

Case Study 1 Supplement: Asbestos Mine



Stream and wetlands impacted by asbestos mine tailing runoff. The stream exhibits a milky color: a direct result of suspended asbestos fibers (ATSDR, 2006).

From the early 1900s to 1993, the ABC Site was an active asbestos mine. During the mine's operation, millions of tons of chrysotile asbestos ore was excavated. The ore excavation process generated tons of waste rock and mine tailings. Contaminated runoff from the mine tailings included impacts to the surface water, stream, and sediments.

Asbestos Mine, cont'd

Site investigations showed asbestos material extended to downstream wetland areas. Asbestos in the wetland areas as well as the tailings piles represented an ongoing source of airborne asbestos. This is a particular concern for people who previously accessed the sites. The site was known as a great place for recreation, such as hiking. These activities often occurred on the tailings piles.

Asbestos Mine, cont'd

- Asbestos exposure is not a problem if solid asbestos is left alone and not disturbed.
- However, people who recreated on the site could be exposed to asbestos by these activities. **Asbestos exposure results from breathing in asbestos fibers.** If rocks, soil, or products containing asbestos are disturbed, asbestos fibers can be released into the air. These fibers can be breathed into the lungs and could remain there for a lifetime.
- More about asbestos:
<https://www.atsdr.cdc.gov/asbestos/index.html>

Asbestos Mine Key Messages

Being exposed to asbestos does not mean you will develop health problems. Many things need to be considered when evaluating whether you are at risk for health problems from asbestos exposure. The most important of these are:

- how long and how frequently you were exposed
- how long it has been since your exposure started
- how much you were exposed
- if you smoke cigarettes: cigarette smoking with asbestos exposure increases your chance of getting lung cancer
- the size and type of asbestos you were exposed to
- other pre-existing lung conditions can exacerbate or accelerate exposure risks

Recommendations and Messages for Regulatory and Health Agencies

- **Restrict access to the mine property.** This includes taking steps to prohibit and discourage recreational use of the site to minimize exposure of residents.
- **Prevent the reuse of tailings and all other material** from the ABC site for use beyond the ABC property.
- **The wetlands** located downstream **should not be used for camping or other activities**

Outcome

- An education and awareness campaign was developed by federal and state environmental and health agencies.
- The campaign informed residents about asbestos exposures and encouraged residents to minimize exposure to asbestos by staying off the mine property.
- The site has since been identified as a hazardous place where recreation can be dangerous to people's health.