

**Statewide Inventory of
Land-Based Disposal
Sites:**

An Update

**Edward Mehnert,
Donald A. Keefer**

Illinois State Geological Survey

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HWRIC RR 020

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Edward Mehnert and Donald A. Keefer

Illinois State Geological Survey
Champaign, Illinois

Printed March 1988

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Illinois Department of Energy and Natural Resources

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Edward Mehnert and Donald A. Keefer

Illinois State Geological Survey
Champaign, Illinois 61820

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ABSTRACT

This project primarily involved the updating of selected portions of the Statewide Inventory of Land-Based Disposal Sites. The Inventory is a computerized database of all known land-based disposal sites, which includes landfills, surface impoundments, land application sites, and open dumps. Data compilation for the Inventory began in 1984 and has continued during this project period. For each site, data regarding site identification, location, type of disposal, source and type of waste, source of data, regulatory information, and other information have been compiled.

The Inventory currently comprises three files--the landfill file (2943 records), "delisted" site file (4), and surface impoundment file (5064). The landfill file includes all known land-based disposal sites and updating this file has been the focus of this project. The delisted sites file was created during the project period and contains sites formerly listed in the landfill file from which all waste has been removed. The surface impoundment file is a reformatted version of an inventory of surface impoundments compiled by the Illinois Environmental Protection Agency (IEPA). This file has not been updated during this project period.

The landfill file was updated with information provided by IEPA, U.S. Environmental Protection Agency, and various county departments. Additional data were added to all records in the Inventory to improve the quality and the utility of the database. These sources also provided data for additional land-based disposal sites. Data for these sites were added to the landfill file, increasing the number of sites from 2896 to 2943. To obtain information from the Inventory, contact the Hazardous Waste Research and Information Center or the Illinois State Geological Survey.



CHAPTER 1. INTRODUCTION

Description of the Inventory

The Statewide Inventory of Land-Based Disposal Sites is a computerized database of all known land-based disposal sites in Illinois. Land-based disposal sites include landfills, land application sites, surface impoundments, open dumps, and any other sites where land is used for the permanent disposal of any type of waste. The Inventory contains information about all known disposal sites--including sites currently in operation and those now closed. The Inventory consists of three files: the landfill file (2943 records), "delisted" sites file (4 records), and surface impoundment file (5064 records). The landfill file includes all known land-based disposal sites. The delisted sites file contains sites, which were formerly listed in the landfill file, where all waste has been removed. The surface impoundment file is a reformatted version of a 1980 inventory of surface impoundments compiled by the Illinois Environmental Protection Agency (IEPA).

The information contained in the Inventory may be categorized into the following groups: site identification, location, general information, source of data, type of disposal, location of hydrogeologic information, source and type of waste, regulatory information, and miscellaneous information. Figure 1 is an example of a printout of a record in the Inventory.

Currently, information contained in the Inventory is accessible only by making a request to either the project's Principal Investigator at the Illinois State Geological Survey (ISGS) or the Data Management Specialist at the Hazardous Waste Research and Information Center (HWRIC).

Development of the Inventory

HWRIC has funded the development of the Inventory through its research program. One goal of the HWRIC research program is to characterize and assess the problems posed by hazardous waste generation and disposal in Illinois. To achieve this goal, the magnitude of the disposal problem must first be quantified. Land-based disposal has been a common technique for hazardous waste disposal in the past and remains so today. Therefore, it was deemed prudent to inventory the land-based disposal facilities in Illinois as a first step in evaluating the significance of this disposal option in the overall context of hazardous waste management.

Development of the Inventory began in December 1984 and has continued through the current project, Statewide Landfill Inventory Update. During FY85 and FY86, the primary purpose was to identify sources of pertinent information, and to collect and organize the mass quantities of data into a workable format.

Three reports have been published describing the development of the Inventory: Statewide Landfill Inventory Interim Report (Dixon, 1985), Statewide Landfill Inventory Progress Report (Dixon and Hensel, 1985), and The Development of the Illinois Statewide Inventory of Land-Based Disposal Sites (Dixon et al., 1986). Dixon et al. (1986) offers the most complete description of the development of the Inventory and is perhaps the most widely distributed of the three reports. The present report draws liberally from each of the three previous reports.

A IEPA No. 0000000000 SITE NAME: SAMPLE SITE
PROVISIONAL NO. 123456ABCD

B LOCATION:
COUNTY: CAPITOL CITY/TOWNSHIP: HOME TOWN
LATITUDE: 234456 LEGAL: 3 PM, R.03E T.10N SEC.24 NWSNESW
LONGITUDE: 123456 LAMBERT-PHI:X 1234567 Y 1234567

C OWNER: ACME SUPPLY CO. LANDFILL SIZE
OPERATOR: MR. JOHN DOE IN ACRES: 15

D SOURCES OF DATA:
1) IEPA X 5) DPH
2) ISGS X 6) LOCAL HD X
3) PCP 7) OTHER AGENCY
4) IDM&M 8) OTHER

E TYPE OF DISPOSAL: A B
1) OPEN DUMP = A 4) INCINERATION = D
2) SECURED CONTAINERS = B 5) SURFACE IMPOUNDMENT = E
3) LANDFILL = C 6) LAND APPLIC. = F

F HYDROGEOLOGIC REPORT AT: (P=PRELIMINARY, D=DETAILED, PD, NO, X)
1) HWRIC 2) IEPA 3) ISGS P 4) OTHER

G SOURCE(S) AND TYPES OF WASTE:
1) HAZARDOUS SOLIDS 11) ANIMAL WASTE
2) HAZARDOUS LIQUIDS X 12) PATHOLOGICAL WASTE
3) NONHAZARDOUS WASTE 13) FOUNDRY SAND
4) SPECIAL 14) SLAG
5) RADIOACTIVE WASTE 15) INCINERATOR ASH
6) GENERAL SOLID WASTE X 16) DEMOLITION DEBRIS
7) INDUSTRIAL WASTE 17) CONCRETE/ASPHALT
8) OIL FIELD BRINE 18) LANDSCAPING WASTE
9) MUNI SEWAGE SLUDGE 19) OTHER (SPACE RESERVED FOR COMMENTS)
10) SEPTIC SLUDGE 20) UNKNOWN X

H BACKGROUND DATA: (Y=YES, N=NO)
1) STATUS: INACTIVE 7) RCRA SITE:
2) PERMIT STATUS: UNPERMITTED UNAUTHORIZED 8) FORMER DISPOSAL SITE:
3) DATE PERMITTED: 0 9) ILLEGAL DUMP: Y
4) DATE OPENED: 121281 10) DATE DISCOVERED: 111483
5) DATE CLOSED: 111583 11) DATE CLEANED: 0
6) CERCLA SITE: Y 12) GW MONITORING: Y
COMMENTS: (THIS LINE STORES 61 SPACES FOR GENERAL COMMENTS.)
(THIS LINE STORES 61 SPACES FOR GENERAL COMMENTS.)

I MISCELLANEOUS INFORMATION: (ON FILE AT)
1) PREVIOUS STUDIES:
2) SITE PLANS:
3) OPERATION RECORDS:
4) MONITORING DATA: ISGS
5) OTHER RECORDS: IEPA & ACME SPLY. CO
6) LEGAL ACTIONS:

Figure 1 Example of printout from landfill file

Update of the Inventory

During this project period (FY87), efforts have been focused on updating the landfill file of the Inventory. In addition, the delisted sites file was created from data from the landfill file. Data in the surface impoundment file were not updated.

The main emphasis of this current phase of the project has been to check and update the data in the landfill file gathered during the earlier phases and, secondly, to gather additional data as they become available. Additional data have generally become available from contacts made during previous project periods.

The project also involved distributing data contained in the Inventory. During this project period, the ISGS responded to 38 requests for information from the Inventory. Most requests involved locating all landfills within a certain area for private citizens or local governments. Requests were also made by the Illinois Environmental Protection Agency, Northeastern Illinois Planning Commission, and various other groups.

Because new landfills will be developed, older landfills are being "discovered," and existing landfills are being closed, the nature of the Inventory is continually evolving. Therefore, this report, especially the chapters Status of Inventory and Future Needs, describes the Inventory at this time. These chapters will eventually become outdated; however, this report will be useful as a chronicle of the development of the Inventory.

CHAPTER 2. TASKS AND METHODS

Description of Tasks

Four fundamental tasks were undertaken during this project period. An overview of these tasks is given in this chapter. Details of the methods used to accomplish these tasks, as well as results, are discussed in Progress/-Setbacks later in this chapter. First, some database management terminology used in this report will be introduced.

The Inventory is a computerized database, currently stored on the Department of Energy and Natural Resources' PRIME computer in Champaign. INFO (HENCO Software) is the database management software used throughout this project.

A database is a collection of many records. A record is a collection of all data items for a particular site. In the Inventory, a record exists for each known landfill, surface impoundment, etc., in Illinois. Figure 2 is a list of all data items contained in the Inventory. This list displays all of the potential information available for a record in the Inventory. The phrase "potential information" is used, since a data item may contain information or may be blank.

Task 1

Task 1 involved checking and updating all records in the Inventory. In this task, all items of each record were updated with more recent information available from various sources. The source of most of the information was the Select Inventory File (SIF), released by IEPA in March 1987. This version of the SIF contains information current through 1986. (An earlier version of the SIF was used as the foundation for the Inventory.)

Also, increased efforts were made to check and update the records of all hazardous waste disposal sites. Specifically, data were checked for all hazardous waste disposal sites permitted under the Resource Conservation and Recovery Act (RCRA) and sites identified from the following sources were to be checked and updated: National Priority List (NPL), Proposed NPL, State Remedial Action Priority List (SRAPL), Immediate Hazardous Waste Removal Projects (IHWRP), and Voluntary Cleanup Projects. To accomplish this portion of the task, data were obtained from the U.S. Environmental Protection Agency (USEPA) and IEPA.

Task 2

In Task 2, county officials were asked to check all Inventory records for their county for the following reasons. First, these officials are probably more familiar with the present and past waste disposal practices in their county than are state officials. Also, the county officials could provide an independent check of the records. In addition, Dixon et al. (1986) found that a search of county records uncovered a significant number of sites not included in the Inventory. Table 1 indicates the number of sites uncovered after an intensive search of county records for an agricultural and an industrial county.

COL	ITEM NAME	WDTH	OPUT	TYP	N	DEC	ALTERNATE NAME
1	IEPA	10	10	L	0		IEPA-No
11	USEPA	12	12	C	-		
23	SITE-NAME	30	30	C	-		NAME
53	PROVISIONAL	10	10	C	-		PROVSNL-No.
63	COUNTY	20	20	C	-		
83	CITY	20	20	C	-		
103	LATITUDE	6	6	I	-		LAT
109	LONGITUDE	6	6	I	-		LON
115	PM	1	1	I	-		
116	TOWNSHIP	3	3	C	-		T
119	RANGE	3	3	C	-		R
122	SECTION	2	2	C	-		SEC
124	QS1	2	2	C	-		
126	QS2	2	2	C	-		
128	QS3	2	2	C	-		
130	QS4	2	2	C	-		
132	X	7	7	I	-		LAMBERT-X
139	Y	7	7	I	-		LAMBERT-Y
146	OWNER	30	30	C	-		
176	OPERATOR	30	30	C	-		
206	SIZE	6	6	I	-		ACRE
212	D1	1	1	C	-		SOURCE-IEPA
213	D2	1	1	C	-		SOURCE-ISGS
214	D3	1	1	C	-		SOURCE-PCB
215	D4	1	1	C	-		SOURCE-IDM&M
216	D5	1	1	C	-		SOURCE-DPH
217	D6	1	1	C	-		SOURCE-LOCAL
218	D7	15	15	C	-		SOURCE-AGENCY
233	D8	15	15	C	-		SOURCE-OTHER
248	TYPE-DISPOSAL	11	11	C	-		TYPE
259	F1	2	2	C	-		RPT-HWRIC
261	F2	2	2	C	-		RPT-IEPA
263	F3	2	2	C	-		RPT-ISGS
265	F4	15	15	C	-		RPT-OTHER
280	GENERAL	1	1	C	-		GENSOLID-WASTE
281	MUNI	1	1	C	-		MUNICIPAL-SEWAGE
282	SEPTIC	1	1	C	-		SEPTIC-SEWAGE
283	ANIMAL	1	1	C	-		ANIMAL-WASTE
284	PATH	1	1	C	-		PATHOLOGICAL
285	IND	1	1	C	-		INDUSTRIAL-WASTE
286	FSAND	1	1	C	-		FOUNDRY-SAND
287	IASH	1	1	C	-		INCINERATOR-ASH
288	SLAG	1	1	C	-		
289	HAZ-SOL	1	1	C	-		HAZARDOUS-SOLIDS
290	HAZ-LIQ	1	1	C	-		HAZARDOUS-LIQUID
291	RAD	1	1	C	-		RADIOACTIVE
292	DEBRIS	1	1	C	-		DEMO-DEBRIS
293	CONCRETE	1	1	C	-		ASPHALT
294	LANDSCAPING	1	1	C	-		
295	BRINE	1	1	C	-		OIL-FIELD-BRINE
296	SPECIAL	1	1	C	-		
297	NONHAZ	1	1	C	-		NONHAZARDOUS
298	OTHER	31	31	C	-		
329	UNKNOWN	1	1	C	-		
330	STATUS	22	22	C	-		
352	PERMIT	40	40	C	-		PERMIT-STATUS
392	PDATE	6	6	I	-		DATE-PERMITTED
398	ODATE	6	6	I	-		DATE-OPENED
404	CDATE	6	6	I	-		DATE-CLOSED
410	CERCLA-SITE	12	13	C	-		CERCLA
422	RCRA	1	1	C	-		RCRA-SITE
423	MONITORING	3	3	C	-		GW-MONITORING
426	FORMER	1	1	C	-		FORMER-SITE
427	ILLEGAL	1	1	C	-		ILLEGAL-DUMP
428	DDATE	6	6	I	-		DATE-DISCOVERED
434	CLDATE	6	6	I	-		DATE-CLEANED
440	C1	61	61	C	-		COMMENT-ONE
501	C2	61	61	C	-		COMMENT-TWO
562	I1	20	20	C	-		PREVIOUS-STUDIES
582	I2	20	20	C	-		SITE-PLANS
602	I3	20	20	C	-		OP-RECORDS
622	I4	20	20	C	-		MON-RECORDS
642	I5	20	20	C	-		OTHER-RECORDS
662	I6	20	20	C	-		LEGAL-ACTIONS
682	I7	20	20	C	-		IMPDMT-RECORD
702	LEACHATE-COL	1	1	C	-		
703	LINER-MATERIAL	1	1	C	-		
704	OFFSITE-WASTE	1	1	C	-		
705	SIZE-FILL	5	5	I	-		
710	RECNO	4	4	I	-		
	** REDEFINED ITEMS **						
1	CTY	3	3	I	-		
115	LEGAL	17	17	C	-		

Figure 2 Items from landfill file

Table 1. Known disposal sites in De Witt and Winnebago Counties
(from Dixon et al., 1986)

County	Number of sites on file at IEPA	Number of sites not on file at IEPA
De Witt	18	10
Winnebago	79	126

Task 2 was started during the FY86 project period. County officials likely to be responsible for waste disposal, such as the heads of the county health or highway department or county commissioners, were contacted. During FY86, the percentage of counties responding to our request was very low. Thus, in this project period, several steps were taken to increase this response rate. First, in September 1986, letters were sent to all counties. Those counties that had supplied information were thanked for their assistance, and those counties that did not supply information were requested to respond. This measure did not prompt many county officials to respond, so a more aggressive approach was followed. In February 1987, an attempt was made to contact each county official by telephone, and follow-up phone calls were made in May 1987.

Figure 3 is a map showing those counties which responded during FY86 and FY87. To date, 54 of the 100 counties have responded to our request to check the records. (Although Illinois has 102 counties, De Witt and Winnebago Counties were not included, since these counties participated in earlier pilot studies.) In addition, several counties indicated a desire to help, but time and/or manpower constraints did not allow them to respond to our requests. In Figure 3, no response has been received from those counties that are not shaded.

Task 3

Task 3 involved responding to requests for information from the Inventory; 38 requests were made. These requests were made by the general public and local, county, state and other government agencies. Table 2 shows the type of information requested, and Table 3 shows the distribution of those requesting information. The total number of requests for Tables 2 and 3 do not match because various agencies/people sometimes requested more than one type of information.

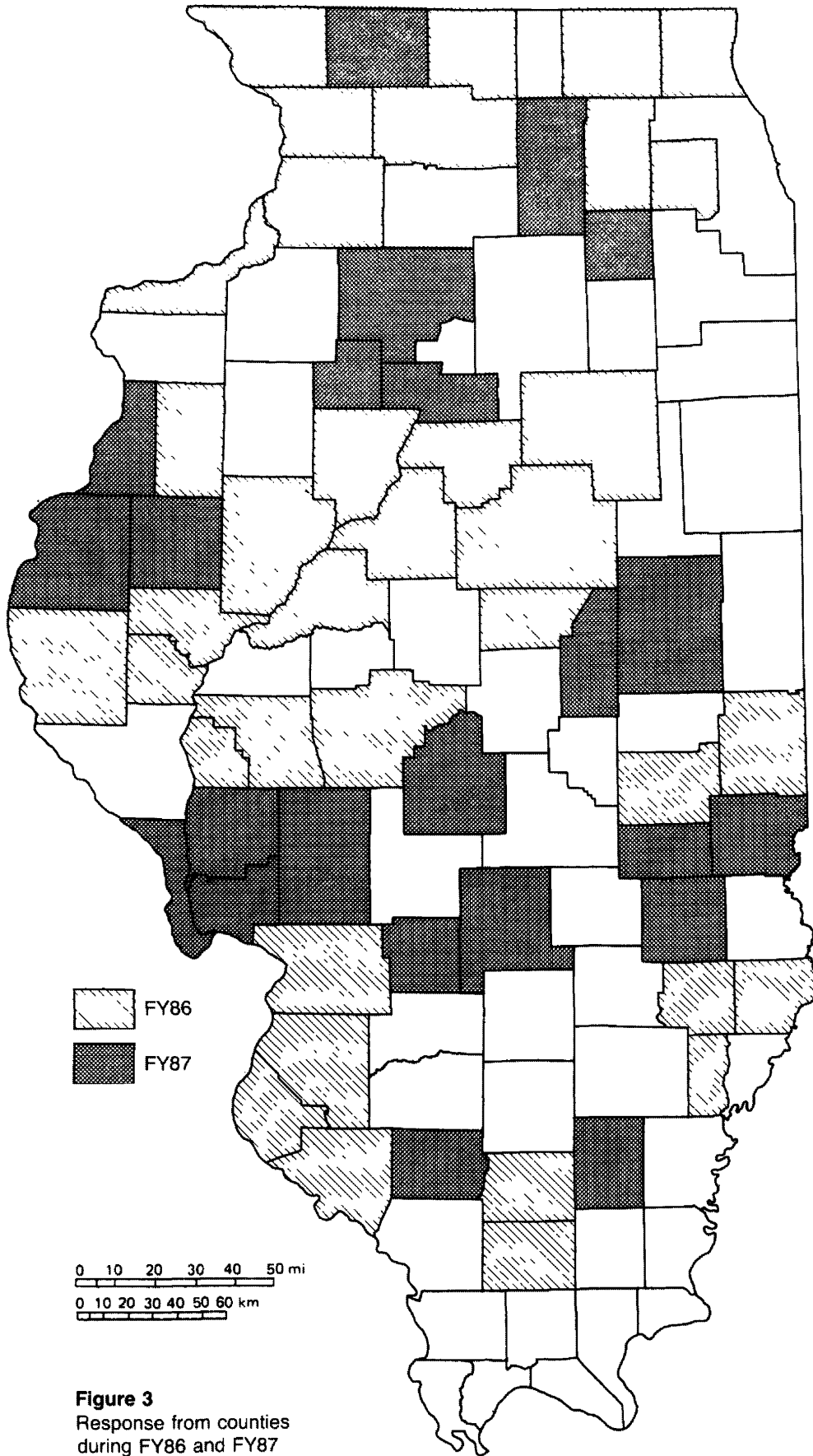


Figure 3
 Response from counties
 during FY86 and FY87

Table 2. Type of information requested from the Inventory

Type of information requested	Number of requests
FY86 final report (Dixon et al., 1986)	23
Landfills in a certain area	18
Certain type of disposal site	4
General information	3
Specific disposal site	2

Table 3. Origin of requests for information from the Inventory

Origin of requests	Number of requests
County government agencies	12
State government agencies	11
Citizens of Illinois	5
Other government agencies	4
Federal government agencies	3
Persons outside of Illinois	3

Task 4

Task 4 involved reporting progress and results. This document discusses the results of this research effort. Progress reports were sent to the project officer at various intervals. During the first 6 months, progress reports were due every month. During the last 6 months, progress reports were due quarterly. These reports were submitted as scheduled.

Progress and Setbacks

Task 1

Task 1 involved numerous steps to update the information contained in the landfill file of the Inventory. Several assumptions were made pertaining to the quality of information used to update this information. First, it was assumed that the more recent the information, the better its quality. For example, information in the 1986 version of IEPA's Select Inventory File (SIF) was assumed to be better in quality than the 1984 version. Also, the information from local government bodies (cities and counties) was assumed to be generally superior in quality to that from the state level.

Since the Inventory was originally developed from an earlier (1984) version of the SIF, the first step taken to update this information was to copy the information from IEPA's 1986 version of its SIF into the Inventory.

In keeping with the assumptions discussed above, this step was undertaken for all sites except where information had been obtained from local governments.

Also, five items were added to all of the records in the landfill file of the Inventory to include additional information from the SIF. The five items, identified by their Inventory name, are: USEPA, USEPA identification number; LEACHATE-COL, whether a leachate collection system underlies the facility; LINER-MATERIAL, type of liner material; OFFSITE-WASTE, whether off-site waste is disposed at this site; and SIZE-FILL, size of the fill area in acres. The addition of these items should allow a broader use of the Inventory and improve the quality of the information contained in the Inventory. For instance, the USEPA number will allow information from the Inventory to be related to data files available from USEPA. The other items should allow a broader use of the Inventory and provide information to questions often posed by those requesting information from the Inventory. As a final note, two items, SIZE and SIZE-FILL, must be differentiated. The item, SIZE, is the size of the entire disposal site as opposed to just the area of the site used for disposal (SIZE-FILL). Unfortunately, most of these new items were blank in the SIF (e.g., only 80 records contained data for USEPA), but IEPA is planning to complete these items in the future.

One setback occurred during this updating procedure--some legal description data were lost from the computer files. During the updating procedure, data for the items TOWNSHIP and RANGE were deleted for some unknown reason. Attempts have been made to restore these data. Currently, there are approximately 700 records which include SECTION data, but no TOWNSHIP and RANGE data. However, for most of these sites, other location information (Lambert feet and/or longitude and latitude) is available.

The next step in the updating procedure was to add USEPA identification numbers to the records in the landfill file. These identification numbers are needed to relate data files available from USEPA to the Inventory. NAMEID, an internal database obtained from HWRIC, was then used to add USEPA numbers to the Inventory records. NAMEID is a compilation of data from several sources and contains the name, address and USEPA and IEPA number of RCRA transport, storage and disposal sites in Illinois (Brookfield, 1987). By relating the IEPA numbers of the Inventory and NAMEID, the number of USEPA numbers was increased from 80 to approximately 800 sites in the Inventory.

An attempt was also made to relate these files by site name; however, this attempt failed to add any USEPA numbers. This result was not unexpected, since a site may have several names, or one site name may be abbreviated several different ways. Perhaps a more fruitful approach would be to manually match the site names from both files. However, this approach was not attempted, since it would be very labor-intensive, and IEPA is currently adding USEPA numbers to its SIF.

After the USEPA numbers were added, revisions were made to data that pertained to sites regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). (CERCLA sites refer to any Inventory site that is on the NPL, Proposed NPL, SRAPL, Immediate Hazardous Waste Removal Project (IHWRP), or Voluntary Cleanup list.) These lists contain many types of sites, such as transporter facilities, spill sites, industrial facilities, as well as disposal sites. The CERCLA sites in the Inventory include

only the disposal sites from these lists. The Comprehensive Environmental - Response, Compensation and Liability Information System (CERCLIS) was used to update the Inventory. CERCLIS is used by the USEPA, Office of Emergency and Remedial Response, to inventory all Superfund sites and to manage tracking, remedial, removal and enforcement actions at these sites (USEPA, 1985). This file was related to the Inventory by USEPA number, increasing the number of CERCLA sites from 22 to 36.

In addition, data pertaining to the CERCLA sites were manually checked with data provided by IEPA. (This information also allowed cross-checking of the data provided by the USEPA for the NPL and proposed NPL sites.) IEPA provided a list of all Illinois sites on the NPL, Proposed NPL, as well as SRAPL, IHWRP, and Voluntary Cleanup lists. The information provided by IEPA was current through June 1, 1987, with one exception--information was not provided for sites in which sensitive negotiations were ongoing. (IEPA does not release information for these sites so that these negotiations are not jeopardized.) From these data, 30 new disposal sites were added to the Inventory, increasing the number of CERCLA sites to 66.

As a final comment, the data in the Inventory pertaining to RCRA-permitted hazardous waste disposal facilities were not updated during this project period. These data will be updated when data from USEPA are received. A copy of USEPA's Hazardous Waste Data Management System, a database of all RCRA facilities, has been requested through Freedom of Information Act procedures. These data should be available shortly, and RCRA disposal site records will be updated upon receipt of this database.

Task 2

Task 2 involved soliciting the assistance of county officials to check the Inventory records of their county for accuracy and completeness. As discussed previously, county officials did not always respond to our request. Figure 3 shows which counties have responded and in which fiscal year the response was received. The quality of the review provided by each county appeared to be quite variable. Typically, the source of data for Inventory records is noted in the sources of data or comment items. Review of these items can give an Inventory user an indication of the quality of review provided by county officials.

During this project period, county officials provided data for 16 additional sites in the landfill file of the Inventory. Overall, 47 additional sites were added to the landfill file from data provided by state and county sources.

Task 3

All requests for information were responded to as promptly as possible, and no setbacks occurred in this task.

Assistance was provided to the Northeastern Illinois Planning Commission, which was conducting a search for former land-based disposal sites. This search was conducted for the Chicago metropolitan area, including Cook, DuPage, Kane, Lake, McHenry and Will Counties. Results of this search should be available in April 1988.

Task 4

This report is the culmination of the efforts of updating the Inventory for this project period.

CHAPTER 3. STATUS OF INVENTORY

The Inventory currently consists of three files: the landfill file, the delisted sites file, and the surface impoundment file (Table 4). The landfill file is the heart of the Inventory and contains information on land-based disposal sites. The delisted sites file was created during this project period and contains sites formerly listed in the landfill file that were reclassified since all waste was removed from them. The surface impoundment file is a revision of a 1980 inventory compiled by the IEPA in 1980 (Piskin et al., 1980). This file basically consists of the same data in a more user-friendly format.

The surface impoundment file contains information about surface impoundments used for waste storage and disposal, as designated by IEPA. Since an inventory of waste storage facilities is beyond the scope of this project, the surface impoundment file is maintained as a separate file. No effort was made to update the information in the surface impoundment file during this project period. However, all data for surface impoundments designated as disposal facilities in the surface impoundment file were added to the landfill file in FY86 (Figure 6). Data for these sites have been updated as discussed in Chapter 2.

Table 4. Number of sites in each file in the Inventory
as of June 23, 1987

File	Number of sites
Landfill	2943
Delisted sites	4
Surface impoundment	5064

Tables 5 and 6 present a summary of the data from the landfill file on a statewide basis and a county-by-county basis, respectively. Figures 4 through 12 show the distribution of various types of land-based disposal sites across the state. (Note: Figures 4 through 12 only show the distribution of disposal sites, not sites used for treatment and/or storage of waste.) The information for these figures is taken from the landfill file of the Inventory. Approximately 200 of the 2943 sites in this file did not have adequate location data and could not be mapped. The figures provide examples of the type of information which may be retrieved from the Inventory. Dixon et al. (1986) provides additional examples of the type of information retrievable from the Inventory. Dixon et al. (1986) and Keefer and Mehnert (1987) also demonstrate how the Inventory data can be combined with other types of data to allow a more comprehensive analysis of several problems.

Table 5. Statewide summary of data from the landfill file
as of June 23, 1987

Total number of disposal sites:		2943
Disposal sites on file with:	IEPA	2666
	Local agencies	277
Types of disposal sites:*	Landfill	2739
	Open dump	93
	Surface impoundment	45
	Secured containers	37
	Land application	36
	Incineration	16
Types of waste in the disposal sites:**	General	884
	Unknown	720
	Hazardous liquids	111
	Sewage sludge	107
	Industrial	91
	Special***	71
	Hazardous solids	59
	Radioactive	9

- * Multiple disposal methods are used at some sites.
- ** Nonputrescible wastes are not included in this list.
- *** Some hazardous wastes are possibly included in this waste type.

Table 6. Tabulation of data from the landfill file by county as of June 23, 1987

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		TEPA	Other	Landfills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Adams	37	36	1	36	0	0	0	1	0	2	4	0	2	2
Alexander	10	10	0	10	1	1	1	0	0	1	1	0	7	0
Bond	12	12	0	12	0	0	1	0	0	0	0	0	5	1
Boone	8	8	0	8	0	0	0	0	0	0	1	0	3	3
Brown	17	15	2	17	0	0	0	2	0	0	0	0	2	0
Bureau	20	19	1	20	0	0	1	0	0	0	2	1	8	2
Calhoun	6	5	1	5	0	0	0	0	0	0	0	0	1	0
Carroll	32	17	15	24	2	0	0	6	0	0	0	0	13	2
Cass	15	15	0	14	0	0	0	1	0	0	1	0	10	1
Champaign	33	28	5	30	0	0	1	3	0	0	0	0	4	5
Christian	24	16	8	22	1	0	0	1	0	0	1	0	6	1
Clark	15	15	0	14	0	0	1	0	0	1	1	0	4	0
Clay	13	13	0	10	0	0	0	0	0	0	0	0	6	0
Clinton	15	15	0	15	0	0	0	0	0	0	0	0	8	0
Coles	34	31	3	32	0	0	0	0	0	0	0	0	3	0
Cook	171	170	1	162	10	3	9	3	1	6	16	1	41	33
Crawford	17	17	0	16	1	1	1	0	0	0	1	0	10	1
Cumberland	5	5	0	5	0	0	0	0	0	0	0	0	1	0
De Kalb	23	23	0	23	0	0	0	0	0	1	0	0	11	1
De Witt	30	20	10	29	1	0	0	0	0	0	1	0	1	0
Douglas	14	14	0	13	1	0	0	0	0	0	1	0	0	0
Du Page	57	45	12	47	2	1	0	6	1	1	1	5	19	8
Edgar	9	9	0	9	0	0	0	0	0	0	0	0	1	0
Edwards	5	5	0	5	0	0	0	0	0	0	0	0	1	0
Effingham	10	10	0	10	0	0	0	0	0	0	0	0	3	1
Fayette	14	14	0	12	2	0	0	0	0	2	3	0	6	0
Ford	8	8	0	8	0	0	0	0	0	0	0	0	0	1
Franklin	13	13	0	13	0	0	0	0	0	0	0	0	8	0
Fulton	24	24	0	24	0	0	1	0	0	0	1	0	1	5
Gallatin	6	6	0	6	0	0	0	0	0	0	0	0	3	1
Green	11	11	0	10	0	0	0	1	0	0	1	0	1	0
Grundy	7	7	0	6	1	0	0	0	0	0	1	0	2	1
Hamilton	2	2	0	2	0	0	0	0	0	0	0	0	0	0
Hancock	24	24	0	24	0	1	0	0	0	0	0	0	1	1

Table 6. Continued

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		TEPA	Other	Landfills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Hardin	7	7	0	7	0	0	0	0	0	0	0	0	5	0
Henderson	4	4	0	4	0	0	0	0	0	0	0	0	0	0
Henry	28	28	0	24	1	1	4	0	0	1	3	0	9	5
Iroquois	20	20	0	20	0	0	0	0	0	0	0	0	0	0
Jackson	22	22	0	20	1	0	2	0	0	0	1	0	9	0
Jasper	6	6	0	6	1	0	0	0	0	0	0	0	3	1
Jefferson	19	19	0	19	0	0	0	0	0	0	0	0	9	2
Jersey	15	15	0	15	0	0	0	0	0	0	0	0	1	1
Jo Daviess	25	25	0	23	0	1	2	0	0	1	2	0	7	3
Johnson	11	11	0	11	0	0	0	0	0	0	0	0	5	0
Kane	63	59	4	60	0	1	0	0	0	1	2	1	13	6
Kankakee	21	21	0	19	0	1	0	0	0	0	0	0	9	0
Kendall	11	11	0	11	0	0	0	0	0	0	1	0	1	1
Knox	19	19	0	16	0	0	2	3	0	0	1	0	2	3
Lake	118	73	45	79	0	1	2	22	14	3	3	0	21	10
La Salle	62	61	1	61	0	1	1	0	0	1	1	1	23	6
Lawrence	12	7	5	6	0	1	0	4	0	1	1	0	5	1
Lee	27	27	0	27	0	0	0	0	0	0	0	0	3	4
Livingston	29	25	4	27	0	0	0	2	0	0	0	0	3	4
Logan	10	10	0	10	0	0	0	0	0	0	0	0	0	0
Mc Donough	16	16	0	16	0	0	0	0	0	0	0	0	0	1
Mc Henry	64	54	10	61	0	1	0	1	0	1	4	0	24	0
Mc Lean	36	36	0	34	0	0	2	0	0	0	0	0	1	3
Macon	65	64	1	65	0	0	0	0	0	0	0	0	0	7
Macoupin	39	39	0	39	0	0	1	0	0	3	3	0	5	2
Madison	69	68	1	60	5	0	4	4	0	4	8	0	32	0
Marion	25	25	0	25	0	0	0	0	0	0	0	0	9	3
Marshall	13	11	2	11	0	0	0	2	0	0	0	0	2	0
Mason	11	10	1	9	0	1	1	0	0	0	0	0	2	0
Massac	13	13	0	12	1	0	0	0	0	1	1	0	8	1
Menard	9	9	0	9	0	0	0	0	0	0	0	0	0	0
Mercer	10	10	0	10	0	0	0	0	0	0	0	0	0	1
Monroe	17	17	0	16	0	0	0	1	0	1	1	0	7	0
Montgomery	38	38	0	38	0	0	0	0	0	0	0	0	2	2

Table 6. Continued

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		TEPA	Other	Land-fills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Morgan	41	39	2	41	0	0	0	1	0	0	0	0	5	1
Moultrie	6	6	0	6	0	0	0	0	0	0	0	0	1	1
Ogle	41	41	0	39	0	0	1	2	0	2	2	0	19	2
Peoria	47	44	3	42	1	0	0	2	0	1	2	0	5	0
Perry	8	8	0	8	0	0	0	0	0	0	0	0	4	1
Pratt	8	4	4	4	0	0	0	4	0	0	0	0	3	2
Pike	39	39	0	39	0	0	0	0	0	0	0	0	4	0
Pope	14	13	1	13	0	0	0	0	0	0	0	0	4	0
Pulaski	19	19	0	19	0	0	0	0	0	0	0	0	11	1
Putnam	7	7	0	6	1	0	0	0	0	0	1	0	2	0
Randolph	28	28	0	28	0	0	0	0	0	0	0	0	11	3
Richland	11	9	2	11	0	0	0	0	0	0	0	0	6	1
Rock Island	61	61	0	58	0	0	0	1	0	0	0	0	20	5
St. Clair	133	133	0	127	1	0	3	4	0	6	7	0	53	0
Saline	15	15	0	15	0	0	0	0	0	0	0	0	6	1
Sangamon	95	95	0	94	0	0	0	0	0	1	1	0	0	6
Schuyler	6	6	0	6	0	0	0	0	0	0	0	0	0	0
Scott	31	31	0	31	0	0	0	0	0	0	0	0	3	0
Shelby	13	13	0	12	0	0	0	0	0	0	0	0	0	1
Stark	8	8	0	8	0	0	0	0	0	0	0	0	0	1
Stephenson	23	23	0	22	1	0	1	0	0	0	1	0	12	1
Tazewell	80	78	2	77	0	0	0	2	0	0	0	0	12	7
Union	11	11	0	11	0	1	0	0	0	0	1	0	4	1
Vermilion	63	63	0	59	1	3	0	0	0	1	4	0	3	6
Wabash	10	10	0	10	0	0	0	0	0	0	0	0	2	0
Warren	2	2	0	2	0	0	0	0	0	0	0	0	0	1
Washington	10	10	0	10	0	0	0	0	0	0	0	0	4	1
Wayne	9	9	0	9	0	0	0	0	0	0	0	0	3	1
White	5	5	0	5	0	0	0	0	0	0	0	0	2	0
Whiteside	30	30	0	29	0	1	1	0	0	2	2	0	17	1
Will	77	76	1	71	4	2	1	4	0	6	8	0	21	10
Williamson	71	69	2	68	0	0	1	2	0	1	1	0	21	1
Winnebago	210	83	127	180	5	14	2	8	0	7	11	0	49	6
Woodford	16	16	0	16	0	0	0	0	0	0	0	0	0	1
TOTAL	2943	2666	277											

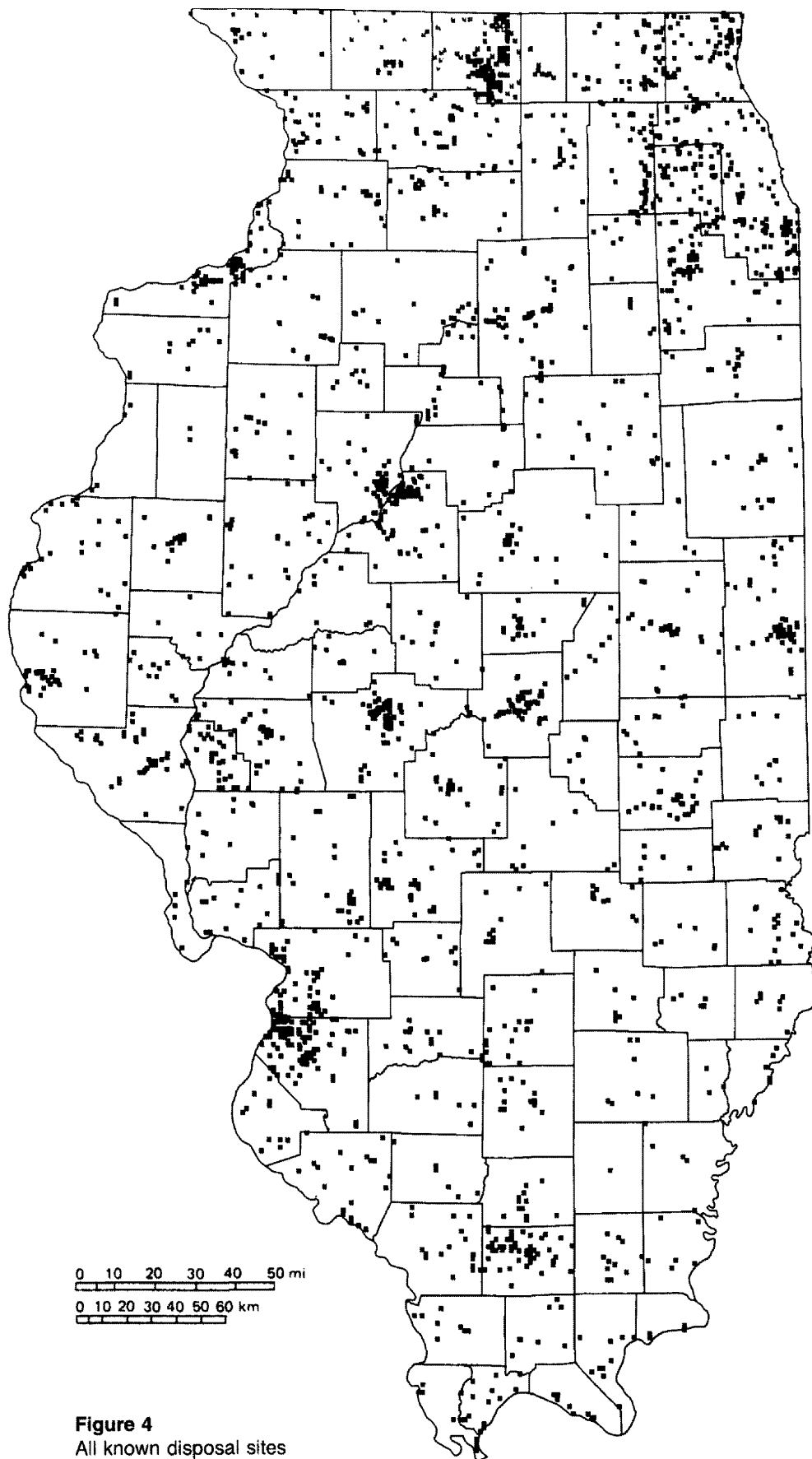


Figure 4
All known disposal sites

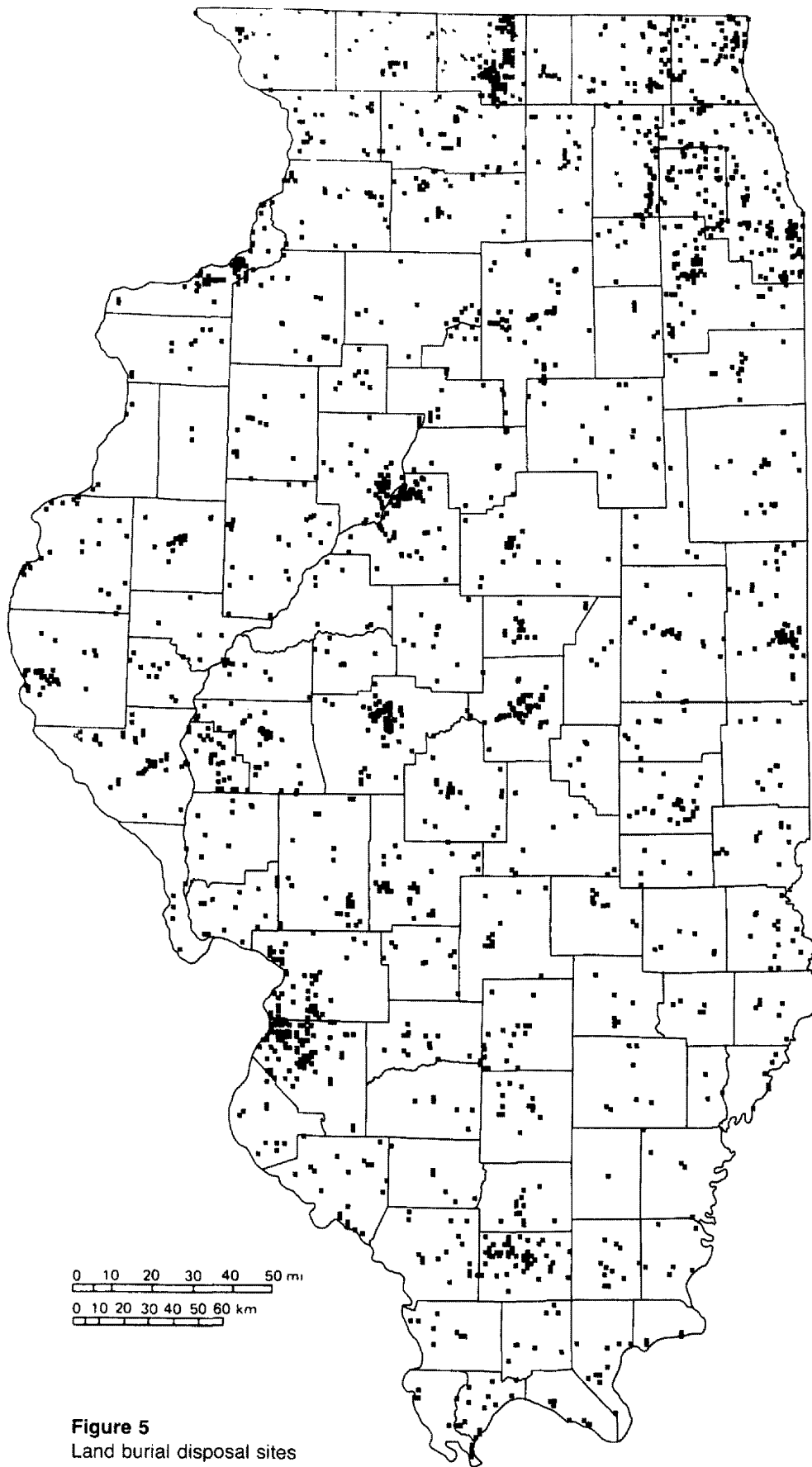


Figure 5
Land burial disposal sites



Figure 7
Land application disposal sites

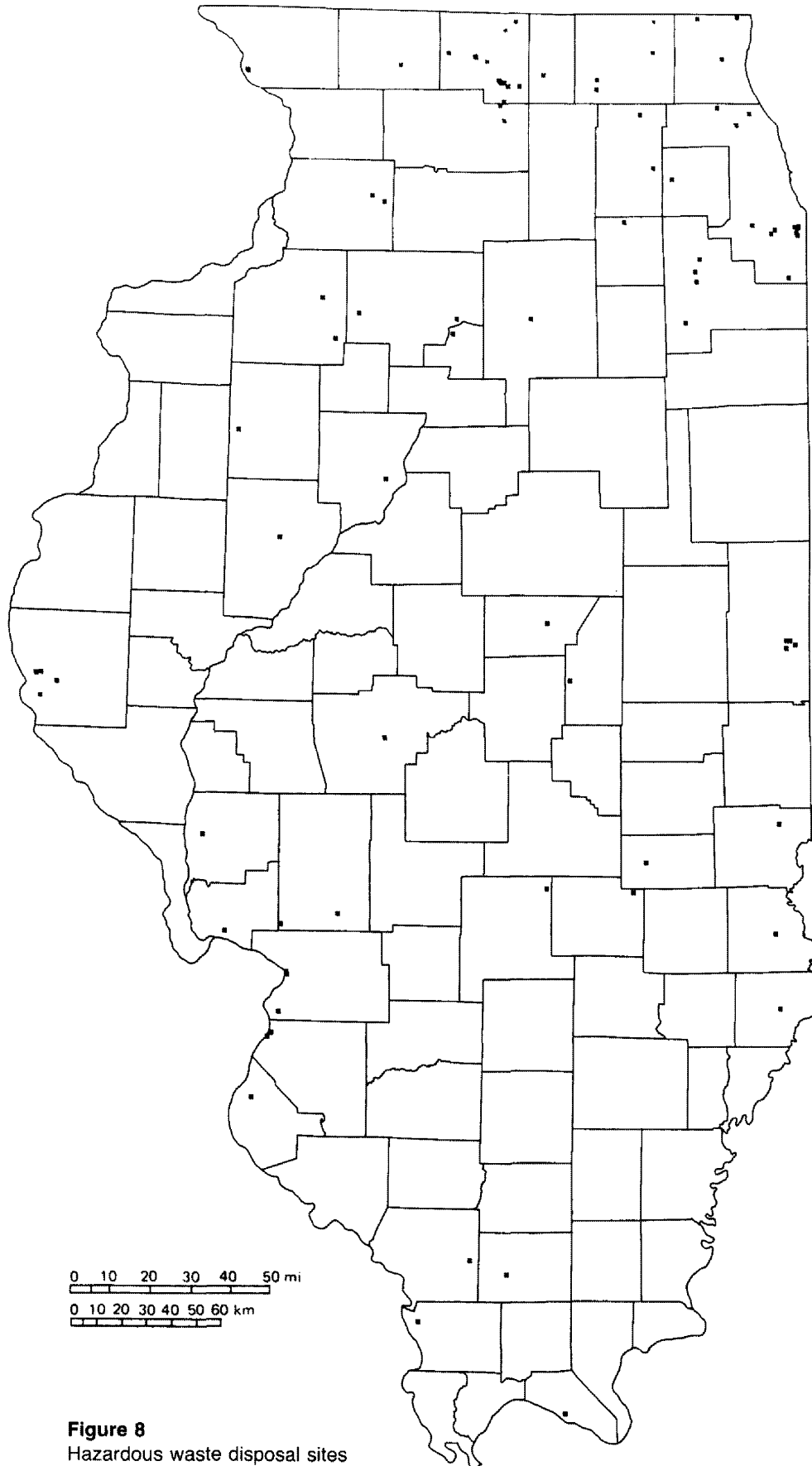


Figure 8
Hazardous waste disposal sites

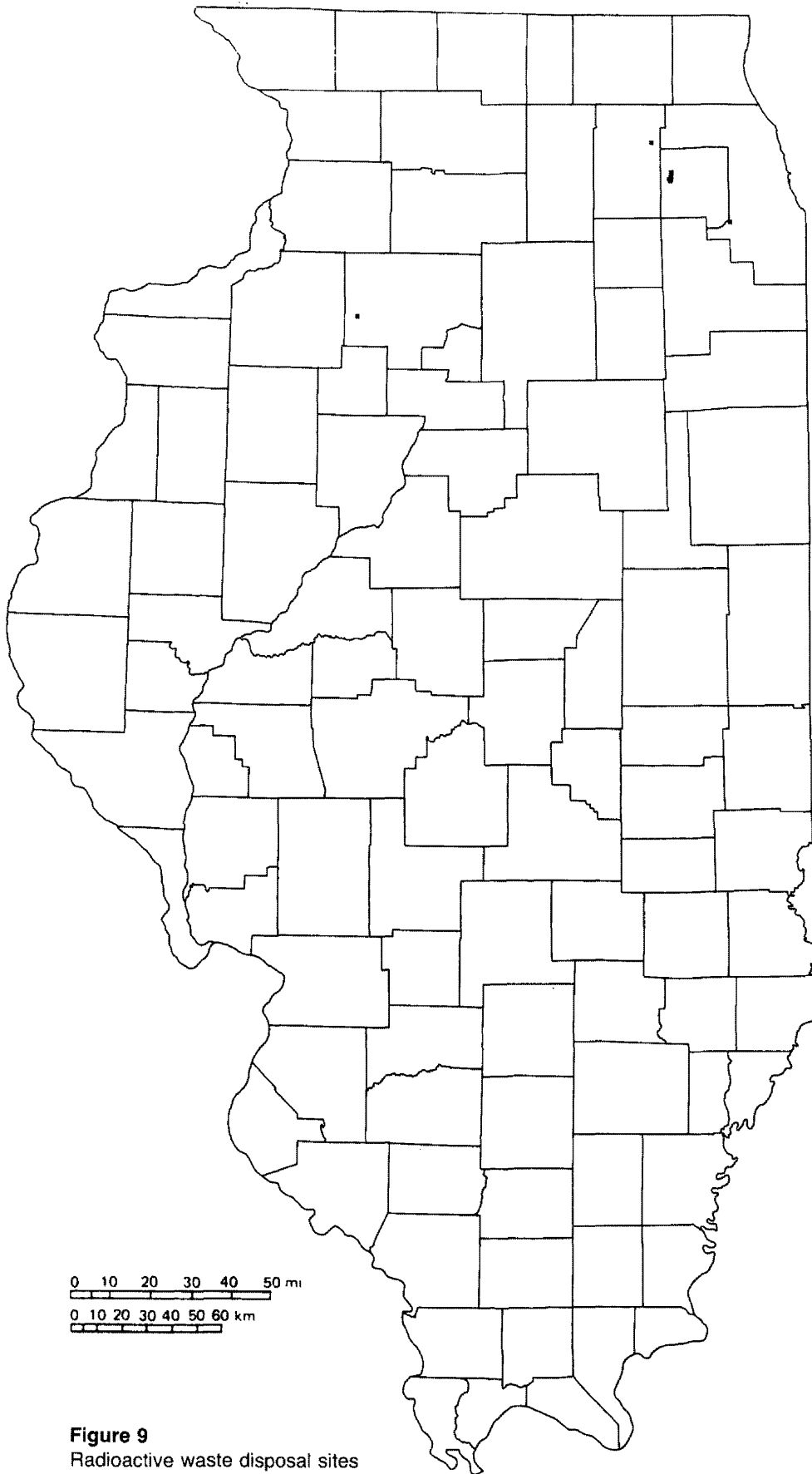


Figure 9
Radioactive waste disposal sites

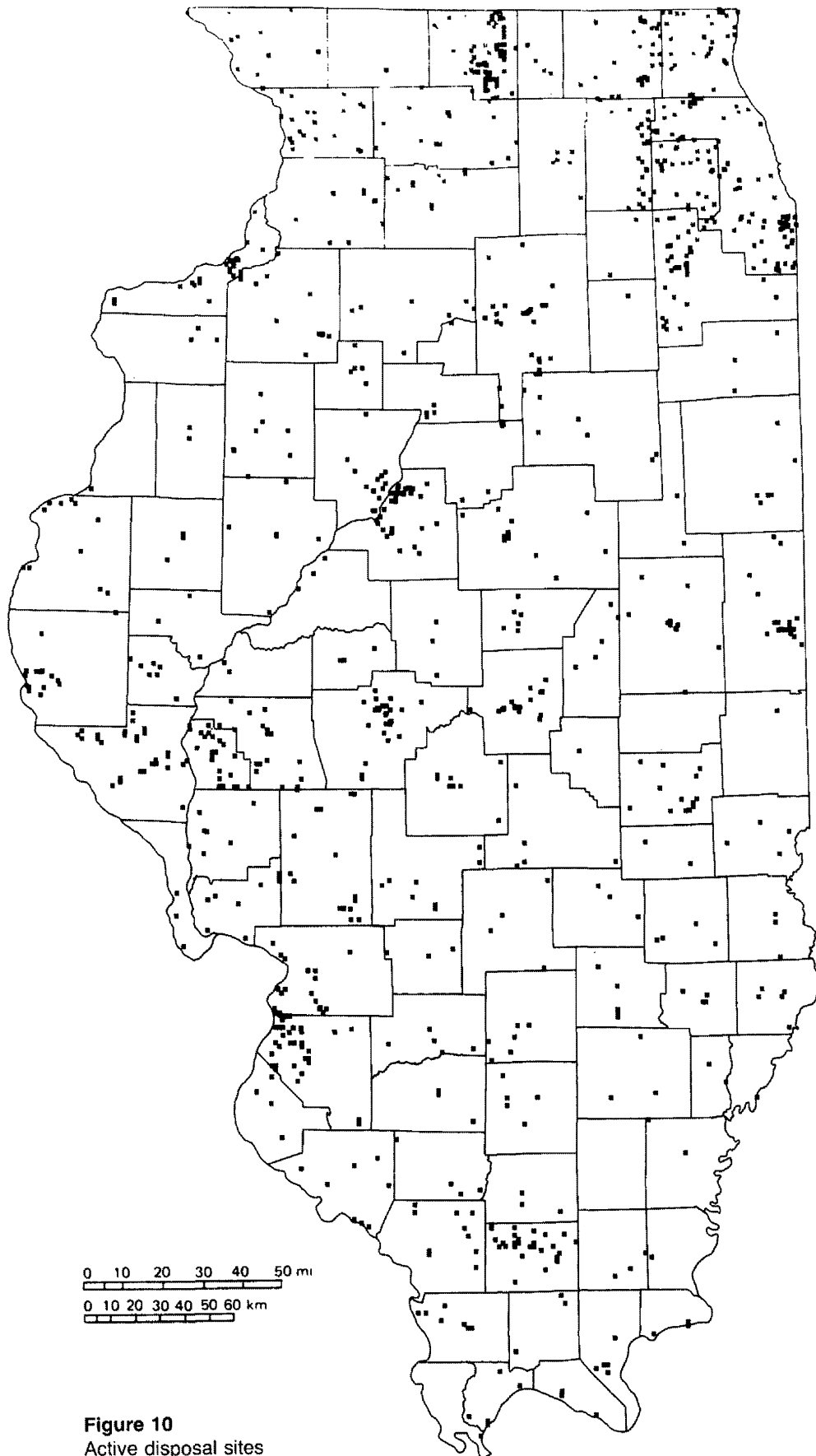


Figure 10
Active disposal sites



Figure 11
CERCLA disposal sites

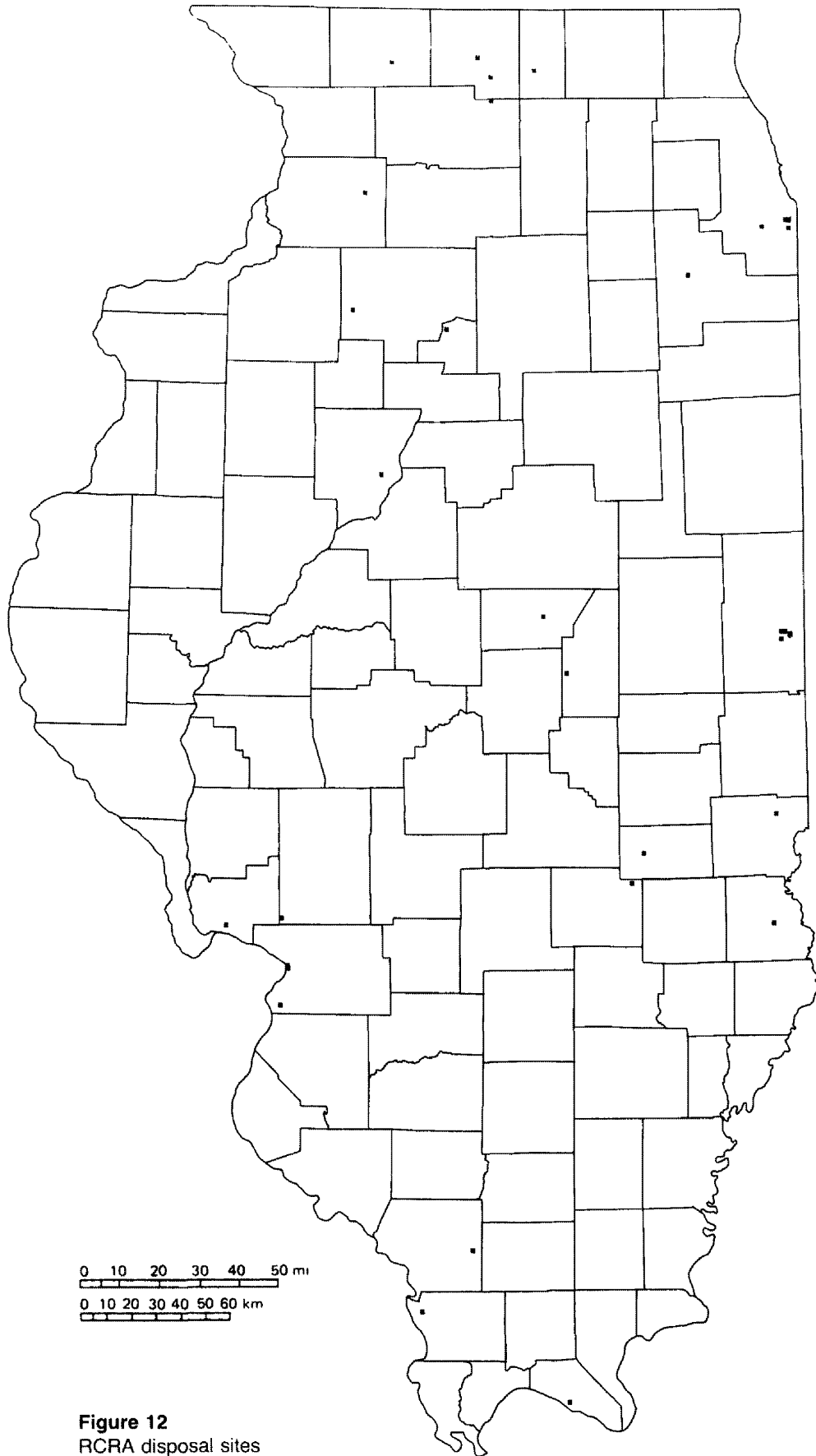


Figure 12
RCRA disposal sites

CHAPTER 4. FUTURE NEEDS

Several tasks should be undertaken to improve the quality of the information in the Inventory and to allow better access to the Inventory by potential users:

Maintain the Inventory. As discussed previously, the Inventory by its nature is dynamic and requires continual maintenance, since new disposal sites will be permitted, former disposal sites will be "discovered," and the status of existing sites will change. Numerous sources of information are available for updating the Inventory, including IEPA, USEPA, and regional and county governments. For instance, the Northeastern Illinois Planning Commission (NIPC) is currently conducting an inventory of land-based disposal sites in the six-county area surrounding Chicago. NIPC should complete their inventory by April 1988 and will send their data to the ISGS at that time.

Complete the USEPA identification numbers. Currently, only 30 percent of the records in the Inventory have a USEPA identification number. These numbers are needed in order to relate the Inventory to data files available from USEPA. Addition of these identification numbers will allow broader use of the Inventory and should improve the quality of information, since records can be cross-checked with state and federal records.

Recalculate the Lambert-foot site locations. Lambert-foot site locations, which are used for mapping the sites, need to be recalculated based on the most accurate, available data. Lambert-foot locations can be determined from legal descriptions or longitude-latitude data. In some situations, Lambert-foot locations based on legal descriptions are more accurate than Lambert-foot locations based on longitude-latitude data.

Input additional information to Inventory. For instance, hydrogeologic siting reports have been prepared for less than 10 percent of the sites in the Inventory. The Inventory of Landfill Siting Reports, currently being developed by the ISGS, could provide this information. The Inventory of Landfill Siting Reports is a computerized database that catalogues preliminary geological reports for proposed landfills in Illinois. Upon request, the ISGS will prepare a preliminary report describing the geological and hydrogeological conditions at a proposed landfill site and make a preliminary determination of the suitability of a site for landfill development.

Make the Inventory more user friendly. This task must be undertaken if the Inventory is to be placed on the Illinois Natural Resources Information System (INRIS). Menu-driven programs could be written to allow novice computer users easier access to the Inventory.

Modify the file structure of the Inventory. To improve the response time for users of the Inventory, the file structure can be modified. Currently, the landfill file is one large file. Division of this file into "subinventories" and relating these subinventories by a common and unique identification number should allow faster response times for users.

REFERENCES

- Brookfield, F. M., 1987. Names File Documentation: Hazardous Waste Research and Information Center, HWRIC Internal Memorandum, 6 p.
- Dixon, W. G., Jr., 1985. Statewide Landfill Inventory Interim Report: Hazardous Waste Research and Information Center, ENR Contract No. HWR85-01, 12 p.
- Dixon, W. G., Jr., and B. R. Hensel, 1985. Statewide Landfill Inventory Progress Report (HWRIC RR 003): Hazardous Waste Research and Information Center, ENR Contract No. HWR85-01, 16 p. and appendices.
- Dixon, W. G., Jr., B. R. Hensel, E. Mehnert, D. F. Brutcher, and D. A. Keefer, 1986. The Development of the Illinois Statewide Inventory of Land-Based Disposal Sites (HWRIC RR 010): Hazardous Waste Research and Information Center, ENR Contract No. HWR86-003, 72 p.
- Keefer, D. A., and E. Mehnert, 1987. GIS Application: A Groundwater Risk Assessment in Proceedings of the American Water Resources Annual Conference - Illinois Section, K. P. Singh, M. T. Lee and H. V. Knapp (eds.), p. 235-243.
- Piskin, R., L. Kissinger, M. Ford, S. Colantino, and T. L. Williams, 1980. Inventory and Assessment of Surface Impoundments in Illinois, Illinois Environmental Protection Agency, 160 p.
- U.S. Environmental Protection Agency, 1985. CERCLIS Users Guide, CERCLIS V1.2 (October 1985), 50 p. plus appendices.

A IEPA No. 0000000000 SITE NAME: SAMPLE SITE
PROVISIONAL NO. 123456ABCD

B LOCATION:
COUNTY: CAPITOL CITY/TOWNSHIP: HOME TOWN
LATITUDE: 234456 LEGAL: 3 PM, R.03E T.10N SEC.24 NWSENESW
LONGITUDE: 123456 LAMBERT-PHI:X 1234567 Y 1234567

C OWNER: ACME SUPPLY CO. LANDFILL SIZE
OPERATOR: MR. JOHN DOE IN ACRES: 15

D SOURCES OF DATA:
1) IEPA X 5) DPH
2) ISGS X 6) LOCAL HD X
3) PCP 7) OTHER AGENCY
4) IDM&M 8) OTHER

E TYPE OF DISPOSAL: A B
1) OPEN DUMP = A 4) INCINERATION = D
2) SECURED CONTAINERS = B 5) SURFACE IMPOUNDMENT = E
3) LANDFILL = C 6) LAND APPLIC. = F

F HYDROGEOLOGIC REPORT AT: (P=PRELIMINARY, D=DETAILED, PD, NO, X)
1) HWRIC 2) IEPA 3) ISGS P 4) OTHER

G SOURCE(S) AND TYPES OF WASTE:
1) HAZARDOUS SOLIDS 11) ANIMAL WASTE
2) HAZARDOUS LIQUIDS X 12) PATHOLOGICAL WASTE
3) NONHAZARDOUS WASTE 13) FOUNDRY SAND
4) SPECIAL 14) SLAG
5) RADIOACTIVE WASTE 15) INCINERATOR ASH
6) GENERAL SOLID WASTE X 16) DEMOLITION DEBRIS
7) INDUSTRIAL WASTE 17) CONCRETE/ASPHALT
8) OIL FIELD BRINE 18) LANDSCAPING WASTE
9) MUNI SEWAGE SLUDGE 19) OTHER (SPACE RESERVED FOR COMMENTS)
10) SEPTIC SLUDGE 20) UNKNOWN X

H BACKGROUND DATA: (Y=YES, N=NO)
1) STATUS: INACTIVE 7) RCRA SITE:
2) PERMIT STATUS: UNPERMITTED UNAUTHORIZED 8) FORMER DISPOSAL SITE:
3) DATE PERMITTED: 0 9) ILLEGAL DUMP: Y
4) DATE OPENED: 121281 10) DATE DISCOVERED: 111483
5) DATE CLOSED: 111583 11) DATE CLEANED: 0
6) CERCLA SITE: Y 12) GW MONITORING: Y
COMMENTS: (THIS LINE STORES 61 SPACES FOR GENERAL COMMENTS.)
(THIS LINE STORES 61 SPACES FOR GENERAL COMMENTS.)

I MISCELLANEOUS INFORMATION: (ON FILE AT)
1) PREVIOUS STUDIES:
2) SITE PLANS:
3) OPERATION RECORDS:
4) MONITORING DATA: ISGS
5) OTHER RECORDS: IEPA & ACME SPLY. CO
6) LEGAL ACTIONS:

Figure 1 Example of printout from landfill file

COL	ITEM NAME	WDTH	OPUT	TYP	N.DEC	ALTERNATE NAME
1	IEPA	10	10	L	0	IEPA-No.
11	USEPA	12	12	C	-	
23	SITE-NAME	30	30	C	-	NAME
53	PROVISIONAL	10	10	C	-	PROVSNL-No.
63	COUNTY	20	20	C	-	
83	CITY	20	20	C	-	
103	LATITUDE	6	6	I	-	LAT
109	LONGITUDE	6	6	I	-	LON
115	PM	1	1	I	-	
116	TOWNSHIP	3	3	C	-	T
119	RANGE	3	3	C	-	R
122	SECTION	2	2	C	-	SEC
124	QS1	2	2	C	-	
126	QS2	2	2	C	-	
128	QS3	2	2	C	-	
130	QS4	2	2	C	-	
132	X	7	7	I	-	LAMBERT-X
139	Y	7	7	I	-	LAMBERT-Y
146	OWNER	30	30	C	-	
176	OPERATOR	30	30	C	-	
206	SIZE	6	6	I	-	ACRE
212	D1	1	1	C	-	SOURCE-IEPA
213	D2	1	1	C	-	SOURCE-ISGS
214	D3	1	1	C	-	SOURCE-PCB
215	D4	1	1	C	-	SOURCE-IDM&M
216	D5	1	1	C	-	SOURCE-DPH
217	D6	1	1	C	-	SOURCE-LOCAL
218	D7	15	15	C	-	SOURCE-AGENCY
233	D8	15	15	C	-	SOURCE-OTHER
248	TYPE-DISPOSAL	11	11	C	-	TYPE
259	F1	2	2	C	-	RPT-HWRIC
261	F2	2	2	C	-	RPT-IEPA
263	F3	2	2	C	-	RPT-ISGS
265	F4	15	15	C	-	RPT-OTHER
280	GENERAL	1	1	C	-	GENSOLID-WASTE
281	MUNI	1	1	C	-	MUNICIPAL-SEWAGE
282	SEPTIC	1	1	C	-	SEPTIC-SEWAGE
283	ANIMAL	1	1	C	-	ANIMAL-WASTE
284	PATH	1	1	C	-	PATHOLOGICAL
285	IND	1	1	C	-	INDUSTRIAL-WASTE
286	FSAND	1	1	C	-	FOUNDRY-SAND
287	IASH	1	1	C	-	INCINERATOR-ASH
288	SLAG	1	1	C	-	
289	HAZ-SOL	1	1	C	-	HAZARDOUS-SOLIDS
290	HAZ-LIQ	1	1	C	-	HAZARDOUS-LIQUID
291	RAD	1	1	C	-	RADIOACTIVE
292	DEBRIS	1	1	C	-	DEMO-DEBRIS
293	CONCRETE	1	1	C	-	ASPHALT
294	LANDSCAPING	1	1	C	-	
295	BRINE	1	1	C	-	OIL-FIELD-BRINE
296	SPECIAL	1	1	C	-	
297	NONHAZ	1	1	C	-	NONHAZARDOUS
298	OTHER	31	31	C	-	
329	UNKNOWN	1	1	C	-	
330	STATUS	22	22	C	-	
352	PERMIT	40	40	C	-	PERMIT-STATUS
392	PDATE	6	6	I	-	DATE-PERMITTED
398	ODATE	6	6	I	-	DATE-OPENED
404	CDATE	6	6	I	-	DATE-CLOSED
410	CERCLA-SITE	12	13	C	-	CERCLA
422	RCRA	1	1	C	-	RCRA-SITE
423	MONITORING	3	3	C	-	GW-MONITORING
426	FORMER	1	1	C	-	FORMER-SITE
427	ILLEGAL	1	1	C	-	ILLEGAL-DUMP
428	DDATE	6	6	I	-	DATE-DISCOVERED
434	CLDATE	6	6	I	-	DATE-CLEANED
440	C1	61	61	C	-	COMMENT-ONE
501	C2	61	61	C	-	COMMENT-TWO
562	I1	20	20	C	-	PREVIOUS-STUDIES
582	I2	20	20	C	-	SITE-PLANS
602	I3	20	20	C	-	OP-RECORDS
622	I4	20	20	C	-	MON-RECORDS
642	I5	20	20	C	-	OTHER-RECORDS
662	I6	20	20	C	-	LEGAL-ACTIONS
682	I7	20	20	C	-	IMPDMT-RECORD
702	LEACHATE-COL	1	1	C	-	
703	LINER-MATERIAL	1	1	C	-	
704	OFFSITE-WASTE	1	1	C	-	
705	SIZE-FILL	5	5	I	-	
710	RECNO	4	4	I	-	
	** REDEFINED ITEMS **					
1	CTY	3	3	I	-	
115	LEGAL	17	17	C	-	

Figure 2 Items from landfill file

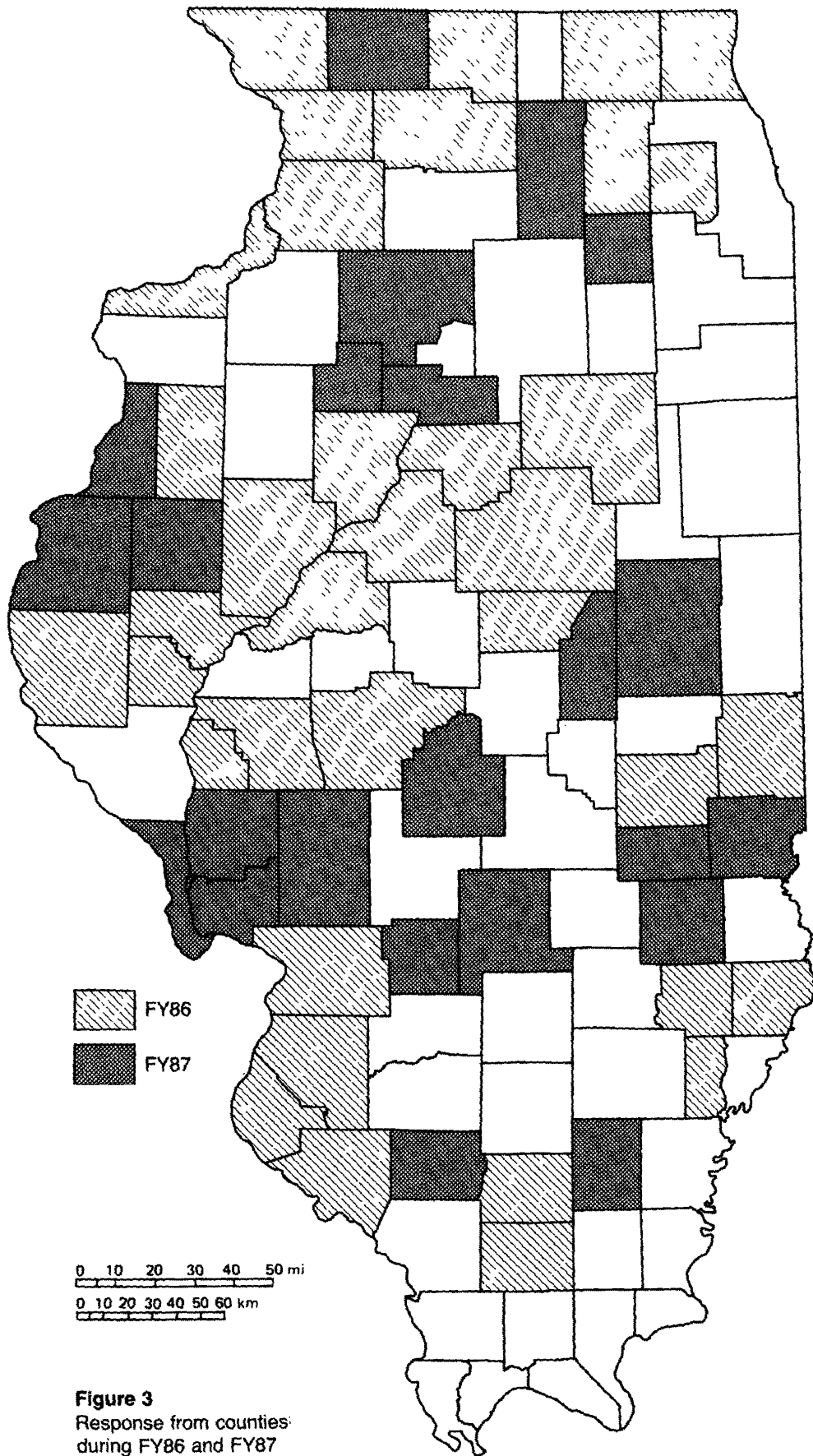


Figure 3
 Response from counties
 during FY86 and FY87

Table 6. Tabulation of data from the landfill file by county as of June 23, 1987

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		IEPA	Other	Landfills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Adams	37	36	1	36	0	0	0	1	0	2	4	0	2	2
Alexander	10	10	0	10	1	1	1	0	0	1	1	0	7	0
Bond	12	12	0	12	0	0	1	0	0	0	0	0	5	1
Boone	8	8	0	8	0	0	0	0	0	0	1	0	3	3
Brown	17	15	2	17	0	0	0	2	0	0	0	0	2	0
Bureau	20	19	1	20	0	0	1	0	0	0	2	1	8	2
Calhoun	6	5	1	5	0	0	0	0	0	0	0	0	1	0
Carroll	32	17	15	24	2	0	0	6	0	0	0	0	13	2
Cass	15	15	0	14	0	0	0	1	0	0	1	0	10	1
Champaign	33	28	5	30	0	0	1	3	0	0	0	0	4	5
Christian	24	16	8	22	1	0	0	1	0	0	1	0	6	1
Clark	15	15	0	14	0	0	1	0	0	1	1	0	4	0
Clay	13	13	0	10	0	0	0	0	0	0	0	0	6	0
Clinton	15	15	0	15	0	0	0	0	0	0	0	0	8	0
Coles	34	31	3	32	0	0	0	0	0	0	0	0	3	0
Cook	171	170	1	162	10	3	9	3	1	6	16	1	41	33
Crawford	17	17	0	16	1	1	1	0	0	0	1	0	10	1
Cumberland	5	5	0	5	0	0	0	0	0	0	0	0	1	0
De Kalb	23	23	0	23	0	0	0	0	0	1	0	0	11	1
De Witt	30	20	10	29	1	0	0	0	0	0	1	0	1	0
Douglas	14	14	0	13	1	0	0	0	0	0	1	0	0	0
Du Page	57	45	12	47	2	1	0	6	1	1	1	5	19	8
Edgar	9	9	0	9	0	0	0	0	0	0	0	0	1	0
Edwards	5	5	0	5	0	0	0	0	0	0	0	0	1	0
Effingham	10	10	0	10	0	0	0	0	0	0	0	0	3	1
Fayette	14	14	0	12	2	0	0	0	0	2	3	0	6	0
Ford	8	8	0	8	0	0	0	0	0	0	0	0	0	1
Franklin	13	13	0	13	0	0	0	0	0	0	0	0	8	0
Fulton	24	24	0	24	0	0	1	0	0	0	1	0	1	5
Gallatin	6	6	0	6	0	0	0	0	0	0	0	0	3	1
Green	11	11	0	10	0	0	0	1	0	0	1	0	1	0
Grundy	7	7	0	6	1	0	0	0	0	0	1	0	2	1
Hamilton	2	2	0	2	0	0	0	0	0	0	0	0	0	0
Hancock	24	24	0	24	0	1	0	0	0	0	0	0	1	1

Table 6. Continued

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		IEPA	Other	Landfills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Hardin	7	7	0	7	0	0	0	0	0	0	0	0	5	0
Henderson	4	4	0	4	0	0	0	0	0	0	0	0	0	0
Henry	28	28	0	24	1	1	4	0	0	1	3	0	9	5
Iroquois	20	20	0	20	0	0	0	0	0	0	0	0	0	0
Jackson	22	22	0	20	1	0	2	0	0	0	1	0	9	0
Jasper	6	6	0	6	1	0	0	0	0	0	0	0	3	1
Jefferson	19	19	0	19	0	0	0	0	0	0	0	0	9	2
Jersey	15	15	0	15	0	0	0	0	0	0	0	0	1	1
Jo Daviess	25	25	0	23	0	1	2	0	0	1	2	0	7	3
Johnson	11	11	0	11	0	0	0	0	0	0	0	0	5	0
Kane	63	59	4	60	0	1	0	0	0	1	2	1	13	6
Kankakee	21	21	0	19	0	1	0	0	0	0	0	0	9	0
Kendall	11	11	0	11	0	0	0	0	0	0	1	0	1	1
Knox	19	19	0	16	0	0	2	3	0	0	1	0	2	3
Lake	118	73	45	79	0	1	2	22	14	3	3	0	21	10
La Salle	62	61	1	61	0	1	1	0	0	1	1	1	23	6
Lawrence	12	7	5	6	0	1	0	4	0	1	1	0	5	1
Lee	27	27	0	27	0	0	0	0	0	0	0	0	3	4
Livingston	29	25	4	27	0	0	0	2	0	0	0	0	3	4
Logan	10	10	0	10	0	0	0	0	0	0	0	0	0	0
Mc Donough	16	16	0	16	0	0	0	0	0	0	0	0	0	1
Mc Henry	64	54	10	61	0	1	0	1	0	1	4	0	24	0
Mc Lean	36	36	0	34	0	0	2	0	0	0	0	0	1	3
Macon	65	64	1	65	0	0	0	0	0	0	0	0	0	7
Macoupin	39	39	0	39	0	0	1	0	0	3	3	0	5	2
Madison	69	68	1	60	5	0	4	4	0	4	8	0	32	0
Marion	25	25	0	25	0	0	0	0	0	0	0	0	9	3
Marshall	13	11	2	11	0	0	0	2	0	0	0	0	2	0
Mason	11	10	1	9	0	1	1	0	0	0	0	0	2	0
Massac	13	13	0	12	1	0	0	0	0	1	1	0	8	1
Menard	9	9	0	9	0	0	0	0	0	0	0	0	0	0
Mercer	10	10	0	10	0	0	0	0	0	0	0	0	0	1
Monroe	17	17	0	16	0	0	0	1	0	1	1	0	7	0
Montgomery	38	38	0	38	0	0	0	0	0	0	0	0	2	2

Table 6. Continued

County	Number of sites	Sources of information		Methods of disposal						Type of waste				Hydro Reports
		IEPA	Other	Landfills	Surface impoundments	Land application	Secured containers	Open dump	Incineration	Haz Sol	Haz Liq	Rad	Unknown	
Morgan	41	39	2	41	0	0	0	1	0	0	0	0	5	1
Moultrie	6	6	0	6	0	0	0	0	0	0	0	0	1	1
Ogle	41	41	0	39	0	0	1	2	0	2	2	0	19	2
Peoria	47	44	3	42	1	0	0	2	0	1	2	0	5	0
Perry	8	8	0	8	0	0	0	0	0	0	0	0	4	1
Platt	8	4	4	4	0	0	0	4	0	0	0	0	3	2
Pike	39	39	0	39	0	0	0	0	0	0	0	0	4	0
Pope	14	13	1	13	0	0	0	0	0	0	0	0	4	0
Pulaski	19	19	0	19	0	0	0	0	0	0	0	0	11	1
Putnam	7	7	0	6	1	0	0	0	0	0	1	0	2	0
Randolph	28	28	0	28	0	0	0	0	0	0	0	0	11	3
Richland	11	9	2	11	0	0	0	0	0	0	0	0	6	1
Rock Island	61	61	0	58	0	0	0	1	0	0	0	0	20	5
St. Clair	133	133	0	127	1	0	3	4	0	6	7	0	53	0
Saline	15	15	0	15	0	0	0	0	0	0	0	0	6	1
Sangamon	95	95	0	94	0	0	0	0	0	1	1	0	0	6
Schuyler	6	6	0	6	0	0	0	0	0	0	0	0	0	0
Scott	31	31	0	31	0	0	0	0	0	0	0	0	3	0
Shelby	13	13	0	12	0	0	0	0	0	0	0	0	0	1
Stark	8	8	0	8	0	0	0	0	0	0	0	0	0	1
Stephenson	23	23	0	22	1	0	1	0	0	0	1	0	12	1
Tazewell	80	78	2	77	0	0	0	2	0	0	0	0	12	7
Union	11	11	0	11	0	1	0	0	0	0	1	0	4	1
Vermilion	63	63	0	59	1	3	0	0	0	1	4	0	3	6
Wabash	10	10	0	10	0	0	0	0	0	0	0	0	2	0
Warren	2	2	0	2	0	0	0	0	0	0	0	0	0	1
Washington	10	10	0	10	0	0	0	0	0	0	0	0	4	1
Wayne	9	9	0	9	0	0	0	0	0	0	0	0	3	1
White	5	5	0	5	0	0	0	0	0	0	0	0	2	0
Whiteside	30	30	0	29	0	1	1	0	0	2	2	0	17	1
Will	77	76	1	71	4	2	1	4	0	6	8	0	21	10
Williamson	71	69	2	68	0	0	1	2	0	1	1	0	21	1
Winnebago	210	83	127	180	5	14	2	8	0	7	11	0	49	6
Woodford	16	16	0	16	0	0	0	0	0	0	0	0	0	1
TOTAL	2943	2666	277											

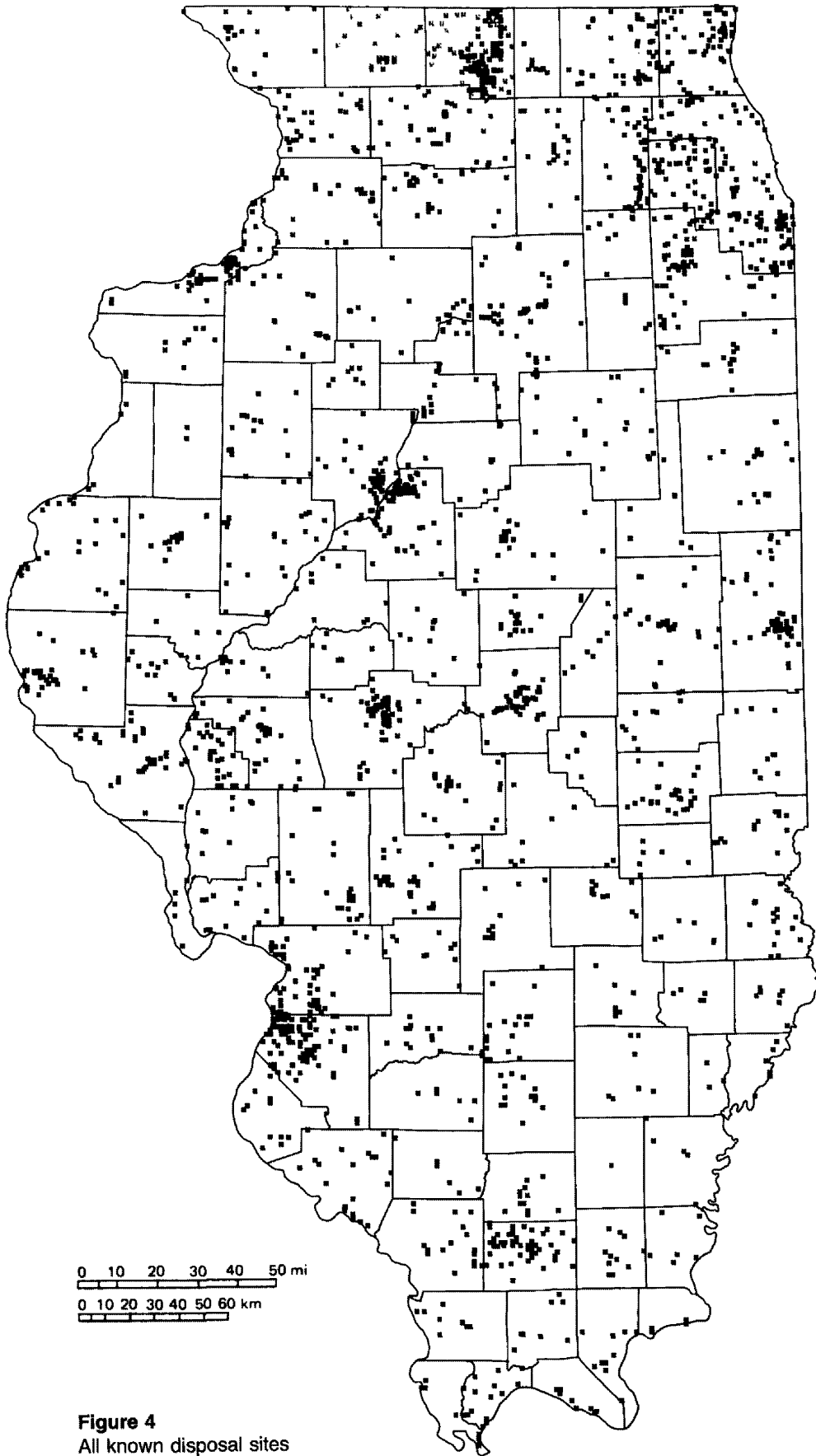


Figure 4
All known disposal sites

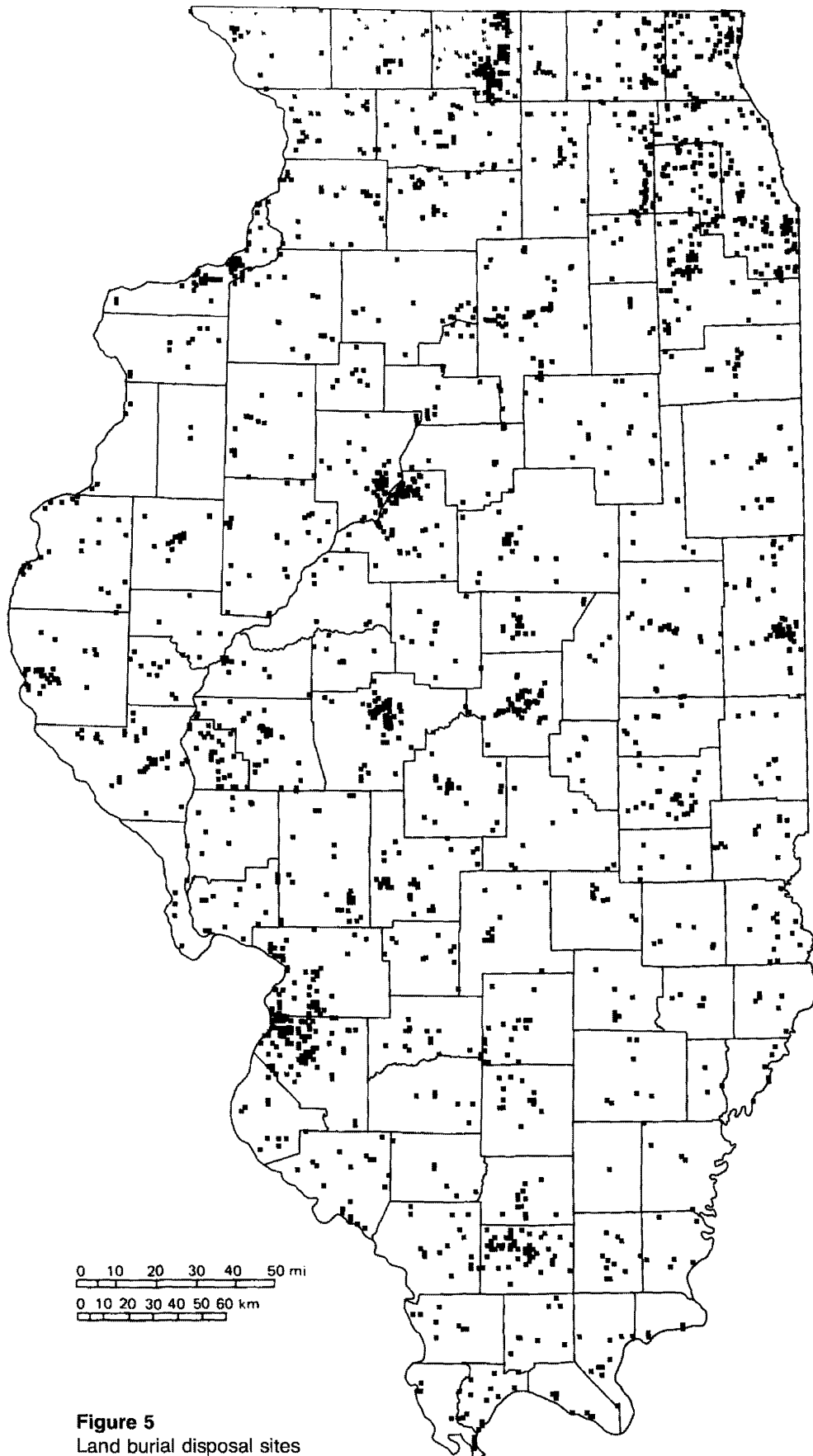


Figure 5
Land burial disposal sites



Figure 6
Surface impoundment disposal sites



Figure 7
Land application disposal sites



Figure 8
Hazardous waste disposal sites



Figure 9
Radioactive waste disposal sites

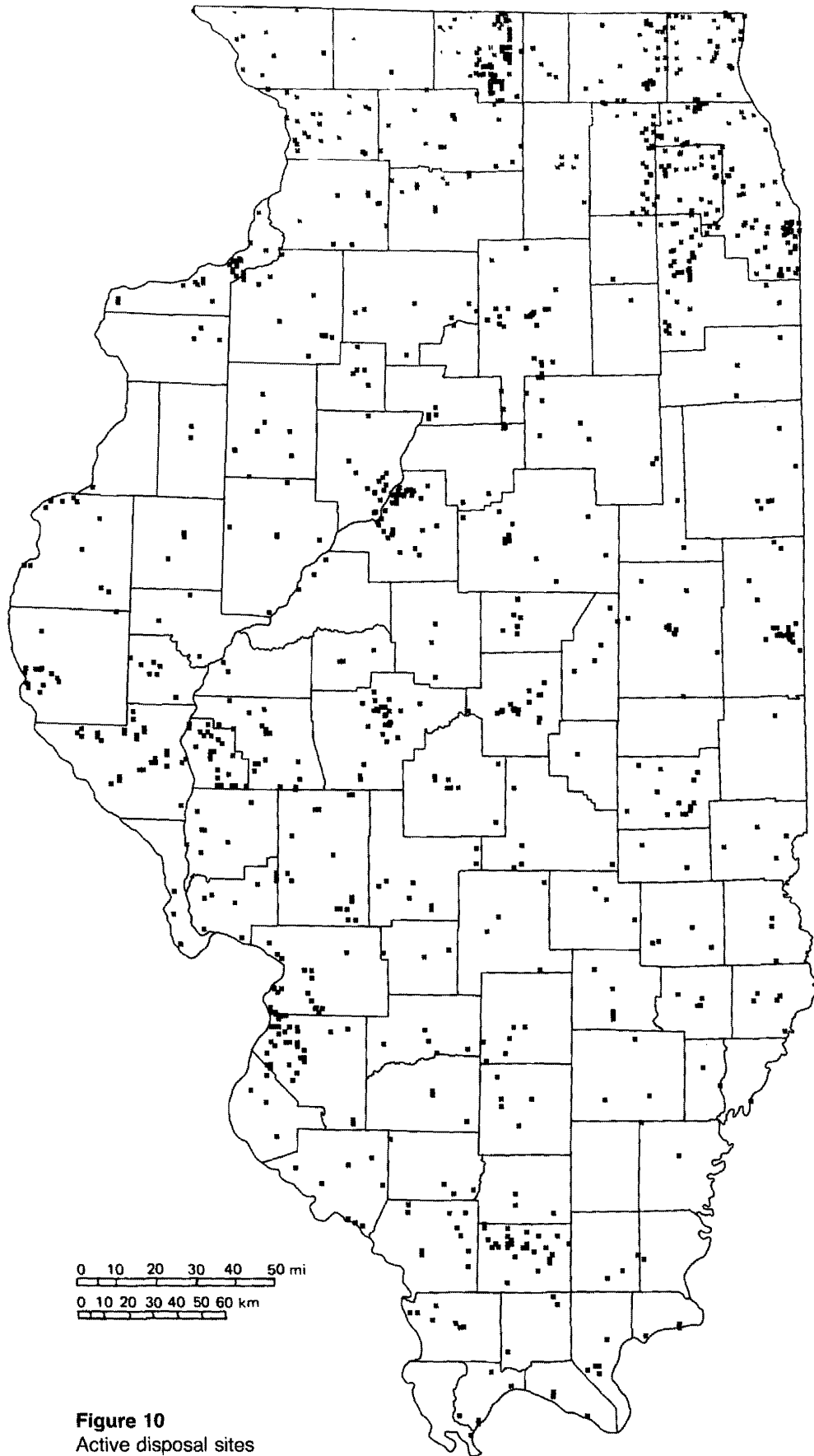


Figure 10
Active disposal sites



Figure 11
CERCLA disposal sites

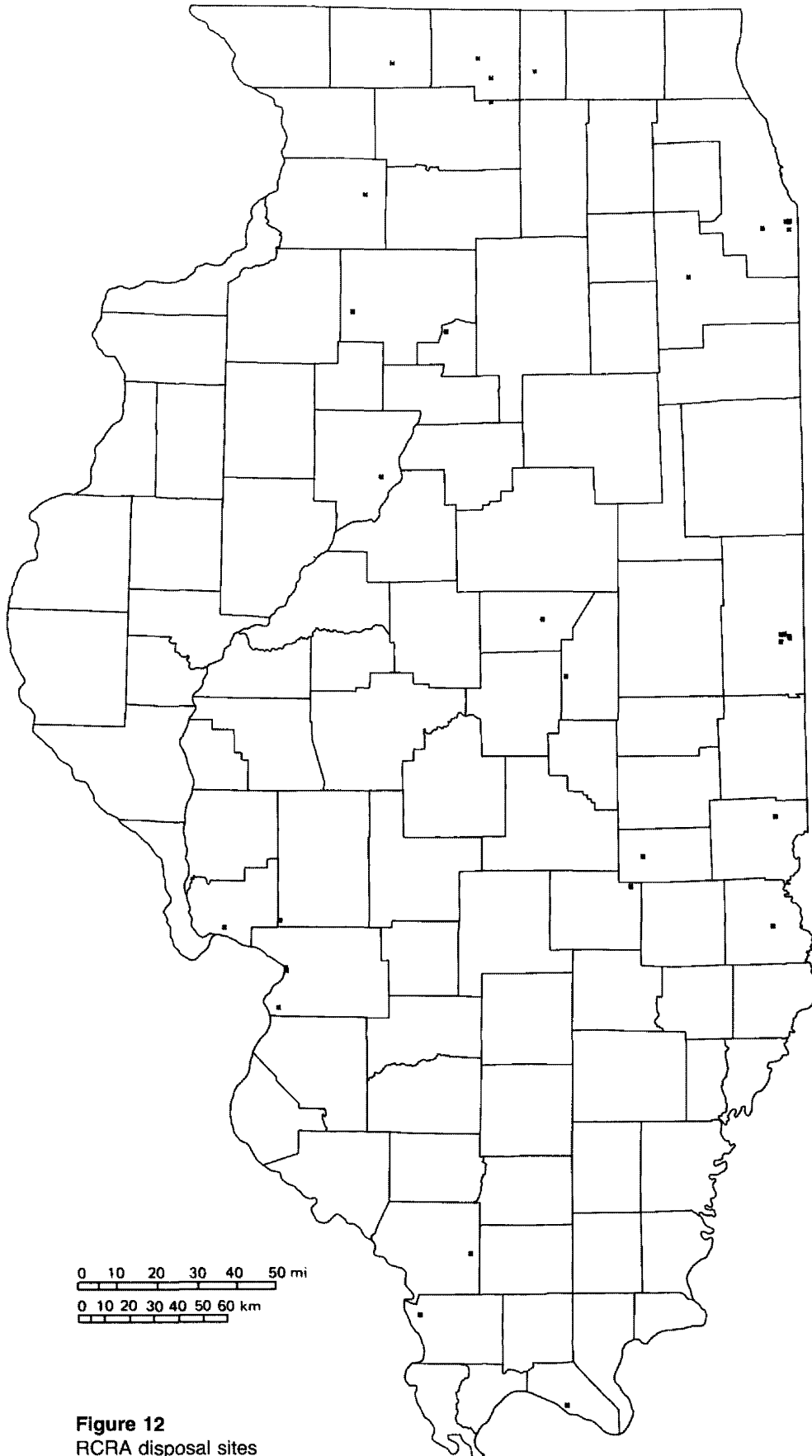


Figure 12
RCRA disposal sites

CHAPTER 4. FUTURE NEEDS

Several tasks should be undertaken to improve the quality of the information in the Inventory and to allow better access to the Inventory by potential users:

Maintain the Inventory. As discussed previously, the Inventory by its nature is dynamic and requires continual maintenance, since new disposal sites will be permitted, former disposal sites will be "discovered," and the status of existing sites will change. Numerous sources of information are available for updating the Inventory, including IEPA, USEPA, and regional and county governments. For instance, the Northeastern Illinois Planning Commission (NIPC) is currently conducting an inventory of land-based disposal sites in the six-county area surrounding Chicago. NIPC should complete their inventory by April 1988 and will send their data to the ISGS at that time.

Complete the USEPA identification numbers. Currently, only 30 percent of the records in the Inventory have a USEPA identification number. These numbers are needed in order to relate the Inventory to data files available from USEPA. Addition of these identification numbers will allow broader use of the Inventory and should improve the quality of information, since records can be cross-checked with state and federal records.

Recalculate the Lambert-foot site locations. Lambert-foot site locations, which are used for mapping the sites, need to be recalculated based on the most accurate, available data. Lambert-foot locations can be determined from legal descriptions or longitude-latitude data. In some situations, Lambert-foot locations based on legal descriptions are more accurate than Lambert-foot locations based on longitude-latitude data.

Input additional information to Inventory. For instance, hydrogeologic siting reports have been prepared for less than 10 percent of the sites in the Inventory. The Inventory of Landfill Siting Reports, currently being developed by the ISGS, could provide this information. The Inventory of Landfill Siting Reports is a computerized database that catalogues preliminary geological reports for proposed landfills in Illinois. Upon request, the ISGS will prepare a preliminary report describing the geological and hydrogeological conditions at a proposed landfill site and make a preliminary determination of the suitability of a site for landfill development.

Make the Inventory more user friendly. This task must be undertaken if the Inventory is to be placed on the Illinois Natural Resources Information System (INRIS). Menu-driven programs could be written to allow novice computer users easier access to the Inventory.

Modify the file structure of the Inventory. To improve the response time for users of the Inventory, the file structure can be modified. Currently, the landfill file is one large file. Division of this file into "subinventories" and relating these subinventories by a common and unique identification number should allow faster response times for users.

