

LINDON PARK NEIGHBORHOOD ASSOCIATION

April 22, 2010

Jennifer Edward Thies  
WQARF Unit Manager  
Waste Program Division  
Arizona Department of Environmental Quality  
1110 W. Washington St., MC4415B-1  
Phoenix, AZ 85007

RE: Public Notice Arizona Department of Environmental Quality  
Notice of Request for Approval of Work for the West Van Buren  
Water Quality Assurance Revolving Fund (WQARF) Site

Dear Ms. Thies;

I am submitting this letter on behalf of the Lindon Park Neighborhood Association (LPNA) in response to the notice of request for approval of work issued by the Arizona Department of Environmental Quality (ADEQ) on March 8, 2010 and extended on April 2, 2010. This letter expresses our community support, concerns, questions, and potential issues in connection with the February 3, 2010 Roosevelt Irrigation District ERA Work Plan for the West Van Buren Area (WVBA) Water Quality Assurance Revolving Fund (WQARF) Site.

While LPNA supports the Roosevelt Irrigation District's goal of mitigating groundwater contamination at the WVBA WQARF site, we do not support the use of the ADEQ WQARF Early Response Action (ERA) process at this time. LPNA asks that a more complete characterization of the site be presented, additional work be conducted if necessary, and this information be used in determining necessary, sufficient, and prudent cleanup actions at this site.

Some of the areas LPNA would like to see more discussion around include:

- \* The Roosevelt Irrigation District (RID) has presented a position that state law requires that contaminated water extracted under the cleanup be treated to a drinking-quality water end use and that "contaminated groundwater at all major groundwater remediation projects in the state is treated to a drinking-water quality end use" (February 24, 2010 letter from Gallagher & Kennedy to ADEQ Director Benjamin Grumbles, which references four Federal Superfund sites and the Payson WQARF site, where the treated water is discharged to the municipal drinking water system). While treatment to a drinking water level may presently be the case at these sites, the level of cleanup has been a topic of discussion for Operable Unit 1 at the Motorola 52<sup>nd</sup> Street (M52) Superfund Site as the end use is changing with the announced discontinuation of operations at ON Semiconductor. Additionally, according to ARS 49-282.06(D), "Notwithstanding this article, the director may approve a remedial action that may result in water quality exceeding water quality standards after the completion of the remedy if the director finds that the remedial action meets the requirements of this section."

- ❖ The position that the ERA is “necessary to mitigate current risks to public health from exposures to hazardous substances present in the groundwater and to hazardous substances that may volatilize into the air” (February 24, 2010 letter from Gallagher & Kennedy to ADEQ Director Benjamin Grumbles). LPNA requests that data be provided in substantiation of this statement. Mass balance calculations have been requested at previous public meetings. Under the ERA Work Plan, the RID Main Canal will remain open and volatilization will continue to occur from it. LPNA is interested in the present estimates of the risk to public health (along the Salt Canal and the Main Canal) and the risks under different scenarios of the ERA Work Plan (such as when the four wells with the highest total COC concentrations are still discharging to the RID Main Canal, and when all the pumped water may be diverted to the Main Canal).

- ❖ A.A.C. R18-16-405(A), Early Response Actions, states that:

*“The Department or any person may perform an early response action if the action is initiated prior to selection of a remedy at a site under R18-16-410 and is necessary to:*

- 1. Address current risk to public health, welfare, and the environment;*
- 2. Protect or provide a supply of water;*
- 3. Address sources of contamination; or*
- 4. Control or contain contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site.”*

“ADEQ’s Draft Remedial Investigation Report for the WBVA clearly states that contaminated groundwater from the WCPA WQARF Site and the 52<sup>nd</sup> Street Motorola Superfund Site (M52) has migrated to the WVBA” (February 24, 2010 letter from Gallagher & Kennedy to ADEQ Director Benjamin Grumbles and discussed on page 22 of the February 3, 2010 Work Plan). Since neither of these sites has treatment systems in operation, the migration of contamination in the groundwater from these sites into the West Van Buren area would continue.

In the past, all ADEQ Early Response Actions have addressed (3) the site-specific sources of contamination (December 10, 2009 WVBA WQARF CAB meeting). The RID ERA proposes to address (1), (2), and (4). Not only does the proposed ERA not address the sources of contamination it will achieve the opposite – increase the sources of contamination from the West Central Phoenix plume and the Motorola 52<sup>nd</sup> Street Superfund Site plume by significantly increasing the pumping from the wells closest to those sources of contamination.

LPNA questions how an ERA would be approved and deemed appropriate when the condition under A.A.C. R18-16-405(A)(1) may not exist to a level requiring an ERA and A.A.C. R18-16-405(A)(3) is not part of the proposed ERA and will, in fact, be increased under the ERA.

- ❖ Although the assertion is made that “as a matter of state law, ADEQ is required to approve RID’s proposed ERA” (February 24, 2010 letter from Gallagher & Kennedy to ADEQ Director Benjamin Grumbles), A.A.C. R18-16-405(H) reads in full that:

*“Any person may submit a request to the Department under R18-16-413 to approve an early response action or a work plan for an early response action. The request shall include the work plan and the written rationale for the early response action. The Department shall approve the work plan or early response action if it complies with the following:*

- 1. The requirements of this Section and A.R.S. § 49-282.06(A);*
- 2. Community involvement activities under R18-16-404;*
- 3. The work plan provides for modifications to address unknown or changed conditions; and*
- 4. Any applicable requirements of R18-16-411 and R18-16-412.”*

LPNA has questions about whether the RID Work Plan and ERA comply with all four of the qualifying criteria in A.A.C. R18-16-405(H) for approval of the work plan or early response action. In particular, LPNA has questions about, but not limited to, the requirements under:

- \* (1) referencing A.R.S. § 49-282.06(A) to “Assure the protection of public health and welfare and the environment” (how is this requirement met given the Main Canal will not be enclosed allowing volatilization of contaminants of concern (COCs) from it, especially if all of the water were to be diverted to the Main Canal if the Central Groundwater Treatment Facility were not operable)
- \* (3) the extent “the work plan provides for modification to changing or unknown conditions” since the Work Plan does not seem to address this in depth, and the data used in the proposal are from a 2008 report and do not include the more recent data from the Motorola 52<sup>nd</sup> Street (M52) Superfund Site Operable Unit 3 (OU3), and
- \* (4) R18-16-411(E)(1) which states, “Certification by the Department that the elements of the operations and maintenance plan adequately protect public health against treatment system failure” (if certification is based, in part, on a determination that use of the open Main Canal is not a public health risk, this would seem to argue against one of the reasons for the ERA and the enclosure of the remaining approximately 1700 feet of open Salt Canal); (E)(2) “A schedule and plan for water quality monitoring” (LPNA questions the adequacy of the proposed quarterly sampling regimen when monthly sampling/monitoring would normally be required until results warranted less frequent monitoring); and (E)(3) “A requirement that affected water providers receive a copy of the completed application and a copy of the final permit for any National Pollutant Discharge Elimination System permit for the site” (question about what permits may actually be applicable for the proposed voluntary ERA cleanup and if there are any changes once the discharge is into an irrigation canal that is part of a state or federal Superfund cleanup).
- \* LPNA remains a little confused by the references in proposals, letters, and documentation on the RID ERA and Work Plan to federal and state Superfund sites, requirements, actions, etc., and the applicability in the different situations. The West Van Buren WQARF site is a state Superfund site. It seems that references to the federal Superfund (CERCLA) requirements and remedy paths should not be a part of this proposal or decision-making process. If the Environmental Protection Agency (EPA) would be willing to include the West Van Buren site (in its entirety or in part) under the Federal Superfund process as an extension of the Motorola 52<sup>nd</sup> Street Superfund Site, then this proposed action would be subject to a different set of rules, regulations and processes.

On page 7 of the February 3, 2010 Work Plan it states that, “because the proposed ERA uses a United States Environmental Protection Agency (EPA) presumptive response strategy that is economical, efficient and consistent with similar groundwater remedies adopted by ADEQ and EPA at other Superfund and WQARF sites, it is reasonable to expect that the ERA infrastructure and operation would become part of the final groundwater remedy for the WVBA Site.”

On page 5 of the Gallagher & Kennedy January 20, 2010 letter to ADEQ Director Benjamin Grumbles appears, “RID’s proposed ERA follows a presumptive response strategy designed by EPA. . . The use of presumptive response strategies reduces the need for detailed and comparative analysis of potential remedies, which is consistent with the intent of the Superfund Accelerated Cleanup Model.”

An explanation would be appreciated about how actions pursued under CERCLA are applied to a state WQARF site, and how this might subsequently have an impact on the WQARF remedy if the ERA did not become a part of the final remedy or if it needed substantial modifications.

- \* Under A.A.C. R18-16-405, Early Response Actions, “*B. The method or technology used to implement the early response action shall be selected based upon best engineering, geological, or hydrogeological judgment following engineering, geological, or hydrogeological standards of practice, considering the following information: 1. Best available information characterizing the site; 2. Best available scientific information concerning available remedial methods and technologies; and 3. Best available information regarding whether the technology or method could increase the scope or costs of possible remedies for the site or result in increased risk to public health or welfare of the environment.*”

LPNA questions whether the best available information has been used (more recent OU3 data are available, newer RID sampling may be available even if no newer sampling data at the site has been collected). LPNA also has questions about whether any additional information is available on the condition of the RID wells.

In Appendix A of the February 3, 2010 Work Plan the Technical Memo states on page 6 that, “Since this canal will be the only water supply source for the CGTF, the capacity of the CGTF was set to match the capacity of the canal.” LPNA would like to see a discussion outlining outcomes under different capacities to determine that this is the best method and to evaluate the scope and associated costs.

The Technical Memo also states on page 7 that, “During the ERA, improvements will be made to 13 existing wells that will supply groundwater to the CGTF for treatment. Nine of these wells are located along the Salt Canal . . . and four are located approximately ¼ mile north of Buckeye Road. . . A comprehensive evaluation of each well still needs to be performed to determine their specific improvement needs.” Since these improvements include new well liners, LPNA would like to see these evaluations done before approval of the ERA to insure the condition of the wells and the likelihood of their continued operability for the length of the cleanup (under the ERA and potentially the final remedy).

On page 8 the Technical Memo states, “Since the maximum demonstrated capacity of the Salt Canal is only 20,000 gpm, the wells will need to be rotated such that only 20,000 gpm is sent to the canal at any given time for ultimate treatment at the CGTF. The balance of the flows could be sent to the Main Canal, or certain wells not operated for a time.” Since part of the VOC volatilization control methodology being proposed is for no open air discharges to be allowed, if the balance of the flows were sent to the Main Canal the method appears to have the potential to increase risk to public health or welfare of the environment.

Section 4.2.4, New Pipelines, of the Work Plan states on pages 33-34, “Separate new pipelines will be installed later in the ERA to convey groundwater with lower VOC concentrations from RID wells 105, 109, and 110 south to the Main Canal and to convey groundwater with higher VOC concentrations from RID wells 89, 92, 95, and 100 north to the Salt Canal and then to the CGTF for treatment (**Figure 14**). Installation of these pipelines will enable treatment of impacted groundwater from RID wells with the highest VOC concentrations, which will maximize the VOC mass removal during the ERA and eliminate public access and risk to the highest VOC concentrations.”

LPNA has questions about the timing of this subsequent work and whether the ERA design should have included these wells "having the highest VOC concentrations" within the initial work phase. Contaminated groundwater from these most highly contaminated wells will be discharged to the open Main Canal until this later phase of the work is completed.

- ❖ LPNA has questions about the shift in the pumping regimen under the ERA. On page 37 of the Work Plan it states that, "The new ERA priority pumping regimen will result in the same changes in groundwater levels that would otherwise occur if RID were to continue its current operation without the ERA" and page 6 states that, "Under the ERA, there will be no net change in annual groundwater pumping volumes by RID in the WVBA Site. Consequently, future groundwater levels will be unaffected by the ERA."

Groundwater conditions as reported on page 19 of the Work Plan "have been monitored periodically since 1993 as part of the RI. . . Groundwater levels in the UAU have declined approximately 35 feet in the monitor wells within the WVBA Site based on groundwater monitoring conducted during the RI from 1993 to present. The rate of groundwater level decline was estimated to be approximately 3 feet per year and corresponds to drier than normal precipitation conditions that have prevailed since 1995." Page 20 continues that, "On average, RID pumps approximately 75,000 AFY of groundwater from wells located in the WVBA Site. Based on the reported hydrogeologic conditions in the WVBA Site in the Draft RI Report, the RID wells probably derive most of their water from UAU", and from page 22, "the most extensive groundwater contamination exists in the UAU1 and UAU2, with a substantially smaller area of impact existing in the MAU."

LPNA has questions about the potential for any effect on the water table levels, especially in the upper alluvial unit (UAU), when the pumping regimen shifts under the ERA and the wells along the Salt Canal are primarily pumped instead of the wells along the Main Canal.

The Work Plan states on pages 36 and 37 that, "The total annual volume of groundwater pumped during the ERA would be nominally equivalent to the current annual volume pumped by RID from this area. The ERA would included [sic] a priority pumping regimen that operates the Phase 1 and 2 wells as continuously as possible (except for periods of well and canal maintenance) and operates the remaining RID wells in the WVBA on a seasonal demand basis. The new ERA priority pumping regimen will result in the same changes in groundwater levels that would otherwise occur if RID were to continue its current operation without the ERA."

- ❖ LPNA would like to see the Work Plan and ERA include a complete list of COCs that would be treated and sampled for under the ERA. LPNA would like to know more about the planned sampling and monitoring and would encourage RID and ADEQ to coordinate the list of COCs with EPA to include all of the COCs identified at the M52 Superfund site.
- ❖ LPNA has a question about the impact, if any, on the quantity of water currently permitted to be pumped by the Arizona Department of Water Resources associated with any change in end use from irrigation to drinking water, and if those changes have been factored into the ERA and Work Plan. On page 16 of the Work Plan it states that, "RID, COP and the Salt River Project (SRP) all have wells within or proximal to the WVBA. RID and SRP wells have historically been used for irrigation; however, all three entities have indicated plans or intentions to develop this groundwater for use as a drinking water supply, as indicated in the latest Land and Water Use Study Questionnaires."

- \* LPNA encourages ADEQ to take into account: (1) the current reduction in COC concentrations observed at Operable Unit 3 of the Motorola 52<sup>nd</sup> Street Superfund site, (2) the impact of those reductions in the need for the ERA, (3) coordination with EPA on the planning of the OU3 treatment facility, and (4) recognition of further reductions in contamination that would result from operation of a OU3 treatment facility located at 7<sup>th</sup> Avenue or beyond (to the West).

LPNA concurs with the approach adopted by ADEQ to require reliable and fail-safe technology and appreciates the RID proposal of a dual-phase granulated activated carbon (GAC) treatment system consistent with EPA policy. LPNA also supports the RID proposal outlining enhanced community involvement and looks forward to working with RID and ADEQ to accomplish this if the ERA is approved. LPNA would like to thank the Roosevelt Irrigation District for providing information and answering questions and its willingness to reach out to the public.

However, LPNA believes that the proposed Work Plan does not sufficiently meet the requirements for an Early Response Action and requests that no Early Response Action be taken at this site. However, we strongly encourage ADEQ to move as quickly as possible to implement the WQARF process for the cleanup at this site and to maximize the inclusion of community participation along the way. LPNA hopes to see cleanup at this site move rapidly forward on a technical basis and looks forward to participating in those discussions.

Thank you for your consideration of our comments on the ERA and Work Plan. Please do not hesitate to contact LPNA if you have any questions.

Respectfully Submitted,



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cc: Julie Riemenschneider, ADEQ Remedial Projects Section Manager  
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