and links of interest as time permits. Create a comment forum for general discussion of wastewater treatment-related topics throughout the profession in Arizona; this is a long-term effort that may require us to become more proficient with the use of the webpage and also to address issues relating to accessibility of the webpage to persons outside the Committee itself.

14. Develop a 4-hour operator training course for the Level 1 and 2 wastewater treatment operator examinations.

15. Kachina News. Prepare at least two (2) articles for publication.

16. Monthly luncheons. Place at least one wastewater treatment-related presentation on the schedule for either the Phoenix or Tucson-area monthly luncheon meeting.

17. Student field trips. Facilitate at least two (2) field trips for student groups to wastewater facilities or AZ Water events.

18. Operator barbecues. Facilitate at least two (2) “operators’ barbecues” providing an informal lunchtime networking / info exchange gathering for operators in rural areas of the state (e.g., Verde Valley, southwestern AZ, eastern AZ).

APPENDICES
A. Member Roster
B. 2014 Technical Seminar Agenda
C. Budget
D. Committee Mission, Goals, Strategy Statement
## APPENDIX A

AZ Water Association  
Wastewater Treatment Committee  
Member Roster as of March 2015

<table>
<thead>
<tr>
<th>Members</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Doug Bershauer</td>
<td>CH2M Hill, Inc.</td>
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<tr>
<td>Jesse Black</td>
<td>Epcor Water</td>
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<tr>
<td>John Corbin</td>
<td>Black &amp; Veatch Corporation</td>
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<tr>
<td>Andrew Gilmore</td>
<td>Carollo Engineers</td>
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<tr>
<td>Tyson Glock</td>
<td>Sunrise Engineering</td>
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<tr>
<td>Chuck Graf</td>
<td>Arizona Department of Environmental Quality</td>
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<td>Brian Hackethal</td>
<td>HydroTex</td>
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<td>Robert Hollander</td>
<td>City of Peoria</td>
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<td>Shuang Huang</td>
<td>City of Glendale</td>
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<tr>
<td>William Kenning</td>
<td>Maricopa County Environmental Services Dept.</td>
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<td>Doug Kobrick, chairperson</td>
<td>Hazen and Sawyer</td>
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<td>Jimmy Leforce</td>
<td>Epcor Water</td>
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<td>William Li</td>
<td>Stantec</td>
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<td>Jenny Lopez</td>
<td>Greeley and Hansen</td>
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<td>Mohamed Mahmoud</td>
<td>Arizona State U. (student)</td>
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<td>Jessica Marlow</td>
<td>Town of Gilbert</td>
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<td>Chris McDonald</td>
<td>Construction Products Marketing, Inc.</td>
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<td>Charles McDowell</td>
<td>Severn Trent</td>
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<td>Pete Mirocke</td>
<td>Victaulic Corp.</td>
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<tr>
<td>Dean Moulis</td>
<td>Pima County Water Reclamation Department</td>
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<td>Glenda Nichols</td>
<td>City of Tempe</td>
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<td>Hector Ortiz</td>
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<td>Mary Parke</td>
<td>ERM Inc.</td>
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<td>Juan Reyes</td>
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<td>Paul Schuit</td>
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<td>Aaron Skiles</td>
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<td>Luis Uribe</td>
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<td>Michael Weber</td>
<td>City of Peoria</td>
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<tr>
<td>Gary Whitten</td>
<td>Amec</td>
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APPENDIX B
AZ Water Association – Wastewater Treatment Committee presents

NEW DIRECTIONS IN WASTEWATER TREATMENT
October 21, 2014

AGENDA

7:45 a.m.  Registration and networking time
            A continental breakfast will be served

8:20 a.m.  Welcome and overview
            Doug Kobrick, chair – AZ Water Assn Wastewater Treatment Committee

ARIZONA TREATMENT PLANTS – OPERATING ON THE LEADING EDGE

8:30 a.m.  New Technologies in Wastewater Treatment – The Impact to O & M Staff
            Art Nunez, City of Scottsdale

9:00 a.m.  Disinfection Byproducts and Associated Challenges Resulting from Advanced Treatment
            Dr. Jeff Prevatt, Pima County Regional Water Reclamation Department

9:30 a.m.  A New Era in Submerged Membrane Technology
            Robert Garcia, City of Peoria

10:00 a.m. Break and networking time

PROCESS INNOVATIONS AND FUTURE DIRECTIONS

10:30 a.m. The Future of Nutrient Removal
            Dr. Glen Daigger, CH2M Hill, Inc.

11:15 a.m. Drivers for Future Used-water Treatment
            Dr. James Barnard, Black & Veatch Corporation

Noon       Lunch

PROCESS INNOVATIONS AND FUTURE DIRECTIONS (CONTINUED)

1:30 p.m.  Sustainability Considerations in Process Selection for BNR
            Rod Reardon, Carollo Engineers

2:15 p.m.  Nutrient Removal in Domestic Wastewater Lagoons to Improve Effluent Characteristics
            Dr. Kraig Johnson, Wastewater Compliance Systems, Inc.

2:45 p.m.  Break

EMERGING CONTAMINANTS – RECENT DEVELOPMENTS

3:15 p.m.  Detection and Quantification of Trace Organic Compounds (EDC/PPCPs) from Aqueous Arizona Environments
            Dr. Leif Abrell, University of Arizona

3:45 p.m.  Emerging Contaminants: Fate During Wastewater Treatment and Strategies to Enhance Removal
            Dr. David Quanrud, University of Arizona

4:30 p.m.  Wrap-up and adjourn
### Wastewater Treatment Committee Budget - 2015

**AZ Water Association**

#### Monday, January 12, 2015

### Income

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<tr>
<th>Description</th>
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#### Conferences

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#### Transfer to Account

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### Expenses

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<th>2014 Budget</th>
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#### Committee

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### Notes

- Used WW Collections Budget submittal as template for WW Treatment.
- Should registration and sponsorship exceed budget, it’s expected that expenses will also.
Wastewater Treatment Committee

Vision
The AZ Water Association Wastewater Treatment Committee is the recognized source of information on wastewater treatment, and advances knowledge of wastewater treatment and the wastewater treatment profession by education and outreach to our members, utility customers and the general public.

Mission
The AZ Water Association Wastewater Treatment Committee will provide value to our colleagues and the public through education, training and increased awareness of wastewater treatment technology and the associated regulations and policies that impact them in order to protect water quality, public health and the environment.

Goals
The Wastewater Treatment Committee has established the following goals:

- Provide opportunities for continuing education and technical advancement of water professionals;
- Promote the exchange of information between the regulatory community, utilities, operators, end-users, academia, engineers and consultants;
- Identify common goals and challenges and provide a forum for the exchange of ideas and information;
- Follow the development and implementation of new regulations and technologies;
- Identify opportunities to provide services to rural utilities and operators and obtain feedback; and
- Increase our visibility in local schools and public interest groups, to advance our profession.

Strategies

- Maintain an active, diverse and energized Committee membership;
- Solicit papers and presentations for the Annual AZ Water Association Conference and AZ Water Association lunchtime seminar series;
• Coordinate with national organizations (e.g. Water Environment Federation) on wastewater treatment specialty conferences;

• Develop and prepare articles on wastewater treatment topics for the *Kachina News*;

• Develop and maintain an active and dynamic site on the AZ Water Association website;

• Provide tours of facilities to enhance education on and information about basic and innovative approaches to treating various types of wastewaters,

• Utilize information technology to advance the educational and outreach responsibilities of the Association, including on-line meetings webinars and webcasts,

• Coordinate with other AZ Water Association Committees (e.g. Pretreatment, Biosolids and Residuals, and Reuse),

• Identify existing and cutting-edge wastewater treatment technologies that meet the diversity of needs of Arizona water services providers

• Work with the ADEQ to identify operators in rural communities to initiate an outreach program, to develop means of increasing the value of the association to our members, and receive feedback;

• Work with the licensing board and the licensed operators to understand the standard test requirements, and offer training and education to operators in-state to assist in their preparation for the exams; and

• To promote wastewater treatment in a new light, one that views wastewater not as a waste, but as a resource, and the wastewater profession as providing value not just by preventing pollution but also by reclaiming resources and producing beneficial products.