

**Working Group Priority Issues  
Governor's Blue Ribbon Water Panel  
July 30, 2010**

| <b><i>Working Group</i></b>                                       | <b><i>Focus Area Issue</i></b>   | <b><i>Priority Ranking</i></b> |
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| <b><i>Public Perceptions/Acceptance</i></b>                       |  |                                |
|   | The need for consistency in the use of common and positive terminology to convey effective messages about water sustainability   |                                |
|   | The need for a better public understanding of the overall water picture and the role of reclaimed water in the water cycle   |                                |
|   | The need for the public, community leaders, water treatment professionals, businesses and industry to understand and be aware of water quality issues and how their actions, including disposal of pharmaceuticals and personal care products, can influence water quality |                                |
|   | The need to create and expand public confidence that reclaimed water is safe for reuse through an understanding of how the water is treated and the types of potential uses for reclaimed water  |                                |
|   | The need to build a constituency for increased use and acceptance of reclaimed and recycled waters for beneficial purposes through education, outreach and other strategies  |                                |
| <b><i>Conservation/Recycling/<br/>Efficiency/Energy Nexus</i></b> |  |                                |
|   | <u>Guiding Principles</u> - Recommendations must reflect that each area of the state has unique circumstances  |                                |
|   | <u>Guiding Principles</u> - There is need for better awareness and education campaigns that target groups such as the public, decision makers and policy makers in all areas of  |                                |

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|                                       | discussion   |                         |
|                                       | <u>Guiding Principles</u> - There is a need for improved data, research and better definition of terms in all areas of discussion  |                         |
|                                       | <u>Guiding Principles</u> - Efforts should be made to manage water supplies to optimize the matching of water quality to intended uses   |                         |
|                                       | <u>Guiding Principles</u> - The cost and benefits of all recommendations must be considered  |                         |
|                                       | <u>Stormwater Management</u> - Further research is needed regarding regulatory barriers, costs and benefits, quality issues and avenues for increasing utilization of stormwater and rainwater at the regional, community and homeowner/property owner level.  |                         |
|                                       | <u>Stormwater Management</u> - Identify what is needed to further encourage use of stormwater  |                         |
|                                       | <u>Water Energy Nexus</u> - Ways to facilitate collaboration between water and energy planners should be developed to ensure the most efficient use of water and energy  |                         |
|                                       | <u>Water Energy Nexus</u> - Arizona-specific information is needed about how much water is embedded in energy and how much energy is embedded in water   |                         |
|                                       | <u>Conservation</u> - Water resource availability and associated development costs establish the role of water efficiency and demand curtailment programs in addressing growth and drought. This interrelationship must be incorporated in water resource planning at all levels   |                         |
|                                       | <u>Conservation</u> - It is important to consider a continuing role for research and incentives which will transition worthy technologies into mainstream markets  |                         |
|                                       | <u>Conservation</u> - To develop support for programs that protect and enhance sustainability of Arizona water supplies, a firmly-grounded and fact-based awareness of the relationship of water availability, conservation, the economy, the environment and desired quality of life among the public, business community and governmental leaders is necessary |                         |
| <b><i>Infrastructure/Retrofit</i></b> |  |                         |
|                                       | Compile a matrix of State, regional, and local specifications and infrastructure standards and use it to identify similarities, inconsistencies, and gaps. Use the matrix to develop recommendations to the BRP on a suite of standards that will provide a common   |                         |

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|                               | foundation of safety and good engineering practice for reclaimed water distribution systems   |                         |
|                               | Compile a matrix of O&M best management practices (BMPs) that are applicable to reclaimed water distribution. Use the matrix to develop recommendations to the BRP on a menu of BMPs appropriate for use in Arizona   |                         |
|                               | Develop definitions and guidance for Indirect Potable Reuse (IPR) in aquifers in association with drinking water source approval and local and state agency permitting requirements to facilitate a standardized and efficient approach to design, permitting, and operation of such projects   |                         |
|                               | Coordinate with the Regulations/Permitting Working Group to analyze an array of approaches needed to implement the recommendations of Issues 1, 2, and 3 above in a manner that will eliminate current impediments  |                         |
|                               | Identify issues and develop approaches to operator training/certification for reclaimed water utility distribution systems to ensure consistent and safe management of this resource and its associated infrastructure. Based upon the analysis, develop recommendations on operator certification for the BRP  |                         |
| <i>Regulations/Permitting</i> |   |                         |
|                               | <p>Data collection needs to be streamlined to reduce the administrative burden on reclaimed water providers. ADEQ and ADWR should initiate a review process of data collection requirements, monitoring requirements, and reporting requirements for permit and non-permit information.</p> <ul style="list-style-type: none"> <li>• Data should be collected in an efficient manner, avoid redundancies, where possible and reflect a comprehensive picture of reclaimed water use</li> <li>• Permit requirements should be reviewed for frequency, consistency, and applicability of monitoring</li> <li>• Consider the expertise/capabilities developed by the regulated community to electronically report and manage data; and accept electronic signatures</li> </ul> |                         |
|                               | Recharge, Reuse, and AZPDES permits do not adequately address unique situations. More flexibility is needed so that reclaimed water use opportunities can be taken advantage of.  |                         |

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|                      | <ul style="list-style-type: none"> <li>• De-chlorination requirements for riparian and recharge projects should be case by case</li> <li>• Lake management plans could substitute for narrative nutrient standards</li> <li>• Permits need to be consistent (APP BADCT/Reclaimed Water Quality Standards)</li> <li>• General permits should be more widely offered</li> </ul>   |                         |
|                      | <p>Policy and rule changes are needed to encourage use of new water sources (reclaimed water, gray water, rainwater, stormwater, and remediated water).</p> <ul style="list-style-type: none"> <li>• ADWR policy should clearly address comingling of remediated waters with reclaimed water</li> <li>• BMPs need to encourage “green” infrastructure development such as rainwater harvesting</li> <li>• Aquifer Protection Permit and Reclaimed Water Permit Rules should emphasize protection of public drinking water sources from contamination to maintain public support for use of reclaimed water, gray water and other alternate water sources</li> </ul> |                         |
|                      | <p>Jurisdictional/duplication issues exist between ADEQ, ADWR, ACC, counties, and other entities.</p> <ul style="list-style-type: none"> <li>• Terms should be standardized</li> <li>• Reporting requirements should be examined for duplication</li> <li>• Fees should be examined for duplication between entities</li> </ul>   |                         |
|                      | <p>Education and outreach need to be stronger components of regulatory programs. Regulations need to encompass these issues so the public better understands the benefits and safety of the use of alternate sources of water supply.</p> <ul style="list-style-type: none"> <li>• Design guidelines are needed for persons considering and installing gray water systems</li> <li>• Reclaimed water use can offset and help conserve potable water sources</li> </ul>  |                         |
|                      | <p>A strategic research plan is needed that supports new directions in policy and rule development (emerging contaminants, direct potable and full body contact reuse).</p> <ul style="list-style-type: none"> <li>• Direct potable reuse</li> <li>• Research efforts coordinated similar to those under the prior Arizona Water Institute</li> <li>• Technology based standards development process</li> <li>• Human health impacts for existing, traditional reuse applications</li> </ul>  |                         |

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|                      | <ul style="list-style-type: none"> <li>• Human health impacts of PCPs in gray water</li> </ul> <p>Title 18, Chapter 11, Article 3 Reclaimed Water Quality Standards need review and updating to take into account experience and knowledge learned from reclaimed water use in Arizona.</p> <ul style="list-style-type: none"> <li>• New candidates for general permits</li> <li>• Type 3 gray water system design standards based on on-site treatment</li> <li>• New gray water uses</li> <li>• Definitions, amendments, signage requirements</li> <li>• Review of outstanding issues</li> <li>• Coliform monitoring issue (e.g. <i>E. coli</i> vs fecal coliforms)</li> <li>• Gray water usage limitations (quantity)</li> <li>• Accommodate de minimus uses of alternate water sources</li> <li>• Type 3 gray water system design standards review</li> </ul> |                         |
|                      | <p>Current state statutes have created a jurisdictional issue with regards to control of gray water systems and need to provide incentives for continued/expanded use of alternate sources of water supply.</p> <ul style="list-style-type: none"> <li>• Tax credits for gray water systems</li> <li>• Provide financial and regulatory incentives for conversions</li> <li>• Local control of gray water systems</li> </ul>  |                         |
|                      | <p>Items identified that should remain on the radar for future consideration, but currently work well.</p> <ul style="list-style-type: none"> <li>• Enhance education efforts to promote reuse that currently already have standards and framework in place by statute and rule</li> <li>• Local control of salinity requirements</li> <li>• Local control of water softeners</li> <li>• The definition of effluent</li> </ul>  |                         |
|                      | <p>Interactions and inconsistencies between the AZPDES Permit Program, Surface Water Quality Standards, Reclaimed Water Quality Standards and Aquifer Protection Permits need to be resolved.</p> <ul style="list-style-type: none"> <li>• A flowchart/matrix will assist in clarification. This should have the impact of removing impediments to reuse and recharge where what is allowed by one</li> </ul>   |                         |

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|                           | <p>program might be inadvertently blocked by another. The flowchart should identify what each program covers and where one program ends and the next program starts. The working group believes it is beyond their scope to develop this matrix and it should be an effort of ADEQ</p>   |                         |
| <i>Economic/Financing</i> |  |                         |
|                           | <p><i>Provide technical support and a Clearinghouse for assistance to Arizona communities.</i> Arizona communities (especially smaller and emerging communities) need assistance in determining needs for turf/park irrigation with reclaimed water, aquifer recharge, environmental restoration and stormwater capture/rainwater harvesting. We recommend that there be an agency to provide technical support and a clearinghouse for assistance with eligibility and applications for grants and loans for these purposes (BOR, USDA-RD, WIFA, EPA). We encourage Public-Private Partnerships for Green infrastructure by education and information through the Clearinghouse. <a href="#">[N.B. Work Group #5 will provide additional language relevant to the matrix that we've developed – it's our intent to include the matrix here as a tool connected to this recommendation.]</a></p> |                         |
|                           | <p><i>Establish financial and rate-making guidelines for the ACC regulated water utilities that mirror the programs currently in effect for the power utilities.</i> We recommend an incentive component to increase reliance on renewable supplies that allows for an annual operating expense on users, with adjustment based on level of participation, to encourage renewable water, such as rebate for replacing to low-flow toilets. We also recommend that there be a formulary-driven capital component that allows cost-recover rates for infrastructure improvements that maximize the use of renewable water supplies in advance of or simultaneous with the improvements</p>   |                         |
|                           | <p><i>Continue and expand WIFA grant and loan programs targeted to Green Infrastructure such as aquifer recharge, and stormwater capture/rainwater harvesting.</i> Additionally, revise House Bill 2159 pertaining to WIFA loan repayments, to allow a city, town, county, or improvement district with a population of one hundred thousand persons or less, to pledge the revenues of the city's, town's, county's or district's utility system or systems as payment of the repayment agreement, without an election</p>  |                         |
|                           | <p><i>Incentivize Green Infrastructure by introducing simplified ADWR and ADEQ regulatory</i></p>  |                         |

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|                      | <p><i>and permitting programs which save time and effort for smaller communities. These simplified programs could be tailored to the funding sources available to smaller communities</i></p>  |                         |
|                      | <p><i>Refine Arizona policies and regulations governing the accrual of groundwater credits to provide incentives for conversion to reclaimed water from groundwater pumping for groundwater turf users proximate to reclaimed lines. ADWR will not give in-lieu credit as groundwater savings facilities for conversion of turf irrigation to reclaimed water for circumstances where the user is already adjacent to Tucson Water’s reclaimed system infrastructure. Allowing GSF storage credits in these instances would provide some of the needed incentive to convert these groundwater users and secure them as new reclaimed customers. This approach would broaden the economic base supporting the reclaimed system. Any other measures that would provide economic or water management incentives for getting over the hurdle of transition to reclaimed water would be helpful to operators of reclaimed systems</i></p>   |                         |
|                      | <p><i>Provide incentives for emphasizing water harvesting as a preferred Best Management Practice (BMP) for stormwater management. Federal regulations established under the Clean Water Act require large municipalities to implement measures to reduce pollutants in stormwater to the “maximum extent practicable.” The required federal permit requires implementing a Stormwater Management Plan with a requirement for new development to include permanent structural controls to reduce pollutants discharged from a site. Water harvesting can help fulfill this function. The ADEQ AZPDES stormwater MS4 regulatory approach should recognize this BMP as an effective alternative to treatment – MS4’s should receive some type of incentive credit for emphasizing rainwater harvesting, alone or in conjunction with reclaimed water use, to support their Green Infrastructure and Low Impact Development. One way to do this would be to allow MS4’s that promote this BMP to reduce emphasis and costs for other prescribed BMPs (for example, street cleaning, catchbasin inspections, etc.) in the context of their AZPDES MS4 permit</i></p> |                         |
|                      | <p><i>Make changes to state statutes to grant full recharge credit to the Secretary of the Interior for effluent used to sustain the flows in riparian corridors. Managed recharge projects receive underground storage credit for 50% of what reaches the aquifer, while constructed recharge projects receive 100% credit. Effluent-dominated riparian reaches can create important habitat. However, a managed recharge project only receives full</i></p>  |                         |

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|                      | <p>recharge credit if the Water Resources Director designates it under A.R.S. §45-811.01(B) “...as a facility that could add value to a national park, national monument or state park if that park or monument includes any portion of a natural channel of a stream or adjacent floodplain that would benefit from the facility.” Jurisdictions would have a greater incentive to continuing devoting this reclaimed water resource to managed recharge and maintaining flow, if full recharge credit could be attained</p>   |                         |
|                      | <p><i>Look at opportunities for efficiency in the water and energy nexus including water-less solar facilities and dry cooling towers</i></p>   |                         |
|                      | <p><i>Gray water incentives should be provided to the commercial and municipal sector. Currently the ADEQ type 1 general permit is limited to private residential property, cannot exceed 400 gpd, and must be contained within the private property boundary. ADEQ should develop a Type 3 general permit for gray water from commercial property and provide an incentive for gray water stub outs in new construction. They should lift the restriction on shallow subsurface irrigation so as to make the method more viable. Commercial gray water could augment water harvesting for landscape irrigation that is now required in new commercial development in Tucson. Also extend gray water tax credit (due to expire in 2011)</i></p> |                         |