

ROOSEVELT IRRIGATION DISTRICT

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SUPERINTENDENT

December 30, 2009

Jennifer Edward Thies, Project Manager
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
1110 West Washington Street
Phoenix, AZ 85007

**Re: PROPOSED REMEDIAL OBJECTIVES FOR WEST VAN BUREN
WATER QUALITY ASSURANCE REVOLVING FUND SITE**

Dear Ms. Thies:

On behalf of the Roosevelt Irrigation District (RID) and its Board of Directors, I am submitting this letter to propose remedial objectives for the West Van Buren Water Quality Assurance Revolving Fund (WQARF) site (WVBA Site). This letter has been submitted in response to the solicitation for remedial objectives issued by the Arizona Department of Environmental Quality (ADEQ) on November 30, 2009.

RID understands that the remedial objectives pertain to the final groundwater remedy for the WVBA Site, which will be selected by ADEQ after completion of the WQARF remedy selection process¹. However, RID firmly believes that remedial actions should be initiated immediately to mitigate the deleterious impact of the widespread contamination of our groundwater wells, water supply, and operations, as well as to protect the local community and the environment from potential exposure to the groundwater contamination. To this end, RID voluntarily submitted an Early Response Action Work Plan to ADEQ in accordance with applicable requirements under the WQARF program², and respectfully requests ADEQ's prompt approval of this plan. The Early Response Action we have proposed is consistent with the intent of conducting early response actions under the WQARF program³, and the magnitude of our proposed response action is clearly necessary in light of the extensive groundwater contamination and its widespread impact on our operations. Further, the early response action will initiate achievement of defined WQARF program remedial objectives⁴ that require protecting against the loss or impairment of identified uses of waters of the state by restoring, replacing, or otherwise providing for these water uses while the final remedy selection proceeds through the ADEQ administrative process for completion of the Feasibility Study, development of the Proposed Remedial Action Plan, and establishing the final Record of Decision.

¹ See Arizona Administrative Code (A.A.C.), Article 4, Title 18, R18-16-401 through 416

² See A.A.C. R18-16-405

³ See criteria specified in A.A.C. R18-16-405A

⁴ See definitions specified in A.A.C. R18-16-401

In response to ADEQ's request, RID proposes the following remedial objectives for the WVBA Site:

1. Protect human health and the environment by reducing and eventually eliminating potential exposure to hazardous substances that are contaminants of concern (COCs) in the groundwater;
2. Restore groundwater to meet all beneficial uses including potable supply;
3. Prevent further degradation of groundwater quality by COCs;
4. Minimize the relocation, transfer, and/or volatilization of COCs from groundwater to the environment;
5. Restore, replace, or otherwise provide alternate water supply for all existing water supply wells that are impacted by COCs in excess of Aquifer Water Quality Standards, equivalent to the legally permitted pumping capacity of the impacted wells;
6. Maintain plume containment to prevent impacts to wells that are not currently impacted by COCs;
7. Provide all water users a water source that meets the maximum anticipated beneficial use as drinking water;
8. Maximize the beneficial use of the treated groundwater to support the goals and objectives of the Arizona Groundwater Management Act; and,
9. Provide long-term management of contaminated groundwater to improve the regional aquifer's suitability for potable use.

These proposed remedial objectives were developed based on the following considerations:

- The need to restore the groundwater quality within the WVBA Site by reducing contaminant concentrations to less than Aquifer Water Quality Standards to allow use of this water for its maximum beneficial use as a source of drinking water;
- RID maintains the legally permitted right to pump over 120,000 gallons per minute from the WVBA Site (see attached Table 1)⁴. Over 50,000 gallons per minute of this permitted capacity are impacted by the groundwater contamination and over 70,000 gallons per minute of this permitted capacity are threatened by the groundwater contamination;
- Containment of contaminated groundwater is necessary to prevent plume movement and to protect down-gradient and peripheral supply wells;
- ADEQ and U.S. Environmental Protection Agency requirements to limit the transfer of volatile organic compounds from contaminated groundwater to air; and,
- The necessity for effective management of groundwater resources in the State of Arizona.

RID appreciates the opportunity to provide input to ADEQ on the remedial objectives for the WVBA Site.

Very truly yours,



Stanley H. Ashby

⁴ See Arizona Revised Statutes 45-462 and 45-494 1.a and b.

**Cc: David P. Kimball, III Esq., Gallagher & Kennedy, P.A.
Sheryl Sweeney, Esq., Ryley Carlock & Applewhite
Dennis Shirley, Montgomery & Associates**

TABLE 1. SUMMARY OF ADWR WELLS 55 DATABASE REPORTED PUMPING CAPACITY FOR RID WATER SUPPLY WELLS

WELL ID	ADWR REGISTRATION NUMBER	CADASTRAL LOCATION	REPORTED PUMPING CAPACITY (gpm)	TOTAL DEPTH (ft, bls)	LAND SURFACE ALTITUDE (ft, msl)
RID-83	55-607227	A-01-01 11ACB	1,940	790	1,029
RID-84	55-607226	A-01-01 12DBA2	2,419	600	1,033
RID-85	55-607225	A-01-02 07CCC2	3,495	700	1,033
RID-86	55-607224	A-01-02 18ACB	5,286	300	1,030
RID-87	55-607223	A-01-02 17CAA	4,570	500	1,033
RID-88	55-607222	A-01-02 17ADD	3,718	1,800	1,032
RID-89	55-607221	A-01-02 09CBC	3,853	1,800	1,047
RID-90	55-607220	A-01-02 16DBB2	3,494	460	1,035
RID-91	55-607219	A-01-02 15BCC2	5,510	449	1,043
RID-92	55-607218	A-01-02 10CCB	1,971	500	1,052
RID-93	55-607217	A-01-02 15ACC	6,944	540	1,045
RID-94	55-607216	A-01-02 14BBC	6,138	425	1,051
RID-95	55-607215	A-01-02 11CBC2	3,875	1,800	1,062
RID-96	55-607214	A-01-02 14CCB	4,480	800	1,043
RID-97	55-607213	A-01-02 14CDD	5,958	1,800	1,045
RID-98	55-607212	A-01-02 24BBB2	5,286	1,675	1,052
RID-99	55-607211	A-01-02 14AAD	2,778	420	1,055
RID-100	55-607210	A-01-02 12CBC	2,778	302	1,061
RID-101	55-607209	A-01-02 13CDD2	6,720	400	1,052
RID-102	55-607196	A-01-02 13ABD2	5,958	440	1,059
RID-103	55-607208	A-01-02 13DAD	4,614	440	1,054
RID-104	55-607207	A-01-03 18BBC	5,510	410	1,058
RID-105	55-607206	A-01-01 12BBB	2,374	622	1,035
RID-106	55-607205	A-01-02 07BBB	3,000	790	1,044
RID-107	55-607204	A-01-02 08BBB	2,195	414	1,053
RID-108	55-607203	A-01-02 08BAA1	1,711	284	1,056
RID-109	55-607202	A-01-02 09BBB	2,845	500	1,061
RID-110	55-607201	A-01-02 09AAB2	3,069	500	1,060
RID-111	55-607200	A-01-02 10ABA	2,016	454	1,063
RID-112	55-607199	A-01-02 11BAB	3,136	650	1,066
RID-113	55-607198	A-01-02 11AAA	3,136	415	1,070
RID-114	55-607197	A-01-02 12BAA	2,240	395	1,072
VOC-IMPACTED WELLS PUMPING CAPACITY			52,490		
TOTAL PUMPING CAPACITY			123,017		

Well ID shown in red has concentrations of volatile organic compounds in excess of aquifer water quality standard

gpm = gallons per minute

ft, bls = feet below land surface

ft, msl = feet above mean sea level