

## **BREI LANDFILL**

**(Muscatine, Iowa)**

### **GENERAL DESCRIPTION**

The Brei Landfill is located on a farm about 5 1/2 miles east of the corporate limits of Muscatine, Iowa. The site occupies approximately 21 acres in the SW 1/4 of the SE 1/4 of Section 24, T77N, R1W, Muscatine County, Iowa. The site was entered on the Registry in August 1990.

### **SITE CLASSIFICATION**

The site is classified "d" in accordance with 455B.427.3. The site is properly closed but requires continued management.

### **TYPE AND QUANTITY OF HAZARDOUS WASTE**

- **Vinyl chloride, trans-1-2-dichloroethene, 1,2-dichloropropane, ethylbenzene, 1,1,1-trichloroethane, methylene chloride, toluene, and xylenes**
- **Industrial waste included an estimated 802,000 pounds of paint sludge and 10,000 tons of tannery sludge.**

The city of Muscatine operated a non-permitted dump at the site from August 1968 through December 1975 before the implementation of the state's program of industrial waste tracking. Municipal and industrial wastes were dumped into ravines 30 to 50 feet deep. The trash and commercial wastes were not covered and generally not burned.

In April 1985 the Iowa Department of Water, Air, and Waste Management (IDWAWM) collected a water sample from the intermittent creek leading away from the landfill and from a residential well after the owner expressed concern over the quality of the water. Water samples collected contained vinyl chloride, trans-1-2-dichloroethene, 1,2-dichloropropane, ethylbenzene, 1,1,1-trichloroethane, methylene chloride, toluene, and xylenes.

### **SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS**

- **The primary public health concern is exposure to contaminated drinking water in surrounding private wells**
- **The primary environmental concern(s) are leachate from site to surface water and general groundwater quality**

The only source of drinking water within a four-mile radius of the site is private wells. The Iowa Department of Natural Resources fish hatchery is also approximately a mile south-southeast of the site.

### **SUMMARY OF ASSESSMENT, MONITORING OR REMEDIATION**

The EPA has referred the site back to state authority with a recommendation for further surface water and groundwater monitoring. There are no monitoring wells on-site. The absence of a liner beneath the landfill increases the potential for the release of contaminants to surface and groundwater. Periodic inspection of the land fill cover is conducted by IDNR. The IDNR conducts periodic site inspections of surface cover and sample surface water and local private well. The most recent sampling event was conducted in March of 2009. A water sample was collected from the Stamler private well and was analyzed for volatile organic compounds (VOCs) and metals. The only constituent detected in the water sample was barium at a concentration of 0.48 mg/L which is below the drinking water standard of 2 mg/L.

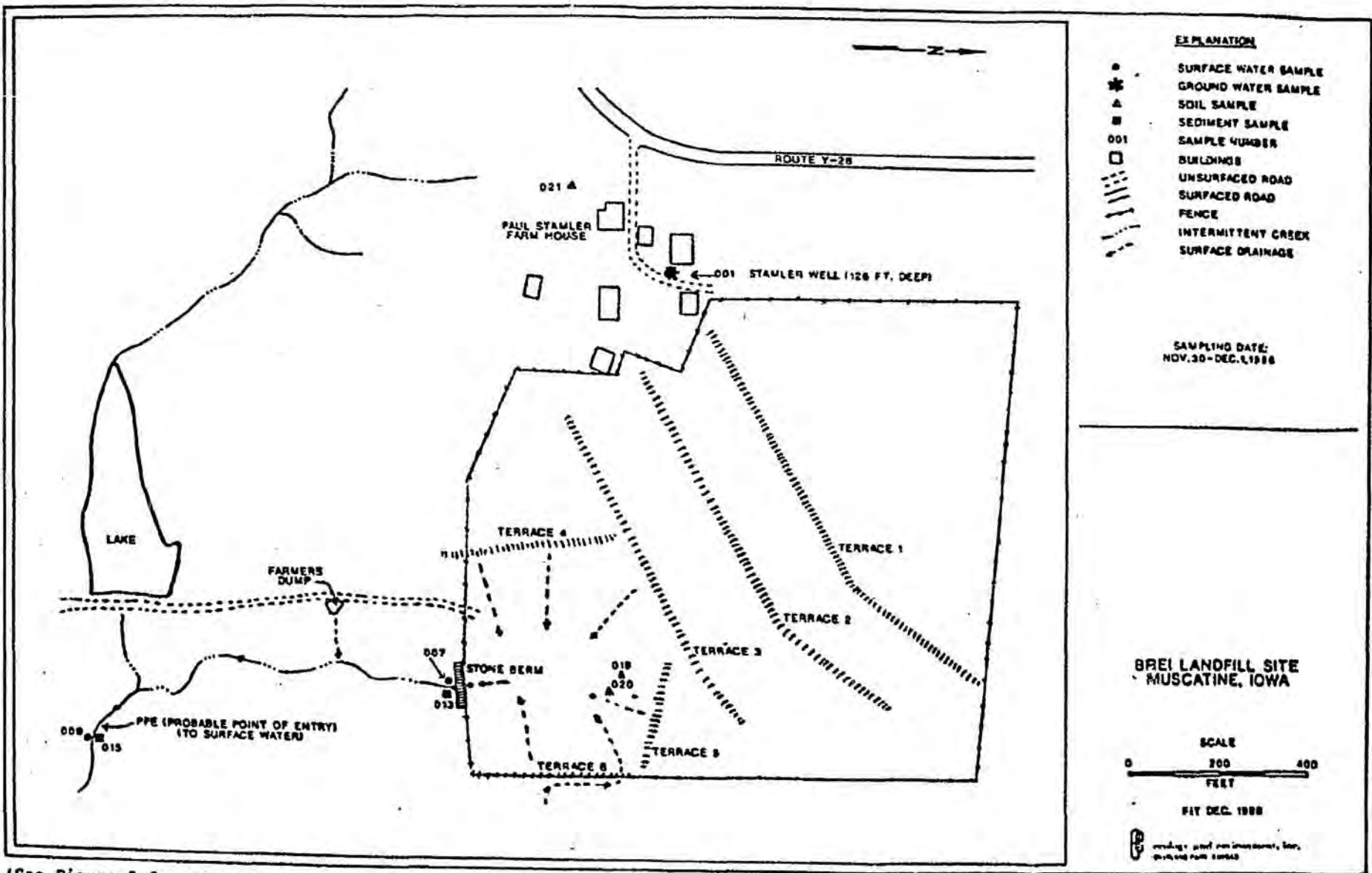
**2018:** Additional sampling will need to be conducted in the summer of 2019 to meet the need for periodic site inspections and sampling.

**2019:** No environmental activities occurred in 2019.

**2020:** No environmental activities occurred in 2020.



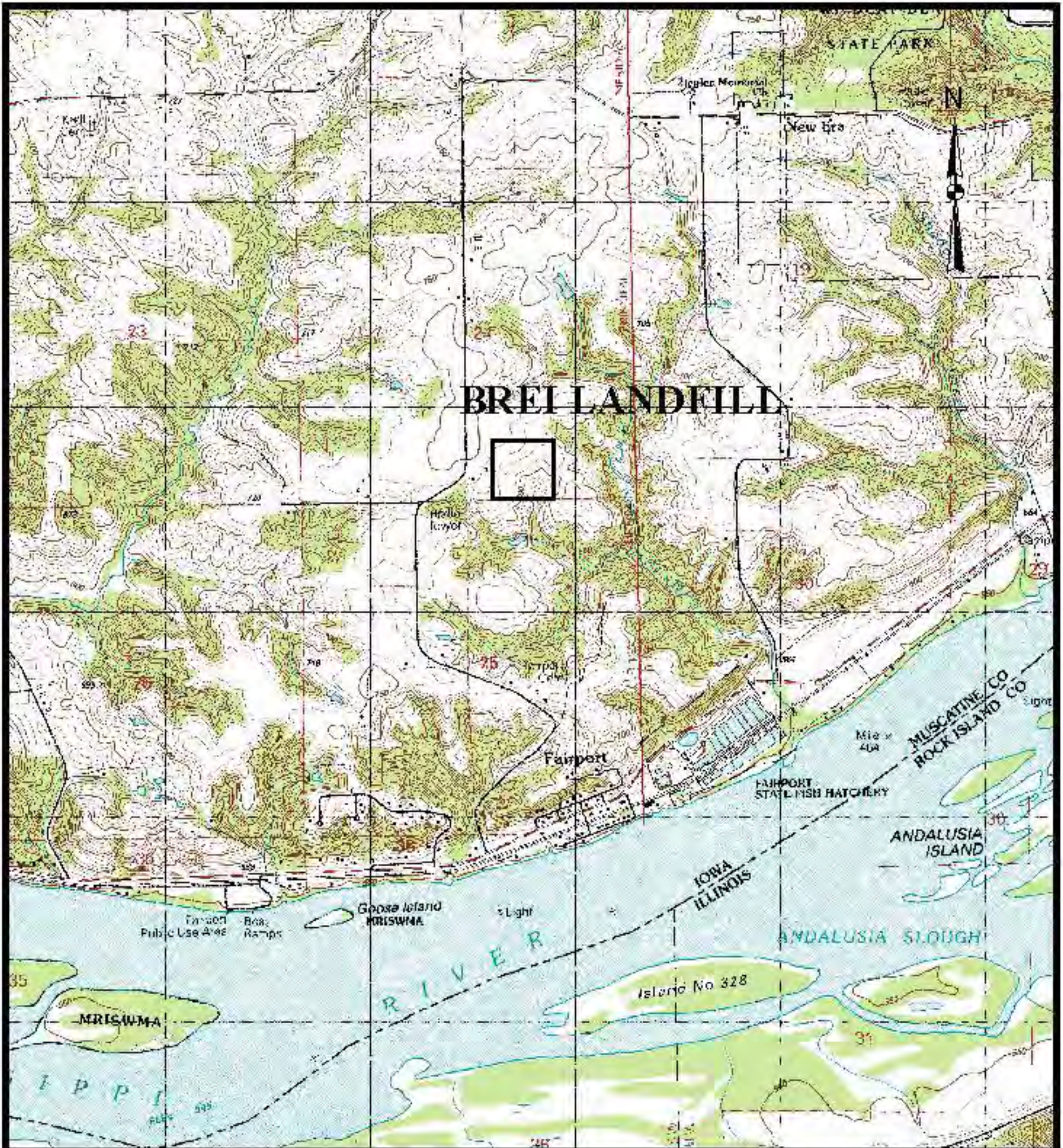
**Site Photo 2014**



(See Figure 3 for Off-Site Sample Locations)

**SAMPLE LOCATION MAP**

# (Brei Landfill)



Contour Interval 10 Feet

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet