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Via Electronic and First Class Mail - [bhg@azdeq.gov](mailto:bhg@azdeq.gov)

Benjamin H. Grumbles  
Director  
Arizona Department of Environmental Quality  
1110 West Washington Street  
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Subject: West Van Buren WQARF Site  
Roosevelt Irrigation District Public Health Exposure Assessment and Mitigation  
Work Plan

Dear Director Grumbles:

On behalf of Honeywell International Inc., CH2M HILL appreciates this opportunity to comment on the Roosevelt Irrigation District Public Health Exposure Assessment and Mitigation Work Plan (WP) prepared by Synergy Environmental, LLC on behalf of the Roosevelt Irrigation District (RID), dated July 26, 2010. The WP was submitted to the Arizona Department of Environmental Quality (ADEQ) in response to the conditional approval of RID's February 3, 2010 Early Response Action (ERA) Work Plan. According to ADEQ, specific conditions, tasks, and outcomes must be achieved to maintain the conditional approval. After a thorough technical review of the subject WP, we provide the comments below.

In addition to these comments, Honeywell is also joining Salt River Project (SRP) on the comments they are submitting to ADEQ on the WP. As you will surmise from our comments below and the conclusions provided in SRP's letter, it is clear that there is no support from the data nor in RID's July 26, 2010 document for their claim that there is a risk to the public health.

## General Comments

1. ADEQ required Task 1 (Public Health Threat) as part of its conditional approval because:

"The RID [ERA] work plan states there is a current risk to the public health from exposure to VOCs (from both air and water) within the West Van Buren Area (WVBA), however, specific documentation about the risks and how the risks will be mitigated during the ERA implementation has not yet been provided."

Therefore, ADEQ required RID to submit, within 30 days of ERA approval, "a risk analysis work plan to ADEQ documenting the risks and demonstrating to ADEQ how and when the ERA will mitigate the risks." However, the WP submitted by RID is more focused on discussing the impacts and operations of the RID facilities, rather than

responding to the clear direction of ADEQ requiring RID to specifically document the public health risks that are alleged to exist and to identify how and when the ERA will mitigate the risks. The WP does not provide the level of detail necessary to adequately respond to ADEQ's direction. In fact, the WP specifically states that risks will not be quantified, and without quantifying risks, it is inappropriate to assume mitigation is necessary (refer to subsequent comments).

2. Overall, the WP will not meet the ADEQ requirement of documenting the current risks to public health from both air and water because it does not indicate that a quantitative assessment of risk will be performed.

The WP specifically states that the risks will not be quantified at page 2, in paragraph 1. *"Furthermore the assessment proposed in this Work Plan does not constitute a quantitative risk assessment."* The proposed assessment focuses only on identifying pathways of exposure and how to control those pathways, while avoiding the fundamental issue of whether there is current unacceptable risk and if so, how much control is needed to reduce risks below regulatory targets. In essence, the WP will only identify whether drinking water standards are exceeded in the groundwater and base all subsequent decisions on the assumption that volatile organic compounds (VOCs) present in the RID water supply system must be "controlled", even though risks may be less than regulatory targets. It is entirely possible, given the relatively low VOC concentrations in the RID water supply that risks associated with current exposures are below the *de minimis* level of  $1 \times 10^{-6}$  Excess Lifetime Cancer Risk.

3. The section entitled "Exposure Assessment Based on Existing Conditions" is critically deficient. This is the area of the WP where one would anticipate there would be a higher level of specific detail substantiating the contention in the RID ERA that there is a current risk to the public health. ADEQ noted in their conditional approval that specific information about the risks and how they will be mitigated has not yet been provided. This section proposes to mostly be focused on describing an overview of RID water operations and the contamination impact on the RID system. The subsection on "Routes of Exposure" significantly lacks detail and explanation of how the purported risks will be specifically identified and documented. In addition, the WP should include specific methods, equations, and input assumptions that will be used to quantify exposure and subsequent risks. Standard or generally accepted United States Environmental Protection Agency/ADEQ methods and input assumptions should be specified, justified, and appropriately referenced for each of the exposure pathways that will be evaluated.
4. The WP makes no references to incorporating a specific scientific approach or approaches in the verification or validation of the RID allegations of a public health threat. There are no indications of coordination with local stakeholders. There does not appear to be a component of the WP that will involve public health agencies in any form to employ health based guidance levels in the assessment of the potential for public exposure.

## Specific Comments on the WP

### 1.0 Introduction

1. First paragraph, Page 1, contains certain statements that are unsubstantiated. This paragraph should be deleted or modified. An example of such a statement is, "...water within the RID canal acts as a potential route of surface water (and contaminant) migrations downstream of the WVBA."
2. Second paragraph, Page 1 contains several items that require clarification, further substantiation or deletion:
  - RID needs to be accurately described as an agricultural supply entity. The "critical" nature of meeting supply obligations requires clarification or deletion. RID is an agricultural provider and does not currently provide a municipal drinking water supply.
  - Reference to "...unrestricted use, including future use as a drinking water source" should be deleted. The local aquifer is not currently used as a public drinking water supply. RID does not provide potable water service. ADEQ has stipulated in their conditional approval that they are not including an analysis or approval of the transport or final disposition and use of any water treated by a future remediation effort.
  - Introduction paragraph should simply reiterate that, "The Risk Analysis Work Plan shall document the risks and demonstrate to ADEQ how and when the ERA will mitigate the risks."
  - The WP should include a specific schedule for the completion of the "Public Health Threat Task" in the introduction, and describe how the plan will integrate with the conduct of the "RID Well Investigation" work plan.
  - Third paragraph, page 2 - The work plan objective is misstated. "...*the assessment proposed in this Work Plan does not constitute a quantitative risk assessment. The analysis and Final Report generated in accordance with this Work Plan will document operational and engineering controls that will limit uncontrolled VOC emissions from the WVBA Site.*" On the contrary, the objective is to develop a Work Plan "...**documenting the risks and demonstrating to ADEQ how and when the ERA will mitigate the risks.**"

### 2.0 Scope of Work

3. Objectives of the scope, as stated, are incorrect. The objectives need to be correctly framed consistent with the description in ADEQ's conditional approval, "specific documentation about the risks and how the risks will be mitigated during the ERA implementation has not yet been provided."
4. "**Background**" section of the report as discussed on pages 2 and 3 needs to be expanded to accurately depict the current role and function of RID as an agricultural irrigation supplier.

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5. "Exposure Assessment: Existing Conditions" section of the report as discussed on page 3:
- The "Routes of Exposure" subsection significantly lacks detail and explanation of how the purported risks will be specifically identified and documented.
  - Overall comment on the "Exposure Assessment: Existing Conditions" section: This section does not support RID's allegations that current risk to the public health from exposure to VOCs are above regulatory targets. This section should be a key focus of the WP. It should be able to produce specific documentation of the claimed public health risks. Instead, this section primarily discusses RID system operations. Only a minor portion of the section proposes to address public exposure and apparently in the manner that it will "...identify pathways the may lead to public exposure of contamination". As stated in the introduction of this comment letter, it is clear from an evaluation of the recent (June 2010) data that there is no support for RID's claim that there is a risk to public health.

### 3.0 Schedule

6. "Implementation schedule is contingent upon receipt of project funding." Why is an implementation schedule or project funding even being mentioned at this point, and why is implementation of the conditionally approved work contingent on funding?
7. As stated by ADEQ, the conditional approval does not include an analysis of the transport or final disposition or use of the treated water. Until a comprehensive final remedy is developed, ADEQ cannot estimate costs or liability.

If you should have any questions or require discussion, please contact me at 480-295-3927 or Troy Kennedy at 973-455-4279. For your convenience, my e-mail address is [Robert.frank@ch2m.com](mailto:Robert.frank@ch2m.com) and Troy's is [troy.j.meyer@honeywell.com](mailto:troy.j.meyer@honeywell.com).

Sincerely,

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