

**REMEDIAL INVESTIGATION AND REMEDIAL OBJECTIVES
RESPONSIVENESS SUMMARY
KLONDYKE TAILINGS
WQARF REGISTRY SITE
KLONDYKE, ARIZONA**



August 2014

Arizona Department of Environmental Quality
Remedial Projects Unit
1110 West Washington
Phoenix, Arizona 85007

LIST OF ABBREVIATIONS & ACRONYMS

A.A.C	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
A.R.S	Arizona Revised Statutes
AWQS	Aquifer Water Quality Standard
DEUR	Declaration of Environmental Use Restriction
mg/L	Milligrams per Liter
RO	Remedial Objectives
WQARF	Water Quality Assurance Revolving Fund

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INTRODUCTION

Pursuant to the requirements of the Arizona Administrative Code (A.A.C) R-18-16-406(H) the Arizona Department of Environmental Quality (ADEQ) has prepared this comprehensive responsiveness summary for comments received on the Klondyke Tailings Water Quality Assurance Revolving Fund (WQARF) Registry Site (the Site) Remedial Investigation Report and Proposed Remedial Objectives. The comment period for the Draft Remedial Investigation report was opened on December 7, 2014 for 60 days. The comment period for the Proposed Remedial Objectives was opened on May 31, 2014 for 30 days. ADEQ only received comments relating to the Proposed Remedial Objectives Report.

Comments were made by two property owners at the site.

Comments from Mr. Stoddard, property owner:

I prefer my whole property be cleaned up.

My grandkids roam all over property, and I don't think cleaning up just around residence will address the problem. My son wants to build a residence west of the existing residence.

ADEQ Response:

ADEQ followed U.S. Environmental Protection Agency guidance in writing the Remedial Objectives (ROs) for the Site. (*U.S. EPA, 2003. Superfund Lead-Contaminated Residential Sites Handbook. OSWER 9285.7-5*). This document indicates that removal of, and replacement with clean fill, of one foot of contaminated soils in the immediate area of the primary residential living area on the properties is sufficient to be protective of human health. Furthermore, the removal actions are based on the assumption that a minimum of 12 inch soil cover is adequate. The immediate area is defined as an area approximately 200 feet by 200 feet around the primary residential living area. The primary residential living area also includes garages and other structures in the area around the primary residence. In addition, soil will be removed and replaced with clean fill material to a depth of two feet in areas on the properties used for sustenance gardening.

The ROs do not eliminate the possibility of additional cleanup in the immediate area of the primary residential living area should an additional residence be built on a property. No change required to the ROs.

Comment from Mr. Stoddard, property owner:

I prefer the whole property be cleaned up or bought out.

Comments from Mr. Curtis, property owner:

I have built my dream home and shop. I would like to, and need to build more, but I feel that I would never get a fair return on my investment.

I would like the state to buy me out of my property and I will build again outside of the tailings area.

I also feel that my investment has been devaluated due to the lead and other contaminates.

As the real estate market rebounds in AZ, where does this leave the value of our property? If we sell we have to tell prospective buyers about the study. There is no way these properties will increase as they normally should compared to properties outside the study area. We feel this devaluation should be resolved before we leave this problem to our kids and their children to deal with.

We would like to be compensated for the devaluation of the property or totally bought out.

ADEQ Response:

ADEQ understands the residents concerns about the contamination on their properties. ADEQ feels it was within its responsibilities to identify the contamination on the properties and take actions where required to protect human health and the environment. However, ADEQ is not responsible for the contamination on the properties and ADEQ will not compensate owners for the possible devaluation of the property.

ADEQ understands that a simple solution to the problem would be to buy the properties from the current owners. ADEQ has the authority to conduct remedial actions on properties that will minimize or mitigate damage to the public health or welfare. Unfortunately, ADEQ does not have the authority to purchase properties. No changes required to the ROs.

Comments from Mr. Curtis, property owner:

In 2003 my well was drilled and the water was plentiful. The water tasted second to none. In late June and early July of 2006, we had a major flood. This took equipment, timbers, mine tailings, ect. from the grand reef mine site, downstream. It was after the flood that the water changed. I expect this problem to be an ongoing issue.

Should we drink the water every day, after a flood, when the grandchildren are here? The water on our property tastes terrible and also has an orange tint to it at times.

ADEQ Response:

Beginning in May 2006, ADEQ has sampled this private well five times during the Remedial Investigation of the Site. Lead was detected at a concentration of 0.145 milligram per liter (mg/L) in the sample collected from this well on August 29, 2007 and exceeded the Aquifer

Water Quality Standard (AWQS) for lead of 0.05 mg/L resulting with a re-sampling event on October 17, 2007. The analytical results for the October 17, 2007 did not detect lead above the laboratory detection limit of 0.005 mg/L. Therefore, the detection of lead above the AWQS could not be confirmed. The well was again sampled in June 2013 and no metals were detected above an AWQS. ADEQ will continue to monitor water quality in the area of the Site. No changes required to the ROs.

Comments from Mr. Stoddard, property owner:

Restrictions on the property would further reduce property value. Restrictions on the property would be unacceptable.

Comments from Mr. Curtis, property owner:

I also feel that my investment has been devaluated due to the lead and other contaminates. If I sign the document stating that I won't divide the property, this would further devalue my property.

ADEQ Response:

The proposed RO for soils at the Site are: to restore soil conditions to the remediation standards for residential use specified in A.A.C. R18-7-203 (specifically background remediation standards prescribed in R18-7-204, predetermined remediation standards prescribed in R18-7-205, or site specific remediation standards prescribed in R18-7-206) that are applicable to the hazardous substances identified.

Currently ADEQ is using the predetermined residential remediation standard for lead to drive remedial actions at the Site. A.A.C. R18-7-208 indicates a property owner who elects to leave contamination on a property that exceeds the applicable residential standard for the property shall record a DEUR pursuant to Arizona Revised Statute A.R.S. § 49-152.

ADEQ, in making the decision to conduct remedial actions in the immediate area of the primary residential living area on these large properties, is contemplating leaving soils on the remainder of the properties that exceed the predetermined residential remediation standard. In doing so, ADEQ is moving towards determining a site specific remediation standard for these properties. A.A.C. R18-7-206(A) indicates a person may elect to remediate to a residential site specific remediation level derived from a site specific human health risk assessment. No changes required to the ROs.

Comments

Phone Discussion with Mr. Stoddard. 2/4/14

Mr. Stoddard prefers his whole property be cleaned up or bought out. Mr. Stoddard feels property restrictions would further reduce property value. Mr. Stoddard feels restrictions on property would be unacceptable.

Mr. Stoddard's grandkids roam all over property, Mr. Stoddard doesn't think cleaning up just around residence will address the problem. Mr. Stoddard's son wants to build a residence west of the existing residence.

Phone Discussion with Mrs. Schnell 2/4/14

Mr. and Mrs. Schnell are uncertain on how they feel about restricting use of their property where areas exceed 400 mg/kg lead. They would prefer to see something in writing before making a decision.

Scott Goodwin, Project Manager
ADEQ Staff
602.771.4452

February 3, 2014

Dear Mr. Goodwin,

I appreciate the effort and work that has been done on my property. It was a pleasant experience.

However I do have many concerns. In July of 1999, I purchased my Klondyke property in good faith, knowing I would build my dream home, in the future to come.

In 2003 my well was drilled and the water was plentiful. The water tasted second to none. In late June and early July of 2006, we had a major flood. This took, equipment, timbers, mine taillings, ect., from the grand reef mine site, downstream. It was after the flood that the water changed. I expect this problem to be an ongoing issue. I also feel that my investment has been devaluated due to the lead and other contaminates. If I sign the document stating that I won't divide the property, this would further devalue my property.

I have built my dream home and shop. I would like to, and need to build more, but I feel that I would never get a fair return on my investment.

My Klondyke residence and property is my lifetime investment and inheritance for my children.

Because of my financial and health concerns, I would like the state to buy me out of my property and I will build again outside of the taillings area.

Thank you for your consideration,

Wayne K. Curtis

Resident- Property Owner
1324 N Grand Reef Rd
Klondyke, AZ 85643

Mailing Address
PO Box
Thatcher, AZ 85552
928.828.6859
azlonghorn49@gmail.com

Dear Mr. Goodwin

While we are grateful for the work that has been done in the study area so far, we still have many concerns.

Should we drink the water every day, after a flood, when the grand children are here? The water on our property taste terrible and also still has an orange tint to it at times.

As the real estate market rebounds in AZ, where does this leave the value of our property. If we sale we have to tell prospective buyers about the study. There is no way these properties will increase as they normally should compared to properties outside the study area.

We feel like this devaluation should be resolved before we leave this problem to our kids and their children to deal with.

We would like to be compensated for the devaluation of the property or totally bought out.

Wayne and Kathy Curtis

Wayne K Curtis
Kathy S. Curtis

