



State of Ohio Environmental Protection Agency

FILE COPY

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P.O. Box 1049
Columbus, OH 43216-1049

September 10, 2002

Re: Franz Landfill
PreCERCLIS Screen
Franklin County
Ohio ID: 125-1660

Laura Ripley
Early Action Project Manager
U. S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Laura:

Attached is the revised Pre-CERCLIS Screening Assessment package for the Franz Landfill. Revisions were made per your August 15, 2002, comments. The package includes the Site Incident Form, Pre-CERCLIS Screening Assessment Report, Pre-CERCLIS Screening/Assessment Checklist/Decision Form, Phase B Initial Site Evaluation, and PRescore 3.0.

If you have any questions or need further information, please contact me at (614) 728-3830.

Sincerely,

Fred Myers
Division of Remedial Response
Ohio EPA, Central District Office

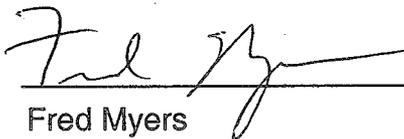
FM/sb
revisedusepasbmission.wpd

cc: Ray Baumier w/out attachment
file copy w/out attachment

Pre-CERCLIS Screening Assessment Report
for the
Franz Landfill

Franklin County, Ohio

Prepared by :



Fred Myers
Division of Emergency and Remedial Response
Ohio EPA, Central District Office

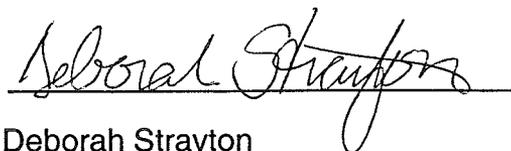
Date: 9/9/02

Approved by:



Ken Schultz
Division of Emergency and Remedial Response
Ohio EPA, Central District Office

Date: 9/9/02



Deborah Strayton
Division of Emergency and Remedial Response
Ohio EPA, Central District Office

Date: 9/9/02

Pre-CERCLIS Screening Assessment Report

for the Franz Landfill

Franklin County, Ohio

Executive Summary

In 2001, the Ohio Environmental Protection Agency (Ohio EPA) completed a Phase I Geographic Initiative of Lower Alum Creek (GI). Three landfills were identified in the GI that were not assessed for listing in the federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Franz Landfill is one of these sites. The purpose of the Pre-CERCLIS screening is to determine whether Franz Landfill should be entered into CERCLIS. Ohio EPA completed this Pre-CERCLIS Screening Assessment under a grant from the United States Environmental Protection Agency, Region 5.

Franz Landfill is located four miles southeast of downtown Columbus in a mixed residential/commercial/recreational area. It is located in the flood plain of Alum Creek and is part of the Three Creeks Columbus/Metro Park system. The landfill is not capped and waste is exposed at the surface. The visible waste consists of mostly demolition material; however, solid and industrial waste is also evident. The site is not accessible to motorized vehicles. Park users can enter the site by a paved bicycle path.

Landfilling began at the site in the mid-1960s and continued until 1979. It operated as a demolition dump but routinely accepted solid and industrial waste. File information indicate paint waste, solvents, sludges, and industrial liquids were disposed of at the site. Waste was dumped to the bank of Alum Creek and around an oxbow channel.

Potential migration pathways include leaching to ground water, ground water to surface water, overland flow, soil erosion, soil particulates, landfill gas, and direct contact with waste. Ground water is used by nearby residences and as a public water supply by nearby communities. There are no surface drinking water intakes downstream and no significant sensitive environments. Sensitive terrestrial environments, including ponds and small wetland areas surround the site. Recreational and limited subsistence fishing occurs in Alum Creek; therefore, human exposure via the food-chain is possible. Five state listed endangered species and one federal listed endangered specie occur within 15 miles downstream of the site. Small isolated wetlands and ponds occur in the flood plains of Alum Creek and Big Walnut Creek.

Site Description and History

The Franz Landfill is located south of Columbus, Ohio (Latitude: 39° 54' 56"; Longitude: -82° 55' 21"). It is bounded to the north by State Route 104; to the east by U.S. Route 33; to the west by Alum Creek; and to the south by a public park (Figure 1). The site is located in the flood plain of Alum Creek and rises in elevation approximately 20 feet above the surrounding land. A prominent oxbow channel is located at the southwest corner of the site. Alum Creek was straightened and channeled in this area during the late 1960's. The oxbow channel is partially buried with soil and waste but the southern portion is wet. A soil berm, constructed during the channelization project, isolates the interior oxbow woodland from the creek. A small wetland area and pond is located southeast of the landfill. The top of the landfill has a hummocky appearance and is vegetated with small trees and brush. Waste is visible at the surface. A paved bicycle path loops through the site (Figure 2).

Landfilling at the site began after the re-routing of US Route 33 in the mid-1960's. US Route 33 was expanded to a four lane highway and was re-routed to the west over the eastern part of the original farm that occupied the land. State Route 104 (Refugee Road) was elevated and an on-ramp to US Route 33 was constructed. The elevated on-ramp isolated the property. The original farm house was destroyed and the property became a demolition dump. The initial operator was S.G. Lowendick and Sons, a demolition company. In January 1972, Lowendick was cited for disposing of solid waste at the site. Lowendick quit operating the dump soon thereafter. The next operator was William Franz, who also operated the Anchor Landfill, which is located 1 mile north of the site.¹ Mr. Franz leased the property from co-owners Maurice Evans and Robert Kessler. In January 1972, Mr. Franz requested permission from the Ohio Department of Health (ODH) to dispose of solid waste at the site. ODH did not issue a permit to create a solid waste landfill at the site. The reason ODH gave for the refusal is that the site is in the flood plain of Alum Creek, and that there was insufficient cover material available. Despite not obtaining the permit, Mr. Franz continued to operate the landfill.

In 1974, the city of Columbus and Ohio EPA attempted to shut down the landfill. Columbus issued a stop order in March of 1974 because the existence of the landfill violated a city ordinance, which prohibited putting obstructions in a flood plain. Landfill operations apparently continued despite the order. From February of 1974 until June of

¹Ohio EPA completed a federal integrated assessment for the Anchor Landfill in 1994 and US EPA completed an expanded site inspection in 1996. In 1996, US EPA determined that "no further remedial action planned" is necessary by the federal government. The Anchor Landfill was archived in the federal system in 1996.

1974, Ohio EPA inspected the site on several occasions. The inspectors noted that solid waste was continuing to be dumped there. On June 17, 1974, Ohio EPA cited the owners for violation of Ohio Revised Code Chapter 3734, Solid Waste Regulations. Ohio EPA ordered the owners to cease operations and to properly close the landfill. On July 13, 1974, the owners told Mr. Franz to close the landfill within 30 days. However, landfilling at the site apparently continued despite the order to cease. The Columbus Health Department inspected the site a year later, on July 9, 1975, and stated, "the operation is not properly limiting material admitted. Saw household refuse in evidence." Aerial photographs indicate dumping continued at the site until 1979.

According to Franklin County Auditor's records, Columbus obtained the property in December 1980. There is no further evidence of waste disposal after 1980. A 1989 aerial photograph shows well-established vegetation and no evidence of the haul road or dumping. In 1999, Columbus Department of Recreation and Parks and Metro Parks opened Three Creeks Metro Park. Franz Landfill was included as the northern extent of the park (Figure 3).

Reconnaissance Activities

Ohio EPA personnel visited the site on January 28, 2002 and on April 11, 2002. The objectives of the first reconnaissance activity were to (1) determine the types of visible waste and (2) to document visually observable releases. The activity consisted of walking along the bank of Alum Creek and then throughout the remainder of the site.

The site visit revealed that waste was dumped to the bank of Alum Creek and around the oxbow channel. There is no cap, appreciable soil cover, or erosion control. The visible waste consists of predominately demolition debris, including concrete, bricks, tires, glass, wire, rebar, crushed drums, and several miscellaneous items. Waste has sloughed off into Alum Creek and the oxbow channel. No leachate was observed during the site visit.

The objective of the second reconnaissance activity was to investigate an area at the southeastern portion of the landfill where file information and aerial photographs indicate solid and industrial wastes were disposed. Evidence of solid and industrial wastes was observed at the surface in this area. Visible waste at the southeast portion of the landfill include crushed drums, household waste, plastics, tires, and several areas of dried black sludge material.

Pathway Analysis

There is very little information available on the types and quantity of waste disposed of at this site. Topographic maps indicate the maximum thickness of the waste is

approximately 20 feet. According to file information, the facility routinely accepted industrial and solid wastes, including paper, cardboard, containers, plastics, tires, solvents, paint sludge, cleaning rags, oils, and household waste. Photographs taken in 1974 show several crushed 55-gallon drums, solid waste, and paint waste. Inspectors described the waste as "odorous solvents," "paint sludges", "oils", "septic smell," and "rotted looking liquids."

Potential migration pathways include leaching to ground water, ground water to surface water, overland flow (leachate), soil erosion, soil particulates, landfill gas, and direct contact with waste. Nearby land-use is mixed residential, commercial, and recreational. The population within a 1 mile radius is 4,679 and 155,530 within a 4-mile radius (Figure 4).

There is no available sampling data for this site. The hazardous substances on-site are probably similar to those found at Anchor Landfill. This is based on the descriptions of the waste at the time of operation, reconnaissance observations, and the fact that Franz Landfill and Anchor Landfill were operated by the same person. Therefore, for this assessment it is assumed that volatile organic compounds, semi-volatile organic compounds, metals, pesticides, and PCBs are present in the soil and waste.

Ground Water Pathway

Franz Landfill is located over a buried valley that was incised into Devonian age bedrock. The depth of the valley is approximately 130 feet in the vicinity of the site (ODNR, 1958). The buried valley sediments consist of glacial till with interbedded sand and gravel deposits. Alluvium deposited by Alum Creek overlies the glacial sediments. The local aquifer is the Alum Creek Buried Valley Aquifer, which can yield over 500 gallons per minute (Figure 5). Ground water is obtained from sand and gravel lenses interbedded with glacial till. Area well logs indicate sufficient ground water for domestic wells occurs 30-40 feet below the surface; however, most wells were completed 50 - 100 feet below the ground surface. Well log data indicates the potentiometric surface is near the base elevation of Alum Creek (725 feet above mean sea level); therefore, ground water is likely in hydraulic connection with the creek.

The nearest residential water well was drilled 1,700 feet west of the site on Alum Creek Drive (Figure 5). An unincorporated neighborhood, with residential water wells, is located 3,400 feet southeast of the site. The estimated resident population in the neighborhood is 300. Eleven public water supply wells that use ground water were identified within four miles of the site, two of which are municipal systems. The nearest municipal public water supply is the village of Obetz, 3 miles southwest of the site. Obetz serves a resident population of 3,977 and is a wellhead protection area. The largest public water supply is the Citizens Utility of Blacklick, located 3.5 miles southeast of the site. Blacklick serves a population of 9100. The potential impacted population is 650 within 1 mile and 17,176 within 4 miles of the site.

Surface Water Pathway

The nearest surface water receptor is Alum Creek. Alum Creek is classified as a warm water habitat, and its use designation is primary contact recreation, public water supply, industrial water supply, and agricultural water supply. According to United States Geological Survey stream flow observations, it has an average flow rate of 196 cubic feet per second at Livingston Avenue in downtown Columbus. In addition to Alum Creek, a small pond is located immediately south of the site and a large pond is located another 1000 feet to the south. Small wetland areas occur at the southern border of the landfill and in the oxbow channel (Figure 6).

An observed release to surface water has not been documented. Possible migration pathways are direct run-off and leachate. The landfill buried an intermittent stream that could act as a conduit to the creek (see Figure 2). If ground water is contaminated, then the ground water to surface water pathway is also possible. There are no drinking water intakes downstream from the site. Recreational fishing and limited subsistence fishing occurs in Alum Creek and Big Walnut Creek. Potentially impacted human populations are limited to the food chain pathway and direct contact with surface water/sediment.

The potential sensitive environments downstream of the site are numerous small scattered wetland areas adjacent to Alum Creek (Figure 6). The wetland areas depicted in Figure 6 were identified by the Ohio Department of Natural Resources using satellite remote sensing data and were not field verified. The total area of the wetlands is approximately 27 acres within a 500 foot buffer of Alum Creek and 54 acres within 1000 foot buffer. The the total estimated linear distance of wetlands along Alum Creek is 1.5 miles.

One federal and five state listed endangered/threatened species were identified near the confluence of Alum Creek and Big Walnut Creek. Clubshell (*pleurobema clava*) is the only federal listed specie identified. The five identified state listed species are rabbitsfoot (*quadrula cylidrica cylindrica*), northern brook lamprey (*ichthyomyzon fossor*) spotted darter (*etheostoma maculatum*), rayed bean (*villosa fabalis*) and washboard (*megaloniaias nervosa*) (Figure 6).

Soil Pathway

Solid waste, drums, industrial waste, and dried sludge were observed at the surface during reconnaissance, and file information indicates contains hazardous substances were disposed of at the site. Soil samples have not been collected; therefore, a release has not been documented. The population potentially impacted is park users and employees. There are no controls to prevent contact with hazardous substances, if present. Terrestrial sensitive environments are the wetland areas and the small pond to

the south.

Air Pathway

No air samples have been collected; therefore an observed release to air has not been documented. It is not known whether the landfill is generating explosive gases or emitting other vapors. The site is heavily vegetated with small trees and brush; therefore, the particulate migration potential is small. The distance to the nearest residence is 1,000 feet to the southeast.

References

Ohio Department of Natural Resources, 1958. *Map Illustrating The Ground Water Resources of Franklin County, Ohio.*

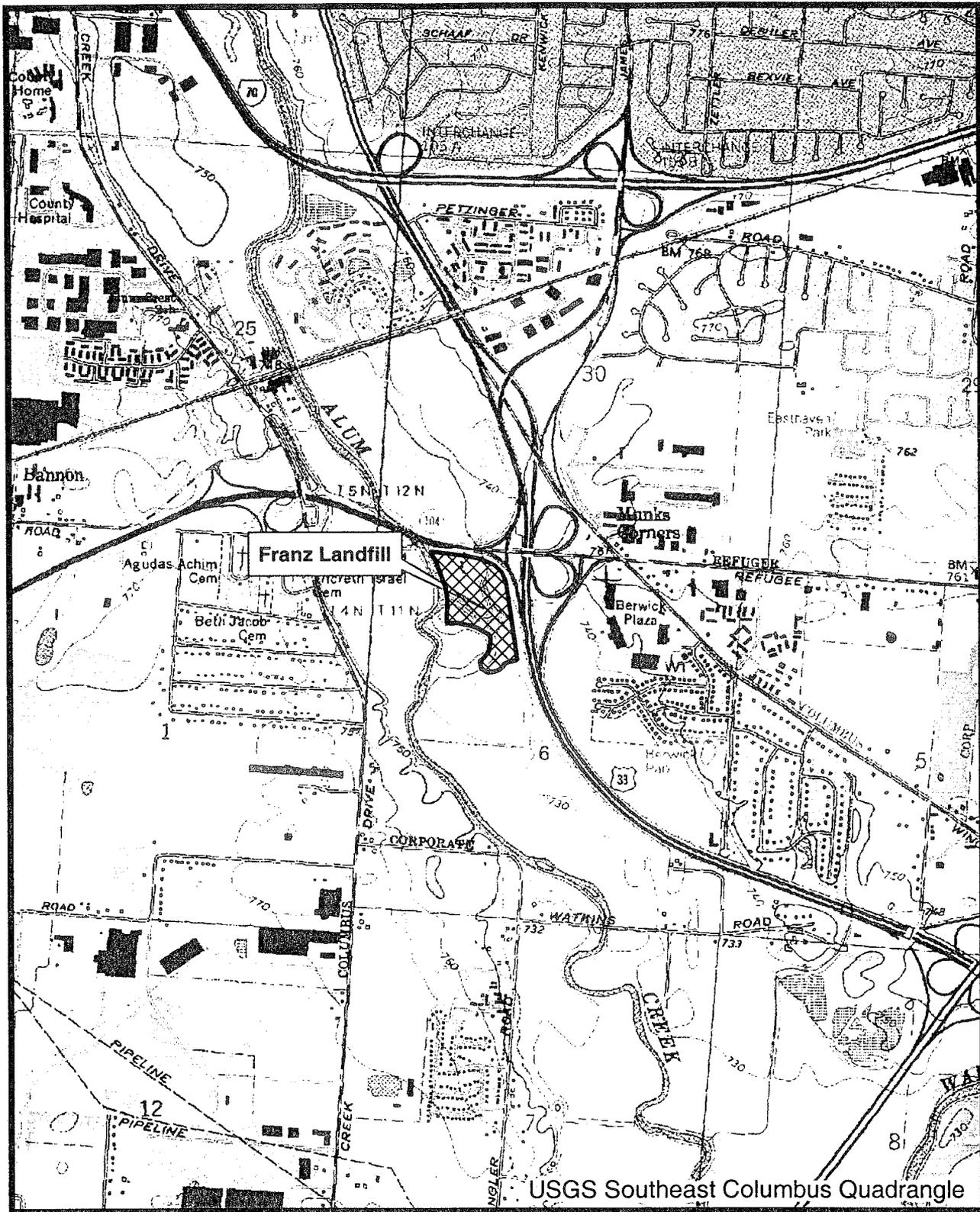
Ohio EPA, 2001. *Phase I Geographic Initiative, Lower Alum Creek Watershed,* September, 2001.

Ohio EPA, 2002. Information on file at the Central District Office of the Ohio EPA.

Ohio EPA 2002. Geographical Information System Data

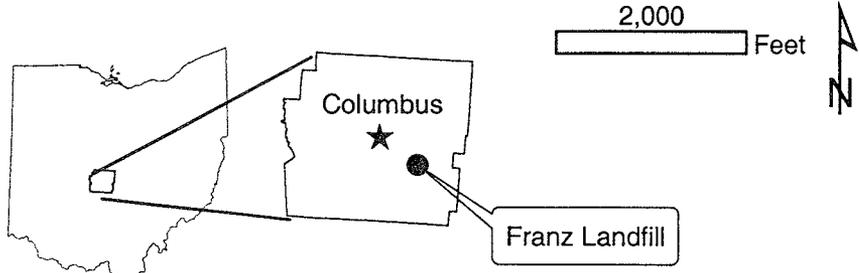
Year 2000 Census Data. www.factfinder.census.gov

Figures



USGS Southeast Columbus Quadrangle

Figure 1
 Franz Landfill
 Southeast Columbus
 Franklin County, Ohio



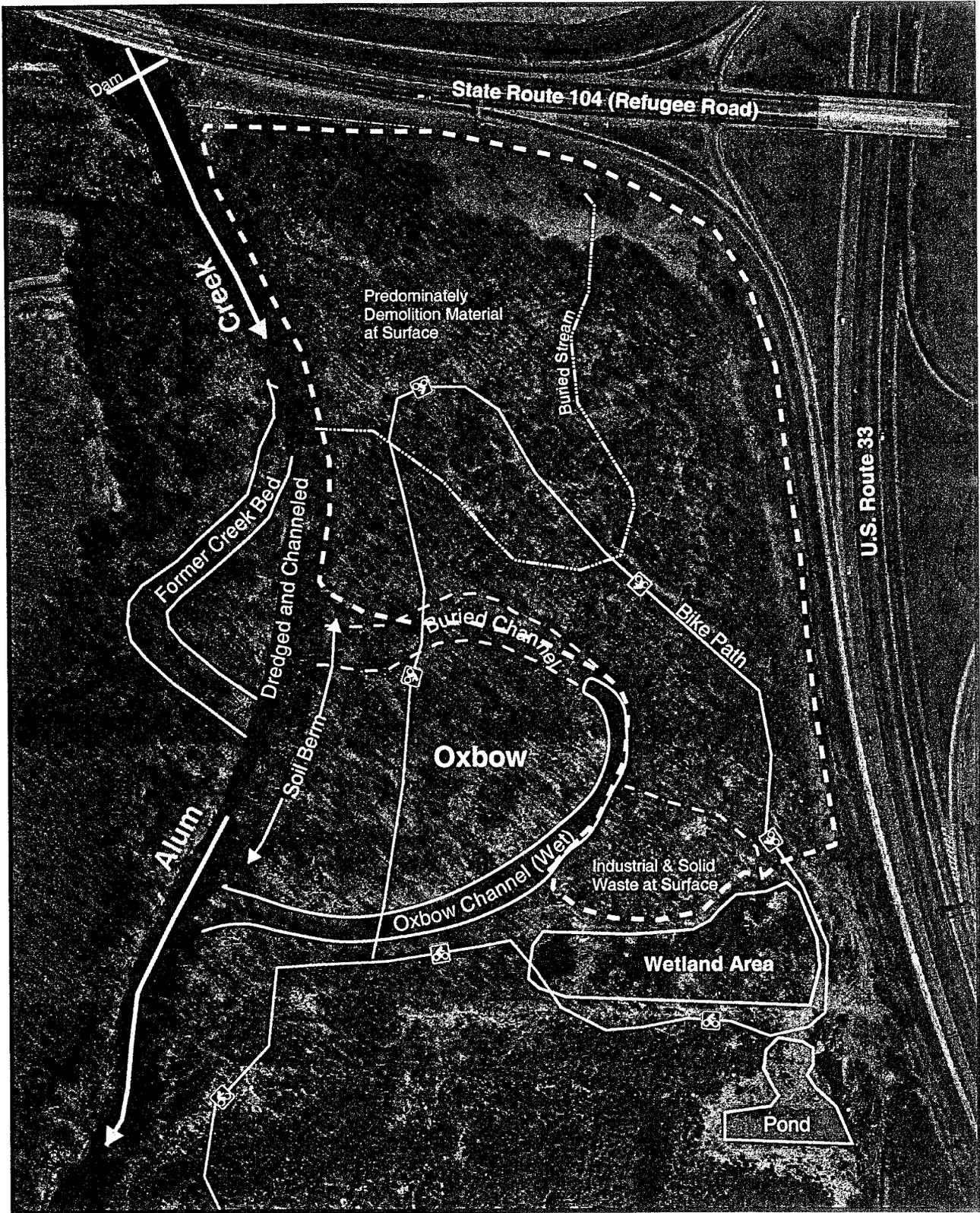


Figure 2
 Franz Landfill
 Site Features on Aerial Photograph

350
 Feet



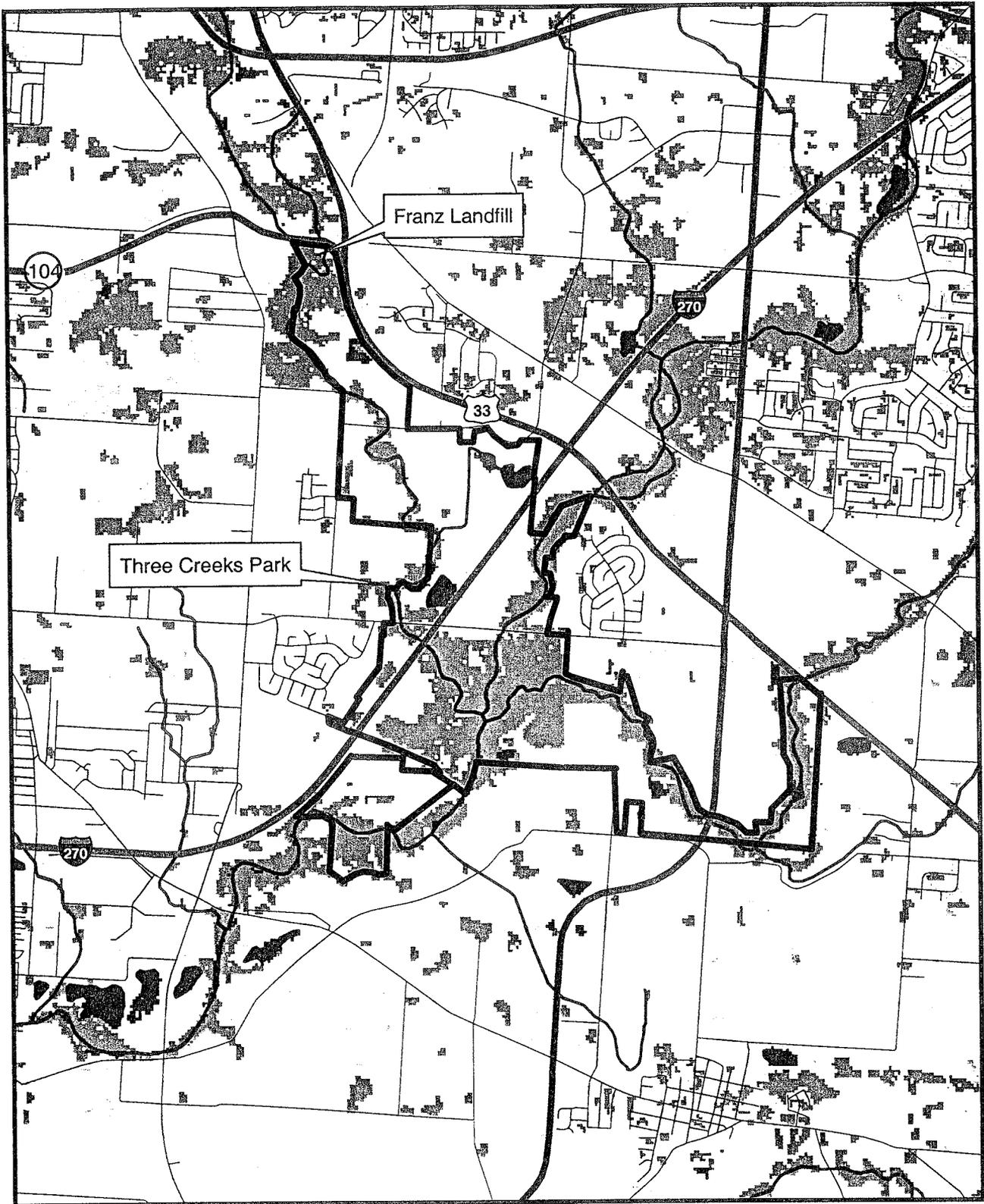


Figure 3
Franz Landfill/
Three Creeks Park

4,000 Feet



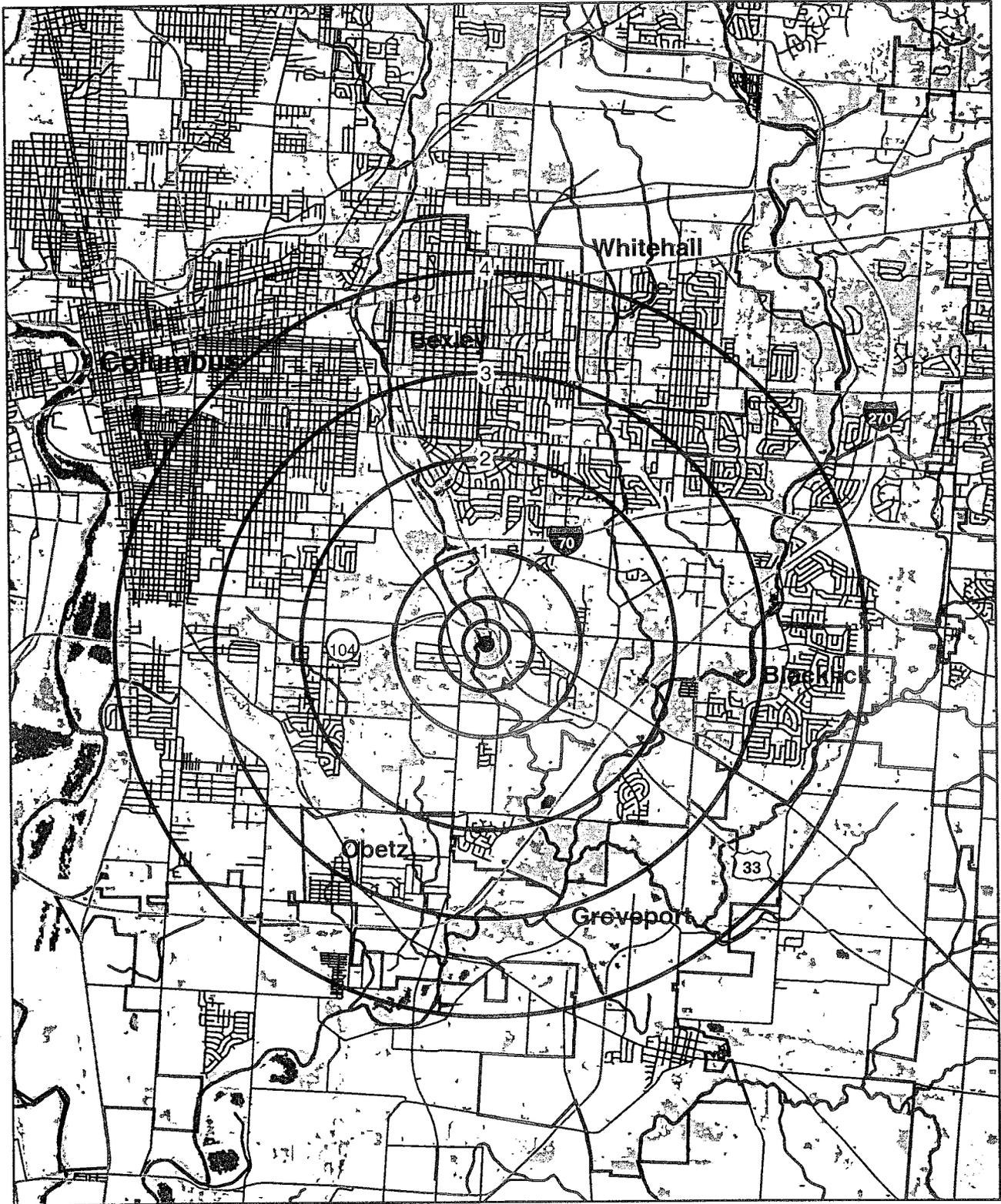
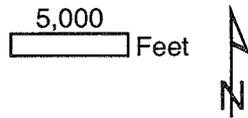


Figure 4
 Franz Landfill
 Distance Rings

Radius	Population
0.25	226
0.5	1105
1.0	4679
2.0	23,852
3.0	73,165
4.0	155,530



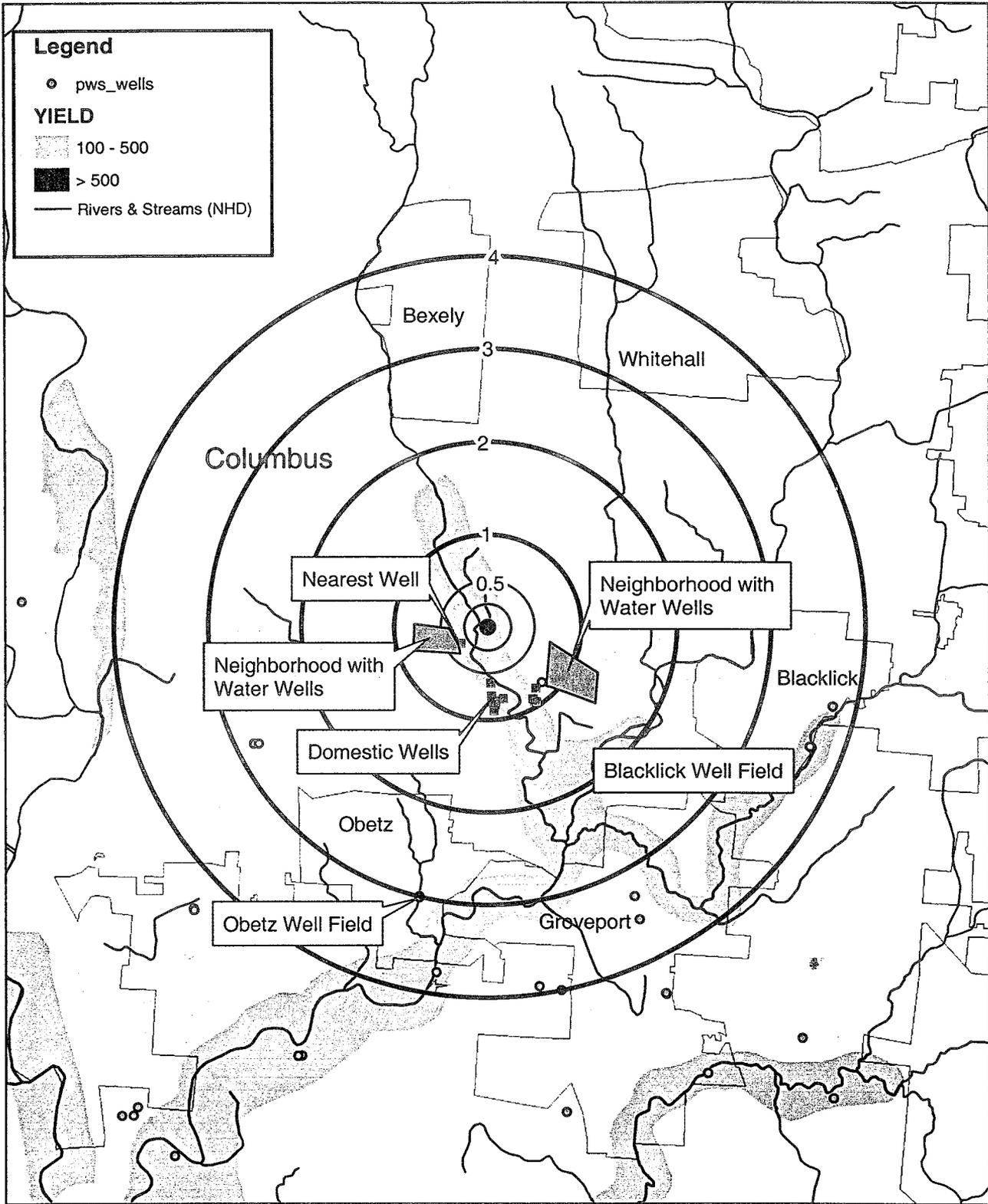


Figure 5
 Franz Landfill
 Ground Water Targets Within 4 Miles

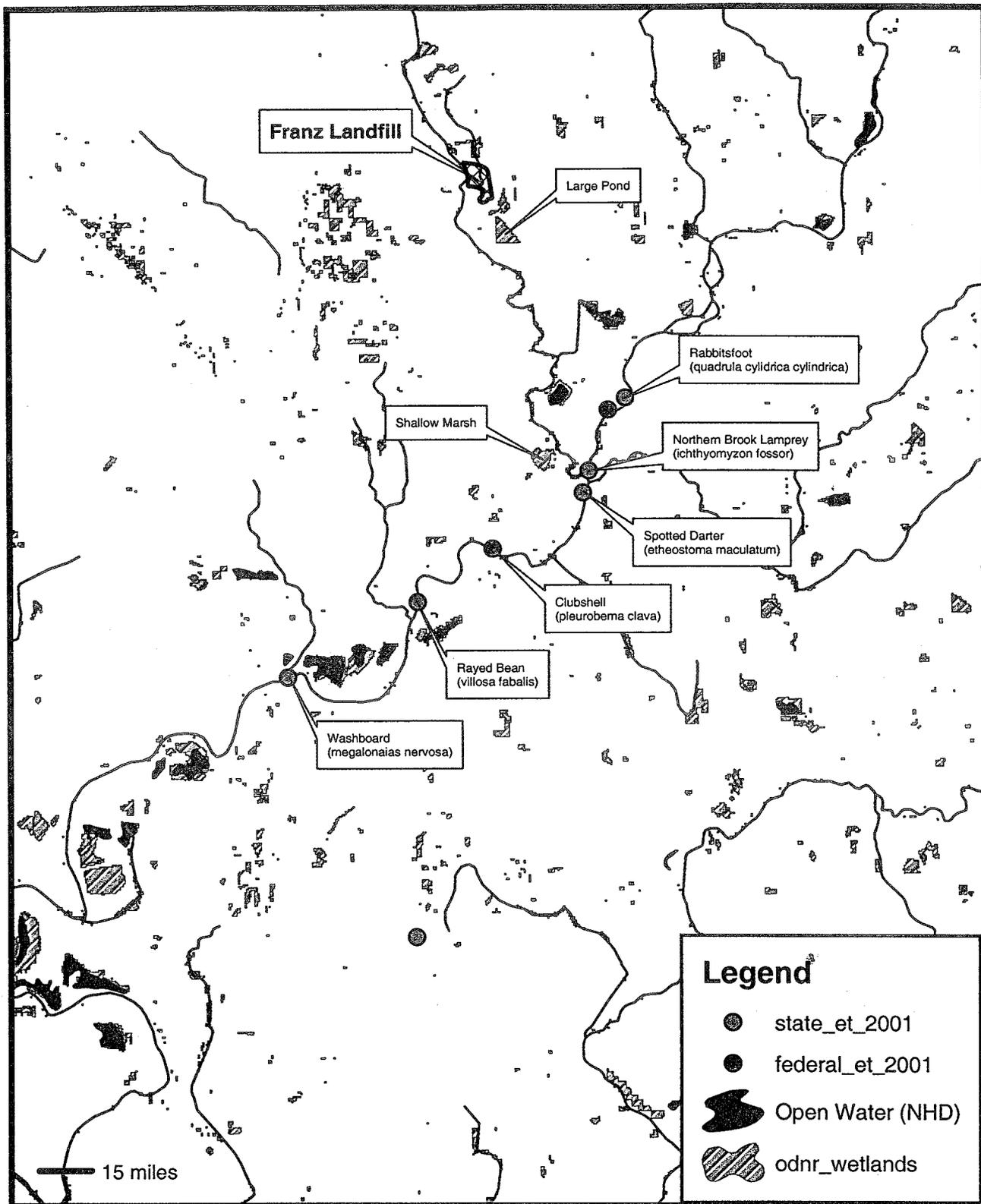
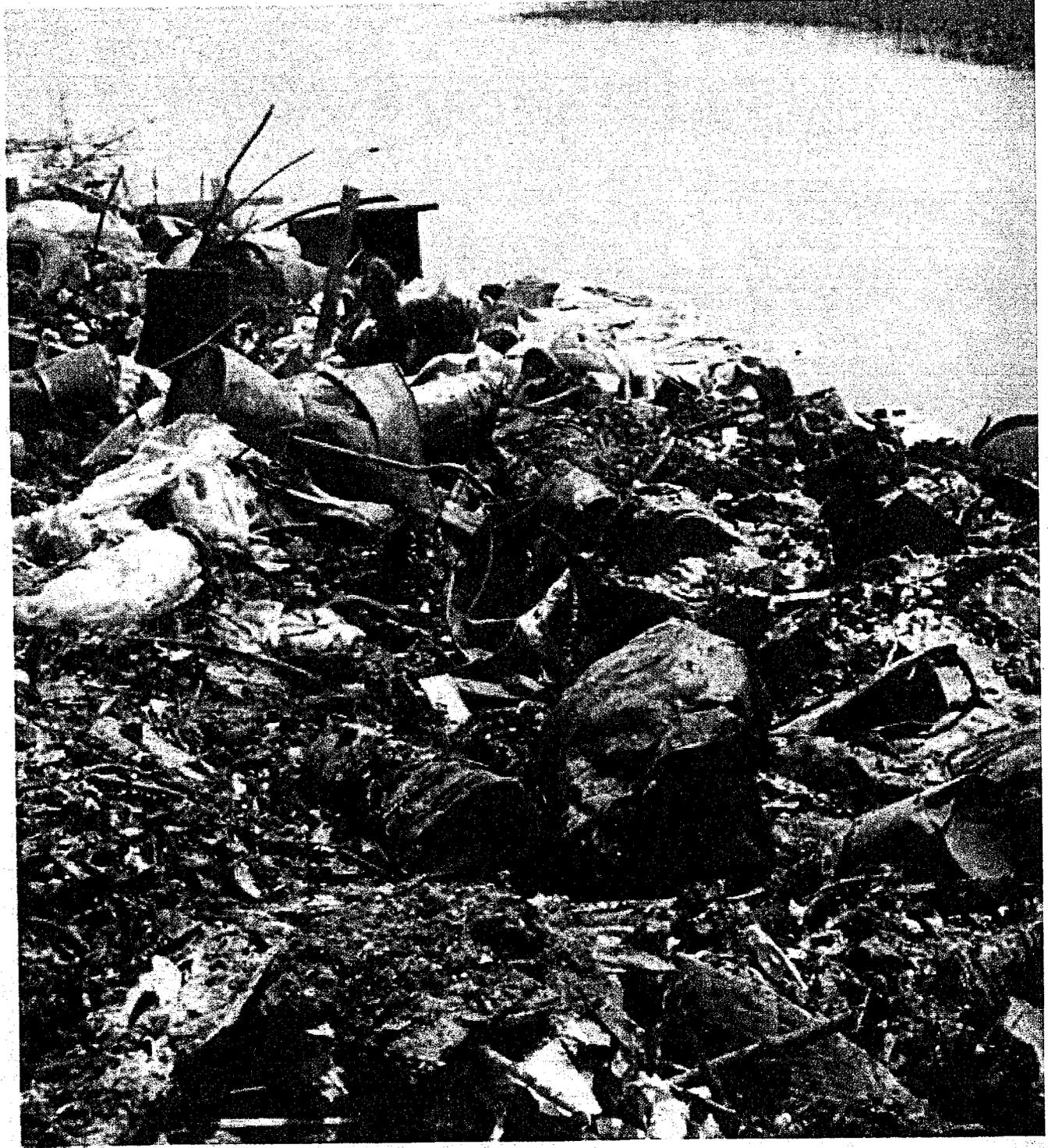


Figure 6
 Franz Landfill
 Surface Water Targets
 Sensitive Environments

6,000 Feet



1974 PHOTOGRAPH OF INDUSTRIAL WASTE
DUMPED AT FRANZ LANDFILL
AT SOUTHEAST EDGE ADJACENT TO
WETLAND AREA



ATTACHMENT A

**PRE-CERCLIS SCREENING ASSESSMENT
CHECKLIST/DECISION FORM**

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Fred Myers 7/31/2002
 (Name/Title) (Date)
Ohio EPA, CDO 3232 Alum Creek Drive, Columbus, Ohio 43207 614-728-3830
 (Address) (Phone)
FRED.MYERS@EPA.STATE.OH.US
 (E-Mail Address)

Site Name: Franz Landfill

Previous Names (if any): _____

Site Location: Southwest Corner of State Route 104 and US Route 33
 (Street)

Columbus Ohio
 (City) (ST) (Zip)

Latitude: 39° 54' 56" **Longitude:** 82° 55' 21"

Complete the following checklist. If "yes" is marked, please explain below.	YES	NO
1. Does the site already appear in CERCLIS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain all "yes" answer(s), attach additional sheets if necessary: _____

Site Determination:

Enter the site into CERCLIS. Further assessment is recommended (explain below).

The site is not recommended for placement into CERCLIS (explain below).

DECISION/DISCUSSION/RATIONALE:

The Franz Landfill is located adjacent to Alum Creek and is part of the Columbus/Metropolitan Park system. An asphalt bicycle/walking path was recently built on-site. It operated as a demolition dump during the 1960s and 1970s. Waste was placed adjacent to Alum Creek and around a prominent oxbow channel. The maximum thickness of the waste is approximately 20 feet. There is no cap, appreciable soil cover, or erosion control. Waste is sloughing off into Alum Creek and into an oxbow channel. The majority of the visible waste is demolition material; however, solid and industrial wastes are visible near the southeast terminus of the landfill. The visible waste consists of plastic bags, toys, glass bottles, cans, crushed drums, and a dried black sludge-like material.

Although the facility was supposed to have been accepting only demolition materials, it also accepted industrial and solid wastes, including paper, cardboard, containers, plastics, tires, solvents, paint sludge, cleaning rags, oils, and household waste. From 1971 to 1975 the facility was continually cited for accepting solid and industrial waste. In 1974, Ohio EPA ordered the landfill to cease operations; however, aerial photographs indicate dumping continued until 1979.

Ohio EPA recommends the Franz Landfill be entered into CERCLIS. The potential exists for releases of hazardous substances that could cause adverse environmental or human health impacts. The site is a park, accessible to the public and contains small wetland areas. No environmental samples have been taken at the site; therefore, the nature and extent of the contamination, if any, is unknown. Environmental sampling is necessary to evaluate and score the site.

Regional EPA Reviewer: _____

Print Name/Signature

_____ Date

State Agency/Tribe: _____

Print Name/Signature

_____ Date

FRED MYERS

PHASE B - INITIAL SITE EVALUATION

Use Exhibit A to make site assessment decisions based on the answers below:

	YES	NO
Is there documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an apparent release at the site with no documentation of exposed targets, but there are targets on-site or immediately adjacent to the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there an apparent release and no documented on-site targets, but there are nearby targets (e.g., targets within 1 mile)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on-site or in proximity to the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No documented onsite or nearby targets.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
No uncontained sources containing CERCLA eligible substances are present on site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
There are no releases or potential to release.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain all yes answer(s).

1. **Is there an apparent release at the site with no documentation of exposed targets, but there are targets on-site or immediately adjacent to the site?** Ohio EPA has no environmental sampling data at this site. File information indicates the site routinely accepted solid and industrial wastes, including paint waste, solvents, sludges, and industrial liquids, without a permit. Dried sludge, drums, and solid waste were observed during site reconnaissance. The site is currently part of a municipal park and contains a bicycle path; therefore, park users and park employees are potential on-site targets. The site also contains terrestrial sensitive environments including two small wetlands, Alum Creek, and a small pond. Recreational and subsistence fishing occurs in Alum Creek in the area.

2. **Is there indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on-site or in proximity to the site?** The existence of dried sludge, 55 gallon drums, and site inspection reports during operation of the landfill indicate releases and uncontained sources of CERCLA hazardous substances. Targets present on-site are park users, park employees, recreational and subsistence fishermen, and ecological receptors.

SITE/INCIDENT FORM 1 (SIF)
Rev. 3/2002

U.S. EPA SUPERFUND PROGRAM
CERCLIS SITE INFORMATION FORM (SIF)

ENFORCEMENT SENSITIVE INFORMATION
FOR INTERNAL USE ONLY

ALL ITEMS IN BOLD MUST BE FILLED OUT TO RECEIVE CERCLIS I.D. NUMBER

* **SITE NAME:** FRANZ LANDFILL * **EAPM/RPM/OSC NAME/PHONE:** LAURA RIPLEY / (312) 886-6040

* **FMS SITE/SPILL ID:** _____ * **OTHER REG. CONTACT NAME/PHONE:** _____ / (____) _____

* **U.S. EPA ID NO:** _____ * **State Contact- Name/Phone** FILED MYERS / (614) 728-3830

ALIAS NAME(S): _____

* **STREET:** US ROUTE 33 * **LATITUDE:** 39° 54' 56"
(IDENTIFY UNITS FOR LAT/LONG)

* **CITY:** COLUMBUS * **LONGITUDE:** 081° 55' 21"
(IDENTIFY UNITS FOR LAT/LONG)

* **COUNTY:** FRANKLIN (Degrees, min., sec., or decimal degrees)

* **STATE:** OHIO * **ZIP CODE** 43207

* **CONGRESSIONAL DISTRICT:** 15 * **FED. FACILITY FLAG:** _____
* **RCRA FACILITY FLAG:** _____

* **Site Type:** LANDFILL (See list of site types provided by John Maritote or EAPMS)

* **SITE/INCIDENT ABSTRACT:** The site is a landfill that operated during the 1960's and 1970's, IT
(include discussion on whether there was not licensed and was cited for solid waste violations. There is
are long term cleanup evidence that it accepted hazardous substances. IT is located adjacent to Alum
concerns, i.e., creek and is part of a municipal park. Further assessment is needed for NPL
contaminated GW; Is NPL assessment needed?)

* **Site Initiation Date:** ____/____/____ * **Site Discovery Date** ____/____/____ * **Non-NPL Site Status:** Circle one of the two choices below
(Removal Program) (Site Assessment Program) ('Removal Only- No Site Assessment needed' OR **PA Needed**)

* **SITE CLASSIFICATION:** _____ (see below for codes)

- (NG) FUND LEAD/NEGOT
 - (FE) FEDERAL ENFORCEMENT
 - (RP) VOLUNTARY/NEGOTIATED RESP
 - (F) FUND LEAD/NO NEGOT
 - (SN) STATE NON-FUND
 - (LT) LIMITED TIME FOR NEGOTIATION
 - (SE) STATE ENFORCEMENT
 - (SF) STATE/FUND
 - (NO) NO DETERMINATION (Default)
- *CORE DATA ELEMENT OR CODE ACTION: _____ (OSC ONLY)

Submitted By: _____