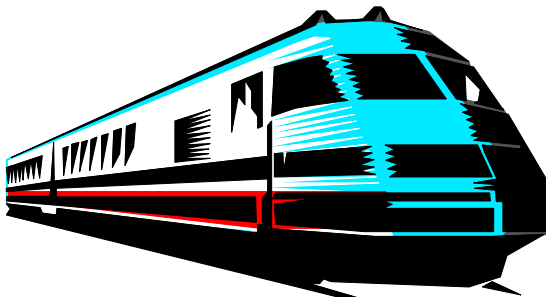


FACT FLASH

3: Flowing Railroad Hazardous Waste Site

Site History

The 25-acre site is an inactive train yard located in the town of Ruralville (Map 1 and Map 2). The **Flowing Railroad** site was used for train engine maintenance and repair until it was abandoned in 1986. From 1976 to 1986, the yard was owned and operated by the **Flowing Railroad Company**, a division of FRR Enterprises. Although the Flowing Railroad Company is now bankrupt, **FRR Enterprises** is still operating. FRR Enterprises owns the site property, as well as **Flow Automations, Inc.**, a research and development plant that employs 200 Ruralville residents.



Various fuels, cleaning agents, detergents, and degreasers, including a hazardous solvent containing trichloroethylene (TCE), were used at the site for train maintenance. Solvents were stored outside in barrels. Some of the barrels rusted and leaked solvents onto the soil. Some solvents spilled onto the soil when barrels were filled, while more solvents were washed off the building floor and outside onto the soil. Flowing Railroad also had a solvent

recycling plant. Sludge leftover from the recycling process was dumped in an open pit near the building (Map 3).

Before 1976, other industries at the site caused additional environmental contamination. The **Railroad Tie Treatment Company** occupied a portion of the site until 1950. The company treated railroad ties (the timbers laid across a railroad bed to support the tracks) with a liquid made from zinc chloride, a hazardous substance, to resist decay. The plant was closed in 1950 and the main treatment building was demolished. Building debris containing asbestos was left in a shallow ditch on the site. **Jimmy's Battery Salvage**, which reclaimed lead from car batteries, and **Recycling Services, Inc.**, a recycler of metals and electrical transformers, operated on the site from 1952 to 1972. Toxic chemicals (polychlorinated biphenyls, or PCBs) from the transformers were drained directly onto the ground.

Surrounding Area

Ruralville's town center, immediately west of the site, has both residential and business zones (Map 2). About 1,400 people live within a quarter of a mile of the site, while 8,000 people live within 1 mile of the site.

Utopia, the state capital with a population of 300,000, is 12 miles north of the site. Utopia's municipal water wells, which provide drinking water to homes and

Fact Flash 3: Flowing Railroad Hazardous Waste Site

businesses in Ruralville and Utopia, are three miles south of the site and use groundwater.

The Flowing River, bordering the site to the east, flows from north to south and is popular for recreation and fishing. Three miles downstream of the site, an intake pipe supplies water from the river to irrigate 500 acres of farmland.

Site Discovery

Town officials investigated a fire on the train yard property. They noticed a peculiar odor from leaking, half-buried barrels and became concerned about the accessibility of the site to trespassers and other safety issues at the site. At the request of Ruralville's public works director, EPA began studying the site.



Health Concerns

EPA collected samples of soil and other materials at the site and tested them in a laboratory. The contaminants identified by EPA samples included:

- Lead, which can cause tumors and brain damage
- PCBs and TCE, which can cause cancer
- Zinc and copper, which can damage fish
- Asbestos, which can cause lung cancer if inhaled.

The risk of health problems related to these contaminants could rise if rain and melting snow pick up contaminants from contaminated areas and carry them to

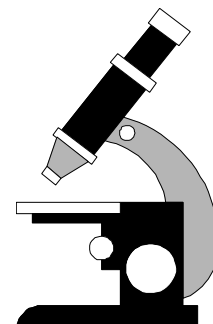
surface water (lakes, rivers, streams) and groundwater (fresh water underground). Health threats include breathing in fumes from the TCE. Trespassers at the site could be at particular risk, since they would have more contact with the chemical. Several families depend on fish from the Flowing River for meals three or four times a week. If contaminated, these fish could pose a relatively high risk to the health of these families.

Preliminary water samples from a well drilled at the site contained lead and high concentrations of TCE, although the full extent of contamination is unknown. No contamination was found in either a deep well or drinking water from the faucet. Drinking water may become contaminated in the future if the groundwater is contaminated. Soil contamination was found in a few areas, although a full test has not been conducted.

Community Concerns

The community is concerned about air contamination, water quality, economic impacts, and future land use.

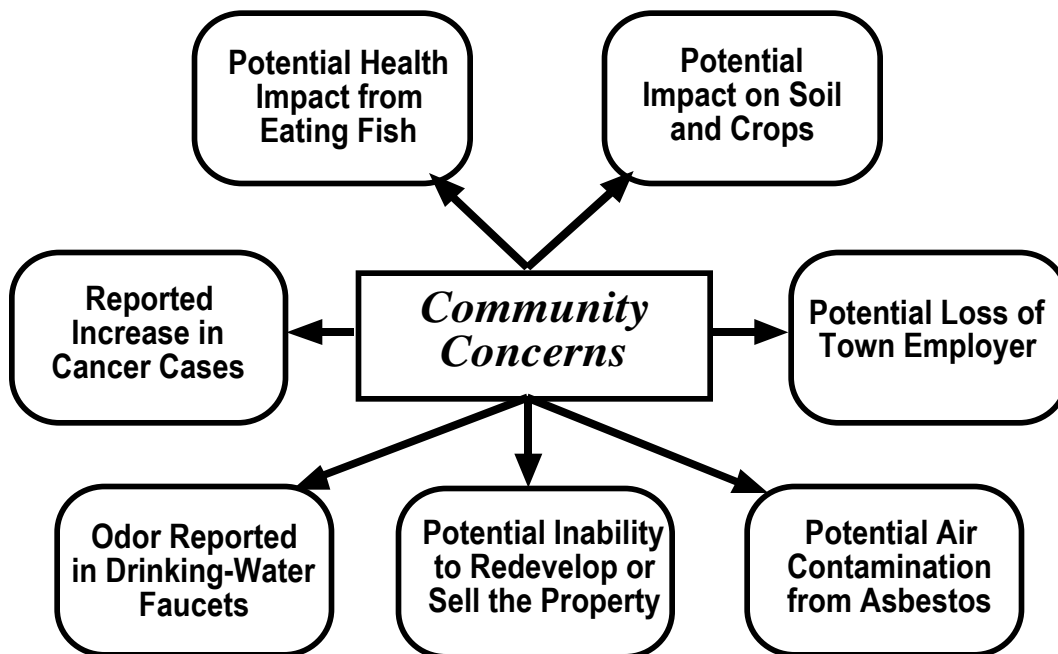
- Two summers ago, some Ruralville residents complained to state authorities that strong wind gusts blew fine, white, snow-like particles over their homes. The state found that some topsoil at the site had eroded, exposing asbestos contamination. The state covered the area with soil. As long as the soil remains in place, it is unlikely that the asbestos will cause



Fact Flash 3: Flowing Railroad Hazardous Waste Site

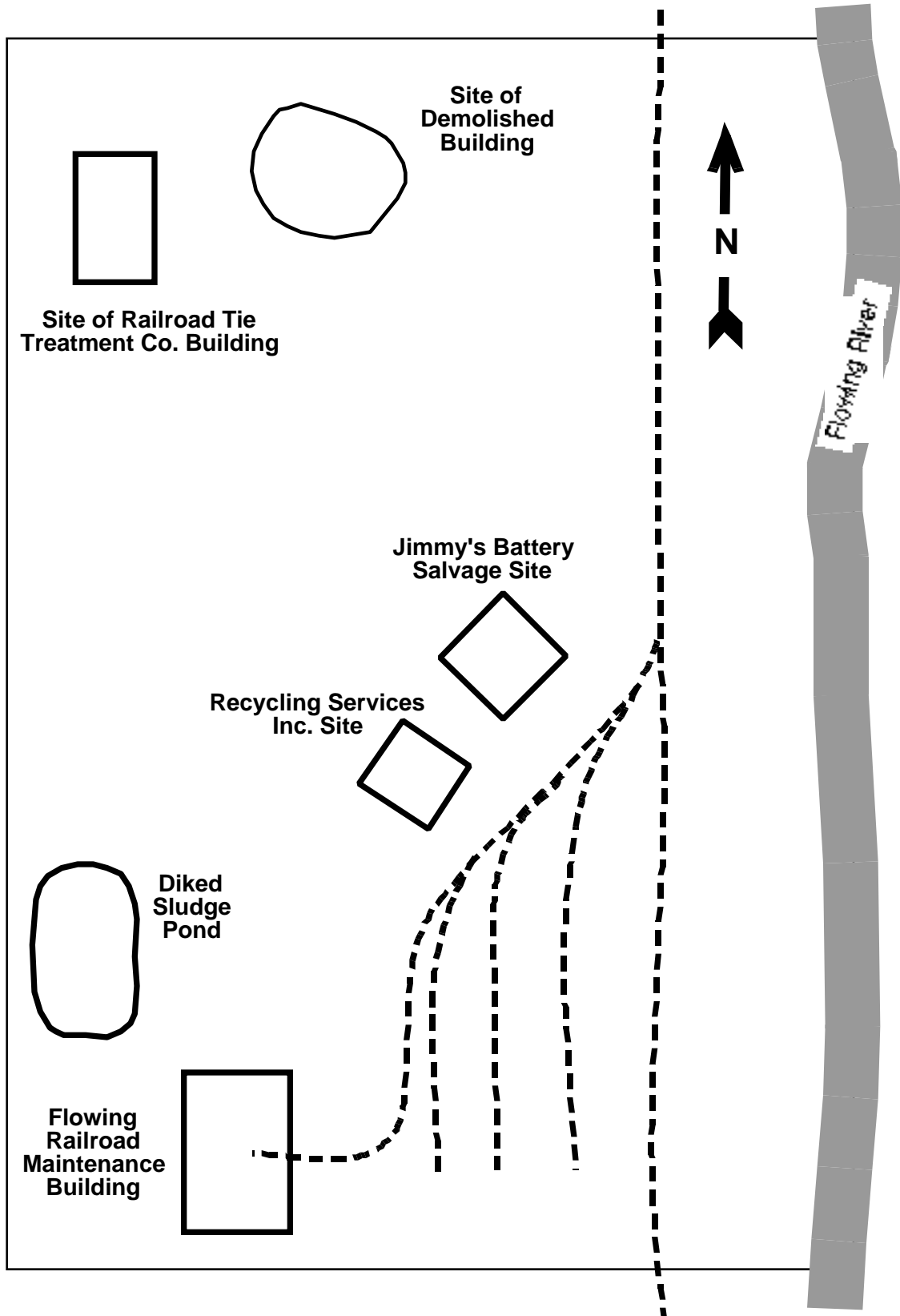
an airborne health problem. Still, the community is concerned about potential air contamination. Other citizens are concerned about the health risks from TCE fumes.

- Utopia and Ruralville citizens are concerned about the quality of the public well water. Some citizens blame contamination from the site for a recent increase in the number of cancer cases; others have reported that their tap water has a peculiar odor.
- Environmental activists are vocal about contamination of the Flowing River and the health risks to those who depend on fish from the river for their meals.
- FRR Enterprises has been a major source of money through tax revenue for Ruralville since 1976, as well as a
- major employer. Even after the train maintenance operation closed in 1986 the company continues to operate Flow Automations, Inc. The company is concerned about the amount of money it may have to pay for cleaning up the site. Although the company has expressed its commitment to working with EPA, the state, and the community, it has announced that if it has to pay a lot of money to clean up the site it may be forced to lay off workers or even close down Flow Automations.
- Also, farmers who use water from the Flowing River worry that contamination will damage their soil and crops, and reduce their income or cause them to lose their farms.
- Citizens are concerned about how the site will be used after it is cleaned up.

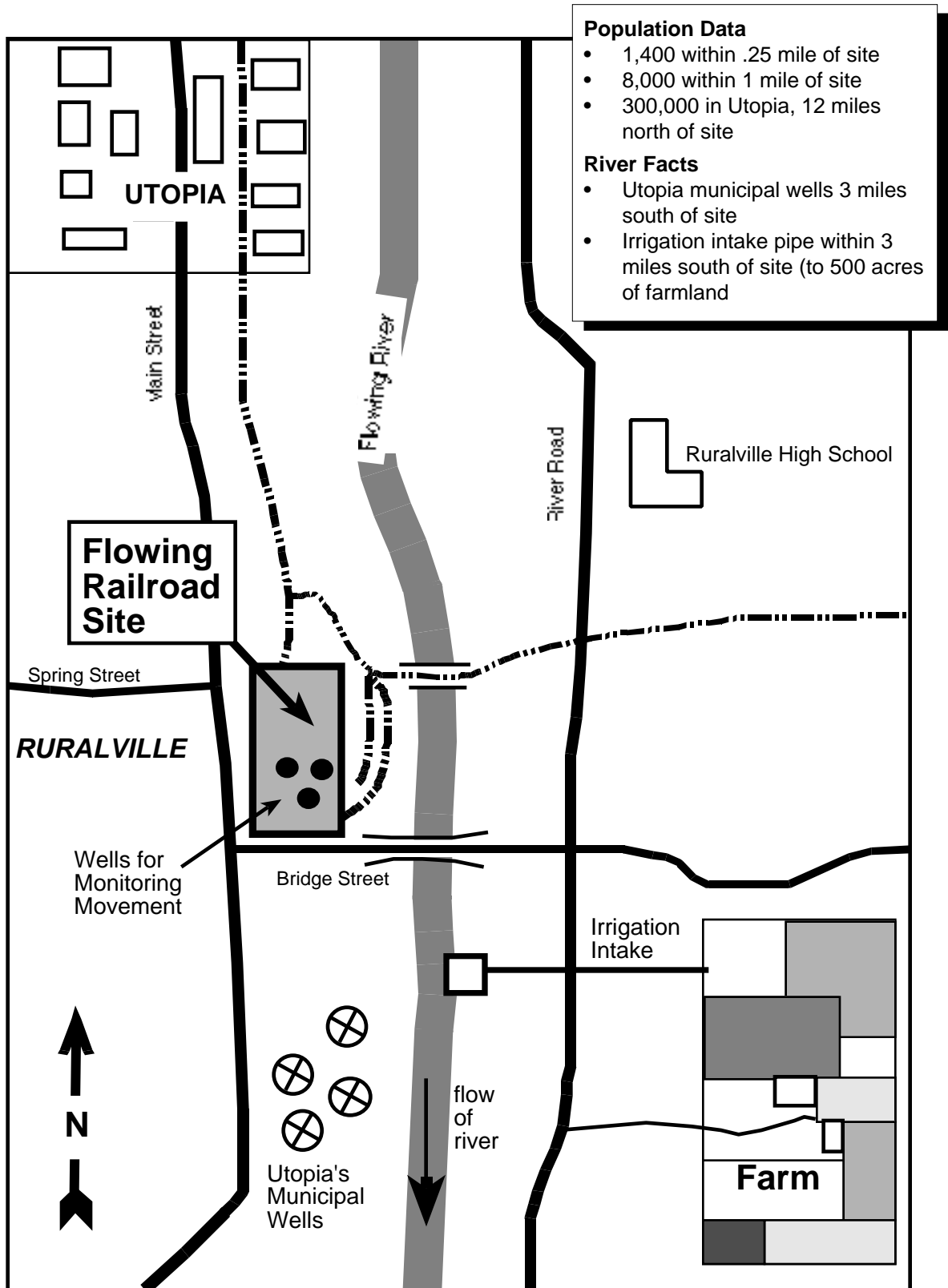


Fact Flash 3: Flowing Railroad Hazardous Waste Site

Map 1
Flowing Railroad Site



Map 2
Flowing Railroad Site Area



Map 3
Diked Sludge Pond, Cross-Section

