



Fairfield/Manning Canyon

THE FINAL PUBLIC HEALTH ASSESSMENT IS NOW AVAILABLE

This fact sheet gives highlights of the Utah Department of Health's (UDOH) Public Health Assessment (PHA) on the Fairfield/Manning Canyon site. If you would like a copy of the full PHA report, contact the UDOH, Environmental Epidemiology Program (EEP). Contact information is located on the back of this summary.

Overview:

The PHA evaluated the health risks to Fairfield residents and visitors from contaminated mine tailings that have moved off-site into surface **water**, sediment, **soil**, and **air** originating at the Manning Canyon abandoned mine site. During years following the mill closure, tailings impoundments were breached, resulting in the migration of mine tailings into the town of Fairfield. Erosion due to flooding and heavy rains resulted in movement of tailings into streams, roads, and properties in Fairfield. [The Manning Canyon tailings contained elevated levels of arsenic, mercury, lead, thallium, and other metals.](#) The PHA addressed only contamination that migrated onto

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Water:

- Fairfield's drinking water (from private wells, municipal sources, or Big Spring Creek) DOES NOT contain harmful levels of arsenic, thallium or mercury.
- Seasonal standing surface water located in the first 700 feet of Big Creek Ditch east of Highway 73 contains unhealthy levels of arsenic and thallium. Contact with surface water in this location should be avoided. Parents are advised to reduce or eliminate children's contact with water in these ditches.

Soil:

- Residential: Some residential lands contain levels of arsenic that could pose a health risk after long-term (more than one year) exposure.
- Roads: Small portions of Highway 73 contain levels of arsenic that could pose a health risk after a short exposure; however, these are covered with asphalt and are contained.
- Non-residential: Some properties contain levels of arsenic that could pose a health risk after a short-term exposure. Future health risks should be assessed prior to development of these non-residential properties.

Air:

- The ambient air pathway was not assessed due to insufficient data. There is some concern that elevated levels of airborne contaminants may be present especially during the spring plowing season. In order to fully evaluate this pathway and the potential risks that may result, additional air samples should be taken and analyzed during high exposure conditions.

HEALTH EFFECTS FROM EXPOSURE:

The potential for adverse health effects depends on many factors, including:

- (1) The amount of each chemical to which a person is or has been exposed;
- (2) How long a person is exposed;
- (3) The route by which a person is exposed;
- (4) The health condition of the person;
- (5) The nutritional status of the person; and
- (6) Exposure to other chemicals (such as cigarette smoke or chemicals in the work place).

SPECIFIC CHEMICAL; HEALTH EFFECTS:

Thallium:

Exposure to low levels:

- The human health effects from exposure to low environmental levels of thallium are unknown

Exposure to high levels:

- Hair loss and nerve damage
- Nausea and vomiting followed by the failure of multiple body organs, brain injury, and

- Nausea and vomiting followed by the failure of multiple body organs, brain injury, and death

Arsenic:

Exposure to low levels for short period:

- Nausea and vomiting
- Decreased production of red and white blood cells
- Sensation of “pins and needles” in hands and feet

Exposure to low levels for a long period:

- Darkening of the skin and the appearance of small “corns” or “warts” on the palms of hand; soles of feet and torso

Exposure to high levels for short period:

- Sore throat, irritated lungs

Exposure to high levels for a long period:

- Increase risk of skin, liver, bladder, and lung cancer
- Death

Pregnant Women:

- Mild birth defects

Children:

- Lower IQ

RECOMMENDATIONS:

Based upon EEP's review of the Manning Canyon/Fairfield soil, surface water and air data and the concerns expressed by community members, the following are recommended:

Seasonal Surface Water—

- Reduce or eliminate children's exposure to contaminated ditches.

Residential Soils -

- Reduce exposure to contaminated soils in yards.
- Coordinate with EPA and Utah Department of Environmental Quality (UDEQ) to monitor contamination levels. Annual sampling should be conducted to ensure contaminant reduction.

Non-residential Soil—

- Developers of contaminated parcels need to clean up arsenic concentrations to levels below health screening values, especially on land that may be sold in the future for proposed building and growth. In addition, zoning and institutional controls are recommended.

Ambient Air-

- Residents with respiratory health concerns should not engage in strenuous outdoor activities (i.e., exercising, gardening) during windy conditions when dust is present or likely.
- Coordinate with EPA and UDEQ to perform additional air sampling during active field plowing to better identify levels of exposure.

HOW TO REDUCE YOUR EXPOSURE:

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- Wash hands frequently especially before eating, handling food, or smoking
- Avoid hand to mouth activities
- Eat foods high in iron and calcium
- Wash and peel all home grown fruits and vegetables
- Keep outside toys and furniture well maintained and clean
- Maintain good lawn or groundcover to prevent the potential of contact with bare soil
- Dust and vacuum inside your home regularly (dust using a damp cloth)
- Change A/C and furnace filters regularly

FOR MORE INFORMATION:

Local:

Utah County Health Department
Environmental Health
(801) 851-7000



State:

Utah Department of Health
Environmental Epidemiology Program
(801) 538-6191
www.health.utah.gov/enviroepi



Federal:

Environmental Protection Agency
(EPA)- Region VIII
www.epa.gov

Agency for Toxic Substance and
Disease Registry (ATSDR)
www.atsdr.cdc.gov





Getting Screened Can Save Your Life

Getting regular check-ups, preventive screening tests, and immunizations are among the most important things you can do for yourself. Regular health exams can find problems early, when your chances for prevention, treatment and cure are better.

By getting the right health services, screenings, and treatments, you are taking steps that help your chances for living a longer, healthier life. Your age, health and family history, lifestyle choices (i.e. what you eat, how active you are, whether you smoke), and other important factors impact what and how often you need services and screenings.

Where Can I Go for Health Services?

The best place to go for health services is your regular health care provider. However, if you do not have one, the Utah Cancer Control Program provides other options for some screening exams.

The following is a list of free or low cost screening exams that the Utah Cancer Control Program offers. Breast and cervical cancer screening is available statewide. Other screening services are available at select locations.

Women

Breast and Cervical Cancer

Pap test

Pelvic Examination

Clinical Breast Exam

Clinical Breast Exam

Mammogram

Cardiovascular Health

Blood Pressure

Cholesterol Test

Glucose Test

A1C Screening

Lifestyle Coaching



www.cancerutah.org

Call 1-800-717-1811 to see if you qualify for free or low cost screening exams.