

The Superfund Program: <http://www.epa.gov/superfund/about.htm>

Instructions: Research one of California's superfund sites and answer the questions below.

1. What is a superfund site?

-An abandoned hazmat site that is acted on by a superfund.

2. What federal law created Superfunds? Be sure to give the full name and the abbreviated name of this law?

-The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA Statute, CERCLA Overview)

3. How many superfund sites are located in California?

-123 sites

4. What is the name of your superfund site?

-Camp Pendleton Marine Corp Base

5. When was your site proposed to be listed as a superfund site? When was your site listed?

-7/14/89; 11/21/89

6. Has your site cleanup been completed? If so, when?

-No

7. What activity or industry caused the contamination?

-Disposal practices have contaminated groundwater and soil.

8. What is the contaminated media of the site? (groundwater, soil, surface water, etc)

-Groundwater, soil and sludges

9. Identify and describe the types of contaminants at the site.

-Volatile organic compounds (VOCs; paints and coatings), spent oils and fuels, polychlorinated biphenyls (PCBs; coolants), pesticides, metals, and herbicides

10. What are the risks to humans or ecosystems involved with these contaminants? You are going to have to look elsewhere online to find this.

-VOC exposure may cause cancer, liver damage, kidney damage, and nervous system damage.

-Oils and fuels may contaminate soil and groundwater, making the soil too toxic for wildlife and plants.

-PCB exposure causes cancer, immune effects, reproductive disorders, neurological disorders, endocrine effects, and irritation.

-Pesticides and herbicides may cause reproductive disorders, cancer, and birth defects.

-Exposure to metals may cause poisoning, which may lead to sickness and pain.

11. Briefly describe the cleanup activities that have been performed or will be performed. You are going to have to research a bit more to figure this out.

-The area is acted on in four long-term phases, in which soils, landfills, surface impoundments, and groundwater are being cleaned up. This may be accomplished by the use of boiling and steam.

12. How might superfund sites that have been cleaned up be used in the future?

-Camp Pendleton still serves as a military base after its cleanup, and many other superfund sites can be repurposed and made into factories, landfills, and parks.

13. What is a Brownfield? What are some differences between Superfund Sites and Brownfields? What are some ways that Brownfields can be cleaned?

-Brownfields are areas of land that are meant to be repurposed for other uses, but have been difficult to use due to contamination and hazardous materials. The difference between the two is that superfunds are EPA-involved and are sites on the NPL, the nation's worst hazard sites. Brownfields are usually abandoned industrial and commercial facilities, and cleanup does not involve the EPA. Brownfields are cleaned up by removing key contaminants if lead or asbestos is present, and steam and heat may also be used to clean up other issues.