

January 24, 2013



Mr. Henry Darwin  
Director  
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1110 West Washington Street  
Phoenix, Arizona 85007

**Re: Response to City of Phoenix Comments, dated December 3, 2012, on RID's  
Modified ERA Work Plan**

Dear Director Darwin:

The Roosevelt Irrigation District (RID) has reviewed the December 3, 2012 comments submitted by the City of Phoenix, on behalf of a number of other parties (City of Phoenix and Other PRPs' Comments), regarding RID's Modified Early Response Action (Modified ERA). RID submitted the Modified ERA Work Plan to ADEQ to address unknown or changed conditions since the Arizona Department of Environmental Quality (ADEQ) approved RID's Early Response Action Work Plan, dated February 3, 2010, (ADEQ-approved ERA) on June 24, 2010. The modifications contained in the Modified ERA Work Plan are the result of technical discussions with ADEQ, information developed during the implementation of the ADEQ-approved ERA, and data obtained from testing under the RID-95 Wellhead Pilot Treatment System Proposal, dated August 18, 2011, whose implementation was agreed to by ADEQ by letter, dated September 2, 2011.

The ADEQ-approved ERA will mitigate the impacts and threatened impacts on RID's water supply production wells from the widespread groundwater contamination of hazardous volatile organic compounds (VOCs) in the West Van Buren Area (WVBA) Water Quality Assurance Revolving Fund (WQARF) Site and entering the WVBA from the West Central Phoenix Area (WCPA) WQARF site and the Motorola 52<sup>nd</sup> Street (M52) federal Superfund Site. The ADEQ-approved ERA also will mitigate the public health issues associated with that contamination. As evidenced by ADEQ's approval of RID's original ERA Work Plan and the legal criteria for said approval, RID's ADEQ-approved ERA is not only consistent with the requirements of state law, but RID's ERA is extremely reasonable and cost-effective when compared to the other ERAs that would be allowed under state law. The Modified ERA Work Plan modifies the original ADEQ-approved ERA to be even more reasonable and cost-effective and to more expeditiously address the contamination.

However, RID understands the bias held by the City of Phoenix and the parties identified in the City of Phoenix and Other PRPs' Comments, given that certain of these parties have been identified by RID as owners or operators of facilities with documented "releases" of the hazardous substances that will be addressed by RID's ADEQ-approved ERA.<sup>1</sup> Under federal law, these documented "releases" classify the owners and operators of these facilities as "potentially responsible parties" (PRPs) who are subject to joint and several liability for the response costs incurred by RID, including the costs relating to the ADEQ-approved ERA.<sup>2</sup> Interestingly, the City of Phoenix also has acknowledged that the other parties included in the City of Phoenix and Other PRPs' Comments are PRPs.

Although RID previously addressed most of the relevant issues raised in the City of Phoenix and Other PRPs' Comments during the more than six months of significant community involvement activities that occurred prior to ADEQ's approval of RID's ERA pursuant to Arizona Administrative Code (AAC) R18-16-405 and R18-16-413, RID is compelled to provide this response in order to, once again, correct the administrative record. RID also is compelled to inform all interested parties of the applicable laws, which have been completely disregarded by the City of Phoenix and Other PRPs' Comments. Instead of responding to every misrepresentation or inaccuracy raised by the City of Phoenix and Other PRP Comments, RID is addressing the substantive issues relevant to RID's request for ADEQ's agreement to proceed with the modifications contained in the Modified ERA Work Plan.<sup>3</sup> RID will, however, occasionally reference its prior comments submitted to ADEQ, dated January 20, 2010, February 24, 2010, April 22, 2010 and May 26, 2010, that addressed in more detail many of the same issues raised prior to ADEQ's approval of RID's original ERA that again have been raised in the City of Phoenix and Other PRPs' Comments. Issues in the City of Phoenix and Other PRP Comments that are not relevant to RID's request for ADEQ's agreement to proceed with the modifications contained in the Modified ERA Work Plan will be addressed briefly in the separately attached document (Attachment A).

### **RID's Modified ERA is Authorized by State Law**

The City of Phoenix and Other PRPs' Comments falsely assert that the Modified ERA Work Plan is unnecessary and, therefore, not authorized by law.<sup>4</sup> As noted in RID's letter to

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<sup>1</sup> City of Phoenix, Holsum bakery, Inc., Laundry and Cleaners Supply, Inc., Maricopa Land and Cattle Co., Milum Textile Services Co., Penn Racquet Sports, Prudential Overall Supply, and Schuff Steel.

<sup>2</sup> See *Carson Harbor Village v. County of Los Angeles*, 433 F.3d 1260, 1265 (9th Cir., 2006).

<sup>3</sup> RID will provide footnotes to identify the specific arguments and misrepresentations in the City of Phoenix and Other PRPs' Comments addressed by various sections of RID's response.

<sup>4</sup> A number of arguments, which are contrary to the relevant laws and facts, are raised in pages 1-10 and 17 of the City of Phoenix and Other PRPs' Comments as to the "necessity" of the ADEQ-approved ERA and the ADEQ-approved ERA as modified by the Modified ERA Work Plan. Some of the arguments include: (i) "because RID's current water supply needs are being met ... [the] Modified ERA Work Plan is not necessary at this time;" (ii) since there is not an "imminent or acute threat to the public" or there is "no current unacceptable public exposure," "treatment as proposed in the Modified ERA Work Plan is not necessary;" (iii) "unnecessary treatment of water that is suitable for its current non-potable end use will likely increase the scope and cost of the final remedy;" (iv) the "necessary" presumption in AAC R18-16-405(I) "applies only to 'threatened wells' ... [and] RID's wells are not newly threatened under any definition;" and, (v) despite decades of contamination, the "ERA is not necessary to address current or future migration of contaminants from the Motorola 52<sup>nd</sup> Street Site ... [or] West Osborn Complex WQARF Site." (Emphasis added).

ADEQ, dated October 22, 2012, the Modified ERA Work Plan was submitted “as a more efficient and cost effective design and approach to accomplish the objectives of the original, voluntary RID [ERA] Work Plan, dated February 3, 2010, and approved by [ADEQ] on June 24, 2010.” Pursuant to AAC R18-16-405(H), ADEQ’s approval of any ERA, including RID’s ADEQ-approved ERA, establishes substantial compliance with the requirements in Arizona Revised Statute (ARS) 49-282.06(A) that “remedial actions shall...be reasonable, necessary, cost-effective and technically feasible.”

The Modified ERA Work Plan does not alter the objectives or other benefits of the ADEQ-approved ERA. As noted in RID’s January 20, 2010 and May 26, 2010 comments, the objectives of the ADEQ-approved ERA included restoring the most highly contaminated portion of RID’s water supply that has been impacted by hazardous substances in the WVBA, as a result of the WVBA/WCPA/M52 commingled groundwater contamination plume. RID’s objective to “protect or provide a supply of water” is expressly authorized for an ERA. AAC R18-16-405(A). The WQARF regulations specifically state that “in considering whether an early response action is necessary to protect or provide a supply of water because a well is threatened by contamination, a well located in the area within ¼ mile upgradient, ½ mile cross-gradient and 1 mile downgradient of the aerial extent of contamination at the site are presumed to be threatened by the contamination.” AAC R18-16-405(I). The recent groundwater sampling data collected in September 2012 indicate 23<sup>5</sup> of the 26 RID wells that were sampled were impacted by the groundwater contamination in the WVBA WQARF Site. There are 9 other RID wells in the WVBA WQARF Site that are threatened by groundwater contamination, including 3 wells that do not presently have detectable VOC concentrations and 6 RID wells that have not been sampled recently.

As noted in RID’s April 22, 2010 and May 26, 2010 comments, another objective of RID’s ADEQ-approved ERA is to address current and future risks to public health, welfare and the environment from potential exposures to hazardous contaminants in the groundwater that are known to volatilize when pumped from the most highly contaminated RID wells. Pursuant to ARS 49-282.06(A), “remedial actions shall ... assure the protection of public health and welfare and the environment.” The City of Phoenix and Other PRPs’ Comments suggest that there is an acceptable level of public exposure to contaminants that are known carcinogens. That is not the position taken by ADEQ and the United States Environmental Protection Agency (EPA).

ADEQ and EPA do not tolerate the uncontrolled release of hazardous VOCs from groundwater to air at other WQARF and federal Superfund sites in Arizona. In fact, it is ADEQ’s policy to compel the reduction of air emissions that contribute to air pollution, whenever possible.<sup>6</sup> It also is ADEQ’s policy to prevent the transfer of contaminants from one environmental media to another (*e.g.* from groundwater to the air).<sup>7</sup> For these policy reasons, ADEQ required treatment to capture air emissions from the proposed 30-gpm

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<sup>5</sup> Contrary to the argument in the City of Phoenix and Other PRPs’ Comments that “the plume is not moving toward the RID wells,” two previously “threatened” RID wells have now been impacted by the groundwater contamination plume.

<sup>6</sup> Letter from Harry Hendler to Michael Montgomery, dated February 23, 2007

<sup>7</sup> Letter from Amanda Stone to Keith Takata, dated November 14, 2007.

groundwater remedy associated with the West Osborn Complex WQARF Site, even though it is expected to achieve only one ounce per day of hazardous VOC removal. ADEQ and EPA prohibit the transfer of hazardous VOCs at sites elsewhere in Phoenix and Scottsdale due to communities' strong feelings concerning the transfer of hazardous groundwater pollutants to air and in spite of risk studies concluding there are no appreciable public health risks from exposure.<sup>8</sup>

The City of Phoenix and Other PRPs' Comments imply that Arizona residents living within the WVBA WQARF Site should not be afforded the same level of public health protection from potential exposures to hazardous volatile contaminants in groundwater that currently is being provided to Arizona residents living near other groundwater contamination sites in Arizona. RID strongly disagrees with the City of Phoenix and Other PRPs' Comments and believes that all Arizona communities should enjoy the same level of protection from environmental and public health hazards regardless of race, color, national origin or income.

RID will continue to ensure that the residents of West Phoenix are afforded equal protection from the transfer of, and exposure to, hazardous volatile groundwater contamination in the WVBA. RID already has removed nearly 1,000 pounds of hazardous volatile contaminants from the local air and water this past year in the initial phase of implementation of the RID-95 Wellhead Treatment Pilot Initiative. Under the Modified ERA Work Plan, thousands of pounds of hazardous volatile contaminants will be removed annually from the local air and water in the WVBA.

The ADEQ-approved ERA noted that, consistent with the authorization in AAC R18-16-405(A), the ERA would "control or contain contamination where such actions are expected to reduce the scope and cost of the remedy."<sup>9</sup> As noted in RID's May 26, 2010 comments, control and containment of the plume is only one of four separate authorizations for an ERA. Although plume containment was never a major objective of the ADEQ-approved ERA, which is why RID removed it from the Modified ERA Work Plan after discussions with ADEQ, an ancillary benefit of the Modified ERA will be continued containment of the plume, which will reduce the scope and cost of the final remedy selected by ADEQ for restoration of the WVBA aquifer. As noted in RID's prior comments, ADEQ has acknowledged to EPA that RID's seasonal pumping has effectively contained the plume from moving further downgradient and threatening the City of Tolleson wells, an observation supported by the fact that there is an RID well downgradient from the WVBA WQARF Site that has been clean for the past 20 years.

### **RID's Modified ERA Meets the Statutory Requirements Addressing End Use**

The City of Phoenix and Other PRPs' Comments request that ADEQ disapprove the Modified ERA Work Plan on the false premise that an ERA does not need to comply with the

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<sup>8</sup> These EPA and ADEQ prohibitions were imposed despite risk studies concluding the excess lifetime cancer risks for potential exposure were less than one in a million.

<sup>9</sup> See Goal A4 in ADEQ-approved ERA, dated February 3, 2010.

applicable requirements of Arizona's WQARF statute or ADEQ's WQARF regulations.<sup>10</sup> RID strongly disagrees with the City of Phoenix and Other PRPs' Comments. ERAs are "certain remedial actions initiated by the Department or any person prior to selecting a remedy at a site." 8 Arizona Administrative Register (AAR) 13, 1496 (March 29, 2002). Pursuant to ARS 49-282.06(A), all "remedial actions shall ... to the extent practicable, provide for the ... cleanup of hazardous substances in order to allow the maximum beneficial use of the waters of the state." According to ADEQ's Land & Water Use Surveys for the WVBA WQARF Site, all water providers within the WVBA WQARF Site, including RID and the City of Phoenix, have identified drinking water supply end use as the "maximum beneficial end use" and "reasonably foreseeable beneficial end use" for the groundwater within the WVBA WQARF Site.

If it were not for the hazardous substances released from the facilities owned or operated by the City of Phoenix and the other PRPs' identified by RID and the City of Phoenix, RID would be able to exercise its legal rights to use its groundwater supply for its maximum beneficial use and reasonably foreseeable beneficial end use as a drinking water supply. Absent treatment for the hazardous substances, RID's groundwater supply within the WVBA WQARF Site would not meet the water quality standards required for its "maximum beneficial use" or for its "reasonably foreseeable beneficial end use" as a drinking water supply. Contrary to the City of Phoenix and Other PRPs' Comments, Arizona law expressly requires that any remedial action that remediates the waters of the state must protect not only the current end use of an impacted well owner but also its reasonably foreseeable end use, over at least the next 100 years, as established by the local water providers.

For remediation of waters of the state, the selected remedial action shall address, at a minimum, any well that at the time of selection of the remedial action either supplies water for municipal, domestic, industrial, irrigation or agricultural uses or is part of a public water system if the well would now or in the reasonably foreseeable future produce water that would not be fit for its current or reasonably foreseeable end uses without treatment due to the release of hazardous substances. The specific measures to address any such well shall not reduce the supply of water available to the owner of the well.

ARS 49-282.06(B)(4)(b).<sup>11</sup> Therefore, regardless of the current use of the RID water supply, the reasonably foreseeable beneficial end use of the RID groundwater supply is for a drinking water supply and any selected remedial action for RID's impacted water supply shall properly ensure protection of that reasonably foreseeable end use. Furthermore, as noted in

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<sup>10</sup> Some of the arguments in the City of Phoenix and Other PRPs' Comments include: (i) an ERA should be reviewed only as to the "impact on the current or near-term uses of the groundwater;" (ii) AAC R18-16-405(I) should be read to include new regulatory language to qualify that wells are "threatened" only if the "current use is threatened by advancement of the plume;" (iii) new statutory language should be read to limit the requirements for "selected remedial actions" in ARS 49-282.06(B) to only "apply to final remedies" and not to all "selected remedial actions," which include ERAs; and, (iv) "ERA is not necessary or cost effective because the groundwater pumped by RID is suitable for its current non-potable end use and does not require treatment." (Emphasis added).

<sup>11</sup> See also AAC R18-16-411 and R18-16-406(D) regarding the application of A.R.S. 49-282.06(B)(4)(b) and achievement of the applicable remedial objectives to protect both current and reasonably foreseeable beneficial end uses (likely to occur within 100 years unless a longer time period is thought to be reasonable) of the waters of the state.

conversations with the City of Phoenix and other PRPs in September 2009, a private-public partnership is currently in discussions with West Valley cities and developers on providing a drinking water supply to the West Valley area who have expressed interest in the RID water supply in the WVBA WQARF Site as a long-term drinking water source.<sup>12</sup>

Unfortunately the City of Phoenix and other PRPs continue to delay any remedial action to address the groundwater contamination within the WVBA WQARF Site. As noted in RID's May 26, 2010 comments, the City of Phoenix and other PRPs have refused to work cooperatively with RID to address the groundwater contamination and, for more than two years, have offered nothing but speculative and unfunded recommendations for alternatives to the ERA that fail to meet the statutory and regulatory requirements for a remedial action to address RID's impacted water supply and the groundwater within the WVBA WQARF Site, a WQARF Site that has been contaminated by the release of hazardous substances from facilities owned or operated by the City of Phoenix and other PRPs.

### **RID's Modified ERA Will Begin the Cleanup of the Contaminated Groundwater**

The Arizona residents living within the WVBA WQARF Site have been waiting for decades for the groundwater contamination to be addressed, while residents in other Arizona cities have seen groundwater cleanups approved and implemented. RID is the only party in the last twenty years who has entered into a written agreement with ADEQ to voluntarily develop and implement an ERA to begin addressing the WVBA groundwater contamination and who has expressed its willingness to implement the final groundwater remedy selected by ADEQ. Pursuant to the written agreement with ADEQ, RID received ADEQ's approval of the original ERA in June 2010, despite similar misrepresentations and mischaracterizations by parties identified by RID and the City of Phoenix as PRPs for the hazardous substances contaminating the groundwater. As RID began implementing the ADEQ-approved ERA, RID consulted with ADEQ on how the original ADEQ-approved ERA could be modified to be more cost-effective and implemented sooner. RID submitted the Modified ERA Work Plan pursuant to the ADEQ WQARF regulations that require that an approved ERA provide for modifications to address unknown or changed conditions. AAC R18-16-405(H)(3).

The modifications in the Modified ERA Work Plan do not alter the primary objective of the ADEQ-approved ERA to restore the most highly contaminated portion of RID's water supply that has been impacted by hazardous groundwater contaminants in the WVBA. The modifications do not alter the primary objective to address current and future risks to public health, welfare and the environment from potential exposures to contaminants in the groundwater that are known to volatilize. Only the design of the water treatment facility has been modified. This modification:

- reduces the capital costs by nearly 50%,

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<sup>12</sup> Contrary to the City of Phoenix and Other PRPs' Comments that "not a single member of the public not associated with RID expressed support for the ERA", the Town of Buckeye submitted to ADEQ a letter of support for the ERA, dated February 10, 2010 (which is available on ADEQ's website) and the City of Goodyear has formally notified the Arizona Department of Water Resources of its intention to use RID remediated water from the WVBA WQARF Site as a drinking water supply.

- reduces the ongoing operation and maintenance costs by nearly 50%,
- eliminates more than 5 miles of lateral pipelines, and
- increases the total volume of contaminated well water that will meet applicable drinking water standards by approximately 50%.

As a result, RID believes that the Modified ERA could be fully operational years earlier than the time that would be required to construct the additional infrastructure and central liquid-phase granulated activated carbon (IGAC) plant approved by ADEQ in RID's original ERA. The Modified ERA Work Plan still uses the basic equipment set and applies IGAC as the remedial technology. Application of IGAC complies with the WQARF regulation requiring any water treatment facility to be designed to "assure protection of public health against ... potential treatment system failure," as IGAC has been accepted, even preferred, by EPA and ADEQ at other Arizona groundwater contamination sites as a Best Available Demonstrated Control Technology because of its proven fail-safe reliability.

The Modified ERA Work Plan does not affect ADEQ's approval of RID's original ERA. As RID discussed at the December 6, 2012 WVBA Community Advisory Board (CAB) meeting, if ADEQ does not agree to the modifications in the Modified ERA Work Plan, RID will move forward in implementing the more expensive and lengthy ADEQ-approved ERA. However, RID fully agrees with the sentiments expressed by one member of the public in attendance at the WVBA CAB meeting that ADEQ should not impose any unnecessary procedures that could delay the cleanup of the WVBA WQARF Site.

### **RID has Fulfilled All of its Community Involvement Requirements and More**

As noted in RID's letter to ADEQ, dated October 22, 2012, RID's original ADEQ-approved ERA was prepared in accordance with AAC R18-16-405 and submitted for approval under AAC R18-16-413. Consistent with AAC R18-16-413, ADEQ provided public notice of RID's request for approval and allowed significant community involvement on the ERA, including nearly six months of public comments.<sup>13</sup> The Modified ERA Work Plan is not a new ERA but, as discussed previously, simply modifies the design of the water treatment facilities in order to achieve a more efficient and cost-effective approach to accomplish the objectives of the original ADEQ-approved ERA. The modifications in the Modified ERA Work Plan were submitted pursuant to AAC R18-16-405, which authorizes modifications to the original ADEQ-approved ERA to address unknown or changed conditions. The modifications contained in the Modified ERA Work Plan are the result of technical discussions with ADEQ, information developed during the implementation of the ADEQ-approved ERA, and data obtained from testing under the RID-95 Wellhead Pilot Treatment System Proposal, dated August 18, 2011, whose implementation was agreed to by ADEQ by letter, dated September 2, 2011.

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<sup>13</sup> Contrary to the City of Phoenix and Other PRPs' Comments that "the only noticed opportunity for the public to provide comments on RID's ERA proposal" was subsequent to a March 23, 2010 meeting, the PRPs submitted numerous comments to ADEQ and met on numerous occasions with ADEQ on RID's ERA proposal. A simple review of ADEQ's website would note a number of meetings and comments submitted by parties identified in the City of Phoenix and Other PRPs' Comments during the period of early December 2009 to February 2010, which does not include the comments submitted by PRPs between February 4, 2010 and April 2010.

Although no additional formal public comment period is authorized for modifications to an already approved ERA, such as RID's ADEQ-approved ERA, the PRPs identified by RID and the City of Phoenix nonetheless submitted formal comments on the Modified ERA Work Plan on December 3, 2012. During the more than six-month period for formal public comments, prior to ADEQ's approval of RID's original ERA, the City of Phoenix and other PRPs also submitted numerous comments that were responded to by RID. Similarly, with regard to the work plans prepared by RID for Tasks 1-3, consistent with the ADEQ-approved ERA, there is no legal authority for formal public notice and comment. Despite the lack of such a legal requirement, ADEQ published RID's Work Plans on its website, the PRPs have commented on those Work Plans and RID has responded to the comments. In fact, this public notice and comment opportunity is not provided to the public or other interested stakeholders on WQARF remedial action work plans submitted after ADEQ approval. RID objects to this double standard, especially given that the Modified ERA Work Plan reduces costs, increases efficiency and allows earlier implementation of RID's ADEQ-approved ERA.

Not only has RID met the community involvement requirements set forth in the WQARF regulations for the ADEQ-approved ERA, RID has performed other community involvement activities during the past four years to provide information to the public. Specifically, RID has participated in 50 separate meetings with various external stakeholders including the EPA, ADEQ, ADWR, individual PRPs and PRP groups, City of Phoenix, City of Tolleson, City of Avondale, City of Goodyear, Town of Buckeye and the WVBA CAB. RID has been involved in every WVBA CAB meeting since December 2009. Although the WVBA CAB has not complied with its statutory obligation for quarterly meetings, RID has approached ADEQ and offered to provide presentations to the WVBA CAB at more frequent intervals to update the CAB on the progress of the ADEQ-approved ERA and the RID-95 Wellhead Pilot Treatment System Initiative. Despite the lack of WVBA CAB meetings, RID developed and continues to maintain a website ([www.wvgroundwater.org](http://www.wvgroundwater.org)) that contains updated information on RID's progress and provides all relevant information relating to the ADEQ-approved ERA that is accessible to the general public. RID was pleased to inform members of the public at the December 6, 2012 WVBA CAB meeting of RID's website and that the public materials they requested, and were unable to locate on ADEQ's website, were available for review on RID's website.

Contrary to the false assertions in the City of Phoenix and Other PRPs' Comments,<sup>14</sup> RID has been diligent in its efforts to keep the public informed of planned and on-going field programs. RID hand-delivered informational flyers, in both English and Spanish, to residents and businesses in the areas where installation of RID's treatment systems were planned (to date about 1,000 flyers have been provided) and continues to distribute email updates of monthly progress reports to interested parties. Likewise, RID offers tours of the treatment

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<sup>14</sup>On page 12 of the City of Phoenix and Other PRPs' Comments, the PRPs falsely allege that RID "failed to comply with A.A.C. R18-16-404(C)(1)(m) and CIP, which require notice to the public of field work that is conducted to remove contaminants of concern." In compliance with the WQARF-specific community involvement activities requirements, RID has worked to keep residents and other interested parties informed on RID's progress and ensure two-way communication between interested parties and RID through the WVBA CAB and its website.



facilities to interested parties to inform them of RID's treatment progress. Despite decades of delay by the PRPs identified by RID and the City of Phoenix, RID is committed to:

- addressing the groundwater contamination impacting RID's wells,
- mitigating the release of thousands of pounds of VOCs each year into the local neighborhoods, and
- voluntarily implementing the final remedy selected by ADEQ to address the contaminated aquifer.

### **Conclusion**

We appreciate the opportunity to address the numerous inaccuracies and misrepresentations contained in the City of Phoenix and Other PRPs' Comments. We hope this response will allow ADEQ to make an expeditious and informed decision regarding the Modified ERA Work Plan. We would be happy to meet with ADEQ to further discuss any of the issues addressed in this letter or any prior RID submittals.

Very truly yours,

**Synergy Environmental**

A handwritten signature in black ink, appearing to read "Joel D. Peterson". The signature is fluid and cursive, with a long horizontal stroke at the end.

By: Joel D. Peterson, PE

cc: Laura Malone, ADEQ  
Tina LePage, ADEQ  
Kevin Snyder, ADEQ  
Donovan Neese, RID  
David Kimball, G&K  
Jerry Bonnett, BFFB

Attachment

## ATTACHMENT A

The City of Phoenix and Other PRPs' Comments raised a number of issues that are irrelevant to RID's Modified ERA Work Plan or to the design modifications to RID's original ADEQ-approved ERA for a more efficient and cost-effective ERA. Unlike RID's May 26, 2010 response that attempted to organize and respond to the lengthy and often contradictory comments of the PRPs on RID's original ERA Work Plan, this time RID will simply address some of the more outrageous comments by the PRPs and refer ADEQ to RID's prior responses that addressed similar irrelevant issues and comments raised by the PRPs during the more than six months of community involvement activities prior to ADEQ's ultimate approval of RID's ERA.

### **1. The ADEQ-Approved ERA, as modified by the Modified ERA Work Plan, is Not the Feasibility Study**

The City of Phoenix and Other PRPs' Comments argue that the Modified ERA Work Plan, but specifically the original ADEQ-approved ERA, should not have been approved by ADEQ because the ERA "only provides a cursory evaluation of potential remedial alternatives" and is "not the result of extensive study of remedial alternatives" "to remediate the aquifer" or because "an ERA may not be used to bypass the WQARF remedy selection process" and the Modified ERA needs to be "in substantial compliance with the remedy selection rules in A.A.C. R18-16- Article 4."<sup>15</sup>

The City of Phoenix and Other PRPs' Comments are nothing more than another gross misrepresentation of both the law and the relevant facts governing ERAs generally and RID's original ERA and Modified ERA Work Plan specifically. ERAs are defined as "certain remedial actions initiated by the Department or any person prior to selecting a remedy at a site." 8 Arizona Administrative Register (AAR) 13, 1496 (March 29, 2002). The WQARF regulations in AAC R18-16-405 establish certain criteria for ERAs and the elements necessary for ADEQ approval. The elements for an ERA Work Plan are set forth in AAC R18-16-405(C-D) and the criteria for ADEQ's approval are listed in AAC R18-16-405(H). Contrary to the City of Phoenix and Other PRPs' Comments, ERA Work Plans are not required under AAC R18-16-405 to include an evaluation of potential remedial alternatives, which is required during the feasibility study pursuant to AAC R18-16-407(E). There are a number of other criteria and elements necessary for ADEQ approval of feasibility studies established in AAC R18-16-407, which are not required for ERAs in general, and certainly not for RID's ERA, but must be performed before a final remedy is selected by ADEQ at a

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<sup>15</sup> See pages 11, 15, 7, 19 and 13 respectively in the City of Phoenix and Other PRPs' Comments.

WQARF site to restore the aquifer (which is not an authorized objective for an ERA).<sup>16</sup> Although not required by law, RID included an evaluation of remedial alternatives to demonstrate that the ADEQ-approved ERA was reasonable, cost-effective and technically feasible. As noted in RID's letter to ADEQ, dated October 22, 2012, the Modified ERA Work Plan only modifies the ADEQ-approved ERA to be even more reasonable and cost-effective while meeting all applicable statutory and regulatory requirements for ERAs.

Contrary to the false assertions in the City of Phoenix and Other PRPs' Comments that RID's ADEQ-approved ERA, as modified by the Modified ERA Work Plan, bypasses the WQARF remedy selection process and, therefore, should not be approved until after the feasibility study, ADEQ has approved a number of ERAs, other than RID's, prior to the completion of a feasibility study, including source control activities and groundwater pump and treat facilities at certain PRP facilities within the WVBA WQARF Site.<sup>17</sup>

As noted in RID's prior responses to comments from the PRPs, RID's ADEQ-approved ERA is limited in scope to the restoration of the most contaminated portion of its water supply. Independent from and in addition to its ERA, and pursuant to its written agreement with ADEQ, RID will conduct a complete feasibility study pursuant to AAC R18-16-407 to ensure that the final remedy selected by ADEQ to restore the water quality of the aquifer in the WVBA WQARF Site will comply with all applicable WQARF statutory and regulatory requirements. During the feasibility study, RID will evaluate the impacts of any increased pumping of RID's wells located in the middle of the contaminant plume. As noted in ADEQ's letter to RID, dated September 2, 2011, "the effects of changes in pumping rates ..., as requested in Tasks 2 and 3" were to occur as part of the original ADEQ-approved ERA; however, after technical discussions with ADEQ, RID modified its ADEQ-approved ERA such that the Modified ERA Work Plan no longer proposes any change to RID's historical pumping rates.

Task 4 approval by ADEQ for the treatment system design is a regulatory requirement "prior to the construction as part of the remedy or an early response action." AAC R19-16-411(C). RID requested ADEQ's acknowledgement of the design adequacy of the proposed IGAC wellhead treatment pursuant to the RID-95 Wellhead Pilot Treatment System Proposal, which was based on an evaluation of potential treatment system failure that could affect public health and incorporated safeguards necessary to assure protection of public health against

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<sup>16</sup> For example, the argument in the City of Phoenix and Other PRPs' Comments that RID needs to evaluate further the hydraulic characteristics throughout the WVBA WQARF Site is not relevant to an ERA, but should be addressed during the feasibility study. Specifically, pursuant to AAC R18-16-407, the feasibility study must include "an evaluation of risk ... [to] address fate and transport of contaminants ... [and] residual risk in the aquifer at the end of remediation." Although RID has evaluated one of its wells within the WVBA WQARF Site and it appears that an upward gradient exists that would prohibit cross-contamination, RID will further investigate the issue during the feasibility study. It should be noted, however, that any cross-contamination is caused by the contamination created by the releases of hazardous substances from the facilities owned and operated by the PRPs identified by RID and the City of Phoenix and is not caused by the RID water supply wells that have been pumping groundwater for decades prior to the contamination being released.

<sup>17</sup> Pursuant to AAC R18-16-405(G), ERAs may be conducted after a FS and even after notice of a proposed remedial action plan has been given under R18-16-408(C) if approved by ADEQ.

such failure. However, since the RID-95 Wellhead Pilot Treatment System Proposal “is not part of the ERA,”<sup>18</sup> ADEQ has not yet approved the design.

The results of the RID-95 Wellhead Pilot Treatment System Initiative, which will be incorporated into the ADEQ-approved ERA by the Modified ERA Work Plan, confirm that the treatment of the contaminated groundwater in the WVBA WQARF Site via wellhead treatment using liquid-phase granulated activated carbon is reliable and efficient to remove the contaminants of concern impacting RID’s wells and water supply and to protect public health from any failure. In fact, the City of Phoenix and Other PRPs’ Comments note that “the reliability of GAC was never in doubt,” which is why it is considered a presumptive remedial technology and response strategy for the treatment of volatile hazardous substances and has been approved by EPA and ADEQ and implemented at a number of VOC groundwater contamination sites throughout Arizona and the country.

## **2. RID’s ADEQ-Approved ERA Does Not Require New Infrastructure to Address the Contamination that has Impacted or Threatens to Impact RID’s Wells**

The City of Phoenix and Other PRPs’ Comments continue to argue, as the PRPs argued during the months before ADEQ approved RID’s ERA, that RID may not “use the WQARF program to fund the reconfiguration of RID’s distribution system” or use the contamination “as an excuse for RID to charge third parties for the cost of upgrading its facilities to become a potable water provider.”<sup>19</sup> Not only were these comments addressed previously by RID, but these arguments were irrelevant to ADEQ’s approval of RID’s original ERA and remain irrelevant regarding ADEQ’s review of the modifications to the ADEQ-approved ERA as set forth in Modified ERA Work Plan.

First, it is ridiculous that the PRPs identified by RID and the City of Phoenix are portraying themselves as victims when the PRPs are “legally” responsible for the groundwater contamination that has impacted RID’s wells and operations and that presents a current risk to human health, welfare and the environment. The PRPs have a “legal” obligation to pay the response costs to restore the quantity and quality of RID’s water supply that has been impacted by the documented releases of hazardous substances from PRP facilities.

Also, if the PRPs had reviewed RID’s ADEQ-approved ERA or the Modified ERA Work Plan prior to their comments, the PRPs would have noticed that the ADEQ-approved ERA, even as modified by the Modified ERA Work Plan, does not demand any new infrastructure or additional funding from the PRPs to enable RID to provide drinking water to the West Valley. The purpose of the ADEQ-approved ERA is to protect and to restore RID’s wells and

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<sup>18</sup> Letter from Tina LePage to Donovan Neese (April 19, 2012). Contrary to footnote 9 in the City of Phoenix and Other PRPs’ Comments, AAC R18-16-411(C) only requires ADEQ approval “prior to the construction as part of the remedy or an early response action.” After ADEQ’s approval of the Modified ERA Work Plan, which incorporates the wellhead treatment facilities into the ADEQ-approved ERA, RID will have received ADEQ’s approval of the conceptual design to confirm the safeguards demonstrated by the RID-95 Wellhead Pilot Treatment System Proposal and accepted by EPA at other groundwater contamination sites.

<sup>19</sup> See pages 13-14 respectively in the City of Phoenix and Other PRPs’ Comments. Similar arguments were made in pages 1-2 as well.

water supply by removing VOC contamination to a level that would be acceptable for its maximum beneficial end use and reasonably foreseeable beneficial end use, which is required by state law and the WQARF program. Another purpose of the ADEQ-approved ERA is to address current and future risks to public health, welfare and the environment from potential exposures to hazardous contaminants in the groundwater that are known to volatilize when pumped from the most highly contaminated RID wells.

Contrary to the false assertions in the City of Phoenix and Other PRPs' Comments, RID has been transitioning from agricultural to residential land use, similar to the conversion that occurred with the Salt River Project in Phoenix and the Flowing Wells Irrigation District near Tucson. Cities and developers within RID's district lands have asked RID to provide a potable water supply. In fact, RID has existing agreements with the Town of Buckeye to provide a drinking water supply, and the City of Goodyear has formally notified the Arizona Department of Water Resources of its intention to use RID remediated water from the WVBA WQARF Site as a drinking water supply. Cities and developers within RID's district lands recognize that groundwater from RID's wells in the WVBA would be a preferred municipal water supply, but for the extensive VOC contamination, because the WVBA groundwater has substantially lower dissolved solids, hardness, and solutes such as nitrate and fluoride than the brackish groundwater in the Goodyear and Buckeye areas. As a result, the WVBA groundwater from RID's wells would provide large savings associated with water quality treatment costs.

Recognizing the water needs of the West Valley and the potential savings associated with the WVBA groundwater from RID's wells, RID proposed a "creative option" in 2009 that would have actually lowered the total costs for the PRPs identified by RID and the City of Phoenix. RID believes that the "creative option" was a win-win for all interested parties: the WVBA contamination is remediated, PRPs limit their long-term liability under federal law and the West Valley cities receive a more cost-effective drinking water supply. Unfortunately, the "creative option" was dismissed by the PRPs. As a result, the ADEQ-approved ERA will, in the near-term, discharge the remediated groundwater from the most highly contaminated RID wells into the RID main canal to be used for irrigation purposes, an option that has been adopted by other WQARF and Superfund sites in Arizona. Longer-term, the remediated water will be delivered to the West Valley as a municipal water supply through the private-public partnership that has been organized by RID for that purpose.

### **3. RID's Maintains Long-term Water Rights and the Authority to Deliver Water to RID's District**

The issue of RID's long-term water rights, in addition to the ancillary issues of conformance with ADWR policy as well as historical and future maximum beneficial end use, have been elaborated in great detail during the extensive public comment period preceding the ADEQ approval of the RID ERA Work Plan. These issues have been thoroughly discussed in numerous letters from RID to ADEQ, dated January 20, 2010, February 24, 2010, April 22, 2010 and May 26, 2010. While all of these response letters are available on the ADEQ website for the WVBA, summary recapitulations from those substantially more detailed

Water Resources (“ADWR”). ADWR is charged with enforcing the laws related to groundwater use and has the expertise and experience to do so. The PRPs do not need ADEQ to protect them from this risk. RID will act in accordance with the law, and ADWR will require nothing less.

Finally, the City of Phoenix and Other PRPs’ Comments assert that RID’s authority to pump groundwater from the WVBA WQARF Site comes from an agreement with Salt River Valley Water Users’ Association that expires no later than 2026. This is false. RID’s authority to pump comes from state law. The referenced agreement not only does not terminate in 2026, it does not terminate at all. Given that this agreement does not terminate, RID’s right to pump groundwater from the WVBA WQARF Site does not terminate. The right to pump continues pursuant to state law.