

# ROOSEVELT IRRIGATION DISTRICT

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## BY ELECTRONIC AND U.S. MAIL

Date: August 12, 2014

From: Donovan L. Neese

To: Ms. Laura Malone  
Director, Waste Programs Division  
Arizona Department of Environmental Quality  
1110 West Washington Street  
Phoenix, Arizona 85007

### **Re: Working Group's Feasibility Study Report for West Van Buren Area WQARF Site**

Dear Ms. Malone:

I wanted to follow up on the July 16, 2014 email that was submitted to the Arizona Department of Environmental Quality (ADEQ) before RID was able to review the Working Group's Feasibility Study (WGFS) Report for the West Van Buren Area (WVBA) Water Quality Assurance Revolving Fund (WQARF) Site. RID is aware that ADEQ's review process for the feasibility study reports submitted to ADEQ for the WVBA WQARF Site requests that "comments" be withheld until after the reports are deemed "administratively complete." However, the WGFS Report fails to meet the minimum requirements for an "administrative completeness" determination for ADEQ's further review and approval of the WGFS Report.

### **Working Group Fails to Submit Required "Written Request" for ADEQ Review and Approval**

Pursuant to Arizona Administrative Code (AAC) R18-16-407.J, "[a]ny person, other than a person proposing to perform work under an agreement under A.R.S. § 49-287.03(C), may submit a request in compliance with R18-16-413 for the Department to approve a work plan or a report for all or any portion of a feasibility study." The Working Group does not fall within the exception in AAC R18-16-407.J since the Agreement to Conduct Work between ADEQ and the Working Group, dated January 15, 2013, was made and entered into as an "agreement pursuant to A.R.S. § 49-282.05," and not pursuant to A.R.S. § 49-287.03(C).<sup>1</sup> Therefore, the Working Group is required to comply with the requirements of AAC R18-16-413 in order to obtain ADEQ's review and approval of its Feasibility Study Report.

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<sup>1</sup> It is unlikely that the Working Group would argue, contrary to the specific terms of that agreement, that its working agreement with ADEQ is pursuant to A.R.S. 49-287.03 (C). An agreement pursuant to A.R.S. 49-287.03(C) is made between ADEQ and a "person who, according to information available to the department, may be liable under" WQARF. As noted by Fennemore Craig and RID regarding the Working Group's Feasibility Study Work Plan, the Working Group has failed to clearly identify themselves as the potentially responsible parties for the hazardous substances that have contaminated the groundwater entering into and within the WVBA WQARF Site as required by state law. See AAC R18-16-413.A.7.

Pursuant to AAC R18-16-413.A, “any person who seeks approval of a remedial action at a site or a portion of a site on the registry under A.R.S. § 49-285(B) shall submit a written request to the Department that contains” specific requirements (emphasis added). In its July 16, 2014 email, RID again flagged some of the AAC R18-16-413 specific requirement deficiencies, previously raised by Fennemore Craig and RID regarding the Working Group’s Feasibility Study Work Plan, that RID also believed would be deficient in the Working Group’s R18-16-413.A request for its Feasibility Study Report. However, this time the Working Group has even failed to include the “written request” that is required for ADEQ’s review and approval of the WGFS Report. According to the WQARF regulations, the WGFS Report is not eligible for further review and approval by ADEQ.

ADEQ’s stated final process that will be used “to review the Feasibility Study reports for the [WVBA] WQARF Site” establishes there will be a period to determine first whether the reports are “administratively complete” and, only after being deemed administratively complete, would the reports be subject to further substantive review and potential approval. The only administrative completeness criteria for a feasibility study report are in R18-16-413.A. Therefore, it would be inappropriate for ADEQ to conduct an “administrative completeness” review on the WGFS Report since the Working Group has not submitted the required R18-16-413.A “written request” for ADEQ review and approval pursuant to applicable state law. In fact, the Working Group’s conscious failure to include the mandatory “written request” for ADEQ’s approval<sup>2</sup> prior to ADEQ’s July 15, 2014 deadline<sup>3</sup> should prohibit any further review, including an “administrative completeness” review, by ADEQ.

### **Working Group Fails to Provide Required Information and Demonstration for ADEQ Review and Approval**

Among the more critical requirements in the mandatory “written request” under AAC R18-16-413 (which the Working Group has failed to provide) is the obligation in subsection A.7 that the applicant “shall include a list of the names and addresses of the persons whom the applicant believes to be responsible parties under A.R.S. § 49-283 and a summary of the basis for that belief.” This requirement is unequivocal in its scope and clarity. It is required in order to ensure that ADEQ and the general public are aware of the parties whom the “applicant believes” are legally responsible for the contamination, the basis for that belief, and the bias that may be present in any remedial action (or feasibility study report) proposed by the applicant, if the applicant were in fact the responsible party. The Working Group members have been identified in a federal lawsuit as potentially responsible parties, based on public records from ADEQ, the United States Environmental Protection Agency (EPA) and the Working Group members, for the groundwater contamination that ADEQ has determined “has impacted multiple RID water supply wells which may present an imminent and substantial endangerment to the public health, welfare or the environment within the [WVBA] WQARF Site.”<sup>4</sup> In fact, two Working Group members have identified to a federal court a list of potentially responsible parties,<sup>5</sup>

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<sup>2</sup> The Working Group failed to include any “written request” for its Feasibility Study Work Plan, dated February 8, 2013. Only after ADEQ raised the issue in a March 7, 2013 letter did the Working Group provide a partially complete, but still inadequate, “written request” on March 19, 2013 for ADEQ’s “approval of the FS Work Plan.”

<sup>3</sup> The Working Group has failed to meet ADEQ’s final review process that “to receive full consideration, FS reports must be submitted to ADEQ no later than July 15, 2014.”

<sup>4</sup> Agreement to Conduct Work between ADEQ and RID, dated October 8, 2009.

<sup>5</sup> On October 12, 2012, the City of Phoenix and Milum Textiles Services Co., two members of the Working Group, filed a Motion for Leave to Join as Third-Party Defendants and Serve Third Party Complaint against five (5) other Working Group members (Air Liquide America Specialty Gasses, Arizona Public Service, Dolphin Incorporated, Honeywell International Inc. and Univar USA Incorporated) and informed the federal court that they “must exhaust the available administrative remedies before filing claims against [Salt River Agricultural Improvement and Power District]” and that they were “in the process of evaluating possible third-party claims against Freescale Semiconductor, Inc., the successor in interest to Motorola at the 52<sup>nd</sup> Street Superfund Site.” *Roosevelt Irrigation District v. Salt River Agricultural Improvement and Power District*, Case No. CV2010-00290-DAE, Doc. 539. On September 26, 2013, the federal court ordered that all prior third-party actions are deemed superseded because RID’s new legal counsel had filed a new Second Amended Complaint, naming the parties in the third-party complaint, but that “cross-claims for contribution under CERCLA by and between all defendants shall be deemed filed and denied” (emphasis added). Such contribution claims, deemed filed and denied, allege that each defendant is potentially liable for the groundwater contamination being addressed by RID under the Agreement to Conduct Work between ADEQ and RID, dated October 8, 2009.

including other members of the Working Group, and a summary of the basis for that belief, so there was no impediment for the Working Group to submit this required and necessary information.

An equally important requirement in the mandatory “written request” under AAC R18-16-413.A.6 is “a demonstration of how the remedial action complied, or will comply, with [WQARF remedy selection regulations].” Clearly, the Working Group failed to provide such a demonstration in a “written request” to ADEQ, since no “written request” was submitted to ADEQ by the Working Group. Furthermore, even a cursory review of the WGFS Report itself clearly reveals obvious and significant non-compliance with the WQARF Feasibility Study requirements in R18-16-407, which describe the feasibility study as “a process to identify a reference remedy and alternative remedies that appear to be capable of achieving remedial objectives and to evaluate them based on the comparison criteria to select a remedy that complies with A.R.S. § 49-282.06” (emphasis added). See R18-16-407.A.

- The WGFS Report fails to “assure the protection of public health and welfare and the environment” as required by A.R.S. § 49-282.06.A.1.
  - All three alternative remedies fail to address the on-going uncontrolled releases of hazardous substances into the environment, in direct contradiction of ADEQ’s requirement in its approval of RID’s Modified Early Response Action, dated February 1, 2013, that measures need to be implemented to limit exposure from the “significant volatilization and transfer of contaminants, from the water into the air.”
    - ADEQ and EPA have policies that prohibit the “relocation of contaminants from one media (groundwater) to another (air).”<sup>6</sup> Compliance with such policies is required at virtually all other Arizona groundwater cleanup sites. RID believes that the same protective measures implemented to protect public health and welfare at other sites in Phoenix, Scottsdale and Paradise Valley from exposure to groundwater contaminants should be implemented to protect the residents in West Phoenix.<sup>7</sup>
    - The local population has been discouraged from using the RID laterals as swimming pools and drinking the contaminated water. RID does not agree that these risks are acceptable, yet these risks are not addressed by any of the Working Group’s alternatives.
  - All three alternative remedies fail to address groundwater contamination impacting RID’s wells and the environment. After 2025, the contaminant plume is not addressed and, instead, is unfortunately allowed to migrate and contaminate more groundwater as long as the non-RID threatened wells can be relocated outside the plume’s continued downgradient path of migration or screened within the Lower Alluvial Unit (LAU) of the aquifer.
- The WGFS Report fails “to the extent practicable, [to] provide for the control, management or cleanup of the hazardous substances in order to allow the maximum beneficial use of the waters of the state” as required by A.R.S. § 49-282.06.A.2.
  - All three alternative remedies do not provide a “permanent solution” for the “control,” “management” or “cleanup” of the hazardous substances. This is contrary to ADEQ’s core functions of pollution control and cleanups.<sup>8</sup> Likewise, these three alternative remedies place the WVBA WQARF Site at risk for an EPA overfile to implement additional measures. According to EPA, there is “a preference for remedies that employ treatment that permanently and significantly reduce the mobility, toxicity, or volume of hazardous substances as a principal element. Emphasis is placed on destruction or detoxification of hazardous materials rather than on protection strictly through prevention of exposure”<sup>9</sup> (emphasis added). According to the

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<sup>6</sup> Letter from Amanda Stone to Keith Takata (November 14, 2007).

<sup>7</sup> For example, ADEQ required air emission controls on the planned 30-gallon per minute groundwater treatment system in the West Osborn Complex WQARF Site in order to provide a high degree of public protection against potential exposure to VOCs in air.

<sup>8</sup> See <http://www.azdeq.gov/function/about/index.html>.

<sup>9</sup> EPA, Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, 2-2 (December 1988).

WGFS Report and contrary to ADEQ and EPA requirements, the contaminant plume will not be significantly controlled or cleaned up after 2025. The proposed contingent measures simply relocate non-RID threatened wells outside the plume's uncontrolled downgradient path of migration, or such wells are screened within the LAU of the aquifer.

- All three alternative remedies fail to include, "to the extent practicable," the remedial strategy of "plume remediation" to cleanup the hazardous substances "to allow the maximum beneficial use of the waters of the state."
  - The contaminated groundwater should be cleaned up to meet the water quality standards established by ADEQ "for all waters in all aquifers to preserve and protect the quality of those waters for all present and reasonably foreseeable future uses."<sup>10</sup> ADEQ has established that the reasonable foreseeable future use of the aquifer underlying the WVBA WQARF Site is for a drinking water supply, which is consistent with state law that "all aquifers in this state ... shall be classified for drinking water protected use."<sup>11</sup> Accordingly, the groundwater underlying the WVBA WQARF Site should be cleaned up to at least meet the applicable primary drinking water numeric maximum contaminant levels under the federal Safe Drinking Water Act<sup>12</sup> and the applicable narrative aquifer water quality standards that prohibit (1) pollutants "in an aquifer classified for a drinking water protected use [which includes the groundwater underlying the WVBA WQARF Site] in a concentration which endangers human health" and (2) the presence of pollutants "in an aquifer which impairs existing or reasonably foreseeable uses of water in an aquifer."<sup>13</sup>
  - ADEQ already has determined that it is "practicable" to cleanup a larger portion of the aquifer than the one 500 gpm well or two wells (with a 1,000-2000gpm capacity)<sup>14</sup> considered in the WGFS Report with its approval of RID's Modified Early Response Action, dated February 1, 2013, that utilizes eight existing wells (with a 16,200 gpm capacity) to extract the contaminated groundwater and thereby significantly enhance plume remediation and protect against further migration and expansion of the contaminant plume.<sup>15</sup>
- All three alternative remedies fail to allow, as required by state law and to the extent practicable, the "maximum beneficial use" of the UAU<sup>16</sup> within the WVBA WQARF Site. Although the three alternatives identify and incorporate RID's existing water supply wells as the

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<sup>10</sup> A.R.S. § 49-221.A.

<sup>11</sup> A.R.S. § 49-224.B.

<sup>12</sup> See A.R.S. § 49-223.A.

<sup>13</sup> AAC R18-11-405.A and C.

<sup>14</sup> The WGFS includes these one or two new wells as its "localized" plume remediation, but clearly acknowledges that the real benefit of each alternative remedy is the extraction of water by the RID wells. The WGFS notes that these new wells would cease operating in 2025 because "the efficacy of the new extraction well depends on operating alongside the current RID pumping regime." (WGFS 49, 54) However, the WGFS clearly states that the efficacy of these new wells is not worth their cost because a "disadvantage" of the Reference Remedy and More Aggressive remedy is "the relative cost of any potential additional benefit" (WGFS 53, 57) because "the WVBA plume is already hydraulically contained under current pumping conditions, additional hydraulic control wells are not necessary and would only act to further remove groundwater from storage from within the WVBA." (WGFS 62)

<sup>15</sup> The Working Group acknowledges that "groundwater extraction and treatment via one or more pumping wells is considered a feasible technology within the WVBA [and that] [e]xtraction wells placed within the core of the plume would remove dissolved-phase mass in higher VOC concentration areas and help expedite declining VOC concentration trends" (emphasis added). (WGFS 25)

<sup>16</sup> None of RID's impacted wells, which is unfit for its "reasonably foreseeable water end use" due to contamination in the UAU, are addressed by any of the three alternative remedies despite being utilized as the critical component of each remedy. However, the Working Group's Reference Remedy and the More Aggressive Remedy treats 500 or 2000 gpm, respectively, within the UAU.

critical component<sup>17</sup> of each remedy, no alternative provides for the treatment of that extracted water<sup>18</sup> from the UAU for its “maximum beneficial use” as established by Arizona law and ADEQ’s Remedial Objectives for the WVBA WQARF Site. Such treatment is practicable given that ADEQ already has approved as “reasonable, necessary and cost-effective” and consistent with A.R.S. § 49-282.06.A. the wellhead treatment of eight highly contaminated RID wells within the WVBA WQARF Site, which will “control,” “manage” and “cleanup” the hazardous substances to allow the “maximum beneficial use” of UAU and address the uncontrolled releases of hazardous substances into the environment. Likewise, such treatment has been utilized at other cleanup sites in Arizona, regardless of end use, consistent with ADEQ’s core functions and EPA’s guidance noted above.

- The WGFS Report fails to “meet the requirements” of A.R.S. § 49-282.06.B.4.b as required by A.R.S. § 49-282.06.B.4 that “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.” (Emphasis added).
  - All three alternative remedies fail to address, *at a minimum*, the RID water supply wells impacted by groundwater contamination above the applicable numeric and narrative Arizona Aquifer Water Quality Standards that ADEQ has determined “may present an imminent and substantial endangerment to the public health, welfare or the environment within the [WVBA] WQARF Site.”<sup>19</sup>
    - This failure to address RID’s wells is contrary to the findings in the WGFS Report that each RID well within the WVBA WQARF Site, at the time of the selection of the remedy, “supplies water for irrigation”<sup>20</sup> and that the RID wells within the WVBA WQARF Site “would now or in the reasonably foreseeable future produce

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<sup>17</sup> For example, “the current regional irrigation pumping conditions represent the primary hydraulic influence (base conditions) on groundwater within the WVBA, and accordingly, *must be factored into the FS alternatives development*” (emphasis added). (WGFS 38) Therefore, according to the WGFS Report, “the capture zones of the RID irrigation wells encompass the current plume footprint ... [and] the groundwater monitoring data indicate that actual plume containment under current conditions is sufficient to control plume migration at concentrations above AWQS.” (WGFS 39) Likewise, any new extraction well “would cease operating at the end of 2025 ... based on the assumption that the efficacy of the new extraction well primarily depends on operating alongside the current RID pumping regime.” (WGFS 49, 54) Finally, “hydraulic control would no longer be maintained if RID discontinued pumping, and, based on model results, ... the center of the plume’s mass may continue to move downgradient until a hydraulic sink ... is reached.” (WGFS 48) “Should RID irrigation pumping within the WVBA cease, the overall groundwater flow direction would likely shift to the northwest, towards the regional pumping depression known as the Luke Sink, near the Luke Air Force Base.” (WGFS 7)

<sup>18</sup> The WGFS Report provides that “for each end use scenario, extracted groundwater would need to be treated to meet AWQS for WVBA COCs prior to injection or discharge to an end user.” (WGFS 25) The WGFS Report also notes that “ongoing remediation projects in the Phoenix region require pumping of groundwater and treatment *of that water* to AWQS” (emphasis added). (WGFS 36) Nevertheless, without providing any justification or explanation, the WGFS Report fails to address, consistent with RID’s water management policy and WQARF remedial action regulations, RID’s wells within the WVBA WQARF Site that are unfit for their reasonably foreseeable end use, nor explains why the extracted groundwater from RID’s wells, which is a critical component of each alternative, is not treated like the extracted water from the proposed one or two new wells or the other ongoing remediation projects in the Phoenix region.

<sup>19</sup> Agreement to Conduct Work between ADEQ and RID, dated October 8, 2009.

<sup>20</sup> “RID has approximately 32 irrigation wells located within or adjacent to the WVBA. Although those wells are presently used exclusively for irrigation, RID’s water provider plan states that RID may seek to pump those wells to supply drinking water.” (WGFS 38)

water that would not be fit for its ... reasonably foreseeable end uses without treatment due to the release of hazardous substances.”<sup>21</sup>

- All three alternative remedies provide contingencies to address all threatened, but not yet impacted, City of Tolleson, City of Phoenix, Salt River Project and private wells, but do not the address the RID wells<sup>22</sup> that are currently impacted.

In short, the Working Group failed to submit the “written request” and provide the information and demonstration required by AAC R18-16-413 for ADEQ review and approval of its Feasibility Study Report. Additionally, none of the three alternative remedies provide a permanent remedy addressing the existing groundwater contamination in the WVBA that “complies with A.R.S. § 49-282.06,” as required by R18-16-407.A, to:

- “assure the protection of public health and welfare and the environment”
- “provide for the control, management or cleanup of the hazardous substances in order to allow the maximum beneficial use of the waters of the state” to the extent practicable, and
- “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.”

Instead and contrary to Arizona (and EPA) requirements, the three alternative remedies in the WGFS Report seek protection solely through incomplete and inadequate future contingencies to prevent future drinking water end use exposure only. However, the alternative remedies fail to address the current ongoing air and water exposures to the local predominantly minority population, which are addressed at other cleanup sites in Arizona.

For all these reasons and pursuant to the above-referenced WQARF requirements and the ADEQ review process, RID respectfully submits that the WGFS Report is not legally entitled to any further review or approval by ADEQ. Please let me know if you have any questions.

Regards,  
Roosevelt Irrigation District



Donovan L. Neese  
Superintendent

CC, Email only:  
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<sup>21</sup> The WGFS acknowledges that the WVBA COCs are currently above the AWQS and would require treatment before the water could be pumped for its reasonable foreseeable water end use as drinking water supply: “If the COP is required to pump the UAU aquifer in the WVBA in the future prior to the time COCs have been reduced to AWQS, then a contingent measure such as well-head treatment ... may be appropriate.” (WGFS 41)

<sup>22</sup> The alternative remedies attempt to avoid the statutory obligation to address RID’s wells by simply addressing the extracted water before its end use. Unfortunately, as discussed above, the failure to address RID’s impacted wells prohibits the WGFS alternative remedies to meet the other statutory requirements. It should be noted that one potential contingency addresses only RID-114, which will be addressed by moving the well outside the plume boundary.