



Iron King Mine & Humboldt Smelter Site

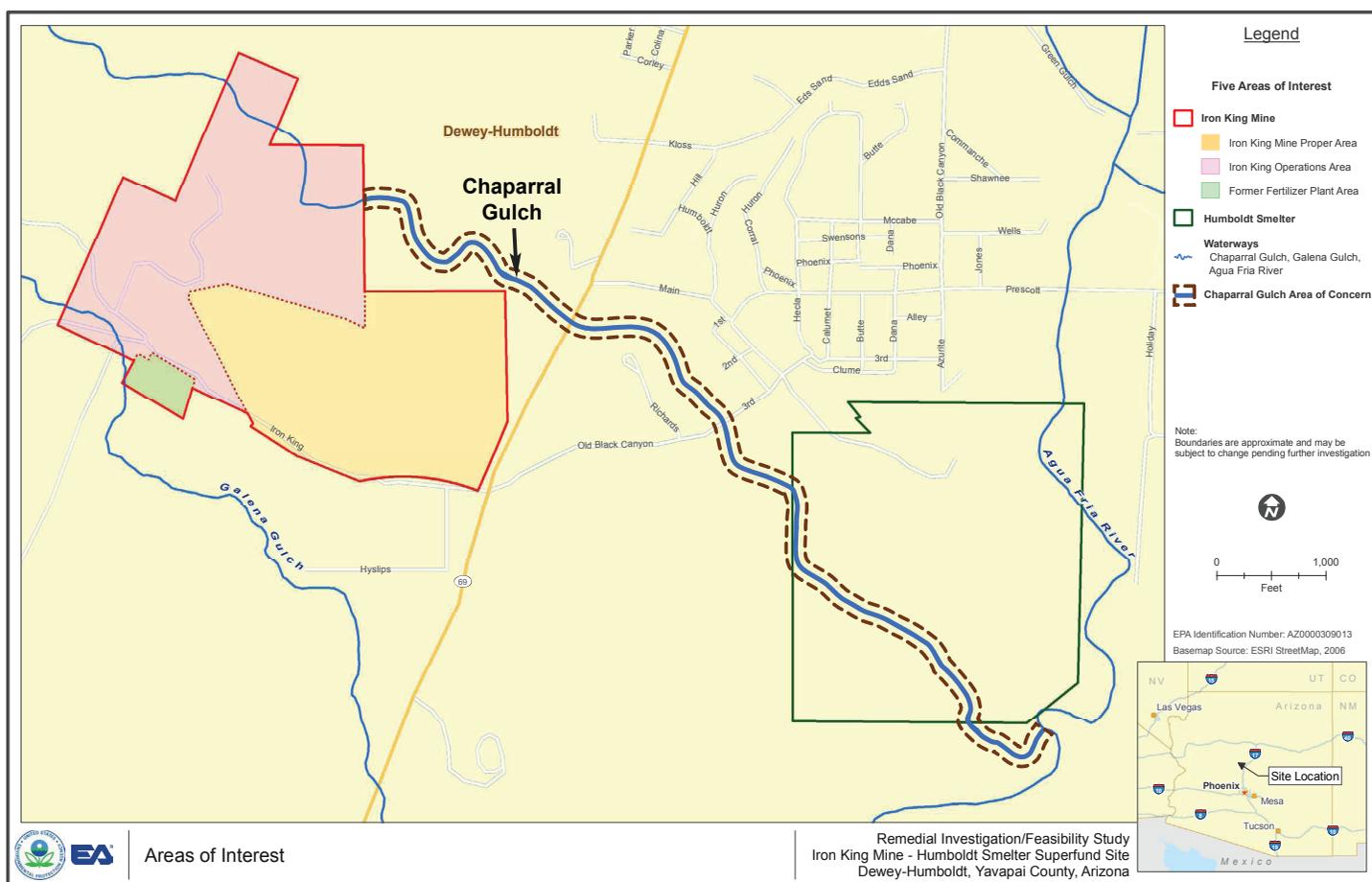
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Chaparral Gulch Shows Elevated Arsenic

EPA is conducting an investigation at the Iron King Mine – Humboldt Smelter Superfund Site in Dewey-Humboldt, Arizona. EPA completed most of the sample collection during summer and fall 2008. We are currently compiling the results which will be included and described in the forthcoming Remedial Investigation Report.

The Remedial Investigation Report will include a risk evaluation that estimates the current and future potential health risks from the Site. Preliminary sampling results indicate the presence of elevated levels of arsenic in the Chaparral Gulch that could present a health risk if a person is exposed to the arsenic over a long period of time. Arsenic is naturally occurring in soils in Arizona; however, the amount of arsenic in the soil in Chaparral Gulch has increased through mining and smelting activities in the area.

Arsenic can enter the body through breathing and/or ingesting contaminated soil. EPA recommends that residents limit or avoid contact with soils and any water in the Chaparral Gulch. Chaparral Gulch is easily accessible to the public as no fences or gates prohibit access. However, EPA advises residents, especially young children, to stay out of this area.



Chaparral Gulch Sampling

EPA collected surface and subsurface soil samples in the Chaparral Gulch. These samples were analyzed for metals, nitrates, nitrites, and sulfates, and perchlorate.

Surface water and sediment samples were collected approximately every 400 to 500 feet along the Chaparral Gulch when water was present (during or shortly after a rain event). Surface water was analyzed for metals, nitrates, nitrites, sulfates, perchlorate, and total dissolved solids.

Sampling Results

Results indicated elevated levels of arsenic in soil, sediment, and surface water in the Chaparral Gulch. The Chaparral Gulch contains tailings from both the Iron King Mine and the Humboldt Smelter. Additionally, a dam located on the smelter property within the Chaparral Gulch has collected tailings from the Humboldt Smelter that were deposited when an uphill settling pond was breached. EPA is still evaluating the nature and extent of this contamination. The results will be part of the Remedial Investigation Report.

Questions and Answers

How does arsenic affect my health?

The levels of arsenic found in the soil samples are low enough not to pose an immediate health problem. EPA is concerned about extended exposure to arsenic since it can cause long-term health effects.

The health effects of arsenic are determined by how much dust and soil is routinely ingested or inhaled. Swallowing or inhaling soil or dust laced with arsenic is the primary path for entering the body. Touching soil does not pose a threat.

Arsenic exposure may be linked to cardiovascular and vascular disease, diabetes, nausea or upset stomach, diarrhea, headaches and a variety of cancers: skin (non-melanoma type), kidney, prostate, lung, bladder and liver.

Why are young children more at risk?

EPA is concerned about young children as they can inhale and eat dirt while playing. This behavior is a concern for children who live in areas with elevated arsenic levels in the soil.

If I am in contact with the soils in Chaparral Gulch, does the contamination pose an immediate health risk?

In general, short-term exposure to contamination in the Chaparral Gulch will not cause an immediate health risk. EPA is most concerned about long-term exposure which could potentially cause health effects.

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Advisory

EPA recommends that people, especially small children, stay out of the Chaparral Gulch. This precautionary advice is meant to reduce human exposure to arsenic contamination in the Chaparral Gulch.

Contact Information

Individuals who would like more information should contact:

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EPA's toll free message number is
(800) 231-3075



For site documents, please visit the information repository at:

Humboldt Town Library
2735 S. Corral Street
Dewey-Humboldt, AZ



Please visit the Iron King Mine and Humboldt Smelter Site website at:
<http://www.epa.gov/region09/ironkingmine>

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