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BY ELECTRONIC AND U.S. MAIL

Ms. Tina Le Page
Waste Programs Division
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

**Re: COMMENTS ON WORKING GROUP-PROPOSED FEASIBILITY
STUDY WORK PLAN FOR THE WVBA WQARF SITE**

Dear Ms. Le Page:

On behalf of the Roosevelt Irrigation District ("RID"), we hereby submit comments to the Arizona Department of Environmental Quality ("ADEQ") regarding the transmittal letter, dated March 1, 2013, and the Draft Final FS Work Plan ("FS Work Plan"), dated March 1, 2013, for the West Van Buren Area ("WVBA") Water Quality Assurance Revolving Fund ("WQARF") Site. This FS Work Plan was submitted to ADEQ by a group of parties who refer to themselves as the WVBA WQARF Site Working Group ("Working Group").

FS Work Plan Should Not Have Been Submitted for Public Comment

The Working Group's FS Work Plan is not eligible for ADEQ approval and should not have been submitted for public comments because it fails to include the required information necessary for ADEQ's approval pursuant to Ariz. Admin. Code ("AAC") R18-16-413. The FS Work Plan also denies the general public the information required by state law to enable a more complete understanding of the FS Work Plan prior to formulating comments to ADEQ. In fact, pursuant to an ADEQ letter, dated March 7, 2013, which was issued 6 days after the Working Group submitted the FS Work Plan, ADEQ informed the Working Group that

... a written request for approval (which includes the FS Work Plan) must be submitted to the Department. The written request of approval shall contain all of the following information under [AAC] R18-16-413(A):

1. The *name* and address of the person submitting the request and the *name* [should be *nature* pursuant to the rule] of the relationship of the person to the site, if any.

...

7. A proposal for public notice and an opportunity to comment on the application for approval under this Section. The proposal shall include a list of the names and addresses of persons whom the applicant believes to be responsible parties under A.R.S. § 49-283 and a summary of the basis for that belief.

...
Following the submittal of this information to the Department, the WVB Working Group will conduct the FS process in compliance with the community involvement procedures ... [and] ADEQ will coordinate with the WVB Working Group on the public notice which will allow the public the opportunity to comment on the request for approval and the draft FS Work Plan. (emphasis added).

The information required by ADEQ to be submitted prior to the public comment period has not been submitted by the Working Group to ADEQ and/or has not been made available to the public. As ADEQ made clear in its March 7, 2013 letter to the Working Group, the public must be provided “the opportunity to comment on the request for approval.” The Working Group’s transmittal letter is described as a “responsiveness summary for ADEQ’s comment letter dated 01 February 2013” and is not a “request for approval” that contains the information required in ADEQ’s March 7, 2013 letter to the Working Group.

The information required by ADEQ and state law in a request for approval for the FS Work Plan helps the public place the proposed FS Work Plan in proper context prior to submitting comments to ADEQ. For example, the Working Group fails to identify the nature of their relationship to the WVBA WQARF Site. It would be important for the public to know who the Working Group has identified as the potentially responsible parties (“PRPs”) for the contamination and the basis for such a determination as required by state law. It also would be important for the public to be aware that the members of the Working Group are current or former owners/operators of the facilities where ADEQ or EPA records have identified there has been a release or threatened release of the same hazardous substances that have contaminated the WVBA WQARF Site (which facts qualify such parties as PRPs). Finally, the nature of the Working Group’s relationship with the WVBA WQARF Site would allow the public to determine whether the FS Work Plan will provide the best option to address the contamination. For example, some of the parties in the Working Group have publically declared that one of the purposes of the FS Work Plan is to disprove the need for RID’s ADEQ-approved Modified Early Response Action, which has currently treated 2.6 billion gallons of contaminated groundwater within the WVBAWQARF Site and has captured over 1,160 pounds of contaminants that otherwise would have been released to the environment.

ADEQ is not able to approve the FS Work Plan, at least until the Working Group engages in another public comment period once the legal requirements as set forth in ADEQ’s March 7, 2013 letter have been submitted and made available to the public.

Additional Comments

Although state law requires, as confirmed by ADEQ’s March 7, 2013 letter, that the Working Group must provide all of the legally required information prior to the public’s opportunity to comment, we nonetheless include a few additional comments on the FS Work Plan.

Working Group Continues to Mischaracterize and Disregard RID's Water Supply Interests in the WVBA WQARF Site

RID takes strong exception to the Working Group having a lead role in preparing a FS that would develop a groundwater remedy for the WVBA Site. The Working Group has continually and consistently ignored RID's position with respect to its rights to and requirements for water use and has opposed RID's voluntary actions to address the widespread impact caused by their contamination of RID wells and water supply. As we have noted before, this opposition is not surprising since the Working Group has been identified as PRPs liable under federal law for the costs to address the contamination.

RID has no confidence that the technical consultant representing the Working Group, given that they are PRPs, would adequately consider RID's interests in developing remedial measures to address the reasonably foreseeable use of RID wells and water supply that are affected by the actual or threatened release of hazardous substances within the WVBA Site, as required by AAC R18-16-407(G). In fact, the FS Work Plan states that the technical approach to the FS Work Plan is to evaluate a focused-treatment remedy. Such a remedy would not be consistent with the statutory mandate in ARS 49-282.06(B)(4)(b) that

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. (emphasis added)

This statutory requirement has been adopted as a remedial objective for the WVBA WQARF Site, and there must be no uncertainties regarding the achievement of this remedial objective or the time-frame in which this remedial objective will be achieved. RID will not support any groundwater remedy that does not fully address the groundwater contamination impacts to its wells and water supply and/or does not meet legal requirements regarding water quality standards, water quantity protection, pollution prevention, and water supply reliability.

RID's ADEQ-Approved ERA and Modified ERA are Final Decisions

To further support RID's lack of confidence that the Working Group will abide by the statutory and regulatory requirements to protect RID's interests, the FS Work Plan mischaracterizes ADEQ's approvals of RID's ERAs. First, the FS Work Plan only refers to RID's original ERA Work Plan that was approved by ADEQ on June 24, 2010. In this context, the FS Work Plan states that "the ADEQ conditional approval letter includes the specific conditions, tasks, and outcomes that must be achieved by RID before the conditional approval becomes final." This statement is totally inaccurate. Such inaccuracy is unacceptable given that the Working Group

was informed in an ADEQ letter, dated October 13, 2010, that “ADEQ’s June 24, 2010 approval of RID’s February 3, 2010 ERA Work Plan is a final decision.” This must be corrected.

Additionally, the FS Work Plan should be corrected to reflect that RID submitted a Modified ERA Work Plan to ADEQ in October 2012 that was approved by the agency on February 1, 2013. The ADEQ approval letter requires that RID maintain historical pumping rates to ensure no adverse impacts to groundwater quality and levels within the WVBA and for RID to implement measures to limit public exposure to volatilization and transfer of contaminants from contaminated water into the air. ADEQ’s February 1, 2013 approval of the Modified ERA explicitly supersedes ADEQ’s approval of the previous ERA Work Plan and its conditions.

RID is Indispensable to an Effective Regional Groundwater Remedy

The FS Work Plan submitted by the Working Group PRPs correctly notes that RID is the only water provider having production wells within the WVBA that are impacted or threatened by groundwater contamination. RID has 32 wells in or adjacent to the WVBA site that pump around 75,000 acre-feet of groundwater per year, on average. According to recent ADEQ sampling and analysis conducted in April 2013, 22 of the 25 RID wells sampled had detectable VOCs and 15 of these 25 wells¹ exceeded MCLs for at least one of the VOCs that are WVBA contaminants of concern. Put simply, the RID well field is impacted by WVBA groundwater contamination on a massive scale². Moreover, without a replacement supply, RID must operate its wells in the WVBA, and it is the pumping of contaminated groundwater to the surface conveyance system that results in the uncontrolled release of VOCs into the environment³.

RID has a compelling interest in seeing that the WVBA groundwater remedy addresses appropriately the widespread impact to its production well field and protects this critical water supply for RID’s and its customers’ current and future end uses. RID has repeatedly informed the ADEQ and all PRPs that RID wells in the WVBA Site are a vital future drinking water supply as RID land use transitions from agricultural to urban. The essential need to protect and restore the RID wells and water supply is underscored by comments submitted to ADEQ⁴ in support of RID’s Early Response Action which emphasize that “... there is no issue more important to the quality of life and economic viability in West Valley communities than dependable sources of usable water.”

¹ In all likelihood at least 16 wells exceed MCLs since ADEQ was unable to sample well RID-106 in April while the production pump was being repaired. This well has historically had both TCE and PCE concentrations in excess of MCLs.

² Recent sampling data also confirm that certain wells on the RID Main Canal, such as wells RID-91 and RID-93, which were previously considered “threatened” by the contaminant plume, are now “impacted” by the VOC contamination.

³ Fortunately in terms of protecting the local community from potential exposure to VOCs in air, RID began operation of wellhead treatment systems in 2012 at some of the most highly contaminated wells.

⁴ Letter submitted from Mayor Jackie Meck of the Town of Buckeye to Director Benjamin Grumbles of ADEQ, dated September 23, 2010.

RID is the only party that can effectively address the regional groundwater remediation of the WVBA Site and adjacent contaminated sites.⁵ RID owns and operates the wells and associated water supply infrastructure that are impacted and will not entrust any outside party with control of its operations, least of all the PRPs that have failed to take responsibility for the contamination they caused. In fact, pursuant to AAC R18-16-411(G), RID “may, in its sole discretion, elect to construct, operate, or construct and operate the water treatment, well replacement or alternative supply component of the remedy ... which is designed to address its use. This election shall not alter the responsibility of ... any person ... to fund all or a portion of the remedy.”

RID’s commitment to address and protect WVBA water resources has been amply demonstrated by contractually⁶ agreeing to implement the ERA, conduct the FS and implement the final groundwater remedy. In addition, RID has expended over \$10 million in response costs to conduct the required work to date. This should clearly demonstrate to ADEQ that RID is dedicated to accomplishing what it will take to implement an effective regional groundwater remedy for the WVBA Site.

The Working Group FS Work Plan Should be Limited to Source Control

Since RID is indispensable to the groundwater remedy and has properly submitted a FS Work Plan for ADEQ’s approval, pursuant to AAC R18-16-413, ADEQ should approve RID’s FS Work Plan to develop a regional groundwater remedy. If the Working Group submits all of the required information as set forth in ADEQ’s March 7, 2013 letter in a subsequent FS Work Plan and written request for approval, ADEQ should require that the Working Group’s FS Work Plan be limited to addressing facilities and properties that are a continuing source of groundwater contamination.

Pursuant to Section 1.4 of the FS Work Plan, the Working Group process will include analysis of individual WVBA facilities that may be continuing VOC sources to groundwater. RID believes this is a very critical factor that should be diligently evaluated since the significance of dense non-aqueous phase liquids (DNAPL) on groundwater remediation cannot be understated. This point was appropriately emphasized by Dr. Rolf Halden at the April 15, 2013 WVBA Community Advisory Board meeting, when he stated that the presence of DNAPL in unsaturated soils and groundwater will continually bleed contaminants into the dissolved VOC plume that will persist for centuries.

Terranext did not identify the presence of DNAPL at any of the source areas in the Final RI Report, although the data provided in that report suggests they are present. At a minimum, the high reported PCE concentrations in soil, soil gas, and groundwater at the ALSCO and Dolphin facilities suggest the presence of DNAPL. RID believes that the Working Group PRPs, as owners and operators of some of the facilities within the WVBA WQARF Site, are in the best

⁵ As acknowledged by ADEQ in the August 2012 Final Remedial Investigation Report for the WVBA WQARF Registry Site, groundwater containing similar contaminants of concern also enters the WVBA Site from the OU-3 CERCLA Site to the east and the West Central Phoenix WQARF Site to the north.

⁶ Agreement to Conduct Work between ADEQ and RID, dated October 8, 2009.

position to obtain access and evaluate the potential occurrence of DNAPL and the effect this may have on aquifer restoration. Therefore, any FS Work Plan submitted by the Working Group PRPs should be limited to source control and targeted source area cleanup, which will compliment RID's FS Work Plan to address the regional groundwater contamination.

The Working Group Continues to Raise Irrelevant Issues and Make Untrue Assertions

As noted before, state law requires that

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). (emphasis added)

This statutory requirement has been adopted as a remedial objective for the WVBA WQARF Site, and there must be no uncertainties regarding the achievement of this remedial objective or the time-frame in which this remedial objective will be achieved. As noted by ADEQ during the adoption of the final remedial objectives, the groundwater end uses identified in the final remedial objectives report are the current and reasonably foreseeable end uses that must be protected, at a minimum, by any selected remedy. The final remedial objectives clearly include RID's revised Land and Water Use Study Questionnaire identifying municipal use as a reasonably foreseeable end use that must be protected. Failure of the Working Group PRPs to acknowledge the protection afforded RID's wells under state law and under ADEQ's final remedial objectives for the WVBA WQARF Site provides no confidence to RID (nor ADEQ) that the Working Group will conduct the FS Work Plan to ensure that the reference remedy meets the remedial objectives as required by state law.

The FS Work Plan provides a brief explanation of the current groundwater use and future plans for use by water providers in and near the WVBA WQARF Site. The explanation regarding RID is biased and inaccurate. In particular, the FS Work Plan falsely asserts that RID's ability to pump groundwater from wells within the WVBA WQARF Site and transport the water to its lands is somehow a restricted right that infringes on the City of Phoenix's future use of the aquifer and will terminate at some future date in accordance with certain contract terms with SRP.

The issue of RID's long-term water rights, in addition to ancillary issues of conformance with Arizona Department of Water Resources ("ADWR") water law, have been thoroughly discussed and the false assertions by the PRPs have been refuted in numerous RID letters to ADEQ, the most recent being a RID letter to ADEQ, dated January 24, 2013. This letter responded to many comments generated by the City of Phoenix (COP) on behalf of other PRPs on the Modified ERA Work Plan. With regard to RID water rights, the City asserted RID's authority to pump groundwater from the WVBA WQARF Site comes from an agreement with the SRP (hereafter referred to as the Salt River Valley Water Users Association, or SRVWUA) that expires no later

than 2026. This assertion is false. For clarification, as follows is a brief recap of the salient terms of RID/SRVWUA agreements on this matter:

- The SRVWUA and RID (through its predecessor Carrick and Mangham) entered into a contract in 1921 to establish terms for RID to acquire well sites, land and receive power for a groundwater production well field in what is now the WVBA. The 1921 agreement required RID to pump a minimum of 70,000 acre-feet per year (AFY) of groundwater from these wells for 99 years and for the SRVWUA to sell electric power to RID's predecessor for 99 years.
- Carrick & Mangham assigned the 1921 Agreement to RID in 1923. In accordance with the 1921 agreement, the SRVWUA deeded wells and property to RID, in fee, without reservations of any sort. As owners of the wells and water infrastructure, RID had the legal right, as a matter of Arizona water law, at that time and until the 1980 Groundwater Management Act, to withdraw groundwater and to put it to any beneficial use, and did so beginning in 1928.⁷
- Modifications made to the 1921 agreement in 1927 expanded RID's requirements to pump a minimum of 85,000 AFY of groundwater from wells in what is now the WVBA, but removed any specified time frame for meeting that obligation. The SRVWUA's requirement to supply hydro-electric power needed to pump water from RID wells was specified as 99 years from the effective date of this amended agreement.
- A supplemental agreement reached in 1950 between the SRVWUA and RID generally capped the annual amount of water that could be pumped but did not limit the duration of pumping.

RID has repeatedly attempted to correct the unsupported allegations made by SRP, COP and others that RID's right to pump groundwater in the WVBA will expire. Since the Working Group has chosen to ignore RID's position, RID must restate, once again, the RID/SRVWUA agreements do not terminate RID's right to pump groundwater from the WVBA in 2026 or at any other future date. RID's right to pump continues pursuant to state law.

In a similar attempt to distort water use issues, the FS Work Plan insinuates that ADWR will not allow pumping by RID that would negatively impact the COP's Designation of Assured Water Supply (AWS). This is a baseless claim. RID has operated wells in what is now the WVBA for over 80 years. Arizona passed the Groundwater Management Act in 1980 that codified RID's right to withdraw groundwater from the wells that are now within the WVBA and transport this groundwater for the benefit of landowners within the RID service area. RID has long-standing usufructory rights under state law that will not be subrogated to another water provider. Moreover, the fundamental point that seems to be implied is unfounded. The groundwater modeling conducted by ADWR for the City's AWS designation included ongoing pumping of RID wells in the WVBA throughout the 100-year evaluation period.

⁷ Pursuant to the provisions of the 1980 Groundwater Management Act, RID perfected and has maintained its service area water right to continue to withdraw groundwater from the WVBA WQARF Site for beneficial use in its service area.

Other Technical Issues

The FS Work Plan identifies the need to evaluate the potential impact of chromium in soil and groundwater originating from the source at the ChemResearch facility on a regional groundwater remedy. RID does not follow the logic that would suggest chromium contamination from a single source is an important element of the regional groundwater remedy evaluation. The data reported by Terranext in the 2012 Final RI Report do not indicate a regional concern. Instead, the data reported indicate that total chromium concentrations observed are generally of limited and localized extent. For example, RID is not aware of any data that indicate the concentration of total chromium exceeds the AWQS at any RID wells that have been tested in the WVBA. However, to resolve any remaining concerns regarding the impact of chromium on the regional groundwater remedy, RID suggests that all RID wells in the WVBA be sampled and analyzed for total and hexavalent chromium as part of the FS process. Any potential need for source control measures to address chromium contamination should be included in the Working Group's revised FS Work Plan that must be submitted to comply with the legal requirements set forth in ADEQ's March 7, 2013 letter and as previously described in these comments.

The FS Work Plan indicates the need to prepare a groundwater flow model to better understand current and future groundwater flow conditions and the impact of simulated pumping associated with remedial alternatives. RID agrees that a groundwater flow model is an important tool to characterize groundwater and contaminant movement associated with the WVBA Site. In fact, based on a previous request by ADEQ to develop a groundwater model to estimate the effects of changed RID pumping rates associated with the original ERA, RID has expended considerable resources to update the ADEQ Central Phoenix Plume Model for this stated purpose. RID has updated this model and ensured it is in good working order for use in the FS process. RID contends that the groundwater modeling effort should be led by RID in accordance with the FS Work Plan submitted to ADEQ on February 8, 2013. Given the significance and level of effort associated with development and applied use of a groundwater flow model, RID does not understand why no further mention of this activity is given in the Working Group FS Work Plan. The FS Work Plan should provide more detail in regard to how the model will be developed, validated, calibrated and applied to the FS process. This information, including the underlying assumptions in developing the model, should be provided to the public so that the public may comment as to whether the groundwater flow model is useful during the FS process.

The FS Work Plan explains that an evaluation of risk will be conducted to assess contaminant transport and fate under various remedial action scenarios. RID believes this forward-looking risk evaluation is necessary and appropriate to fulfill the WQARF requirements of the FS process and can be conducted in a way to provide comparative measures of potential exposure and associated public and ecological risk with remedial approaches considered. However, RID would like to point out that such an analysis will have limited significance in the numerical quantification of risk to public health and the environment given the narrowly defined scope of this evaluation. Nevertheless, the remedy selected at the WVBA WQARF Site should provide the same protection to the residents in the WVBA WQARF Site that is required at other cleanup sites in Arizona to ensure protection of the public from the volatilization of hazardous substances.

Conclusion

Based on state law and the information contained in ADEQ's March 7, 2013 letter, the Working Group PRPs are obligated to provide a "written request for approval" that contains all of the elements required by law. As noted by ADEQ, this should be completed prior to the public comment period so it "*will allow the public the opportunity to comment on the request for approval and the draft FS Work Plan.*" These requirements have not been met in a request for approval or the FS Work Plan, and, therefore, ADEQ is unable to approve the Working Group's FS Work Plan until the applicable legal requirements have been met and a proper opportunity for the public to comment on the Working Group's written request for approval and the FS Work Plan has been completed. As noted in these comments with respect to the Working Group PRPs, RID respectfully requests that ADEQ ensure (1) all legal requirements applicable for an approvable FS Work Plan are identified, provided and implemented by the Working Group PRPs, (2) the WVBA WQARF Site remedial objectives are achieved to protect RID's wells and water supply that have been impacted or are threatened to be impacted by groundwater contamination, and (3) public health and safety and the environment are protected at the same levels as provided at other federal or state remediation sites in Arizona to ensure environmental justice for the minority communities within the WVBA WQARF Site.

Sincerely,



Dennis H. Shirley, PG

Electronic Mail:

Cc: Henry Darwin, ADEQ
Laura Malone, ADEQ
Donovan Neese, RID
David Kimball, Gallagher & Kennedy