

Tar Creek Superfund Site Fact Sheet for OU 1

Introduction

A Governors Task Force was formed in 1980 to investigate the Tar Creek Site regarding potential impacts to Human Health and the Environment and to select and implement required remedial actions. This is a summary of the actions and results of what was later named Operable Unit 1 (OU1) by EPA.

Studies

Aspects of the Tar Creek Site evaluated included: source water to the mines; contamination of Tar Creek; wells and shafts and their effects; human health; impacts to drinking water and alternate drinking water sources; effects of the heavy metals on downstream streams and Grand Lake.

Studies were conducted or contracted by the State of Oklahoma.

Results

Results of the studies were summarized in a Record of Decision (ROD) and found that:

- The major source of water to the mines was surface runoff.
- Tar Creek was highly contaminated.
- The Boone Aquifer was unusable as drinking water.
- The lower Roubidoux Formation was not contaminated and was a suitable source of drinking water.
- There were no significant impacts to downstream waters.

Alternatives considered were as follows:

1. Surface waters could be diverted from entering the mines.
2. The Boone water could be treated and used for drinking, if necessary.
3. Tar Creek could be cleaned if necessary.
4. Wells could be plugged to protect the lower aquifer.
5. Shafts could easily be plugged.

Only two alternatives were implemented:

1. Diversion of a small part of the surface waters
2. Some wells and shafts were plugged

Subsequent studies of the effectiveness of the remedy and five-years review were stipulated as required activity at the site.

Conclusions

The diversion of surface water was inadequate to protect the Boone Formation. Some wells were plugged; this may have prevented some contaminated water from entering the uncontaminated lower aquifer. Some shafts were plugged. Subsequent studies were inadequate and not useful. These actions resulted in 10 years passing without meaningful studies or remedial actions being taken at this Site.