



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

**Date:** July 1, 2014

**Subject:** Emergency Action Memorandum for Williams Drive Contaminated Groundwater Site, Ore Knob, Ashe County, NC

**From:** Terrence Byrd  
OSC, Emergency Response and Removal Branch (ERRB)

**To:** Site File

SITE ID # B4A2

## I. PURPOSE

The purpose of this memorandum is to request emergency activities at the Williams Drive Site located in Ore Knob, Ashe County, NC. The site is initiated under the On-Scene Coordinator's OSCs \$250,000 delegation and warrant authority and no additional funds are requested.

## II. SITE CONDITIONS AND BACKGROUND

**Site Number:** B4A2

**TO Amount:** \$100,000

**Category:** Emergency

**TO Number:** 90

**CERCLIS Number:**

**Response Authority:** CERCLA

**State Notification:** June 1, 2010

**Start Date:** June 15, 2010

**NPL Status:** Finalized on September 23, 2009

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**A. Site Description**

**1. Removal site evaluation**

Decades of mining activities in the area surrounding Williams Drive have resulted in hundreds of acres of contaminated land and surface water. The EPA performed a Listing Site Inspection (LSE) in 2007 and a Removal Site Evaluation (RSE) in 2008. Preliminary results of the LSE concluded that there were no groundwater contaminant levels that warranted immediate action. Groundwater sampling was not included in the RSE. Subsequent evaluations of the LSE from both the EPA and the North Carolina Department of Health and Human Services identified concentrations of manganese that exceeded THE EPA Region IV screening levels (880ppb) and removal action levels (2600ppb) in drinking water, with levels recorded as high as 17,800ppb.

Using this newly identified information, THE EPA recommended emergency action be taken to supply residents with a temporary source of potable water.

**2. Physical location**

The Williams Drive site is located in the area surrounding Little Peak Creek Road and Ore Knob Mine Road in Ore Knob, Ashe County, N.C. It is approximately 12 miles south of the Virginia state line, 45 miles southeast of Bristol, Tennessee, and 8 miles east of the town of Jefferson, North Carolina. The headwaters of Peak Creek are located near the Site. The region is primarily rural, with agriculture and tourism as major sources of employment. The site is located in the Blue Ridge Mountains, a highly popular year-round vacation destination.

### **3. Site Characteristics**

The area is in a rural residential setting, including less than one hundred households. The groundwater plume causing this contamination is in the same vicinity as the adjacent Ore Knob Mine Site.

### **4. Release of threatened release into the environment of a hazardous substance, or pollutant or contaminant.**

The groundwater plume resulting in contaminated drinking wells contains elevated levels manganese (17,800 ppb). Preliminary sampling has found drinking water to exceed the removal action level for manganese at more than ten residences. Further sampling is expected to identify additional locations. The extent and of contamination has yet to be determined.

### **5. NPL Status**

The Site is located adjacent to the Ore Knob Mine Site, which has been listed to the NPL on September 23, 2009. Preliminary data suggests that groundwater contamination is the direct

result of acid mine drainage plumes at the Mine Site and the Superfund Remedial and Site Evaluation Branch has included mitigation of drinking water activities as part of the Ore Knob Mine Site mitigation.

## **6. Maps, pictures and other geographic representations**

All removal file information, including maps and aerial photos of the Site, will be maintained by the OSC and released to the EPA record center for inclusion in the Site file.

## **B. Other Actions To Date**

### **1. Previous Actions**

The EPA performed a Listing Site Inspection (LSE) in 2007 and a Removal Site Evaluation (RSE) in 2008. Preliminary results of the LSE concluded that there were no groundwater contaminant levels that warranted immediate action. Groundwater sampling was not included in the RSE. Subsequent evaluations of the LSE from both the EPA and the North Carolina Department of Health and Human Services identified concentrations of manganese that exceeded the EPA Region IV screening levels (880ppb) and removal action levels (2600ppb) in drinking water, with levels recorded as high as 17,800ppb.

### **2. Current Actions**

The EPA is currently providing bottled water to residents and conducting sampling events in the area to define the extent of groundwater contamination in the area. The EPA is also installing water softeners and filtration systems in select homes of affected residents. These systems are being sampled to determine their efficacy.

## **C. State and Local Authorities' Role**

### **1. State and local actions to date**

North Carolina Department of Health and Human Services requested a data review of the Listing Site Evaluation while preparing a public health assessment for the Ore Knob Mine NPL Site. The subsequent review by THE EPA concluded that elevated levels of manganese were present in drinking water at residences in the vicinity of Williams Drive.

### **2. Potential for continued State/local response**

It is not anticipated that any North Carolina state agency will perform any response activities at the Site, although they will take the lead on securing any future use restrictions deemed necessary at the Site. NCDENR has referred this Site to the EPA because they do not have a funding process to implement this emergency action. ERRB will continue to coordinate with the state and local agencies in order to keep the community informed of future removal Site activities.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

**§300.415(b)(2)(ii). “Actual or potential contamination of drinking water supplies or sensitive ecosystems;”**

Residents have an undetermined extent of exposure to manganese at levels above the RSL and above the RAL for manganese. Residential drinking water wells contain levels of manganese that exceed the EPA Region IV screening levels (880ppb) and removal action levels (2600ppb) in drinking water, with levels recorded as high as 17,800ppb. These high levels of contaminants warrant emergency action at the Site.

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**§300.425(b)(2)(iii). “Actual or potential contamination of drinking water supplies or sensitive ecosystems;”**

Residents have an undetermined extent of exposure to manganese at levels above the RSL and above the RAL for manganese. Residential drinking water wells contain levels of manganese that exceed the EPA Region IV screening levels (880ppb) and removal action levels (2600ppb) in drinking water, with levels recorded as high as 17,800ppb.

**§300.415(b)(2)(vii). “The availability of other appropriate Federal or State response mechanisms to respond to the release.”**

At this time no State mechanisms exist that are able to respond to this incident in the required manner.

#### **IV. ENDANGERMENT DETERMINATION**

Residents have an undetermined extent of exposure to manganese at levels above the RSL and above the RAL for manganese. Residential drinking water wells contain levels of manganese that exceed the EPA Region IV screening levels (880ppb) and removal action levels (2600ppb) in drinking

water, with levels recorded as high as 17,800ppb. These high levels of contaminants warrant emergency action at the Site. Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

## **V. EXEMPTION FROM STATUTORY LIMITS**

The Site is located adjacent to the Ore Knob Mine Site, which has been listed to the NPL on September 23, 2009. Preliminary data suggests that groundwater contamination is the direct result of acid mine drainage plumes at the Ore Knob Mine NPL Site and the Superfund Remedial and Site Evaluation Branch has included mitigation of drinking water activities as part of the Ore Knob Mine Site mitigation. A consistency exemption is requested to continue the activities at the Site.

## **VI. PROPOSED ACTIONS AND ESTIMATED COSTS**

### **A. Proposed Actions**

#### **1. Proposed action description**

Based on the imminent risk of residents consuming non-potable drinking water from contaminated wells, the EPA proposes the following actions:

- Sampling and analysis of drinking water wells in the vicinity of the Ore Knob Mine
- Provide bottled water until sampling and analysis of the residence is complete.
- Provide and temporarily maintain a filtration system at the residence.
- Perform post-installation sampling of filtration systems to measure effectiveness.

**2. Engineering Evaluation/ Cost Analysis (EE/CA)**

This proposed action is an emergency action and does not require an EE/CA.

**3. Applicable or relevant and appropriate requirements (ARARS)**

On-site removal activities conducted under CERCLA are required to attain ARARs to the extent practicable considering the exigencies of the situation. Off-site removal activities need only comply with all applicable Federal and State laws, unless there is an emergency.

**4. Project Schedule**

All pre and post filtration sampling, installation and monitoring is not expected to exceed 12-months for each residence. The EPA will perform all sampling according to agency guidance.

**B. ESTIMATED COSTS**

The site is initiated under the On-Scene Coordinator's OSCs \$250,000 delegation and warrant authority and no additional funds are requested. The site ceiling is \$100,000.

EXTRAMURAL COSTS:	<u>Site Ceiling</u>	<u>Amount Expended (Approximately)</u>
TOTAL EXTRAMURAL COSTS:	\$100,000	\$40,000

**VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

If the above actions are not taken, residents in the area may continue to ingest harmful amounts of hazardous substances.

**VIII. OUTSTANDING POLICY ISSUES**

None

**IX. ENFORCEMENT**

**X. RECOMMENDATION**

This decision document represents the selected removal action for the Williams Drive Site located in Ore Knob, Ashe County, North Carolina. These response actions have been developed in accordance with CERCLA as amended, and are not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site. Conditions at the Site continue to meet the NCP Section 300.415(b)(2) criteria for a removal action. The site was initiated under the On-Scene Coordinator's OSCs \$250,000 delegation and warrant authority and no additional funds are requested. The current site ceiling is \$100,000.

APPROVE: \_\_\_\_\_

  
Terrence Byrd  
On-Scene Coordinator  
Region IV

DATE: 7/01/2014

